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# BEAR RIVER WATERSHED STUDY LEVEL I

# APPENDICES

For



# **Wyoming Water Development Commission**

Lincoln and Uinta County Conservation Districts









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### LINCOLN COUNTY

### **UPLAND WATER DEVELOPMENT**

### AND

### **IRRIGATION PROJECTS**

### Upland Water Projects – Lincoln County

|                     |                          |                       | Major Project Components |                               |                      |      |        |                        |              |                            |
|---------------------|--------------------------|-----------------------|--------------------------|-------------------------------|----------------------|------|--------|------------------------|--------------|----------------------------|
| General<br>Location | Owner or Operator        | Number of<br>Projects | Spring<br>Development    | Water Well or<br>Pump in Sump | Surface<br>Catchment | Tank | Trough | Small Dia.<br>Pipeline | Estir<br>Pro | nated Total<br>sject Costs |
|                     | Boehme                   | 6                     | 3                        | 2                             |                      | 2    | 10     | 3                      | \$           | 644,298                    |
|                     | Benion                   | 1                     |                          | 1                             |                      |      | 1      |                        | \$           | 88,676                     |
|                     | BLM                      | 11                    | 12                       | 4                             |                      |      | 26     | 3                      | \$           | 937,060                    |
|                     | Clark                    | 1                     |                          | 1                             |                      |      | 1      |                        | \$           | 100,902                    |
|                     | Carter                   | 2                     | 1                        |                               |                      |      | 2      | 1                      | \$           | 58,950                     |
| ₹                   | Cornia                   | 1                     |                          | 1                             |                      |      | 1      | 1                      | \$           | 48,456                     |
| no                  | Circle B                 | 5                     | 6                        | 1                             |                      |      | 8      | 2                      | \$           | 225,237                    |
| Ŭ                   | Etchevery                | 1                     | 1                        |                               |                      |      |        |                        | \$           | 19,553                     |
| 3                   | Nate                     | 1                     |                          |                               |                      |      | 1      |                        | \$           | 2,878                      |
| Ŀ                   | Roberts                  | 1                     |                          |                               |                      |      | 2      | 1                      | \$           | 35,658                     |
|                     | Thornock                 | 2                     |                          | 2                             |                      |      | 2      |                        | \$           | 168,435                    |
|                     | Julian                   | 16                    | 6                        | 2                             | 9                    |      | 4      | 1                      | \$           | 343,276                    |
|                     | Willis                   | 3                     |                          | 1                             |                      |      | 5      | 4                      | \$           | 198,916                    |
|                     | Pierce                   | 1                     |                          |                               |                      |      | 3      | 1                      | \$           | 190,375                    |
|                     | Total for Lincoln County | 52                    | 29                       | 15                            | 9                    | 2    | 66     | 17                     | \$           | 3,063,000                  |



| Owner/Operator    | Boehme                          |
|-------------------|---------------------------------|
| Site Name         | Spring Development Shale Canyon |
| Type Of Project   | Spring & Trough                 |
| Notes/Description | Project 1                       |

Location: 42.416327N, -110.027533W

INCIDENTAL PROJECT COSTS

Description: This site is located on a flat in the bottom of Shale Canyon about 1.4 miles north of Highway 89. The spring could provide a good source of water if developed and furnished with a trough. The location has access for equipment.

Proposed Project: The project includes excavation of the spring to install a spring box and 20' of collection pipe. A 100' pipeline will convey flows downgradient from the spring collection box to a trough.

| CONSTRU | CONSTRUCTION COSTS                                |          |      |                    |            |  |  |
|---------|---|----------|------|--------------------|------------|--|--|
|         |   |          |      |                    |            |  |  |
| Item #  | Description                                       | Quantity | Unit | Unit Cost          | Total Cost |  |  |
| 1       | Mobilization                                      | 1        | L.S. | \$1,000.00         | \$1,000    |  |  |
| 2       | Excavation for New Spring Box and Collection Pipe | 15       | CY   | \$150.00           | \$2,250    |  |  |
| 3       | Import Rock Backfill                              | 10       | SY   | \$20.00            | \$200      |  |  |
| 4       | Impervious HDPE liner (60 mill)                   | 25       | SY   | \$15.00            | \$375      |  |  |
| 5       | Trench Backfill w/Native Material                 | 5        | CY   | \$36.00            | \$180      |  |  |
| 6       | 4" Trench Collection Pipe                         | 20       | LF   | \$8.00             | \$160      |  |  |
| 7       | Spring Box  | 1        | Each | \$900.00           | \$900      |  |  |
| 8       | 2" Fittings at Spring Box                         | 1        | L.S. | \$250.00           | \$250      |  |  |
| 9       | 2" HDPE Spring Line to Trough                     | 100      | LF   | \$4.00             | \$400      |  |  |
| 10      |   |          |      |                    |            |  |  |
| 11      | 2" HDPE Spring/Tank Overflow Line                 | 50       | LF   | \$4.00             | \$200      |  |  |
| 12      | WaterTrough & Appurtenances                       | 1        | Each | \$1,400.00         | \$1,400    |  |  |
| 13      | WaterTrough Piping, Fittings and Mounting         | 1        | Each | \$1,000.00         | \$1,000    |  |  |
| 14      | Final Grading                                     | 1        | L.S. | \$200.00           | \$200      |  |  |
| 15      | Reseeding   | 100      | SF   | \$1.00             | \$100      |  |  |
| 16      | Fence - Jack                                      | 100      | L.F. | \$18.00            | \$1,800    |  |  |
|         |   |          |      |                    |            |  |  |
|         |   |          |      |                    |            |  |  |
|         |   |          |      | Construction Total | \$10,415   |  |  |

| Construction Permits                            | \$100    |
|---|----------|
| Performance Bond                                | \$200    |
| Insurance                                       | \$100    |
| 15% O&P   | \$1,562  |
| Subtotal 1                                      | \$1,962  |
| Subtotal 2                                      | \$12,377 |
| Construction Engineering @ 10% of Subtotal #2   | \$1,238  |
| Subtotal 3                                      | \$13,615 |
| Contingency @ 15% of Subtotal #3                | \$2,042  |
| Total Construction Cost                         | \$15,657 |
|   | 4        |
| Preparation of Final Designs and Specifications | \$1,253  |
| Permitting @ 5% of Project Cost                 | \$783    |
| Legal @ 4% of Project Cost                      | \$626    |
| Environmental Study                             | \$0      |
| Total Project Cost                              | \$18,319 |



### **Bear River Watershed Study Level I** UPLAND WATER DEVELOPMENT

Engineer's Opinion of Probable Construction Costs



#### Owner/Operator Boehme Spring Development South Shale Canyon Site Name Type Of Project . Spring & Trough Notes/Description **Project 2**

Location: 42.356668N, -110.994190W

INCIDENTAL PROJECT COSTS

Description: This site is located on a flat in the bottom of Shale Canyon about 3 miles south of Highway 89. The spring could provide a good source of water if developed and furnished with a trough. The location has no access for heavy equipment. All work will be by hand.

Proposed Project: The project includes excavation of the spring to install a spring box. A 100' pipeline will convey flows downgradient from the spring collection box to a trough.

| CONSTRU | ICTION COSTS                                      |          |      |                    |            |
|---------|---|----------|------|--------------------|------------|
|         |   |          |      |                    |            |
| Item #  | Description                                       | Quantity | Unit | Unit Cost          | Total Cost |
| 1       | Mobilization                                      | 1        | L.S. | \$800.00           | \$800      |
| 2       | Excavation for New Spring Box and Collection Pipe | 3        | CY   | \$150.00           | \$450      |
| 3       | Trench Geotextile Drain Filter                    | 6        | SY   | \$20.00            | \$120      |
| 4       | Trench Backfill w/Native Material                 | 3        | CY   | \$36.00            | \$108      |
| 5       | 4" Trench Collection Pipe                         | -        | LF   | \$8.00             | \$0        |
| 6       | Spring Box  | 1        | Each | \$900.00           | \$900      |
| 7       | 2" Fittings at Spring Box                         | 1        | L.S. | \$250.00           | \$250      |
| 8       | 2" HDPE Spring Line to Trough                     | 100      | LF   | \$4.00             | \$400      |
| 9       |   |          |      |                    |            |
| 10      | 2" HDPE Spring/Tank Overflow Line                 | 50       | LF   | \$4.00             | \$200      |
| 11      | WaterTrough & Appurtenances                       | 1        | Each | \$1,400.00         | \$1,400    |
| 12      | WaterTrough Piping, Fittings and Mounting         | 1        | Each | \$1,000.00         | \$1,000    |
| 13      | Final Grading                                     | 1        | L.S. | \$200.00           | \$200      |
| 14      | Reseeding   | 100      | SF   | \$1.00             | \$100      |
| 15      | Fence - Jack                                      | 100      | L.F. | \$18.00            | \$1,800    |
|         |   |          |      |                    |            |
| ·       |   | 1        |      | Construction Total | \$7,728    |

| <b>Construction Permits</b> | \$100   |
|-----------------------------|---------|
| Performance Bond            | \$100   |
| Insurance                   | \$100   |
| 15% O&P                     | \$1,159 |

Subtotal 1

Subtotal 2 \$9,187

\$1,459

Construction Engineering @ 10% of Subtotal #2 \$919

> Subtotal 3 \$10,106

Contingency @ 15% of Subtotal #3 \$1,516

> **Total Construction Cost** \$11,622

Preparation of Final Designs and Specifications \$930 Permitting @ 5% of Project Cost \$581 Legal @ 4% of Project Cost \$465 Environmental Study \$0 Total Project Cost \$13,598





Bear River Watershed Study Small Water Project Boehme Project 2 SPRING DEVELOPMENT Smiths Fork Allotment

#### Bear River Watershed Study Level I UPLAND WATER DEVELOPMENT Engineer's Opinion of Probable Construction Costs



 Owner/Operator
 Boehme

 Site Name
 Spring Development Thomas Fork

 Type Of Project
 Spring & Trough

 Notes/Description
 Project 3

Location: 42.364620N, -110.932437W

INCIDENTAL PROJECT COSTS

Description: This site is located at the lower end of a small draw with a timbered north slope. The spring could provide a good source of water if developed and furnished with a trough. The location has limited access for equipment.

Proposed Project: The project includes excavation of the spring to install a spring box and 20' of collection pipe. The filter media will utilize geotextile drain panels since delivery of rock is difficult.

| CONSTRU | ICTION COSTS                                      |          |      |                    |            |
|---------|---|----------|------|--------------------|------------|
|         |   |          |      |                    |            |
| Item #  | Description                                       | Quantity | Unit | Unit Cost          | Total Cost |
| 1       | Mobilization                                      | 1        | L.S. | \$800.00           | \$800      |
| 2       | Excavation for New Spring Box and Collection Pipe | 3        | CY   | \$150.00           | \$450      |
| 3       | Trench Geotextile Drain Filter                    | 6        | SY   | \$20.00            | \$120      |
| 4       | Trench Backfill w/Native Material                 | 3        | CY   | \$36.00            | \$108      |
| 5       | 4" Trench Collection Pipe                         | -        | LF   | \$8.00             | \$0        |
| 6       | Spring Box  | 1        | Each | \$900.00           | \$900      |
| 7       | 2" Fittings at Spring Box                         | 1        | L.S. | \$250.00           | \$250      |
| 8       | 2" HDPE Spring Line to Trough                     | 100      | LF   | \$4.00             | \$400      |
| 9       |   |          |      |                    |            |
| 10      | 2" HDPE Spring/Tank Overflow Line                 | 50       | LF   | \$4.00             | \$200      |
| 11      | WaterTrough & Appurtenances                       | 1        | Each | \$1,400.00         | \$1,400    |
| 12      | WaterTrough Piping, Fittings and Mounting         | 1        | Each | \$1,000.00         | \$1,000    |
| 13      | Final Grading                                     | 1        | L.S. | \$200.00           | \$200      |
| 14      | Reseeding   | 100      | SF   | \$1.00             | \$100      |
| 15      | Fence - Jack                                      | 100      | L.F. | \$18.00            | \$1,800    |
|         |   |          |      |                    |            |
|         |   |          |      |                    |            |
|         |   |          |      |                    |            |
|         |   |          |      |                    |            |
|         |   |          |      |                    |            |
|         |   |          |      |                    |            |
|         |   |          |      |                    |            |
|         |   |          |      | Construction Total | \$7.728    |

| Construction Permits                            |
|---|
| Performance Bond                                |
| Insurance                                       |
| 15% O&P   |
| Subtotal 1                                      |
| Subtotal 2                                      |
| Construction Engineering @ 10% of Subtotal #2   |
| Subtotal 3                                      |
| Contingency @ 15% of Subtotal #3                |
| Total Construction Cost                         |
|   |
| Preparation of Final Designs and Specifications |
| Permitting @ 5% of Project Cost                 |
| Legal @ 4% of Project Cost                      |
| Environmental Study                             |
| Total Project Cost                              |
|   |



#### Bear River Watershed Study Level I UPLAND WATER DEVELOPMENT Engineer's Opinion of Probable Construction Costs



 Owner/Operator
 Boehme

 Site Name
 Muddy Ridge Trough

 Type Of Project
 Pump, Pipeline, and Trough

 Notes/Description
 Project 4

Location: 42.266872N, -110.892404W (Trough)

INCIDENTAL PROJECT COSTS

Description: This site on Muddy Ridge has limited water along the ridge. Potential water sources exist in draws several hundred feet below the ridge in the form of seeps and springs that have been damed by beavers.

Proposed Project: The project includes installation of a solar pump at a promising water source (beaver pond/spring) along with three miles of 2" pipe and two troughs. The pump will lift the water 320 feet to the ridge crest at which point it will flow by gravity to the troughs.

| CONSTRU | ICTION COSTS                              |          |       |                    |            |
|---------|---|----------|-------|--------------------|------------|
|         |   |          |       |                    |            |
| Item #  | Description                               | Quantity | Unit  | Unit Cost          | Total Cost |
| 1       | Mobilization                              | 1        | L.S.  | \$5,000.00         | \$5,000    |
| 2       |   |          |       |                    |            |
| 3       | Pump Wetwell                              | 1        | L.S.  | \$260.00           | \$260      |
| 4       | Pump Equipment                            | 0.7      | HP    | \$1,600.00         | \$1,120    |
| 5       | Solar Power Source                        | 800      | Watts | \$6.90             | \$5,520    |
| 6       |   |          |       |                    |            |
| 7       |   |          |       |                    |            |
| 8       | 2" Fittings at Spring Box                 | 1        | L.S.  | \$250.00           | \$250      |
| 9       | 2" HDPE Spring Line to Storage Tank       | 2,000    | LF    | \$4.00             | \$8,000    |
| 10      | 2000 Gallon Storage Tank                  | 1        | Each  | \$4,000.00         | \$4,000    |
| 11      | 2" HDPE Spring/Tank Overflow Line         | 50       | LF    | \$4.00             | \$200      |
| 12      | WaterTrough & Appurtenances               | 1        | Each  | \$1,400.00         | \$1,400    |
| 13      | WaterTrough Piping, Fittings and Mounting | 1        | Each  | \$1,000.00         | \$1,000    |
| 14      | 2" HDPE SDR 11 Trough Supply Lines        | 14,000   | LF    | \$4.00             | \$56,000   |
| 15      | Final Grading                             | 1        | L.S.  | \$1,000.00         | \$1,000    |
| 16      | Reseeding                                 | 5,000    | SF    | \$0.10             | \$500      |
| 17      | Fence - Jack                              | 100      | L.F.  | \$18.00            | \$1,800    |
|         |   |          |       |                    |            |
|         |   |          |       |                    |            |
|         |   |          |       |                    |            |
|         |   |          |       |                    |            |
|         |   |          |       |                    |            |
|         |   |          |       |                    |            |
|         |   |          |       |                    |            |
|         |   |          |       | Construction Total | \$86,050   |

| Construction Permits<br>Performance Bond<br>Insurance<br>15% O&P<br><b>Subtotal 1</b>   | \$500<br>\$900<br>\$500<br>\$12,908<br><b>\$14,808</b>    |
|---|---|
| Subtotal 2  | \$100,858   |
| Construction Engineering @ 10% of Subtotal #2   | \$10,086  |
| Subtotal 3  | \$110,943   |
| Contingency @ 15% of Subtotal #3  | \$16,641  |
| Total Construction Cost   | \$127,585   |
| Preparation of Final Designs and Specifications<br>Permitting @ 5% of Project Cost<br>Legal @ 4% of Project Cost<br>Environmental Study<br>Total Project Cost | \$10,207<br>\$6,379<br>\$5,103<br>\$0<br><b>\$149,274</b> |





| Owner/Operator    | Boehme                     |
|-------------------|----------------------------|
| Site Name         | Mill Creek Well and Trough |
| Type Of Project   | Pump, Pipeline, and Trough |
| Notes/Description | Project 5                  |

#### Location: 42.201611N, -110.935042W (well) 42.197322N, -110.938801W (Tank)

INCIDENTAL PROJECT COSTS

Description: This site on the south ridge above Mill Creek (tributary to Smiths Fork) has limited water along the ridge. Potential water sources exist in Mill Creek 530 feet below the tank site.

Proposed Project: The project includes installation of a solar well in the bottom near Mill Creek. A 2,000 gallon storage tank on the ridge, pipeline, and several troughs would complete the project. The well pump would be a Grudfoss 6SQF-3 capable of overcoming the 540' dynamic lift at 5 gpm. Solar wattage is estimated at 850 watts.

| CONSTRU | CTION COSTS                               |          |       |                    |            |
|---------|---|----------|-------|--------------------|------------|
|         |   |          |       |                    |            |
| Item #  | Description                               | Quantity | Unit  | Unit Cost          | Total Cost |
| 1       | Mobilization                              | 1        | L.S.  | \$10,000.00        | \$10,000   |
| 2       | New 6" Well                               | 25       | L.F.  | \$87.00            | \$2,175    |
| 3       | Pump Test                                 | 4        | Hours | \$260.00           | \$1,040    |
| 4       | Pump Equipment                            | 0.8      | HP    | \$1,600.00         | \$1,280    |
| 5       | Solar Power Source                        | 900      | Watts | \$6.90             | \$6,210    |
| 6       |   |          |       |                    |            |
| 7       |   |          |       |                    |            |
| 8       | 2" Fittings at Well                       | 1        | L.S.  | \$250.00           | \$250      |
| 9       | 2" HDPE-SDR7 Well to Storage Tank         | 2,200    | LF    | \$6.00             | \$13,200   |
| 10      | 2000 Gallon Storage Tank                  | 1        | Each  | \$4,000.00         | \$4,000    |
| 11      | 2" HDPE Tank Overflow Line                | 50       | LF    | \$4.00             | \$200      |
| 12      | WaterTrough & Appurtenances               | 5        | Each  | \$1,400.00         | \$7,000    |
| 13      | WaterTrough Piping, Fittings and Mounting | 5        | Each  | \$1,000.00         | \$5,000    |
| 14      | 2" HDPE SDR 11 Trough Supply Lines        | 19,820   | LF    | \$4.00             | \$79,280   |
| 15      | Final Grading                             | 1        | L.S.  | \$2,000.00         | \$2,000    |
| 16      | Reseeding                                 | 10,000   | SF    | \$0.10             | \$1,000    |
| 17      | Fence                                     | 300      | L.F.  | \$2.00             | \$600      |
|         |   |          |       |                    |            |
|         |   |          |       |                    |            |
|         |   |          |       |                    |            |
|         |   |          |       |                    |            |
|         |   |          |       |                    |            |
|         |   |          |       |                    |            |
|         |   |          |       |                    |            |
|         |   |          |       | Construction Total | \$133.235  |

| Construction Permits                          | \$700     |
|---|-----------|
| Performance Bond                              | \$1,400   |
| Insurance                                     | \$700     |
| 15% O&P                                       | \$19,985  |
| Subtotal 1                                    | \$22,785  |
| Subtotal 2                                    | \$156,020 |
| Construction Engineering @ 10% of Subtotal #2 | \$15,602  |
| Subtotal 3                                    | \$171,622 |
| Contingency @ 15% of Subtotal #3              | \$25,743  |

Total Construction Cost \$197,366

| Preparation of Final Designs and Specifications | \$15,789  |
|---|-----------|
| Permitting @ 5% of Project Cost                 | \$9,868   |
| Legal @ 4% of Project Cost                      | \$7,895   |
| Well Location Study                             | \$0       |
| Total Project Cost                              | \$230,918 |





#### Owner/Operator Boehme Site Name Mill Creek well and Trough 2 Type Of Project

Pump, Pipeline, and Trough Notes/Description Project 6

> Location: 42.191905N, -110.930126W (well) 42.197322N, -110.938801W (Tank)

> > INCIDENTAL PROJECT COSTS

Description: This site on the south ridge above Mill Creek (tribuary to Smiths Fork) has limited water along the ridge. Potential water sources exist in Mill Creek (500 feet or more lower in elevation) or by drilling a well along the ridge. The probility of the well finding water on the ridge is unknown.

Proposed Project: The project includes installation of a solar well along the ridge or at a point that could be accessed by a rig. A 2,000 gallon storage tank, pipeline and several troughs would complete the project.

| CONSTRU | CTION COSTS                               |          | -           |                    |                |
|---------|---|----------|-------------|--------------------|----------------|
| Itom #  | Description                               | Quantity | Unit        | Lipit Cost         | Total Cost     |
| 1       | Mobilization                              | Quantity |             | \$10,000,00        | \$10,000       |
| 2       | New 6" Well                               | 250      | L.O.<br>I F | \$10,000.00        | \$21,000       |
| 3       | Pump Test                                 | 14       | Hours       | \$260.00           | \$3 640        |
| 4       | Pump Equipment                            | 0.7      | HP          | \$1 600 00         | \$1,040        |
| 5       | Solar Power Source                        | 800      | Watts       | \$6.90             | \$5.520        |
| 6       |   |          | Trailo      | çoise              | <i>\$3,520</i> |
| 7       |   |          |             |                    |                |
| 8       | 2" Fittings at Spring Box                 | 1        | L.S.        | \$250.00           | \$250          |
| 9       | 2" HDPE Well Line to Storage Tank         | 100      | LF          | \$4.00             | \$400          |
| 10      | 2000 Gallon Storage Tank                  | 1        | Each        | \$4,000.00         | \$4,000        |
| 11      | 2" HDPE Spring/Tank Overflow Line         | 50       | LF          | \$4.00             | \$200          |
| 12      | WaterTrough & Appurtenances               | 3        | Each        | \$1,400.00         | \$4,200        |
| 13      | WaterTrough Piping, Fittings and Mounting | 3        | Each        | \$1,000.00         | \$3,000        |
| 14      | 2" HDPE SDR 11 Trough Supply Lines        | 16,000   | LF          | \$4.00             | \$64,000       |
| 15      | Final Grading                             | 1        | L.S.        | \$1,000.00         | \$1,000        |
| 16      | Reseeding                                 | 5,000    | SF          | \$0.10             | \$500          |
| 17      | Fence - Jack                              | 100      | L.F.        | \$18.00            | \$1,800        |
|         |   |          |             |                    |                |
|         |   |          |             |                    |                |
|         |   |          |             |                    |                |
|         |   |          |             |                    |                |
|         |   |          |             |                    |                |
|         |   |          |             |                    |                |
|         |   |          |             | Construction Total | 6121 280       |
|         |   |          |             | Construction Total | \$121,38U      |

| Construction Permits                            | \$700            |
|---|------------------|
| Performance Bond                                | \$1,300          |
| Insurance                                       | \$700            |
| 15% O&P   | \$18,207         |
| Subtotal 1                                      | \$20,907         |
| Subtotal 2                                      | \$142,287        |
| Construction Engineering @ 10% of Subtotal #2   | \$14,229         |
| Subtotal 3                                      | \$156,516        |
| Contingency @ 15% of Subtotal #3                | \$23,477         |
| Total Construction Cost                         | \$179,993        |
|   | 614 200          |
| Preparation of Final Designs and Specifications | \$14,399         |
| Permitting @ 5% of Project Cost                 | \$9,000          |
| Well Location Study                             | \$7,200          |
| Total Project Cost                              | \$218 592        |
| Total i Toject cost                             | <i>¥</i> 210,352 |





 Owner/Operator
 Benion

 Site Name
 Horse Creek - Rock Creek

 Type Of Project
 Well

 Notes/Description
 Project 1

Location: 41.971018N, -111.838766W

Description: This area has been identified as a potential well site. A solar setup is likely the best power source provided the required lift is within range of a solar pump. The exact well and trough location have not been determined.

Proposed Project:

- 1) Install well and a 1500 gallon storage tank
- 2) Level controls on the storage tank to operate a solar powered well
- 3) Install trough and automatic fill valve on trough

#### ITEMIZED COST ESTIMATE

CONSTRUCTION COSTS

| Item #                  | Description                               | Quantity | Unit  | Unit Cost  | Total Cost |
|-------------------------|---|----------|-------|------------|------------|
| 1                       | Mobilization                              | 1        | L.S.  | \$4,000.00 | \$4,000    |
| 2                       | New 6" Well                               | 250      | L.F.  | \$87.00    | \$21,750   |
| 3                       | Pump Test                                 | 14       | Hours | \$260.00   | \$3,640    |
| 4                       | Pump Equipment                            | 0.7      | HP    | \$1,600.00 | \$1,120    |
| 5                       | Solar Power Source                        | 800      | Watts | \$6.90     | \$5,520    |
| 6                       | 2" Fittings at Spring Box                 | 1        | L.S.  | \$250.00   | \$250      |
| 7                       | 2" HDPE Well Line to Trough               | 100      | LF    | \$4.00     | \$400      |
| 8                       | 1500 Gallon Storage Tank                  | 1        | Each  | \$4,000.00 | \$4,000    |
| 9                       | 2" HDPE Trough Overflow Line              | 50       | LF    | \$4.00     | \$200      |
| 10                      | WaterTrough & Appurtenances               | 3        | Each  | \$1,400.00 | \$4,200    |
| 11                      | WaterTrough Piping, Fittings and Mounting | 3        | Each  | \$1,000.00 | \$3,000    |
| 12                      |   |          |       |            |            |
| 13                      | Final Grading                             | 1        | L.S.  | \$1,000.00 | \$1,000    |
| 14                      | Reseeding                                 | 1,000    | SF    | \$0.10     | \$100      |
| 15                      | Fence around Solar Panel and Well         | 100      | L.F.  | \$2.00     | \$200      |
|                         |   |          |       |            |            |
|                         |   |          |       |            |            |
| Total Construction Cost |   |          |       | \$49,380   |            |

INCIDENTAL PROJECT COSTS

| \$300    | Construction Permits                            |
|----------|---|
| \$500    | Performance Bond                                |
| \$300    | Insurance                                       |
| \$7,407  | 15% O&P   |
| \$8,507  | Subtotal 1                                      |
| \$57,887 | Subtotal 2                                      |
| \$5,789  | Construction Engineering @ 10% of Subtotal #2   |
| \$63,676 | Subtotal 3                                      |
| \$9,551  | Contingency @ 15% of Subtotal #3                |
| \$73,227 | Total Construction Cost                         |
| \$5,858  | Preparation of Final Designs and Specifications |
| \$3,661  | Permitting @ 5% of Project Cost                 |
| \$2,929  | Legal @ 4% of Project Cost                      |

- Environmental Study \$3,000
  - Total Project Cost \$88,676





| Owner/Operator                       | BLM   |
|--------------------------------------|---|
| Site Name                            | IGO Road  |
| Type Of Project<br>Notes/Description | Spring, Pump, Tank, Pipeline, and Trough <b>Project 1</b> |

INCIDENTAL PROJECT COSTS

Location: 42.322557N, -110.9654461W (First Trough); 42.381723N, -110.937035W (Last Trough) 42.322917N, -110.964355W (Spring) 42.320685N, -110.965531W (Tank)

Description: This site located along a ridgetop has limited water resulting in the cattle staying in the bottomlands and in overuse of those springs that are available on the slopes. Potential water sources exist in draws several hundred feet below the ridge in the form of seeps and springs.

Proposed Project: The project includes installation of a solar pump at a promising water source (beaver pond/spring) along with 5.6 miles of 2" pipe and up to six troughs. The pump will lift the water 125 vertical feet to a ridge crest tank at which point it will flow by gravity to the troughs located north along the ridgetop road.

| CONSTRUCTION COSTS |   |          |       |                    |            |
|--------------------|---|----------|-------|--------------------|------------|
|                    |   |          |       |                    |            |
| Item #             | Description                                       | Quantity | Unit  | Unit Cost          | Total Cost |
| 1                  | Mobilization                                      | 1        | L.S.  | \$7,500.00         | \$7,500    |
| 2                  | New Pump Wet Well Housing                         | 1        | L.S.  | \$2,000.00         | \$2,000    |
| 3                  |   |          |       |                    |            |
| 4                  | Pump Equipment                                    | 0.7      | HP    | \$1,600.00         | \$1,120    |
| 5                  | Solar Power Source                                | 800      | Watts | \$6.90             | \$5,520    |
| 6                  |   |          |       |                    |            |
| 7                  |   |          |       |                    |            |
| 8                  | 2" Fittings at Troughs, Tank and Pump Connections | 1        | L.S.  | \$1,500.00         | \$1,500    |
| 9                  | 2" HDPE Spring to Storage Tank                    | 740      | LF    | \$4.00             | \$2,960    |
| 10                 | 5000 Gallon Storage Tank                          | 1        | Each  | \$8,000.00         | \$8,000    |
| 11                 | 2" HDPE Spring/Tank Overflow Line                 | 50       | LF    | \$4.00             | \$200      |
| 12                 | WaterTrough & Appurtenances                       | 6        | Each  | \$1,400.00         | \$8,400    |
| 13                 | WaterTrough Piping, Fittings and Mounting         | 6        | Each  | \$1,000.00         | \$6,000    |
| 14                 | 2" HDPE SDR 11 Trough Supply Lines                | 28,700   | LF    | \$4.00             | \$114,800  |
| 15                 | Final Grading                                     | 1        | L.S.  | \$2,000.00         | \$2,000    |
| 16                 | Reseeding   | 15,000   | SF    | \$0.10             | \$1,500    |
| 17                 | Fence   | 350      | L.F.  | \$2.00             | \$700      |
|                    |   |          |       |                    |            |
|                    |   |          |       |                    |            |
|                    |   |          |       |                    |            |
|                    |   |          |       |                    |            |
|                    |   |          |       |                    |            |
|                    |   |          |       |                    |            |
|                    |   |          |       |                    |            |
|                    |   |          |       | Construction Total | \$162,200  |

| Construction Permits                            | \$900     |
|---|-----------|
| Performance Bond                                | \$1,700   |
| Insurance                                       | \$900     |
| 15% O&P   | \$24,330  |
| Subtotal 1                                      | \$27,830  |
| Subtotal 2                                      | \$190,030 |
| Construction Engineering @ 10% of Subtotal #2   | \$19,003  |
| Subtotal 3                                      | \$209,033 |
| Contingency @ 15% of Subtotal #3                | \$31,355  |
| Total Construction Cost                         | \$240,388 |
| Dremaration of Final Designs and Constituations | ¢10 221   |
| Preparation of Final Designs and Specifications | \$19,231  |
| Permitting @ 5% of Project Cost                 | \$12,019  |
| Legal @ 4% of Project Cost                      | \$9,616   |
| Environmental Study                             | \$50,000  |

| \$50,000  | Environmental Study |
|-----------|---------------------|
| \$331,254 | Total Project Cost  |





 Owner/Operator
 BLM

 Site Name
 Spring Development on/near Chappel Creek (north and south)

 Type Of Project
 Spring & Trough

 Notes/Description
 Project 2

INCIDENTAL PROJECT COSTS

Location: 42.192994N, -110.840328W (North Spring) 42.164307N, -110.861194W (South Spring)

Description: These sites are located on BLM upland area on the eastern side of the Smiths Fork drainage. The springs provide a good source of water but are susceptible to damage in their undeveloped condition. The locations have access for equipment.

Proposed Project: The project(s) includes excavation of the springs to install a spring box and 20' of collection pipe. A 100' pipeline will convey flows downgradient from the spring collection box to a trough.

| CONSTRU | CONSTRUCTION COSTS                                |          |      |                    |            |  |
|---------|---|----------|------|--------------------|------------|--|
|         |   |          |      |                    |            |  |
| Item #  | Description                                       | Quantity | Unit | Unit Cost          | Total Cost |  |
| 1       | Mobilization                                      | 1        | L.S. | \$2,000.00         | \$2,000    |  |
| 2       | Excavation for New Spring Box and Collection Pipe | 30       | CY   | \$150.00           | \$4,500    |  |
| 3       | Import Rock Backfill                              | 20       | SY   | \$20.00            | \$400      |  |
| 4       | Impervious HDPE liner (60 mill)                   | 50       | SY   | \$15.00            | \$750      |  |
| 5       | Trench Backfill w/Native Material                 | 10       | CY   | \$36.00            | \$360      |  |
| 6       | 4" Trench Collection Pipe                         | 40       | LF   | \$8.00             | \$320      |  |
| 7       | Spring Box  | 2        | Each | \$900.00           | \$1,800    |  |
| 8       | 2" Fittings at Spring Box                         | 1        | L.S. | \$500.00           | \$500      |  |
| 9       | 2" HDPE Spring Line to Trough                     | 200      | LF   | \$12.00            | \$2,400    |  |
| 10      |   |          |      |                    |            |  |
| 11      | 2" HDPE Spring/Tank Overflow Line                 | 100      | LF   | \$4.00             | \$400      |  |
| 12      | WaterTrough & Appurtenances                       | 2        | Each | \$1,400.00         | \$2,800    |  |
| 13      | WaterTrough Piping, Fittings and Mounting         | 2        | Each | \$1,000.00         | \$2,000    |  |
| 14      | Final Grading                                     | 1        | L.S. | \$400.00           | \$400      |  |
| 15      | Reseeding   | 300      | SF   | \$1.00             | \$300      |  |
| 16      | Fence   | 400      | L.F. | \$2.00             | \$800      |  |
|         |   |          |      |                    |            |  |
|         |   |          |      |                    |            |  |
|         |   |          |      | Construction Total | \$19 730   |  |

| Construction Permits                            | \$100    |
|---|----------|
| Performance Bond                                | \$200    |
| Insurance                                       | \$100    |
| 15% O&P   | \$2,960  |
| Subtotal 1                                      | \$3,360  |
| Subtotal 2                                      | \$23,090 |
| Construction Engineering @ 10% of Subtotal #2   | \$2,309  |
| Subtotal 3                                      | \$25,398 |
| Contingency @ 15% of Subtotal #3                | \$3,810  |
| Total Construction Cost                         | \$29,208 |
| Preparation of Final Designs and Specifications | \$2,337  |
| Permitting @ 5% of Project Cost                 | \$1,460  |
| Legal @ 4% of Project Cost                      | \$1,168  |
| Environmental Study                             | \$10,000 |
| Total Project Cost                              | \$44,174 |





 Owner/Operator
 BLM

 Site Name
 Wood Hollow Spring Development

 Type Of Project
 Spring & Trough

 Notes/Description
 Project 3

Location: 42.003380N, -110.997252W

CONSTRUCTION COSTS

INCIDENTAL PROJECT COSTS

Description: This site is located in the bottom of Wood Hollow on BLM property about 1 mile west of Highway 207. The spring could provide a good source of water if developed and furnished with a trough. The location has access for heavy equipment.

Proposed Project: The project includes excavation of the spring to install a spring box. A 100' pipeline will convey flows downgradient from the spring collection box to a trough.

| Item # | Description                                       | Quantity | Unit | Unit Cost          | Total Cost |
|--------|---|----------|------|--------------------|------------|
| 1      | Mobilization                                      | 1        | L.S. | \$1,100.00         | \$1,100    |
| 2      | Excavation for New Spring Box and Collection Pipe | 15       | CY   | \$150.00           | \$2,250    |
| 3      | Trench Geotextile Drain Filter                    | 25       | SY   | \$20.00            | \$500      |
| 4      | Trench Backfill w/Native Material                 | 10       | CY   | \$36.00            | \$360      |
| 5      | 4" Trench Collection Pipe                         | 20       | LF   | \$8.00             | \$160      |
| 6      | Spring Box  | 1        | Each | \$900.00           | \$900      |
| 7      | 2" Fittings at Spring Box                         | 1        | L.S. | \$250.00           | \$250      |
| 8      | 2" HDPE Spring Line to Trough                     | 100      | LF   | \$4.00             | \$400      |
| 9      |   |          |      |                    |            |
| 10     | 2" HDPE Spring/Tank Overflow Line                 | 50       | LF   | \$4.00             | \$200      |
| 11     | WaterTrough & Appurtenances                       | 1        | Each | \$1,400.00         | \$1,400    |
| 12     | WaterTrough Piping, Fittings and Mounting         | 1        | Each | \$1,000.00         | \$1,000    |
| 13     | Final Grading                                     | 1        | L.S. | \$200.00           | \$200      |
| 14     | Reseeding   | 100      | SF   | \$1.00             | \$100      |
| 15     | Fence   | 200      | L.F. | \$2.00             | \$400      |
|        |   |          |      |                    |            |
|        | I   | I        |      | Construction Total | \$9,220    |

| Subtotal 1           | \$1,683 |
|----------------------|---------|
| 15% O&P              | \$1,383 |
| Insurance            | \$100   |
| Performance Bond     | \$100   |
| Construction Permits | \$100   |
|                      |         |

Subtotal 2 \$10,903

Construction Engineering @ 10% of Subtotal #2 \$1,090

Subtotal 3 \$11,993

Contingency @ 15% of Subtotal #3 \$1,799

Total Construction Cost \$13,792

 Preparation of Final Designs and Specifications
 \$1,103

 Permitting @ 5% of Project Cost
 \$690

 Legal @ 4% of Project Cost
 \$552

 Environmental Study
 \$5,000

 Total Project Cost
 \$21,137





 Owner/Operator
 BLM

 Site Name
 Horse Creek Pasture

 Type Of Project
 Solar Well and Trough

 Notes/Description
 Project 4

Location: 41.984792N, -110.899064W (well)

INCIDENTAL PROJECT COSTS

Description: This site on the east side of the Bear River south of Cokeville, is a BLM administered upland area. Potential water may be had by drilling a well in this upland area.

Proposed Project: The project includes installation of a solar well along the ridge or at a point that could be accessed by a rig. A short pipeline and trough would complete the project.

| CONSTRU |   |          |       |                    |            |
|---------|---|----------|-------|--------------------|------------|
| Item #  | Description                               | Quantity | Unit  | Unit Cost          | Total Cost |
| 1       | Mobilization                              | 1        | L.S.  | \$4,000.00         | \$4,000    |
| 2       | New 6" Well                               | 250      | L.F.  | \$87.00            | \$21,750   |
| 3       | Pump Test                                 | 14       | Hours | \$260.00           | \$3,640    |
| 4       | Pump Equipment                            | 0.7      | HP    | \$1,600.00         | \$1,120    |
| 5       | Solar Power Source                        | 800      | Watts | \$6.90             | \$5,520    |
| 6       |   |          |       |                    |            |
| 7       |   |          |       |                    |            |
| 8       | 2" Fittings at Spring Box                 | 1        | L.S.  | \$250.00           | \$250      |
| 9       | 2" HDPE Well Line to Trough               | 100      | LF    | \$4.00             | \$400      |
| 10      | 2000 Gallon Storage Tank                  | -        | Each  | \$4,000.00         | \$0        |
| 11      | 2" HDPE Trough Overflow Line              | 50       | LF    | \$4.00             | \$200      |
| 12      | WaterTrough & Appurtenances               | 3        | Each  | \$1,400.00         | \$4,200    |
| 13      | WaterTrough Piping, Fittings and Mounting | 3        | Each  | \$1,000.00         | \$3,000    |
| 14      |   |          |       |                    |            |
| 15      | Final Grading                             | 1        | L.S.  | \$1,000.00         | \$1,000    |
| 16      | Reseeding                                 | 1,000    | SF    | \$0.10             | \$100      |
| 17      | Fence around Solar Panel and Well         | 100      | L.F.  | \$2.00             | \$200      |
|         |   |          |       |                    |            |
|         |   | -        |       |                    |            |
|         |   |          |       |                    |            |
|         |   |          |       |                    |            |
| L       | 1   |          |       | Construction Total | \$45,380   |

| Construction Permits                            | \$300    |
|---|----------|
| Performance Bond                                | \$500    |
| Insurance                                       | \$300    |
| 15% O&P   | \$6,807  |
| Subtotal 1                                      | \$7,907  |
| Subtotal 2                                      | \$53,287 |
| Construction Engineering @ 10% of Subtotal #2   | \$5,329  |
| Subtotal 3                                      | \$58,616 |
| Contingency @ 15% of Subtotal #3                | \$8,792  |
| Total Construction Cost                         | \$67,408 |
|   |          |
| Preparation of Final Designs and Specifications | \$5,393  |
| Permitting @ 5% of Project Cost                 | \$3,370  |
| Legal @ 4% of Project Cost                      | \$2,696  |
| Well Location Study                             | \$8,000  |
| Total Project Cost                              | \$86,867 |





 Owner/Operator
 BLM

 Site Name
 Emigrant Springs - Spring B

 Type Of Project
 Spring & Trough

 Notes/Description
 Project 5

Location: 41.937216N, -110.773082W

INCIDENTAL PROJECT COSTS

Description: This site is located at the lower end of a timbered north slope. The spring could provide a good source of water if developed and furnished with a trough. The location is a historical site on the Emigrant trail. The site includes two Springs A & B of which only B is proposed for improvement. The B spring is just inside the Bear River Drainage due to a small swale that intercepts the water and directs it into the Bear Drainage.

Proposed Project: The project includes excavation of the spring to install a spring box. A 100' pipeline will convey flows downgradient from the spring collection box to a trough. It is anticipated the spring development will cause minimal visual distrubance to the site.

| CONSTRU | ICTION COSTS                                      |          |      |                    |            |
|---------|---|----------|------|--------------------|------------|
|         |   |          |      |                    |            |
| Item #  | Description                                       | Quantity | Unit | Unit Cost          | Total Cost |
| 1       | Mobilization                                      | 1        | L.S. | \$1,500.00         | \$1,500    |
| 2       | Excavation for New Spring Box and Collection Pipe | 15       | CY   | \$150.00           | \$2,250    |
| 3       | Trench Geotextile Drain Filter                    | 25       | SY   | \$20.00            | \$500      |
| 4       | Trench Backfill w/Native Material                 | 10       | CY   | \$36.00            | \$360      |
| 5       | 4" Trench Collection Pipe                         | 20       | LF   | \$8.00             | \$160      |
| 6       | Spring Box  | 1        | Each | \$900.00           | \$900      |
| 7       | 2" Fittings at Spring Box                         | 1        | L.S. | \$250.00           | \$250      |
| 8       | 2" HDPE Spring Line to Trough                     | 100      | LF   | \$4.00             | \$400      |
| 9       |   |          |      |                    |            |
| 10      | 2" HDPE Spring/Tank Overflow Line                 | 50       | LF   | \$4.00             | \$200      |
| 11      | WaterTrough & Appurtenances                       | 1        | Each | \$1,400.00         | \$1,400    |
| 12      | WaterTrough Piping, Fittings and Mounting         | 1        | Each | \$1,000.00         | \$1,000    |
| 13      | Final Grading                                     | 1        | L.S. | \$200.00           | \$200      |
| 14      | Reseeding   | 100      | SF   | \$1.00             | \$100      |
| 15      | Fence - Jack                                      | 100      | L.F. | \$18.00            | \$1,800    |
|         |   |          |      |                    |            |
|         |   |          |      |                    |            |
|         |   |          |      |                    |            |
|         |   |          |      |                    |            |
|         |   |          |      |                    |            |
|         |   |          |      |                    |            |
|         |   |          |      |                    |            |
|         |   |          |      | Construction Total | \$11.020   |

| Construction Pe   |
|---|
| Performance   |
| Insu  |
| 15% (   |
| Subto   |
| Subto   |
| Construction Engineering @ 10% of Subtot  |
| Subto   |
| Contingency @ 15% of Subtot   |
| Total Construction  |
| Preparation of Final Designs and Specificat   |
| Permitting @ 5% of Project  |
| Legal @ 4% of Project   |
| Environmental S   |
| Total Project   |
| on Pe<br>ance<br>Insui<br>5% C<br>Subto<br>Subtot<br>Ubtot<br>Subtot<br>ction<br>cificat<br>oject<br>oject<br>oject |





 Owner/Operator
 BLM

 Site Name
 Upland Solar Well

 Type Of Project
 Solar Well and Trough

 Notes/Description
 Project 6

Location: 41.806394N, -110.912501W (well)

INCIDENTAL PROJECT COSTS

Description: This site is a BLM administered upland area on a north facing slope. Potential water may be had by drilling a well in this upland area. Only the general area has been selected and a well siting study is recommended.

Proposed Project: The project includes installation of a solar well along the ridge or at a point that could be accessed by a rig. A short pipeline and trough would complete the project.

| Item # | Description                               | Quantity | Unit  | Unit Cost          | Total Cost |
|--------|---|----------|-------|--------------------|------------|
| 1      | Mobilization                              | 1        | L.S.  | \$4,000.00         | \$4,000    |
| 2      | New 6" Well                               | 300      | L.F.  | \$87.00            | \$26,100   |
| 3      | Pump Test                                 | 14       | Hours | \$260.00           | \$3,640    |
| 4      | Pump Equipment                            | 0.8      | HP    | \$1,600.00         | \$1,280    |
| 5      | Solar Power Source                        | 800      | Watts | \$6.90             | \$5,520    |
| 6      |   |          |       |                    |            |
| 7      |   |          |       |                    |            |
| 8      | 2" Fittings at Spring Box                 | 1        | L.S.  | \$250.00           | \$250      |
| 9      | 2" HDPE Well Line to Trough               | 100      | LF    | \$4.00             | \$400      |
| 10     | 2000 Gallon Storage Tank                  | -        | Each  | \$4,000.00         | \$0        |
| 11     | 2" HDPE Trough Overflow Line              | 50       | LF    | \$4.00             | \$200      |
| 12     | WaterTrough & Appurtenances               | 1        | Each  | \$1,400.00         | \$1,400    |
| 13     | WaterTrough Piping, Fittings and Mounting | 1        | Each  | \$1,000.00         | \$1,000    |
| 14     |   |          |       |                    |            |
| 15     | Final Grading                             | 1        | L.S.  | \$1,000.00         | \$1,000    |
| 16     | Reseeding                                 | 1,000    | SF    | \$0.10             | \$100      |
| 17     | Fence around Solar Panel and Well         | 100      | L.F.  | \$2.00             | \$200      |
|        |   |          |       |                    |            |
|        |   |          |       |                    |            |
|        |   |          |       |                    |            |
|        |   |          |       |                    |            |
|        |   |          |       | Construction Total | \$45,090   |

| Construction Permits                          | \$300    |
|---|----------|
| Performance Bond                              | \$500    |
| Insurance                                     | \$300    |
| 15% O&P                                       | \$6,764  |
| Subtotal 1                                    | \$7,864  |
|   |          |
| Subtotal 2                                    | \$52,954 |
|   |          |
| Construction Engineering @ 10% of Subtotal #2 | \$5,295  |
|   |          |
| Subtotal 3                                    | \$58,249 |

Contingency @ 15% of Subtotal #3 \$8,737

Total Construction Cost \$66,986

| Preparation of Final Designs and Specifications | \$5,359  |
|---|----------|
| Permitting @ 5% of Project Cost                 | \$3,349  |
| Legal @ 4% of Project Cost                      | \$2,679  |
| Well Location Study                             | \$10,000 |
| Total Proiect Cost                              | \$88.374 |





Owner/Operator BLM Site Name Type Of Project Notes/Description Project 7

Foote Spring Spring & Trough

Location: 41.765531N, -110.841825W (Spring) 41.765374N, -110.847189W (Trough)

INCIDENTAL PROJECT COSTS

Description: This site is located in a well watered draw on BLM property. The spring needs to be protected by development to include a spring collection box and a trough. The trough would be located a short distance down gradient out of the grassy bottom.

Proposed Project: The project includes excavation of the spring to install a spring box. A 1,460' pipeline will convey flows downgradient from the spring collection box to a trough.

| CONSTRU | ICTION COSTS                                      |          |      |                    |            |
|---------|---|----------|------|--------------------|------------|
|         |   |          |      |                    |            |
| Item #  | Description                                       | Quantity | Unit | Unit Cost          | Total Cost |
| 1       | Mobilization                                      | 1        | L.S. | \$1,700.00         | \$1,700    |
| 2       | Excavation for New Spring Box and Collection Pipe | 15       | CY   | \$150.00           | \$2,250    |
| 3       | Trench Geotextile Drain Filter                    | 25       | SY   | \$20.00            | \$500      |
| 4       | Trench Backfill w/Native Material                 | 10       | CY   | \$36.00            | \$360      |
| 5       | 4" Trench Collection Pipe                         | 20       | LF   | \$8.00             | \$160      |
| 6       | Spring Box  | 1        | Each | \$900.00           | \$900      |
| 7       | 2" Fittings at Spring Box                         | 1        | L.S. | \$250.00           | \$250      |
| 8       | 2" HDPE Spring Line to Trough                     | 1,460    | LF   | \$4.00             | \$5,840    |
| 9       |   |          |      |                    |            |
| 10      | 2" HDPE Spring Overflow Line                      | 50       | LF   | \$4.00             | \$200      |
| 11      | WaterTrough & Appurtenances                       | 1        | Each | \$1,400.00         | \$1,400    |
| 12      | WaterTrough Piping, Fittings and Mounting         | 1        | Each | \$1,000.00         | \$1,000    |
| 13      | Final Grading                                     | 1        | L.S. | \$200.00           | \$200      |
| 14      | Reseeding   | 100      | SF   | \$1.00             | \$100      |
| 15      | Fence   | 700      | L.F. | \$2.00             | \$1,400    |
|         |   |          |      |                    |            |
|         |   |          |      |                    |            |
|         |   |          |      |                    |            |
|         |   |          |      |                    |            |
|         |   |          |      |                    |            |
|         |   |          |      |                    |            |
|         |   |          |      |                    |            |
|         |   |          |      | Construction Total | \$16,260   |

| Construction Permits                            | \$100           |
|---|-----------------|
| Performance Bond                                | \$200           |
| Insurance                                       | \$100           |
| 15% O&P   | \$2,439         |
| Subtotal 1                                      | \$2,839         |
| Subtotal 2                                      | \$19,099        |
| Construction Engineering @ 10% of Subtotal #2   | \$1,910         |
| Subtotal 3                                      | \$21,009        |
| Contingency @ 15% of Subtotal #3                | \$3,151         |
| Total Construction Cost                         | \$24,160        |
|   | <u>é</u> ,      |
| Preparation of Final Designs and Specifications | \$1,933         |
| Permitting @ 5% of Project Cost                 | \$1,208         |
| Legal @ 4% of Project Cost                      | \$966<br>¢5.000 |
| Environmental Study                             | \$5,000         |
|   | \$55,207        |





| Owner/Operator    | BLM                             |
|-------------------|---------------------------------|
| Site Name         | Oli Spring Pump and and Troughs |
| Type Of Project   | Pump, Pipeline, and Trough      |
| Notes/Description | Project 8                       |

INCIDENTAL PROJECT COSTS

### Location: 41.799368N, -110.797104W (Spring Pump) 41.813516N, -110.802140W (Trough) 41.803174N, -110.801523W (Tank) 41.809667N, -110.779341W (Trough)

Description: This spring site is a reliable water source located on the southern side of a dry upland slope. By pumping water from this spring to a tank 250' in elevation above the spring, the water can flow downhill to trough locations on the dry slopes one mile north of the spring.

Proposed Project: The project includes installation of a solar well in the bottom at Oli spring. A 2,000 gallon storage tank on the ridge, pipeline, and several troughs would complete the project. The well pump would be a Grudfoss 6SQF-2 Capable of overcoming the 265' dynamic lift at 5 gpm. Solar wattage is estimated at 550 watts.

| CONSTRUCTION COSTS |   |          |       |                    |                 |
|--------------------|---|----------|-------|--------------------|-----------------|
| 14 44              |   |          |       |                    | <b>T</b> . 10 . |
| Item #             | Description                               | Quantity | Unit  | Unit Cost          | I otal Cost     |
| 1                  |   | 1        | L.S.  | \$8,000.00         | \$8,000         |
| 2                  | New Pump Wet Well Housing                 | 1        | L.S.  | \$2,000.00         | \$2,000         |
| 3                  |   |          |       | 41.000.00          | 41.000          |
| 4                  |   | 0.8      | HP    | \$1,600.00         | \$1,280         |
| 5                  | Solar Power Source                        | 600      | Watts | \$6.90             | \$4,140         |
| 6                  |   |          |       |                    |                 |
| 7                  |   |          |       |                    |                 |
| 8                  | 2" Fittings at Spring Box                 | 1        | L.S.  | \$250.00           | \$250           |
| 9                  | 2" HDPE-SDR7 Pump to Storage Tank         | 2,200    | LF    | \$6.00             | \$13,200        |
| 10                 | 2000 Gallon Storage Tank                  | 1        | Each  | \$2,500.00         | \$2,500         |
| 11                 | 2" HDPE Tank Overflow Line                | 50       | LF    | \$4.00             | \$200           |
| 12                 | WaterTrough & Appurtenances               | 4        | Each  | \$1,400.00         | \$5,600         |
| 13                 | WaterTrough Piping, Fittings and Mounting | 4        | Each  | \$1,000.00         | \$4,000         |
| 14                 | 2" HDPE SDR 11 Trough Supply Lines        | 10,600   | LF    | \$4.00             | \$42,400        |
| 15                 | Final Grading                             | 1        | L.S.  | \$1,000.00         | \$1,000         |
| 16                 | Reseeding                                 | 5,000    | SF    | \$0.10             | \$500           |
| 17                 | Fence                                     | 300      | L.F.  | \$2.00             | \$600           |
|                    |   |          |       |                    |                 |
|                    |   |          |       |                    |                 |
|                    |   |          |       |                    |                 |
|                    |   |          |       |                    |                 |
|                    |   |          |       |                    |                 |
|                    |   |          |       |                    |                 |
|                    |   |          |       |                    |                 |
|                    |   |          |       | Construction Total | \$85,670        |

| Construction Permits                            | \$500              |
|---|--------------------|
| Performance Bond                                | \$900              |
| Insurance                                       | \$500              |
| 15% O&P   | \$12,851           |
| Subtotal 1                                      | \$14,751           |
| Subtotal 2                                      | \$100,421          |
| Construction Engineering @ 10% of Subtotal #2   | \$10,042           |
| Subtotal 3                                      | \$110,463          |
| Contingency @ 15% of Subtotal #3                | \$16,569           |
| Total Construction Cost                         | \$127,032          |
|   | ¢10.102            |
| Preparation of Final Designs and Specifications | \$10,163           |
| Permitting @ 5% of Project Cost                 | \$0,352<br>\$5.091 |
| Eegal @ 4% OF Project Cost                      | \$3,081            |
| Total Project Cost                              | \$156.627          |
| · • • • • • • • • • • • • • • • • • • •         | ,,.                |



#### Bear River Watershed Study Level I UPLAND WATER DEVELOPMENT Engineer's Opinion of Probable Construction Costs

SUNRISE ENGINEERING

 Owner/Operator
 BLM

 Site Name
 Medicine Butte

 Type Of Project
 Solar Well and Trough

 Notes/Description
 Project 9

Location: 41.367473N, -110.962528W (well)

INCIDENTAL PROJECT COSTS

Description: This site located about 2.5 miles east of the intersection of Highway 89 and Cromton Road, is a BLM administered upland area. Potential water may be had by drilling a well in this upland area.

Proposed Project: The project includes installation of a solar well along the ridge at a point that could be accessed by a rig. A short pipeline and trough would complete the project.

| CONSTRU |  |          |       |                    |            |
|---------|--|----------|-------|--------------------|------------|
| ltom #  | Description                                | Quantity | Unit  | Unit Cost          | Total Cost |
| 1       | Mobilization                               | Quantity |       | ¢E 000 00          | 101a1 C031 |
| 2       |  | 200      | L.S.  | \$5,000.00         | \$5,000    |
| 2       | Pump Tost                                  | 14       |       | \$360.00           | \$20,100   |
| 3       | Pump Equipment                             | 14       |       | \$200.00           | \$3,040    |
| 4       | Fullip Equipment                           | 0.7      |       | \$1,000.00         | \$1,120    |
| 5       |  | 800      | walls | \$6.90             | \$5,520    |
| 7       |  |          |       |                    |            |
| 8       | 2" Fittings at Spring Box                  | 1        | L.S.  | \$250.00           | \$250      |
| 9       | 2" HDPE Well Line to Trough                | 100      | LF    | \$4.00             | \$400      |
| 10      | 2000 Gallon Storage Tank                   | -        | Each  | \$4,000.00         | \$0        |
| 11      | 2" HDPE Trough Overflow Line               | 50       | LF    | \$4.00             | \$200      |
| 12      | Water Trough & Appurtenances               | 3        | Each  | \$1,400.00         | \$4,200    |
| 13      | Water Trough Piping, Fittings and Mounting | 3        | Each  | \$1,000.00         | \$3,000    |
| 14      |  |          |       |                    |            |
| 15      | Final Grading                              | 1        | L.S.  | \$1,000.00         | \$1,000    |
| 16      | Reseeding                                  | 1,000    | SF    | \$0.10             | \$100      |
| 17      | Fence around Solar Panel and Well          | 100      | L.F.  | \$2.00             | \$200      |
|         |  |          |       |                    |            |
|         |  |          |       |                    |            |
|         |  |          |       |                    |            |
|         |  |          |       |                    |            |
|         |  |          |       |                    |            |
|         |  |          |       | Construction Total | \$50,730   |

| Construction Permits  | \$300  |
|---|--|
| Performance Bond  | \$600  |
| Insurance   | \$300  |
| 15% O&P   | \$7,610  |
| Subtotal 1  | \$8,810  |
|   |  |
|   |  |
| Subtotal 2  | \$59,540                                       |
| Subtotal 2  | \$59,540                                       |
| Subtotal 2 Construction Engineering @ 10% of Subtotal #2                  | <b>\$59,540</b><br>\$5,954                     |
| Subtotal 2<br>Construction Engineering @ 10% of Subtotal #2               | <b>\$59,540</b><br>\$5,954                     |
| Subtotal 2<br>Construction Engineering @ 10% of Subtotal #2<br>Subtotal 3 | <b>\$59,540</b><br>\$5,954<br><b>\$65,493</b>  |
| Subtotal 2<br>Construction Engineering @ 10% of Subtotal #2<br>Subtotal 3 | \$ <b>59,540</b><br>\$5,954<br><b>\$65,493</b> |

Contingency @ 15% of Subtotal #3 \$9,824

Total Construction Cost \$75,317

| Preparation of Final Designs and Specifications | \$6,025  |
|---|----------|
| Permitting @ 5% of Project Cost                 | \$3,766  |
| Legal @ 4% of Project Cost                      | \$3,013  |
| Well Location Study                             | \$8,000  |
| Total Project Cost                              | \$96,121 |


SUNRISE ENGINEERING

# Owner/Operator BLM Site Name Section 29 Spring Develoment and Fencing Type Of Project Spring & Trough Notes/Description Project 10

Location: 41.776326N, -110.834169W

INCIDENTAL PROJECT COSTS

Description: This site is located in the bottom of a well watered draw on BLM property about three miles south of HWY 30 (Twin Creek). The spring could provide a good source of water if developed and furnished with a trough. The spring will also benefit from fencing protection.

Proposed Project: The project includes excavation of the spring to install a spring box. A 500' pipeline will convey flows downgradient from the spring collection box to a trough. The fenced area will be larger than a typical spring to encompase the spring site.

| CONSTRU | ICTION COSTS                                      |          |      |                    |            |
|---------|---|----------|------|--------------------|------------|
|         |   |          |      |                    |            |
| Item #  | Description                                       | Quantity | Unit | Unit Cost          | Total Cost |
| 1       | Mobilization                                      | 1        | L.S. | \$1,200.00         | \$1,200    |
| 2       | Excavation for New Spring Box and Collection Pipe | 15       | CY   | \$150.00           | \$2,250    |
| 3       | Trench Geotextile Drain Filter                    | 25       | SY   | \$20.00            | \$500      |
| 4       | Trench Backfill w/Native Material                 | 10       | CY   | \$36.00            | \$360      |
| 5       | 4" Trench Collection Pipe                         | 20       | LF   | \$8.00             | \$160      |
| 6       | Spring Box  | 1        | Each | \$900.00           | \$900      |
| 7       | 2" Fittings at Spring Box                         | 1        | L.S. | \$250.00           | \$250      |
| 8       | 2" HDPE Spring Line to Trough                     | 500      | LF   | \$4.00             | \$2,000    |
| 9       |   |          |      |                    |            |
| 10      | 2" HDPE Spring Overflow Line                      | 50       | LF   | \$4.00             | \$200      |
| 11      | WaterTrough & Appurtenances                       | 1        | Each | \$1,400.00         | \$1,400    |
| 12      | WaterTrough Piping, Fittings and Mounting         | 1        | Each | \$1,000.00         | \$1,000    |
| 13      | Final Grading                                     | 1        | L.S. | \$200.00           | \$200      |
| 14      | Reseeding   | 3,000    | SF   | \$0.10             | \$300      |
| 15      | Fence   | 400      | L.F. | \$2.00             | \$800      |
|         |   |          |      |                    |            |
|         |   |          |      |                    |            |
|         |   |          |      | Construction Total | \$11.520   |

 Construction Permits
 \$100

 Performance Bond
 \$200

 Insurance
 \$100

 15% O&P
 \$1,728

 Subtotal 1
 \$2,128

#### Subtotal 2 \$13,648

- Construction Engineering @ 10% of Subtotal #2 \$1,365
  - Subtotal 3 \$15,013
  - Contingency @ 15% of Subtotal #3 \$2,252
    - Total Construction Cost \$17,265
- Preparation of Final Designs and Specifications \$1,381 Permitting @ 5% of Project Cost \$863 Legal @ 4% of Project Cost \$691 Environmental Study \$5,000 Total Project Cost **\$25,200**





#### Owner/Operator BLM Site Name Type Of Project Notes/Description Project 11

2002 Rock Creek Allotment Plan Spring & Trough Redevelopment

Location: 41.854766N, -110.904537W (Gooseberry Spring) 41.922996N, -110.857412W (Long Draw Spring) 41.898895N, -110.768282W (Cook Spring) 41.909185N, -110.764015W (Herder Spring)

41.919385N, -110.696032W (Fossil Canyon Spring)

Description: These sites are currently developed (to an unknown underground configuration) springs with troughs. The spring production and site conditions however warrant redevelopment. These sites were identified in the 2002 Rock Creek Allotment Managment Plan Revision as needing work at that time.

Proposed Project: The proposed projects would include redevelopment of the spring box and collection lines, a new 2" HDPE line, a new trough, and fencing around the spring and any overflow area. For these springs, the spring to trough distance is 300' to 500'.

| Item # | Description                                       | Quantity | Unit | Unit Cost          | Total Cost |
|--------|---|----------|------|--------------------|------------|
| 1      | Mobilization                                      | 1        | L.S. | \$1,200.00         | \$1,200    |
| 2      | Excavation for New Spring Box and Collection Pipe | 15       | CY   | \$150.00           | \$2,250    |
| 3      | Trench Geotextile Drain Filter                    | 25       | SY   | \$20.00            | \$500      |
| 4      | Trench Backfill w/Native Material                 | 10       | CY   | \$36.00            | \$360      |
| 5      | 4" Trench Collection Pipe                         | 20       | LF   | \$8.00             | \$160      |
| 6      | Spring Box  | 1        | Each | \$900.00           | \$900      |
| 7      | 2" Fittings at Spring Box                         | 1        | L.S. | \$250.00           | \$250      |
| 8      | 2" HDPE Spring Line to Trough                     | 500      | LF   | \$4.00             | \$2,000    |
| 9      |   |          |      |                    |            |
| 10     | 2" HDPE Spring Overflow Line                      | 50       | LF   | \$4.00             | \$200      |
| 11     | WaterTrough & Appurtenances                       | 1        | Each | \$1,400.00         | \$1,400    |
| 12     | WaterTrough Piping, Fittings and Mounting         | 1        | Each | \$1,000.00         | \$1,000    |
| 13     | Final Grading                                     | 1        | L.S. | \$200.00           | \$200      |
| 14     | Reseeding   | 200      | SF   | \$1.00             | \$200      |
| 15     | Fence   | 300      | L.F. | \$2.00             | \$600      |
|        |   |          |      |                    |            |
|        |   |          |      |                    |            |
|        |   |          |      |                    |            |
|        |   |          |      |                    |            |
|        |   |          |      |                    |            |
|        |   |          |      |                    |            |
|        |   |          |      |                    |            |
|        |   |          |      | Construction Total | \$11,220   |

| \$100    | Construction Permits                            |
|----------|---|
| \$200    | Performance Bond                                |
| \$100    | Insurance                                       |
| \$1,683  | 15% O&P   |
| \$2,083  | Subtotal 1                                      |
| \$13,303 | Subtotal 2                                      |
| \$1,330  | Construction Engineering @ 10% of Subtotal #2   |
| \$14,633 | Subtotal 3                                      |
| \$2,195  | Contingency @ 15% of Subtotal #3                |
| \$16,828 | Total Construction Cost                         |
| \$1,346  | Preparation of Final Designs and Specifications |
| \$841    | Permitting @ 5% of Project Cost                 |
| \$673    | Legal @ 4% of Project Cost                      |
| \$5,000  | Environmental Study                             |
| \$24,689 | Total Project Cost                              |

#### ESTIMATED CONSTRUCTION COST PER SPRING SITE

INCIDENTAL PROJECT COSTS





 Owner/Operator
 Clark

 Site Name
 Pasture Well

 Type Of Project
 Well

 Notes/Description
 Name:

 North Pasture Well
 Location: 42.013383N, -110.933213W

Description: This site has been identified as a potential well site. A solar setup is a possible power source however the operator intends on using a portable generator. Troughs will be located nearby in three different pastures.

Proposed Project:

- 1) Install well
- 2) Overflow from upper trough while pump is running routed to Mau Ditch
- 3) Install troughs and automatic fill valves on troughs

# ITEMIZED COST ESTIMATE

#### CONSTRUCTION COSTS Quantity Unit Cost Item # Description Unit Total Cost New Well 250 L.F. \$87.00 \$21,750 1 2 Pump and Pump Control Panel LS \$3,000.00 \$3,000 3 1 4 2" HPDE Piping 1,000 L.F. \$4.00 \$4,000 3" Overflow Piping L.F. 5 175 \$6.00 \$1,050 6 Pressure Transducer 1 Each \$1,220.00 \$1,220 7 Trough 3 Each \$1,934.00 \$5,802 Solar Power Source 8 1,400 Watts \$6.90 \$9,660 **Total Construction Cost** \$46,482

INCIDENTAL PROJECT COSTS

| Construction Permits<br>Performance Bond<br>Insurance<br>15% O&P<br><b>Subtotal</b> | \$300<br>\$500<br>\$300<br>\$7,000<br><b>\$8,100</b> |
|---|--|
| Subtotal  | \$54,582   |
| Construction Engineering @ 10% of Subtotal #1                                       | \$5,458  |
| Subtotal  | \$60,040   |
| Contingency @ 15% of Subtotal #2  | \$9,006  |
| Total Construction Cost   | \$69,046   |
| Contingency @ 15% of Subtotal #2  | \$10,357   |
| Total Construction Cost   | \$79,403   |
| Preparation of Final Designs and Specifications                                     | \$6,352  |
| Permitting @ 5% of Project Cost   | \$3,970  |
| Legal @ 4% of Project Cost  | \$3,176<br>\$8,000                                   |
| Total Project Cost  | \$100,902  |

# SITE PHOTOS: Pasture Well







 Owner/Operator
 Carter

 Site Name
 Spring Development on Chappel Creek

 Type Of Project
 Spring & Pipeline

 Notes/Description
 Project 2

Location: 42.185296N, -110.870277W Spring 42.179912N, -110.881514W Trough

Description: This site is located east of the old ranch on Chappel Creek and could serve as a water source for the ranch and corrals.

Proposed Project: The project includes excavation of the spring to install a spring box and 20' of collection pipe. A 4,250' pipeline will convey flows downgradient from the spring collection box to a trough and the ranch house. Backflow prevention will be provided on the trough. The pipline will be buried.

| CONSTRU | ICTION COSTS                                      |          |      |                    |            |
|---------|---|----------|------|--------------------|------------|
|         |   |          |      |                    |            |
| Item #  | Description                                       | Quantity | Unit | Unit Cost          | Total Cost |
| 1       | Mobilization                                      | 1        | L.S. | \$2,500.00         | \$2,500    |
| 2       | Excavation for New Spring Box and Collection Pipe | 15       | CY   | \$150.00           | \$2,250    |
| 3       | Import Rock Backfill                              | 10       | SY   | \$20.00            | \$200      |
| 4       | Impervious HDPE liner (60 mill)                   | 25       | SY   | \$15.00            | \$375      |
| 5       | Trench Backfill w/Native Material                 | 5        | CY   | \$36.00            | \$180      |
| 6       | 4" Trench Collection Pipe                         | 20       | LF   | \$8.00             | \$160      |
| 7       | Spring Box  | 1        | Each | \$900.00           | \$900      |
| 8       | 2" Fittings at Spring Box                         | 1        | L.S. | \$250.00           | \$250      |
| 9       | 2" HDPE Spring Line to Trough                     | 4,250    | LF   | \$4.00             | \$17,000   |
| 10      |   |          |      |                    |            |
| 11      | 2" HDPE Spring/Tank Overflow Line                 | 50       | LF   | \$4.00             | \$200      |
| 12      | WaterTrough & Appurtenances                       | 1        | Each | \$1,400.00         | \$1,400    |
| 13      | WaterTrough Piping, Fittings and Mounting         | 1        | Each | \$1,000.00         | \$1,000    |
| 14      | Final Grading                                     | 1        | L.S. | \$200.00           | \$200      |
| 15      | Reseeding   | 100      | SF   | \$0.25             | \$25       |
| 16      | Fencing   | 100      | L.F. | \$2.00             | \$200      |
|         |   |          |      |                    |            |
|         |   |          |      |                    |            |
|         |   | •        |      | Construction Total | \$26.840   |

#### INCIDENTAL PROJECT COSTS

| \$200    | Construction Permits                          |
|----------|---|
| \$300    | Performance Bond                              |
| \$200    | Insurance                                     |
| \$4,026  | 15% O&P                                       |
| \$4,726  | Subtotal 1                                    |
|          |   |
| \$31,566 | Subtotal 2                                    |
|          |   |
| \$3,157  | Construction Engineering @ 10% of Subtotal #2 |
| 40.000   |   |
| \$34,723 | Subtotal 3                                    |
| \$5 208  | Contingency @ 15% of Subtotal #3              |
| ŞJ,208   | contingency @ 15% of Subtotal #5              |
| \$39,931 | Total Construction Cost                       |

- Preparation of Final Designs and Specifications \$3,194
  - Permitting @ 5% of Project Cost \$1,997
    - Legal @ 4% of Project Cost \$1,597 Environmental Study \$0
      - Total Project Cost \$46,719

# SITE PHOTOS: Spring Development on Chappel Creek

Spring site in relation to Road 232







Owner/OperatorCarterSite NameStock Trough near Center PivotType Of ProjectTroughNotes/DescriptionProject 3

Location: 42.134103N, -110.874911W

Description: This site is located on the southern edge of a center pivot system and presently contains a trough that overflows eastward.

Proposed Project: The project includes extension of the supply pipeline to a new trough site and installation of a new trough.

| CONSTRU | CTION COSTS                               |          |      |                    |            |
|---------|---|----------|------|--------------------|------------|
|         |   |          |      |                    |            |
| Item #  | Description                               | Quantity | Unit | Unit Cost          | Total Cost |
| 1       | Mobilization                              | 1        | L.S. | \$2,500.00         | \$2,500    |
| 2       | 2" HDPE Spring Line to Trough             | 400      | LF   | \$4.00             | \$1,600    |
| 3       |   |          |      |                    |            |
| 4       | 2" HDPE Spring/Tank Overflow Line         | 50       | LF   | \$4.00             | \$200      |
| 5       | WaterTrough & Appurtenances               | 1        | Each | \$1,400.00         | \$1,400    |
| 6       | WaterTrough Piping, Fittings and Mounting | 1        | Each | \$1,000.00         | \$1,000    |
| 7       | Final Grading                             | 1        | L.S. | \$200.00           | \$200      |
| 8       | Reseeding                                 | 100      | SF   | \$0.25             | \$25       |
| 9       |   |          |      |                    |            |
| 10      |   |          |      |                    |            |
| 11      |   |          |      |                    |            |
| 12      |   |          |      |                    |            |
| 13      |   |          |      |                    |            |
| 14      |   |          |      |                    |            |
| 15      |   |          |      |                    |            |
| 16      |   |          |      |                    |            |
|         |   |          |      |                    |            |
|         |   |          |      |                    |            |
|         |   |          |      | Construction Total | \$6,925    |

| \$100    | Construction Permits                          |
|----------|---|
| \$100    | Performance Bond                              |
| \$100    | Insurance                                     |
| \$1,039  | 15% O&P                                       |
| \$1,339  | Subtotal 1                                    |
|          |   |
| \$8,264  | Subtotal 2                                    |
| \$826    | Construction Engineering @ 10% of Subtotal #2 |
| \$9,090  | Subtotal 3                                    |
| \$1,364  | Contingency @ 15% of Subtotal #3              |
| \$10,454 | Total Construction Cost                       |
|          |   |

| Preparation of Final Designs and Specifications | \$836    |
|---|----------|
| Permitting @ 5% of Project Cost                 | \$523    |
| Legal @ 4% of Project Cost                      | \$418    |
| Environmental Study                             | \$0      |
| Total Project Cost                              | \$12,231 |

# SITE PHOTOS: Stock Trough near Center Pivot







 Owner/Operator
 Cornia

 Site Name
 Trough and Pipeline

 Type Of Project
 Upland Water

 Notes/Description
 Project 2

Location: 42.118956N, -110.949222W Trough

Description: This trough site is located about 200 feet above an exisitng water souce and one half mile away. This upland area lacks a natural water source.

Proposed Project: The proposed project will install a 2,950' - 2" HPDE pipeline from the spring source to the trough site and construct a trough.

| CONSTRU | CTION COSTS  |          |       |                  |            |
|---------|--|----------|-------|------------------|------------|
|         |  |          |       |                  |            |
| Item #  | Description  | Quantity | Unit  | Unit Cost        | Total Cost |
| 1       | Mobilization                                       | 1        | L.S.  | \$2,500.00       | \$2,500    |
| 2       | 2" Fittings and Pipe to Connect at Existing Source | 1        | L.S.  | \$250.00         | \$250      |
| 3       | 2" HDPE Line to Trough                             | 2,950    | LF    | \$4.00           | \$11,800   |
| 4       |  |          |       |                  |            |
| 5       |  |          |       |                  |            |
| 6       | WaterTrough & Appurtenances                        | 1        | Each  | \$1,400.00       | \$1,400    |
| 7       | WaterTrough Piping, Fittings and Mounting          | 1        | Each  | \$1,000.00       | \$1,000    |
| 8       | Final Grading                                      | 1        | L.S.  | \$200.00         | \$200      |
| 9       | Pump Vault   | 1        | L.S.  | \$3,000.00       | \$3,000    |
| 10      | Pump Equipment                                     | 0.5      | HP    | \$1,600.00       | \$800      |
| 11      | Solar Power Source                                 | 400      | Watts | \$6.90           | \$2,760    |
| 12      | Fence  | 150      | L.F.  | \$12.00          | \$1,800    |
| 13      |  |          |       |                  |            |
| 14      |  |          |       |                  |            |
| 15      |  |          |       |                  |            |
|         |  |          | Co    | nstruction Total | \$25,510   |

#### INCIDENTAL PROJECT COSTS

| Construction Permits | \$200   |
|----------------------|---------|
| Performance Bond     | \$300   |
| Insurance            | \$200   |
| 15% O&P              | \$3.827 |

- Subtotal 1 \$4,527
- Subtotal 2 \$30,037
- Construction Engineering @ 10% of Subtotal #2 \$3,004
  - Subtotal 3 \$33,040
  - Contingency @ 15% of Subtotal #3 \$4,956
    - Total Construction Cost \$37,996
- Preparation of Final Designs and Specifications \$3,040 Permitting @ 5% of Project Cost \$1,900 Legal @ 4% of Project Cost \$1,520 Environmental Study \$4,000 Total Project Cost \$48,456

# SITE PHOTOS: Trough and Pipeline

Aerial View of Trough and Pipeline







 Owner/Operator
 Circle B

 Site Name
 Tom Goure North Pond Spring

 Type Of Project
 Spring & Trough

 Notes/Description
 Project 1

Location: 42.043461N, -110.833831W Spring 42.042308N, -110.811443W Trough

Description: This spring site is located on a high wooded east facing draw at an elevation of about 6820'. The spring reliably supplies a pond and has excess capacity that could be developed. By pipeline, water could be conveyed from this spring to the east side of this valley.

Proposed Project: The project includes hand excavation of the spring to install a spring box with minimal collection pipe. A 6700' 2" pipeline will convey flows downgradient from the spring collection box across the valley to a trough placed at an elevation of about 7,300'. The expected flow capacity of the pipeline will be about 10 gpm to the troughs.

| Item # | Description                                       | Quantity | Unit | Unit Cost          | Total Cost |
|--------|---|----------|------|--------------------|------------|
| 1      | Mobilization                                      | 1        | L.S. | \$3,500.00         | \$3,500    |
| 2      | Excavation for New Spring Box and Collection Pipe | 3        | CY   | \$200.00           | \$600      |
| 3      | Import Rock Backfill                              | 2        | CY   | \$300.00           | \$600      |
| 4      | Impervious HDPE liner (60 mill)                   | 5        | SY   | \$15.00            | \$75       |
| 5      | Trench Backfill w/Native Material (by hand)       | 3        | CY   | \$100.00           | \$300      |
| 6      | 4" Trench Collection Pipe                         | -        | LF   | \$8.00             | \$0        |
| 7      | Spring Box  | 1        | Each | \$900.00           | \$900      |
| 8      | 2" Fittings at Spring Box                         | 1        | L.S. | \$250.00           | \$250      |
| 9      | 2" HDPE Spring Line to Trough                     | 6,700    | LF   | \$4.00             | \$26,800   |
| 10     | Excavated Pipe Road Crossing                      | 30       | LF   | \$20.00            | \$600      |
| 11     | 2" HDPE Spring/ Overflow Line                     | 50       | LF   | \$4.00             | \$200      |
| 12     | WaterTrough & Appurtenances                       | 2        | Each | \$1,400.00         | \$2,800    |
| 13     | WaterTrough Piping, Fittings and Mounting         | 2        | Each | \$1,000.00         | \$2,000    |
| 14     | Final Grading                                     | 1        | L.S. | \$200.00           | \$200      |
| 15     | Reseeding   | 10,000   | SF   | \$0.10             | \$1,000    |
| 16     | Fencing   | 100      | L.F. | \$2.00             | \$200      |
|        |   |          |      |                    |            |
|        |   |          |      |                    |            |
|        |   |          |      | Construction Total | \$40,025   |

#### CONSTRUCTION COSTS

| INCIDENTAL | PROJECT | COSTS |
|------------|---------|-------|
|            |         |       |

| \$300   | Construction Permits  |
|---|---|
| \$500   | Performance Bond  |
| \$300   | Insurance   |
| \$6,004   | 15% O&P   |
| \$7,104   | Subtotal 1  |
| \$47,129  | Subtotal 2  |
| \$4,713   | Construction Engineering @ 10% of Subtotal #2   |
| \$51,842  | Subtotal 3  |
| \$7,776   | Contingency @ 15% of Subtotal #3  |
| \$59,618  | Total Construction Cost   |
| \$4 760   | Prenaration of Final Decigns and Specifications   |
| \$2,981   | Permitting @ 5% of Project Cost   |
| \$51,842<br>\$7,776<br>\$59,618<br>\$4,769<br>\$2,981 | Subtotal 3<br>Contingency @ 15% of Subtotal #3<br>Total Construction Cost<br>Preparation of Final Designs and Specifications<br>Permitting @ 5% of Project Cost |

|                            | 72,JUI  |
|----------------------------|---------|
| Legal @ 4% of Project Cost | \$2,385 |

Environmental Study \$0

Total Project Cost \$69,753

### SITE PHOTOS: Tom Goure North Pond Spring







# Owner/OperatorCircle BSite NameSprings in Sections 32 and 5Type Of ProjectSpringNotes/DescriptionProject 2

Location: 42.022709N, -110.833593W. (Spring) 42.023337N, -110.832657W. (Trough) 42.008332N, -110.834516W (Spring) 42.008609N, -110.833369W (Trough)

Description: These spring sites are traditional watering locations found below the crest of the ridge between Rock Creek and the Bear River. The sites are supplied by snow melt and encourage cattle to remain high on the ridge. Trampling of the springs is a concern, but before fencing can occur, the water must be conveyed to a suitable access site.

Proposed Project: The springs would be developed by installation of a slotted 4" collection pipe that runs to a 100 gallon +/- collection vault. From the vault, a two inch diameter poly line will covey the flows to a trough located away from the spring in a drier area. The trough supply will be controlled by a float valve and excess water from the spring will spill at the spring into a fenced protected overflow area. The troughs will be within 200' to 350' of the springs.

# ITEMIZED COST ESTIMATE CONSTRUCTION COSTS

| Item # | Description                                       | Quantity | Unit    | Unit Cost           | Total Cost |
|--------|---|----------|---------|---------------------|------------|
| 1      | Mobilization                                      | 1        | L.S.    | \$1,000.00          | \$1,000    |
| 2      | Excavation for New Spring Box and Collection Pipe | 6        | CY      | \$100.00            | \$600      |
| 3      | Trench Geotextile Drain Filter                    | 6        | SY      | \$20.00             | \$120      |
| 4      | Trench Backfill w/Native Material                 | 6        | CY      | \$36.00             | \$216      |
| 5      | 4" Trench Collection Pipe                         | 20       | LF      | \$4.00              | \$80       |
| 6      | Spring Box  | 1        | Each    | \$900.00            | \$900      |
| 7      | 2" Fittings at Spring Box                         | 1        | L.S.    | \$250.00            | \$250      |
| 8      | 2" HDPE Spring Overflow Line                      | 10       | LF      | \$4.00              | \$40       |
| 9      | WaterTrough & Appurtenances                       | 1        | Each    | \$1,400.00          | \$1,400    |
| 10     | WaterTrough Piping, Fittings and Mounting         | 1        | Each    | \$1,000.00          | \$1,000    |
| 11     | 2" HDPE SDR 11 Trough Supply Lines                | 230      | LF      | \$4.00              | \$920      |
| 12     | Final Grading                                     | 1        | L.S.    | \$1,000.00          | \$1,000    |
| 13     | Reseeding   | 100      | SF      | \$0.10              | \$10       |
| 14     | Fence   | 230      | L.F.    | \$2.00              | \$460      |
| 15     |   |          |         |                     |            |
| 16     |   |          |         |                     |            |
| 17     |   |          |         |                     |            |
|        |   |          | Subtota | Spring Construction | \$7,996    |

#### INCIDENTAL PROJECT COSTS

| Construction Permits | \$100<br>\$100            |
|----------------------|---------------------------|
|                      | \$100                     |
| Subtotal 1           | \$1,200<br><b>\$1,500</b> |

#### Subtotal 2 \$9,496

Construction Engineering @ 10% of Subtotal #2 \$950

#### Subtotal 3 \$10,446

Contingency @ 15% of Subtotal #3 \$1,567

#### Total Construction Cost \$12,012

- Preparation of Final Designs and Specifications \$721
  - Permitting @ 5% of Project Cost \$360
    - Legal @ 4% of Project Cost \$480
      - Environmental Study \$0
        - Total Project Cost \$13,574



INCIDENTAL PROJECT COSTS



| Owner/Operator    | Circle B                   |
|-------------------|----------------------------|
| Site Name         | Section 33 on Rock Creek   |
| Type Of Project   | Pump, Pipeline, and Trough |
| Notes/Description | Project 3                  |

Location: 42.014592N, -110.821297W (well) 42.010293N, -110.810774W (Trough) 42.022692N, -110.810999W (Trough)

Description: This site on the east side of Rock Creek (tribuary to Twin Creek) has limited water along broad upland slope. Potential water sources exist in Rock Creek 200 vertical feet below the upper trough site. At this location Rock Creek has a riparian area suitable for migratory birds. A solar pump may be able to enhance the habitat.

Proposed Project: The project includes installation of a solar pump in the bottom near Rock Creek, pipeline and several troughs would complete the project. The pump would fill the troughs to their shutoff points beginning with the lowest trough. Once troughs are full, excess water would be released into the riparian area.

| CONSTRU |   |          |       |                    |            |
|---------|---|----------|-------|--------------------|------------|
| Item #  | Description                               | Quantity | Unit  | Unit Cost          | Total Cost |
| 1       | Mobilization                              | 1        | L.S.  | \$8.000.00         | \$8.000    |
| 2       | New 6" Well                               | 50       | L.F.  | \$87.00            | \$4,350    |
| 3       | Pump Test                                 | 14       | Hours | \$260.00           | \$3,640    |
| 4       | Pump Equipment                            | 0.6      | HP    | \$1,600.00         | \$960      |
| 5       | Solar Power Source                        | 500      | Watts | \$6.90             | \$3,450    |
| 6       |   |          |       |                    |            |
| 7       |   |          |       |                    |            |
| 8       | 2" Fittings at Pump                       | 1        | L.S.  | \$250.00           | \$250      |
| 9       | 2" HDPE-SDR11 Well to Troughs             | 7,140    | LF    | \$4.00             | \$28,560   |
| 10      |   |          |       |                    |            |
| 11      | 2" HDPE Overflow Line                     | 50       | LF    | \$4.00             | \$200      |
| 12      | WaterTrough & Appurtenances               | 3        | Each  | \$1,400.00         | \$4,200    |
| 13      | WaterTrough Piping, Fittings and Mounting | 3        | Each  | \$1,000.00         | \$3,000    |
| 14      |   |          |       |                    |            |
| 15      | Final Grading                             | 1        | L.S.  | \$2,000.00         | \$2,000    |
| 16      | Reseeding                                 | 3,000    | SF    | \$0.10             | \$300      |
| 17      | Fence                                     | 1,100    | L.F.  | \$2.00             | \$2,200    |
|         |   |          |       |                    |            |
|         |   |          |       |                    |            |
|         |   |          |       |                    |            |
|         |   |          |       |                    |            |
|         |   |          |       |                    |            |
|         |   |          |       |                    |            |
|         |   |          |       |                    |            |
|         |   |          |       | Construction Total | \$61.110   |

| Construction Permits                          | \$400    |
|---|----------|
| Performance Bond                              | \$700    |
| Insurance                                     | \$400    |
| 15% O&P                                       | \$9,167  |
| Subtotal 1                                    | \$10,667 |
| Subtotal 2                                    | \$71,777 |
| Construction Engineering @ 10% of Subtotal #2 | \$7,178  |
| Subtotal 3                                    | \$78,954 |
| Contingency @ 15% of Subtotal #3              | \$11,843 |
| Total Construction Cost                       | \$90,797 |
|   |          |

| Preparation of Final Designs and Specifications | \$7,264   |
|---|-----------|
| Permitting @ 5% of Project Cost                 | \$4,540   |
| Legal @ 4% of Project Cost                      | \$3,632   |
| Well Location Study                             | \$8,000   |
| Total Project Cost                              | \$114,233 |



SUNRISE ENGINEERING

Owner/Operator Circle B Site Name Spring in Section 17 Type Of Project Spring Notes/Description Project 4

> Location: 41.978450N, -110.841728W. (Spring) 41.978420N, -110.840815W (Trough)

Description: This spring site is located west of Rock Creek about midway to the top of the ridge. It is a dry upland area and this spring with another spring 500 feet south are the only sources of water for about 2/3 of a mile in any direction.

Proposed Project: The north spring would be developed by installation of a slotted 4" collection pipe that runs to a 100 gallon +/- collection vault. From the vault, a two inch diameter poly line will covey the flows to a trough located away from the spring in a drier area. The trough supply will be controlled by a float valve and excess water from the spring will spill at the spring into a fenced protected overflow area.

|        |   | 1        |         |                     |            |
|--------|---|----------|---------|---------------------|------------|
| Item # | Description                                       | Quantity | Unit    | Unit Cost           | Total Cost |
| 1      | Mobilization                                      | 1        | L.S.    | \$1,000.00          | \$1,000    |
| 2      | Excavation for New Spring Box and Collection Pipe | 6        | CY      | \$100.00            | \$600      |
| 3      | Trench Geotextile Drain Filter                    | 6        | SY      | \$20.00             | \$120      |
| 4      | Trench Backfill w/Native Material                 | 6        | CY      | \$36.00             | \$216      |
| 5      | 4" Trench Collection Pipe                         | 20       | LF      | \$8.00              | \$160      |
| 6      | Spring Box  | 1        | Each    | \$900.00            | \$900      |
| 7      | 2" Fittings at Spring Box                         | 1        | L.S.    | \$250.00            | \$250      |
| 8      | 2" HDPE Spring Overflow Line                      | 10       | LF      | \$4.00              | \$40       |
| 9      | WaterTrough & Appurtenances                       | 1        | Each    | \$1,400.00          | \$1,400    |
| 10     | WaterTrough Piping, Fittings and Mounting         | 1        | Each    | \$1,000.00          | \$1,000    |
| 11     | 2" HDPE SDR 11 Trough Supply Lines                | 230      | LF      | \$4.00              | \$920      |
| 12     | Final Grading                                     | 1        | L.S.    | \$1,000.00          | \$1,000    |
| 13     | Reseeding   | 100      | SF      | \$0.10              | \$10       |
| 14     | Fence   | 230      | L.F.    | \$2.00              | \$460      |
| 15     |   |          |         |                     |            |
| 16     |   |          |         |                     |            |
| 17     |   |          |         |                     |            |
|        |   |          | Subtota | Spring Construction | \$8,076    |

#### ITEMIZED COST ESTIMATE CONSTRUCTION COSTS

INCIDENTAL PROJECT COSTS

| \$100    | Construction Permits                            |
|----------|---|
| \$100    | Performance Bond                                |
| \$100    | Insurance                                       |
| \$1,300  | 15% O&P   |
| \$1,600  | Subtotal 1                                      |
| \$9,676  | Subtotal 2                                      |
| \$968    | Construction Engineering @ 10% of Subtotal #2   |
| \$10,644 | Subtotal 3                                      |
| \$1,597  | Contingency @ 15% of Subtotal #3                |
| \$12,240 | Total Construction Cost                         |
| \$734    | Preparation of Final Designs and Specifications |
| \$367    | Permitting @ 5% of Project Cost                 |
| \$490    | Legal @ 4% of Project Cost                      |
| \$0      | Environmental Study                             |

**Total Project Cost** \$13,831



#### Bear River Watershed Study Level I UPLAND WATER DEVELOPMENT Engineer's Opinion of Probable Construction Costs

 Owner/Operator
 Circle B

 Site Name
 Spring in Section 20 near Reservoir

 Type Of Project
 Spring

 Notes/Description
 Project 5



Location: 41.963727N, -110.831314W. (Spring) 41.963705N, -110.831909W (Trough)

Description: This spring is located on a Bench above Rock Creek and on the opposite side of a fence. It is central to a large upland area in need of water.

Proposed Project: The spring would be developed by installation of a slotted 4" collection pipe that runs to a 100 gallon +/- collection vault. From the vault, a two inch diameter poly line will covey the flows to a trough located away from the spring in a drier area. The trough supply will be controlled by a float valve and excess water from the spring will spill at the spring into a fenced protected overflow area.

| Item # | Description                                       | Quantity | Unit    | Unit Cost           | Total Cost |
|--------|---|----------|---------|---------------------|------------|
| 1      | Mobilization                                      | 1        | L.S.    | \$1,000.00          | \$1,000    |
| 2      | Excavation for New Spring Box and Collection Pipe | 6        | CY      | \$100.00            | \$600      |
| 3      | Trench Geotextile Drain Filter                    | 6        | SY      | \$20.00             | \$120      |
| 4      | Trench Backfill w/Native Material                 | 6        | CY      | \$36.00             | \$216      |
| 5      | 4" Trench Collection Pipe                         | 20       | LF      | \$8.00              | \$160      |
| 6      | Spring Box  | 1        | Each    | \$900.00            | \$900      |
| 7      | 2" Fittings at Spring Box                         | 1        | L.S.    | \$250.00            | \$250      |
| 8      | 2" HDPE Spring Overflow Line                      | 10       | LF      | \$4.00              | \$40       |
| 9      | WaterTrough & Appurtenances                       | 1        | Each    | \$1,400.00          | \$1,400    |
| 10     | WaterTrough Piping, Fittings and Mounting         | 1        | Each    | \$1,000.00          | \$1,000    |
| 11     | 2" HDPE SDR 11 Trough Supply Lines                | 170      | LF      | \$4.00              | \$680      |
| 12     | Final Grading                                     | 1        | L.S.    | \$1,000.00          | \$1,000    |
| 13     | Reseeding   | 200      | SF      | \$0.10              | \$20       |
| 14     | Fence   | 350      | L.F.    | \$2.00              | \$700      |
| 15     |   |          |         |                     |            |
| 16     |   |          |         |                     |            |
| 17     |   |          |         |                     |            |
|        |   |          | Subtota | Spring Construction | \$8,086    |

# ITEMIZED COST ESTIMATE

#### INCIDENTAL PROJECT COSTS

| Construction Permits  | \$100   |
|---|---|
| Performance Bond  | \$100   |
| Insurance   | \$100   |
| 15% O&P   | \$1,300   |
| Subtotal 1  | \$1,600   |
| Subtotal 2  | \$9,686   |
| Construction Engineering @ 10% of Subtotal #2   | \$969   |
|   |   |
| Subtotal 3  | \$10,655  |
| Subtotal 3 Contingency @ 15% of Subtotal #3   | <b>\$10,655</b><br>\$1,598                        |
| Subtotal 3<br>Contingency @ 15% of Subtotal #3<br>Total Construction Cost   | \$10,655<br>\$1,598<br>\$12,253                   |
| Subtotal 3<br>Contingency @ 15% of Subtotal #3<br>Total Construction Cost<br>Preparation of Final Designs and Specifications                                    | \$10,655<br>\$1,598<br>\$12,253<br>\$735          |
| Subtotal 3<br>Contingency @ 15% of Subtotal #3<br>Total Construction Cost<br>Preparation of Final Designs and Specifications<br>Permitting @ 5% of Project Cost | \$10,655<br>\$1,598<br>\$12,253<br>\$735<br>\$368 |

Legal @ 4% of Project Cost \$490

Environmental Study \$0 Total Project Cost \$13,846

# SITE PHOTOS: Spring in Section 20 near Reservoir







Owner/Operator Etcheverry Site Name Spring Development on Bourne Creek Spring & Pipeline Type Of Project Notes/Description **Project 2** 

Location: 42.331624N, -110.887852W Spring

Description: This spring site waters a small area on the hilside about 800 feet (horizontal) and 200 feet above the stream. It could be used as a source for a water trough to draw cattle away from the stream bottom and also provide water in late fall.

Proposed Project: The proposed project would develop the spring and route water to a trough located between the road and the spring.

| Item # | Description                                       | Quantity | Unit               | Unit Cost  | Total Cost |
|--------|---|----------|--------------------|------------|------------|
| 1      | Mobilization                                      | 1        | L.S.               | \$1,200.00 | \$1,200    |
| 2      | Excavation for New Spring Box and Collection Pipe | 15       | CY                 | \$150.00   | \$2,250    |
| 3      | Import Rock Backfill                              | 10       | SY                 | \$20.00    | \$200      |
| 4      | Impervious HDPE liner (60 mill) 25                |          | SY                 | \$15.00    | \$375      |
| 5      | Trench Backfill w/Native Material                 | 5        | CY                 | \$36.00    | \$180      |
| 6      | 4" Trench Collection Pipe                         | 20       | LF                 | \$8.00     | \$160      |
| 7      | Spring Box  | 1        | Each               | \$900.00   | \$900      |
| 8      | 2" Fittings at Spring Box                         | 1        | L.S.               | \$250.00   | \$250      |
| 9      | 2" HDPE Spring Line to Trough                     | 100      | LF                 | \$6.00     | \$600      |
| 10     |   |          |                    |            |            |
| 11     | 3" HDPE Spring/Tank Overflow Line                 | 200      | LF                 | \$6.00     | \$1,200    |
| 12     | WaterTrough & Appurtenances                       | 1        | Each               | \$1,400.00 | \$1,400    |
| 13     | WaterTrough Piping, Fittings and Mounting         | 1        | Each               | \$1,000.00 | \$1,000    |
| 14     | Final Grading                                     | 1        | L.S.               | \$200.00   | \$200      |
| 15     | Reseeding   | 100      | SF                 | \$0.25     | \$25       |
| 16     | Fencing   | 100      | L.F.               | \$12.00    | \$1,200    |
|        |   |          |                    |            |            |
|        |   |          |                    |            |            |
|        |   |          | Construction Total |            | \$11,140   |

INCIDENTAL PROJECT COSTS

- Construction Permits \$100 Performance Bond \$200 Insurance \$100 15% O&P \$1,671 Subtotal 1 \$2,071
  - Subtotal 2 \$13,211
- Construction Engineering @ 10% of Subtotal #2 \$1,321
  - Subtotal 3 \$14,532
  - Contingency @ 15% of Subtotal #3 \$2,180
    - **Total Construction Cost** \$16,712
- Preparation of Final Designs and Specifications \$1,337 Permitting @ 5% of Project Cost \$836 Legal @ 4% of Project Cost \$668 **Environmental Study** \$0
  - **Total Project Cost** \$19,553

#### CONSTRUCTION COSTS

# SITE PHOTOS: Spring Development on Bourne Creek

Approximate Spring site





Owner/OperatorNateSite NameTrough 1Type Of ProjectTrough RehabilitationNotes/DescriptionProject 2



Location: 42.178022N, -111.007650W

Description: This project is to complete a tire type water trough by installation of a drain and overflow pipe in the existing concrete floor of the trough.

Proposed Project: The project includes demoliton of a portion of the floor, excavation and tunneling to install overflow and drain.

| CONSTRU | CTION COSTS  |          |      |                    |            |
|---------|--|----------|------|--------------------|------------|
|         |  |          |      |                    |            |
| Item #  | Description  | Quantity | Unit | Unit Cost          | Total Cost |
| 1       | Mobilization   | 1        | LS   | \$300.00           | \$300      |
| 2       | Partial Floor Demolition and Tunneling of Pipe Routes      | 1        | LS   | \$800.00           | \$800      |
| 3       | Drainage Pipe and Overflow Pipe Materials and Installation | 1        | LS   | \$600.00           | \$600      |
| 4       | Drain Valve and Valve Box                                  | 1        | LS   | \$125.00           | \$125      |
| 5       | Hydrophylic Water Stop                                     | 1        | LS   | \$40.00            | \$40       |
| 6       | Concrete Replacement                                       | 0.5      | CY   | \$300.00           | \$150      |
| 7       |  |          |      |                    |            |
| 8       |  |          |      |                    |            |
| 9       |  |          |      |                    |            |
|         |  |          |      | Construction Total | \$2,015    |

INCIDENTAL PROJECT COSTS Construction Permits Performance Bond Insurance 15% O&P Subtotal 1

Subtotal 2\$2,317Construction Engineering @ 10% of Subtotal #2\$0Subtotal 3\$2,317Contingency @ 15% of Subtotal #3\$348Total Construction Cost\$2,665

\$0

\$0

\$0

\$302

\$302

 Preparation of Final Designs and Specifications
 \$213

 Permitting @ 5% of Project Cost
 \$0

 Legal @ 4% of Project Cost
 \$0

 Environmental Study
 \$0

 Total Project Cost
 \$2,878

# SITE PHOTOS: Trough 1

Existing trough with concrete floor





### Bear River Watershed Study Level I UPLAND WATER DEVELOPMENT Engineer's Opinion of Probable Construction Costs

 Owner/Operator
 Roberts

 Site Name
 Troughs at Calf Pen

 Type Of Project
 Pipe & Trough

 Notes/Description
 Project 1



Location: Near Town of Cokeville WWTP

INCIDENTAL PROJECT COSTS

Description: The cattle are presently watered with sloughs that are drying out in recent years. In order to utilize the land a more reliable source of water is sought.

Proposed Project: The project includes connection to the Town of Cokeville water system to supply water to three troughs via a 1350' 1/1/2" waterline.

| CONSTRU | CTION COSTS                                  |          |       |                    |            |
|---------|--|----------|-------|--------------------|------------|
|         |  |          |       |                    |            |
| Item #  | Description                                  | Quantity | Unit  | Unit Cost          | Total Cost |
| 1       | Mobilization                                 | 1        | L.S.  | \$2,500.00         | \$2,500    |
| 2       | Connection to Town of Cokeville Water System | 1        | L.S.  | \$3,500.00         | \$3,500    |
| 3       | 1-1/2" HDPE pipeline open cut (5' cover)     | 2,300    | LF    | \$4.00             | \$9,200    |
| 4       |  |          |       |                    |            |
| 5       | 3" Drain Pipe                                | 100      | LF    | \$5.00             | \$500      |
| 6       | Heavy Brass Fittings                         | 1        | L.S.  | \$250.00           | \$250      |
| 7       | 1" HDPE Line to Trough                       | 30       | LF    | \$8.00             | \$240      |
| 8       | WaterTrough & Appurtenances                  | 3        | Each  | \$1,500.00         | \$4,500    |
| 9       | WaterTrough Piping, Fittings and Mounting    | 3        | Each  | \$400.00           | \$1,200    |
| 10      | Final Grading                                | 1        | L.S.  | \$500.00           | \$500      |
| 11      | Reseeding                                    | 0.3      | Acres | \$2,500.00         | \$625      |
| 12      | Fence - Restoration                          | 50       | L.F.  | \$4.00             | \$200      |
|         |  |          |       |                    |            |
|         |  |          |       |                    |            |
|         |  |          |       |                    |            |
|         |  |          |       |                    |            |
|         |  |          |       |                    |            |
|         |  |          |       |                    |            |
|         |  |          |       |                    |            |
|         |  |          |       | Construction Total | \$23.215   |

| \$200    | Construction Permits                            |
|----------|---|
| \$300    | Performance Bond                                |
| \$200    | Insurance                                       |
| \$3,482  | 15% O&P   |
| \$4,182  | Subtotal 1                                      |
| \$27,397 | Subtotal 2                                      |
| \$2,740  | Construction Engineering @ 10% of Subtotal #2   |
| \$30,137 | Subtotal 3                                      |
| \$4,521  | Contingency @ 15% of Subtotal #3                |
| \$34,658 | Total Construction Cost                         |
| \$1,000  | Preparation of Final Designs and Specifications |
| \$0      | Permitting @ 5% of Project Cost                 |
| \$0      | Legal @ 4% of Project Cost                      |

- Environmental Study \$0
  - Total Project Cost \$35,658




 Owner/Operator
 Thornock

 Site Name
 Dry Hollow

 Type Of Project
 Well

 Notes/Description
 Project 1

Location: 41.0971351N, -111.038580W

Description: This site has been identified as a potential well site. At present an earthen basin exists near the site and there are no other improvements. A solar setup is likely the best power source provided the required lift is within range of a solar pump. The well be located on privately owned ground.

Proposed Project:

- 1) Install well and a 1500 gallon storage tank
- 2) Install level controls on the storage tank to operate a solar powered well
- 3) Install trough and automatic fill valve on trough

## ITEMIZED COST ESTIMATE

#### CONSTRUCTION COSTS

| Item # | Description                       | Quantity | Unit  | Unit Cost  | Total Cost |
|--------|-----------------------------------|----------|-------|------------|------------|
| 1      | New Well                          | 250      | L.F.  | \$87.00    | \$21,750   |
| 2      |                                   |          |       |            |            |
| 3      | 1500 Gallon Storage Tank on Skids | 1,500    | Gal.  | \$2.00     | \$3,000    |
| 4      | Tank Appurtenances & Hardware     | 1        | LS    | \$1,750.00 | \$1,750    |
| 5      | Pump and Pump Control Panel       | 1        | LS    | \$3,000.00 | \$3,000    |
| 6      |                                   |          |       |            |            |
| 7      | Pressure Transducer               | 1        | Each  | \$1,220.00 | \$1,220    |
| 8      | Trough                            | 1        | Each  | \$1,934.00 | \$1,934    |
| 9      | Solar Power Source                | 1,400    | Watts | \$6.90     | \$9,660    |
|        |                                   |          |       |            |            |
|        |                                   |          |       |            |            |

Total Construction Cost \$42,314

#### INCIDENTAL PROJECT COSTS

| Construction Permits                            | \$300    |
|---|----------|
| Performance Bond                                | \$500    |
| Insurance                                       | \$300    |
| 15% O&P   | \$6.347  |
| Subtotal 1                                      | \$7,447  |
| Subtotal 2                                      | \$49,761 |
| Construction Engineering @ 10% of Subtotal #2   | \$4,976  |
| Subtotal 3                                      | \$54,737 |
| Contingency @ 15% of Subtotal #3                | \$8,211  |
| Total Construction Cost                         | \$62,948 |
| Preparation of Final Designs and Specifications | \$5,036  |
| Permitting @ 5% of Project Cost                 | \$3,147  |
|   |          |

- Legal @ 4% of Project Cost \$2,518
  - Environmental Study \$5,000
    - Total Project Cost \$78,649

SITE PHOTOS: Dry Hollow





Owner/Operator Thornock Dry Hollow #2 Site Name Type Of Project Well Notes/Description Project 2

Location: 42.06938N, -111.044608W

Description: This site near the Idaho-Wyoming State line is on a State Section and has been identified as a potential well site. A dry spring at this location is a likely source of ground water. A solar setup is likely the best power source provided the required lift is within range of a solar pump.

Proposed Project:

- 1) Install well and a 1500 gallon storage tank
- 2) Install level controls on the storage tank to operate a solar powered well
- 3) Install trough and automatic fill valve on trough

# ITEMIZED COST ESTIMATE

#### CONSTRUCTION COSTS Item # Description Quantity Unit Unit Cost Total Cost New Well 250 1 L.F. \$87.00 \$21,750 2 1500 Gallon Storage Tank on Skids Gal. 3 1,500 \$2.00 \$3,000 Tank Appurtenances & Hardware LS 4 1 \$1,750.00 \$1,750 5 Pump and Pump Control Panel 1 LS \$3,000.00 \$3,000 6 Pressure Transducer Each \$1,220.00 \$1,220 7 1 8 Trough 1 Each \$1,934.00 \$1,934 Solar Power Source Watts 9 1,400 \$6.90 \$9,660

\$42,314 **Total Construction Cost** 

INCIDENTAL PROJECT COSTS

| Construction Bormits                            | ¢200     |
|---|----------|
| Construction Permits                            | \$500    |
| Performance Bond                                | \$500    |
| Insurance                                       | \$300    |
| 15% O&P   | \$6,400  |
| Subtotal 1                                      | \$7,500  |
| Subtotal 2                                      | \$49,814 |
| Construction Engineering @ 10% of Subtotal #1   | \$4,981  |
| Subtotal 3                                      | \$54,795 |
| Contingency @ 15% of Subtotal #2                | \$8,219  |
| Total Construction Cost                         | \$63,015 |
| Contingency @ 15% of Subtotal #2                | \$9,452  |
| Total Construction Cost                         | \$72,467 |
| Preparation of Final Designs and Specifications | \$5,797  |
| Pormitting @ 5% of Project Cost                 | ¢2 672   |

- Permitting @ 5% of Project Cost \$3,623
  - Legal @ 4% of Project Cost \$2,899 Environmental Study \$5,000
    - **Total Project Cost** \$89,786

# SITE PHOTOS: Dry Hollow #2







 Owner/Operator
 Julian

 Site Name
 Ellis Mountain Reservoir

 Type Of Project
 Reservoir Dredging

 Notes/Description
 Project 1

Location: 41.812915N, -110.908610W

INCIDENTAL PROJECT COSTS

Description: This upland reservoir site has a surface of about 0.20 acres held behind a small dam about 150' long x 5' tall. It has silted full of sediment over the years and now has a greatly reduced capacity.

Proposed Project: The project includes excavation of the sediment behind the dam to a depth of 0' to 4' deep. The removed sediment will be placed on the downstream face of the dam.

| CONSTRUCTION COSTS |   |          |       |                   |            |
|--------------------|---|----------|-------|-------------------|------------|
|                    |   |          |       |                   |            |
| Item #             | Description                               | Quantity | Unit  | Unit Cost         | Total Cost |
| 1                  | Mobilization                              | 1        | L.S.  | \$1,100.00        | \$1,100    |
| 2                  | Excavation and Hauling of Dried Sediment. | 600      | CY    | \$6.00            | \$3,600    |
| 3                  | Placement and Wheel Rolling of Sediment   | 600      | CY    | \$5.00            | \$3,000    |
| 4                  | Final Grading                             | 1        | L.S.  | \$2,000.00        | \$2,000    |
| 5                  | Reseeding Perimeter Slopes                | 0.2      | Acres | \$1,000.00        | \$200      |
|                    |   |          |       |                   |            |
|                    |   |          |       |                   |            |
|                    |   |          |       |                   |            |
|                    |   |          |       |                   |            |
|                    |   |          |       |                   |            |
|                    |   |          |       |                   |            |
|                    |   |          |       |                   |            |
|                    |   |          |       |                   |            |
|                    |   |          | Co    | onstruction Total | \$9,900    |
|                    |   |          |       |                   |            |

**Construction Permits** \$100 Performance Bond \$100 Insurance \$100 15% O&P \$1,485 Subtotal 1 \$1,785 \$11,685 Subtotal 2 Construction Engineering @ 10% of Subtotal #2 \$1,169 Subtotal 3 \$12,854 Contingency @ 15% of Subtotal #3 \$1,928 **Total Construction Cost** \$14,782 Preparation of Final Designs and Specifications \$1,183 Permitting @ 5% of Project Cost \$739 Legal @ 4% of Project Cost \$591 **Environmental Study** \$0 Total Project Cost \$17,294

#### SITE PHOTOS: Ellis Mountain Reservoir

Aerial Photograph of Ellis Mountain Reservoir





SUNRISE ENGINEERING

 Owner/Operator
 Julian

 Site Name
 Badland Reservoir

 Type Of Project
 Reservoir Dredging

 Notes/Description
 Project 2

Location: 41.739759N, -110.660982W

INCIDENTAL PROJECT COSTS

Description: This upland reservoir site has a surface of about 0.05 acres held behind a small ill defined dam. It has silted full of sediment over the years and now has no capacity.

Proposed Project: The project includes excavation of the sediment to create a pond 0' to 3' deep. The removed sediment will be placed on the downstream face of the dam.

| CONSTRU | CTION COSTS                               |          |       |                    |            |
|---------|---|----------|-------|--------------------|------------|
|         |   |          |       |                    |            |
| Item #  | Description                               | Quantity | Unit  | Unit Cost          | Total Cost |
| 1       | Mobilization                              | 1        | L.S.  | \$1,000.00         | \$1,000    |
| 2       | Excavation and Hauling of dried sediment. | 160      | CY    | \$6.00             | \$960      |
| 3       | Placement and wheel rolling of sediment   | 160      | CY    | \$5.00             | \$800      |
| 4       | Final Grading                             | 1        | L.S.  | \$400.00           | \$400      |
| 5       | Reseeding perimeter slopes                | 0.1      | Acres | \$1,000.00         | \$100      |
| 6       |   |          |       |                    |            |
|         |   |          |       |                    |            |
|         |   |          |       |                    |            |
|         |   |          |       |                    |            |
|         |   |          |       |                    |            |
|         |   |          |       |                    |            |
|         |   |          |       |                    |            |
|         |   |          |       |                    |            |
|         | •   |          |       | Construction Total | \$3,260    |

| Construction Permits                            | \$100   |
|---|---------|
| Performance Bond                                | \$100   |
| Insurance                                       | \$100   |
| 15% O&P   | \$489   |
| Subtotal 1                                      | \$789   |
| Subtotal 2                                      | \$4,049 |
| Construction Engineering @ 10% of Subtotal #2   | \$405   |
| Subtotal 3                                      | \$4,454 |
| Contingency @ 15% of Subtotal #3                | \$668   |
| Total Construction Cost                         | \$5,122 |
| Prenaration of Final Designs and Specifications | \$410   |
| Permitting @ 5% of Project Cost                 | \$256   |
| Legal @ 4% of Project Cost                      | \$205   |
| Environmental Study                             | \$0     |
| Environmental Study                             | ΨŪ      |

Total Project Cost \$5,993

## SITE PHOTOS: Badland Reservoir

Aerial Photograph of Badland Reservoir





 Owner/Operator
 Julian

 Site Name
 Silted Reservoir

 Type Of Project
 Reservoir Dredging

 Notes/Description
 Project 3



Location: 41.737735N, -110.667805W

Description: This upland reservoir site has a surface of about 0.1 acres held behind a small ill defined dam. It has silted full of sediment over the years and now has no capacity.

Proposed Project: The project includes excavation of the sediment to create a pond 0' to 3' deep. The removed sediment will be placed on the downstream face of the dam.

| CONSTRUCTION COSTS |   |          |         |            |            |
|--------------------|---|----------|---------|------------|------------|
|                    |   |          |         |            |            |
| Item #             | Description                               | Quantity | Unit    | Unit Cost  | Total Cost |
| 1                  | Mobilization                              | 1        | L.S.    | \$1,000.00 | \$1,000    |
| 2                  | Excavation and Hauling of Dried Sediment. | 300      | CY      | \$6.00     | \$1,800    |
| 3                  | Placement and Wheel Rolling of Sediment   | 300      | CY      | \$5.00     | \$1,500    |
| 4                  | Final Grading                             | 1        | L.S.    | \$400.00   | \$400      |
| 5                  | Reseeding Perimeter Slopes                | 0.1      | Acres   | \$1,000.00 | \$100      |
| 6                  |   |          |         |            |            |
|                    |   |          |         |            |            |
|                    |   |          |         |            |            |
|                    |   |          |         |            |            |
|                    |   |          |         |            |            |
|                    |   |          |         |            |            |
|                    |   |          |         |            |            |
|                    |   |          |         |            |            |
| Construction Total |   |          | \$4,800 |            |            |

INCIDENTAL PROJECT COSTS

| Construction Permits                            | \$100   |
|---|---------|
| Performance Bond                                | \$100   |
| Insurance                                       | \$100   |
| 15% O&P   | \$720   |
| Subtotal 1                                      | \$1,020 |
| Subtotal 2                                      | \$5,820 |
| Construction Engineering @ 10% of Subtotal #2   | \$582   |
| Subtotal 3                                      | \$6,402 |
| Contingency @ 15% of Subtotal #3                | \$960   |
| Total Construction Cost                         | \$7,362 |
| Prenaration of Final Designs and Specifications | \$589   |
| Permitting @ 5% of Project Cost                 | \$368   |
| Legal @ 4% of Project Cost                      | \$294   |
| Environmental Study                             | \$0     |
| Total Project Cost                              | \$8,614 |

### SITE PHOTOS: Silted Reservoir

Aerial Photograph of Silted Reservoir





Owner/OperatorJulianSite NameUnnamed ReservoirType Of ProjectReservoir DredgingNotes/DescriptionProject 4

Location: 41.784729N, -110.857128W

CONSTRUCTION COSTS

Description: This upland reservoir site has a surface of about 0.1 acres held behind a small ill defined dam. It has silted full of sediment over the years and now has no capacity.

Proposed Project: The project includes excavation of the sediment to create a pond 0' to 3' deep. The removed sediment will be placed on the downstream face of the dam.

| 001101110 |   |          |       |                    |            |
|-----------|---|----------|-------|--------------------|------------|
|           |   |          |       |                    |            |
| Item #    | Description                               | Quantity | Unit  | Unit Cost          | Total Cost |
| 1         | Mobilization                              | 1        | L.S.  | \$1,000.00         | \$1,000    |
| 2         | Excavation and Hauling of Dried Sediment. | 300      | CY    | \$6.00             | \$1,800    |
| 3         | Placement and Wheel Rolling of Sediment   | 300      | CY    | \$5.00             | \$1,500    |
| 4         | Final Grading                             | 1        | L.S.  | \$400.00           | \$400      |
| 5         | Reseeding Perimeter Slopes                | 0.1      | Acres | \$1,000.00         | \$100      |
| 6         |   |          |       |                    |            |
|           |   |          |       |                    |            |
|           |   |          |       |                    |            |
|           |   |          |       |                    |            |
|           |   |          |       |                    |            |
|           |   |          |       |                    |            |
|           |   |          |       |                    |            |
|           |   |          |       |                    |            |
|           |   |          |       | Construction Total | \$4,800    |

INCIDENTAL PROJECT COSTS

| Construction Permits                            | \$100   |
|---|---------|
| Performance Bond                                | \$100   |
| Insurance                                       | \$100   |
| 15% O&P   | \$720   |
| Subtotal 1                                      | \$1,020 |
| Subtotal 2                                      | \$5,820 |
| Construction Engineering @ 10% of Subtotal #2   | \$582   |
| Subtotal 3                                      | \$6,402 |
| Contingency @ 15% of Subtotal #3                | \$960   |
| Total Construction Cost                         | \$7,362 |
|   | 6500    |
| Preparation of Final Designs and Specifications | \$589   |
| Permitting @ 5% of Project Cost                 | \$368   |
| Legal @ 4% of Project Cost                      | \$294   |
| Environmental Study                             | \$0     |
| Total Project Cost                              | \$8,614 |

**SUNRISE** 

ENGINEERING





 Owner/Operator
 Julian

 Site Name
 Ant Hill Reservoir

 Type Of Project
 Reservoir Grubbing and Bentonite Treatment

 Notes/Description
 Project 5

Location: 41.785873N, -110.864600W

CONSTRUCTION COSTS

Description: This upland reservoir site has a surface of about 0.1 to 0.2 acres (depending on water level) held behind a small excavated dam. It experiences high infiltration and never maintains its pool.

Proposed Project: The project includes grading and grubbing behind the dam followed by installation of a bentonite liner estimated at 12" thick.

| CONSTRUC |   |          |       |                    |            |
|----------|---|----------|-------|--------------------|------------|
|          |   |          |       |                    |            |
| Item #   | Description                                       | Quantity | Unit  | Unit Cost          | Total Cost |
| 1        | Mobilization                                      | 1        | L.S.  | \$1,000.00         | \$1,000    |
| 2        | Grading and Grubbing                              | 0.2      | Acres | \$6,000.00         | \$1,200    |
| 3        | Placement and Wheel Rolling of Imported Bentonite | 270      | CY    | \$25.00            | \$6,750    |
| 4        | Final Grading                                     | 1        | L.S.  | \$800.00           | \$800      |
| 5        | Reseeding Perimeter Slopes                        | 0.1      | Acres | \$1,000.00         | \$100      |
| 6        |   |          |       |                    |            |
|          |   |          |       |                    |            |
|          |   |          |       |                    |            |
|          |   |          |       |                    |            |
|          |   |          |       |                    |            |
|          |   |          |       |                    |            |
|          |   |          |       |                    |            |
|          |   |          |       |                    |            |
|          |   |          |       | Construction Total | \$9,850    |

INCIDENTAL PROJECT COSTS

| Construction Permits                            | \$100       |
|---|-------------|
| Performance Bond                                | \$100       |
| Insurance                                       | \$100       |
| 15% O&P   | \$1,478     |
| Subtotal 1                                      | \$1,778     |
| Subtotal 2                                      | \$11,628    |
| Construction Engineering @ 10% of Subtotal #2   | \$1,163     |
| Subtotal 3                                      | \$12,790    |
| Contingency @ 15% of Subtotal #3                | \$1,919     |
| Total Construction Cost                         | \$14,709    |
| Prenaration of Final Designs and Specifications | \$1 177     |
| Permitting @ 5% of Project Cost                 | \$735       |
| Legal @ 4% of Project Cost                      | \$588       |
| Environmental Study                             | \$0.<br>\$0 |

Total Project Cost

\$17,209

### SITE PHOTOS: Ant Hill Reservoir

Aerial Photograph of Ant Hill Reservoir







 Owner/Operator
 Julian

 Site Name
 Ant Hill Reservoir West

 Type Of Project
 Reservoir Grubbing and Bentonite Treatment

 Notes/Description
 Project 6

Location: 41.790972N, -110.876960W

CONSTRUCTION COSTS

Description: This upland reservoir site has a surface of about 0.1 acres held behind a small excavated dam. It experiences high infiltration and never maintains its pool.

Proposed Project: The project includes grading and grubbing behind the dam followed by installation of a bentonite liner estimated at 12" thick.

| CONSTRO |   |          |       |                    |            |
|---------|---|----------|-------|--------------------|------------|
|         |   |          |       |                    |            |
| Item #  | Description                                       | Quantity | Unit  | Unit Cost          | Total Cost |
| 1       | Mobilization                                      | 1        | L.S.  | \$1,000.00         | \$1,000    |
| 2       | Grading and Grubbing                              | 0.2      | Acres | \$6,000.00         | \$1,200    |
| 3       | Placement and wheel rolling of imported Bentonite | 320      | CY    | \$25.00            | \$8,000    |
| 4       | Final Grading                                     | 1        | L.S.  | \$800.00           | \$800      |
| 5       | Reseeding perimeter slopes                        | 0.1      | Acres | \$1,000.00         | \$100      |
| 6       |   |          |       |                    |            |
|         |   |          |       |                    |            |
|         |   |          |       |                    |            |
|         |   |          |       |                    |            |
|         |   |          |       |                    |            |
|         |   |          |       |                    |            |
|         |   |          |       |                    |            |
|         |   |          |       |                    |            |
|         |   |          |       | Construction Total | \$11,100   |

INCIDENTAL PROJECT COSTS

| Construction Permits                            | \$100        |
|---|--------------|
| Performance Bond                                | \$200        |
| Insurance                                       | \$100        |
| 15% O&P   | \$1.665      |
| Subtotal 1                                      | \$2,065      |
| Subtotal 2                                      | \$13,165     |
| Construction Engineering @ 10% of Subtotal #2   | \$1,317      |
| Subtotal 3                                      | \$14,482     |
| Contingency @ 15% of Subtotal #3                | \$2,172      |
| Total Construction Cost                         | \$16,654     |
| Prenaration of Final Designs and Specifications | \$1 332      |
| Permitting @ 5% of Project Cost                 | \$833        |
| Legal @ 4% of Project Cost                      | \$666        |
| Environmental Study                             | \$000<br>\$0 |

Environmental Study \$0 Total Project Cost \$19,485

### SITE PHOTOS: Ant Hill Reservoir West

Aerial Photograph of Ant West Hill Reservoir (actual site may be on right of photo)







Owner/Operator Julian Site Name School Section Reservoir Repair Type Of Project Reservoir Grubbing and Embankment Repair Notes/Description Project 7

Location: 41.808028N, -110.921967W

Description: This upland reservoir site was breached by overtopping and erosion. The breach area to be repaired is about 3' deep and 40' wide. The pool area is about 0.6 acres and shallow at 2' to 3' deep.

Proposed Project: The project includes reconstruction of the breached embankment section and installation of a depressed high water outlet with rip-rap.

| CONSTRUCTION COSTS |   |          |       |                    |            |  |
|--------------------|---|----------|-------|--------------------|------------|--|
| Item #             | Description                                     | Quantity | Unit  | Unit Cost          | Total Cost |  |
| 1                  | Mobilization                                    | 1        | L.S.  | \$1,500.00         | \$1,500    |  |
| 2                  | Grading and Grubbing                            | 0.2      | Acres | \$6,000.00         | \$1,200    |  |
| 3                  | Imported Embankment Material                    | 100      | CY    | \$20.00            | \$2,000    |  |
| 4                  | Placement and Compaction of Imported Embankment | 100      | CY    | \$8.00             | \$800      |  |
| 5                  | Final Grading                                   | 1        | L.S.  | \$800.00           | \$800      |  |
| 6                  | Reseeding Perimeter Slopes                      | 0.1      | Acres | \$1,000.00         | \$100      |  |
| 7                  | Imported 6" rock rip-rap                        | 20       | CY    | \$45.00            | \$900      |  |
|                    |   |          |       |                    |            |  |
|                    |   |          |       |                    |            |  |
|                    |   |          |       |                    |            |  |
|                    |   |          |       |                    |            |  |
|                    |   |          |       |                    |            |  |
|                    |   |          |       |                    |            |  |
|                    |   |          |       |                    |            |  |
|                    |   |          |       | Construction Total | \$7,300    |  |

INCIDENTAL PROJECT COSTS

| \$100    | Construction Permits                            |
|----------|---|
| \$100    | Performance Bond                                |
| \$100    | Insurance                                       |
| \$1,095  | 15% O&P   |
| \$1,395  | Subtotal 1                                      |
| \$8,695  | Subtotal 2                                      |
| \$870    | Construction Engineering @ 10% of Subtotal #2   |
| \$9,565  | Subtotal 3                                      |
| \$1,435  | Contingency @ 15% of Subtotal #3                |
| \$10,999 | Total Construction Cost                         |
| \$880    | Prenaration of Final Designs and Specifications |
| \$550    | Permitting @ 5% of Project Cost                 |
| \$440    | Legal @ 4% of Project Cost                      |

**Environmental Study** \$0

**Total Project Cost** \$12,869 Aerial Photograph of School Section Reservoir







Owner/Operator Julian Site Name Windy Reservoir Type Of Project Reservoir Grubbing and Embankment Repair Notes/Description Project 8

Location: 41.794142N, -110.927081W

Description: This upland reservoir site was breached by overtopping and erosion. The breach area to be repaired is about 2' deep and 35' wide. The pool area is about 0.25 acres and shallow at 0' to 1' deep.

Proposed Project: The project includes reconstruction of the breached embankment section and installation of a depressed high water outlet with rip-rap.

| CONSTRU | ICTION COSTS                                    |          |       |                    |            |
|---------|---|----------|-------|--------------------|------------|
|         |   |          |       |                    |            |
| Item #  | Description                                     | Quantity | Unit  | Unit Cost          | Total Cost |
| 1       | Mobilization                                    | 1        | L.S.  | \$1,500.00         | \$1,500    |
| 2       | Grading and Grubbing                            | 0.2      | Acres | \$6,000.00         | \$1,200    |
| 3       | Imported Embankment Material                    | 40       | CY    | \$20.00            | \$800      |
| 4       | Placement and Compaction of Imported Embankment | 40       | CY    | \$8.00             | \$320      |
| 5       | Final Grading                                   | 1        | L.S.  | \$800.00           | \$800      |
| 6       | Reseeding Perimeter Slopes                      | 0.1      | Acres | \$1,000.00         | \$100      |
| 7       | Imported 6" rock rip-rap                        | 10       | CY    | \$45.00            | \$450      |
|         |   |          |       |                    |            |
|         |   |          |       |                    |            |
|         |   |          |       |                    |            |
|         |   |          |       |                    |            |
|         |   |          |       |                    |            |
|         |   |          |       |                    |            |
|         |   |          |       |                    |            |
|         |   |          |       | Construction Total | \$5,170    |

INCIDENTAL PROJECT COSTS

| \$100   | Construction Permits                          |
|---------|---|
| \$100   | Performance Bond                              |
| \$100   | Insurance                                     |
| \$776   | 15% O&P                                       |
| \$1,076 | Subtotal 1                                    |
| \$6,246 | Subtotal 2                                    |
| \$625   | Construction Engineering @ 10% of Subtotal #2 |
| \$6,870 | Subtotal 3                                    |
| \$1,031 | Contingency @ 15% of Subtotal #3              |
| \$7,901 | Total Construction Cost                       |
| 4.000   |   |

- Preparation of Final Designs and Specifications \$632
  - Permitting @ 5% of Project Cost \$395 Legal @ 4% of Project Cost

    - \$316 Environmental Study \$0
      - **Total Project Cost** \$9,244

# SITE PHOTOS: Windy Reservoir

Aerial Photograph of Windy Reservoir







| Julian                        |
|-------------------------------|
| Smith Reservoir Outlet Repair |
| Reservoir outlet repair       |
| Project 9                     |
|                               |

Location: 41.742620N, -110.675337W

Description: This upland reservoir site is a constructed 9' to 10' embankment, 700' long creating a 24 acre pool area. The outlet pipe is non-functional and the upstream face of the dam is protected by car bodies.

Proposed Project: The project includes reconstruction of the outlet works with a new 24" pipe and gate. Additional rip rap protection is recommended for the top four feet of the upstream face and the high water outlet.

| CONSTRU | ICTION COSTS                                    |          |         |                    |            |
|---------|---|----------|---------|--------------------|------------|
| Itom #  | Description                                     | Quantitu | l la it | Linit Cost         | Tatal Cast |
| item#   | Description                                     | Quantity | Unit    | Unit Cost          | Total Cost |
| 1       | Mobilization                                    | 1        | L.S.    | \$4,000.00         | \$4,000    |
| 2       | Grading and Grubbing                            | 0.2      | Acres   | \$2,000.00         | \$400      |
| 3       | Imported Embankment Material                    | 100      | CY      | \$20.00            | \$2,000    |
| 4       | Placement and Compaction of Imported Embankment | 100      | CY      | \$8.00             | \$800      |
| 5       | Final Grading                                   | 1        | L.S.    | \$800.00           | \$800      |
| 6       | Reseeding perimeter slopes                      | 0.1      | Acres   | \$1,000.00         | \$100      |
| 7       | Imported 6" rock rip-rap                        | 100      | CY      | \$45.00            | \$4,500    |
| 8       | 24" Outlet Pipe                                 | 100      | L.F.    | \$45.00            | \$4,500    |
| 9       | 24" Slide Gate and Structure                    | 1        | L.S.    | \$3,500.00         | \$3,500    |
| 10      | Embankment reconstruction around outlet pipe    | 180      | CY      | \$40.00            | \$7,200    |
|         |   |          |         |                    |            |
|         |   |          |         |                    |            |
| L       |   | 1        |         | Construction Total | \$27.800   |

INCIDENTAL PROJECT COSTS

| Construction Permits                            | \$200    |
|---|----------|
| Performance Bond                                | \$300    |
| Insurance                                       | \$200    |
| 15% O&P   | \$4,170  |
| Subtotal 1                                      | \$4,870  |
| Subtotal 2                                      | \$32,670 |
| Construction Engineering @ 10% of Subtotal #2   | \$3,267  |
| Subtotal 3                                      | \$35,937 |
| Contingency @ 15% of Subtotal #3                | \$5,391  |
| Total Construction Cost                         | \$41,328 |
| Preparation of Final Designs and Specifications | \$3,306  |
| Permitting @ 5% of Project Cost                 | \$2,066  |
| Legal @ 4% of Project Cost                      | \$1,653  |

Environmental Study \$0

Total Project Cost \$48,353



Aerial Photograph of Smith Reservoir (note car bodies on crest of dam)





 Owner/Operator
 Julian

 Site Name
 Spring Development on Twin Creek South Fork Road Corrals

 Type Of Project
 Spring & Trough

 Notes/Description
 Project 11

Location: 41.711159N, -110.697683W

Description: This site is located near the corrals on South Fork of Twin Creeks. It is a site in need of fencing protection, development piping and a trough.

Proposed Project: The project includes excavation of the spring to install a spring box and 20' of collection pipe. A 50' pipeline will convey flows downgradient from the spring collection box to a trough.

| Item # | Description                                       | Quantity | Unit | Unit Cost                 | Total Cost |
|--------|---|----------|------|---------------------------|------------|
| 1      | Mobilization                                      | 1        | L.S. | \$1,000.00                | \$1,000    |
| 2      | Excavation for New Spring Box and Collection Pipe | 15       | CY   | \$150.00                  | \$2,250    |
| 3      | Import Rock Backfill                              | 10       | SY   | \$20.00                   | \$200      |
| 4      | Impervious HDPE liner (60 mill)                   | 25       | SY   | \$15.00                   | \$375      |
| 5      | Trench Backfill w/Native Material                 | 5        | CY   | \$36.00                   | \$180      |
| 6      | 4" Trench Collection Pipe                         | 20       | LF   | \$8.00                    | \$160      |
| 7      | Spring Box  | 1        | Each | \$900.00                  | \$900      |
| 8      | 2" Fittings at Spring Box                         | 1        | L.S. | \$250.00                  | \$250      |
| 9      | 2" HDPE Spring Line to Trough                     | 50       | LF   | \$4.00                    | \$200      |
| 10     |   |          |      |                           |            |
| 11     | 2" HDPE Spring/Tank Overflow Line                 | 50       | LF   | \$4.00                    | \$200      |
| 12     | WaterTrough & Appurtenances                       | 1        | Each | \$1,400.00                | \$1,400    |
| 13     | WaterTrough Piping, Fittings and Mounting         | 1        | Each | \$1,000.00                | \$1,000    |
| 14     | Final Grading                                     | 1        | L.S. | \$200.00                  | \$200      |
| 15     | Reseeding   | 100      | SF   | \$0.25                    | \$25       |
| 16     | Fencing   | 100      | L.F. | \$2.00                    | \$200      |
|        |   |          |      |                           |            |
|        |   |          |      |                           |            |
|        |   |          |      | <b>Construction Total</b> | \$8,540    |

#### INCIDENTAL PROJECT COSTS

| \$100    | Construction Permits                            |
|----------|---|
| \$100    | Performance Bond                                |
| \$100    | Insurance                                       |
| \$1,281  | 15% O&P   |
| \$1,581  | Subtotal 1                                      |
| \$10,121 | Subtotal 2                                      |
| \$1,012  | Construction Engineering @ 10% of Subtotal #2   |
| \$11,133 | Subtotal 3                                      |
| \$1,670  | Contingency @ 15% of Subtotal #3                |
| \$12,803 | Total Construction Cost                         |
| \$1.024  | Preparation of Final Designs and Specifications |
| \$640    | Permitting @ 5% of Project Cost                 |
| \$512    | Legal @ 4% of Project Cost                      |
|          | <u> </u>  |

- Environmental Study \$0
- Total Project Cost \$14,980

#### CONSTRUCTION COSTS

SITE PHOTOS: Spring Development on Twin Creek South Fork Road Corrals

Spring site in relation to corrals







 Owner/Operator
 Julian

 Site Name
 Foot Spring

 Type Of Project
 Spring & Trough

 Notes/Description
 Project 12

Location: 41.776944N, -110.767040W Spring 41.777023N, -110.764675W Trough

Description: This site located in a non descript canyon includes a spring that could be developed and protected by connecting it to a down gradient trough.

Proposed Project: The project includes excavation of the spring to install a spring box and 20' of collection pipe. A 650' pipeline will convey flows downgradient from the spring collection box to a trough.

| CONSTRUCTION COSTS |   |          |      |                    |            |  |
|--------------------|---|----------|------|--------------------|------------|--|
|                    |   |          |      |                    |            |  |
| Item #             | Description                                       | Quantity | Unit | Unit Cost          | Total Cost |  |
| 1                  | Mobilization                                      | 1        | L.S. | \$1,200.00         | \$1,200    |  |
| 2                  | Excavation for New Spring Box and Collection Pipe | 15       | CY   | \$150.00           | \$2,250    |  |
| 3                  | Import Rock Backfill                              | 10       | SY   | \$20.00            | \$200      |  |
| 4                  | Impervious HDPE liner (60 mill)                   | 25       | SY   | \$15.00            | \$375      |  |
| 5                  | Trench Backfill w/Native Material                 | 5        | CY   | \$36.00            | \$180      |  |
| 6                  | 4" Trench Collection Pipe                         | 20       | LF   | \$8.00             | \$160      |  |
| 7                  | Spring Box  | 1        | Each | \$900.00           | \$900      |  |
| 8                  | 2" Fittings at Spring Box                         | 1        | L.S. | \$250.00           | \$250      |  |
| 9                  | 2" HDPE Spring Line to Trough                     | 650      | LF   | \$4.00             | \$2,600    |  |
| 10                 |   |          |      |                    |            |  |
| 11                 | 2" HDPE Spring/Tank Overflow Line                 | 50       | LF   | \$4.00             | \$200      |  |
| 12                 | WaterTrough & Appurtenances                       | 1        | Each | \$1,400.00         | \$1,400    |  |
| 13                 | WaterTrough Piping, Fittings and Mounting         | 1        | Each | \$1,000.00         | \$1,000    |  |
| 14                 | Final Grading                                     | 1        | L.S. | \$200.00           | \$200      |  |
| 15                 | Reseeding   | 100      | SF   | \$0.25             | \$25       |  |
| 16                 | Fencing   | 100      | L.F. | \$2.00             | \$200      |  |
|                    |   |          |      |                    |            |  |
|                    |   |          |      |                    |            |  |
|                    |   |          |      | Construction Total | \$11,140   |  |

#### INCIDENTAL PROJECT COSTS

| Construction Permits                            | \$100    |
|---|----------|
| Performance Bond                                | \$200    |
| Insurance                                       | \$100    |
| 15% O&P   | \$1.671  |
| Subtotal 1                                      | \$2,071  |
| Subtotal 2                                      | \$13,211 |
| Construction Engineering @ 10% of Subtotal #2   | \$1,321  |
| Subtotal 3                                      | \$14,532 |
| Contingency @ 15% of Subtotal #3                | \$2,180  |
| Total Construction Cost                         | \$16,712 |
| Preparation of Final Designs and Specifications | \$1,337  |
| Permitting @ 5% of Project Cost                 | \$836    |
| Legal @ 4% of Project Cost                      | \$668    |
| Environmental Study                             | \$0      |

Total Project Cost \$19,553
## SITE PHOTOS: Foot Spring

Spring site in relation to trough







#### Owner/Operator Julian Site Name Oli Spring Type Of Project Spring & Trough Notes/Description Project 13

Location: 41.799368N, -110.797104W Spring 41.798324N, -110.797389W Trough

CONSTRUCTION COSTS

Description: This site located in a well watered canyon bottom includes a spring that could be developed in order to protect the bottom land by connecting it to an upland trough that would hold livestock higher and away from the spring.

Proposed Project: The project includes excavation of the spring to install a spring box and 20' of collection pipe. A pipeline will convey flows uphill (30 vertical feet) from the spring collection box to a trough using a solar powered pump.

| Item # | Description                                       | Quantity | Unit  | Unit Cost          | Total Cost |
|--------|---|----------|-------|--------------------|------------|
| 1      | Mobilization                                      | 1        | L.S.  | \$1,500.00         | \$1,500    |
| 2      | Excavation for New Spring Box and Collection Pipe | 15       | CY    | \$150.00           | \$2,250    |
| 3      | Import Rock Backfill                              | 10       | SY    | \$20.00            | \$200      |
| 4      | Impervious HDPE liner (60 mill)                   | 25       | SY    | \$15.00            | \$375      |
| 5      | Trench Backfill w/Native Material                 | 5        | CY    | \$36.00            | \$180      |
| 6      | 4" Trench Collection Pipe                         | 20       | LF    | \$8.00             | \$160      |
| 7      | Spring Box  | 1        | Each  | \$1,500.00         | \$1,500    |
| 8      | 2" Fittings at Spring Box                         | 1        | L.S.  | \$250.00           | \$250      |
| 9      | 2" HDPE Spring Line to Trough                     | 650      | LF    | \$4.00             | \$2,600    |
| 10     | Pump Equipment                                    | 0.3      | HP    | \$1,600.00         | \$400      |
| 11     | Solar Power Source                                | 300      | Watts | \$6.90             | \$2,070    |
| 12     | 2" HDPE Spring/Tank Overflow Line                 | 50       | LF    | \$4.00             | \$200      |
| 13     | WaterTrough & Appurtenances                       | 1        | Each  | \$1,400.00         | \$1,400    |
| 14     | WaterTrough Piping, Fittings and Mounting         | 1        | Each  | \$1,000.00         | \$1,000    |
| 15     | Final Grading                                     | 1        | L.S.  | \$200.00           | \$200      |
| 16     | Reseeding   | 100      | SF    | \$0.25             | \$25       |
| 17     | Fencing   | 100      | L.F.  | \$2.00             | \$200      |
|        |   |          |       |                    |            |
|        |   |          |       |                    |            |
|        |   |          |       | Construction Total | \$14,510   |

## INCIDENTAL PROJECT COSTS

| Construction Permits                            | \$100    |
|---|----------|
| Performance Bond                                | \$200    |
| Insurance                                       | \$100    |
| 15% O&P   | \$2,177  |
| Subtotal 1                                      | \$2,577  |
| Subtotal 2                                      | \$17,087 |
| Construction Engineering @ 10% of Subtotal #2   | \$1,709  |
| Subtotal 3                                      | \$18,795 |
| Contingency @ 15% of Subtotal #3                | \$2,819  |
| Total Construction Cost                         | \$21,614 |
| Preparation of Final Designs and Specifications | \$1,729  |
| Permitting @ 5% of Project Cost                 | \$1,081  |
| Legal @ 4% of Project Cost                      | \$865    |
| Environmental Study                             | \$0      |
| Total Project Cost                              | \$25,289 |

## SITE PHOTOS: Oli Spring

Spring site in relation to trough







Owner/Operator Julian Site Name Spring North of School Section Reservoir Type Of Project Spring & Trough Notes/Description Project 14

Location: 41.809272N, -110.923034W Spring

Description: This site is described as needing drainage pipe out of the spring pond.

Proposed Project: The project includes installation of a 20' segment of pipe through the spring pond embankment to protect the embankment from overtopping.

| CONSTRU | CTION COSTS                             |          |      |                    |            |
|---------|---|----------|------|--------------------|------------|
|         |   |          |      |                    |            |
| Item #  | Description                             | Quantity | Unit | Unit Cost          | Total Cost |
| 1       | Mobilization                            | 1        | L.S. | \$2,500.00         | \$2,500    |
| 2       | Excavation for New Spring Overflow Pipe | 1        | CY   | \$150.00           | \$150      |
| 3       | Trench Backfill w/Native Material       | 1        | CY   | \$36.00            | \$36       |
| 4       | 4" Overlfow Pipe                        | 20       | LF   | \$8.00             | \$160      |
| 5       |   |          |      |                    |            |
| 6       |   |          |      |                    |            |
| 7       |   |          |      |                    |            |
| 8       |   |          |      |                    |            |
| 9       |   |          |      |                    |            |
| 10      |   |          |      |                    |            |
| 11      |   |          |      |                    |            |
| 12      |   |          |      |                    |            |
| 13      |   |          |      |                    |            |
| 14      |   |          |      |                    |            |
| 15      |   |          |      |                    |            |
| 16      |   |          |      |                    |            |
| 17      |   |          |      |                    |            |
|         |   |          |      |                    |            |
|         |   |          |      |                    |            |
|         |   |          |      | Construction Total | \$2,846    |

#### INCIDENTAL PROJECT COSTS

| Construction Permits                            | \$100              |
|---|--------------------|
| Performance Bond                                | \$100              |
| Insurance                                       | \$100              |
| 15% O&P   | \$427              |
| Subtotal 1                                      | \$727              |
| Subtotal 2                                      | \$3,573            |
| Construction Engineering @ 10% of Subtotal #2   | \$357              |
| Subtotal 3                                      | \$3,930            |
| Contingency @ 15% of Subtotal #3                | \$590              |
| Total Construction Cost                         | \$4,520            |
| Prenaration of Final Designs and Specifications | \$362              |
| Permitting @ 5% of Project Cost                 | \$226              |
|   | <i><b>Y</b>220</i> |

- Permitting @ Legal @ 4% of Project Cost \$181
  - Environmental Study \$0
    - \$5,288 **Total Project Cost**

SITE PHOTOS: Spring North of School Section Reservoir







| Owner/Operator    | Julian                                      |
|-------------------|---|
| Site Name         | Westside Rock Creek                         |
| Type Of Project   | Spring & Trough                             |
| Notes/Description | Project 15                                  |
|                   | Location: 41.873870N, -110.848076W Spring 1 |
|                   | 41.8725523N, -110.846861W Spring 2          |
|                   | 41.874479N, -110.844524W Trough             |

Description: This site located on the west side of Rock Creek involves two springs and a trough

Proposed Project: The project includes excavation of two springs to install a spring box and 20' of collection pipe. A 1650' pipeline will convey flows down gradient from the spring collection boxes to a trough.

| Item # | Description                                       | Quantity | Unit | Unit Cost          | Total Cost |
|--------|---|----------|------|--------------------|------------|
| 1      | Mobilization                                      | 1        | L.S. | \$2,000.00         | \$2,000    |
| 2      | Excavation for New Spring Box and Collection Pipe | 15       | CY   | \$150.00           | \$2,250    |
| 3      | Import Rock Backfill                              | 20       | SY   | \$20.00            | \$400      |
| 4      | Impervious HDPE liner (60 mill)                   | 50       | SY   | \$15.00            | \$750      |
| 5      | Trench Backfill w/Native Material                 | 5        | CY   | \$36.00            | \$180      |
| 6      | 4" Trench Collection Pipe                         | 40       | LF   | \$8.00             | \$320      |
| 7      | Spring Box  | 2        | Each | \$900.00           | \$1,800    |
| 8      | 2" Fittings at Spring Box                         | 2        | L.S. | \$250.00           | \$500      |
| 9      | 2" HDPE Spring Line to Trough                     | 1,650    | LF   | \$4.00             | \$6,600    |
| 10     |   |          |      |                    |            |
| 11     | 2" HDPE Spring/Tank Overflow Line                 | 50       | LF   | \$4.00             | \$200      |
| 12     | WaterTrough & Appurtenances                       | 1        | Each | \$1,400.00         | \$1,400    |
| 13     | WaterTrough Piping, Fittings and Mounting         | 1        | Each | \$1,000.00         | \$1,000    |
| 14     | Final Grading                                     | 1        | L.S. | \$200.00           | \$200      |
| 15     | Reseeding   | 100      | SF   | \$0.25             | \$25       |
| 16     | Fencing   | 200      | L.F. | \$2.00             | \$400      |
|        |   |          |      |                    |            |
|        |   |          |      |                    |            |
|        |   |          |      | Construction Total | \$18,025   |

### INCIDENTAL PROJECT COSTS

| Construction Permits                            |
|---|
| Performance Bond                                |
| Insurance                                       |
| 15% O&P   |
| Subtotal 1                                      |
| Subtotal 2                                      |
| Construction Engineering @ 10% of Subtotal #2   |
| Subtotal 3                                      |
| Contingency @ 15% of Subtotal #3                |
| Total Construction Cost                         |
| Preparation of Final Designs and Specifications |
| Permitting @ 5% of Project Cost                 |
|   |

- Legal @ 4% of Project Cost \$1,069
  - Environmental Study \$0
  - Total Project Cost \$31,272

#### CONSTRUCTION COSTS

## SITE PHOTOS: Westside Rock Creek

Spring site in relation to trough







| Owner/Operator    | Julian                             |
|-------------------|------------------------------------|
| Site Name         | Westside Rock Creek                |
| Type Of Project   | Well                               |
| Notes/Description | Project 16                         |
|                   | Location: 41.878780N, -110.839042W |

Description: This site is located on the west side of Rock Creek near the road. There is power to this site but the old well and service are in disuse. The existing well no longer works and has not for longer than 20 years perhaps due to some unknown geological changes that affected the well. Historic phosphorus exploration wells may have affected this well according to the operator.

Proposed Project: The project includes drilling of a new well at the same site to supply a local trough and perhaps an upland trough.

| Item # | Description  | Quantity | Unit  | Unit Cost                 | Total Cost |
|--------|--|----------|-------|---------------------------|------------|
| 1      | Mobilization                                       | 1        | L.S.  | \$2,500.00                | \$2,500    |
| 2      | New 150' Well                                      | 150      | L.F.  | \$87.00                   | \$13,050   |
| 3      | Pump Test  | 14       | Hours | \$260.00                  | \$3,640    |
| 4      | Pump Equipment                                     | 2        | HP    | \$800.00                  | \$1,600    |
| 5      | Solar Power Source (or connection to onsite power) | 1,400    | Watt  | \$6.90                    | \$9,660    |
| 6      | 2" HDPE Trough Overflow Line                       | 50       | LF    | \$4.00                    | \$200      |
| 7      | WaterTrough & Appurtenances                        | 1        | Each  | \$1,400.00                | \$1,400    |
| 8      | WaterTrough Piping, Fittings and Mounting          | 1        | Each  | \$1,000.00                | \$1,000    |
| 9      | Final Grading                                      | 1        | L.S.  | \$200.00                  | \$200      |
| 10     | Fencing  | 200      | L.F.  | \$2.00                    | \$400      |
| 11     |  |          |       |                           |            |
| 12     |  |          |       |                           |            |
| 13     |  |          |       |                           |            |
| 14     |  |          |       |                           |            |
| 15     |  |          |       |                           |            |
| 16     |  |          |       |                           |            |
|        |  |          |       |                           |            |
|        |  |          |       |                           |            |
|        |  |          |       | <b>Construction Total</b> | \$33,650   |

#### CONSTRUCTION COSTS

INCIDENTAL PROJECT COSTS

| Performance Bond                                | \$400            |
|---|------------------|
| Insurance                                       | \$200            |
| 15% O&P   | \$5 <i>,</i> 048 |
| Subtotal 1                                      | \$5,848          |
| Subtotal 2                                      | \$39,498         |
| Construction Engineering @ 10% of Subtotal #2   | \$3,950          |
| Subtotal 3                                      | \$43,447         |
| Contingency @ 15% of Subtotal #3                | \$6,517          |
| Total Construction Cost                         | \$49,964         |
| Preparation of Final Designs and Specifications | \$3,997          |
|   | 40.000           |

**Construction Permits** 

\$200

| Total Project Cost                              | \$58,458         |
|---|------------------|
| Environmental Study                             | \$0              |
| Legal @ 4% of Project Cost                      | \$1,999          |
| Permitting @ 5% of Project Cost                 | \$2 <i>,</i> 498 |
| Preparation of Final Designs and Specifications | \$3,997          |
|   |                  |

# SITE PHOTOS: Westside Rock Creek







| Owner/Operator    | Julian                             |
|-------------------|------------------------------------|
| Site Name         | Collet Creek                       |
| Type Of Project   | Well                               |
| Notes/Description | Project 17                         |
|                   | Location: 41.821536N, -110.902855W |

Description: This site located on Collet Creek is a good well used to supply Ellis Mountain Reservoir located 3,300 feet south via a 2" HDPE pipe on the ground surface. The owner would like to increase the capacity of the well to allow further use of water on the ranch along Collet Creek.

Proposed Project: The project includes refurbishment of the existing well by redevelopment and installation of a new pump. In order to supply the current pipeline at 18 gpm the well would operate at 125 psi. In order to supply 10 gpm the well operates at 75 psi. It is thought that a pump in the range of 5 hp could supply an additional 20 gpm to the ranch for use as irrigation or in troughs. Note the size and capacity of the existing casing and pump are not known nor has the pumps setting and depth to water been included in the analysis.

| CONSTRU | CTION COSTS                               |          |       |                    |            |
|---------|---|----------|-------|--------------------|------------|
|         |   |          |       |                    |            |
| Item #  | Description                               | Quantity | Unit  | Unit Cost          | Total Cost |
| 1       | Mobilization                              | 1        | L.S.  | \$2,500.00         | \$2,500    |
| 2       | Remove Existing Pump and Clean Well       | 1        | L.S.  | \$10,000.00        | \$10,000   |
| 3       | Pump Test                                 | 14       | Hours | \$260.00           | \$3,640    |
| 4       | Pump Equipment                            | 5        | HP    | \$800.00           | \$4,000    |
| 5       |   |          |       |                    |            |
| 6       | 2" HDPE Trough Overflow Line              | 50       | LF    | \$4.00             | \$200      |
| 7       | WaterTrough & Appurtenances               | 1        | Each  | \$1,400.00         | \$1,400    |
| 8       | WaterTrough Piping, Fittings and Mounting |          | Each  | \$1,000.00         | \$1,000    |
| 9       | Final Grading                             |          | L.S.  | \$200.00           | \$200      |
| 10      | Fencing                                   | 200      | L.F.  | \$2.00             | \$400      |
| 11      |   |          |       |                    |            |
| 12      |   |          |       |                    |            |
| 13      |   |          |       |                    |            |
| 14      |   |          |       |                    |            |
| 15      |   |          |       |                    |            |
| 16      |   |          |       |                    |            |
|         |   |          |       |                    |            |
|         |   |          |       |                    |            |
|         |   |          |       | Construction Total | \$23,340   |

| INCIDENTAL PROJECT COSTS                        |          |
|---|----------|
| Construction Permits                            | \$200    |
| Performance Bond                                | \$300    |
| Insurance                                       | \$200    |
| 15% O&P   | \$3,501  |
| Subtotal 1                                      | \$4,201  |
| Subtotal 2                                      | \$27,541 |
| Construction Engineering @ 10% of Subtotal #2   | \$2,754  |
| Subtotal 3                                      | \$30,295 |
| Contingency @ 15% of Subtotal #3                | \$4,544  |
| Total Construction Cost                         | \$34,839 |
| Preparation of Final Designs and Specifications | \$2,787  |
| Permitting @ 5% of Project Cost                 | \$1,742  |
| Legal @ 4% of Project Cost                      | \$1,394  |
| Environmental Study                             | \$0      |

## Total Project Cost \$40,762

## SITE PHOTOS: Collet Creek









Willis Owner/Operator Site Name Troughs Below BQ Dam Type Of Project Well & Trough Notes/Description **Project 1** 

> Location: 41.873672N, -111.015125W Trough Location 41.870728N, -111.006263W Well Location

Description: The cattle are presently watered in the Bear River near this location. Several fences are maintained in the river channel to provide livestock access and pasture separation. An alternative watering sight is located 600 yards west at the junction of three pastures. If water could be brought to this site the river access could be elimnated and pasture rotation would be enhanced.

Proposed Project: The project includes extension of a 2" water line (2,800 l.f.) from an existing well located on the east side of the river to the proposed trough site. At the trough location, three troughs would be installed at the junction of three pastures to provide a trough in each pasture. The troughs would be flow through with a 3" drain returning to a low area along the river bank. Each trough supply would have a buried shutoff valve below frost depth. The pipeline will require directional drilling of the Bear River and two canals for a total bored distance of about 400 to 500 feet.

| consince |   |          |       |                    |            |
|----------|---|----------|-------|--------------------|------------|
| Item #   | Description                               | Quantity | Unit  | Unit Cost          | Total Cost |
| 1        | Mobilization                              | 1        | L.S.  | \$5,000.00         | \$5,000    |
| 2        | Well Connection and Piping                | 1        | L.S.  | \$1,500.00         | \$1,500    |
| 3        | 2" HDPE Pipeline Open Cut (5' cover)      | 2,300    | LF    | \$10.00            | \$23,000   |
| 4        | 2" HDPE Directional Drill                 | 500      | LF    | \$25.00            | \$12,500   |
| 5        | 3" Drain Pipe                             | 340      | LF    | \$6.00             | \$2,040    |
| 6        | 2" Fittings                               | 1        | L.S.  | \$250.00           | \$250      |
| 7        | 2" HDPE Spring Line to Trough             | 100      | LF    | \$4.00             | \$400      |
| 8        | WaterTrough & Appurtenances               | 3        | Each  | \$2,400.00         | \$7,200    |
| 9        | WaterTrough Piping, Fittings and Mounting | 3        | Each  | \$1,000.00         | \$3,000    |
| 10       | Final Grading                             | 1        | L.S.  | \$2,000.00         | \$2,000    |
| 11       | Reseeding                                 | 0.5      | Acres | \$2,500.00         | \$1,250    |
| 12       | Fence - Restoration                       | 150      | L.F.  | \$4.00             | \$600      |
|          |   |          |       |                    |            |
|          |   |          |       |                    |            |
|          |   |          |       |                    |            |
|          |   |          |       |                    |            |
|          |   |          |       |                    |            |
|          |   |          |       |                    |            |
|          |   |          |       |                    |            |
|          |   |          |       | Construction Total | \$58,740   |

**Construction Permits** \$300 Performance Bond \$600 Insurance \$300 15% O&P \$8,811 Subtotal 1 \$10,011 \$68,751 Subtotal 2 Construction Engineering @ 10% of Subtotal #2 \$6,875 Subtotal 3 \$75,626 Contingency @ 15% of Subtotal #3 \$11,344 \$86,970 **Total Construction Cost** Preparation of Final Designs and Specifications \$6,958 Permitting @ 5% of Project Cost \$4,349 Legal @ 4% of Project Cost \$3,479 Environmental Study \$0 **Total Project Cost** \$101,755

INCIDENTAL PROJECT COSTS

CONSTRUCTION COSTS

## SITE PHOTOS: Troughs Below BQ Dam

Proposed location of 3 troughs near intersection of fences



View of proposed Bear River crossing looking toward trough location







 Owner/Operator
 Willis

 Site Name
 Pasture south of House

 Type Of Project
 Pipeline, and Trough

 Notes/Description
 Project 2

Location: 41.899742N, -111.026318W Trough Location 41.904696N, -111.022054W Well Location

Description: This pasture lacks reliable water especially during winter months when the slough is frozen. A trough in this area would better utilize the pasture available.

Proposed Project: The project includes extension of a 2" water line (1,960 l.f.) from an existing well located near the shed to the proposed trough site. At the trough location, one trough would be installed in the pasture. The trough would be flow through with a 3" drain returning to a low area along the slough. The trough supply would have a buried shutoff valve below frost depth.

| Item # | Description                               | Quantity | Unit  | Unit Cost          | Total Cost |
|--------|---|----------|-------|--------------------|------------|
| 1      | Mobilization                              | 1        | L.S.  | \$2,500.00         | \$2,500    |
| 2      | Well Connection and piping                | 1        | L.S.  | \$1,500.00         | \$1,500    |
| 3      | 2" HDPE Pipeline Open Cut (5' cover)      |          | LF    | \$10.00            | \$19,600   |
| 4      |   |          |       |                    |            |
| 5      | 3" Drain Pipe                             | 260      | LF    | \$6.00             | \$1,560    |
| 6      | 2" Fittings                               | 1        | L.S.  | \$150.00           | \$150      |
| 7      | 2" HDPE Spring Line to Trough             | 100      | LF    | \$4.00             | \$400      |
| 8      | WaterTrough & Appurtenances               |          | Each  | \$2,400.00         | \$2,400    |
| 9      | WaterTrough Piping, Fittings and Mounting | 1        | Each  | \$1,000.00         | \$1,000    |
| 10     | Final Grading                             | 1        | L.S.  | \$1,000.00         | \$1,000    |
| 11     | Reseeding                                 | 0.5      | Acres | \$2,500.00         | \$1,250    |
|        |   |          |       |                    |            |
|        |   |          |       |                    |            |
|        |   |          |       |                    |            |
|        |   |          |       |                    |            |
|        |   |          |       | Construction Total | \$31,360   |

Construction

Preparation

#### CONSTRUCTION COSTS

INCIDENTAL PROJECT COSTS

| Construction Permits                | \$200    |
|-------------------------------------|----------|
| Performance Bond                    | \$400    |
| Insurance                           | \$200    |
| 15% O&P                             | \$4,704  |
| Subtotal 1                          | \$5,504  |
| Subtotal 2                          | \$36,864 |
| Engineering @ 10% of Subtotal #2    | \$3,686  |
| Subtotal 3                          | \$40,550 |
| Contingency @ 15% of Subtotal #3    | \$6,083  |
| Total Construction Cost             | \$46,633 |
| of Final Designs and Specifications | \$3 731  |
| Permitting @ 5% of Project Cost     | \$2.332  |
| Legal @ 4% of Project Cost          | \$1,865  |
| Environmental Study                 | \$0      |
| Total Project Cost                  | \$54,561 |

## SITE PHOTOS: Pasture south of House

Well Location and beginning of pipeline



View from tank site toward well (behind center pivot)



Sample trough constructed of Concrete

Trough location is just beyond fence.







| Owner/Operator    | Willis                     |
|-------------------|----------------------------|
| Site Name         | Rock Creek                 |
| Type Of Project   | Pump, Pipeline, and Trough |
| Notes/Description | Project 3                  |

Location: 41.906891N, -110.837349W Trough Location 41.907230N, -110.834715W Well Location

Description: This upland hill contains significant feed with no water. Once the cattle drop to Rock Creek to water they do not return to the higher elevation. A water source on the bench would better hold livestock at the higher elevation.

Proposed Project: The project includes extension of a 2" water line (730 l.f.) from Rock Creek to the proposed trough site. At the trough location one trough would be installed. The water source will require a solar pump and a new shallow well or perhaps a wetwell on the creek bank. The static head from trough to pump is an estimated 230 feet.

| Item # | Description                               | Quantity | Unit    | Unit Cost          | Total Cost |
|--------|---|----------|---------|--------------------|------------|
| 1      | Mobilization                              | 1        | L.S.    | \$2,500.00         | \$2,500    |
| 2      | New 6" Well                               | 40       | L.F.    | \$90.00            | \$3,600    |
| 3      | Pump Test                                 | 14       | Hours   | \$260.00           | \$3,640    |
| 4      | Pump Equipment                            | 0.5      | HP      | \$1,600.00         | \$800      |
| 5      | Solar Power Source                        | 400      | Watts   | \$6.90             | \$2,760    |
| 6      | 2" HDPE Pipeline Open Cut (6-inch cover)  | 730      | LF      | \$4.00             | \$2,920    |
| 7      |   |          |         |                    |            |
| 8      | 3" Drain Pipe                             | 400      | LF      | \$6.00             | \$2,400    |
| 9      | Drain field rock                          |          | Cu. Yd. | \$25.00            | \$1,000    |
| 10     | 2" Fittings                               | 1        | L.S.    | \$150.00           | \$150      |
| 11     | WaterTrough & Appurtenances               | 1        | Each    | \$2,400.00         | \$2,400    |
| 12     | WaterTrough Piping, Fittings and Mounting | 1        | Each    | \$1,500.00         | \$1,500    |
| 13     | Final Grading                             | 1        | L.S.    | \$500.00           | \$500      |
| 14     | Reseeding                                 | 0.1      | Acres   | \$2,500.00         | \$250      |
|        |   |          |         |                    |            |
|        |   |          |         |                    |            |
|        |   |          |         |                    |            |
|        |   |          |         |                    |            |
|        |   |          |         | Construction Total | \$24,420   |
|        |   |          |         |                    |            |

#### INCIDENTAL PROJECT COSTS

CONSTRUCTION COSTS

| \$200    | Construction Permits                            |
|----------|---|
| \$300    | Performance Bond                                |
| \$200    | Insurance                                       |
| \$3,663  | 15% O&P   |
| \$4,363  | Subtotal 1                                      |
| \$28,783 | Subtotal 2                                      |
| \$2,878  | Construction Engineering @ 10% of Subtotal #2   |
| \$31,661 | Subtotal 3                                      |
| \$4,749  | Contingency @ 15% of Subtotal #3                |
| \$36,410 | Total Construction Cost                         |
| \$2,913  | Preparation of Final Designs and Specifications |
| \$1,821  | Permitting @ 5% of Project Cost                 |
| \$1,456  | Legal @ 4% of Project Cost                      |
| \$0      | Environmental Study                             |

**Total Project Cost** \$42,600



CONSTRUCTION COSTS

INCIDENTAL PROJECT COSTS



Owner/Operator Pierce Site Name Bridger Creek Type Of Project Pipeline, and Troughs Notes/Description Project 1

Location: 41.657071N, -111.006393W (existing storage tank)

41.659146N, -111.010911W (Existing trough tie-in location)

41.710025N, -111.001518W (Northernmost proposed trough)

Description: There are several reasons for the need for the pipeline First being supplying to livestock water in a portion of the Cumberland/Uinta allotment (Bridger Pasture) that is presently lacking adequate water. This pipeline will provide offsite livestock water that will draw cattle away from Bridger Creek. Most of this lower section of Bridger Creek is located on state lands.

Proposed Project: The pipeline will consist of approximately four miles of pipeline and three cattle water troughs. The water source for this pipeline is located on private land owned by Uinta Livestock Grazing Partnership. (T.19N. R.120W, Section 5) It consists of a water well powered by a generator and the water is pumped to a storage tank where it is gravity fed to the pipeline. The storage tank elevation is 6930' and the trough is at 6,760'. New troughs are propsed at 6760', 6790', and 6580'. The well will contiue to be powered by a portable generator.

| constine |   |          |         |                    |                 |
|----------|---|----------|---------|--------------------|-----------------|
| 14 44    |   |          |         |                    | <b>T</b> + 10 + |
| item #   | Description                               | Quantity | Unit    | Unit Cost          | Total Cost      |
| 1        | Mobilization                              | 1        | L.S.    | \$8,000.00         | \$8,000         |
| 2        | 2" Fittings at Tie-in Location            | 1        | L.S.    | \$250.00           | \$250           |
| 3        | 2" HDPE-SDR11 Pipeline                    | 21,000   | LF      | \$4.00             | \$84,000        |
| 4        |   |          |         |                    |                 |
| 5        | 3" HDPE Tank Overflow Lines               | 150      | LF      | \$8.00             | \$1,200         |
| 6        | WaterTrough & Appurtenances               | 3        | Each    | \$1,400.00         | \$4,200         |
| 7        | WaterTrough Piping, Fittings and Mounting | 3        | Each    | \$1,000.00         | \$3,000         |
| 8        | Bank Armoring at Stream Crossing          | 25       | Cu. Yd. | \$60.00            | \$1,500         |
| 9        | Final Grading/Wheel Rolling               | 1        | L.S.    | \$2,000.00         | \$2,000         |
| 10       | Reseeding (Selected Areas)                | 10,000   | SF      | \$0.10             | \$1,000         |
| 11       |   |          |         |                    |                 |
|          |   |          |         |                    |                 |
|          |   |          |         |                    |                 |
|          |   |          |         |                    |                 |
|          |   |          |         |                    |                 |
|          |   |          |         |                    |                 |
|          |   |          |         |                    |                 |
|          |   |          |         |                    |                 |
|          |   |          |         | Construction Total | \$105,150       |

| \$600     | Construction Permits                            |
|-----------|---|
| \$1,100   | Performance Bond                                |
| \$600     | Insurance                                       |
| \$15,773  | 15% O&P   |
| \$18,073  | Subtotal 1                                      |
| \$123,223 | Subtotal 2                                      |
| \$12,322  | Construction Engineering @ 10% of Subtotal #2   |
| \$135,545 | Subtotal 3                                      |
| \$20,332  | Contingency @ 15% of Subtotal #3                |
| \$155,876 | Total Construction Cost                         |
| \$12,470  | Preparation of Final Designs and Specifications |
| \$7,794   | Permitting @ 5% of Project Cost                 |
| \$6,235   | Legal @ 4% of Project Cost                      |
| \$2,000   | Well Location Study                             |

#### Well Location Study \$8,000 \$190,375 **Total Project Cost**

SITE PHOTOS: Bridger Creek





# Irrigation Projects – Lincoln County

|                     |                          |                       | a.                    | Major Project Components |           |                      |                      |       |              |                           |
|---------------------|--------------------------|-----------------------|-----------------------|--------------------------|-----------|----------------------|----------------------|-------|--------------|---------------------------|
| General<br>Location | Owner or Operator        | Number of<br>Projects | Ditch<br>Improvements | Headgate                 | Diversion | Reservoir<br>Storage | Bank<br>Stabilzation | Other | Estin<br>Pro | nated Total<br>ject Costs |
|                     | Buckley                  | 3                     | 1                     |                          |           | 2                    |                      |       | \$           | 659,003                   |
|                     | Carter                   | 1                     | 1                     |                          |           |                      |                      |       | \$           | 158,674                   |
|                     | Clark                    | 1                     |                       | 5                        |           |                      |                      |       | \$           | 10,808                    |
|                     | Circle B                 | 1                     |                       |                          |           | 1                    |                      |       | \$           | 359,644                   |
| 8                   | Cornia                   | 1                     |                       |                          |           | 1                    |                      |       | \$           | 545,881                   |
|                     | Dayton-Crane             | 3                     |                       | 1                        |           |                      | 1                    | 1     | \$           | 962,299                   |
|                     | Esterholt                | 1                     | 1                     | 1                        |           |                      |                      |       | \$           | 50,736                    |
|                     | Etchevery                | 3                     |                       | 1                        |           | 2                    | 1                    | 1     | \$           | 793,132                   |
|                     | Evan Pope                | 3                     |                       |                          | 1         |                      |                      | 2     | \$           | 448,819                   |
|                     | Nate                     | 1                     |                       | 1                        | 1         |                      |                      |       | \$           | 184,843                   |
|                     | Thornock                 | 1                     |                       |                          |           | 1                    |                      |       | \$           | 3,655,132                 |
|                     | Tiechert                 | 1                     | 1                     |                          |           | 1                    |                      |       | \$           | 641,284                   |
|                     | Julian                   | 1                     | 1                     |                          |           | 1                    |                      |       | \$           | 119,339                   |
|                     |                          |                       |                       |                          |           |                      |                      |       |              |                           |
|                     |                          |                       |                       |                          |           |                      |                      |       |              |                           |
|                     | Total for Lincoln County | 21                    | 5                     | 9                        | 2         | 9                    | 2                    | 4     | \$           | 8,590,000                 |



#### Owner/Operator Buckley Leeds Creek Reservoir Site Name Type Of Project Outlet Works Repair Notes/Description **Project 1**

Location: 41.929833N, -110.942684W

Description: This site is located 11 miles south of Cokeville at the mouth of Leeds Creek. The original dam was constructed more than 50 years ago and the dam has served and currently serves irrigated lands to the west. The dam is 630 feet long and 10' tall. The outlet pipe from the dam is showing signs of piping believed to be caused by a corroded pipe. When the upstream outlet gate is closed, the water piping around the pipe stops leading to the conclusion that the pipe is corroded.

Proposed Project: The proposed project would excavate and locate the corroded section and replace it with new pipe. Alternatively the existing pipe would be lined using either a cured in place liner or an HDPE slip-liner with the original CMP as the host pipe. The pipe length is 85'.

| CONSTR | UCTION COSTS                                       |          |       |                  |            |
|--------|--|----------|-------|------------------|------------|
|        |  |          |       |                  |            |
| Item # | Description  | Quantity | Unit  | Unit Cost        | Total Cost |
| 1      | Mobilization                                       | 1        | L.S.  | \$4,000.00       | \$4,000    |
| 2      | Grading and Grubbing                               | 0.1      | Acres | \$2,000.00       | \$200      |
| 3      | Imported Embankment Material                       | 50       | CY    | \$20.00          | \$1,000    |
| 4      | Placement and compaction of of imported embankment | 50       | CY    | \$8.00           | \$400      |
| 5      | Excavate and Replace Existing outlet Pipe          | 95       | L.F.  | \$60.00          | \$5,700    |
| 6      | Reseeding perimeter slopes                         | 0.1      | Acres | \$1,000.00       | \$100      |
| 7      | Imported 6" rock rip-rap                           | 100      | CY    | \$45.00          | \$4,500    |
| 8      | 18" Outlet Pipe                                    | 100      | L.F.  | \$45.00          | \$4,500    |
| 9      | 18" Slide Gate and Structure                       | 1        | L.S.  | \$3,000.00       | \$3,000    |
| 10     | Embankment reconstruction around outlet pipe       | 180      | CY    | \$40.00          | \$7,200    |
|        |  |          | Co    | nstruction Total | \$30,600   |

INCIDENTAL PROJECT COSTS

| \$100    | Construction Permits                            |
|----------|---|
| \$100    | Performance Bond                                |
| \$100    | Insurance                                       |
| \$1,080  | 15% O&P   |
| \$1,380  | Subtotal 1                                      |
| \$31,980 | Subtotal 2                                      |
| \$3,198  | Construction Engineering @ 10% of Subtotal #2   |
| \$35,178 | Subtotal 3                                      |
| \$5,277  | Contingency @ 15% of Subtotal #3                |
| \$40,455 | Total Construction Cost                         |
| \$3,236  | Preparation of Final Designs and Specifications |
| \$2,023  | Permitting @ 5% of Project Cost                 |
| \$1,618  | Legal @ 4% of Project Cost                      |
| \$0      | Environmental Study                             |

Total Project Cost \$47,332

## SITE PHOTOS: Leeds Creek Reservoir

View looking north along axis of dam



View of downstream outlet where piping around pipe is occuring.



Upstream outlet works



View along dowsteam face of dam (outlet in foreground right)





Owner/OperatorBuckleySite NameLeeds Creek ReservoirType Of ProjectSilt RemovalNotes/DescriptionProject 2

Location: 41.929833N, -110.942684W

Description: This site is located 11 miles south of Cokeville at the mouth of Leeds Creek. The original dam was constructed more than 50 years ago and the dam has served and currently serves irrigated lands to the west. The pool area behind the dam has become silted with five to six feet of material. The sediment significantly cuts the storage capacity of the reservoir. The dam is 630 feet long and 10' tall.

Proposed Project: The proposed project would excavate and and remove the sediment to the field located 2,000' west where it would be spread. The volume removed is estimated to be about 14,000 cubic yards based on a 5 acre surface and a depth ranging from 0' to 5' deep.

| CONSTRU |   |          |       |                 |                   |
|---------|---|----------|-------|-----------------|-------------------|
|         |   |          |       |                 |                   |
| Item #  | Description                               | Quantity | Unit  | Unit Cost       | <b>Total Cost</b> |
| 1       | Mobilization                              | 1        | L.S.  | \$20,000.00     | \$20,000          |
| 2       | Excavation and Hauling of Dried Sediment. | 14,000   | CY    | \$6.00          | \$84,000          |
| 3       | Placement and Wheel Rolling of Sediment   | 14,000   | CY    | \$5.00          | \$70,000          |
| 4       | Final Grading                             | 14,000   | CY    | \$2.50          | \$35,000          |
| 5       | Reseeding Perimeter Slopes                | 1.5      | Acres | \$1,000.00      | \$1,500           |
| 6       |   |          |       |                 |                   |
| 7       |   |          |       |                 |                   |
| 8       |   |          |       |                 |                   |
| 9       |   |          |       |                 |                   |
|         |   |          | Con   | struction Total | \$210,500         |

## CONSTRUCTION COSTS

INCIDENTAL PROJECT COSTS

- Construction Permits
  - Performance Bond \$2,200 Insurance \$1,100

\$1,100

- 15% O&P \$31,575
- Subtotal 1 \$35,975
  - Subtotal 2 \$246,475
- Construction Engineering @ 10% of Subtotal #2 \$24,648
  - Subtotal 3 \$271,123
  - Contingency @ 15% of Subtotal #3 \$40,668
    - Total Construction Cost \$311,791
- Preparation of Final Designs and Specifications \$24,943 Permitting @ 5% of Project Cost \$15,590 Legal @ 4% of Project Cost \$12,472
  - Environmental Study \$0
    - Total Project Cost \$364,795

# SITE PHOTOS: Leeds Creek Reservoir

Upstream outlet works with sediment in foreground



## Elevation profile from downstream through dam to upstream pool area

| · · · · · · · · · · · · · · · · · · · | ange rotais. Distance, oou it | Elev Galineoss 21 it, -7 2 it | Max Slope S7 276, -14 | For Avg alope a am, -a 176 |  |
|---------------------------------------|-------------------------------|-------------------------------|-----------------------|----------------------------|--|
| 6266 ff                               | $\sim$                        |                               |                       |                            |  |
|                                       | X                             |                               |                       |                            |  |
|                                       |                               |                               |                       |                            |  |
| 6255 It                               |                               |                               |                       |                            |  |
| 6251 ft                               |                               |                               |                       |                            |  |
|                                       |                               |                               |                       |                            |  |





Owner/OperatorBuckleySite NameCovey CanalType Of ProjectPipe Intake ScreeningNotes/DescriptionProject 3

Location: 40.090451N, -110.931968W Big Hill 42.041367N, -110.922482W Sublette Creek Siphon

Description: These sites located on the Covey Canal are intake structures for piped sections of the canal. The intakes have 4" opening on the trash grate and are prone to buildup of grass and debris that must be raked up and dragged vertically off of the grate. These blockages can interrup deliveries or spill water when severe.

Proposed Project: The proposed project is to install a more self cleaning screen to reduce the incidents of blockage and to reduce cleaning effort. Main features would be an inclined screen that drops the water into the pipe and pushes debris off of the lower edge. The spill channel is a major consideration, consequently the structure will be designed to allow emergency spillage at the exisiting spill sites.

| Item # | Description                                       | Quantity | Unit    | Unit Cost      | Total Cost |
|--------|---|----------|---------|----------------|------------|
| 1      | Mobilization                                      | 1        | L.S.    | \$7,000.00     | \$7,000    |
| 2      | Intake Structure Flatwork (2 structures)          | 34.0     | Cu. Yd. | \$325.00       | \$11,050   |
| 3      | Intake Structure Vertical Concrete (2 structures) | 32.0     | Cu. Yd. | \$400.00       | \$12,800   |
| 4      | Intake Screen & Hinge Plate                       | 1.0      | L.S.    | \$87,000.00    | \$87,000   |
| 5      | Regrading Approach Section                        | 100.0    | Cu. Yd. | \$20.00        | \$2,000    |
| 6      | Reseeding perimeter slopes                        | 1.5      | Acres   | \$1,000.00     | \$1,500    |
| 7      | Overflow Path Rip-Rap                             | 150.0    | Cu. Yd. | \$40.00        | \$6,000    |
| 8      | Pipe Extention to Structure (2 structures)        | 100.0    | L.F.    | \$150.00       | \$15,000   |
| 9      |   |          |         |                |            |
|        |   |          | Const   | truction Total | \$142,350  |

#### CONSTRUCTION COSTS

| INCIDENTAL PROJECT COST | S |
|-------------------------|---|
|-------------------------|---|

| C                            | onstruction Permits  | \$800     |
|------------------------------|----------------------|-----------|
|                              | Performance Bond     | \$1,500   |
|                              | Insurance            | \$800     |
|                              | 15% O&P              | \$21,353  |
|                              | Subtotal 1           | \$24,453  |
|                              | Subtotal 2           | \$166,803 |
| Construction Engineering @   | 10% of Subtotal #2   | \$16,680  |
|                              | Subtotal 3           | \$183,483 |
| Contingency @                | 15% of Subtotal #3   | \$27,522  |
| Tota                         | l Construction Cost  | \$211,005 |
| Preparation of Final Designs | s and Specifications | \$16.880  |
| Permitting @                 | 5% of Project Cost   | \$10,550  |

| Total Project Cost                              | \$246,876 |
|---|-----------|
| Environmental Study                             | \$0       |
| Legal @ 4% of Project Cost                      | \$8,440   |
| Permitting @ 5% of Project Cost                 | \$10,550  |
| Preparation of Final Designs and Specifications | \$16,880  |

# SITE PHOTOS: Covey Canal

Exisitng Trash Rack at Big Hill



Trash Rack at Sublette Creek Siphon Intake






| Owner/Operator    | Carter               |
|-------------------|----------------------|
| Site Name         | Emil Ditch Diversion |
| Type Of Project   | Canal Repair         |
| Notes/Description | Project 1            |

Location:42.163040N, -110.890715W Diversion (Historic) 42.161840N, -110.892622W Washout Area 42.160994N, -110.893377W Headgate Location

Description: In this region, the Smiths Fork River has eroded an outside curve to the point a headgate approach channel has been breached. The erosion of the channel resulted in the loss of head at the headgate located further down the approach channel. The owner would like to restore the diversion channel section to reconnect with the higher original diversion site instead of at the lower breach site.

Proposed Project: The project includes reconstruction and lining of the channel with 360' of new 48" diameter pipe. Additional rip-rap protection is recommended for the outside bank section along with a spill channel on the upstream end of the pipe. A 4" trashrack is also recommended on the upstream end of the piped section.

| CONSTRU | CTION COSTS                                     |          |         |                  |            |
|---------|---|----------|---------|------------------|------------|
|         |   |          |         |                  |            |
| Item #  | Description                                     | Quantity | Unit    | Unit Cost        | Total Cost |
| 1       | Mobilization                                    | 1        | L.S.    | \$4,000.00       | \$4,000    |
| 2       | Grading and Grubbing                            | 0.1      | Acres   | \$2,000.00       | \$200      |
| 3       | Imported Embankment Material                    | 1,000    | CY      | \$20.00          | \$20,000   |
| 4       | Placement and Compaction of Imported Embankment | 1,000    | CY      | \$8.00           | \$8,000    |
| 5       | Final Grading                                   | 1        | L.S.    | \$800.00         | \$800      |
| 6       |   |          |         |                  |            |
| 7       | Imported 18" Rock Rip-Rap                       | 100      | CY      | \$65.00          | \$6,500    |
| 8       | 48" Pipe  | 360      | L.F.    | \$100.00         | \$36,000   |
| 9       | Headwall  | 2        | EA.     | \$5,500.00       | \$11,000   |
| 10      | Trashrack                                       | 24       | Sq. Ft. | \$40.00          | \$960      |
|         |   |          |         |                  |            |
|         |   |          |         |                  |            |
|         |   |          |         |                  |            |
|         |   |          | Co      | nstruction Total | \$87,460   |

#### INCIDENTAL PROJECT COSTS

| Construction Permits                            | \$500              |
|---|--------------------|
| Performance Bond                                | \$900              |
| Insurance                                       | \$500              |
| 15% O&P   | \$13,119           |
| Subtotal 1                                      | \$15,019           |
| Subtotal 2                                      | \$102,479          |
| Construction Engineering @ 10% of Subtotal #2   | \$10,248           |
| Subtotal 3                                      | \$112,727          |
| Contingency @ 15% of Subtotal #3                | \$16,909           |
| Total Construction Cost                         | \$129,636          |
| Dropprotion of Final Designs and Specifications | ¢10.271            |
| Preparation of Final Designs and Specifications | \$10,371<br>¢6,492 |
| Permitting @ 5% of Project Cost                 | \$6,482            |
| Legal @ 4% of Project Cost                      | \$5,185            |

Environmental Study \$7,000

Total Project Cost \$158,674

### SITE PHOTOS: Emil Ditch Diversion







Owner/OperatorClarkSite NameCovey Canal at ClarksType Of ProjectHeadgate ReplacementNotes/DescriptionName: Dry Hollow Well #2

Location: 42.06938N, -111.044608W

Description: These heagates along the Covey Canal are in need of replacement to reduce leakage, improve control and ease effort to operate.

Proposed Project: This project would replace five of the worst headgates with a similar culvert type slide gate.

| Item #                  | Description                  | Quantity | Unit | Unit Cost | Total Cost |
|-------------------------|------------------------------|----------|------|-----------|------------|
| 1                       | Excavate and remove old gate | 5        | Each | \$150.00  | \$750      |
| 2                       | Furnish and Install new gate | 5        | Each | \$900.00  | \$4,500    |
|                         |                              |          |      |           |            |
|                         |                              |          |      |           |            |
|                         |                              |          |      |           |            |
|                         |                              |          |      |           |            |
|                         |                              |          |      |           |            |
|                         |                              |          |      |           |            |
|                         |                              |          |      |           |            |
| Total Construction Cost |                              |          |      | \$5,250   |            |

# ITEMIZED COST ESTIMATE

INCIDENTAL PROJECT COSTS

**Construction Permits** \$100 Performance Bond \$100 Insurance \$100 \$800 15% O&P Subtotal \$1,100 Subtotal \$6,350 Construction Engineering @ 10% of Subtotal #1 \$635 Subtotal \$6,985 Contingency @ 15% of Subtotal #2 \$1,048 **Total Construction Cost** \$8,033 Contingency @ 15% of Subtotal #2 \$1,205 **Total Construction Cost** \$9,238 Preparation of Final Designs and Specifications \$739 Permitting @ 5% of Project Cost \$462 Legal @ 4% of Project Cost \$370 **Environmental Study** \$0 Total Project Cost \$10,808

## SITE PHOTOS: Covey Canal at Clarks







 Owner/Operator
 Circle B

 Site Name
 Reservoir on Rock Creek

 Type Of Project
 Dam Reconstruction

 Notes/Description
 Project 6

Location: 42.959434N, -110.836103W

Description: This site located high on Rock Creek is an existing dam in disrepair. The pool elevation has dropped in recent years and the once good ice fishing is now gone. The natural ground east of the dam experiences significant seepage. The dam is about 130' long and less than 10' high.

Proposed Project: The proposed project would grub the existing dam, reconstruct the slopes to 3H:1V, refurbish the outlet works and construct a new rip-rap armored spillway and extend a trench cutoff wall to the east.

| CONSTRUCTION COSTS |   |          |       |                    |            |
|--------------------|---|----------|-------|--------------------|------------|
|                    |   |          |       |                    |            |
| Item #             | Description   | Quantity | Unit  | Unit Cost          | Total Cost |
| 1                  | Mobilization  | 1        | LS    | \$20,000.00        | \$20,000   |
| 2                  | Grading and Grubbing                                    | 0.2      | Acres | \$2,000.00         | \$400      |
| 3                  | Top Soil Removal and Stockpile                          | -        | SY    | \$21.00            | \$0        |
| 4                  | Excavate Core Trench                                    | 510      | CY    | \$8.00             | \$4,080    |
| 5                  | Load Core Material At Borrow Source                     | 510      | CY    | \$8.00             | \$4,080    |
| 6                  | Haul Core Material from Borrow Source                   | 510      | CY    | \$9.00             | \$4,590    |
| 7                  | Spreading and Compaction, 3 passes, 6 inch lifts        | 510      | CY    | \$3.50             | \$1,785    |
| 8                  | Excavate Trench Drain                                   | 200      | LF    | \$25.00            | \$5,000    |
| 9                  | Install Trench Drain Pipe 12" Slotted C-900 PVC         | 200      | LF    | \$46.00            | \$9,200    |
| 10                 | Install Trench Drain Manhole                            | 1.0      | EA    | \$2,100.00         | \$2,100    |
| 11                 | Excavate Toe Drain                                      | 200      | LF    | \$270.00           | \$54,000   |
| 12                 | Install Toe Drain Pipe 8" Slotted C-900 PVC             | 200      | LF    | \$35.00            | \$7,000    |
| 13                 | Filter Sand, Chimney Drain, and Drain Furnish and Place | -        | CY    | \$25.00            | \$0        |
| 14                 | Random Fill Placement                                   | 1,000    | CY    | \$8.00             | \$8,000    |
| 15                 | Rip Rap Upstream Face of Dam                            | 90       | CY    | \$45.00            | \$4,050    |
| 16                 | Final Grading   | 1.0      | L.S.  | \$5,000.00         | \$5,000    |
| 17                 | Reseeding Dowstream Slopes                              | 0.5      | Acres | \$1,000.00         | \$500      |
| 18                 | Outlet/Inlet Protection Structure                       | 1.0      | L.S.  | \$5,000.00         | \$5,000    |
| 19                 | 36" Outlet Pipe   | 100.0    | L.F.  | \$75.00            | \$7,500    |
| 20                 | Outlet Gate and Gate Structure                          | 1.0      | L.S.  | \$25,000.00        | \$25,000   |
| 21                 | Spillway Excavation, Rock                               | 500      | CY    | \$8.00             | \$4,000    |
| 22                 | Rock Removal as Rip Rap                                 | 500      | CY    | \$4.00             | \$2,000    |
| 23                 | Spillway Concrete Slab at Crest of Dam                  | 50.0     | CY    | \$350.00           | \$17,500   |
| 24                 | Spillway Concrete Vertical                              | 20.0     | CY    | \$500.00           | \$10,000   |
| 25                 | Spillway Rip Rap Delivered and Placed (24" to 36" rock) | 20.0     | CY    | \$45.00            | \$900      |
|                    |   |          |       | Construction Total | \$201,685  |

INCIDENTAL PROJECT COSTS

| \$1,100   | Construction Permits                          |
|-----------|---|
| \$2,100   | Performance Bond                              |
| \$1,100   | Insurance                                     |
| \$30,253  | 15% O&P                                       |
| \$34,553  | Subtotal 1                                    |
| \$236,238 | Subtotal 2                                    |
| \$23,624  | Construction Engineering @ 10% of Subtotal #2 |
| \$259,862 | Subtotal 3                                    |
| \$38,979  | Contingency @ 15% of Subtotal #3              |

Total Construction Cost \$298,841

Preparation of Final Designs and Specifications \$23,907 Permitting @ 5% of Project Cost \$14,942 Legal @ 4% of Project Cost \$11,954 Environmental Study \$10,000

Total Project Cost \$359,644

### SITE PHOTOS: Reservoir on Rock Creek







Owner/Operator Cornia Site Name Quealv Reservoir Type Of Project Dam Reconstruction Project 1 Notes/Description

Location: 42.123501N, -110.928328W

Description: This site located three miles north east of Cokeville is a small reservoir that has been breached and is in need of reconstruction. The water will be used for stock water and irrigation. The current dam has a crest length of about 260 feet and is about 15 feet tall. The pool area is 10 acres.

Proposed Project: The proposed project would grub the existing dam, reconstruct the slopes to 3H:1V, refurbish the outlet works and construct a new rip-rap armored spillway. The core material is unknown at this time and consequently has been budgeted for replacement by trenching along the downstream slope.

| CONSTRUCTION COSTS |   |          |       |                    |            |
|--------------------|---|----------|-------|--------------------|------------|
|                    |   |          |       |                    |            |
| Item #             | Description   | Quantity | Unit  | Unit Cost          | Total Cost |
| 1                  | Mobilization  | 1        | LS    | \$30,000.00        | \$30,000   |
| 2                  | Grading and Grubbing                                    | 0.5      | Acres | \$2,000.00         | \$1,000    |
| 3                  | Top Soil Removal and Stockpile                          | 1,500    | SY    | \$8.00             | \$12,000   |
| 4                  | Excavate Core Trench                                    | 1,000    | CY    | \$8.00             | \$8,000    |
| 5                  | Load Core Material At Borrow Source                     | 2,400    | CY    | \$4.00             | \$9,600    |
| 6                  | Haul Core Material from Borrow Source                   | 2,400    | CY    | \$10.00            | \$24,000   |
| 7                  | Spreading and Compaction, 3 passes, 6 inch lifts        | 2,400    | CY    | \$3.50             | \$8,400    |
| 8                  | Excavate Trench Drain                                   | 100      | LF    | \$25.00            | \$2,500    |
| 9                  | Install Trench Drain Pipe 12" Slotted C-900 PVC         | 100      | LF    | \$46.00            | \$4,600    |
| 10                 | Install Trench Drain Manhole                            | 1.0      | EA    | \$2,100.00         | \$2,100    |
| 11                 | Excavate Toe Drain                                      | 250      | LF    | \$270.00           | \$67,500   |
| 12                 | Install Toe Drain Pipe 8" Slotted C-900 PVC             | 250      | LF    | \$35.00            | \$8,750    |
| 13                 | Filter Sand, Chimney Drain, and Drain Furnish and Place | 300      | CY    | \$25.00            | \$7,500    |
| 14                 | Random Fill Placement                                   | 2,500    | CY    | \$8.00             | \$20,000   |
| 15                 | Rip Rap Upstream Face of Dam                            | 100      | CY    | \$45.00            | \$4,500    |
| 16                 | Final Grading   | 0.5      | L.S.  | \$10,000.00        | \$5,000    |
| 17                 | Reseeding Dowstream Slopes                              | 0.5      | Acres | \$1,000.00         | \$500      |
| 18                 | Outlet/Inlet Protection Structure                       | 1.0      | L.S.  | \$5,000.00         | \$5,000    |
| 19                 | 36" Outlet Pipe   | 100.0    | L.F.  | \$75.00            | \$7,500    |
| 20                 | Outlet Gate and Gate Structure                          | 1.0      | L.S.  | \$25,000.00        | \$25,000   |
| 21                 | Spillway Excavation, Rock                               | 700      | CY    | \$8.00             | \$5,600    |
| 22                 | Rock Removal as Rip Rap                                 | 700      | CY    | \$4.00             | \$2,800    |
| 23                 | Spillway Concrete Slab at Crest of Dam                  | 55.0     | CY    | \$350.00           | \$19,250   |
| 24                 | Spillway Concrete Vertical                              | 20.0     | CY    | \$500.00           | \$10,000   |
| 25                 | Spillway Rip Rap Delivered and Placed (24" to 36" rock) | 20.0     | CY    | \$45.00            | \$900      |
|                    |   |          |       | Construction Total | \$292,000  |

INCIDENTAL PROJECT COSTS

| \$1,500   | Construction Permits                            |
|-----------|---|
| \$3,000   | Performance Bond                                |
| \$1,500   | Insurance                                       |
| \$43,800  | 15% O&P   |
| \$49,800  | Subtotal 1                                      |
| \$341,800 | Subtotal 2                                      |
| \$34,180  | Construction Engineering @ 10% of Subtotal #2   |
| \$375,980 | Subtotal 3                                      |
| \$56,397  | Contingency @ 15% of Subtotal #3                |
| \$432,377 | Total Construction Cost                         |
| 624 E00   | Proparation of Final Designs and Specifications |
| \$34,390  | Preparation of Final Designs and Specifications |
| \$21,015  | Permitting @ 5% of Project Cost                 |
| \$17,295  | Legal @ 4% of Project Cost                      |
| \$40,000  | Environmental Study                             |
| Ş545,881  | Total Project Cost                              |

Quealy Reservoir (drainage in foreground runs into pool)



Quealy Reservoir Dam



Quealy Reservoir Downstream Face



Quealy Reservoir Pool Area







 Owner/Operator
 Dayton-Crane

 Site Name
 Smiths Fork Near RR Track

 Type Of Project
 Bank Stabilzation

 Notes/Description
 Project 1

Location: 42.09299.1N, -110.961667W Bank Stablization 42.094311N, -110.962635W Headgate (one more just 80' upstream)

Description: This project area has several river bends that are eroding and about to break through leaving two stranded headgates. These headgates are in poor condition and have traditionally struggled to have adequate head in the river to divert. As far back as 30 years, straw bales and push up dams have been used to back up the water for diversion.

Proposed Project: The proposed project will stablize the banks at the small neck of land approaching break through. The project will also install two cross vanes between the small neck of land and the diversion locations to step up head for diversion.

| Item # | Description  | Quantity | Unit | Unit Cost      | Total Cost |
|--------|--|----------|------|----------------|------------|
| 1      | Mobilization   | 1        | LS   | \$2,000.00     | \$2,000    |
| 2      | Cross Vane Structure Excavation                      | 150      | L.F. | \$10.00        | \$1,500    |
| 3      | Import 24" to 36" Rock                               | 60       | CY   | \$50.00        | \$3,000    |
| 4      | Rock Placement on Cross Vanes                        | 100      | Each | \$30.00        | \$3,000    |
| 5      | Backfill Around Rocks With Native Streambed Material | 150      | L.F. | \$10.00        | \$1,500    |
| 6      | Grade Banks to 4:1 slope                             | 320      | L.F. | \$10.00        | \$3,200    |
| 7      | Import and Place Riprap on Graded Bank Slopes        | 320      | L.F. | \$26.00        | \$8,320    |
|        |  |          |      |                |            |
|        |  |          |      |                |            |
|        |  |          |      |                |            |
|        |  |          |      |                |            |
|        |  |          |      |                |            |
|        |  |          | Cons | truction Total | \$22,520   |

#### CONSTRUCTION COSTS

| Construction Permits                            | \$200    |
|---|----------|
| Performance Bond                                | \$300    |
| Insurance                                       | \$200    |
| 15% O&P   | \$3,378  |
| Subtotal 1                                      | \$4,078  |
| Subtotal 2                                      | \$26,598 |
| Construction Engineering @ 10% of Subtotal #2   | \$2,660  |
| Subtotal 3                                      | \$29,258 |
| Contingency @ 15% of Subtotal #3                | \$4,389  |
| Total Construction Cost                         | \$33,646 |
| Preparation of Final Designs and Specifications | \$2.692  |
| Permitting @ 5% of Project Cost                 | \$1,682  |
| Legal @ 4% of Draigat Cast                      | ć1 24C   |

- Legal @ 4% of Project Cost \$1,346
  - Environmental Study
    - Total Project Cost \$39,366

# SITE PHOTOS: Smiths Fork Near RR Track

Aerial View of Sites





Owner/Operator Dayton-Crane Site Name Type Of Project Headgate Replacement Notes/Description Project 2

Location: 42.352755N, -110.871828W Diversion

CONSTRUCTION COSTS

INCIDENTAL PROJECT COSTS

Description: These headgates are in poor condition and have traditionally struggled to have adequate head in the river to divert. As far back as 30 years, straw bales and push up dams have been used to back up the water for diversion.

Proposed Project: The headgates will be replaced with new structures perhaps combining the two diversions into a single diversion structure. In order to have full utility, the cross vanes proposed under Project 1 will be required.

| Item # | Description  | Quantity | Unit | Unit Cost          | Total Cost |
|--------|--|----------|------|--------------------|------------|
| 1      | Mobilization                                       | 1        | L.S. | \$2,000.00         | \$2,000    |
| 2      | Imported Embankment Material                       | 100      | CY   | \$20.00            | \$2,000    |
| 3      | Placement and compaction of of imported embankment | 100      | CY   | \$8.00             | \$800      |
| 4      | Dewatering of Site                                 | 1        | LS   | \$5,000.00         | \$5,000    |
| 5      | Footings and Turndown Slabs                        | 6        | CY   | \$300.00           | \$1,800    |
| 6      | Vertical Walls                                     | 8        | CY   | \$400.00           | \$3,200    |
| 7      | Stop Log Slots                                     | 1        | LS   | \$500.00           | \$500      |
| 8      | 48" x 48" Slide Gate                               | 2        | Each | \$1,500.00         | \$3,000    |
| 9      | Backfill New Structure                             | 1        | LS   | \$2,500.00         | \$2,500    |
|        |  |          |      |                    |            |
|        |  |          |      |                    |            |
|        |  |          |      |                    |            |
|        |  |          |      |                    |            |
|        |  |          |      |                    |            |
|        |  |          |      | Construction Total | \$20,800   |

\$200 **Construction Permits** Performance Bond \$300 \$200 Insurance 15% O&P \$3,120 Subtotal 1 \$3,820 Subtotal 2 \$24,620 Construction Engineering @ 10% of Subtotal #2 \$2,462 \$27,082 Subtotal 3 Contingency @ 15% of Subtotal #3 \$4,062 **Total Construction Cost** \$31,144 Preparation of Final Designs and Specifications \$2,492 Permitting @ 5% of Project Cost \$1,557

Permitting @ 5% of Project Cost \$1,557 Legal @ 4% of Project Cost \$1,246 Environmental Study \$7,000

Total Project Cost \$43,439

# SITE PHOTOS: 0

Aerial Photograph of headgates







 Owner/Operator
 Dayton-Crane

 Site Name
 West of UPRR

 Type Of Project
 Center Pivot Pipeline

 Notes/Description
 Project 3

Location: 42.096301N, -110.947060W Pipeline beginning on Smiths Fork 42.102237N, -110.966554W Approximate termination of Pipeline

Description: These hay pastures are presently irrigated by ditches (discussed under projects 1 and 2). The ditches experience water loss and are inefficient in spreading the water. The use of center pivots has been discussed as a means to better utilize available water. A pipeline to provide head to the center pivots and reduce coveyance losses is contemplated under this project. Each full pivot would be capable of 900 gpm. With this project, only one pivot would be constructed.

Proposed Project: The proposed project extends a pipeline along the existing ditch route utilizing the existing UPRR crossing. The project further extends the pipeline upstream on the Smiths Fork crossing the highway (at the bridge) and extending to an intake to be placed where the Smiths Fork Parallels Legion Park Drive. This 6,500' pipeline extension gains 28 feet of head. The additional head will be used to reduce pumping costs at the center piviot(s) but will not be sufficient to operate the pivots. In order to implement a single large center pivot, 5,400 feet of overhead power must be relocated.

| CONSTRU | CTION COSTS                                      |          |       |                |            |
|---------|--|----------|-------|----------------|------------|
|         |  |          |       |                |            |
| Item #  | Description                                      | Quantity | Unit  | Unit Cost      | Total Cost |
| 1       | Mobilization                                     | 1.0      | LS    | \$20,000.00    | \$20,000   |
| 2       | Grading and Grubbing                             | 1.0      | Acres | \$2,000.00     | \$2,000    |
| 3       | 15" PVC Pipe Pressure Class 100                  | 6,500    | L.F.  | \$20.00        | \$130,000  |
| 4       | RR and Highway Crossings Using Existing Conduits | 2        | Each  | \$5,000.00     | \$10,000   |
| 5       | Relocation of Overhead Powerline                 | 5,400    | L.F.  | \$22.00        | \$118,800  |
| 6       | 10" Centerpivot Supply line                      | 2,100    | L.F.  | \$20.00        | \$42,000   |
| 7       | Center Pivot                                     | 1,762    | L.F.  | \$65.00        | \$114,530  |
| 8       | 30 HP Pump                                       | 30       | HP    | \$550.00       | \$16,500   |
| 9       | Center Pivot Power Drop and Transformer          | 1        | L.S.  | \$10,000.00    | \$10,000   |
| 10      | Pump Pad and Wetwell                             | 6        | L.S.  | \$6,000.00     | \$36,000   |
| 11      | 15" Flushing Valve                               | 1        | Each  | \$5,000.00     | \$5,000    |
|         |  |          |       |                |            |
|         |  |          |       |                |            |
|         |  |          |       |                |            |
|         |  |          |       |                |            |
|         |  |          |       |                |            |
|         |  |          |       |                | 4-04.000   |
|         |  |          | Cons  | truction Total | \$504,830  |

#### INCIDENTAL PROJECT COSTS

Construction Permits \$2,600 Performance Bond \$5,100 \$2.600 Insurance 15% O&P \$75,725 Subtotal 1 \$86,025 Subtotal 2 \$590,855 Construction Engineering @ 10% of Subtotal #2 \$59,085 Subtotal 3 \$649,940 Contingency @ 15% of Subtotal #3 \$97,491 **Total Construction Cost** \$747,431

| Total Project Cost                              | \$879,494 |
|---|-----------|
| Environmental Study                             | \$5,000   |
| Legal @ 4% of Project Cost                      | \$29,897  |
| Permitting @ 5% of Project Cost                 | \$37,372  |
| Preparation of Final Designs and Specifications | \$59,794  |

#### SITE PHOTOS: West of UPRR



LCCD prepared conceptual drawing of center pivot requiring relocation of powerline

LCCD prepared conceptual drawing of center pivots avoiding powerline







| Owner/Operator    | Esterholt                 |
|-------------------|---------------------------|
| Site Name         | Raymond Creek Headgate    |
| Type Of Project   | Headgate and Ditch Lining |
| Notes/Description | Project 1                 |
|                   |                           |

Location: 42.270125N, -111.040804W Headgate Location

INCIDENTAL PROJECT COSTS

Description: This headgate consisting of two 24" gates has been difficult to operate. Ice in combination with the shale ground results in bank erosion and sedimentation.

Proposed Project: The project includes replacement of the headgate structure with a new structure possibly with slucing ability. About 200 feet of the channel will also be lined to address the ice/shale erosion issues.

| CONSTRU | CONSTRUCTION COSTS                                  |          |      |                    |            |  |  |
|---------|---|----------|------|--------------------|------------|--|--|
|         |   |          |      |                    |            |  |  |
| Item #  | Description   | Quantity | Unit | Unit Cost          | Total Cost |  |  |
| 1       | Demolition and Removal of Old Structure and Grading | 1        | LS   | \$3,000.00         | \$3,000    |  |  |
| 2       | Footing and Turndown                                | 12       | CY   | \$300.00           | \$3,600    |  |  |
| 3       | Vertical Walls                                      | 15       | CY   | \$400.00           | \$6,000    |  |  |
| 4       |   |          |      |                    |            |  |  |
| 5       | 24" x 24" Slide Gate                                | 2        | Each | \$1,300.00         | \$2,600    |  |  |
| 6       | Backfill New Structure                              | 1        | LS   | \$800.00           | \$800      |  |  |
| 7       | Channel grading                                     | 200      | L.F. | \$6.00             | \$1,200    |  |  |
| 8       | Concrete Liner                                      | 200      | L.F. | \$60.00            | \$12,000   |  |  |
|         |   |          |      |                    |            |  |  |
|         |   |          |      |                    |            |  |  |
|         |   |          |      |                    |            |  |  |
|         |   |          |      |                    |            |  |  |
|         |   |          |      |                    |            |  |  |
|         | •   |          |      | Construction Total | \$29,200   |  |  |

| Construction Permits                            | \$200    |
|---|----------|
| Performance Bond                                | \$300    |
| Insurance                                       | \$200    |
| 15% O&P   | \$4,380  |
| Subtotal 1                                      | \$5,080  |
| Subtotal 2                                      | \$34,280 |
| Construction Engineering @ 10% of Subtotal #2   | \$3,428  |
| Subtotal 3                                      | \$37,708 |
| Contingency @ 15% of Subtotal #3                | \$5,656  |
| Total Construction Cost                         | \$43,364 |
|   |          |
| Preparation of Final Designs and Specifications | \$3,469  |
| Permitting @ 5% of Project Cost                 | \$2,168  |
| Legal @ 4% of Project Cost                      | \$1,735  |
| Environmental Study                             | \$0      |
| Total Project Cost                              | \$50,736 |
|   |          |

### SITE PHOTOS: Raymond Creek Headgate

Aerial View of Site







Owner/OperatorEtcheverrySite NameSmiths ForkType Of ProjectBank StabilzationNotes/DescriptionProject 1

Location: 42.341620N, -110.876478W 42.330742N, -110.875015W 42.314236N, -110.873428W 42.328868N, -110.876306W

Description: This project area has several river bends that are eroding bottom land causing turbidity and leaving gravel deposits and lower quality land with minimal soil. The banks are relatively steep to vertical and several feet high.

Proposed Project: The proposed project would reconstruct multiple sections of bank by reducing bank slope and armoring with imported rock. In addition, cross vanes or j hooks may be employed.

| Item # | Description                                    | Quantity | Unit    | Unit Cost    | <b>Total Cost</b> |
|--------|--|----------|---------|--------------|-------------------|
| 1      | Mobilization                                   | 1        | LS      | \$3,000.00   | \$3,000           |
| 2      | Install Rock Vanes using 24" Rock              | 100      | L.F.    | \$40.00      | \$4,000           |
| 3      | Grade Banks to 4:1 slope                       | 2,000    | L.F.    | \$10.00      | \$20,000          |
| 4      | Import and Place Rip-rap on Graded Bank Slopes | 2,000    | L.F.    | \$26.00      | \$52,000          |
|        |  |          |         |              |                   |
|        |  |          |         |              |                   |
|        |  |          |         |              |                   |
|        |  |          | Constru | uction Total | \$79.000          |

INCIDENTAL PROJECT COSTS

CONSTRUCTION COSTS

| Construction Permits                            | \$400     |
|---|-----------|
| Performance Bond                                | \$800     |
| Insurance                                       | \$400     |
| 15% O&P   | \$11,850  |
| Subtotal 1                                      | \$13,450  |
| Subtotal 2                                      | \$92,450  |
| Construction Engineering @ 10% of Subtotal #2   | \$9,245   |
| Subtotal 3                                      | \$101,695 |
| Contingency @ 15% of Subtotal #3                | \$15,254  |
| Total Construction Cost                         | \$116,949 |
| Preparation of Final Designs and Specifications | \$9,356   |
| Permitting @ 5% of Project Cost                 | \$5,847   |
| Legal @ 4% of Project Cost                      | \$4,678   |
| Environmental Study                             |           |
| Total Project Cost                              | \$136,831 |
|   |           |

### SITE PHOTOS: Smiths Fork

Aerial View of Sites









Owner/OperatorEtcheverrySite NameQuinn Bourne Ditch DiversionType Of ProjectCanal repairNotes/DescriptionProject 3

Location: 42.352755N, -110.871828W Diversion

Description: In this region the Smiths Fork River has eroded and moved away from the diversion point. The erosion of the channel resulted in the loss of head at the headgate located further down the approach channel. The operator would like to restore the channel elevation at the point of diversion and stabilize its location.

Proposed Project: The project includes construction of two cross vanes to raise head and stabilze the boundary between the approach channel and the stream bed.

| CONSTRUCTION COSTS |  |          |      |                    |            |
|--------------------|--|----------|------|--------------------|------------|
|                    |  |          |      |                    |            |
| Item #             | Description  | Quantity | Unit | Unit Cost          | Total Cost |
| 1                  | Mobilization   | 1        | L.S. | \$4,000.00         | \$4,000    |
| 2                  | Imported Embankment Material                         | 100      | CY   | \$20.00            | \$2,000    |
| 3                  | Placement and compaction of Imported Embankment      | 100      | CY   | \$8.00             | \$800      |
| 4                  | Cross Vane Structure Excavation                      | 160      | L.F. | \$10.00            | \$1,600    |
| 5                  | Import 24" to 36" Rock                               | 80       | CY   | \$50.00            | \$4,000    |
| 6                  | Rock Placement on Cross Vanes                        | 100      | Each | \$30.00            | \$3,000    |
| 7                  | Backfill Around Rocks With Native Streambed Material | 160      | L.F. | \$10.00            | \$1,600    |
|                    |  |          |      |                    |            |
|                    |  |          |      |                    |            |
|                    |  |          |      |                    |            |
|                    |  |          |      |                    |            |
|                    |  |          |      |                    |            |
|                    |  |          |      |                    |            |
|                    |  |          |      |                    |            |
|                    |  | -        |      | Construction Total | \$17,000   |

| INCIDENTAL | PROJECT | COSTS |
|------------|---------|-------|
|            |         |       |

\$100 **Construction Permits** Performance Bond \$200 \$100 Insurance 15% O&P \$2,550 Subtotal 1 \$2,950 Subtotal 2 \$19,950 Construction Engineering @ 10% of Subtotal #2 \$1,995 Subtotal 3 \$21,945 Contingency @ 15% of Subtotal #3 \$3,292 **Total Construction Cost** \$25,237 Preparation of Final Designs and Specifications \$2,019

Permitting @ 5% of Project Cost \$1,262 Legal @ 4% of Project Cost \$1,009 Environmental Study \$7,000

Total Project Cost \$36,527

### SITE PHOTOS: Quinn Bourne Ditch Diversion

Aerial Photograph of washed out area







Owner/Operator Etcheverry Site Name Bourne Creek Type Of Project New Dam Construction Notes/Description **Project 4** 

> Location: 42.326205N, -110.883296W 42.325541N, -110.886008W 42.325628N, -110.884845W

Description: These sites (or sites between) are proposed as potential small reservoir sites to store irrigation water, wildlife water and also to furnish water to a stock tank located out of the river bottom. This creek does not reach the main-stem of Smiths Fork but rather transforms into ditches that irrigate and infiltrate on the bottom land before reaching Smiths Fork. Consequently there is no connectivity for fish to travel into Bourne Creek.

Proposed Project: The proposed project would create a series of small reservoirs in the channel bottom of less than 20' in height. The reservoirs would be used for wildlife habitat and to provide water to a trough located on the sidehill out of the main channel. The trough would be located about 350' downstream of the dam.

| Item # | Description                                      | Quantity | Unit  | Unit Cost        | Total Cost |
|--------|--|----------|-------|------------------|------------|
| 1      | Mobilization                                     | 1        | LS    | \$20,000.00      | \$20,000   |
| 2      | Grading and Grubbing                             | 1.0      | Acres | \$2,000.00       | \$2,000    |
| 3      | Top Soil Removal and Stockpile                   | 3,300    | SY    | \$2.00           | \$6,600    |
| 4      | Load and Haul Borrow Material for Embankment     | 5,500    | CY    | \$14.00          | \$77,000   |
| 5      | Shape Embankment with Borrowed Material          | 5,500    | CY    | \$10.00          | \$55,000   |
| 6      | Load Lining Material At Borrow Source            | 2,500    | CY    | \$17.00          | \$42,500   |
| 7      | Haul Lining Material from Borrow Source          | 2,500    | CY    | \$18.00          | \$45,000   |
| 8      | Spreading and Compaction, 3 passes, 6 inch lifts | 2,500    | CY    | \$3.50           | \$8,750    |
| 9      | Final Grading                                    | 1        | L.S.  | \$10,000.00      | \$10,000   |
| 10     | Reseeding Outside Slopes                         | 1.0      | Acres | \$1,000.00       | \$1,000    |
| 11     | 2" HDPE Trough Supply Line                       | 350      | L.F.  | \$12.00          | \$4,200    |
| 12     | WaterTrough & Appurtenances                      | 1        | Each  | \$1,400.00       | \$1,400    |
| 13     | WaterTrough Piping, Fittings and Mounting        | 1        | Each  | \$1,000.00       | \$1,000    |
| 14     | 36" Outlet Pipe                                  | 120      | L.F.  | \$75.00          | \$9,000    |
| 15     | Outlet Gate and Gate Structure                   | 3        | L.S.  | \$15,000.00      | \$45,000   |
| 16     | Rock at Overflow                                 | 60       | CY    | \$8.00           | \$480      |
|        |  |          |       |                  |            |
|        |  |          | Co    | nstruction Total | \$328,930  |

#### CONSTRUCTION COSTS

INCIDENTAL PROJECT COSTS

| \$1,700   |
|-----------|
| \$3,300   |
| \$1,700   |
| \$49,340  |
| \$56,040  |
|           |
| \$384,970 |
|           |
| \$38,497  |
| \$423,466 |
|           |

Contingency @ 15% of Subtotal #3 \$63,520

> \$486,986 **Total Construction Cost**

Preparation of Final Designs and Specifications \$38,959 Permitting @ 5% of Project Cost \$24,349 Legal @ 4% of Project Cost \$19,479 Environmental Study \$50,000 **Total Project Cost** \$619,774





#### Bear River Watershed Study Level I Irrigation System Rehabilitation Engineer's Opinion of Probable Construction Costs



 Owner/Operator
 Pope and USFWS

 Site Name
 Pixley Diversion

 Type Of Project
 Diversion Headgate and Check Dam Structure

 Notes/Description
 Project 1

Location: 41.939220N, -111.988956W

Description: This site on the Bear River is a check structure and diversion dam known as Pixley. It is idendified in the Compact as the division between the Upper and Central basins. The dams bridge has been improved in recent years. The downstream toe requires heavy maintenance each year to protect the toe as seen in the aerial.

Proposed Project: The proposed project would construct a replacement dam with a similar alignment. In addition some downstream cross vanes would be added for bank protection and grade control at the toe of the dam.

| CONSTRUCTION COSTS |  |          |         |                    |            |
|--------------------|--|----------|---------|--------------------|------------|
|                    |  |          |         |                    |            |
| Item #             | Description  | Quantity | Unit    | Unit Cost          | Total Cost |
| 1                  | Mobilization   | 1        | LS      | \$2,000.00         | \$2,000    |
| 2                  | Cross Vane Structure Excavation                      | 1,300    | L.F.    | \$10.00            | \$13,000   |
| 3                  | Import 36" to 48" Rock                               | 1,200    | CY      | \$50.00            | \$60,000   |
| 4                  | Cross Vane Structure Excavation                      | 400      | L.F.    | \$10.00            | \$4,000    |
| 5                  | Import 36" to 48" Rock                               | 360      | CY      | \$50.00            | \$18,000   |
| 6                  | Rock Placement on Cross Vanes                        | 120      | Each    | \$30.00            | \$3,600    |
| 7                  | Backfill Around Rocks With Native Streambed Material | 400      | L.F.    | \$10.00            | \$4,000    |
| 8                  | Demolition and Removal of Old Structure and Grading  | 1        | LS      | \$15,000.00        | \$15,000   |
| 9                  | Temporary Channelization of Flow                     | 1        | LS      | \$10,000.00        | \$10,000   |
| 10                 | Footings and Turndown Slabs                          | 65       | CY      | \$300.00           | \$19,500   |
| 11                 | Vertical Walls                                       | 55       | CY      | \$400.00           | \$22,000   |
| 12                 | Stop Log Slots                                       | 1        | LS      | \$3,000.00         | \$3,000    |
| 13                 | Bridge Girders                                       | 3.9      | M.B.F.  | \$4,000.00         | \$15,600   |
| 14                 | Timber Planking or Steel Pan Decking                 | 600      | Sq. Ft. | \$12.00            | \$7,200    |
| 15                 | Timber Stop Logs 12" x 4" x 12'                      | 192      | L.F.    | \$10.00            | \$1,920    |
| 16                 |  |          |         |                    |            |
|                    |  |          |         | Construction Total | \$198,820  |

#### INCIDENTAL PROJECT COSTS

| Construction Permits                            | \$1,000   |
|---|-----------|
| Performance Bond                                | \$2,000   |
| Insurance                                       | \$1,000   |
| 15% O&P   | \$29,823  |
| Subtotal 1                                      | \$33,823  |
| Subtotal 2                                      | \$232,643 |
| Construction Engineering @ 10% of Subtotal #2   | \$23,264  |
| Subtotal 3                                      | \$255,907 |
| Contingency @ 15% of Subtotal #3                | \$38,386  |
| Total Construction Cost                         | \$294,293 |
| Preparation of Final Designs and Specifications | \$23,543  |
| Permitting @ 5% of Project Cost                 | \$14,715  |
| Legal @ 4% of Project Cost                      | \$11,772  |
| Environmental Study                             | \$20,000  |
| Total Project Cost                              | \$364,323 |

# SITE PHOTOS: Pixley Diversion

#### Pixley Diversion Structure

Pixley Diversion Stucture



Aerial View of the Diversion



Owner/OperatorPopeSite NamePixley LeveeType Of ProjectLevee RepairNotes/DescriptionProject 2



Location: 41.938582N, -111.984419W

Description: This site on the north (also considered west) side of the river contains a levee to keep irrigation water in the fields from running back into the river. The levee sections are low in profile and the sections in need of repair are believed to be less than 1500 feet. There will also be about three piped and gated drains through the levee for drainage control.

Proposed Project: The proposed project would reconstruct 1500 feet of levee and install three 18" drain pipes.

| CONSTRUCTION COSTS |   |          |          |            |            |  |
|--------------------|---|----------|----------|------------|------------|--|
|                    |   |          |          |            |            |  |
| Item #             | Description   | Quantity | Unit     | Unit Cost  | Total Cost |  |
| 1                  | Mobilization  | 1        | LS       | \$2,000.00 | \$2,000    |  |
| 2                  | Grubbing  | 1,500    | Sq. Yd.  | \$1.00     | \$1,500    |  |
| 3                  | Install 18" Drain Pipe                                | 30       | L.F.     | \$40.00    | \$1,200    |  |
| 4                  | Install 18" Slide Gates                               | 3.0      | Each     | \$300.00   | \$900      |  |
|                    | Import Material and Repair/Construct 2' High Levee in |          |          |            |            |  |
| 5                  | Multipe Areas   | 1,500    | L.F.     | \$20.00    | \$30,000   |  |
| 6                  |   |          |          |            |            |  |
|                    |   |          |          |            |            |  |
| Construction Total |   |          | \$35,600 |            |            |  |

#### INCIDENTAL PROJECT COSTS

| Construction Permits                            | \$200    |
|---|----------|
| Performance Bond                                | \$400    |
| Insurance                                       | \$200    |
| 15% O&P   | \$5,340  |
| Subtotal 1                                      | \$6,140  |
| Subtotal 2                                      | \$41,740 |
| Construction Engineering @ 10% of Subtotal #2   | \$4,174  |
| Subtotal 3                                      | \$45,914 |
| Contingency @ 15% of Subtotal #3                | \$6,887  |
| Total Construction Cost                         | \$52,801 |
|   |          |
|   |          |
| Preparation of Final Designs and Specifications | \$4,224  |

- Legal @ 4% of Project Cost \$2,112
  - Environmental Study \$0
  - Total Project Cost \$61,777
## SITE PHOTOS: Pixley Levee







 Owner/Operator
 Pope

 Site Name
 Covey Canal Crossing

 Type Of Project
 Bridge

 Notes/Description
 Project 3



Location: 41.939220N, -111.988956W

Description: This site on the Covey Canal is in need of a bridge crossing. The former crossing was removed at some point in the past and cattle now have a difficult time crossing this location. The crossing is primarily used by cattle although vehicles could also use the crossing.

Proposed Project: The proposed project would construct a replacement bridge at this location.

#### CONSTRUCTION COSTS

| Item # | Description                                    | Quantity | Unit    | Unit Cost          | Total Cost |
|--------|--|----------|---------|--------------------|------------|
| 1      | Mobilization                                   | 1        | LS      | \$2,000.00         | \$2,000    |
| 2      | Sleepers at Abutments                          | 2        | Each    | \$300.00           | \$600      |
| 3      | Backfill Sleepers and Construct Approach Ramps | 1        | L.S.    | \$1,000.00         | \$1,000    |
| 4      | Bridge Girders                                 | 1.6      | M.B.F.  | \$4,000.00         | \$6,400    |
| 5      | Timber Planking or Steel Pan Decking           | 250      | Sq. Ft. | \$12.00            | \$3,000    |
| 6      |  |          |         |                    |            |
|        |  |          |         |                    |            |
|        |  |          |         | Construction Total | \$13,000   |

#### INCIDENTAL PROJECT COSTS

| Construction Permits                            | \$100    |
|---|----------|
| Performance Bond                                | \$200    |
| Insurance                                       | \$100    |
| 15% O&P   | \$1,950  |
| Subtotal 1                                      | \$2,350  |
| Subtotal 2                                      | \$15,350 |
| Construction Engineering @ 10% of Subtotal #2   | \$1,535  |
| Subtotal 3                                      | \$16,885 |
| Contingency @ 15% of Subtotal #3                | \$2,533  |
| Total Construction Cost                         | \$19,418 |
| Preparation of Final Designs and Specifications | \$1,553  |
| Permitting @ 5% of Project Cost                 | \$971    |

| Total Project Cost              | \$22,719 |
|---------------------------------|----------|
| Environmental Study             | \$0      |
| Legal @ 4% of Project Cost      | \$777    |
| Permitting @ 5% of Project Cost | \$971    |

## SITE PHOTOS: Covey Canal Crossing

Aerial View of Site (Note overhead power lines)





### Bear River Watershed Study Level I Irrigation System Rehabilitation Engineer's Opinion of Probable Construction Costs



 Owner/Operator
 Nate

 Site Name
 Sights Ditch Diversion

 Type Of Project
 Diversion Headgate Structure and Pushup Dam

 Notes/Description
 Project 1

Location: 42.133857N, -110.973089W

CONSTRUCTION COSTS

INCIDENTAL PROJECT COSTS

Description: This headgate (Sights Ditch) recieves water from the Bear River via a 48" culvert under the UPRR grade. A slough on the east side of the tracks also conveys flow (originating from return flows from irrigated lands) to the headgate. The diversion requires maintenance of a push up dam in the Bear River as well as continual cleaning of the culvert as beavers try to dam the flow from the east. Depending on the time of year flow could be required to pass east to west under the tracks or west to east in other seasons. The operator would like to be able to direct flows east or west as well as completely stop flows as necessary to divert slough flows into the ditch.

Proposed Project: The project includes the replacement of the headgate (due to a bent stem and frame) installation of a headwall and gate on the west side to flush the approach channel and drop water levels in the slough, and installation of a headwall and gate on the east side of the RR crossing. A secondary project would establish grade control in the main river channel by the installation of two or three V type rock cross vanes. Worksite access is difficult due to the RR alignment.

| Item # | Description   | Quantity | Unit | Unit Cost          | Total Cost |
|--------|---|----------|------|--------------------|------------|
| 1      | Demolition and Removal of Old Structure and Grading   | 1        | LS   | \$8,000.00         | \$8,000    |
| 2      | Dewatering of Site                                    | 1        | LS   | \$20,000.00        | \$20,000   |
| 3      | Footings and Turndown Slabs                           | 13       | CY   | \$300.00           | \$3,900    |
| 4      | Vertical Walls  | 20       | CY   | \$400.00           | \$8,000    |
| 5      | Stop Log Slots  | 1        | LS   | \$500.00           | \$500      |
| 6      | 48" x 48" Slide Gate                                  | 3        | Each | \$1,500.00         | \$4,500    |
| 7      | Backfil New Structures                                |          | LS   | \$2,500.00         | \$2,500    |
| 8      |   |          |      |                    |            |
| 9      | Cross Vane Structure Excavation                       | 800      | L.F. | \$10.00            | \$8,000    |
| 10     | Import 36" to 48" Rock                                | 720      | CY   | \$50.00            | \$36,000   |
| 11     | Rock Placement on Cross Vanes                         | 240      | Each | \$30.00            | \$7,200    |
| 12     | Backfill around rocks with native stream bed material | 800      | L.F. | \$10.00            | \$8,000    |
|        |   |          |      |                    |            |
|        |   |          |      |                    |            |
|        |   |          |      | Construction Total | \$106,600  |

#### **Construction Permits** \$600 Performance Bond \$1,100 Insurance \$600 15% O&P \$15,990 Subtotal 1 \$18,290 Subtotal 2 \$124,890 Construction Engineering @ 10% of Subtotal #2 \$12,489 Subtotal 3 \$137,379 Contingency @ 15% of Subtotal #3 \$20,607

Total Construction Cost \$157,986

| Total Project Cost                              | \$184,843         |
|---|-------------------|
| Environmental Study                             | \$0               |
| Legal @ 4% of Project Cost                      | \$6,319           |
| Permitting @ 5% of Project Cost                 | \$7,899           |
| Preparation of Final Designs and Specifications | \$12 <i>,</i> 639 |

Aerial view of Sights Ditch headgate and diversion under UPRR



Existing Sights heagate (note leaning wheel caused by bent stem)

Approach Channel and push up dam



Slough on east side (Sights Ditch exits foreground left)







Owner/Operator Project Proposed by Thornock - Owner/Operator to be determined Site Name Pine Creek Reservoir Type Of Project New Dam Construction Notes/Description Project 3

Location: 42.104312N, -110.856187W

Description: This site is located five miles east of Cokeville at the mouth of Pine Creek. Construction of a dam to detain spring runoff, winter flows and large precipitation events would improve irrigation reliablity. The proposed dam and pool would be located on State land. A variation on this proposal would be to convey the flows in an existing ditch to a draw located southward for storage. (That concept variation was not pursued as part of this analysis.)

Proposed Project: The proposed project would create a reservoir of 100 to 120 acre-feet by construction of a 25' tall x 1,100' long dam. The pool area would be 9 to 10 acres.

| CONSTRU | ICTION COSTS  |          |       |                           |             |
|---------|---|----------|-------|---------------------------|-------------|
|         |   |          |       |                           |             |
| Item #  | Description   | Quantity | Unit  | Unit Cost                 | Total Cost  |
| 1       | Mobilization  | 1        | LS    | \$100,000.00              | \$100,000   |
| 2       | Grading and Grubbing                                    | 5.0      | Acres | \$2,000.00                | \$10,000    |
| 3       | Top Soil Removal and Stockpile                          | 14,000   | SY    | \$21.00                   | \$294,000   |
| 4       | Load Core Material At Borrow Source                     | 20,000   | CY    | \$5.00                    | \$100,000   |
| 5       | Haul Core Material from Borrow Source                   | 20,000   | CY    | \$10.00                   | \$200,000   |
| 6       | Spreading and Compaction, 3 passes, 6 inch lifts        | 20,000   | CY    | \$3.50                    | \$70,000    |
| 7       | Excavate Trench Drain                                   | 300      | LF    | \$25.00                   | \$7,500     |
| 8       | Install Trench Drain Pipe 12" Slotted C-900 PVC         | 300      | LF    | \$46.00                   | \$13,800    |
| 9       | Install Trench Drain Manhole                            | 1        | EA    | \$2,100.00                | \$2,100     |
| 10      | Excavate Toe Drain                                      | 1,100    | LF    | \$270.00                  | \$297,000   |
| 11      | Install Toe Drain Pipe 8" Slotted C-900 PVC             | 1,100    | LF    | \$35.00                   | \$38,500    |
| 12      | Filter Sand, Chimney Drain, and Drain Furnish and Place | 7,000    | CY    | \$25.00                   | \$175,000   |
| 13      | Random Fill Placement                                   | 60,000   | CY    | \$8.00                    | \$480,000   |
| 14      | Rip Rap Upstream Face of Dam                            | 700      | CY    | \$45.00                   | \$31,500    |
| 15      |   |          |       |                           |             |
| 16      | Final Grading   | 1        | L.S.  | \$10,000.00               | \$10,000    |
| 17      | Reseeding dowstream slopes                              | 3.0      | Acres | \$1,000.00                | \$3,000     |
| 18      |   |          |       |                           |             |
| 19      | 48" Outlet Pipe   | 210      | L.F.  | \$100.00                  | \$21,000    |
| 20      | Outlet Gate and Gate Structure                          | 1        | L.S.  | \$35,000.00               | \$35,000    |
| 21      | Spillway Excavation                                     | 5,000    | CY    | \$5.00                    | \$25,000    |
| 22      |   |          |       |                           |             |
| 23      | Spillway Concrete Slab                                  | 150      | CY    | \$350.00                  | \$52,500    |
| 24      | Spillway Concrete Vertical                              | 120      | CY    | \$500.00                  | \$60,000    |
| 25      | Spillway Rip Rap Delivered and Placed                   | 600      | CY    | \$45.00                   | \$27,000    |
|         |   |          |       | <b>Construction Total</b> | \$2,052,900 |

INCIDENTAL PROJECT COSTS

| Construction Permits \$                             | 10,300 |
|---|--------|
| Performance Bond \$                                 | 20,600 |
| Insurance \$  | 10,300 |
| 15% O&P \$3   | 07,935 |
| Subtotal 1 \$3                                      | 49,135 |
| Subtotal 2 \$2,4                                    | 02,035 |
| Construction Engineering @ 10% of Subtotal #2 \$2   | 40,204 |
| Subtotal 3 \$2,6                                    | 42,239 |
| Contingency @ 15% of Subtotal #3 \$3                | 96,336 |
| Total Construction Cost \$3,0                       | 38,574 |
| Prenaration of Final Designs and Specifications \$2 | 43 086 |
| Permitting @ 5% of Project Cost \$1                 | 51.929 |
| Legal @ 4% of Project Cost \$1                      | 21,543 |

Environmental Study

**Total Project Cost** 

\$100,000

\$3,655,132

### SITE PHOTOS: Pine Creek Reservoir

View looking north along axis of proposed dam





Aerial view of site showing potential pool outline







 Owner/Operator
 Teichert

 Site Name
 Reservoir West of HWY 30

 Type Of Project
 New Dam Construction

 Notes/Description
 Project 1

Location: 42.034088N, -110.933229W

Description: This site located at the upper corner of 150 acres, is proposed for a reservoir. The acreage currenlty receives 2 cfs during irrigation season. The water is distributed through a series of ditches running diagonally across the land. The main difficulty is that the 2 cfs flow rate is insufficient to wet the ditches to the end.

Proposed Project: The proposed project would create a reservoir of 4 acre feet to store a full days irrigation flow. The water would then be released at a rate of 10 to 20 cfs in order to reach the ends of the ditches. The project will require an inlet/outlet structure, a 10" pipeline 1,250' in length to the Mau Ditch, and some enlargement of existing ditches.

| CONSTRU | ICTION COSTS                                     |          |       |                    |            |
|---------|--|----------|-------|--------------------|------------|
|         |  |          |       |                    |            |
| Item #  | Description                                      | Quantity | Unit  | Unit Cost          | Total Cost |
| 1       | Mobilization                                     | 1.0      | LS    | \$18,000.00        | \$18,000   |
| 2       | Grading and Grubbing                             | 2.0      | Acres | \$2,000.00         | \$4,000    |
| 3       | Top Soil Removal and Stockpile                   | 9,680    | SY    | \$2.00             | \$19,360   |
| 4       | Load and Haul Borrow Material for Embankment     | 7,000    | CY    | \$15.00            | \$105,000  |
| 5       | Shape Embankment with Borrowed Material          | 7,000    | CY    | \$10.00            | \$70,000   |
| 6       | Load Lining Material At Borrow Source            | 1,700    | CY    | \$17.00            | \$28,900   |
| 7       | Haul Lining Material from Borrow Source          | 1,700    | CY    | \$18.00            | \$30,600   |
| 8       | Spreading and Compaction, 3 passes, 6 inch lifts | 1,700    | CY    | \$3.50             | \$5,950    |
| 9       | Final Grading                                    | 1        | L.S.  | \$5,000.00         | \$5,000    |
| 10      | Reseeding Outside Slopes                         |          | Acres | \$1,000.00         | \$2,000    |
| 11      | 10" Pipeline from Mau to Reservoir               | 1,250    | L.F.  | \$25.00            | \$31,250   |
| 12      | Gate and Gate Structure on Mau                   | 1        | L.S.  | \$3,000.00         | \$3,000    |
| 13      | 36" Outlet Pipe                                  | 40       | L.F.  | \$75.00            | \$3,000    |
| 14      | Outlet Gate and Gate Structure                   | 1        | L.S.  | \$15,000.00        | \$15,000   |
| 15      | Rock at Overflow                                 | 20       | CY    | \$8.00             | \$160      |
| 16      |  |          |       |                    |            |
| 17      |  |          |       |                    |            |
| 18      |  |          |       |                    |            |
| L       |  |          |       | Construction Total | \$341,220  |

#### INCIDENTAL PROJECT COSTS

| Construction Permits | \$1,800  |
|----------------------|----------|
| Performance Bond     | \$3,500  |
| Insurance            | \$1,800  |
| 15% O&P              | \$51,183 |
| Subtotal 1           | \$58,283 |
|                      |          |

Subtotal 2 \$399,503

- Construction Engineering @ 10% of Subtotal #2 \$39,950
  - Subtotal 3 \$439,453
  - Contingency @ 15% of Subtotal #3 \$65,918
    - Total Construction Cost \$505,371

Preparation of Final Designs and Specifications \$40,430 Permitting @ 5% of Project Cost \$25,269 Legal @ 4% of Project Cost \$20,215 Environmental Study \$50,000 Total Project Cost \$641,284





 Owner/Operator
 Julian

 Site Name
 Meadow

 Type Of Project
 Gated Pipe Irrigation System

 Notes/Description
 Project 10

Location: 41.734099N, -110.698730W

Description: This is a 50 acre grass meadow irrigated by sub water. The source at the head of the meadow supplies two ditches conveying water around the meadow but is also believed to be capable of supplying direct irrigation via gated pipe.

Proposed Project: The project includes construction of an outlet works at the existing supply pond to supply a 12" gated pipe to be run down the center of the meadow.

| CONSTRU |   |          |       |                    |            |
|---------|---|----------|-------|--------------------|------------|
| ltem #  | Description                                     | Quantity | Unit  | Unit Cost          | Total Cost |
| 1       | Mobilization                                    | 1        | L.S.  | \$4,000.00         | \$4,000    |
| 2       | Imported Embankent Material                     | 20       | CY    | \$20.00            | \$400      |
| 3       | Placement and Compaction of Imported Embankment | 20       | CY    | \$8.00             | \$160      |
| 4       | Final Grading                                   | 1        | L.S.  | \$400.00           | \$400      |
| 5       | Reseeding Perimeter Slopes                      | 0.1      | Acres | \$1,000.00         | \$100      |
| 6       | 12" Outlet Pipe                                 | 50       | L.F.  | \$35.00            | \$1,750    |
| 7       | 12" Slide Gate and Structure                    | 1        | L.S.  | \$2,000.00         | \$2,000    |
| 8       | Embankment Reconstruction Around Outlet Pipe    | 20       | CY    | \$40.00            | \$800      |
| 9       | 12" Gated Pipe                                  | 3,700    | L.F.  | \$16.00            | \$59,200   |
| 10      |   |          |       |                    |            |
|         |   |          |       |                    |            |
|         |   | _        |       |                    |            |
|         |   |          |       |                    |            |
|         | I   | 1        |       | Construction Total | \$68,810   |

INCIDENTAL PROJECT COSTS

| Construction Permits                            | \$400      |
|---|------------|
| Performance Bond                                | \$700      |
| Insurance                                       | \$400      |
| 15% O&P   | \$10,322   |
| Subtotal 1                                      | \$11,822   |
| Subtotal 2                                      | \$80,632   |
| Construction Engineering @ 10% of Subtotal #2   | \$8,063    |
| Subtotal 3                                      | \$88,695   |
| Contingency @ 15% of Subtotal #3                | \$13,304   |
| Total Construction Cost                         | \$101,999  |
| Prenaration of Final Decigns and Specifications | \$8 160    |
| Permitting @ 5% of Project Cost                 | \$5,100    |
| Legal @ 4% of Project Cost                      | \$4,080    |
| Environmental Study                             | ,050<br>¢۱ |
| Total Project Cost                              | \$119.339  |
|   |            |

## SITE PHOTOS: Meadow







**APPENDIX B** 

# **UNITA COUNTY**

# **UPLAND WATER DEVELOPMENT**

AND

**IRRIGATION PROJECTS** 

## Upland Water Projects – Uinta County

|                     |                        |                       |                       | Major Project Components      |                      |      |        |                        |                 |                       |
|---------------------|------------------------|-----------------------|-----------------------|-------------------------------|----------------------|------|--------|------------------------|-----------------|-----------------------|
| General<br>Location | Owner or Operator      | Number of<br>Projects | Spring<br>Development | Water Well or<br>Pump in Sump | Surface<br>Catchment | Tank | Trough | Small Dia.<br>Pipeline | Estima<br>Proje | ted Total<br>ct Costs |
|                     |                        |                       |                       |                               |                      |      |        |                        |                 |                       |
|                     | Cornielison            | 1                     | 1                     |                               |                      |      | 1      |                        | \$              | 15,430                |
| >                   | Brieninger             | 1                     |                       | 1                             |                      |      | 1      |                        | \$              | 51,424                |
| nut                 | BLM                    | 1                     |                       | 1                             |                      |      |        |                        | \$              | 96,121                |
| Ŝ                   | Hayduk                 | 1                     |                       |                               |                      |      | 1      | 1                      | \$              | 52,995                |
| nta                 | Hansen/YC Ranch        | 1                     | 1                     |                               |                      |      |        |                        | \$              | 12,430                |
| Ö                   | Loham                  | 1                     |                       |                               | 1                    |      |        |                        | \$              | 134,368               |
|                     |                        |                       |                       |                               |                      |      |        |                        |                 |                       |
|                     |                        |                       |                       |                               |                      |      |        |                        |                 |                       |
|                     | Total for Uinta County | 6                     | 2                     | 2                             | 1                    | 0    | 3      | 1                      | \$              | 363,000               |



 Owner/Operator
 Cornelison

 Site Name
 Spring on Stowe Creek

 Type Of Project
 Spring

 Notes/Description
 Project 2

Location: 41.188572 Lat, -110.823686 Long.

Description: This spring located high on the summer range is a good location for a trough that would help keep the stock high and reduce the distance it must travel to water. The construction site is difficult and remote consequently collection piping may need to be excavated.

Proposed Project: The spring would be developed by installation of a slotted 4" collection pipe that runs to a 100 gallon +/- collection vault. From the vault, two inch diameter poly lines will covey the flows to a trough located away from the spring in upland areas. The trough supply will be controlled by a float valve and excess water from the spring will spill at the spring and tank into a fence protected overflow channel.

# ITEMIZED COST ESTIMATE CONSTRUCTION COSTS

| Item # | Description                                       | Quantity | Unit       | Unit Cost        | Total Cost |
|--------|---|----------|------------|------------------|------------|
| 1      | Mobilization                                      | 1        | L.S.       | \$1,000.00       | \$1,000    |
| 2      | Excavation for New Spring Box and Collection Pipe | 6        | CY         | \$100.00         | \$600      |
| 3      | Trench Geotextile Drain Filter                    | 6        | SY         | \$20.00          | \$120      |
| 4      | Trench Backfill w/Native Material                 | 6        | CY         | \$36.00          | \$216      |
| 5      | 4" Trench Collection Pipe                         | 20       | LF         | \$8.00           | \$160      |
| 6      | Spring Box  | 1        | Each       | \$900.00         | \$900      |
| 7      | 2" Fittings at Spring Box                         | 1        | L.S.       | \$250.00         | \$250      |
| 8      | 2" HDPE Spring Overflow Line                      | 50       | LF         | \$4.00           | \$200      |
| 9      | WaterTrough & Appurtenances                       | 1        | Each       | \$1,400.00       | \$1,400    |
| 10     | WaterTrough Piping, Fittings and Mounting         | 1        | Each       | \$1,000.00       | \$1,000    |
| 11     | 2" HDPE SDR 11 Trough Supply Lines                | 50       | LF         | \$4.00           | \$200      |
| 12     | Final Grading                                     | 1        | L.S.       | \$1,000.00       | \$1,000    |
| 13     | Reseeding   | 500      | SF         | \$0.10           | \$50       |
| 14     | Fence   | 100      | L.F.       | \$2.00           | \$200      |
|        |   |          |            |                  |            |
|        |   |          |            |                  |            |
|        |   |          |            |                  |            |
|        |   | Su       | btotal Spr | ing Construction | \$7,296    |

#### INCIDENTAL PROJECT COSTS

| Construction Permits                            | \$100    |
|---|----------|
| Performance Bond                                | \$100    |
| Insurance                                       | \$100    |
| 15% O&P   | \$1,100  |
| Subtotal 1                                      | \$1,400  |
| Subtotal 2                                      | \$8,696  |
| Construction Engineering @ 10% of Subtotal #2   | \$870    |
| Subtotal 3                                      | \$9,566  |
| Contingency @ 15% of Subtotal #3                | \$1,435  |
| Total Construction Cost                         | \$11,000 |
| Preparation of Final Designs and Specifications | \$660    |
| Permitting @ 5% of Project Cost \$              |          |
| Legal @ 4% of Project Cost                      | \$440    |
| Environmental Study                             | \$3,000  |

**Total Project Cost** 

\$15,430

SITE PHOTOS: Spring on Stowe Creek





 Owner/Operator
 Brieninger

 Site Name
 Back Pasture

 Type Of Project
 Well & Trough

 Notes/Description
 Project 1



Location: 41.402911N, -110.007694W

Description: This site has been identified as a potential well site. The well would supply a trough that would then overflow onto a sloping pasture area. The site would be used to water wildlife or perhaps a few head of stock.

Proposed Project:

1) Install solar well

2) Install trough and overflow pipe

### ITEMIZED COST ESTIMATE

### CONSTRUCTION COSTS

| Item # | Description                           | Quantity | Unit  | Unit Cost  | Total Cost       |
|--------|---------------------------------------|----------|-------|------------|------------------|
| 1      | New Well                              | 200      | L.F.  | \$87.00    | \$17,400         |
| 2      |                                       |          |       |            |                  |
| 3      |                                       |          |       |            |                  |
| 4      | Tank Appurtenances & Hardware         | 1        | LS    | \$1,750.00 | \$1,750          |
| 5      | Pump and Pump Control Panel           | 1        | LS    | \$3,000.00 | \$3,000          |
| 6      |                                       |          |       |            |                  |
| 7      |                                       |          |       |            |                  |
| 8      | Trough                                | 1        | Each  | \$1,934.00 | \$1,934          |
| 9      | Solar Power Source                    | 800      | Watts | \$6.90     | \$5 <i>,</i> 520 |
|        |                                       |          |       |            |                  |
|        |                                       |          |       |            |                  |
|        | · · · · · · · · · · · · · · · · · · · |          |       |            | 400.000          |

Total Construction Cost \$29,604

#### INCIDENTAL PROJECT COSTS

| \$200    | Construction Permits                            |
|----------|---|
| \$300    | Performance Bond                                |
| \$200    | Insurance                                       |
| \$4,441  | 15% O&P   |
| \$5,141  | Subtotal 1                                      |
| \$34,745 | Subtotal 2                                      |
| \$3,474  | Construction Engineering @ 10% of Subtotal #2   |
| \$38,219 | Subtotal 3                                      |
| \$5,733  | Contingency @ 15% of Subtotal #3                |
| \$43,952 | Total Construction Cost                         |
| \$3,516  | Preparation of Final Designs and Specifications |
| \$2,198  | Permitting @ 5% of Project Cost                 |
| ¢1 750   | Logal @ 4% of Project Cast                      |

Legal @ 4% of Project Cost \$1,758 Environmental Study \$0

Total Project Cost \$51,424

## SITE PHOTOS: Back Pasture







 Owner/Operator
 BLM

 Site Name
 Medicine Butte

 Type Of Project
 Solar Well and Trough

 Notes/Description
 Project 9

Location: 41.367473N, -110.962528W (well)

INCIDENTAL PROJECT COSTS

Description: This site located about 2.5 miles east of the intersection of Highway 89 and Cromton Road, is a BLM administered upland area. Potential water may be had by drilling a well in this upland area.

Proposed Project: The project includes installation of a solar well along the ridge at a point that could be accessed by a rig. A short pipeline and trough would complete the project.

| CONSTRU |   |          |       |                    |            |
|---------|---|----------|-------|--------------------|------------|
| Item #  | Description                               | Quantity | Unit  | Unit Cost          | Total Cost |
| 1       | Mobilization                              | 1        | L.S.  | \$5,000.00         | \$5,000    |
| 2       | New 6" Well                               | 300      | L.F.  | \$87.00            | \$26,100   |
| 3       | Pump Test                                 | 14       | Hours | \$260.00           | \$3,640    |
| 4       | Pump Equipment                            | 0.7      | HP    | \$1,600.00         | \$1,120    |
| 5       | Solar Power Source                        | 800      | Watts | \$6.90             | \$5,520    |
| 6       |   |          |       |                    |            |
| 7       |   |          |       |                    |            |
| 8       | 2" Fittings at Spring Box                 | 1        | L.S.  | \$250.00           | \$250      |
| 9       | 2" HDPE Well Line to Trough               | 100      | LF    | \$4.00             | \$400      |
| 10      | 2000 Gallon Storage Tank                  | -        | Each  | \$4,000.00         | \$0        |
| 11      | 2" HDPE Trough Overflow Line              | 50       | LF    | \$4.00             | \$200      |
| 12      | WaterTrough & Appurtenances               | 3        | Each  | \$1,400.00         | \$4,200    |
| 13      | WaterTrough Piping, Fittings and Mounting | 3        | Each  | \$1,000.00         | \$3,000    |
| 14      |   |          |       |                    |            |
| 15      | Final Grading                             | 1        | L.S.  | \$1,000.00         | \$1,000    |
| 16      | Reseeding                                 | 1,000    | SF    | \$0.10             | \$100      |
| 17      | Fence around Solar Panel and Well         | 100      | L.F.  | \$2.00             | \$200      |
|         |   |          |       |                    |            |
|         |   |          |       |                    |            |
|         |   |          |       |                    |            |
|         |   |          |       |                    |            |
|         |   |          |       | Construction Total | \$50,730   |

| \$300    |
|----------|
| \$600    |
| \$300    |
| \$7,610  |
| \$8,810  |
| \$59,540 |
| \$5,954  |
| \$65,493 |
|          |

Contingency @ 15% of Subtotal #3 \$9,824

Total Construction Cost \$75,317

| Preparation of Final Designs and Specifications | \$6,025  |
|---|----------|
| Permitting @ 5% of Project Cost                 | \$3,766  |
| Legal @ 4% of Project Cost                      | \$3,013  |
| Well Location Study                             | \$8,000  |
| Total Proiect Cost                              | \$96.121 |





Owner/OperatorHayduk RanchSite NameWell in Calving PenType Of ProjectPiped ConveyanceNotes/DescriptionProject 5

Location: 41.301552N, -111.014756W

INCIDENTAL PROJECT COSTS

Description: This project is located on private property in the calving pasture of the Hayduk Ranch. This pasture, used in the spring for calving, lacks a water source.

Proposed Project: The project is to construct a "Ritchie trough" and hydro tank to supply the trough. The facility would be constructed near the structure to afford power and a warm location for the hydro tank. A new 100' well would be used to supply the trough. The estimated 0.5 hp pump would be powered by the house electrical.

| CONSTRU | CTION COSTS                                       |          |         |                    |            |
|---------|---|----------|---------|--------------------|------------|
|         |   |          |         |                    |            |
| Item #  | Description                                       | Quantity | Unit    | Unit Cost          | Total Cost |
| 1       | Mobilization                                      | 1        | L.S.    | \$1,000.00         | \$1,000    |
| 2       | New 6" Well                                       | 100      | L.F.    | \$90.00            | \$9,000    |
| 3       | Pump Test   | 14       | Hours   | \$260.00           | \$3,640    |
| 4       | Pump Equipment                                    | 0.5      | HP      | \$3,500.00         | \$1,750    |
| 5       | Underground Power in 2" Conduit (use house panel) | 120      | L.F.    | \$30.00            | \$3,600    |
| 6       | Hydropneumatic Tank (100 Gallon)                  | 1        | Each    | \$2,500.00         | \$2,500    |
| 7       | 1" Piping   | 100      | L.F.    | \$15.00            | \$1,500    |
| 8       | "Ritche" Tank/Trough                              | 1        | Each    | \$3,500.00         | \$3,500    |
| 9       | Tank Pad 2" Rock x 6" Thick                       | 6        | Cu. Yd. | \$50.00            | \$300      |
| 10      | Tank Pad Concrete                                 | 2        | Cu. Yd. | \$300.00           | \$600      |
| 11      | Final Grading                                     | 1        | L.S.    | \$2,000.00         | \$2,000    |
| 12      | Reseeding   | 500      | SF      | \$0.10             | \$50       |
| 13      | Fence around Well                                 | 100      | L.F.    | \$10.00            | \$1,000    |
| 14      |   |          |         |                    |            |
| 15      |   |          |         |                    |            |
| 16      |   |          |         |                    |            |
|         |   |          |         | Construction Total | \$30,440   |

| Construction Permits<br>Performance Bond<br>Insurance<br>15% O&P<br>Subtotal 1   | \$200<br>\$400<br>\$200<br>\$4,566<br><b>\$5,366</b>    |
|--|---|
| Subtotal 2   | \$35,806  |
| Construction Engineering @ 10% of Subtotal #2  | \$3,581   |
| Subtotal 3   | \$39,387  |
| Contingency @ 15% of Subtotal #3   | \$5,908   |
| Total Construction Cost  | \$45,295  |
| Preparation of Final Designs and Specifications<br>Permitting @ 5% of Project Cost<br>Legal @ 4% of Project Cost<br>Environmental Study<br><b>Total Project Cost</b> | \$3,624<br>\$2,265<br>\$1,812<br>\$0<br><b>\$52,995</b> |

## SITE PHOTOS: Well in Calving Pen

Proposed trough location is left of spruce tree.







 Owner/Operator
 Hansen

 Site Name
 Spring on Yellow Creek

 Type Of Project
 Spring

 Notes/Description
 Project 3

Location: 41.188100 Lat, -111.028688 Long.

Description: This spring located just above the pasture is a good location for a trough that would help keep the stock away from Yellow Creek.

Proposed Project: The spring would be developed by installation of a slotted 4" collection pipe that runs to a 100 gallon +/- collection vault. From the vault, two inch diameter poly lines will covey the flows to a trough located away from the spring in upland areas. The trough supply will be controlled by a float valve and excess water from the spring will spill at the spring and tank into a fence protected overflow channel.

# ITEMIZED COST ESTIMATE CONSTRUCTION COSTS

| Item # | Description                                       | Quantity | Unit     | Unit Cost           | Total Cost |
|--------|---|----------|----------|---------------------|------------|
| 1      | Mobilization                                      | 1        | L.S.     | \$1,000.00          | \$1,000    |
| 2      | Excavation for New Spring Box and Collection Pipe | 6        | CY       | \$100.00            | \$600      |
| 3      | Trench Geotextile Drain Filter                    | 6        | SY       | \$20.00             | \$120      |
| 4      | Trench Backfill w/Native Material                 | 6        | CY       | \$36.00             | \$216      |
| 5      | 4" Trench Collection Pipe                         | 20       | LF       | \$8.00              | \$160      |
| 6      | Spring Box  | 1        | Each     | \$900.00            | \$900      |
| 7      | 2" Fittings at Spring Box                         | 1        | L.S.     | \$250.00            | \$250      |
| 8      | 2" HDPE Spring Overflow Line                      | 50       | LF       | \$4.00              | \$200      |
| 9      | WaterTrough & Appurtenances                       | 1        | Each     | \$1,400.00          | \$1,400    |
| 10     | WaterTrough Piping, Fittings and Mounting         | 1        | Each     | \$1,000.00          | \$1,000    |
| 11     | 2" HDPE SDR 11 Trough Supply Lines                | 50       | LF       | \$4.00              | \$200      |
| 12     | Final Grading                                     | 1        | L.S.     | \$1,000.00          | \$1,000    |
| 13     | Reseeding   | 500      | SF       | \$0.10              | \$50       |
| 14     | Fence   | 100      | L.F.     | \$2.00              | \$200      |
| 15     |   |          |          |                     |            |
| 16     |   |          |          |                     |            |
| 17     |   |          |          |                     |            |
|        |   |          | Subtotal | Spring Construction | \$7,296    |

### INCIDENTAL PROJECT COSTS

| Construction Permits                            | \$100    |
|---|----------|
| Performance Bond                                | \$100    |
| Insurance                                       | \$100    |
| 15% O&P   | \$1,100  |
| Subtotal 1                                      | \$1,400  |
| Subtotal 2                                      | \$8,696  |
| Construction Engineering @ 10% of Subtotal #2   | \$870    |
| Subtotal 3                                      | \$9,566  |
| Contingency @ 15% of Subtotal #3                | \$1,435  |
| Total Construction Cost                         | \$11,000 |
| Prenaration of Final Designs and Specifications | \$660    |
| Permitting @ 5% of Project Cost                 | \$330    |
| Legal @ 4% of Project Cost                      | \$440    |
| Environmental Study                             | \$0      |
| Total Project Cost                              | \$12,430 |

## SITE PHOTOS: Spring on Yellow Creek







| Owner/Operator    | Loham                     |
|-------------------|---------------------------|
| Site Name         | Elizabeth Loham Reservoir |
| Type Of Project   | Dam Reconstruction        |
| Notes/Description | Project 1                 |

Location: 41.043989N, -110.974362W

Description: This site located in the SE1/4 of Section 5, T12N R120 on Bessie Bottom Draw and was originally constructed sometime before 1960. The watershed, the dam location, and the surrounding area contribute to the reservoir being a reliable livestock water source and valuable wildlife habitat feature. However, the storage capacity of the dam and its subsequent value for livestock and wildlife is gradually decreasing because the dam's emergency spillway is the only outlet and has eroded down 6 feet below its presumably original height. This spillway runs water almost every year.

Proposed Project: The project will dam the current eroding emergency spillway, construct a new emergency spillway at the opposite end of the dam at approximately the same elevation as the original spillway, and install a principal spillway pipe to route normal runoff events (likely an 18-inch diameter pipe). The entire dam top will be rehabilitated to ensure at least 3 feet of freeboard above the new spillway. Along with the plugging of the eroding spillway, we estimate 2,500 cubic yards of earthwork. The rehabilitated reservoir will have a maximum surface area of 2.6 acres and approximate storage of 15.6 acre-feet.

| Item # | Description                                      | Quantity | Unit     | Unit Cost  | Total Cost |
|--------|--|----------|----------|------------|------------|
| 1      | Mobilization                                     | 1        | LS       | \$5,000.00 | \$5,000    |
| 2      | Grading and Grubbing                             | 0.3      | Acres    | \$2,000.00 | \$600      |
| 3      | Top Soil Removal and Stockpile                   | 600      | SY       | \$8.00     | \$4,800    |
| 4      | Excavate New Emergency Spillway                  | 1,500    | CY       | \$8.00     | \$12,000   |
| 5      | Rip Rap Emergency Spillway                       | 200      | CY       | \$45.00    | \$9,000    |
| 6      | Backfill Old Emergency Spillway                  | 1,000    | CY       | \$12.00    | \$12,000   |
| 7      | 18" Outlet Pipe                                  | 100.0    | L.F.     | \$45.00    | \$4,500    |
| 8      | Final Grading                                    | 0.5      | L.S.     | \$2,000.00 | \$1,000    |
| 9      | Reseeding Downstream Slopes                      | 0.5      | Acres    | \$1,000.00 | \$500      |
| 10     | Concrete Outlet/Inlet Protection for Outlet Pipe | 5        | CY       | \$200.00   | \$1,000    |
| 11     | Outlet Gate and Gate Structure                   | 1.0      | L.S.     | \$4,000.00 | \$4,000    |
|        |  |          | \$54,400 |            |            |

#### CONSTRUCTION COSTS

#### INCIDENTAL PROJECT COSTS

| Construction Permits | \$300    |
|----------------------|----------|
| Performance Bond     | \$600    |
| Insurance            | \$300    |
| 15% O&P              | \$8,160  |
| Subtotal 1           | \$9,360  |
| Subtotal 2           | \$63,760 |

- Construction Engineering @ 10% of Subtotal #2 \$6,376
  - Subtotal 3 \$70,136
  - Contingency @ 15% of Subtotal #3 \$10,520
    - Total Construction Cost \$80,656
- Preparation of Final Designs and Specifications
   \$6,453

   Permitting @ 5% of Project Cost
   \$4,033

   Legal @ 4% of Project Cost
   \$3,226

   Environmental Study
   \$40,000

   Total Project Cost
   \$134,368

## SITE PHOTOS: Elizabeth Loham Reservoir





# Irrigation Projects – Uinta County

|                     |                        |                       | Major Project Components |          |           |                      |                      |       |              |                            |
|---------------------|------------------------|-----------------------|--------------------------|----------|-----------|----------------------|----------------------|-------|--------------|----------------------------|
| General<br>Location | Owner or Operator      | Number of<br>Projects | Ditch<br>Improvements    | Headgate | Diversion | Reservoir<br>Storage | Bank<br>Stabilzation | Other | Estin<br>Pro | nated Total<br>bject Costs |
| Uinta County        | Cornielison            | 1                     |                          |          |           | 1                    |                      |       | \$           | 1,452,791                  |
|                     | Hayduk                 | 4                     |                          | 2        |           |                      |                      | 3     | \$           | 74,920                     |
|                     | Town of Bear River     | 1                     |                          |          | 1         |                      |                      |       | \$           | 193,166                    |
|                     | Robinson               | 1                     |                          |          |           |                      |                      | 1     | \$           | 11,848                     |
|                     | Simmons                | 4                     | 1                        | 1        | 1         | 1                    |                      | 1     | \$           | 241,725                    |
|                     | Hansen/YC Ranch        | 6                     |                          |          |           | 1                    | 1                    | 3     | \$           | 459,690                    |
|                     | Evanston City Ditch    | 2                     | 1                        |          |           |                      |                      |       | \$           | 5,095,109                  |
|                     |                        |                       |                          |          |           |                      |                      |       |              |                            |
|                     | Total for Uinta County | 19                    | 2                        | 3        | 2         | 3                    | 1                    | 8     | \$           | 7,530,000                  |


 Owner/Operator
 Cornelison

 Site Name
 Stowe Creek Reservoir

 Type Of Project
 New Dam Construction

 Notes/Description
 Project 1

Location: 41.195117N, -110.853619W

INCIDENTAL PROJECT COSTS

Description: This site is located seven miles south of Evanston on Stowe Creek along the UPRR. Construction of a dam to detain spring runoff and large precipitation events would allow irrigation of additional acreage by either downstream ditch diversions or by pumping to center pivots.

Proposed Project: The proposed project would create a reservoir of 220 to 250 acre feet by construction of a 20' tall x 420' long dam. The pool area would be 20 to 25 acres.

| CONSTRU | JCTION COSTS  |          |       |                    |            |
|---------|---|----------|-------|--------------------|------------|
|         |   |          |       |                    |            |
| Item #  | Description   | Quantity | Unit  | Unit Cost          | Total Cost |
| 1       | Mobilization  | 1        | LS    | \$50,000.00        | \$50,000   |
| 2       | Grading and Grubbing                                    | 4.0      | Acres | \$2,000.00         | \$8,000    |
| 3       | Top Soil Removal and Stockpile                          | 10,500   | SY    | \$8.00             | \$84,000   |
| 4       | Load Core Material At Borrow Source                     | 6,500    | CY    | \$4.00             | \$26,000   |
| 5       | Haul Core Material from Borrow Source                   | 6,500    | CY    | \$10.00            | \$65,000   |
| 6       | Spreading and Compaction, 3 passes, 6 inch lifts        | 6,500    | CY    | \$3.50             | \$22,750   |
| 7       | Excavate Trench Drain                                   | 100      | LF    | \$25.00            | \$2,500    |
| 8       | Install Trench Drain Pipe 12" Slotted C-900 PVC         | 100      | LF    | \$46.00            | \$4,600    |
| 9       | Install Trench Drain Manhole                            | 1        | EA    | \$2,100.00         | \$2,100    |
| 10      | Excavate Toe Drain                                      | 400      | LF    | \$27.00            | \$10,800   |
| 11      | Install Toe Drain Pipe 8" Slotted C-900 PVC             | 400      | LF    | \$35.00            | \$14,000   |
|         |   |          |       |                    |            |
| 12      | Filter Sand, Chimney Drain, and Drain Furnish and Place | 1,100    | CY    | \$25.00            | \$27,500   |
| 13      | Random Fill Placement                                   | 38,000   | CY    | \$8.00             | \$304,000  |
| 14      | Rip Rap Upstream Face of Dam                            | 500      | CY    | \$45.00            | \$22,500   |
| 15      |   |          |       |                    |            |
| 16      | Final Grading   | 1        | L.S.  | \$10,000.00        | \$10,000   |
| 17      | Reseeding Downstream Slopes                             | 2.0      | Acres | \$1,000.00         | \$2,000    |
| 18      |   |          |       |                    |            |
| 19      | 36" Outlet Pipe   | 210      | L.F.  | \$75.00            | \$15,750   |
| 20      | Outlet Gate and Gate Structure                          | 1        | L.S.  | \$25,000.00        | \$25,000   |
| 21      | Spillway Excavation, Rock                               | 1,500    | CY    | \$8.00             | \$12,000   |
| 22      | Rock Removal  | 1,500    | CY    | \$4.00             | \$6,000    |
| 23      | Spillway Concrete Slab                                  | 150      | CY    | \$350.00           | \$52,500   |
| 24      | Spillway Concrete Vertical                              | 50       | CY    | \$500.00           | \$25,000   |
| 25      | Spillway Rip Rap Delivered and Placed                   | 400      | CY    | \$45.00            | \$18,000   |
|         |   |          |       | Construction Total | \$810.000  |

| \$4,100     | Construction Permits                            |
|-------------|---|
| \$8,100     | Performance Bond                                |
| \$4,100     | Insurance                                       |
| \$121,500   | 15% O&P   |
| \$137,800   | Subtotal 1                                      |
| \$947,800   | Subtotal 2                                      |
| \$94,780    | Construction Engineering @ 10% of Subtotal #2   |
| \$1,042,580 | Subtotal 3                                      |
| \$156,387   | Contingency @ 15% of Subtotal #3                |
| \$1,198,967 | Total Construction Cost                         |
| \$95,917    | Preparation of Final Designs and Specifications |
| \$59,948    | Permitting @ 5% of Project Cost                 |

Preparation of Final Designs and Specifications \$95,917 Permitting @ 5% of Project Cost \$59,948 Legal @ 4% of Project Cost \$47,959 Environmental Study \$50,000 Total Project Cost \$1,452,791

### SITE PHOTOS: Stowe Creek Reservoir

View of Pool area from approximate dam location along UPRR.



View along axis of proposed dam



Downstream view from approximate dam site







Owner/Operator Havduk Ranch Site Name Saxton Diversion Type Of Project Diversion Headgate Structure Notes/Description Project 1

Location: 41.299937N, -110.009629W

Description: This site on Yellow Creek, tributary to Bear River, is an existing headgate (Saxton) with a concrete pier and stoplog dam constructed to divert water into the ditch. The dam has three bays created by two piers and the abutments. The piers and abutments are constructed on a common strip footing with only one pier showing severe corrosion. The Saxton headgate in in good condition and requires no work.

Proposed Project: The project includes wrapping the corroded pier in a concrete sleeve and installing two new stoplog channels in each side. The operator has historically used only two of the three openings so the estimated 16" loss in wier length can be made up by using the third wier.

| Item # | Description                          | Quantity | Unit | Unit Cost                 | Total Cost |
|--------|--------------------------------------|----------|------|---------------------------|------------|
| 1      | Mobilization                         | 1        | LS   | \$2,000.00                | \$2,000    |
| 2      | Clearing and Grubbing and Dewatering | 1        | LS   | \$4,000.00                | \$4,000    |
| З      | Vertical Walls                       | 3        | CY   | \$600.00                  | \$1,800    |
| 4      | Stop Log Slots                       | 1        | LS   | \$1,000.00                | \$1,000    |
| 5      |                                      |          |      |                           |            |
| 6      |                                      |          |      |                           |            |
| 7      |                                      |          |      |                           |            |
| 8      |                                      |          |      |                           |            |
| 9      |                                      |          |      |                           |            |
|        |                                      |          |      | <b>Construction Total</b> | \$8,800    |

INCIDENTAL PROJECT COSTS

CONSTRUCTION COSTS

| Construction Permits                            | \$100    |
|---|----------|
| Performance Bond                                | \$100    |
| Insurance                                       | \$100    |
| 15% O&P   | \$1,320  |
| Subtotal 1                                      | \$1,620  |
| Subtotal 2                                      | \$10,420 |
| Construction Engineering @ 10% of Subtotal #2   | \$1,042  |
| Subtotal 3                                      | \$11,462 |
| Contingency @ 15% of Subtotal #3                | \$1,719  |
| Total Construction Cost                         | \$13,181 |
| Preparation of Final Designs and Specifications | \$1,055  |
| Permitting @ 5% of Project Cost                 | \$659    |
| Legal @ 4% of Project Cost                      | \$527    |
| Environmental Study                             | \$0      |
| Total Project Cost                              | \$15,422 |

### SITE PHOTOS: Saxton Diversion

Dam from downstream side



Dam showing corroded pier



Dam from upstream side (Saxton headgate on left)





 Owner/Operator
 Hayduk Ranch

 Site Name
 Sims Creek

 Type Of Project
 Headgate Replacement

 Notes/Description
 Project 2



Location: 41.288685N, -110.997298W

INCIDENTAL PROJECT COSTS

Description: This project is located on Sims Creek and involves the replacement of a ditch diversion headwall and headgate that have deteriorated.

Proposed Project: The project includes replacement of the diversion headwall and 24" slide gate. The location has difficult access for concete trucks and is some distance to walk an excavator. A large backhoe with hammer attachment may be the best option to remove the structure.

| CONSTRU  | CTION COSTS                          |          |         |                    |            |
|----------|--------------------------------------|----------|---------|--------------------|------------|
| Itom #   | Description                          | Quantity | Unit    | Lipit Cost         | Total Cost |
| ILCIII # | Description                          | Quantity | Unit    | Unit Cost          | TULAT CUSL |
| 1        | Mobilization                         | 1        | LS      | \$4,000.00         | \$4,000    |
| 2        | Excavation and Clearing of Work Area | 1        | LS      | \$4,000.00         | \$4,000    |
| 3        | Steel Pile Head and Tail Walls       | 240      | Sq. Ft. | \$8.00             | \$1,920    |
| 4        | Steel Tie Rods                       | 8        | Each    | \$60.00            | \$480      |
| 5        | New 24" Slide Gate and Pipe          | 1        | LS      | \$2,500.00         | \$2,500    |
| 6        |                                      |          |         |                    |            |
| 7        |                                      |          |         |                    |            |
| 8        |                                      |          |         |                    |            |
| 9        |                                      |          |         |                    |            |
|          |                                      |          |         | Construction Total | \$12,900   |

**Construction Permits** \$100 Performance Bond \$200 Insurance \$100 15% O&P \$1,935 Subtotal 1 \$2,335 Subtotal 2 \$15,235 Construction Engineering @ 10% of Subtotal #2 \$1,524 Subtotal 3 \$16,759 Contingency @ 15% of Subtotal #3 \$2,514 **Total Construction Cost** \$19,272 Preparation of Final Designs and Specifications \$1,542

Preparation of Final Designs and Specifications \$1,542 Permitting @ 5% of Project Cost \$964 Legal @ 4% of Project Cost \$771 Environmental Study \$0 Total Project Cost \$22,549

### SITE PHOTOS: Sims Creek

Deteriorated Headwall (note exposed rebar where wall should be)





Site Name

Notes/Description Project 3

Owner/Operator Hayduk Ranch Flume Type Of Project Piped Conveyance



Location: 41.285856N, -110.000309W

CONSTRUCTION COSTS

Description: This project is located on private property and involves the reconstruction of a collapsed flume of 18" in diameter. The flume is used to covey a small ditch across Yellow Creek. The landowner has repaired the project in the past. However erosion undermined the abutment resulting in collapse.

Proposed Project: The project is to construct two abutments and install a welded steel pipeline of adequate wall thickness and diameter to bridge the 20' distance. For an 18" diameter pipe, a wall thickness of 3/16" will allow the full pipe to span a distance up to 40'.

| CONSTRU |   |          |         |                    |            |
|---------|---|----------|---------|--------------------|------------|
|         |   |          |         |                    |            |
| Item #  | Description                                       | Quantity | Unit    | Unit Cost          | Total Cost |
| 1       | Mobilization                                      | 1        | L.S.    | \$1,000.00         | \$1,000    |
| 2       | Abutment Excavation and Preparation               | 1        | L.S.    | \$4,000.00         | \$4,000    |
| З       | Abutment Construction with 120 deg Contact Saddle | 4        | Cu. Yd. | \$400.00           | \$1,600    |
| 4       | 3/16" Wall Welded Steel Pipe                      | 30       | L.F.    | \$30.00            | \$900      |
| 5       | Inlet and Outlet Structures                       | 1        | L.S.    | \$3,000.00         | \$3,000    |
| 6       | Abutment Backfill                                 | 1        | L.S.    | \$1,000.00         | \$1,000    |
| 7       |   |          |         |                    |            |
| 8       |   |          |         |                    |            |
| 9       |   |          |         |                    |            |
|         |   |          |         | Construction Total | \$11,500   |
|         |   |          |         |                    |            |

| Construction Perm                             | nits \$100    |
|---|---------------|
| Performance Bo                                | ond \$200     |
| Insurar                                       | nce \$100     |
| 15% O8  | P \$1.725     |
| Subtota                                       | al 1 \$2,125  |
| Subtota                                       | al 2 \$13,625 |
| Construction Engineering @ 10% of Subtotal    | #2 \$1,363    |
| Subtota                                       | al 3 \$14,988 |
| Contingency @ 15% of Subtotal                 | #3 \$2,248    |
| Total Construction Co                         | ost \$17,236  |
|   |               |
| Preparation of Final Designs and Specificatio | ns \$1,379    |
| Permitting @ 5% of Project Co                 | ost \$862     |
| Legal @ 4% of Project Co                      | ost \$689     |
| Environmental Stu                             | dy \$0        |
| Total Project Co                              | ost \$20,166  |
|   |               |

#### SITE PHOTOS: Flume

Flume in present condition







# Owner/Operator Hayduk Ranch Site Name WWTP Outfall Type Of Project Slide Gate Replacement Notes/Description Project 4

Location: 41.286101N, -110.003746W

Description: The City of Evanston WWTP effluent empties into Yellow Creek. The Hayduk Ranch can use the water if they can get it into their ditch before it reaches Yellow Creek. The outfall is equipped with a slide gate that can raise the water up and into a Hayduk Ranch ditch. The slide gate (aluminum) is believed to be corroded and unable to send the water to the Hayduk ranch ditch. Consequently water flows to a second flap gate at Yellow Creek. In order to use the effluent, Hayduk wedges the outfall at the river closed, and forces water back up to the upper gate and into their ditch.

Proposed Project: This project would replace the outfall slide gate with a new gate constructed of a less corrodable material.

| Item # | Description                            | Quantity | Unit  | Unit Cost                 | Total Cost |
|--------|--|----------|-------|---------------------------|------------|
| 1      | Coordination with the City of Evanston | 1        | LS    | \$2,500.00                | \$2,500    |
| 2      | Removal of Existing Slide Gate         | 8        | Hours | \$80.00                   | \$640      |
| 3      | New Slide Gate                         | 1        | LS    | \$5,500.00                | \$5,500    |
| 4      | Installation of New Slide Gate         | 12       | Hours | \$80.00                   | \$960      |
| 5      |  |          |       |                           |            |
| 6      |  |          |       |                           |            |
| 7      |  |          |       |                           |            |
| 8      |  |          |       |                           |            |
| 9      |  |          |       |                           |            |
|        |  |          |       | <b>Construction Total</b> | \$9,600    |

#### CONSTRUCTION COSTS

| INCIDENTAL | PROJECT | COSTS |
|------------|---------|-------|
| INCIDENTAL | TROJECT | 00010 |

| Construction Permits                            | \$100    |
|---|----------|
| Performance Bond                                | \$100    |
| Insurance                                       | \$100    |
| 15% O&P   | \$1,440  |
| Subtotal 1                                      | \$1,740  |
| Subtotal 2                                      | \$11,340 |
| Construction Engineering @ 10% of Subtotal #2   | \$1,134  |
| Subtotal 3                                      | \$12,474 |
| Contingency @ 15% of Subtotal #3                | \$1,871  |
| Total Construction Cost                         | \$14,345 |
| Preparation of Final Designs and Specifications | \$1.148  |
| Permitting @ 5% of Project Cost                 | \$717    |
| Legal @ 4% of Project Cost                      | \$574    |
| Environmental Study                             | \$0      |
| Total Project Cost                              | \$16,784 |

### SITE PHOTOS: WWTP Outfall

WWTP Slide Gate Wheel (Backgound)



WWTP Flap Gate in Hayduk ditch



WWTP Flap Gate at Yellow Creek (cross brace used to wedge gate shut)



Relationship of WWTP outfalls







 Owner/Operator
 Town of Bear River and Lee John Pierce

 Site Name
 Morris Diversion

 Type Of Project
 Diversion Headgate Structure

 Notes/Description
 Project 1

Location: 41.359891N, -111.015323W

Description: This site on the Bear River is an existing headgate (Morris) and a large pushup dam in the Bear River. The dam must raise the water about 4' in order to divert water to the Morris Ditch. The dam is made of small rock and washes out each year.

Proposed Project: The proposed project would construct a more permanent dam with a similar alignment. The dam could be large rock of greater stability with placement made to accommodate fish passage.

| CONSTRU | CTION COSTS   |          |      |                           |            |
|---------|---|----------|------|---------------------------|------------|
|         |   |          |      |                           |            |
| Item #  | Description   | Quantity | Unit | Unit Cost                 | Total Cost |
| 1       | Mobilization  | 1        | LS   | \$2,000.00                | \$2,000    |
| 2       | Cross Vane Structure Excavation                       | 1,300    | L.F. | \$10.00                   | \$13,000   |
| 3       | Import 36" to 48" Rock                                | 1,200    | CY   | \$50.00                   | \$60,000   |
| 4       | Rock Placement on Cross Vanes                         | 400      | Each | \$30.00                   | \$12,000   |
| 5       | Backfill Around Rocks With Native Stream Bed Material | 1,300    | L.F. | \$10.00                   | \$13,000   |
| 6       |   |          |      |                           |            |
| 7       |   |          |      |                           |            |
| 8       |   |          |      |                           |            |
| 9       |   |          |      |                           |            |
|         |   |          |      | <b>Construction Total</b> | \$100,000  |

| \$500     | Construction Permits                            |
|-----------|---|
| \$1,000   | Performance Bond                                |
| \$500     | Insurance                                       |
| \$15.000  | 15% O&P   |
| \$17,000  | Subtotal 1                                      |
| \$117,000 | Subtotal 2                                      |
| \$11,700  | Construction Engineering @ 10% of Subtotal #2   |
| \$128,700 | Subtotal 3                                      |
| \$19,305  | Contingency @ 15% of Subtotal #3                |
| \$148,005 | Total Construction Cost                         |
| ¢44.040   |   |
| \$11,840  | Preparation of Final Designs and Specifications |
| \$7,400   | Permitting @ 5% of Project Cost                 |
| \$5,920   | Legal @ 4% of Project Cost                      |
| \$20,000  | Environmental Study                             |
| \$193,166 | Total Project Cost                              |

### SITE PHOTOS: Morris Diversion

Approach channel to headgate



Push up dam on Bear River (note the relatively small rock)



Morris Ditch and Measuremend Device (foreground-right is diversion to Towns Morris Ditch)







Owner/OperatorRobinsonSite NameMcGraw Ditch Splitter StructureType Of ProjectFlow Division Structure on DitchNotes/DescriptionProject 1

Location: 41.018388N, -110.891174W

Description: This location is where the water is divided from the McGraw Ditch. The division of water has been difficult and a device is needed to insure proper division.

Proposed Project: The project includes construction of a simple wier splitter with stoplog control.

| CONSTRUCTION COSTS |                        |          |      |                    |            |  |
|--------------------|------------------------|----------|------|--------------------|------------|--|
|                    |                        |          |      |                    |            |  |
| Item #             | Description            | Quantity | Unit | Unit Cost          | Total Cost |  |
| 1                  | Access and Grading     | 1        | LS   | \$500.00           | \$500      |  |
| 2                  | Footing and Turndown   | 2        | CY   | \$350.00           | \$700      |  |
| 3                  | Vertical Walls         | 2        | CY   | \$500.00           | \$1,000    |  |
| 4                  | Stop Log Slots         | 1        | LS   | \$500.00           | \$500      |  |
| 5                  | Wier Plate             | 1        | Each | \$1,500.00         | \$1,500    |  |
| 6                  | Backfill New Structure | 1        | LS   | \$500.00           | \$500      |  |
| 7                  | Ditch Work             | 1        | LS   | \$2,000.00         | \$2,000    |  |
| 8                  |                        |          |      |                    |            |  |
| 9                  |                        |          |      |                    |            |  |
| _                  |                        |          |      | Construction Total | \$6,700    |  |

| Construction Permits                            | \$100    |
|---|----------|
| Performance Bond                                | \$100    |
| Insurance                                       | \$100    |
| 15% O&P   | \$1,005  |
| Subtotal 1                                      | \$1,305  |
| Subtotal 2                                      | \$8,005  |
| Construction Engineering @ 10% of Subtotal #2   | \$801    |
| Subtotal 3                                      | \$8,806  |
| Contingency @ 15% of Subtotal #3                | \$1,321  |
| Total Construction Cost                         | \$10,126 |
| Preparation of Final Designs and Specifications | \$810    |
| Permitting @ 5% of Project Cost                 | \$506    |
| Legal @ 4% of Project Cost                      | \$405    |
| Environmental Study                             | \$0      |
| Total Project Cost                              | \$11,848 |





Owner/Operator Simmons and Danielson Site Name Danielson Diversion Type Of Project Diversion Headgate Structure and Pushup Dam Notes/Description Project 1

Location: 41.013286N, -110.882085W

Description: This site on the east side of the Bear River, is an existing headgate and rock weir constructed to divert water into the ditch. It is presently outfitted with one gate with timber headwall and earthen tailwalls. The structure is eroded and rock leaks past the control gate. The rock dam in the river is in good condition but requires intensive annual maintenance to keep adequate water levels at the headgate. The ditch also entrains fish; several of which were in the ditch on the day of the site visit.

Proposed Project: The project includes demolition of the aging structure and construction of a new structure in the same location. The rock vane in the river will be reconstructed with a permanent structure and fish exclusion-return channel.

| CONSTRO |   |          |      |                           |            |
|---------|---|----------|------|---------------------------|------------|
|         |   |          |      |                           |            |
| Item #  | Description   | Quantity | Unit | Unit Cost                 | Total Cost |
| 1       | Demolition and Removal of Old Structure and Grading | 1        | LS   | \$8,000.00                | \$8,000    |
| 2       | Footing and Turndown                                | 12       | CY   | \$300.00                  | \$3,600    |
| 3       | Vertical Walls                                      | 15       | CY   | \$400.00                  | \$6,000    |
| 4       | Stop Log Slots                                      | 1        | LS   | \$500.00                  | \$500      |
| 5       | 48" x 48" Slide Gate                                | 1        | Each | \$1,500.00                | \$1,500    |
| 6       | Backfil New Structure                               | 1        | LS   | \$800.00                  | \$800      |
| 7       | Repair Rock Check Structure                         | 1        | LS   | \$4,000.00                | \$4,000    |
| 8       | 6"-12" Rip Rap                                      | 10       | CY   | \$125.00                  | \$1,250    |
| 9       |   |          |      |                           |            |
| · · ·   |   |          |      | <b>Construction Total</b> | \$25,650   |

INCIDENTAL PROJECT COSTS

CONSTRUCTION COSTS

| ermits \$200     | Construction Permits                            |
|------------------|---|
| e Bond \$300     | Performance Bond                                |
| urance \$200     | Insurance                                       |
| O&P \$3,848      | 15% O&P   |
| total 1 \$4,548  | Subtotal 1                                      |
| total 2 \$30,198 | Subtotal 2                                      |
| tal #2 \$3,020   | Construction Engineering @ 10% of Subtotal #2   |
| total 3 \$33,217 | Subtotal 3                                      |
| tal #3 \$4,983   | Contingency @ 15% of Subtotal #3                |
| n Cost \$38,200  | Total Construction Cost                         |
| ations \$3,056   | Preparation of Final Designs and Specifications |
| t Cost \$1,910   | Permitting @ 5% of Project Cost                 |
| t Cost \$1,528   | Legal @ 4% of Project Cost                      |
| Study \$C        | Environmental Study                             |
| t Cost \$44,694  | Total Project Cost                              |

Control Gate, tarp partially blocks seepage around close gate



Diversion weir and approach chanel



Control Gate, Note board along side to block bypass flow



Rock vane diversion wier



Control Structure viewed from downstream side



Control Structure viewed from top







Owner/OperatorSimmons and DanielsonSite NameDanielson DitchType Of ProjectDitch ConstructionNotes/DescriptionProject 2

Location: 41.0175511N, -110.885173W

INCIDENTAL PROJECT COSTS

Description: This project is located downstream of the Danielson diversion and involves a segment of the Danielson Ditch. This segment traverses a hillside and the downstream bank is of inadequate size to carry the full water right. The loss of water prevents irrigation of about 160 or more downstream acres.

Proposed Project: The project includes construction of the west bank of the ditch for a distance of about 400 yards. The ditch user believes there is no need to address seepage is this segment as it is of minimal impact.

| CONSTRUCTION COSTS |                                  |          |      |                    |            |  |
|--------------------|----------------------------------|----------|------|--------------------|------------|--|
|                    |                                  |          |      |                    |            |  |
| Item #             | Description                      | Quantity | Unit | Unit Cost          | Total Cost |  |
| 1                  | Mobilization                     | 1        | LS   | \$1,000.00         | \$1,000    |  |
| 2                  | Excavation and Cleaning of Ditch | 1,200    | L.F. | \$4.00             | \$4,800    |  |
| 3                  |                                  |          |      |                    |            |  |
| 4                  |                                  |          |      |                    |            |  |
| 5                  |                                  |          |      |                    |            |  |
| 6                  |                                  |          |      |                    |            |  |
| 7                  |                                  |          |      |                    |            |  |
| 8                  |                                  |          |      |                    |            |  |
| 9                  |                                  |          |      |                    |            |  |
|                    |                                  |          |      | Construction Total | \$5,800    |  |

| \$100    | Construction Permits                            |
|----------|---|
| \$100    | Performance Bond                                |
| \$100    | Insurance                                       |
| \$870    | 15% O&P   |
| \$1,170  | Subtotal 1                                      |
| \$6,970  | Subtotal 2                                      |
| \$697    | Construction Engineering @ 10% of Subtotal #2   |
| \$7,667  | Subtotal 3                                      |
| \$1,150  | Contingency @ 15% of Subtotal #3                |
| \$8,817  | Total Construction Cost                         |
| \$705    | Preparation of Final Designs and Specifications |
| \$441    | Permitting @ 5% of Project Cost                 |
| \$353    | Legal @ 4% of Project Cost                      |
| \$0      | Environmental Study                             |
| \$10,316 | Total Project Cost                              |

### SITE PHOTOS: Danielson Ditch

Danielson Ditch at location of bank overtopping



Danielson ditch at overtopping location



Flume on Danielson Ditch



Segment of Danielson Ditch with inadequate capacity





 Owner/Operator
 Simmons

 Site Name
 Pond 1

 Type Of Project
 Pond Lining

 Notes/Description
 Project 3



Location: 41.030456N, -110.906790W

Description: This project is located on private property and involves the lining of an existing pond (former gravel pit) to prevent seepage. The pond can be supplied by a ditch used by an adjacent land owner. The water will be used for late season irrigation, stock water, wildlife and recreation.

Proposed Project: The project includes bentonite lining of 5.1 acres of pond, construction of a ditch diversion and construction of an outlet structure.

| CONSTRUCTION COSTS |   |          |         |                    |            |  |
|--------------------|---|----------|---------|--------------------|------------|--|
|                    |   |          |         |                    |            |  |
| Item #             | Description                               | Quantity | Unit    | Unit Cost          | Total Cost |  |
| 1                  | Mobilization                              | 1        | L.S.    | \$1,000.00         | \$1,000    |  |
| 2                  | Grubbing and Shaping of Pond Bottom.      | 1        | L.S.    | \$6,000.00         | \$6,000    |  |
| 3                  | Bentonite Lining Material - 4 to 6 inches | 4,000    | Cu. Yd. | \$20.00            | \$80,000   |  |
| 4                  | Inlet Diversion Structure                 | 1        | L.S.    | \$8,000.00         | \$8,000    |  |
| 5                  | Outlet Diversion Structure                | 1        | L.S.    | \$5,000.00         | \$5,000    |  |
| 6                  |   |          |         |                    |            |  |
| 7                  |   |          |         |                    |            |  |
| 8                  |   |          |         |                    |            |  |
| 9                  |   |          |         |                    |            |  |
|                    |   |          |         | Construction Total | \$100,000  |  |

| Construction Permits<br>Performance Bond<br>Insurance<br>15% O&P<br>Subtatal 1 | \$500<br>\$1,000<br>\$500<br>\$15,000<br><b>\$17,000</b> |
|--|--|
| Subtotal 1   | Ş17,000  |
| Subtotal 2   | \$117,000  |
| Construction Engineering @ 10% of Subtotal #2                                  | \$11,700   |
| Subtotal 3   | \$128,700  |
| Contingency @ 15% of Subtotal #3   | \$19,305   |
| Total Construction Cost  | \$148,005  |
| Preparation of Final Designs and Specifications                                | \$11,840   |
| Permitting @ 5% of Project Cost  | \$7,400  |
| Legal @ 4% of Project Cost   | \$5,920  |
| Environmental Study  | \$0  |
| Total Project Cost   | \$173,166  |

### SITE PHOTOS: Pond 1

Pond (Former Gravel Pit)

Pond





Pond and supply ditch (right side)







Owner/OperatorSimmons and DanielsonSite NameDanielson Splitter StructureType Of ProjectDiversion Headgate Structure and Pushup DamNotes/DescriptionProject 4

Location: 41.026966N, -110.892779W

Description: This location is where the Simons water is divided from the Danielson water. The structure is deteriorating and is incorrect with respect to the correct flow division based on current land ownership and irrigation patterns. Its location is downstream of a potential higher location that would allow irrigation of additional Simons acreage without harming the other users.

Proposed Project: The project includes relocation of the splitter structure about 550' upstream. The Simmons flow exiting the splitter could then be routed down ditches and onto the additional acreage.

| constitue |   |          |      |                    |            |
|-----------|---|----------|------|--------------------|------------|
| Item #    | Description   | Quantity | Unit | Unit Cost          | Total Cost |
| 1         | Demolition and Removal of Old Structure and Grading | 1        | LS   | \$1,500.00         | \$1,500    |
| 2         | Footing and Turndown                                | 2        | CY   | \$350.00           | \$700      |
| 3         | Vertical Walls                                      | 2        | CY   | \$500.00           | \$1,000    |
| 4         | Stop Log Slots                                      | 1        | LS   | \$500.00           | \$500      |
| 5         | Wier Plate  | 1        | Each | \$1,500.00         | \$1,500    |
| 6         | Backfill New Structure                              | 1        | LS   | \$500.00           | \$500      |
| 7         | Ditch Work  | 1        | LS   | \$2,000.00         | \$2,000    |
| 8         |   |          |      |                    |            |
| 9         |   |          |      |                    |            |
|           |   |          |      | Construction Total | \$7,700    |
|           |   |          |      |                    |            |

INCIDENTAL PROJECT COSTS

CONSTRUCTION COSTS

| Construction Permits                            | \$100   |
|---|---|
| Performance Bond                                | \$100   |
| Insurance                                       | \$100   |
| 15% O&P   | \$1,155                                       |
| Subtotal 1                                      | \$1.455                                       |
| Subtotal 1                                      | <i>Ţ</i> ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |
| Subtotal 2                                      | \$9,155                                       |
| Construction Engineering @ 10% of Subtotal #2   | \$916   |
| Subtotal 3                                      | \$10,071                                      |
| Contingency @ 15% of Subtotal #3                | \$1,511                                       |
| Total Construction Cost                         | \$11,581                                      |
| Propagation of Final Decigns and Specifications | ŚOJE  |
| Preparation of Final Designs and Specifications | \$920<br>\$570                                |
| Permitting @ 5% of Project Cost                 | \$579   |
| Legal @ 4% of Project Cost                      | \$463   |
| Environmental Study                             | \$0   |
| Total Project Cost                              | \$13,550                                      |

Existing Splitter Structure

View toward proposed splitter location



Splitter in upper left of center. Area with road is additional acreage to be irrigated.







Owner/Operator YC Ranch Site Name Coy Reservoir Type Of Project Reservoir Enlargement Notes/Description Project 1

Location: 41.186552N, -111.033253W

Description: This site, located five miles south of Evanston near Yellow Creek, is an existing off channel reservoir that diverts water from Yellow Creek. The current structural height of the dam is 13' at its tallest point. The owner would like to have additional water storage to improve irrigation reliablity, and enlargement of this reservoir is viewed as the best opportunity. Other possible storage alternatives to this site include the Needles Reservoir site 1.5 miles south on Coyote Creek. The Coyote Creek alternative has challenges with spillway requirements and sediment issues from being on-stream, crossing the historic Mormon trail, conveyance to lands, different property owners, and potential for excessive seepage.

Proposed Project: The proposed project would enlarge and improve the existing reservoir by raising the core elevation five feet, and adding shell material to support the higher core elevation. These changes would increase the reservoir pool from the current 80 acre feet to about 140 acre feet. The crest length will be about 1,750feet.

| CONST | RIICT | ION | COS | TS |
|-------|-------|-----|-----|----|

| Item # | Description  | Quantity | Unit  | Unit Cost          | Total Cost |
|--------|--|----------|-------|--------------------|------------|
| 1      | Mobilization   | 1        | LS    | \$15,000.00        | \$15,000   |
| 2      | Trench Cutoff Wall for Dam Raise 4' deep x 8" wide         | 1,750    | LF    | \$15.00            | \$26,250   |
| 3      | 40mil Goemembrane 7' Wide for Dam Raise                    | 1,750    | LF    | \$1.50             | \$2,625    |
| 4      | Import and Place Low Permeablity Bentonite Cutoff Material | 205      | CY    | \$40.00            | \$8,200    |
| 5      | Random Fill Placement                                      | 700      | CY    | \$8.00             | \$5,600    |
| 6      | Additional Rip Rap Upstream Face of Dam                    | 200      | CY    | \$45.00            | \$9,000    |
| 7      | Borrow Area Top Soil Removal and Stockpile                 | 10,000   | SY    | \$2.50             | \$25,000   |
| 8      | Grade and Place Salvaged Rock Rip Rap                      | 480      | CY    | \$6.00             | \$2,880    |
| 9      |  |          |       |                    |            |
| 10     | Final Grading  | 1        | L.S.  | \$10,000.00        | \$10,000   |
| 11     | Reseeding Downstream Slopes and Borrow Area                | 2.0      | Acres | \$1,000.00         | \$2,000    |
| 12     | Remove and Replace Fence                                   | 100      | L.F.  | \$10.00            | \$1,000    |
| 13     | Outlet Structure Extension                                 | 5        | L.F.  | \$250.00           | \$1,250    |
| 14     | Outlet Gate and Gate Frame Modificaitons                   | 1        | L.S.  | \$1,500.00         | \$1,500    |
| -      | •  |          |       | Construction Total | \$110 305  |

| \$550           | Construction Permits                            |
|-----------------|---|
| \$1.100         | Performance Bond                                |
| \$550           | Insurance                                       |
| \$16,546        | 15% O&P   |
| \$18 746        | Subtotal 1                                      |
| <i>\</i> 10,740 | Subtotul 1                                      |
| \$129,051       | Subtotal 2                                      |
| \$12,905        | Construction Engineering @ 10% of Subtotal #2   |
| \$141,956       | Subtotal 3                                      |
| \$21,293        | Contingency @ 15% of Subtotal #3                |
| \$163,249       | Total Construction Cost                         |
|                 |   |
| \$13,060        | Preparation of Final Designs and Specifications |
| \$8,162         | Permitting @ 5% of Project Cost                 |
| \$1.632         | Legal @ 1% of Project Cost                      |

| Total Project Cost                              | \$186,104 |
|---|-----------|
| Environmental Study                             | \$0       |
| Legal @ 1% of Project Cost                      | \$1,632   |
| Permitting @ 5% of Project Cost                 | \$8,162   |
| Preparation of Final Designs and Specifications | \$13,060  |
|   |           |

Existing Area Capacity Curve





#### Bear River Watershed Study Level I Irrigation System Rehabilitation Engineer's Opinion of Probable Construction Costs



 Owner/Operator
 Hansen

 Site Name
 Bank Stablization on Yellow Creek

 Type Of Project
 Bank Stablization

 Notes/Description
 Project 2

Location: 41.190421 Lat, -111.034973 Long.

Description: This portion of Yellow Creek was rerouted in years past to improve cultivated acreage. It is reverting to historic paths and energy gradients causing bank erosion. The erosion threatens a center piviot and cultivated land.

Proposed Project: The proposed project would reconstruct multiple sections of bank by reducing bank slope and armoring with imported rock. In addition, cross vanes or j hooks may be employed.

## ITEMIZED COST ESTIMATE CONSTRUCTION COSTS

#### Item # Description Quantity Unit Unit Cost Total Cost Mobilization LS \$3,000.00 \$3,000 1 1 2 Install Rock Vanes using 24" Rock 200 L.F. \$40.00 \$8,000 Grade Banks to 4:1 Slope 500 L.F. \$10.00 \$5,000 3 Import and Place Riprap on Graded Bank Slopes 4 3,000 S.F. \$4.00 \$12,000 **Construction Total** \$28,000

| Construction Permits<br>Performance Bond<br>Insurance<br>15% O&P<br><b>Subtotal 1</b>   | \$200<br>\$300<br>\$200<br>\$4,200<br><b>\$4,900</b> |
|---|--|
| Subtotal 2  | \$32,900   |
| Construction Engineering @ 10% of Subtotal #2   | \$3,290  |
| Subtotal 3  | \$36,190   |
| Contingency @ 15% of Subtotal #3  | \$5,429  |
| Total Construction Cost   | \$41,619   |
| Preparation of Final Designs and Specifications<br>Permitting @ 5% of Project Cost<br>Legal @ 4% of Project Cost<br>Environmental Study<br>Total Project Cost | \$3,329<br>\$2,081<br>\$1,665<br><b>\$48,694</b>     |

#### Bear River Watershed Study Level I Irrigation System Rehabilitation Engineer's Opinion of Probable Construction Costs



 Owner/Operator
 Hansen

 Site Name
 Hansen Well #2 at Coy Reservoir

 Type Of Project
 Well

 Notes/Description
 Project 4

Location: 41.183870 Lat, -111.034442 Long.

ITEMIZED COST ESTIMATE

Description: Existing Well drilled by grandfather in the 1960s. Aresian well that pumped 200 gpm with 200' drawdown. Was not feasible at that time to get power to the site. Target is to get 120 gpm at  $\sim$ 120' drawdown. Current Status: Placed a 7.5 hp pump motor 180' down with a 120 gpm pump. A 3" drop pipe was used.

Proposed Project: This project will complete the well with the installation of a header pipe, electrical and controls.

#### CONSTRUCTION COSTS Item # Description Quantity Unit Unit Cost Total Cost 1 Mobilization 1 L.S. \$2,500.00 \$2,500 2 Fabricate header 10 Hour \$80.00 \$800 \$1,500.00 Submersible level transmitter in 1" poly 1 L.S. \$1,500 3 McCrometer MW803 flow meter L.S. \$1,500.00 \$1,500 4 1 Materials (bfv, 5 flanges, 2 elbows, air vent, wsp) \$800 5 1 L.S. \$800.00 4" discharge HDPE DR26 (above ground installation) 260 L.F. \$1.30 \$338 6 VFD for 460V, 3 phase, 7.5 hp wNEMA enclosure L.S. \$2,000.00 \$2,000 7 1 8 Electrician at pump panel and power supply (6 hours) 6 Hour \$125.00 \$750 100 9 3 wires number 8 to high ground in 1.5" HDPE L.F. \$3.75 \$375 10 Move panel poles to higher ground with protection fence 5 Hour \$16.00 \$80 #6 3-wire in HDPE conduit 1100 11 L.F. \$1.55 \$1,705 Trench and bury 3" line 1100 L.F. 12 \$1.25 \$1,375 Permitting 6 Hour \$100.00 \$600 13 Fabrication and materials for energy dissipator Hour 14 3 \$80.00 \$240 15 16 17 Subtotal Construction \$14,563

| \$100           | Construction Permits                            |
|-----------------|---|
| \$200           | Performance Bond                                |
| \$100           | Insurance                                       |
| \$2,200         | 15% O&P   |
| \$2,600         | Subtotal 1                                      |
| \$17,163        | Subtotal 2                                      |
| \$1,716         | Construction Engineering @ 10% of Subtotal #2   |
| \$18,879        | Subtotal 3                                      |
| \$2,832         | Contingency @ 15% of Subtotal #3                |
| \$21,711        | Total Construction Cost                         |
| ¢1 202          | Dropprotion of Final Designs and Specifications |
| \$1,303<br>¢651 | Preparation of Final Designs and Specifications |
| 1006            |   |
| 30<br>\$0       | Environmental Study                             |
| \$23,665        | Total Project Cost                              |
|                 |   |
## SITE PHOTOS: Hansen Well #2 at Coy Reservoir





 Owner/Operator
 Hansen

 Site Name
 Hansen Well #5 New Well on West Hillside

 Type Of Project
 Well

 Notes/Description
 Project 5

Location: 41.184516 Lat, -111.043282 Long.

Description: New well drilled in 2015 with hopes for 400 gpm. Yield is closer to 140 gpm. Drilled 500' from existing well (Well No 6) to limit impacts and add well capacity. Current Status; operational, but temporary installation in protection and wire on ground. Have a VFD panel to convert 1 phase to 3 phase, 15 hp motor, 400 gpm pump. Connected to 6" underground PVC.

Proposed Project: This project will complete the well with the installation of a header pipe, electrical and controls.

| Item # | Description   | Quantity | Unit  | Unit Cost           | Total Cost |
|--------|---|----------|-------|---------------------|------------|
| 1      | Mobilization  | 1        | L.S.  | \$1,000.00          | \$1,000    |
| 2      | 6" Check Valve  | 1        | L.S.  | \$600.00            | \$600      |
| 3      | McCrometer MW606 Flow Meter                           | 1        | L.S.  | \$1,300.00          | \$1,300    |
| 4      | Trench and Bury EXISITNG Direct Burial Wire           | 520      | L.F.  | \$1.25              | \$650      |
| 5      | Electrician Wire Panels for Permanent Installation    | 3        | Hour  | \$125.00            | \$375      |
| 6      | Construct Wood Foundation for EXISTING Steel Enclosur | 12       | Hours | \$16.00             | \$192      |
| 7      | Foundation Material                                   | 1        | L.S.  | \$200.00            | \$200      |
| 8      | Install EXISITNG VFD Panel in Steel Enclosure         | 10       | Hour  | \$16.00             | \$160      |
| 9      | Prep and Paint Existing Steel Enclosure and pPping    | 12       | Hour  | \$16.00             | \$192      |
| 10     | Misc Electric, Steel Fab, and Paint Material          | 1        | L.S.  | \$150.00            | \$150      |
| 11     | Fabricate Header                                      | 6        | Hour  | \$80.00             | \$480      |
| 12     | Permitting  | 3        | Hour  | \$100.00            | \$300      |
| 13     |   |          |       |                     |            |
| 14     |   |          |       |                     |            |
| 15     |   |          |       |                     |            |
| 16     |   |          |       |                     |            |
| 17     |   |          |       |                     |            |
|        |   |          | Su    | btotal Construction | \$5,599    |

## ITEMIZED COST ESTIMATE CONSTRUCTION COSTS

INCIDENTAL PROJECT COSTS

| Construction Permits                            | \$100   |
|---|---------|
| Performance Bond                                | \$100   |
| Insurance                                       | \$100   |
| 15% O&P   | \$900   |
| Subtotal 1                                      | \$1,200 |
| Subtotal 2                                      | \$6,799 |
| Construction Engineering @ 10% of Subtotal #2   | \$680   |
| Subtotal 3                                      | \$7,479 |
| Contingency @ 15% of Subtotal #3                | \$1,122 |
| Total Construction Cost                         | \$8,601 |
| Dressention of Final Designs and Considerations | ĆE 1 C  |
| Preparation of Final Designs and Specifications | \$516   |
| Permitting @ 5% of Project Cost                 | \$258   |
| Legal   | Ş0      |
| Environmental Study                             | Ş0      |

Total Project Cost \$9,375





# Owner/Operator Hansen Site Name Hansen Well #6 Original Well on West Hillside Type Of Project Well Notes/Description Project 6

Location: 41.185604 Lat, -111.042235 Long.

Description: Existing Well drilled by father in the 1970s. Father and uncle recall a 1 cfs well test. It was not filed on and found no record of drilling or testing. Filed on in 2010. In 2012 explored with underwater camera. The well is 140' deep with 8" casing to 90' and open hole below. Purchased pump, pump motor, VFD and 500' of 6" HDPE to cross road. Used portable 6" line to connect to system. Sanded and pulled multiple times in 2012. In 2013, reset new pump, pump motor, above 90'. Pumped for 60 days with no change in water level, but only 90 gpm.

In 2015, had exploration by well driller from Idaho Falls. New hole was 500' from old. CURRENT STATUS: Placed a 5 hp pump motor to a 90 gpm pump. A 3" drop pipe was used.

Proposed Project: This project will complete the well with the installation of a header pipe, electrical and controls.

| Item # | Description                                     | Quantity | Unit | Unit Cost           | Total Cost |
|--------|---|----------|------|---------------------|------------|
| 1      | Mobilization                                    | 1        | L.S. | \$1,000.00          | \$1,000    |
| 2      | Fabricate Header to Connect to Existing 6" HDPE | 8        | Hour | \$80.00             | \$640      |
| 3      | McCrometer MW803 Flow Meter                     | 1        | L.S. | \$1,500.00          | \$1,500    |
| 4      | VFD for 240V, 1 phase, 5 hp                     | 1        | L.S. | \$2,000.00          | \$2,000    |
| 5      | Electrician                                     | 3        | Hour | \$125.00            | \$375      |
| 6      | Hand trench, PVC Conduit to Well (~30')         | 6        | Hour | \$20.00             | \$120      |
| 7      | 3" Check Valve and 3" Gate Valve                | 1        | L.S. | \$160.00            | \$160      |
| 8      | Permitting                                      | 3        | Hour | \$100.00            | \$300      |
|        |   |          |      |                     |            |
|        |   |          |      |                     |            |
|        |   |          |      |                     |            |
|        |   |          |      |                     |            |
|        |   |          |      |                     |            |
|        |   |          |      |                     |            |
|        |   |          |      |                     |            |
|        |   |          |      |                     |            |
|        |   |          |      |                     |            |
|        |   |          | Su   | btotal Construction | \$6.095    |

# ITEMIZED COST ESTIMATE CONSTRUCTION COSTS

INCIDENTAL PROJECT COSTS

| Construction Permits                            | \$100    |
|---|----------|
| Performance Bond                                | \$100    |
| Insurance                                       | \$100    |
| 15% O&P   | \$1,000  |
|   | \$1,000  |
| Subtotal 1                                      | \$1,300  |
| Subtotal 2                                      | \$7,395  |
| Construction Engineering @ 10% of Subtotal #2   | \$740    |
| Subtotal 3                                      | \$8,135  |
| Contingency @ 15% of Subtotal #3                | \$1,220  |
| Total Construction Cost                         | \$9,355  |
| Prenaration of Final Designs and Specifications | \$561    |
|   | \$301    |
| remitting @ 5% of Project Cost                  | \$281    |
| Legal   | \$0      |
| Environmental Study                             | \$0      |
| Total Project Cost                              | \$10,197 |



Owner/Operator YC Ranch Site Name Coy Reservoir Reservoir Seepage Control Project 7 Type Of Project Notes/Description

Location: 41.186552N, -111.033253W

Description: This site, located five miles south of Evanston near Yellow Creek, is an existing off channel reservoir that diverts water from Yellow Creek. This project is to reduce seepage to improve irrigation reliablity and the overall stability of the structure.

Proposed Project: The proposed project would improve the existing reservoir by installation of a 1625' upsteam toe cutoff wall, install bentonite cutoff trench and soil liner, and install a toe drain.

| CONSTRU | ICTION COSTS   |          |       |                    |            |
|---------|--|----------|-------|--------------------|------------|
|         |  |          |       |                    |            |
| Item #  | Description  | Quantity | Unit  | Unit Cost          | Total Cost |
| 1       | Mobilization   | 1        | LS    | \$10,000.00        | \$10,000   |
| 2       | Grading and Grubbing                                       | 2.0      | Acres | \$2,000.00         | \$4,000    |
| 3       | Strip Exisitng Rip Rap Over Cutoff Wall (8' wide area)     | 480      | CY    | \$4.00             | \$1,920    |
| 4       | Excavate Surface for Trencher Operation                    | 1,130    | CY    | \$6.00             | \$6,780    |
| 5       | Trench Cutoff Wall 4' Deep x 8" Wide                       | 1,625    | LF    | \$15.00            | \$24,375   |
| 6       | 40mil Goemembrane 7' Wide                                  | 1,625    | LF    | \$1.50             | \$2,438    |
| 7       | Import and Place Low Permeablity Bentonite Cutoff Material | 190      | CY    | \$40.00            | \$7,600    |
| 8       | Import and Place Low Permeablity Bentonite Liner           | 2.2      | Acres | \$15,000.00        | \$33,000   |
| 9       | Install Toe Drain Manhole                                  | 1        | EA    | \$2,100.00         | \$2,100    |
| 10      | Excavate Toe Drain   | 250      | LF    | \$20.00            | \$5,000    |
| 11      | Install Toe Drain Pipe 8" Slotted C-900 PVC                | 250      | LF    | \$25.00            | \$6,250    |
| 12      | Modify Well 3" Pipe Extension                              | 260      | LF    | \$16.00            | \$4,160    |
|         |  |          |       |                    |            |
|         |  |          |       | Construction Total | \$107,623  |

### INCIDENTAL PROJECT COSTS

| Construction Permits<br>Performance Bond<br>Insurance<br>15% O&P<br>Subtotal 1 | \$550<br>\$1,100<br>\$550<br>\$16,143<br><b>\$18,343</b> |
|--|--|
| Subtotal 2   | \$125,966  |
| Construction Engineering @ 10% of Subtotal #2                                  | \$12,597   |
| Subtotal 3   | \$138,562  |
| Contingency @ 15% of Subtotal #3   | \$20,784   |
| Total Construction Cost  | \$159,347  |
|  | ¢12 740  |
| Preparation of Final Designs and Specifications                                | \$12,748   |
| Permitting @ 5% of Project Cost  | \$7,967  |
| Legal @ 1% of Project Cost   | \$1,593  |
| Environmental Study  | \$0  |

\$181,655 **Total Project Cost** 









 Owner/Operator
 Evanston City Ditch Company

 Site Name
 Evanston City Ditch Company

 Type Of Project
 Canal Piping

 Notes/Description
 Project 1

Location: South Side of Evanston Wyoming near Apache Drive.

Description: This canal having rights dating to 1875, coveys flows on the order of 30 cfs plus some unquantified storm runoff. New subdivisions have been constructed below and abuting the canal right-of-way and now represent potential exposure to the canal company should the canal rupture. Uncontrolled runoff and seepage is difficult to control under present circustances. Portions of the canal have already been piped.

## Proposed Project:

The proposed project will pipe some sections of the canal that have not yet been piped. This segment links the end of an existing piped section near City View Drive with the start of a piped section near Yellow Creek Road. The pipe length is 4,180 feet and its estimated diameter is 54" to convey the 30 cfs. The restored surface over the pipe will be graded to retain water for irrigation of the existing trees.

| construct |   |          |      |             |            |
|-----------|---|----------|------|-------------|------------|
| Item #    | Description                             | Quantity | Unit | Unit Cost   | Total Cost |
| 1         | Mobilization                            | 1        | L.S. | \$40,000.00 | \$40,000   |
| 2         | Excavation and Grading of Bed           | 1        | L.S. | \$15,000.00 | \$15,000   |
| 3         | Import Pipe Bedding                     | 1,800    | CuYd | \$25.00     | \$45,000   |
| 4         | 54" Pipe (HDPE)                         | 4,180    | L.F. | \$140.00    | \$585,200  |
| 5         | Backfill and Grading                    | 4,180    | L.F. | \$15.00     | \$62,700   |
| 6         | Storm Drainage Issues (unknown scope)   | 1        | LS   | \$50,000.00 | \$50,000   |
| 7         | Surface Grading to Retain Precipitation | 1        | LS   | \$25,000.00 | \$25,000   |
|           |   |          |      |             |            |
|           |   |          |      |             |            |

Construction

Preparation

Total Construction Cost \$822,900

## INCIDENTAL PROJECT COSTS

CONSTRUCTION COSTS

| Construction Permits                | \$4,200     |
|-------------------------------------|-------------|
| Performance Bond                    | \$8,300     |
| Insurance                           | \$4,200     |
| 15% O&P                             | \$123,500   |
| Subtotal                            | \$140,200   |
| Subtotal                            | \$963,100   |
| Engineering @ 10% of Subtotal #1    | \$96,310    |
| Subtotal                            | \$1,059,410 |
| Contingency @ 15% of Subtotal #2    | \$158,912   |
| Total Construction Cost             | \$1,218,322 |
| Contingency @ 15% of Subtotal #2    | \$182,748   |
| Total Construction Cost             | \$1,401,070 |
| of Final Designs and Specifications | \$112,086   |
| Permitting @ 5% of Project Cost     | \$70,053    |
| Legal @ 4% of Project Cost          | \$56,043    |

Total Project Cost \$1,639,252

## SITE PHOTOS: Evanston City Ditch Company







 Owner/Operator
 Evanston City Ditch Company

 Site Name
 Evanston City Ditch Company

 Type Of Project
 Canal Piping

 Notes/Description
 Project 2

Location: South of State Hospital along HWY 150

Description: This canal having rights dating to 1875, coveys flows on the order of 30 cfs. New subdivisions have been constructed below and abuting the canal right-of-way and now represent potential exposure to the canal company should the canal rupture. Portions of the canal have already been lined. Most recently the HWY Dept. lined a short portion near the southern end of this project. Seepage from the canal is of particular concern in areas where the canal is perched along a ridge above a mobile home area.

## Proposed Project:

The proposed project will pipe a section of the canal that has not yet been piped. This segment begins at the end of an existing piped section near Southridge Road/HWY 150 and continues south for just under two miles. The pipe length is potentially 9,260 feet and its estimated diameter is 54" to convey the 30 cfs.

| CONSTRU | CTION COSTS                               |          |      |             |             |
|---------|---|----------|------|-------------|-------------|
| Item #  | Description                               | Quantity | Unit | Unit Cost   | Total Cost  |
| 1       | Mobilization                              | 1        | L.S. | \$85,000.00 | \$85,000    |
| 2       | Excavation and Grading of Bed             | 1        | L.S. | \$15,000.00 | \$15,000    |
| 3       | Import Pipe Bedding                       | 4,000    | CuYd | \$25.00     | \$100,000   |
| 4       | 54" Pipe (HDPE)                           | 9,260    | L.F. | \$140.00    | \$1,296,400 |
| 5       | Backfill and Grading                      | 9,260    | L.F. | \$15.00     | \$138,900   |
| 6       | Storm Drainage Issues (unknown scope)     | 1        | LS   | \$50,000.00 | \$50,000    |
| 7       | Final Surface Grading and Erosion Control | 1        | LS   | \$50,000.00 | \$50,000    |
|         |   |          |      |             |             |
|         |   |          |      |             |             |

Total Construction Cost \$1,735,300

## INCIDENTAL PROJECT COSTS

| Construction Permits                            | \$8,700     |
|---|-------------|
| Performance Bond                                | \$17,400    |
| Insurance                                       | \$8,700     |
| 15% O&P   | \$260,300   |
| Subtotal  | \$295,100   |
| Subtotal  | \$2,030,400 |
| Construction Engineering @ 10% of Subtotal #1   | \$203,040   |
| Subtotal  | \$2,233,440 |
| Contingency @ 15% of Subtotal #2                | \$335,016   |
| Total Construction Cost                         | \$2,568,456 |
| Contingency @ 15% of Subtotal #2                | \$385,268   |
| Total Construction Cost                         | \$2,953,724 |
| Preparation of Final Designs and Specifications | \$236,298   |
| Permitting @ 5% of Project Cost                 | \$147,686   |
| Legal @ 4% of Project Cost                      | \$118,149   |

Total Project Cost \$3,455,858



## **APPENDIX C**

## **NRCS STANDARD DRAWINGS**

SPRING DEVELOPMENT SIDE HILL SPRING DEVELOPMENT FROST FREE FLOAT VALVE TROUGH **TROUGH PIPING TROUGH OVERFLOW (Metal Tank) TROUGH OVERFLOW (With Drainfill) TROUGH OVERFLOW (Conc. Irrigation Pipe) TROUGH OVERFLOW** LIVESTOCK WATERING RAMP WATER TROUGH (Equipment Tire) **INLET/OVERFLOW DEVICE** SOLAR POWERED ABOVE GROUND PUMP SOLAR POWERED SUBMERSIBLE PUMP SOLAR POWERED SUBMERSIBLE PUMP FOR WELL ESCAPE RAMPS (Multiple Designs) **TANK LAYOUT FOR SLOPES LESS THAN 20% INLET/OVERFLOW DEVICE** 









N



# TROUGH PIPING DETAIL

## VALVE OPTIONS

- 1. hydrant with float valve.
- 2. frost free hydrant.
- in-line gate value w/well & cap.
   unrestricted flow as shown.

## SPECIAL PROVISIONS

1. All pipe installed above ground shall be galvanized steel. All pipe installed below ground shall be schedule 40 PVC.

2. Compacted rock pad for trough to be 4"-minus pit-run gravel. Grade to drain away from trough.

This drawing requires supporting technical documentation prior to use and must be adapted to the specific site.

| Practice Code | Job C | lass         |                  |         |           | Drawing        | not to sco | ole. |
|---------------|-------|--------------|------------------|---------|-----------|----------------|------------|------|
| Designed      | Date  | CAD FILE NAM | IE<br>h_pipe.dwg |         | TROUG     | H PIPING       |            |      |
| Drawn         | 8/05  | DRAWING NO.  |                  |         |           |                |            |      |
| Checked       |       | SHEET OF     | -                |         | LIVESTO   | OCK FACILITIES |            |      |
| Approved      |       | <b>ANRCS</b> | U.S.D.A.         | NATURAL | RESOURCES | CONSERVATION   | SERVICE    | 1    |
| Approved      |       | <b>ANRCS</b> | U.S.D.A.         | NATURAL | RESOURCES | CONSERVATION   | SERVICE    | 1    |













|   | Date                     | 8/05                        |                   |                          |
|---|--------------------------|-----------------------------|-------------------|--------------------------|
| INSTRUCTIONS  |                          |                             |                   |                          |
| is will be the top of the   |                          |                             |                   |                          |
| and to level tire.  | Designed                 | Drawn                       | Approved          | Title                    |
| upply and overflow pipes and<br>n a "V" notch in the<br>the top surface is smooth.  | 749                      | 20mil/1 X                   | 235               | 20                       |
| small birds and animals that<br>mp constructed of a piece<br>from the water surface to<br>hsisting of a piece of<br>ould be used. | WATERING TROUGH          | (EQUIPMENT TIRE)            |                   | LIVESTOCK FACILITIES     |
|   | C                        | <b>^</b>                    | ervice            | ulture                   |
| "V" notch<br>3/4" deep  |                          | レ                           | Conservation S    | artment of Agric         |
| A   | <                        | )                           | Vatural Resources | <b>Jnited States Dep</b> |
| al documentation prior to<br>ïc site.   | File  <br>or_Js<br>Drawi | Name<br>k_tire_t<br>ing No. | rough.            | dwg                      |
| Drawing not to scale.   | Shee                     | t                           | of                |                          |





# NOTES:

- NRCS Specifications 516, Pipeline and 614, Trough and Tank shall 1. apply.
- 2. Minimum pipe size shall be 1 inch I.D.
- 3. Operating procedure (see pipe detail)
  - Riser is coupled to overflow pipe to fill trough Riser is removed to drain trough Riser is coupled to the trough flow pipe to bypass trough
- 4. Troughs may be connected in series by using overflow pipe as supply inlet for next trough in the series.
- 5. The two protective posts may be deleted if device is placed at a location away from the trough that is not accessible by livestock.
- 6. Steel troughs should be placed on treated timbers or concrete to minimize rusting.

This drawing requires supporting technical documentation prior to use and must be adapted to the specifc site.





|                    | WATER SOURCE I      | NFORMATION            |         |  |   |  |  |  |
|--------------------|---------------------|-----------------------|---------|--|---|--|--|--|
|                    | SUBSURFACE          | SUI                   | SURFACE |  |   |  |  |  |
| WELL               |                     | CANAL                 | POND    |  |   |  |  |  |
| Depth (ft)         | Yield (gpm)         | Flow Rate (gpm)       |         |  |   |  |  |  |
| Max. Yield (gpm)   | COLLECTION BOX DATA | Seasonal or Perennial |         |  |   |  |  |  |
| Casing I.D. (in)   | Depth (ft)          | Min. Water Elev. (ft) |         |  | 2 |  |  |  |
| Well Test (Y or N) | Volume (gal)        |                       |         |  |   |  |  |  |
| Date of Test       | Covered (Y or N)    |                       |         |  |   |  |  |  |

## WATER USE INFORMATION

| Type of Use       | Seasonal | Commer |        |        |  |
|-------------------|----------|--------|--------|--------|--|
| Type or Use       | Summer   | Fall   | Winter | Spring |  |
| Livestock         |          |        |        |        |  |
| Wildlife          |          |        |        |        |  |
| Irrigation        |          |        |        |        |  |
| Domestic/Potable  |          |        |        |        |  |
| Other             |          |        |        |        |  |
| Total Requirement |          |        |        |        |  |

| Very Good                           | Water contains no at             | orasive particles, a | nd/or TDS < 50 p    | opm               |               |
|-------------------------------------|----------------------------------|----------------------|---------------------|-------------------|---------------|
| Good                                | Water may contain si             | mall amounts of s    | ilt, and/or TDS <   | 100 ppm           |               |
| Fair                                | Water may contain si             | mall amounts of s    | ilt, sand, or rust, | and/or TDS < 20   | )0 ppm        |
| Poor                                | Water may contain m              | noderate amounts     | of silt, sand, or n | ust, and/or TDS = | = 200–800 ppm |
| Very Poor                           | Water regularly conta            | ins silt, sand, or i | rust, and/or TDS 2  | > 800             |               |
|                                     | COMMENTS:                        |                      |                     |                   |               |
| WATER STORAG<br>Volume Required = M | GE DATA<br>Maximum Daily Require | ment (gal            | /day) x a           | lays = ga         | allons.       |
| Volume Available (aailo             | Open Tank                        | Pres. Tank           | In Line             | Other             | Total         |
|                                     |                                  |                      |                     | 33                |               |
| New or Existing:                    |                                  |                      |                     |                   |               |
| WAIER PUMPIN                        | VG DATA                          |                      |                     |                   |               |

| Static Water Depth: | ft. (Distance from ground to water surface when not pumping).              |
|---------------------|--|
| Drawdown Level:     | ft., atGPM. (Depth water drops when pumping).                              |
| Discharge Head:     | ft. (Dist. from ground surface to highest water surface in discharge line) |
|                     | (Use either Discharge Level or Pressure Head, but not both)                |
| Pressure Head:      | ft. (Tank pressure in psi. x 2.31)   |
| Losses:             | ft. (Minor and friction losses in discharge line from pump to tank)        |
| Total Dynamic Head: | ft. (Sum of values above).   |

## WATER SOLAR POWER DATA

WATER QUALITY AT SOURCE

Solar Station

## SOLAR ISOLATION VALUES

|                        | Average           | JAN     | FEB       | MARCH      | APRIL | MAY     | JUNE       | JULY    | AUG     | SEPT     | OCT | NOV | DEC | Month |
|------------------------|-------------------|---------|-----------|------------|-------|---------|------------|---------|---------|----------|-----|-----|-----|-------|
|                        | or full sun hours |         |           |            |       |         |            |         |         |          |     |     |     | Hours |
| Latitude               |                   |         |           |            |       |         |            | 2       |         | 2        |     |     | a   |       |
|                        |                   |         |           |            |       |         |            |         |         |          |     |     |     |       |
| Design Solar Radiation | Hours =           | hours   |           |            |       |         |            |         |         |          |     |     |     |       |
| Design Flow Rate (gpr  | n) =              | gais (V | lolume Re | equired) / | /     | Solar R | adition He | ours (1 | hour/60 | minutes) |     |     |     |       |
|                        |                   |         |           |            |       |         |            |         |         |          |     |     |     |       |
|                        |                   |         |           |            |       |         |            |         |         |          |     |     |     |       |



Sheet 2 of 2

Md



|                    | WATER SOURCE I      | NFORMATION            |         |  |   |  |  |  |
|--------------------|---------------------|-----------------------|---------|--|---|--|--|--|
|                    | SUBSURFACE          | SUI                   | SURFACE |  |   |  |  |  |
| WELL               |                     | CANAL                 | POND    |  |   |  |  |  |
| Depth (ft)         | Yield (gpm)         | Flow Rate (gpm)       |         |  |   |  |  |  |
| Max. Yield (gpm)   | COLLECTION BOX DATA | Seasonal or Perennial |         |  |   |  |  |  |
| Casing I.D. (in)   | Depth (ft)          | Min. Water Elev. (ft) |         |  | 2 |  |  |  |
| Well Test (Y or N) | Volume (gal)        |                       |         |  |   |  |  |  |
| Date of Test       | Covered (Y or N)    |                       |         |  |   |  |  |  |

## WATER USE INFORMATION

| Type of Use       | Seasonal | Commer |        |        |  |
|-------------------|----------|--------|--------|--------|--|
| Type or Use       | Summer   | Fall   | Winter | Spring |  |
| Livestock         |          |        |        |        |  |
| Wildlife          |          |        |        |        |  |
| Irrigation        |          |        |        |        |  |
| Domestic/Potable  |          |        |        |        |  |
| Other             |          |        |        |        |  |
| Total Requirement |          |        |        |        |  |

| Very Good                           | Water contains no at             | orasive particles, a | nd/or TDS < 50 p    | opm               |               |
|-------------------------------------|----------------------------------|----------------------|---------------------|-------------------|---------------|
| Good                                | Water may contain si             | mall amounts of s    | ilt, and/or TDS <   | 100 ppm           |               |
| Fair                                | Water may contain si             | mall amounts of s    | ilt, sand, or rust, | and/or TDS < 20   | )0 ppm        |
| Poor                                | Water may contain m              | noderate amounts     | of silt, sand, or n | ust, and/or TDS = | = 200–800 ppm |
| Very Poor                           | Water regularly conta            | ins silt, sand, or i | rust, and/or TDS 2  | > 800             |               |
|                                     | COMMENTS:                        |                      |                     |                   |               |
| WATER STORAG<br>Volume Required = M | GE DATA<br>Maximum Daily Require | ment (gal            | /day) x a           | lays = ga         | allons.       |
| Volume Available (aailo             | Open Tank                        | Pres. Tank           | In Line             | Other             | Total         |
|                                     |                                  |                      |                     | 33                |               |
| New or Existing:                    |                                  |                      |                     |                   |               |
| WAIER PUMPIN                        | VG DATA                          |                      |                     |                   |               |

| Static Water Depth: | ft. (Distance from ground to water surface when not pumping).              |
|---------------------|--|
| Drawdown Level:     | ft., atGPM. (Depth water drops when pumping).                              |
| Discharge Head:     | ft. (Dist. from ground surface to highest water surface in discharge line) |
|                     | (Use either Discharge Level or Pressure Head, but not both)                |
| Pressure Head:      | ft. (Tank pressure in psi. x 2.31)   |
| Losses:             | ft. (Minor and friction losses in discharge line from pump to tank)        |
| Total Dynamic Head: | ft. (Sum of values above).   |

## WATER SOLAR POWER DATA

WATER QUALITY AT SOURCE

Solar Station

## SOLAR ISOLATION VALUES

|                        | Average           | JAN     | FEB       | MARCH      | APRIL | MAY     | JUNE       | JULY    | AUG     | SEPT     | OCT | NOV | DEC | Month |
|------------------------|-------------------|---------|-----------|------------|-------|---------|------------|---------|---------|----------|-----|-----|-----|-------|
|                        | or full sun hours |         |           |            |       |         |            |         |         |          |     |     |     | Hours |
| Latitude               |                   |         |           |            |       |         |            | 2       |         | 2        |     |     | a   |       |
|                        |                   |         |           |            |       |         |            |         |         |          |     |     |     |       |
| Design Solar Radiation | Hours =           | hours   |           |            |       |         |            |         |         |          |     |     |     |       |
| Design Flow Rate (gpr  | n) =              | gais (V | lolume Re | equired) / | /     | Solar R | adition He | ours (1 | hour/60 | minutes) |     |     |     |       |
|                        |                   |         |           |            |       |         |            |         |         |          |     |     |     |       |
|                        |                   |         |           |            |       |         |            |         |         |          |     |     |     |       |



Sheet 2 of 2

Md



|                    | WATER SOURCE I      | NFORMATION            |         |  |   |  |  |  |
|--------------------|---------------------|-----------------------|---------|--|---|--|--|--|
|                    | SUBSURFACE          | SUI                   | SURFACE |  |   |  |  |  |
| WELL               |                     | CANAL                 | POND    |  |   |  |  |  |
| Depth (ft)         | Yield (gpm)         | Flow Rate (gpm)       |         |  |   |  |  |  |
| Max. Yield (gpm)   | COLLECTION BOX DATA | Seasonal or Perennial |         |  |   |  |  |  |
| Casing I.D. (in)   | Depth (ft)          | Min. Water Elev. (ft) |         |  | 2 |  |  |  |
| Well Test (Y or N) | Volume (gal)        |                       |         |  |   |  |  |  |
| Date of Test       | Covered (Y or N)    |                       |         |  |   |  |  |  |

## WATER USE INFORMATION

| Type of Use       | Seasonal | Commer |        |        |  |
|-------------------|----------|--------|--------|--------|--|
| Type or Use       | Summer   | Fall   | Winter | Spring |  |
| Livestock         |          |        |        |        |  |
| Wildlife          |          |        |        |        |  |
| Irrigation        |          |        |        |        |  |
| Domestic/Potable  |          |        |        |        |  |
| Other             |          |        |        |        |  |
| Total Requirement |          |        |        |        |  |

| Ver                  | ry Good Wa              | ter contaii            | ns no al   | orasive po  | articles, an | d/or TDS «   | < 50 ppm    |            |           |          |
|----------------------|-------------------------|------------------------|------------|-------------|--------------|--------------|-------------|------------|-----------|----------|
| God                  | od Wa                   | t <del>e</del> r may c | contain si | mall amo    | ounts of sil | t, and/or i  | TDS < 10    | ) ppm      |           |          |
| Fai                  | r Wa                    | ter may c              | contain si | mall amo    | ounts of sil | t, sand, or  | rust, and   | I/or TDS < | 200 ppn   | 7        |
| Po                   | or Wa                   | ter may c              | contain n  | oderate     | amounts o    | f silt, sand | l, or rust, | and/or TD. | IS = 200- | -800 ppm |
| Ver                  | y Poor Wa               | ter regulai            | rly conta  | ins silt, s | sand, or ra  | ist, and/or  | TDS > 8     | 00         |           |          |
|                      | co                      | MMENTS: _              |            |             |              |              |             |            |           |          |
| WATER<br>Volume Requ | STORAGE<br>uired = Maxi | DATA<br>mum Daily      | r Require  | ment        | (gal)        | (day) x      | days        | =          | gallons.  |          |
| Volume Avai          | inhie (nailons)         | Open :                 | Tank       | Pres.       | Tank         | In Line      |             | Other      |           | Total    |
|                      |                         |                        |            |             |              |              |             |            | -         |          |
| New or Exis          | ating:                  |                        |            |             |              |              |             |            | -         |          |
| WATER                | PUMPING                 | DATA                   |            |             |              |              |             |            |           |          |

| Static Water Depth: | ft. (Distance from ground to water surface when not pumping).              |
|---------------------|--|
| Drawdown Level:     | ft., atGPM. (Depth water drops when pumping).                              |
| Discharge Head:     | ft. (Dist. from ground surface to highest water surface in discharge line) |
|                     | (Use either Discharge Level or Pressure Head, but not both)                |
| Pressure Head:      | ft. (Tank pressure in psi. x 2.31)   |
| Losses:             | ft. (Minor and friction losses in discharge line from pump to tank)        |
| Total Dynamic Head: | ft. (Sum of values above).   |

## WATER SOLAR POWER DATA

WATER QUALITY AT SOURCE

Solar Station

## SOLAR ISOLATION VALUES

|                        | Average           | JAN     | FEB       | MARCH      | APRIL | MAY     | JUNE       | JULY    | AUG     | SEPT     | OCT | NOV | DEC | Month |
|------------------------|-------------------|---------|-----------|------------|-------|---------|------------|---------|---------|----------|-----|-----|-----|-------|
|                        | or full sun hours |         |           |            |       |         |            |         |         |          |     |     |     | Hours |
| Latitude               |                   |         |           |            |       |         |            |         |         |          |     |     |     |       |
|                        |                   |         |           |            |       |         |            |         |         |          |     |     |     |       |
| Design Solar Radiation | Hours =           | hours   |           |            |       |         |            |         |         |          |     |     |     |       |
| Design Flow Rate (gpr  | n) =              | gais (V | lolume Re | equired) / | /     | Solar R | adition He | ours (1 | hour/60 | minutes) |     |     |     |       |
|                        |                   |         |           |            |       |         |            |         |         |          |     |     |     |       |
|                        |                   |         |           |            |       |         |            |         |         |          |     |     |     |       |



Sheet 2 of 2

Md



# REQUIREMENTS

1. Escape ramps shall extend to bottom of trough and be flush with inside wall of the trough to provide safe and easy egress at low water levels.

2. Escape ramps shall be sloped no steeper than 45 degrees, to allow animals to climb out without slipping back into the water.

3. Escape ramps shall be built of tractive, long lasting materials, such as painted or coated metal grating, or high-strength plastic composites (e.g., Rainmaker Products polyethylene ramps or approved equal). Expanded metal escape ramps shall be 11 or 13 gauge with 1/2 inch mesh and shall be finished with a rust-inhibiting paint or coating. Refer to Expanded Metal Escape Ramp Fabrication drawing for construction details of expanded metal

4. Escape ramps shall be securely attached to the trough rim. Recommend attaching ramp with metal-tapping screw and washer, or a bracket with a bolt and wing nut for easy removal during trough maintenance. Secured attachment shall keep ramp from being moved loose by livestock, animals or

"Water for Wildlife: a Handbook for Ranchers and Range Managers," Bat Conservation International, 2007

"Wildlife Watering and Escape Ramps on Livestock Water Developments: Suggestions and Recommendations, <sup>\*</sup> Idaho BLM Technical Bulletin 89-4,



Drawing not to scale. Sheet 1 of 3





TYPICAL POLYETHYLENE/FLEXIBLE RUBBER TROUGH

# geotextile

# TYPICAL TIRE TROUGH

# REQUIREMENTS

- 1. Escape ramps shall extend to bottom of trough and be flush with inside wall of the trough to provide safe and easy egress at low water levels.
- 2. Escape ramps shall be sloped no steeper than 45 degrees, to allow animals to climb out without slipping back into the water.
- 3. Escape ramps shall be built of tractive, long lasting materials, such as painted or coated metal grating, or high-strength plastic composites (e.g., Rainmaker Products polyethylene ramps or approved equal). Expanded metal escape ramps shall be 11 or 13 gauge with 1/2 inch mesh and shall be finished with a rust-inhibiting paint or coating. Refer to Expanded Metal Escape Ramp Fabrication drawing for construction details of expanded metal escape ramps.
- 4. Escape ramps shall be securely attached to the trough rim. Recommend attaching ramp with metal-tapping screw and washer, or a bracket with a bolt and wing nut for easy removal during trough maintenance. Secured attachment shall keep ramp from being moved loose by livestock, animals or freezing water.

## **REFERENCE:**

"Water for Wildlife: a Handbook for Ranchers and Range Managers," Bat Conservation International, 2007

"Wildlife Watering and Escape Ramps on Livestock Water Developments: Suggestions and Recommendations," Idaho BLM Technical Bulletin 89-4, May 1989

attach escape ramp securely to side of trough to prevent unintended movement



modify escape ramp to sit flush with inside wall of trough

fill bottom of tire trough with concrete liner or other appropriate impermeable material

| rely to side of<br>ded movement   | Defe<br>12/2011<br>12/2011<br>12/2011<br>12/2011                                  |
|---|---|
| cape ramp<br>h with inside<br>ugh   | Designed TDM<br>Drawn KLY<br>Checked JM<br>Approved Title                         |
| igh with<br>r<br>le material  | RCULAR TROUGHS<br>ESCAPE RAMPS  |
| he trough to<br>imb out without<br>coated metal<br>ramps or<br>/2 inch mesh<br>letal Escape<br>3. | ō   |
| g ramp with<br>removal during<br>e by livestock,  | Natural Resources Conservation Service<br>United States Department of Agriculture |
|   | File Name<br>wildlife_escape_ramps.dwg<br>Drawing No.                             |
| Drawing not to scale.   | Sheet 2 of 3  |







- screws or bolts.



| ush  | with  | edge   | of   | trough,  | as  | sh  | own | b  | elow. |
|------|-------|--------|------|----------|-----|-----|-----|----|-------|
| s 01 | n ran | np are | ; CC | omplete, | fin | ish | ran | ηp | with  |





Drawing no to scale.



| Date<br>Designed R. Hugh Barrett 5/1988 | Drawn LLK/KLY 10/91-6/05 | Checked R.H.B./D.L.S. 6/1988 | Approved Roy E. Bright                 | Title State Conservation Engineer       |
|---|--------------------------|------------------------------|--|---|
| INI FT/OVERFI OW DEVICE                 |                          | LIVESTOCK WATER TAMK         |  |   |
|   |                          |                              | Natural Resources Conservation Service | United States Department of Agriculture |
| File I<br>or_Isi<br>Drawi<br>Sheet      | Nam<br><u>of</u><br>ing  | e<br>low_<br>No.             | <u>tro</u>                             | ugh                                     |
**APPENDIX D** 

**ALLOTMENT INFORMATION** 

|          |           |                      |             | BLM ADMI       | NISTERED ALLOTME | NTS IN THE BEAR RIVER WATERSH | IED              |  |
|----------|-----------|----------------------|-------------|----------------|------------------|-------------------------------|------------------|--|
|          |           |                      |             |                |                  |                               |                  |  |
| OBJECTID | Allotment |                      |             | Administrative | Administrative   |                               | Managing State   |  |
| *        | Number *  | Allotment Name       | GIS Acres   | State Code     | Office Code      | Adminstrative Unit Code       | Allotment Number | GlobalID *                             |
| 3911     | 11533     | 21 GROVE             | 3530.825983 | Wyoming        | D09000           | KEMMERER FIELD OFFICE         | WY11533          | {AD6E6F61-C6DE-48E6-90E9-31380A22FFAA} |
| 4038     | 21052     | AIRPORT              | 6107.342905 | Wyoming        | D09000           | KEMMERER FIELD OFFICE         | WY21052          | {78D37E9E-05B3-40A9-9B47-A9F784AB3E29} |
| 3957     | 11540     | ALTAMONT             | 9047.96064  | Wyoming        | D09000           | KEMMERER FIELD OFFICE         | WY11540          | {E80FD474-0028-4808-9BDE-46DEB159113B} |
| 4019     | 1461      | ANGELO               | 2738.231919 | Wyoming        | D09000           | KEMMERER FIELD OFFICE         | WY01461          | {121C1BDE-30F3-417F-BDD0-D3B75D0F70B6} |
| 3958     | 21514     | ASPEN                | 3092.172496 | Wyoming        | D09000           | KEMMERER FIELD OFFICE         | WY21514          | {DBE681EF-962E-4A0D-9E7E-14BF7639296E} |
| 3935     | 11519     | BARKER               | 978.390282  | Wyoming        | D09000           | KEMMERER FIELD OFFICE         | WY11519          | {4A0838C2-2EDB-4E82-95AF-BC43B1182133} |
| 3964     | 11525     | BLAKE HOLLOW         | 5726.102196 | Wyoming        | D09000           | KEMMERER FIELD OFFICE         | WY11525          | {A8A414EA-1B54-4002-BA37-117CED2CAFCE} |
| 4012     | 11204     | BORDER               | 737.237592  | Wyoming        | D09000           | KEMMERER FIELD OFFICE         | WY11204          | {9D42FC08-5429-4C65-986D-52447880D836} |
| 4060     | 21012     | BOYD HOLLOW          | 7506.849718 | Wyoming        | D09000           | KEMMERER FIELD OFFICE         | WY21012          | {DBAAD038-C4B6-48A8-92AA-38120A481425} |
| 4045     | 21011     | BUCKLEY              | 153.918547  | Wyoming        | D09000           | KEMMERER FIELD OFFICE         | WY21011          | {053A9FF6-84EF-48FE-83E1-095EDA31DCCC} |
| 3993     | 21505     | BYRNE CREEK          | 9877.877653 | Wyoming        | D09000           | KEMMERER FIELD OFFICE         | WY21505          | {5D894767-818D-4F57-83D5-CDD9CE360E08} |
| 4086     | 21019     | CHAPEL CREEK         | 2171.146063 | Wyoming        | D09000           | KEMMERER FIELD OFFICE         | WY21019          | {7154C37D-3D8D-4F77-8004-369AA4E745D3} |
| 4057     | 21014     | CHRISTY CANYON       | 10977.06342 | Wyoming        | D09000           | KEMMERER FIELD OFFICE         | WY21014          | {5759E0DA-98F7-479D-BF87-03916F009B35} |
| 4026     | 1462      | COLLETT CREEK        | 398.54099   | Wyoming        | D09000           | KEMMERER FIELD OFFICE         | WY01462          | {AAC2CA05-8AF4-4AB1-AE12-1408B2D6CF36} |
| 3990     | 11524     | соок                 | 876.432654  | Wyoming        | D09000           | KEMMERER FIELD OFFICE         | WY11524          | {5CEB30B2-8881-4FF8-B2CD-2B1A61EF960C} |
| 3918     | 21010     | COWAN                | 1038.866217 | Wyoming        | D09000           | KEMMERER FIELD OFFICE         | WY21010          | {E78F73C2-4E16-4A2A-A855-D0E0F8FEB056} |
| 3950     | 11518     | COYOTE CREEK         | 14450.99522 | Wyoming        | D09000           | KEMMERER FIELD OFFICE         | WY11518          | {CC833552-DE5D-4BC6-981F-065A7AC78B56} |
| 4015     | 1465      | CRAWFORD MOUNTIAN    | 2173.50532  | Wyoming        | D09000           | KEMMERER FIELD OFFICE         | WY01465          | {C2CF0171-7782-42D4-94E4-42EE725AC686} |
| 3974     | 21504     | CROMPTON RESERVOIR   | 2044.571899 | Wyoming        | D09000           | KEMMERER FIELD OFFICE         | WY21504          | {E96831B4-768F-445B-BF53-712D7EBF1E6A} |
| 4031     | 1206      | CUMBERLAND/UINTA     | 338314.7778 | Wyoming        | D09000           | KEMMERER FIELD OFFICE         | WY01206          | {91D7F52F-1183-4851-830C-B13C182CFE2B} |
| 3951     | 21516     | DUEL                 | 2580.491059 | Wyoming        | D09000           | KEMMERER FIELD OFFICE         | WY21516          | {13EF4A8B-10A5-446F-8264-C8C8E9C7DA1E} |
| 4018     | 11209     | ELK MOUNTIAN PASTURE | 684.905365  | Wyoming        | D09000           | KEMMERER FIELD OFFICE         | WY11209          | {FF50C7AD-8351-40D1-A406-83830C06A149} |
| 4030     | 1460      | ELKOL                | 11904.40223 | Wyoming        | D09000           | KEMMERER FIELD OFFICE         | WY01460          | {8CD4DAAC-DED4-48A7-9A38-FDD99423C93B} |
| 4082     | 11009     | ERWIN CREEK          | 3887.981503 | Wyoming        | D09000           | KEMMERER FIELD OFFICE         | WY11009          | {A92EF779-49C8-4F3F-8667-C8E4C8438BD7} |
| 4033     | 11201     | FOSSIL               | 1127.862724 | Wyoming        | D09000           | KEMMERER FIELD OFFICE         | WY11201          | {F51E58E9-FB37-4F4D-9373-3ADC12ABAF4A} |
| 4001     | 1463      | FOWKES               | 86.3894     | Wyoming        | D09000           | KEMMERER FIELD OFFICE         | WY01463          | {FE48BE97-DF8F-400D-A5EC-49BE1CB34BB3} |
| 3962     | 21513     | GLASSCOCK HOLLOW     | 18285.8231  | Wyoming        | D09000           | KEMMERER FIELD OFFICE         | WY21513          | {4263ABC7-C575-41A5-8EF8-2BBE118FF279} |
| 4051     | 21015     | GOBLIN GULCH         | 2786.151415 | Wyoming        | D09000           | KEMMERER FIELD OFFICE         | WY21015          | {3EC9611F-FD00-4B4B-AC15-09A3C716AEC4} |
| 4083     | 21020     | GRADE CREEK          | 2751.461716 | Wyoming        | D09000           | KEMMERER FIELD OFFICE         | WY21020          | {B421C21C-A2A6-4980-8F82-5F8560A2EA22} |
| 3981     | 21507     | HINSHAW              | 13371.6351  | Wyoming        | D09000           | KEMMERER FIELD OFFICE         | WY21507          | {0383EC97-A4F0-4538-B4C1-EA30A6E13BC7} |
| 4066     | 21032     | НООДОО               | 3541.97131  | Wyoming        | D09000           | KEMMERER FIELD OFFICE         | WY21032          | {26DBAEB5-A206-4E26-A21B-60ECF1C69B1C} |
| 4090     | 21002     | INCHAUSPE            | 9352.722163 | Wyoming        | D09000           | KEMMERER FIELD OFFICE         | WY21002          | {8110A545-56F6-4769-A8C6-2D93576E3F6F} |
| 3915     | 21515     | JOHNSON              | 4064.495134 | Wyoming        | D09000           | KEMMERER FIELD OFFICE         | WY21515          | {75C136D5-C883-4BD8-8982-6CB87BF1FBFF} |
| 3921     | 11543     | LA CHAPELLE          | 4039.115441 | Wyoming        | D09000           | KEMMERER FIELD OFFICE         | WY11543          | {8A941E84-17D9-40C7-91BB-81F086D4838F} |
| 4085     | 11057     | LARSON               | 638.774616  | Wyoming        | D09000           | KEMMERER FIELD OFFICE         | WY11057          | {02653076-912B-4827-8611-0BCC91687427} |
| 4028     | 21017     | LEEFE                | 2599.329676 | Wyoming        | D09000           | KEMMERER FIELD OFFICE         | WY21017          | {AAF87994-3477-48F8-B53E-1246DAEF667E} |
| 4059     | 21026     | LOST CREEK           | 4071.082024 | Wyoming        | D09000           | KEMMERER FIELD OFFICE         | WY21026          | {77B610B2-A0D0-4728-BD77-B0E4830B3D37} |
| 4076     | 11021     | LUND DRAW            | 2358.388044 | Wyoming        | D09000           | KEMMERER FIELD OFFICE         | WY11021          | {68F879A7-E0B6-4B09-BAB6-85C34B0C192C} |
| 3931     | 11105     | LYM LEASE            | 295.488059  | Wyoming        | D09000           | KEMMERER FIELD OFFICE         | WY11105          | {F56CA2E6-8545-4632-8515-D70C49C3C62E} |
| 4000     | 21501     | MEDICINE BUTTE       | 17259.09064 | Wyoming        | D09000           | KEMMERER FIELD OFFICE         | WY21501          | {D0643395-5DE8-445A-957C-26C1DCEA18E5} |
| 3939     | 11534     | MOSSLANDER RANCH     | 14247.27454 | Wyoming        | D09000           | KEMMERER FIELD OFFICE         | WY11534          | {C4326C12-A9DC-4FC7-87F6-BB5213EFA5A8} |
| 3942     | 11535     | MYERS                | 19164.02808 | Wyoming        | D09000           | KEMMERER FIELD OFFICE         | WY11535          | {B83EAC72-74DC-42F2-92EC-1A1C3632F673} |
| 4050     | 21028     | NATE PASTURE         | 982.490449  | Wyoming        | D09000           | KEMMERER FIELD OFFICE         | WY21028          | {A979F731-9C8A-4F31-8424-6E28340EA1C3} |
| 4034     | 11056     | NORTH MOYER          | 682.582073  | Wyoming        | D09000           | KEMMERER FIELD OFFICE         | WY11056          | {88F015DF-BD9B-4DC7-B313-7F8019ACC202} |
| 4036     | 21029     | ORR                  | 2562.382454 | Wyoming        | D09000           | KEMMERER FIELD OFFICE         | WY21029          | {742B44B0-11E8-4320-8538-549FAA770791} |

|               | BLM ADMINISTERED ALLOTMENTS IN THE BEAR RIVER WATERSHED |                    |             |                              |                               |                         |                                    |  |  |  |  |  |  |
|---------------|---|--------------------|-------------|------------------------------|-------------------------------|-------------------------|------------------------------------|--|--|--|--|--|--|
| OBJECTID<br>* | Allotment<br>Number *                                   | Allotment Name     | GIS Acres   | Administrative<br>State Code | Administrative<br>Office Code | Adminstrative Unit Code | Managing State<br>Allotment Number | GlobalID *                             |  |  |  |  |  |
| 4077          | 11030   | PINE CREEK         | 4088.392697 | Wyoming                      | D09000                        | KEMMERER FIELD OFFICE   | WY11030                            | {E34B0636-2B1A-4EAC-BC67-ADBE9DD0EA10} |  |  |  |  |  |
| 4074          | 11010   | POISON CREEK       | 21852.24066 | Wyoming                      | D09000                        | KEMMERER FIELD OFFICE   | WY11010                            | {222047E3-8EEA-4FC9-932C-E2D3F4DF22D4} |  |  |  |  |  |
| 4089          | 21004   | PREACHER HOLLOW    | 9178.906134 | Wyoming                      | D09000                        | KEMMERER FIELD OFFICE   | WY21004                            | {F732A30E-49D6-4702-BF01-42A22BA78E24} |  |  |  |  |  |
| 4070          | 21018   | QUEALY RESERVOIR   | 1645.89052  | Wyoming                      | D09000                        | KEMMERER FIELD OFFICE   | WY21018                            | {4377FE92-45B6-445B-B6A8-5EFDE2469FDF} |  |  |  |  |  |
| 3906          | 21001   | REDDEN PASTURE     | 1574.1717   | Wyoming                      | D09000                        | KEMMERER FIELD OFFICE   | WY21001                            | {BD55B270-8356-4182-87E7-583A244FCD01} |  |  |  |  |  |
| 4088          | 21006   | REED               | 4037.745424 | Wyoming                      | D09000                        | KEMMERER FIELD OFFICE   | WY21006                            | {B82D9403-366D-4939-B83F-6DE129ED7883} |  |  |  |  |  |
| 4058          | 21035   | ROCK CREEK         | 81967.72841 | Wyoming                      | D09000                        | KEMMERER FIELD OFFICE   | WY21035                            | {015E8093-4515-47E4-BAC4-B7E21165F222} |  |  |  |  |  |
| 3999          | 11503   | ROCK HOUSE         | 14552.39194 | Wyoming                      | D09000                        | KEMMERER FIELD OFFICE   | WY11503                            | {544D10D5-AEA0-4A61-85B1-4AC3D7A52492} |  |  |  |  |  |
| 4110          | 21024   | RYAN CREEK         | 4321.468062 | Wyoming                      | D09000                        | KEMMERER FIELD OFFICE   | WY21024                            | {CB1B5D31-44FA-4985-A966-9F1EABCF9BF9} |  |  |  |  |  |
| 4032          | 21207   | SAGE               | 622.52974   | Wyoming                      | D09000                        | KEMMERER FIELD OFFICE   | WY21207                            | {16C08E76-72B4-4584-AB0B-35E473A16FC5} |  |  |  |  |  |
| 4087          | 21007   | SAWMILL CREEK      | 3058.448225 | Wyoming                      | D09000                        | KEMMERER FIELD OFFICE   | WY21007                            | {66D4F30B-8493-4F23-B373-D8A7698C18BF} |  |  |  |  |  |
| 4064          | 11022   | SEIZMORE           | 521.17138   | Wyoming                      | D09000                        | KEMMERER FIELD OFFICE   | WY11022                            | {B68DEA36-E769-4922-98EC-5E2B349B00A1} |  |  |  |  |  |
| 3982          | 11536   | SIMS CANYON        | 730.220974  | Wyoming                      | D09000                        | KEMMERER FIELD OFFICE   | WY11536                            | {0A0616FD-7B62-4AC2-8599-D8661D46E598} |  |  |  |  |  |
| 4117          | 21034   | SLIDE ROCK         | 3443.190868 | Wyoming                      | D09000                        | KEMMERER FIELD OFFICE   | WY21034                            | {AE823C8A-8EA5-4CF8-AC33-0DE41C4BC827} |  |  |  |  |  |
| 4091          | 21005   | SMITHSFORK         | 86411.46268 | Wyoming                      | D09000                        | KEMMERER FIELD OFFICE   | WY21005                            | {A45BDA8A-6F4C-49E4-BE7E-195B40400F51} |  |  |  |  |  |
| 4044          | 21016   | SOUTH LAKE         | 2323.484811 | Wyoming                      | D09000                        | KEMMERER FIELD OFFICE   | WY21016                            | {25927433-11B8-47E1-9EAA-97F87EE2E6AC} |  |  |  |  |  |
| 4029          | 11054   | SOUTH MOYER        | 746.864649  | Wyoming                      | D09000                        | KEMMERER FIELD OFFICE   | WY11054                            | {0E20933F-7714-4F8B-B26E-602845E66042} |  |  |  |  |  |
| 3973          | 21509   | SPRING HOLLOW      | 7685.95055  | Wyoming                      | D09000                        | KEMMERER FIELD OFFICE   | WY21509                            | {C6C1BD8A-76AF-48BB-A37F-6B81946A6757} |  |  |  |  |  |
| 4009          | 11205   | STATE LINE         | 689.07753   | Wyoming                      | D09000                        | KEMMERER FIELD OFFICE   | WY11205                            | {6BCF60FB-A0C6-4B65-823F-66F4FECDD70E} |  |  |  |  |  |
| 4061          | 21023   | STONER             | 849.829409  | Wyoming                      | D09000                        | KEMMERER FIELD OFFICE   | WY21023                            | {B85A9306-4BE1-4441-8783-14470461D77A} |  |  |  |  |  |
| 3898          | 11530   | STONEY RUN         | 1751.342911 | Wyoming                      | D09000                        | KEMMERER FIELD OFFICE   | WY11530                            | {B4543E6C-19F9-4D18-BDA1-A5102DF595F6} |  |  |  |  |  |
| 3952          | 11526   | STOWE CREEK        | 2286.317091 | Wyoming                      | D09000                        | KEMMERER FIELD OFFICE   | WY11526                            | {9C8C3D75-AE87-4AE4-A9A7-1AA9BEDF4931} |  |  |  |  |  |
| 4067          | 21031   | SUBLETTE CANYON    | 2587.391422 | Wyoming                      | D09000                        | KEMMERER FIELD OFFICE   | WY21031                            | {4061F666-94EB-449C-841A-FD27F5D00F8A} |  |  |  |  |  |
| 3930          | 1531  | SULPHUR CREEK      | 1601.680213 | Wyoming                      | D09000                        | KEMMERER FIELD OFFICE   | WY01531                            | {5AC7A3E9-3D68-49F8-B931-85AFB7BEB35E} |  |  |  |  |  |
| 3975          | 21537   | THOMAS CANYON      | 981.395905  | Wyoming                      | D09000                        | KEMMERER FIELD OFFICE   | WY21537                            | {F6407CD3-5E70-47D0-A374-D6E62B068787} |  |  |  |  |  |
| 4113          | 21033   | TOM GOURE          | 6430.262392 | Wyoming                      | D09000                        | KEMMERER FIELD OFFICE   | WY21033                            | {7D566933-BF3A-4581-A9E6-5B028F7E1796} |  |  |  |  |  |
| 3977          | 21538   | TURNER             | 232.78715   | Wyoming                      | D09000                        | KEMMERER FIELD OFFICE   | WY21538                            | {51D99112-2EC4-4519-8419-9E655860AE11} |  |  |  |  |  |
| 4035          | 1459  | TWIN CREEK         | 42769.72655 | Wyoming                      | D09000                        | KEMMERER FIELD OFFICE   | WY01459                            | {E2FCBD87-C9B6-4EAE-98C2-F1D6773CD6C9} |  |  |  |  |  |
| 4056          | 21027   | UNDERWOOD          | 4886.318244 | Wyoming                      | D09000                        | KEMMERER FIELD OFFICE   | WY21027                            | {9B5480A3-3290-49F0-8F20-E7EBB071853A} |  |  |  |  |  |
| 3986          | 21506   | VALLEY CREEK       | 3238.146188 | Wyoming                      | D09000                        | KEMMERER FIELD OFFICE   | WY21506                            | {903CFFB9-99E2-45BB-A53A-4D18258B851B} |  |  |  |  |  |
| 3967          | 21517   | WASATCH            | 1593.779193 | Wyoming                      | D09000                        | KEMMERER FIELD OFFICE   | WY21517                            | {4091E087-0A34-4800-89D7-05BDAF7B5D1C} |  |  |  |  |  |
| 4005          | 1464  | WHITNEY CANYON     | 1872.770018 | Wyoming                      | D09000                        | KEMMERER FIELD OFFICE   | WY01464                            | {C285DA8F-6285-4D2B-9A13-EDBC6E58212C} |  |  |  |  |  |
| 4011          | 11208   | WOODRUFF RESERVOIR | 470.872165  | Wyoming                      | D09000                        | KEMMERER FIELD OFFICE   | WY11208                            | {ACCDC4E4-285C-4269-9AA1-3CB1AF1F9226} |  |  |  |  |  |
| 3914          | 11520   | YELLOW CREEK       | 635.989536  | Wyoming                      | D09000                        | KEMMERER FIELD OFFICE   | WY11520                            | {0C54A78E-9066-40BF-A5FF-8934F8F2E05B} |  |  |  |  |  |

|     |         |          | USFS A   | dministered | Allotments within the Bear River Watershe | ed         |             |
|-----|---------|----------|----------|-------------|---|------------|-------------|
| FID | Shape   | OBJECTID | CN       | UNIT_NO     | UNIT_NAME                                 | SHAPE_Leng | SHAPE_Area  |
| 144 | Polygon | 145      | 10000.01 | 1001        | ASPEN SPRINGS                             | 22580.7125 | 23224762.74 |
| 122 | Polygon | 123      | 10001.01 | 1002        | BUCKSKIN KNOLL                            | 58181.7866 | 52849829.28 |
| 132 | Polygon | 133      | 10002.01 | 1005        | DEVILS HOLE                               | 50699.2341 | 79595001.85 |
| 124 | Polygon | 125      | 10005.01 | 1008        | GIRAFFE CREEK                             | 27853.8604 | 34732222.68 |
| 127 | Polygon | 128      | 10008.01 | 1011        | LAKE ALICE                                | 44885.761  | 56878071.27 |
| 130 | Polygon | 131      | 10009.01 | 1012        | LAKE MOUNTAIN                             | 50476.4798 | 64815311.55 |
| 120 | Polygon | 121      | 10011.01 | 1014        | LITTLE WHITE CREEK                        | 27829.7949 | 31050678.92 |
| 126 | Polygon | 127      | 10012.01 | 1015        | LOWER SALT CREEK                          | 27294.9408 | 28875126.35 |
| 109 | Polygon | 110      | 10085.01 | 3017        | NORTH SALT RIVER                          | 57969.8039 | 45047849.73 |
| 131 | Polygon | 132      | 10014.01 | 1017        | PORCUPINE CREEK                           | 28574.2375 | 29505541.59 |
| 136 | Polygon | 137      | 10015.01 | 1019        | SAMS ALLEN CR                             | 55310.4147 | 76330993.5  |
| 121 | Polygon | 122      | 10017.01 | 1021        | SMITHS FORK                               | 27147.2789 | 32141393.38 |
| 108 | Polygon | 109      | 10089.01 | 3023        | SOUTH SALT RIVER                          | 64340.389  | 63494225.04 |
| 125 | Polygon | 126      | 10024.01 | 1031        | TRESPASS CREEK                            | 17150.301  | 15472251.86 |

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## **APPENDIX E**

## SOILS AND GEOLOGY INFORMATION

FIGURE 3.4.2.5 GEOLOGIC HAZARDS FIGURE 3.4.3.1 NRCS SOILS DATA AND EXPLANATION Appendix 3 – Lithologic and water yielding characteristics of geologic units in Lincoln County, Wyoming FIGURE 3.4.1.3 SURFICIAL GEOLOGY FIGURE 3.4.1.3a SURFICIAL GEOLOGY EXLANATION FIGURE 3.4.2.3 BEDROCK GEOLOGY FIGURE 3.4.2.3 – P.1-P.7 BEDROCK GEOLOGY EXPLANATION





| <br> |       |      |      |      |     |     | and the second se |       |     |       | Concernance of the local division of the loc |       |     | and the second se |     |    |
|------|-------|------|------|------|-----|-----|---|-------|-----|-------|--|-------|-----|---|-----|----|
|      | 1     | 106  |      | 1226 | 169 | 204 |   | 235   |     | 322   |  | 3563  | 48  |   | 514 |    |
|      | 100   | 110  |      | 127  | 170 | 205 |   | 236   |     | 323   |  | 3564  | 499 |   | 520 |    |
|      | 10001 | 1102 |      | 129  | 171 | 206 |   | 243   |     | 325   |  | 3634C | 5   |   | 521 |    |
|      | 10003 | 1103 |      | 130  | 172 | 208 |   | 246   |     | 32564 |  | 375   | 50  |   | 522 |    |
|      | 10004 | 111  |      | 131  | 173 | 209 |   | 2514D |     | 32565 |  | 3761  | 500 |   | 524 |    |
|      | 10005 | 112  |      | 135  | 174 | 210 |   | 256   |     | 326   |  | 4039  | 501 |   | 525 |    |
|      | 10006 | 1121 |      | 14   | 177 | 211 |   | 2564  |     | 333   |  | 405   | 503 |   | 528 |    |
|      | 10007 | 113  |      | 140  | 180 | 212 |   | 2571E |     | 336   |  | 406   | 504 |   | 529 |    |
|      | 10008 | 114  |      | 141  | 181 | 214 | 104   | 27    |     | 346   |  | 4106  | 505 |   | 530 |    |
|      | 10012 | 119  |      | 147  | 182 | 222 |   | 276   | 12. | 3511C |  | 412   | 506 |   | 531 |    |
|      | 10014 | 120  |      | 150  | 183 | 223 |   | 282   | 199 | 353   |  | 4135  | 507 |   | 533 |    |
|      | 101   | 121  |      | 161  | 199 | 224 |   | 286   |     | 3534C | 138  | 4227  | 51  |   | 534 |    |
|      | 102   | 1212 |      | 165  | 200 | 225 |   | 302   |     | 3540B |  | 423   | 510 |   | 535 |    |
|      | 103   | 122  |      | 166  | 201 | 226 |   | 306   |     | 355   |  | 435   | 511 |   | 536 | TE |
|      | 104   | 1222 |      | 167  | 202 | 227 |   | 312   |     | 3561C |  | 442   | 512 |   | 537 |    |
|      | 105   | 1223 | 2.12 | 168  | 203 | 233 |   | 314   |     | 3561D | -  | 445   | 513 |   | 538 |    |

Explanation

#### Notes:

- 1. The Uinta County Area and the Bridger National Forest datasets contained five similar soil group numbers (102, 212, 222, 223, & 226) which had different unit descriptions in each dataset. Therefore, within the Uinta County Area dataset, these numbers were preceded by the number 1 (1102, 1212, 1222, 1223, & 1226).
- 2. The Summit County Area dataset, when compared with the Uinta County Area and the Bridger National Forest datasets, contained two similar soil group numbers (103, 121) which had different unit descriptions in each dataset. Therefore, within the Summit County Area dataset, these numbers were preceded by the number 1 (1103, 1121).



3. Soils data was obtained from the Natural Resources Conservation Service.

4. Soil group names provided in Appendix E.



#### THIS FIGURE MUST BE REPRODUCED IN COLOR.

| AR RIVER WATERSHED<br>STUDY | NRCS SC<br>EXPLA | DILS DATA      |
|-----------------------------|------------------|----------------|
| OJECT NUMBER 15134          | May 2016         | Figure 3.4.3.1 |

## Appendix 3.\_\_: Lithologic and water-yielding characteristics of geologic units in Lincoln County, Wyoming (from Eddy-Miller, Plafcan, and Clark,1996)

nary entries

Range of most Range of common thickness water vields Lithology Erathem System Series **Geologic unit** (ft) Water-yielding characteristics (gal/min) "Clay, silt, sand, and gravel; includes some 150-500 Sequence in Alluvium and <sup>1</sup><100 Ground-water possibilities good in Cenozoic Quaternary table does not colluvium slopewash material. Coarser alluvial deposits coarser deposits, but poor where silt and in the Green are in Green River valley north of Green River clay predominate. Clean sand and gravel indicate age **River Basin** and along streams in and near highlands..."<sup>2</sup> near perennial streams would probably relative to <sup>1</sup>up to 410 in other Quaterhave yields of 500 + gal/min.<sup>2</sup> "Unconsolidated sand and gravel interbedded the Overthrust nary entries with silt and clay. The maximum thickness of "Sand and gravel in alluvium is the most Belt alluvium in the Bear (and) Salt... River valleys utilized aquifer in the thrust belt. Irrigation is unknown; however, wells that are 200 ft and municipal wells in the Bear (and) deep have not penetrated the full thickness in Salt...River valleys yield 1,000 to these areas."3 2,000 gal/min. Yields of wells that tap alluvium are dependent on the thickness. the sorting of the saturated sand and gravel, and the well construction."<sup>3</sup> 415-30 <sup>2</sup><20 Cenozoic Quaternary Sequence in Gravel. "Gravel, pebble to boulder size, sand, and silt. "Known well yields are less than 20 gal/ min."2 table does not pediment, Located at several terrace levels above the indicate age and fan streams and in scattered patches along relative to highlands; includes some glacial outwash deposits material."2 other Quaternary entries 5<100 <sup>2</sup><20 "Till and outwash of sand, gravel, and Cenozoic Ouaternary Sequence in Glacial Glacial deposits may yield small quantities boulders."6 of water to wells. Water yield is limited table does not deposits indicate age due to poorly sorted material and small "Poorly sorted silt, sand, gravel, and boulders saturated thickness.<sup>3</sup> relative to as much as 40 feet in diameter."3 other Quaternary entries 4<30 Cenozoic Ouaternary Sequence in Landslide "Locally includes intermixed landslide and "Rock debris is not a potential source of table does not deposits glacial deposits, talus, and rock-glacier water because of its poorly sorted material deposits."6 and small saturated thickness."3 indicate age relative to other Ouaternary entries 4<10 Unconsolidated sand and silt.<sup>2</sup> Dune sand "Generally too thin to hold much water. Cenozoic Quaternary Sequence in table does not and loess but aids recharge to underlying "Includes active and dormant dunes."6 formations."2 indicate age relative to other Ouater-

[ft, feet; ft/d, feet per day; gal/min, gallons per minute; small, less than 50 gal/min; moderate, 50 - 300 gal/min; large, more than 300 gal/min; --, no data; Ma, millions of years]

### Appendix 3.\_\_: Lithologic and water-yielding characteristics of geologic units in Lincoln County, Wyoming (from Eddy-Miller, Plafcan, and Clark,1996)

| Erathem       | System   | Series                     | Geologic unit            | Range of<br>thickness<br>(ft)  | Lithology   | Water-yielding characteristics   | Range of<br>most<br>common<br>water yields<br>(gal/min) |
|---------------|----------|----------------------------|--------------------------|--|---|--|---|
| Cenozoic      | Tertiary | Pliocene and<br>Miocene    | Intrusive and            |  | "Composition ranges from hornblende   | "No ground water possibilities." <sup>2</sup>  |   |
|               |          | moone                      | igneous rocks            |  | Exposure is confined to small outcrops in the northern part of Lincoln County.  | Igneous rocks generally have little primary permeability, but fractures may contain water.   |   |
| Cenozoic Terr | Tertiary | Pliocene and<br>Miocene    | Salt Lake<br>Formation   | <sup>3</sup> <1000   | "White, gray, and green limy tuff, siltstone,<br>sandstone, and conglomerate." <sup>6</sup>   | The availability of water from this type of aquifer is limited because the   | <sup>3</sup> <20  |
|               |          |                            |                          | "Pale-reddish gray conglomerate, grit,<br>sandstone, siltstone, clay, and white volcanic<br>ash. The formation is most extensive in the<br>Star Valley, where it has a maximum thickness<br>of about 1,000 ft." <sup>3</sup> | conglomerates are usually well indurated,<br>poorly sorted, and have little primary<br>permeability. Springs issue from the<br>conglomerates on side hills, but their flows<br>rarely exceed 20 gal/min. <sup>3</sup>   |  |   |
| Cenozoic      | Tertiary | Miocene                    | Teewinot<br>Formation    |  | "White lacustrine clay, tuff and limestone. In thrust belt includes conglomerate." <sup>6</sup>   | "Poorly consolidated conglomerates are<br>well drained. Yields generally range from<br>10 to 120 gal/min." <sup>1</sup>  | <sup>1</sup> 10-120                                     |
| Cenozoic      | Tertiary | Eocene                     | ene Bridger<br>Formation | <sup>1</sup> 0-2,300   | "Mudstone, sandy, tuffaceous, gray to green,<br>locally banded with pink; medium grained,<br>tuffaceous, muddy, brownish-gray sandstone;<br>and thin bedded limestone and   | "A major aquifer in the southern Green<br>River Basin-Overthrust area. Yields from<br>springs commonly range from 2 to 100<br>gal/min." <sup>1</sup>   | <sup>1</sup> 2-100                                      |
|               |          |                            |                          |  | marlstoneContains fewer red beds and much<br>more volcanic ash than Wasatch Formation;<br>base interfingers with Laney Member and<br>generally is poorly defined. Present in much of<br>southern half of (Green River) basin." <sup>2</sup>   | Generally, ground-water possibilities from<br>the Bridger Formation are limited in the<br>Green River Basin. Sandstones locally<br>might contain good water where overlain<br>by alluvial or gravel deposits. <sup>2</sup> |   |
| Cenozoic      | Tertiary | Pliocene (?)<br>and Eocene | Fowkes<br>Formation      | <sup>1</sup> 0-2,600   | "Light-colored tuffaceous sandstone and siltstone, locally conglomeratic. Locally   | "Locally yields water to wells and springs<br>in Overthrust Belt." <sup>1</sup>  |   |
|               |          |                            |                          |  | designated by some as Norwood Tuff." <sup>6</sup><br>The Fowkes Formation is subdivided into the<br>following units, in ascending order: The<br>Sillem Member (100 to 400 ft thick); the<br>Bulldog Hollow Member (200 to 2,000 ft<br>thick); and the Gooseberry Member (more<br>than 200 ft thick). <sup>3</sup> | "Tuffaceous sandstone in the Fowkes is<br>probably capable of yielding small<br>quantities of water to wells." <sup>3</sup>  |   |

| Erathem  | System   | Series | Geologic unit  | Range of<br>thickness<br>(ft)  | Lithology  | Water-yielding characteristics   | Range of<br>most<br>common<br>water yields<br>(gal/min) |
|----------|----------|--------|--|--|--|--|---|
| Cenozoic | Tertiary | Eocene | Green River<br>Formation,<br>Laney   | <sup>2</sup> 100-1,000<br><sup>4</sup> <250<br><sup>2</sup> 20-265   | "Marlstone, oil shale, tuff, siltstone, fine- to<br>medium- grained sandstone; characteristically<br>brown and buff colored." <sup>2</sup>   | "Sandstone lenses in Laney Shale<br>generally yield 3 to 100 gal/min to springs<br>and wells." <sup>1</sup>  | <sup>1</sup> 1-75                                       |
|          |          |        | Member   | 20-205   |  | Ground-water possibilities are fair.<br>Sandstone is a significant constituent and<br>yields of about 300 gal/min can probably<br>be obtained locally, but water may contain<br>high dissolved solids. <sup>2</sup>  |   |
| Cenozoic | Tertiary | Eocene | Green River<br>Formation,<br>Wilkins Peak<br>Member  | <sup>2</sup> 0-1,400<br><sup>4</sup> <250  | "Marlstone, claystone, oil shale, siltstone, tuff,<br>fine-grained sandstone, limestone; contains<br>saline minerals of trona, shortite, halite, etc" <sup>2</sup>   | "Ground-water possibilities poor. Might<br>yield less than 30 gal/min of brine<br>locally" <sup>2</sup>  | <sup>2</sup> <30  |
| Cenozoic | Tertiary | Eocene | Green River<br>Formation,<br>Angelo<br>Member  | <sup>4</sup> <200  | "Light-gray to buff, mainly white-weathering<br>siliceous limestone, calcareous shale, and<br>siltstone." <sup>4</sup>   | One spring inventoried had a discharge of 1 gal/min.   |   |
| Cenozoic | Tertiary | Eocene | Green River<br>Formation,<br>Fossil Butte<br>Member  | <sup>4</sup> 260-330   | "Includes light-gray, tan, and buff limestone,<br>calcareous siltstone, marlstone, and shale, and<br>brown laminated carbonaccous shale and very<br>thinly laminated ("papery") oil shale;<br>tuffaceous interbeds common." <sup>4</sup>   | Springs issuing from the Fossil Butte<br>Member had discharges ranging from 1 to<br>200 gal/min.   |   |
| Cenozoic | Tertiary | Eocene | Wasatch and<br>Green River<br>Formations,<br>includes New<br>Fork Tongue<br>of Wasatch<br>and<br>Fontenelle<br>Tongue or<br>Member of<br>Green River | <sup>1</sup> 2,500-5,250<br>(Wasatch<br>Formation)<br><sup>1</sup> 100-2,800<br>(Green River<br>Formation) | "Wasatch: Thrust Belt-variegated mudstone<br>and sandstone; southwest-drab to variegated<br>claystone and siltstone, carbonaceous shale<br>and coal, buff sandstone, arkose and<br>conglomerate.<br>Green River: Thrust Belt-buff laminated<br>marlstone and limestone, brown oil shale, and<br>siltstone; Southwest-oil shale, light-colored<br>tuffaceous marlstone and sandstone." <sup>6</sup> | "Conglomeratic sandstones and<br>conglomerates in the Wasatch are capable<br>of yielding large quantities of water to<br>wells Small to moderate quantities of<br>water are available from finer grained<br>sandstones in the Wasatch and Green River<br>Formations, but well yields are greatly<br>dependent on the thickness of saturated<br>sandstone that is tapped." <sup>3</sup><br>Major aquifer of the Green River Basin. <sup>1</sup> | <sup>1</sup> <50<br>(Wasatch<br>Formation)              |
| Cenozoic | Tertiary | Eocene | Wasatch<br>Formation-<br>Main body   | <sup>2</sup> 0-3,500   | "Claystone, silty to sandy, generally variegated<br>red, orange, purple, brown, green, or gray;<br>lenticular beds of fine- to medium-grained<br>sandstone becoming conglomeratic locally at<br>basin periphery." <sup>2</sup>   | "A good source of waterContains more<br>than one aquifer; wells tapping deeper<br>sandstones flow in some areasYields of<br>wells range from 1 to 688 gal/min." <sup>2</sup>   |   |

### Appendix 3.\_\_: Lithologic and water-yielding characteristics of geologic units in Lincoln County, Wyoming (from Eddy-Miller, Plafcan, and Clark,1996)

| Appendix 3. | : Lithologic and water-yielding characteristics of geologic units in Lincoln County, W | yoming |
|-------------|--|--------|
|             | (from Eddy-Miller, Plafcan, and Clark, 1996)   |        |

| Erathem                     | System                     | Series                               | Geologic unit                         | Range of<br>thickness<br>(ft)                    | Lithology   | Water-yielding characteristics   | Range of<br>most<br>common<br>water yields<br>(gal/min) |
|-----------------------------|----------------------------|--------------------------------------|---------------------------------------|--|---|--|---|
| Cenozoic                    | Tertiary                   | Eocene                               | Wasatch<br>Formation-                 | <sup>5</sup> <1,000                              | "Diamictite grades laterally into members of<br>the formation." <sup>6</sup>  | Unknown  |   |
|                             |                            |                                      | diamictite and sandstone              |  | "Unsorted boulders and blocks in mudstone matrix." <sup>5</sup>   |  |   |
| Cenozoic Tertiary           | Tertiary                   | Eocene and<br>Paleocene              | Wasatch<br>Formation-<br>La Barge and | <sup>5</sup> <1,700                              | La Barge Member consists of red and brown mudstone and conglomerate, yellow sandstone and pisolitic limestone. <sup>5</sup>   | Unknown  |   |
|                             |                            |                                      | Chappo<br>Members                     |  | Chappo Member consists of red to gray conglomerate and sandstone. <sup>5</sup>  |  |   |
| Cenozoic                    | Tertiary                   | Eocene and<br>Paleocene              | Conglomerate<br>of Sublette<br>Range  | <sup>5</sup> <600                                | "Boulder- to pebble-sized gravel, sand, and silt, crudely stratified." <sup>5</sup>   | Unknown  |   |
| Cenozoic<br>and<br>Mesozoic | Tertiary and<br>Cretaceous | Paleocene and<br>Upper<br>Cretaceous | Evanston<br>Formation                 | <sup>1</sup> 1,350-2,900<br><sup>5</sup> <800    | "Lower member of mudstone, siltstone,<br>claystone, and carbonaceous sandstone;<br>middle member of conglomerate in a matrix of<br>coarse sand; upper member consists of<br>carbonaceous sandy to clayey siltstone<br>interbedded with sandstone and<br>conglomerate." <sup>1</sup> | "The Evanston Formation includes 1,300<br>to 2,900 feet of well-sorted conglomerates<br>and conglomeratic sandstones that arc<br>capable of moderate to large well yields." <sup>1</sup> | -   |
| Mesozoic                    | Cretaceous                 | Upper<br>Cretaceous                  | Adaville<br>Formation                 | <sup>1</sup> 1,400-5,000<br><sup>5</sup> <2.100  | "Brown and buff fine- to medium-grained calcareous sandstone, gray carbonaceous   | "Generally considered a minor aquifer of<br>the Overthrust Belt area" <sup>1</sup>   |   |
|                             |                            |                                      |                                       |  | mudstone, and numerous coal beds. The<br>proportions of sandstone to mudstone are<br>about equal. Thickness varies because of the<br>irregularity of the unconformity that separates<br>the Adaville and overlying Cretaceous<br>rocks." <sup>3</sup>                               | "Small quantities of water are available<br>from sandstone in the base of the Adaville<br>Formation." <sup>3</sup>   |   |
| Mesozoic                    | Cretaceous                 | Upper<br>Cretaceous                  | Blind Bull<br>Formation               | <sup>5</sup> <9,200                              | "Fine-grained to conglomeratic sandstone,<br>siltstone, and shale with some beds of<br>bentonite and coal." <sup>3</sup>  | Small quantities of water are available<br>from sandstone layers in the Blind Bull<br>Formation. <sup>3</sup>  |   |
| Mesozoic                    | Cretaceous                 | Upper<br>Cretaceous                  | Hilliard Shale                        | <sup>1</sup> 3,000-6,800?<br><sup>5</sup> <5,600 | "Dark-gray to tan claystone, siltstone, and sandy shale." <sup>6</sup>  | "Major regional confining unit of Green<br>River Basin and Overthrust Belt. Locally<br>yields small quantities to wells from sand<br>lenses." <sup>1</sup>                               |   |

| Erathem  | System     | Series              | Geologic unit              | Range of<br>thickness<br>(ft)                      | Lithology  | Water-yielding characteristics   | most<br>common<br>water yields<br>(gal/min) |
|----------|------------|---------------------|----------------------------|--|--|--|---|
| Mesozoic | Cretaceous | Upper<br>Cretaceous | Frontier<br>Formation      | <sup>1</sup> 1,100-3,000?<br><sup>5</sup> <2,600   | "Gray, fine- to medium-grained sandstone, and<br>gray mudstone, claystone, and siltstone with<br>some beds of coal. The Oyster Ridge<br>Sandstone Member is near the top of the<br>formation and it contains numerous oyster<br>shells." <sup>3</sup>      | "Sandstone aquifers in the Frontier<br>Formation are capable of yielding<br>moderate quantities of water" <sup>3</sup>   | <sup>1</sup> 5-50                           |
| Mesozoic | Cretaceous | Lower<br>Cretaceous | Sage Junction<br>Formation | <sup>5</sup> <3,300                                | "Gray and tan sandy siltstone and shale, tan<br>sandstone and quartzite, porcelanite,<br>fossiliferous limestone, and a few coal beds in<br>lower part." <sup>3</sup>  | Few hydrologic data are available for the Sage Junction Formation. Based on lithologies, small quantities of water are probably available from sandstone layers in this formation. <sup>3</sup>                        |   |
| Mesozoic | Cretaceous | Lower<br>Cretaceous | Aspen Shale                | <sup>1</sup> 400-2,200<br><sup>5</sup> 1,100-2,000 | "Light- to dark-gray siliceous tuffaceous shale<br>and siltstone, thin bentonite beds, and<br>quartzitic sandstone." <sup>6</sup><br>"Light gray to black shale, gray fine-grained<br>sandstone, and white to gray porcelanite." <sup>3</sup>              | "Locally utilized aquifer, maximum spring<br>and well yields 25 to 30 gal/min. Water<br>yields are mainly from stray sands and<br>fracture zones." <sup>1</sup>  | <sup>1</sup> 25-30                          |
| Mesozoic | Cretaceous | Lower<br>Cretaceous | Quealy<br>Formation        | <sup>5</sup> 500-1,100                             | "Red and variegated pastel-tinted mudstone<br>and tan sandstone." <sup>5</sup>   | Few hydrologic data are available for the Quealy Formation. Based on lithologies, water is probably not available from this formation. <sup>3</sup>  |   |
| Mesozoic | Cretaceous | Lower<br>Cretaceous | Wayan<br>Formation         | <sup>5</sup> <3,900                                | "Variegated mudstone, siltstone, and sandstone." <sup>6</sup>  | Unknown  |   |
| Mesozoic | Cretaceous | Lower<br>Cretaceous | Cokeville<br>Formation     | <sup>4</sup> <2,500<br><sup>5</sup> 850-3,000      | "Gray and tan sandstone, siltstone, gray shale,<br>highly fossiliferous limestone, porcelanite,<br>bentonite, and a few coal beds in upper part.<br>About 1,600 ft thick near Cokeville and as<br>much as 2,500 ft thick near Sage Junction." <sup>3</sup> | Few hydrologic data are available for the<br>Cokeville Formation. Based on lithologies,<br>small quantities of water are probably<br>available from sandstone layers in this<br>formation. <sup>3</sup>                |   |
| Mesozoic | Cretaceous | Lower<br>Cretaceous | Bear River<br>Formation    | <sup>1,3</sup> 800-1,500                           | "Black shale, fine-grained brown sandstone,<br>thin limestone, and bentonite beds." <sup>6</sup><br>"Mainly gray to black fissile shale with<br>interbeds of gray sandstone. Thickness<br>generally ranges from 800 to 1,500 ft." <sup>3</sup>             | "Minor aquifer with spring yields gener-<br>ally 4 to 15 gal/min and similar well<br>yields." <sup>1</sup><br>"Small quantities of water are available<br>from sandstone in the Bear River<br>Formation " <sup>3</sup> | <sup>1</sup> 4-15                           |

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# Appendix 3.\_\_: Lithologic and water-yielding characteristics of geologic units in Lincoln County, Wyoming (from Eddy-Miller, Plafcan, and Clark,1996)

| Appendix 3: Lithologic and water-yielding characteristics of geologic units in Lincoln County, V | Vyoming |
|--|---------|
| (from Eddy-Miller, Plafcan, and Clark, 1996)   |         |

| Erathem  | System     | Series                          | Geologic unit   | Range of<br>thickness<br>(ft)                    | Lithology  | Water-yielding characteristics   | Range of<br>most<br>common<br>water yields<br>(gal/min) |
|----------|------------|---------------------------------|---|--|--|--|---|
| Mesozoic | Cretaceous | Lower<br>Cretaceous             | Thomas Fork<br>Formation  | <sup>4</sup> 300-1,300<br><sup>5</sup> 400-1,700 | "Red and variegated mudstone and sandstone<br>with calcareous nodules." <sup>3</sup>   | Few hydrologic data are available for the<br>Thomas Fork Formation. Based on<br>lithologies, small quantities of water are<br>probably available from sandstone layers<br>in this formation. <sup>3</sup>                              |   |
| Mesozoic | Cretaceous | Lower<br>Cretaceous             | Smiths<br>Formation   | <sup>4</sup> 110-390<br><sup>5</sup> 300-850     | "Interbedded tan quartzitic and black<br>ferruginous shale. About 755 ft thick along<br>Smiths Fork but thins southward." <sup>3</sup>   | Few hydrologic data are available for the<br>Smiths Formation. Based on lithologies,<br>small quantities of water are probably<br>available from sandstone layers in this<br>formation. <sup>3</sup>                                   |   |
| Mesozoic | Cretaceous | Lower<br>Cretaceous             | Gannett<br>Group  | <sup>1,3</sup> 800-5,000                         | Lithologies of the Gannett Group include:<br>brick-red and maroon siltstone and clay-stone,  | "Water-bearing units restricted to sand-<br>stones and conglomerate in lower part." <sup>1</sup>   | <sup>1</sup> 5-75                                       |
|          | à          |                                 | includes:<br>Smoot<br>Formation,<br>Draney<br>Limestone,<br>Bechler<br>Conglomerate,<br>Peterson<br>Limestone,<br>Ephraim<br>Conglomerate | <sup>5</sup> 790-3,000                           | red to brown calcareous to quartzitic<br>sandstone, red to brown conglomerate, and<br>gray to tan nodular limestone (Ephraim<br>Conglomerate); finely crystalline limestone<br>(Peterson Limestone); red sandstone and<br>conglomerate, and purplish- to reddish-gray<br>siltstone and mudstone with thin limestone<br>interbeds (Bechler Conglomerate); gray finely<br>crystalline limestone and gray calcareous<br>siltstone (Draney Limestone); and red siltstone<br>and mudstone (Smoot Formation). <sup>3</sup> | Rocks in the Gannett Group are mostly<br>impermeable and in most areas they are<br>only capable of yielding small quantities<br>of water. Where the conglomerates are<br>fractured, moderate quantities are<br>available. <sup>3</sup> |   |
| Mesozoic | Jurassic   | Upper and<br>Middle<br>Jurassic | Stump<br>Formation  | <sup>3</sup> 90-120<br><sup>5</sup> 160-330      | "Green to greenish-gray glauconitic sandstone,<br>siltstone and limestone." <sup>3</sup>   | The sandstone of the Stump Formation is relatively impermeable and in most areas is capable of yielding only small quantities of water. <sup>3</sup>   |   |
|          |            |                                 |   |  |  | "Unit is considered a poor aquifer."   |   |
| Mesozoic | Jurassic   | Upper and<br>Middle<br>Jurassic | Preuss<br>Sandstone or<br>Preuss<br>Redbeds   | <sup>5</sup> 360-1,600                           | Red, maroon, brown, and orange calcareous siltstone, mudstone, and sandstone, and some beds of rock salt in the Overthrust Belt. <sup>3</sup>  | The Preuss Sandstone or Preuss Redbeds<br>is relatively impermeable and in most<br>areas is capable of yielding only small<br>quantities of water. <sup>3</sup>  |   |
| Mesozoic | Jurassic   | Middle<br>Jurassic              | Twin Creek<br>Limestone   | <sup>1</sup> 800-3,800<br><sup>5</sup> 980-3,300 | "Light-gray to black limestone and shale in the<br>upper part, and red, brown, and orange<br>claystone and gray mainly brecciated but<br>partly honeycombed limestone in the lower   | Upper part of the Twin Creek Limestone is relatively impermeable and in most areas is capable of yielding only small quantities of water. <sup>3</sup>   | <sup>1</sup> 20-300                                     |
|          |            |                                 |   |  | Lincoln County." <sup>3</sup>  | "Minor aquifer in Overthrust Belt." <sup>1</sup>   |   |

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| Appendix 3. | Lithologic and water-yielding characteristics of geologic units in Lincoln County, V | Nyoming |
|-------------|--|---------|
|             | (from Eddy-Miller, Plafcan, and Clark,1996)  |         |

| Erathem  | System                     | Series                      | Geologic unit          | Range of<br>thickness<br>(ft)  | Lithology   | Water-yielding characteristics   | Hange of<br>most<br>common<br>water yields<br>(gal/min) |
|----------|----------------------------|-----------------------------|------------------------|--|---|--|---|
| Mesozoic | Jurassic(?)<br>Triassic(?) |                             | Nugget<br>Sandstone    | <sup>1,3</sup> 750-1,300<br><sup>5</sup> 590-1,000                             | "Varicolored (generally pink to salmon)<br>crossbedded fine- to medium-grained well-<br>sorted quartzitic sandstone, and a few beds of<br>maroon, red, and brown mudstone in the lower<br>part. About 1,300 ft thick in southern part of<br>Lincoln County." <sup>3</sup> | The Nugget Sandstone is capable of yielding moderate to large quantities of water where outcrop or recharge areas are large; bedding is continuous and not offset by faults, and in topographic lows where large thicknesses occur. Many springs issue from the Nugget and flows greater than 1,000 gal/min are common. <sup>3</sup> | <sup>1</sup> 3-300                                      |
| Mesozoic | Triassic                   | Upper and<br>Lower Triassic | Ankareh<br>Formation   | <sup>1</sup> 200-800<br><sup>3</sup> 200-600                                   | "Red to brown shale, siltstone, and fine-<br>grained sandstone, and, locally, greenish-gray<br>limestone in about the middle part. About 200<br>ft thick in the northern part of Lincoln County<br>and about 600 ft thick in the southern part." <sup>3</sup>             | Rocks in the Ankareh Formation are<br>relatively impermeable and in most areas<br>are probably capable of only yielding<br>small quantities of water. <sup>3</sup><br>"Minor regional aquifer, locally<br>confining." <sup>1</sup>   |   |
| Mesozoic | Triassic                   | Lower Triassic              | Thaynes<br>Limestone   | <sup>1,3</sup> 1,100-2,600<br><sup>4</sup> 700-1,300<br><sup>5</sup> 980-1,600 | "Mainly buff to dark-gray silty limestone, and<br>red to tan siltstone and shale predominately in<br>the upper part. About 1,100 ft thick in the<br>northern part of Lincoln County and 2,400 to<br>2,600 ft thick in the southern part." <sup>3</sup>                    | "Where the Thaynes has secondary<br>permeability in the form of fractures and<br>(or) solution openings, the limestone will<br>yield moderate quantities of water to<br>wells." <sup>3</sup><br>"Generally considered a regional aquifer   | <sup>1</sup> 5-1,800                                    |
|          |                            |                             |                        |  |   | with spring flows of 5 to 1,800 gal/min"1  |   |
| Mesozoic | Triassic                   | Lower Triassic              | Woodside<br>Shale      | <sup>1</sup> 350-600<br><sup>3</sup> 350-500                                   | "Mainly red and orange partly anhydritic<br>siltstone and mudstone, and some orange fine-<br>grained sandstone." <sup>3</sup>   | Rocks in the Woodside Shale are mostly impermeable and in most areas they are probably capable of only yielding small quantities of water. <sup>3</sup>  |   |
| Mesozoic | Triassic                   | Lower Triassic              | Dinwoody<br>Formation  | <sup>1</sup> 250-700<br><sup>5</sup> 250-1,600                                 | "Gray to olive-drab dolomitic siltstone." <sup>6</sup>  | Rocks in the Dinwoody Formation are<br>mostly impermeable and in most areas are<br>probably capable of only yielding small<br>quantities of water. <sup>3</sup>  |   |
| Mesozoic | Triassic                   | Upper and<br>Lower Triassic | Chugwater<br>Formation |  | "Chugwater-red siltstone and shale." <sup>6</sup>   | Unknown  |   |

| Appendix 3 | : Lithologic and water-yielding characteristics of geologic units in Lincoln County, Wyomi | ing |
|------------|--|-----|
|            | (from Eddy-Miller, Plafcan, and Clark, 1996)   | -   |

| Erathem   | System                          | Series   | Geologic unit   | Range of<br>thickness<br>(ft)                | Lithology   | Water-yielding characteristics   | Hange of<br>most<br>common<br>water yields<br>(gal/min) |
|-----------|---------------------------------|--|---|--|---|--|---|
| Paleozoic | Permian                         |  | <sup>7</sup> Phosphoria<br>Formation and<br>related rocks | <sup>1</sup> 200-400<br><sup>5</sup> 230-360 | "Upper part is dark- to light-gray chert and<br>shale with black shale and phosphorite at top;<br>lower part is black shale, phosphorite, and<br>cherty dolomite." <sup>6</sup> | Rocks in the Phosphoria Formation are<br>mostly impermeable and in most areas are<br>probably capable of only yielding small<br>quantities of water. Where extensively<br>fractured the Phosphorie is capable of   |   |
|           |                                 |  |   |  | "Mainly phosphatic, carbonaceous, and cherty shale and sandstone." <sup>3</sup>   | yielding moderate quantities of water. <sup>3</sup><br>"Unit is minor aquifer, locally confining." <sup>1</sup>  |   |
| Paleozoic | Permian and<br>Pennsylvanian    | Permian,<br>Upper and<br>Middle<br>Pennsylvanian                   | Tensleep<br>Sandstone                                     | <sup>1</sup> 450-1,000                       | White, grey, and pink well-sorted fine-grained sandstone and quartzite, and thin layers of white siliceous, dolomitic limestone. <sup>3</sup>                                   | "Sandstone aquifer in the Wells Formation<br>and Tensleep Sandstone are capable of<br>yielding moderate to large quantities of<br>water. Availability is dependent upon local<br>conditions of recharge, continuity of beds<br>and development of permeability. These<br>sandstones on topographic highs may be<br>drained, especially if underlying<br>limestones have extensive solution<br>development." <sup>3</sup> | <sup>1</sup> 210-700                                    |
| Paleozoic | Permian and<br>Pennsylvanian    | Permian,<br>Upper and<br>Middle<br>Pennsylvanian                   | Wells<br>Formation  | <sup>3</sup> 450-1,000                       | "Gray thick-bedded quartzite, calcareous<br>sandstone, and limestone mainly in the upper<br>part." <sup>3</sup>   | "Sandstone aquifer in the Wells Formation<br>and Tensleep Sandstone are capable of<br>yielding moderate to large quantities of<br>water. Availability is dependent upon local<br>conditions of recharge, continuity of beds<br>and development of permeability. These<br>sandstones on topographic highs may be<br>drained, especially if underlying<br>limestones have extensive solution<br>development." <sup>3</sup> |   |
| Paleozoic | Pennsylvanian/<br>Mississippian | Middle and<br>Lower<br>Pennsylvanian<br>and Upper<br>Mississippian | Amsden<br>Formation                                       | <sup>1</sup> 400-700<br><sup>4</sup> 150-390 | "Varicolored mudstone, siltstone, and<br>sandstone, and gray cherty limestone". <sup>3</sup>  | Few hydrogeologic data are available for<br>the Amsden Formation. Small quantities of<br>water may be available from the cherty<br>limestone in the Amsden Formation, but,<br>on topographic highs, the Amsden is<br>probably well drained, especially if<br>underlying limestones have extensive<br>solution development. <sup>3</sup>  |   |
|           |                                 |  |   |  |   | "Minor aquifer in Green River Basin, but<br>locally confining in Overthrust Belt" <sup>1</sup>   |   |

## Appendix 3.\_\_: Lithologic and water-yielding characteristics of geologic units in Lincoln County, Wyoming (from Eddy-Miller, Plafcan, and Clark,1996)

| Frethan   | Quality        | Carles  | Coologia unit            | Range of thickness                            | 1 Martana  | Weber violding above to violing   | Range of<br>most<br>common<br>water yields |
|-----------|----------------|---|--------------------------|---|--|---|--|
| Erathem   | System         | Series  | Geologic una             | (II)  | Lithology  | water-yielding characteristics  | (gai/min)                                  |
| Paleozoic | Mississippian  | Upper and<br>Lower<br>Mississippian             | Madison<br>Limestone     | <sup>1</sup> 800-2,000                        | "Gray, tan, and brown thin-bedded to partly<br>massive cherty and brecciated limestone and<br>gray to tan thick-bedded massive dolomite." <sup>3</sup>   | "Major regional aquiferExcellent<br>solution and fracture permeabilityThis<br>permeability is produced by solution zones<br>along bedding plane partings and joints." <sup>1</sup>                              | <sup>I</sup> <100                          |
| Paleozoic | Devonian       | Lower<br>Mississippian<br>and Upper<br>Devonian | Darby<br>Formation       | <sup>1,3</sup> 400-1,000<br><sup>4</sup> <890 | "Gray to brown thin-bedded massive dolomite<br>and limestone, and black, red, and yellow<br>siltstoneAbout 1,000 ft thick along the<br>Wyoming-Utah border southwest of Sage." <sup>3</sup>              | Availability of water from limestone and dolomite aquifers is largely dependent on the secondary permeability in the form of solution openings and fractures. <sup>3</sup>                                      |  |
| Paleozoic | Silurian       | Upper and<br>Middle<br>Silurian                 | Laketown<br>Dolomite     | <sup>5</sup> 980-1,300                        | "Light-gray thick-bedded finely crystalline dolomite." <sup>6</sup>  | Not much is known about this aquifer.<br>Water availability is probably dependent<br>upon secondary permeability.   |  |
| Paleozoic | Ordovician     | Upper<br>Ordovician                             | Bighorn<br>Dolomite      | <sup>1</sup> 400-1,000                        | "Gray fine- to medium-grained massive<br>dolomite and dolomitic limestone that has<br>rough pitted surfaces upon weathering." <sup>3</sup>   | "Highly productive aquifer where fracture, secondary solution and bedding plane permeability are well developed." <sup>3</sup>  |  |
| Paleozoic | Cambrian       | Upper<br>Cambrian                               | Gallatin<br>Limestone    | <sup>1</sup> 125-1,000                        | "Dark-gray brown-mottled thin-bedded<br>limestone and gray partly dolomitic limestone<br>with some beds of conglomerate." <sup>3</sup>   | "Well and spring data are not available;<br>however, lithology as well as fracture and<br>secondary solution permeability develop-<br>ment are indicative of a potentially<br>productive aquifer." <sup>1</sup> |  |
| Paleozoic | Cambrian       | Upper and<br>Middle<br>Cambrian                 | Gros Ventre<br>Formation | <sup>1</sup> 500-2,500                        | "Gray and green shale with some conglom-<br>erate in the upper part, blue to gray rusty<br>mottled limestone in the middle part, and<br>green and red hematitic shale in the lower                       | Few hydrologic data are available. The Gros Ventre Formation consists predominately of poorly permeable rock and is probably not an important aquifer. <sup>3</sup>   |  |
|           |                |   |                          |   | part."   | "Unit is generally considered a regional<br>aquitard with low vertical permeability<br>due to upper and lower shales." <sup>1</sup>   |  |
| Paleozoic | Cambrian       | Middle<br>Cambrian                              | Flathead<br>Sandstone    | <sup>1,3</sup> 175-200                        | "White to pink fine-grained quartzite and some<br>lenses of coarse-grained sandstone. The upper<br>part contains some green silty shale interbeds,<br>and the basal part is conglomeratic." <sup>3</sup> | Few hydrologic data are available. Based<br>on lithology, the Flathead is probably a<br>potential source of water. <sup>3</sup>   |  |
| 1 Abern   | Collectine and | Cooke 1981                                      |                          |   |  |   |  |

ollentine, and Cooke.

<sup>2</sup>Welder, 1968.

<sup>3</sup>Lines and Glass, 1975.

<sup>4</sup>M'Gonigle and Dover, 1992. <sup>5</sup>Oriel and Platt, 1980.

<sup>6</sup>Love and Christiansen, 1985.

<sup>7</sup>In Wyoming, the Phosphoria Formation is synonymous with the Park City Formation (Lane, 1973, p. 4).



## Explanation

| Mon Symbol   | Description  | A.c.o.  |
|--------------|--|---|
| iviap Symbol | Description  | Age   |
| d            | Artificial fill  | Historic  |
| at           | Channel and floodplain deposits of active streams                                      | Late Holocene                                   |
| at+th        | Channel and floodplain deposits and low terraces of small perennial streams, undivided | Holocene  |
| fa           | Deposits of active alluvial fans   | Holocene  |
| gh           | Till deposited by young cirque glaciers  | Holocene  |
| th           | Low terraces deposited by perennial streams  | Holocene  |
| ed           | Eolian deposits  | Holocene and Pleistocene                        |
| ls           | Landslide deposits   | Holocene and Pleistocene                        |
| afs          | Alluvium of side slopes, small fans, and small intermittent streams                    | Holocene and Late<br>Pleistocene                |
| fay          | Deposits of mostly inactive alluvial fans  | Holocene and Late<br>Pleistocene                |
| lsy          | Younger Landslide deposits   | Holocene and Late<br>Pleistocene                |
| md           | Marsh deposits   | Holocene and Late<br>Pleistocene                |
| rt           | Talus deposits   | Holocene and Late<br>Pleistocene                |
| gpy          | Till of the Smiths Fork glaciation   | Late Pleistocene                                |
| tpy          | Generally smooth terrace surfaces with little dissection                               | Late Pleistocene                                |
| lso          | Older landslide deposits   | Late and Middle Pleistocene                     |
| pd           | Pediment deposits  | Pleistocene                                     |
| tp           | Terraces and glacial outwash along perennial streams, undivided                        | Pleistocene                                     |
| gpm          | Till of the Black Fork glaciation  | Middle Pleistocene                              |
| tpm          | Moderately dissected terrace surfaces  | Middle Pleistocene                              |
| fao          | Deposits of inactive alluvial fans   | Middle and Early Pleistocene                    |
| fao+tpo      | Dissected alluvial-fan and terrace deposits, undifferentiated                          | Middle and Early Pleistocene                    |
| tpo          | Strongly dissected terrace surfaces  | Middle and Early Pleistocene                    |
| gpo          | Till of pre-Blacks Fork glaciations  | Middle and Early?<br>Pleistocene <sup>(2)</sup> |
| tgo          | Relict fluvial terrace deposits  | Early Pleistocene to Pliocene? <sup>(2)</sup>   |
| rx           | Bedrock, undifferentiated  | Tertiary through Precambrian                    |

| Map Symbol | Description  |
|------------|--------------|
| . <u> </u> | Contact      |
|            | Fault        |
| •          | Normal Fault |
| <u></u>    | Fault Scarp  |

Notes:

Surficial materials data soured from Reheis (2005).
Question marks included in geologic age on published map by Reheis (2005) to indicate uncertainty.



| RIVER WATERSHED | SURFICIAL GEOLOGY |                 |  |
|-----------------|-------------------|-----------------|--|
| STUDY           | EXPLANATION       |                 |  |
| CT NUMBER 15134 | May 2016          | Figure 3.4.1.3a |  |



|              |                                   |                               |                              | E                      | Explanation                       |               |  |   |
|--------------|-----------------------------------|-------------------------------|------------------------------|------------------------|-----------------------------------|---------------|--|---|
|              |                                   |                               | Map Symbol                   |                        |                                   |               |  |   |
| Dover (1995) | Dover and M'Gonigle Lov<br>(1993) | ve and Christiansen<br>(1985) | M'Gonigle and Dove<br>(1992) | Oriel and Platt (1980) | Rubey, Oriel,<br>and Tracy (1980) | Bryant (1992) | Description                                  | Age   |
| af           | af                                |                               |                              |                        |                                   |               | Artificial fill                              | Holocene                                    |
|              |                                   |                               |                              |                        |                                   | Qr            | Rock glacier                                 | Holocene                                    |
|              |                                   |                               |                              |                        |                                   | Qt            | Talus and colluvium                          | Holocene                                    |
| Qa           | Qal                               |                               | Qal                          | Qal                    | Qal                               | Qa            | Alluvium                                     | Holocene/Holocene and<br>Upper? Pleistocene |
|              | Qas                               |                               | Qas                          |                        |                                   |               | Secondary-stream alluvium                    | Holocene and Upper?<br>Pleistocene          |
|              | Qf                                |                               |                              |                        |                                   | Qf            | Alluvial- and debris-fan deposits            | Holocene and Pleistocene                    |
|              |                                   | Qa                            |                              |                        |                                   |               | Alluvium and colluvium                       | Holocene and Pleistocene                    |
| Qc           | Qc                                |                               | Qc                           | Od Co                  | Qd                                |               | Colluvium                                    | Holocene and Pleistocene                    |
| Qaf          |                                   |                               |                              |                        |                                   |               | Side-stream alluvium and fan deposits        | Holocene and Pleistocene                    |
|              |                                   |                               | QH-                          |                        | Ols                               |               | Landslide and rockslide deposits             | Holocene and Pleistocene                    |
|              |                                   |                               | Qlo                          |                        | QI                                |               | Loess  | Holocene and Pleistocene                    |
|              | Ötg                               |                               | Otg                          |                        | Citg                              |               | Terrace deposits, gravel, and older alluvium | Holocene and Pleistocene                    |
| Qg           | Og                                |                               | Qg                           | Ċg                     | Ög                                |               | Gravel                                       | Holocene and Pleistocene                    |
|              |                                   |                               |                              |                        | ູ ເ <mark>ຊີເຫຼີ</mark> ເ ເ       |               | Till/Moraine                                 | Pleistocene                                 |

Note: 1. Question marks included in geologic age on published maps to indicate uncertainty.



| VER WATERSHED  | BEDROCK GEOLOGY |                    |  |  |
|----------------|-----------------|--------------------|--|--|
| STUDY          | EXPLANATION     |                    |  |  |
| T NUMBER 15134 | May 2016        | Figure 3.4.2.3-P.1 |  |  |

|              |                               |                                 |                              |                        | Explanation                       |               |   |  |
|--------------|-------------------------------|---------------------------------|------------------------------|------------------------|-----------------------------------|---------------|---|--|
| Map Symbol   |                               |                                 |                              |                        |                                   |               |   |  |
| Dover (1995) | Dover and M'Gonigle<br>(1993) | Love and Christiansen<br>(1985) | M'Gonigle and Dove<br>(1992) | Oriel and Platt (1980) | Rubey, Oriel,<br>and Tracy (1980) | Bryant (1992) | Description                                   | Age  |
|              |                               |                                 |                              |                        |                                   | Qop           | Older pediment deposits                       | Pleistocene  |
|              |                               |                                 |                              |                        |                                   | Qof           | Older alluvial-fan and debris-fan deposits    | Pleistocene  |
|              |                               |                                 |                              |                        |                                   | Otp           | Till of Pinedale age                          | Pleistocene  |
|              |                               |                                 |                              |                        |                                   | Ogp           | Outwash deposits of Pinedale age              | Pleistocene  |
|              |                               |                                 |                              |                        |                                   | Qto           | Till of pre-Pinedale age                      | Pleistocene  |
|              |                               |                                 |                              |                        |                                   | Qgo           | Glacial outwash of pre-Pinedale age           | Pleistocene  |
|              | QTg                           |                                 |                              |                        | QTg                               |               | High-level terrace gravel/ older gravel       | Quaternary and (or) Tertiary/<br>Pleistocene and Pliocene? |
|              |                               |                                 |                              | Tsl                    |                                   |               | Salt Lake Formation                           | Pliocene and Miocene                                       |
|              | Tbi                           |                                 |                              |                        |                                   | Tbc           | Bishop Conglomerate                           | Oligocene  |
|              | Ta                            |                                 |                              |                        |                                   |               | Norwood Tuff                                  | Oligocene and Eocene?                                      |
|              | Tino                          |                                 |                              |                        |                                   |               | Basal conglomerate of the Norwood Tuff        | Eocene?  |
| Ŧ            | ŦŦ                            | TI                              | Ħ                            | Tř                     |                                   |               | Fowkes Formation                              | Pliocene and Eocene  |
|              |                               |                                 | Tig                          |                        | Tip                               |               | Gooseberry Member of the Fowkes Formation     | Pliocene or Eocene?  |
| The          | TB                            |                                 | Tib                          |                        |                                   |               | Bulldog Hollow Member of the Fowkes Formation | Middle Eocene  |
|              | Tfs                           |                                 | Tfs                          |                        | Tfs                               |               | Sillem Member of the Fowkes Formation         | Middle Eocene  |
|              |                               |                                 |                              |                        |                                   | Tw            | Wasatch Formation                             | Eocene and Paleocene                                       |
|              | Tw                            | Tw                              | Tw                           |                        | Tw                                |               | Main body of the Wasatch Formation            | Middle and Lower Eocene                                    |

Note: 1. Question marks included in geologic age on published maps to indicate uncertainty.

| BEAR RIVER WATERSHED | BEDROCK GEOLOGY |                    |  |
|----------------------|-----------------|--------------------|--|
| STUDY                | EXPLANATION     |                    |  |
| PROJECT NUMBER 15134 | May 2016        | Figure 3.4.2.3-P.2 |  |

|              |                              |                                  |                              | E                           | Explanation                       |               |   |  |
|--------------|------------------------------|----------------------------------|------------------------------|-----------------------------|-----------------------------------|---------------|---|--|
|              |                              |                                  | Map Symbol                   |                             |                                   |               |   |  |
| Dover (1995) | Dover and M'Gonigl<br>(1993) | eLove and Christiansen<br>(1985) | M'Gonigle and Dove<br>(1992) | r<br>Oriel and Platt (1980) | Rubey, Oriel,<br>and Tracy (1980) | Bryant (1992) | Description   | Age  |
|              | The .                        |                                  | Tw <sub>2</sub>              |                             |                                   |               | Upper part of the Main body of the Wasatch Formation        | Middle and Lower Eocene                      |
|              |                              |                                  | ls                           |                             |                                   |               | Limestone beds of the Main body of the Wasatch<br>Formation | Middle and Lower Eocene                      |
|              |                              |                                  | Text                         |                             | Twt                               |               | Tunp Member of the Wasatch Formation                        | Middle and Lower Eocene                      |
|              |                              |                                  | Twit                         |                             |                                   |               | Bullpen Member of the Wasatch Formation                     | Middle and Lower Eocene                      |
|              | Tws                          |                                  |                              |                             |                                   |               | Slumped masses of Wasatch Formation                         | Middle and Lower Eocene and Upper Paleocene? |
|              | Tw.                          |                                  | Tw                           |                             |                                   |               | Lower part of the Main body of the Wasatch Formation        | Lower Eocene                                 |
|              |                              |                                  |                              | Twd                         |                                   |               | Diamictite of the Wasatch Formation                         | Lower Eocene                                 |
|              |                              |                                  | Twm                          |                             |                                   |               | Mudstone tongue of the Wasatch Formation                    | Lower Eocene                                 |
|              |                              |                                  | Twine                        |                             |                                   |               | Southern mudstone tongue of the Wasatch Formation           | Lower Eocene                                 |
|              |                              |                                  |                              |                             |                                   |               | Sandstone tongue of the Wasatch Formation                   | Lower Eocene                                 |
|              | Trut                         |                                  | Twof                         |                             |                                   |               | Calcareous Member of the Wasatch Formation                  | Lower Eocene                                 |
|              |                              |                                  | Twi                          |                             |                                   |               | Lower Member of the Wasatch Formation                       | Lower Eocene                                 |
|              |                              |                                  | The                          |                             |                                   |               | Basal conglomerate Member of the Wasatch Formation          | Lower Eocene and Upper<br>Paleocene?         |
|              | Tg                           |                                  | Tg                           |                             |                                   |               | Green River Formation                                       | Lower Eocene                                 |
|              |                              |                                  | Tga                          |                             | Tga                               |               | Angelo Member of the Green River Formation                  | Lower Eocene                                 |
|              | Tgfb                         |                                  | Tafa                         |                             | Tgf                               |               | Fossil Butte Member of the Green River Formation            | Lower Eocene                                 |
|              | Tser                         |                                  |                              |                             |                                   |               | Slumped Eocene rocks, undivided                             | Eocene                                       |
|              |                              |                                  |                              | Tar                         | Tsr                               |               | Conglomerate of Sublette Range                              | Lower Eocene or Paleocene                    |
| Те           | Te                           | ТКа                              | Te                           | Tke                         |                                   |               | Evanston Formation  | Paleocene and Upper<br>Cretaceous            |

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| /ER WATERSHED<br>STUDY | BEDRO    | OCK GEOLOGY<br>PLANATION |
|------------------------|----------|--------------------------|
| T NUMBER 15134         | May 2016 | Figure 3.4.2.3-P.3       |

|              |                             |                                       |                              | E                      | Explanation                       |               |  |                                |
|--------------|-----------------------------|---------------------------------------|------------------------------|------------------------|-----------------------------------|---------------|--|--------------------------------|
|              |                             |                                       | Map Symbol                   |                        |                                   |               |  |                                |
| Dover (1995) | Dover and M'Gonia<br>(1993) | gle Love and Christiansen M<br>(1985) | 'Gonigle and Dover<br>(1992) | Oriel and Platt (1980) | Rubey, Oriel,<br>and Tracy (1980) | Bryant (1992) | Description  | Age                            |
|              |                             |                                       |                              |                        |                                   |               | Redbeds of the Evanston Formation  | Paleocene                      |
| Keh          | Ken                         |                                       | Keh                          |                        |                                   |               | Hams Fork Conglomerate Member of the Evanston<br>Formation                                       | Upper Cretaceous               |
|              | Kay                         |                                       | <b>Kay</b>                   |                        |                                   |               | Adaville Formation   | Upper Cretaceous               |
|              | Kh                          | Kh                                    |                              |                        |                                   |               | Hilliard Shale   | Upper Cretaceous               |
|              | Kf                          |                                       |                              |                        |                                   |               | Frontier Formation   | Upper Cretaceous               |
|              | Ktd                         |                                       |                              |                        |                                   |               | Dry Hollow Member of Hale of the Frontier Formation  | Upper Cretaceous               |
|              | Kfo                         |                                       |                              |                        |                                   |               | Oyster Ridge Sandstone Member of the Frontier<br>Formation                                       | Upper Cretaceous               |
|              | Kfl                         |                                       |                              |                        |                                   |               | Hallen Hollow, Coalville and Chalk Creek Members of<br>Hale of the Frontier Formation, undivided | Upper Cretaceous               |
|              | Ka                          |                                       |                              |                        |                                   |               | Aspen Formation  | Upper and Lower Cretaceous     |
|              |                             |                                       |                              |                        |                                   | Ku            | Upper and Lower Cretaceous rocks   | Upper and Lower Cretaceous     |
| Ksj          | Ksj                         |                                       | Ksj                          |                        | Ksi                               |               | Sage Junction Formation  | Lower Cretaceous               |
|              |                             |                                       |                              |                        | Kq                                |               | Quealy Formation   | Lower Cretaceous               |
| Кс           | Kc                          |                                       | Ko                           |                        | Kck                               |               | Cokeville Formation  | Lower Cretaceous               |
| Kt           | Ktf                         |                                       | <b>Kil</b>                   | Ktf                    | Ktf                               |               | Thomas Fork Formation  | Lower Cretaceous               |
|              |                             |                                       | Ktfl                         |                        | 用我这种中的人体在时间的方向来。                  |               | Limestone of the Thomas Fork Formation   | Lower Cretaceous               |
| Ks           | Ks                          |                                       |                              | Ks                     | Ks                                |               | Smiths Formation   | Lower Cretaceous               |
|              |                             |                                       |                              |                        | Kss                               |               | Upper sandstone part of the Smiths Formation   | Lower Cretaceous               |
|              |                             |                                       |                              |                        | Ksb                               |               | Lower black shale part of the Smiths Formation   | Lower Cretaceous               |
| Kg           | <b>No</b>                   |                                       | Kg                           | Kg                     | Kg                                |               | Gannett Group  | Lower Cretaceous               |
|              |                             |                                       |                              |                        | Kr                                |               | Upper red mustone and siltstone of the Gannett Group   | Lower Cretaceous               |
|              |                             |                                       |                              |                        |                                   | Γ             | BEAR RIVER WATERSHED<br>STUDY  | BEDROCK GEOLOGY<br>EXPLANATION |



May 2016

Figure 3.4.2.3-P.4

|              |                                 |                                   |                         | Ex                          | planation                         |               |   |   |
|--------------|---------------------------------|-----------------------------------|-------------------------|-----------------------------|-----------------------------------|---------------|---|---|
|              |                                 |                                   | Map Symbol              |                             |                                   |               | Description   | Δαο   |
| Dover (1995) | Dover and M'Gonigle (<br>(1993) | Love and Christiansen N<br>(1985) | Gonigle and Dove (1992) | r<br>Oriel and Platt (1980) | Rubey, Oriel,<br>and Tracy (1980) | Bryant (1992) | Description   | 755   |
|              |                                 |                                   |                         |                             |                                   |               | Draney Limestone of the Gannett Group   | Lower Cretaceous                              |
|              |                                 |                                   |                         | КЪ                          | Кр                                |               | Bechler Conglomerate of the Gannett Group   | Lower Cretaceous                              |
|              |                                 |                                   |                         | Кр                          | Kp                                |               | Peterson Limestone of the Gannett Group   | Lower Cretaceous                              |
|              |                                 |                                   | Kge                     | Ke                          | Ke                                |               | Ephraim Conglomerate of the Gannett Group   | Lower Cretaceous                              |
|              |                                 |                                   |                         | Krd                         | Krd                               |               | Unnamed red unit and Draney Limestone of the Gannett Group  | Lower Cretaceous                              |
|              |                                 |                                   |                         | Кар                         |                                   |               | Unnamed red unit, Draney Limestone, Bechler<br>Conglomerate, and Peterson Limestone of the Gannett<br>Group | Lower Cretaceous                              |
|              |                                 |                                   |                         | Kbe                         | Kbe                               |               | Bechler and Ephraim Conglomerates/ Middle and lower part of the Gannett Group                               | Lower Cretaceous                              |
| Kgl          | Kgl                             |                                   | Kgl                     |                             |                                   |               | Limestone interbeds of the Gannett Group  | Lower Cretaceous                              |
|              | Kgc                             |                                   | Kgc                     |                             |                                   |               | Conglomerate beds of the Gannett Group  | Lower Cretaceous                              |
|              | Jsp                             |                                   | Jsp                     |                             | Krd                               |               | Stump Formation and Preuss Red Beds, undivided  | Upper and Middle Jurassic;<br>Middle Jurassic |
|              |                                 |                                   |                         | Js                          | Js                                |               | Stump Formation   | Upper and Middle Jurassic                     |
|              |                                 |                                   |                         | Jp                          | Jp                                |               | Preuss Redbeds  | Middle Jurassic                               |
| Jt           |                                 |                                   | Jt                      | Jt                          | Jt                                | Jtc           | Twin Creek Limestone  | Middle Jurassic                               |
| JRn          |                                 |                                   | JĘn                     | il Ra                       | JŢŗn                              | Jīkn          | Nugget Sandstone  | Jurassic? and Triassic?                       |
|              |                                 |                                   | T <sub>k</sub> a        | <b>Ra</b>                   | Ta                                | Fa            | Ankareh Formation/Red Beds  | Upper and Lower Triassic                      |
|              |                                 |                                   | <b>R</b> t              | <b>Fit</b>                  | <b>F</b> t                        |               | Thaynes Limestone   | Lower Triassic                                |
|              |                                 |                                   |                         |                             | <u><b>F</b></u> ty                |               | Upper yellowish gray member of the Thaynes Limestone  | Lower Triassic                                |
|              |                                 |                                   |                         |                             | <b>T</b> tb                       |               | Lower brown member of the Thaynes Limestone   | Lower Triassic                                |
|              |                                 |                                   |                         |                             |                                   | Titw          | Thaynes Limestone and Woodside Shale  | Lower Triassic                                |

| RIVER WATERSHED | BEDR     | OCK GEOLOGY        |
|-----------------|----------|--------------------|
| STUDY           | EX       | PLANATION          |
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|   |                            |                          |                                   |  | E                            | xplanation  |               |                                   |  |   |
|---|----------------------------|--------------------------|-----------------------------------|--|------------------------------|---|---------------|-----------------------------------|--|---|
| - | Dover (1995)               | Dover and M'Gonigle      | Love and Christiansen             | Map Symbol<br>M'Gonigle and Dove                   | Pr<br>Oriel and Platt (1980) | Rubey, Oriel,   | Bryant (1992) | _                                 | Description                            | Age   |
|   | Dover (1995)               | (1993)                   | (1985)                            | (1992)   |                              | and Tracy (1980)  |               | Woodside Red P                    | Beds/Shale                             | Lower Triassic                                      |
|   | Fic                        |                          |                                   | <b>F</b> d   |                              | <u>F</u> d  |               | Dinwoody Form                     | ation                                  | Lower Triassic                                      |
|   |                            |                          |                                   |  |                              |   | Рр            | Park City Format                  | tion and related rocks                 | Permian   |
|   | Рр                         |                          |                                   | Pp   | Рр                           |   |               | Phosphoria Form                   | nation                                 | Lower Permian                                       |
|   |                            |                          |                                   |  |                              | Ppr   |               | Rex Chert Mem                     | per of the Phosphoria Formation        | Permian   |
|   |                            |                          |                                   |  |                              | P19/0   |               | Meade Peak Pho<br>Phosphoria Form | osphatic Shale Member of the<br>nation | Permian   |
|   | PPw                        |                          |                                   | PIPw   | PPw                          | PPw   |               | Wells Formation                   | n                                      | Lower Permian and Upper and<br>Middle Pennsylvanian |
|   |                            |                          |                                   | <b>IPwL</b>  |                              |   |               | Limstone of the                   | Wells Formation                        | Lower Permian                                       |
|   |                            |                          |                                   |  |                              |   | PIPw          | Weber Sandstor                    | ne                                     | Lower Permian to Middle<br>Pennsylvanian            |
|   |                            |                          |                                   |  |                              |   | Pmr           | Morgan Formati                    | on and Round Valley Limestone          | Middle and Lower<br>Pennsylvanian                   |
|   |                            |                          |                                   | IPma   |                              | <u>IPma</u>   |               | Amsden Format                     | ion                                    | Pennsylvanian and Upper<br>Mississippian            |
|   |                            |                          |                                   |  |                              |   | Mdh           | Doughnut Forma                    | ation and Humbug Formation             | Upper Mississippian                                 |
|   | Mb                         |                          |                                   |  |                              | serve in the two as index to a single of the sound from the for |               | Brazer Dolomite                   |  | Upper and Lower Mississippian                       |
|   |                            |                          |                                   |  |                              | <b>M</b> m  | Mm            | Madison Limeste                   | one                                    | Upper and Lower Mississippian                       |
|   | MI                         |                          |                                   |  |                              |   |               | Lodgepole Limes                   | stone                                  | Lower Mississippian                                 |
| - | MOt                        |                          |                                   |  |                              |   |               | Three Forks For                   | mation                                 | Lower Mississippian? and<br>Upper Devonian          |
|   | Dj                         |                          |                                   | <sup>1994年1994年1994年1994年1994年1994年1994年1994</sup> |                              |   |               | Jefferson Dolom                   | hite                                   | Upper Devonian                                      |
|   | СБ                         |                          |                                   |  |                              |   |               | Bighorn Dolomit                   | e                                      | Upper and Middle Ordovician                         |
| _ | <b>G</b> QE                |                          |                                   |  |                              |   |               | Gallatin Limesto                  | ne                                     | Upper Cambrian                                      |
|   |                            |                          |                                   |  |                              |   | Yur           | Red Pine Shale o                  | of the Uinta Mountain Group            | Middle Proterozoic                                  |
| ١ | lote:<br>1. Question marks | s included in geologic a | ge on published maps <sup>.</sup> | to indicate uncertainty                            |                              |   |               | RJH<br>CONBULTANTS, INC.          | BEAR RIVER WATERSHED<br>STUDY          | BEDROCK GEOLOGY<br>EXPLANATION                      |



|              |                               |                                 |                               | Ex                     | planation                         |               |   |                    |
|--------------|-------------------------------|---------------------------------|-------------------------------|------------------------|-----------------------------------|---------------|---|--------------------|
|              |                               |                                 | Map Symbol                    |                        |                                   |               |   |                    |
| Dover (1995) | Dover and M'Gonigle<br>(1993) | Love and Christiansen<br>(1985) | M'Gonigle and Dover<br>(1992) | Oriel and Platt (1980) | Rubey, Oriel,<br>and Tracy (1980) | Bryant (1992) | Description   | Age                |
|              |                               |                                 |                               |                        |                                   | Yuh           | Hades Pass unit of Wallace of the Uinta Mountain Group      | Middle Proterozoic |
|              |                               |                                 |                               |                        |                                   | Yuw           | Mount Watson unit of Wallace of the Uinta Mountain Group    | Middle Proterozoic |
|              |                               |                                 |                               |                        |                                   | Yud           | Dead Horse Pass unit of Wallace of the Uinta Mountain Group | Middle Proterozoic |
|              |                               |                                 |                               |                        |                                   | Yuc           | Red Castle unit of Wallace of the Uinta Mountain Group      | Middle Proterozoic |

|                                   |               |                                   | 1 - F                  |                               | 1.110                           |                               |  |
|-----------------------------------|---------------|-----------------------------------|------------------------|-------------------------------|---------------------------------|-------------------------------|--|
|                                   |               |                                   |                        | Map Symbol                    |                                 |                               |  |
|                                   | Bryant (1992) | Rubey, Oriel,<br>and Tracy (1980) | Oriel and Platt (1980) | M'Gonigle and Dover<br>(1992) | Love and Christiansen<br>(1985) | Dover and M'Gonigle<br>(1993) | Dover (1995)                                   |
| contact                           |               |                                   |                        |                               |                                 |                               |  |
| strike and dip: inclined, vertica | Horizontal    | θ                                 | 70<br>Overturned       | tical -                       | 90 Ver                          | Inclined                      | 45   |
| fault                             |               |                                   |                        |                               |                                 |                               |  |
| fault scarp                       |               | <u> </u>                          |                        |                               |                                 |                               |  |
| high-angle fault or listric norma | <u> </u>      | <br>D                             |                        | 1                             |                                 |                               | <u>r</u> = = = = = = = = = = = = = = = = = = = |
| thrust or reverse fault           |               |                                   |                        | <u></u>                       |                                 |                               |  |
| lineament                         |               |                                   |                        |                               |                                 |                               |  |
| anticline                         |               |                                   |                        |                               |                                 |                               |  |
| syncline                          |               |                                   |                        |                               |                                 |                               | 1  |
| overturned anticline              |               | <u> </u>                          |                        |                               |                                 |                               |  |
| overturned syncline               |               | <u></u>                           |                        |                               |                                 |                               |  |
| landslide scarp                   |               |                                   |                        |                               |                                 |                               |  |
| trace of bedding, marker bed,     |               |                                   |                        | •••••                         |                                 | •••••                         |  |
| prospect pit or mine              |               | *                                 |                        |                               |                                 |                               |  |



| Descriptio            | on       |                            |
|-----------------------|----------|----------------------------|
| l ouorturnod or heri  |          |                            |
| , overturned, or non. |          |                            |
|                       |          |                            |
| al faulting (2210)    |          |                            |
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|                       |          |                            |
|                       |          |                            |
|                       |          |                            |
|                       |          |                            |
| or morninal ridgo?    |          |                            |
| or morainal hoger     |          |                            |
|                       |          |                            |
|                       |          |                            |
|                       |          |                            |
| ER WATERSHED          | BEDR     | ROCK GEOLOGY<br>KPLANATION |
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## **APPENDIX F**

## **HYDROLOGIC MODEL INFORMATION**

#### Bear River Basin Diversion Records Summary of Dry / Normal / Wet Year Diversions

| NODE       | DIVERSION NAME   | CONDITION . | IAN  | FEB  | MAR   | APR    | MAY   | JUN         | JUL   | AUG   | SEP        | OCT   | NOV      | DEC   |
|------------|--|-------------|------|------|-------|--------|-------|-------------|-------|-------|------------|-------|----------|-------|
| Node 1 01  | Lannon & Lone Mountain   | Dry Year    | 0    | 0    | 0     | 0      | 843   | 1003        | 592   | 151   | 8          | 0     | 0        | 0     |
| Node 1.02  | Hilliard West Side   | Drv Year    | 0    | 0    | 0     | 0      | 1320  | 1764        | 741   | 175   | 178        | 0     | 0        | 0     |
| Node 1.03  | Bear Canal   | Dry Year    | 0    | 0    | 0     | 0      | 2080  | 6784        | 1732  | 477   | 382        | 0     | 0        | D     |
| Node 1.04  | Crown & Pine Grove   | Dry Year    | 0    | 0    | 0     | 0      | 1144  | 1342        | 825   | 1/5   | 131        | 0     | 0        | 0     |
| Node 1.06  | Lewis  | Dry Year    | 0    | 0    | 0     | 0      | 191   | 216         | 205   | 41    | 28         | 0     | 0        | 0     |
| Node 1 07  | Meyers No. 2   | Dry Year    | 0    | 0    | 0     | 0      | 97    | 292         | 260   | 43    | 62         | D     | O        | 0     |
| Node 1.08  | Mevers No. 1   | Dry Year    | 0    | 0    | 0     | 0      | 130   | 225         | 232   | 144   | 47         | 0     | 0        | Q     |
| Node 1.09  | Meyers Imigation   | Dry Year    | 0    | 0    | 0     | 0      | 223   | 262         | 248   | 148   | 124        | 0     | 0        | 0     |
| Node 1.10  | Booth  | Dry Year    | 0    | 0    | 0     | 0      | 457   | 630         | 457   | 229   | 240        | 0     | 0        | 0     |
| Node 1.12  | Anel   | Dry Year    | 0    | 0    | 0     | 0      | 284   | 358         | 247   | 8     | 18         | 0     | õ        | 0     |
| Node 1.13  | Evanston Water Supply  | Dry Year    | 0    | 0    | 0     | 0      | 37    | 133         | 106   | 58    | 10         | 0     | 0        | 0     |
| Node 1 14  | Hitlard East Side  | Dry Year    | 0    | 0    | 0     | 0      | 956   | 1258        | 503   | 4     | 0          | 0     | 0        | 0     |
| Node 10.00 | Button Flat  | Dry Year    | D    | 0    | 0     | 0      | 109   | 217         | 111   | 8     | 4          |       | <u> </u> |       |
| Node 10 03 | Emolile  | Dry Year    | 0    | 0    | 0     | D      | 304   | 580         | 312   | 42    | 2          | 0     | D        | ō     |
| Node 10.04 | Cooper   | Dry Year    | 0    | 0    | Q     | 0      | 366   | 341         | 95    | 49    | 0          | 0     | 0        | 0     |
| Node 10 05 | Covey  | Dry Year    | 0    | 0    | 0     | 0      | 1976  | 3220        | 1660  | 575   | 295        | 0     | 0        | 0     |
| Node 10.06 | Goodell  | Dry Year    | 0    | 0    | 0     | 0      | 301   | 484         | 4/8   | 901   | 355        | 0     | 0        | 0     |
| Node 10 DB | Whites Water   | Dry Year    | 0    | 0    | 0     | 0      | 1388  | 1078        | 905   | 490   | 323        | 0     | 0        | 0     |
| Node 10 09 | S Branch Irrigating  | Dry Year    | 0    | 0    | 0     | 0      | 718   | 516         | 303   | 83    | 162        | 0     | a        | 0     |
| Node 11.02 | Alonzo F. Sights   | Drv Year    | 0    | 0    | 0     | 0      | 366   | 418         | 370   | 155   | 7          | 0     | 0        | 0     |
| Node 11.03 | Cook Brothers  | Dry Year    | 0    | 0    | 0     | U<br>D | 442   | 4.30        | 400   | 1930  | 232        | 0     | 0        | 8     |
| Node 12.02 | Total Idaho  | Dry Year    | 0    | 0    | 0     | 0      | 18447 | 24860       | 11259 | 6425  | 8017       | 0     | 0        | ő     |
| Node 12 03 | Rambow   | Dry Year !  | 5345 | 5505 | 12915 | 14458  | 17002 | 16895       | 12483 | 4027  | 3770       | 3118  | 4422     | 4565  |
| Node 12 04 | Stewart Dam  | Dry Year    | 111  | 97   | 130   | 92     | 244   | 324         | 194   | 174   | 264        | 99    | 87       | 91    |
| Node 3.01  | Evansion Water Drich   | Dry Year    | 0    | 0    | 0     | 0      | 589   | 981         | 800   | 511   | 208        | 0     | 0        |       |
| Node 4 01  | John Simms   | Dry Year    | õ    | 0    | 0     | ő      | 752   | 495         | 355   | 293   | 258        | 8     | 0        | 0     |
| Node 4.02  | S P Rameey   | Dry Year    | 0    | 0    | 0     | 0      | 978   | 539         | 240   | 182   | 127        | 0     | 0        | 0     |
| Node 5.01  | Chapman Canal  | Dry Year    | 0    | 0    | 0     | 0      | 7178  | 4825        | 1977  | 482   | 976        | 0     | 0        | 0     |
| Node 5 02  | Mortis Bros (Lower)  | Dry Year    | 0    | 0    | 0     | 0      | 321   | 218         | 167   | 39    | 87         | 0     | 0        | 0     |
| Node 6 01  | Woodruff Narrows   | Dry Year    | 0    | 0    | 0     | 0      | 71500 | 24945       | 14395 | 12090 | 11200      | 0     | 0        |       |
| Node 7.01  | Francis Lee  | Dry Year    | 0    | 0    | 0     | D      | 1487  | 2407        | 527   | 70    | 182        | 0     | 0        | 0     |
| Node 7.02  | Bear River Canal   | Dry Year    | 0    | 0    | 0     | 0      | 1250  | 2445        | 753   | 494   | 313        | 0     | 0        | 0     |
| Node 7.03  | I ocal Lower Utah<br>Distan Dismakana  | Dry Year    | 0    | 0    | 0     | 0      | 2296  | 10088       | 2248  | 682   | 460        | 0     | 0        | 0     |
| Node 8 02  | BO Diversions  | Dry Year    | 0    | ő    | 0     | 0      | 2628  | 8168        | 1873  | 175   | 83         | 0     | 0        | 0     |
| Node 1.01  | Lannon & Lone Mountam  | Normal Year | 0    | 0    | 0     | 0      | 776   | 897         | 878   | 275   | 166        | 0     | 0        | 0     |
| Node 1.02  | Hilliard West Side   | Normal Year | 0    | 0    | 0     | 0      | 561   | 1514        | 1343  | 219   | 339        | 0     | D        | 0     |
| Node 1.03  | Bear Canal   | Normal Year | 0    | 0    | 0     | 0      | 1012  | 3015        | 1866  | 378   | 487        | 0     | 0        | 0     |
| Node 1.04  | McCraw & Big Band  | Normal Year | 0    | 0    | 0     | 0      | 1110  | 1140        | 510   | 372   | 201        | 0     | 0        | 0     |
| Node 1.06  | Lewis  | Normal Year | ō    | ō    | 0     | 0      | 167   | 241         | 304   | 166   | 75         | 0     | ő        | ō     |
| Node 1.07  | Meyers No. 2   | Normal Year | 0    | 0    | 0     | D      | 85    | 277         | 350   | 157   | 78         | 0     | 0        | 0     |
| Node 1.08  | Meyers No. 1   | Normal Year | D    | 0    | 0     | 0      | 133   | 221         | 207   | 151   | 61         | 0     | 0        | D     |
| Node 1.09  | Mevers Impation  | Normal Year | 0    | 0    | 0     | 0      | 142   | 286         | 207   | 190   | 97         | 0     | 0        |       |
| Node 1.11  | Booth  | Normal Year | 0    | 0    | 0     | 0      | 363   | 728         | 689   | 471   | 300        | 0     | 0        | 0     |
| Node 1.12  | Anel   | Normal Year | 0    | 0    | 0     | 0      | 197   | 641         | 342   | 104   | 32         | 0     | 0        | 0     |
| Node 1.13  | Evansion Water Supply  | Normal Year | 0    | 0    | 0     | 0      | 52    | 125         | 73    | 66    | 65         | 0     | 0        | 0     |
| Node 1 14  | Hillard East Side  | Normal Year | 0    | 0    | 0     | 0      | 469   | 1140        | 1118  | 204   | 141        | 0     | 0        | 0     |
| Node 10 00 | Button Flat  | Normal Year | 0    | 0    | 0     | 0      | 63    | 410         | 204   | 02    | 40         | 0     | 0        | 0     |
| Node 10 03 | Emelle   | Normal Year | 0    | 0    | 0     | 0      | 485   | 1090        | 634   | 300   | 59         | 0     | 0        | 0     |
| Node 10 04 | Cooper   | Normal Year | 0    | 0    | 0     | 0      | 479   | 680         | 262   | 84    | 6          | D     | 0        | 0     |
| Node 10.05 | 6 Covey  | Normal Year | 0    | 0    | 0     | 0      | 3099  | 4272        | 3384  | 1541  | 873        | 0     | 0        | 0     |
| Node 10 00 | VH Ganal   | Normal Year | 0    | 0    | 0     | 0      | 561   | 624         | 470   | 575   | 463        | 0     | 0        | 0     |
| Node 10.08 | Whites Water   | Normal Year | ő    | D    | a     | ō      | 873   | 1337        | 1092  | 854   | 375        | 0     | 0        | ő     |
| Node 10 09 | S Branch Irrigating  | Normal Year | 0    | 0    | 0     | 0      | 1001  | 1260        | 725   | 340   | 232        | 0     | 0        | 0     |
| Node 11 02 | 2 Alonzo F Sights  | Normal Year | 0    | 0    | 0     | D      | 379   | 985         | 550   | 216   | 75         | 0     | 0        | 0     |
| Node 11 03 | 3 Oscar E Snyder   | Normal Year | 0    | 0    | 0     | 0      | 1174  | 1486        | 852   | 509   | 411        | 0     | 0        | 0     |
| Node 11 04 | Total Idaho  | Normal Year | 0    | 0    | 0     | 0      | 1968  | 2101        | 1820  | 8502  | 1590       | 0     | 0        | 0     |
| Node 12 03 | Rainbow  | Normal Year | 7685 | 8109 | 19108 | 26729  | 30209 | 43641       | 30490 | 8191  | 5573       | 8153  | 9821     | 8436  |
| Node 12 D4 | Slewart Dam  | Normal Year | 133  | 134  | 211   | 143    | 272   | 426         | 459   | 266   | 541        | 217   | 193      | 153   |
| Node 3 01  | Evanaton Water Ditch   | Normal Year | 0    | 0    | 0     | 0      | 466   | 1031        | 878   | 611   | 283        | 0     | D        | 0     |
| Node 3.02  | KOCKY MIT & BIYIT  | Normal Year | 0    | 0    | 0     | 0      | 285   | 754         | 368   | 327   | 162        | 0     | 0        | 0     |
| Node 4.02  | S P Ramsey   | Normal Year | 0    | D    | 0     | 0      | 475   | 666         | 329   | 196   | 17B        | õ     | ō        | ŏ     |
| Node 5.01  | Chapman Canal  | Normal Year | 0    | 0    | 0     | D      | 6489  | 6582        | 3328  | 1233  | 1059       | 0     | 0        | 0     |
| Node 5 02  | Morris Bros (Lower)  | Normal Year | 0    | 0    | 0     | 0      | 216   | 258         | 141   | 73    | 100        | 0     | 0        | D     |
| Node 5 04  | Tunnol<br>Woodstaff Nammer   | Normal Year | 0    | 0    | 0     | 0      | 1001  | 1363        | 282   | 12045 | 121        | 0     | 0        | 0     |
| Node 7 01  | Francis Lee  | Normal Year | 0    | 0    | 0     | 0      | 1680  | 2280        | 852   | 221   | 249        | 0     | 0        | 0     |
| Node 7.02  | Bear River Canal   | Normal Year | 0    | 0    | 0     | 0      | 2777  | 4002        | 1169  | 491   | 494        | 0     | 0        | 0     |
| Node 7 03  | Total Lower Utah   | Normal Year | 0    | 0    | 0     | 0      | 19534 | 31821       | 10228 | 1743  | 2742       | 0     | 0        | 0     |
| Note 8 01  | RO Diversions  | Normal Year | 0    | 0    | 0     | 0      | 2299  | 3300        | 2317  | 147   | 53         | 0     | 0        | 0     |
| Node 1.01  | Lannon & Lone Mountain   | Wel Year    | 0    | 0    | 0     | õ      | 492   | 807         | 937   | 524   | 544        | 0     | 0        | D     |
| Node 1 02  | Hillard West Side  | Wet Year    | 0    | 0    | 0     | 0      | 100   | 1402        | 1935  | 386   | 926        | 0     | 0        | D     |
| Node 1 03  | Seer Canal<br>Crown & Dear Comm  | Wel Year    | 0    | 0    | 0     | 0      | 728   | 2844        | 3132  | 705   | 1248       | 0     | 0        | 2     |
| Node 1 05  | McGraw & Big Bend  | Wet Year    | 0    | 0    | 0     | 0      | 1247  | 1904        | 1272  | 895   | 644        | 0     | 0        | - č   |
| Node 1 06  | Lewis  | Wot Year    | 0    | D    | 0     | 0      | 109   | 376         | 369   | 251   | 138        | 0     | 0        | 0     |
| Node 1 07  | Meyers No. 2   | Wet Year    | 0    | 0    | 0     | 0      | 24    | 267         | 414   | 357   | 107        | 0     | 0        | 0     |
| Node 1 08  | MOYOFS NO 1  | Wel Year    | 0    | 0    | 0     | 0      | 58    | 301         | 232   | 213   | 118        | 0     | 0        | 0     |
| Node 1.10  | Evanston Pipoline  | Wol Year    | 0    | 0    | 0     | ő      | 290   | 453         | 711   | 657   | 474        | 0     | Ď        | 0     |
| Node 1.11  | Booth  | Wel Year    | D    | 0    | 0     | 0      | 302   | 746         | 820   | 547   | 372        | D     | 0        | 0     |
| Node 1.12  | Anel   | Wet Year    | 0    | 0    | 0     | 0      | 196   | 605         | 415   | 219   | 247        | 0     | 0        | 0     |
| Node 1 14  | Hillard East Side  | Wet Year    | 0    | 0    | 0     | 0      | 23    | 419         | 120   | 2515  | 78         | 0     | 0        | 0     |
| Node 10 00 | Quinn Bourne   | Wet Year    | 0    | 0    | 0     | 0      | 311   | 389         | 300   | 174   | 41         | 0     | 0        | 0     |
| Node 10 02 | 2 Button Flat  | Wet Year    | 0    | 0    | 0     | 0      | 16    | 199         | 262   | 151   | 22         | 0     | 0        | D     |
| Node 10.03 | S Emelie   | Wel Year    | 0    | 0    | 0     | 0      | 94    | 588         | 829   | 541   | 42         | 0     | 0        |       |
| Node 10 04 | 5 Covey  | Wet Year    | õ    | 0    | 0     | ő      | 1162  | 3927        | 3062  | 1575  | 1387       | 0     | 0        | ă     |
| Node 10.06 | 5 VH Canal   | Wet Year    | 0    | 0    | 0     | 0      | 434   | 836         | 773   | 771   | 499        | 0     | D        | 0     |
| Node 10 07 | 7 Goodall  | Wet Year    | 0    | 0    | 0     | 0      | 209   | 307         | 417   | 345   | 239        | 0     | 0        | 0     |
| Node 10 08 | S Branch Infestion   | Wel Year    | 0    | 0    | 0     | 0      | 1610  | 1867        | 1310  | 1104  | 292        | 0     | 0        | 0     |
| Node 11 02 | 2 Alonzo F. Sights   | Wet Year    | 0    | 0    | 0     | 0      | 111   | 675         | 730   | 267   | 177        | 0     | 0        | 0     |
| Node 11 D  | 3 Oscar E Snyder   | Wot Year    | 0    | 0    | 0     | 0      | 760   | 1934        | 1163  | 215   | 315        | D     | 0        | 0     |
| Node 11.04 | Cook Brothers  | Wel Year    | 0    | 0    | 0     | 0      | 1488  | 3480        | 1449  | 995   | 1569       | 0     | 0        | 0     |
| Node 12 02 | 2 Total Idaho  | Wel Year    | 0    | 0    | 33920 | 68524  | 10091 | 24426       | 14442 | 7496  | 6193       | 17217 | 16842    | 0     |
| Node 12.04 | Stewart Dam  | Wot Year    | 178  | 199  | 428   | 265    | 584   | 1413        | 524   | 330   | 608        | 299   | 217      | 187   |
| Node 3.01  | Evanston Water Ditch   | Wet Yodr    | 0    | 0    | 0     | 0      | 58    | 547         | 852   | 672   | 276        | 0     | 0        | 0     |
| Node 3 02  | Rocky Min & Blyth  | Wet Year    | 0    | 0    | 0     | 0      | 361   | 616         | 491   | 295   | 334        | 0     | 0        | 0     |
| Node 4.01  | S D Damater  | Wet Year    | 0    | 0    | 0     | 0      | 318   | 586         | 368   | 254   | 397        | 0     | 0        | 0     |
| Node 5 01  | Chapman Canal  | Wet Year    | 0    | 0    | o     | ō      | 5808  | 8002        | 4961  | 2195  | 1430       | 0     | 0        | õ     |
| Node 5.02  | Morris Bros (Lower)  | Wet Year    | 0    | 0    | 0     | 0      | 226   | 330         | 396   | 18    | 97         | 0     | 0        | 0     |
| Node 5 04  | Tunnel   | Wet Year    | 0    | 0    | 0     | 0      | 507   | 1190        | 390   | 319   | 166        | 0     | 0        | 0     |
| Node 6 01  | Woodruff Narrowa<br>Erancia Lee  | Wet Year    | 0    | 0    | 0     | 0      | 1781  | 21764       | 28548 | 25818 | 23230      | 0     | 0        | 0     |
| Node 7.01  | Bear River Canal   | Wet Year    | 0    | 0    | 0     | 0      | 2330  | 4035        | 2047  | 40    | 393<br>507 | 0     | 0        | 0     |
| Node 7.03  | Total Lower Utah   | Wet Year    | 0    | 0    | 0     | ō      | 20641 | 45859       | 18234 | 1381  | 2608       | 0     | 0        | 0     |
| Node 8.01  | Pbdev Diversions   | Wat Year    | 0    | 0    | 0     | 0      | 2672  | 3736        | 389   | 9     | 133        | 0     | 0        | 0     |
| Node 8.02  | Diversions   | Dry Year    | 0    | 0    | 0     | 0      | 3395  | 6072<br>718 | 1928  | 158   | 17         | 0     | 0        | 0     |
|            | = sum Hatch + Hovarka  | Normal Year | ő    | 0    | o     | 0      | 418   | 888         | 503   | 349   | 134        | õ     | õ        | ŏ     |
| 1          | and a second sec | 111 1 11    | 12   |      | 12    | -      | 1007  |             | 0.04  | 100   |            | 10    | E)       | 2 I I |

| USGS Gauge | 1971 | 1972 | 1973 | 1974                 | 1975                 | 1976      | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2000 | 2010 | 0107 | 1107 | 2012 | 2013 | 2014 | 2015 |
|------------|------|------|------|----------------------|----------------------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 10011500   |      |      |      |                      |                      |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 10016900   |      |      |      |                      |                      |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 10020100   |      |      |      |                      |                      |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 10020300   |      |      |      |                      |                      |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 10026500   |      |      |      |                      |                      |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | х    | x    | x    | x    | х    | x    | х    | х    | х    | х    | х    | х    | х    | x    |      |      |      |      |      |      |      |      |      |      |
| 10028500   |      |      |      |                      |                      |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 10032000   |      |      |      |                      |                      |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 10038000   |      |      |      |                      |                      |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 10039500   |      |      |      |                      |                      |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|            |      |      |      | Dry N<br>Norn<br>Wet | (ear<br>nal \<br>Yea | 'ear<br>r |      |      |      |      |      |      | -    | _    | -    | _    |      | _    |      | _    |      | _    |      |      |      |      |      |      |      |      | -    | -    | -    |      |      | -    |      |      |      |      |      |      |      |      |      |      |

#### Trimed to last 30 Years

| USGS Gauge | 1985 | 1986 | 1987 | 1988                   | 1989                        | 1990                    | 1991       | 1992  | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|------------|------|------|------|------------------------|-----------------------------|-------------------------|------------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 10011500   |      |      |      |                        |                             |                         |            |       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 10016900   |      |      |      |                        |                             |                         |            |       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 10020100   |      |      |      |                        |                             |                         |            |       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 10020300   |      |      |      |                        |                             |                         |            |       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|            |      |      |      |                        |                             |                         |            |       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|            |      |      |      |                        |                             |                         |            |       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|            |      |      |      |                        |                             |                         |            |       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|            |      |      |      |                        |                             |                         |            |       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 10039500   |      |      |      |                        |                             |                         |            |       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|            | -    | -    | x    | Dry<br>Nor<br>We<br>No | Yea<br>mal<br>t Yea<br>data | r<br>Yea<br>ar<br>a for | r<br>entii | re ye | ear  | _    |      | _    |      |      | -    |      | -    |      | -    |      | -    |      |      |      |      |      |      |      |      |      |      |

Results Options

**Diversion Summary Worksheet** 

(DRY YEAR)

#### Summary of Diversion Calculations: By Node

#### Reach 1 Diversions Summary Table

| NODE                 |                              | Reach | Jan | Feb | Mar | Apr | May   | Jun   | Jul   | Aug | Sep | Oct | Nov | Dec | Total  |
|----------------------|------------------------------|-------|-----|-----|-----|-----|-------|-------|-------|-----|-----|-----|-----|-----|--------|
| Node 1.00 Diversions | USGS 10011500: Bear River ne | 1     | 0   | 0   | 0   | 0   | 0     | 0     | 0     | 0   | 0   | 0   | 0   | 0   | 0      |
| Node 1.01 Diversions | Lannon & Lone Mountain       | 1     | 0   | 0   | 0   | 0   | 843   | 1,003 | 592   | 151 | 8   | 0   | 0   | 0   | 2,597  |
| Node 1.02 Diversions | Hilliard West Side           | 1     | 0   | 0   | 0   | 0   | 1,320 | 1,764 | 741   | 175 | 178 | 0   | 0   | 0   | 4,178  |
| Node 1.03 Diversions | Bear Canal                   | 1     | 0   | 0   | 0   | 0   | 2,080 | 6,784 | 1,732 | 477 | 382 | 0   | 0   | 0   | 11,455 |
| Node 1.04 Diversions | Crown & Pine Grove           | 1     | 0   | 0   | 0   | 0   | 686   | 1,342 | 625   | 175 | 131 | 0   | 0   | 0   | 2,958  |
| Node 1.05 Diversions | McGraw & Big Bend            | 1     | 0   | 0   | 0   | 0   | 1,144 | 813   | 293   | 74  | 43  | 0   | 0   | 0   | 2,368  |
| Node 1.06 Diversions | Lewis                        | 1     | 0   | 0   | 0   | 0   | 191   | 216   | 205   | 41  | 28  | 0   | 0   | 0   | 682    |
| Node 1.07 Diversions | Meyers No. 2                 | 1     | 0   | 0   | 0   | 0   | 97    | 292   | 260   | 43  | 62  | 0   | 0   | 0   | 754    |
| Node 1.08 Diversions | Meyers No. 1                 | 1     | 0   | 0   | 0   | 0   | 130   | 225   | 232   | 144 | 47  | 0   | 0   | 0   | 777    |
| Node 1.09 Diversions | Meyers Irrigation            | 1     | 0   | 0   | 0   | 0   | 223   | 262   | 248   | 146 | 124 | 0   | 0   | 0   | 1,003  |
| Node 1.10 Diversions | Evanston Pipeline            | 1     | 0   | 0   | 0   | 0   | 245   | 383   | 376   | 366 | 248 | 0   | 0   | 0   | 1,618  |
| Node 1.11 Diversions | Booth                        | 1     | 0   | 0   | 0   | 0   | 457   | 630   | 457   | 229 | 235 | 0   | 0   | 0   | 2,008  |
| Node 1.12 Diversions | Anel                         | 1     | 0   | 0   | 0   | 0   | 284   | 358   | 247   | 8   | 18  | 0   | 0   | 0   | 915    |
| Node 1.13 Diversions | Evanston Water Supply        | 1     | 0   | 0   | 0   | 0   | 37    | 133   | 106   | 56  | 10  | 0   | 0   | 0   | 342    |
| Node 1.15 Diversions | AggDiv BR-1                  | 1     | 0   | 0   | 0   | 0   | 183   | 418   | 337   | 117 | 51  | 0   | 0   | 0   | 1,106  |

#### **Reach 2 Diversions Summary Table**

| NODE                 | R                             | each | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Total |
|----------------------|-------------------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| Node 2.00 Diversions | USGS 10015700: Sulphur Cr. at | 2    | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0     |
| Node 2.01 Diversions | AggDiv SC-1/Broadbent         | 2    | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0     |
| Node 2.02 Diversions | Sulphur Creek Reservoir       | 2    | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0     |
| Node 2.03 Diversions | AggDiv SC-2                   | 2    | 0   | 0   | 0   | 0   | 40  | 154 | 269 | 126 | 34  | 0   | 0   | 0   | 624   |

#### **Reach 3 Diversions Summary Table**

| NODE                 | R                               | each | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Total |
|----------------------|---------------------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| Node 3.00 Diversions | Confluence Sulphur Creek / Bear | 3    | 0   | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 66    |
| Node 3.01 Diversions | Evanston Water Ditch            | 3    | 0   | 0   | 0   | 0   | 589 | 981 | 800 | 511 | 208 | 0   | 0   | 0   | 3,089 |
| Node 3.02 Diversions | Rocky Mtn & Blyth               | 3    | 0   | 0   | 0   | 0   | 507 | 527 | 378 | 136 | 119 | 0   | 0   | 0   | 1,668 |
|                      |                                 |      |     |     |     |     |     |     |     |     |     |     |     |     | 0     |

#### **Reach 4 Diversions Summary Table**

| NODE                 |                               | Reach | Jan | Feb | Mar | Apr |   | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Total |
|----------------------|-------------------------------|-------|-----|-----|-----|-----|---|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| Node 4.00 Diversions | USGS 10016900: Bear R. at Eva | 4     | 0   | 0   | (   |     | 0 | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0     |
| Node 4.01 Diversions | John Simms                    | 4     | 0   | 0   | (   |     | 0 | 752 | 495 | 355 | 293 | 258 | 0   | 0   | 0   | 2,152 |
| Node 4.02 Diversions | S P Ramsey                    | 4     | 0   | 0   | (   | 6   | 0 | 978 | 539 | 240 | 182 | 127 | 0   | 0   | 0   | 2,066 |
| Node 4.03 Diversions | AggDiv BR-2                   | 4     | 0   | 0   | (   | 6   | 0 | 338 | 898 | 844 | 328 | 134 | 0   | 0   | 0   | 2,542 |
|                      |                               |       |     |     |     |     |   |     |     |     |     |     |     |     |     |       |

#### Bear River Spreadsheet Model Dry Year Conditions

#### Reach 5 Diversions Summary Table

| NODE                 |                                  | Reach | Jan | Feb | Mar | Apr |   | May   | Jun   | Jul   | Aug | Sep | Oct | Nov | Dec | Total  |
|----------------------|----------------------------------|-------|-----|-----|-----|-----|---|-------|-------|-------|-----|-----|-----|-----|-----|--------|
| Node 5.00 Diversions | Confluence Yellow Creek / Bear F | 5     | 0   | 0   | 0   |     | 0 | 0     | 0     | 0     | 0   | 0   | 0   | 0   | 0   | 0      |
| Node 5.01 Diversions | Chapman Canal                    | 5     | 0   | 0   | 0   |     | 0 | 7,176 | 4,625 | 1,977 | 482 | 976 | 0   | 0   | 0   | 15,236 |
| Node 5.02 Diversions | Morris Bros (Lower)              | 5     | 0   | 0   | 0   |     | 0 | 321   | 216   | 167   | 39  | 87  | 0   | 0   | 0   | 829    |
| Node 5.03 Diversions | AggDiv BR-3                      | 5     | 0   | 0   | 0   |     | 0 | 140   | 372   | 383   | 134 | 51  | 0   | 0   | 0   | 1,080  |
| Node 5.04 Diversions | Tunnel                           | 5     | 0   | 0   | 0   |     | 0 | 999   | 595   | 207   | 43  | 56  | 0   | 0   | 0   | 1,901  |
|                      |                                  |       |     |     |     |     |   |       |       |       |     |     |     |     |     | 0      |

#### Reach 6 Diversions Summary Table

| NODE                 |                               | Reach | Jan | Feb | Mar | Apr | May    | Jun    | Jul    | Aug    | Sep    | Oct | Nov | Dec | Total   |
|----------------------|-------------------------------|-------|-----|-----|-----|-----|--------|--------|--------|--------|--------|-----|-----|-----|---------|
| Node 6.00 Diversions | USGS 10020100: Bear R. ab res | 6     | 0   | 0   | 0   | (   | 0      | 0      | 0      | 0      | 0      | 0   | 0   | 0   | 0       |
| Node 6.01 Diversions | Woodruff Narrows Reservoir    | 6     | 0   | 0   | D   | (   | 71,500 | 24,945 | 14,395 | 12,090 | 11,200 | 0   | 0   | 0   | 134,130 |

#### Reach 7 Diversions Summary Table

| NODE  | Reach | Jan | Feb | Mar | Apr | May    | Jun    | Jul   | Aug   | Sep   | Oct | Nov | Dec | Total  |
|---|-------|-----|-----|-----|-----|--------|--------|-------|-------|-------|-----|-----|-----|--------|
| le 7.00 Diversions USGS 10020300: Bear R. bel r | B: 7  | 0   | 0   | 0   | 0   | 0      | 0      | 0     | 0     | 0     | 0   | 0   | 0   | 0      |
| te 7.01 Diversions Francis Lee                  | 7     | 0   | 0   | 0   | 0   | 1,487  | 2,407  | 527   | 0     | 140   | 0   | 0   | 0   | 4,561  |
| le 7.02 Diversions Bear River Canal             | 7     | 0   | 0   | 0   | 0   | 1,259  | 2,445  | 348   | 0     | 0     | 0   | 0   | 0   | 4,052  |
| le 7.03 Diversions Aggregate Utah Diversions    | 7     | 0   | 0   | 0   | 0   | 19,706 | 43,876 | 8,754 | 2,168 | 2,540 | 0   | 0   | 0   | 77,044 |

#### Reach 8 Diversions Summary Table

| NODE                 | R                             | leach | Jan | Feb | Mar | Apr | May   | Jun   | Jul   | Aug | Sep | Oct | Nov | Dec | Total  |
|----------------------|-------------------------------|-------|-----|-----|-----|-----|-------|-------|-------|-----|-----|-----|-----|-----|--------|
| Node 8.00 Diversions | USGS 10026500: Bear R. nr Rai | 8     | 0   | 0   | 0   | 0   | 0     | 0     | 0     | 0   | 0   | 0   | 0   | 0   | 0      |
| Node 8.01 Diversions | Pixley Dam                    | 8     | 0   | 0   | 0   | 0   | 1,482 | 2,761 | 1,072 | 31  | 84  | 0   | 0   | 0   | 5,430  |
| Node 8.02 Diversions | BQ Dam                        | 8     | 0   | 0   | 0   | 0   | 2,628 | 8,166 | 1,873 | 175 | 83  | 0   | 0   | 0   | 12,924 |
|                      |                               |       |     |     |     |     |       |       |       |     |     |     |     |     |        |

#### **Reach 9 Diversions Summary Table**

| NODE                 | Re                             | ach | Jan | Feb | Mar | Арг |   | May | Jun   | Jul   | Aug   | Sep | Oct | Nov | Dec | Total |
|----------------------|--------------------------------|-----|-----|-----|-----|-----|---|-----|-------|-------|-------|-----|-----|-----|-----|-------|
| Node 9.00 Diversions | USGS 10028500: Bear R. bel Pi: | 9   | 0   | 0   | 1   | 0   | 0 | 0   | 0     | 0     | 0     | 0   | 0   | 0   | 0   | 0     |
| Node 9.01 Diversions | Confluence Smiths Fork / Bear  | 9   | 0   | 0   |     | 0   | 0 | 0   | 0     | 0     | 0     | 0   | 0   | 0   | 0   | 0     |
| Node 9.02 Diversions | AggDiv BR-4                    | 9   | 0   | 0   | 1   | 0   | 0 | 691 | 2,032 | 2,454 | 1,076 | 347 | 0   | 0   | 0   | 6,600 |
|                      |                                |     |     |     |     |     |   |     |       |       |       |     |     |     |     |       |

#### Reach 10 Diversions Summary Table

| NODE                  |                            | Reach | Jan | Feb | Mar | Apr | May   | Jun   | Jul   | Aug   | Sep | Oct | Nov | Dec | Total |
|-----------------------|----------------------------|-------|-----|-----|-----|-----|-------|-------|-------|-------|-----|-----|-----|-----|-------|
| Node 10.01 Diversions | USGS 10032000: Smiths Fork | า 10  | 0   | 0   | 0   | 0   | 0     | 0     | 0     | 0     | 0   | 0   | 0   | 0   | 0     |
| Node 10.02 Diversions | Button Flat                | 10    | 0   | 0   | 0   | 0   | 109   | 217   | 111   | 8     | 4   | 0   | 0   | 0   | 450   |
| Node 10.03 Diversions | Emelle                     | 10    | 0   | 0   | 0   | 0   | 304   | 580   | 312   | 42    | 2   | 0   | 0   | 0   | 1,240 |
| Node 10.04 Diversions | Cooper                     | 10    | 0   | 0   | 0   | 0   | 366   | 341   | 95    | 49    | 0   | 0   | 0   | 0   | 851   |
| Node 10.05 Diversions | Covey                      | 10    | 0   | 0   | 0   | 0   | 1,976 | 3,220 | 1,660 | 575   | 295 | 0   | 0   | 0   | 7,726 |
| Node 10.06 Diversions | VH Canal                   | 10    | 0   | 0   | 0   | 0   | 479   | 484   | 478   | 461   | 338 | 0   | 0   | 0   | 2,241 |
| Node 10.07 Diversions | Goodell                    | 10    | 0   | 0   | 0   | 0   | 301   | 435   | 427   | 377   | 363 | 0   | 0   | 0   | 1,903 |
| Node 10.08 Diversions | Whites Water               | 10    | 0   | 0   | 0   | 0   | 1,388 | 1,078 | 905   | 490   | 323 | 0   | 0   | 0   | 4,184 |
| Node 10.09 Diversions | S Branch Irrigating        | 10    | 0   | 0   | 0   | 0   | 718   | 516   | 303   | 83    | 162 | 0   | 0   | 0   | 1,782 |
| Node 10.10 Diversions | AggDiv SF-1                | 10    | 0   | 0   | 0   | 0   | 798   | 2,750 | 2,405 | 1,054 | 348 | 0   | 0   | 0   | 7,356 |
|                       |                            |       |     |     |     |     |       |       |       |       |     |     |     |     | E     |

#### Bear River Spreadsheet Model Dry Year Conditions

#### Reach 11 Diversions Summary Table

| NODE                  |                  | Reach | Jan | Feb | Mar | Apr | May   | Jun   | Jul   | Aug   | Sep   | Oct | Nov | Dec | Total  |
|-----------------------|------------------|-------|-----|-----|-----|-----|-------|-------|-------|-------|-------|-----|-----|-----|--------|
| Node 11.01 Diversions | AggDiv BR-5      | 11    | 0   | 0   | 4   | 0 0 | 591   | 1,934 | 1,899 | 924   | 278   | 0   | 0   | C   | 5,627  |
| Node 11.02 Diversions | Alonzo F. Sights | 11    | 0   | 0   | 1   | ) 0 | 366   | 418   | 370   | 155   | 7     | 0   | 0   | 0   | 1,315  |
| Node 11.03 Diversions | Oscar E. Snyder  | 11    | 0   | 0   |     | 0 0 | 442   | 436   | 400   | 304   | 232   | 0   | 0   | 0   | 1,814  |
| Node 11.04 Diversions | Cook Brothers    | 11    | 0   | 0   |     | 0 0 | 2,359 | 2,433 | 1,963 | 1,939 | 1,784 | 0   | 0   | C   | 10,477 |
| TODE TILOT DIVEISIONS | COOK DIOURIS     |       | U   | U   | - 2 | , 0 | 2,555 | 2,400 | 1,000 | 1,000 | 1,704 | U   | v   |     | 10,417 |

#### Reach 12 Diversions Summary Table

| NODE                  |                            | Reach | Jan   | Feb   | Mar    | Apr    | May    | Jun    | Jul    | Aug   | Sep   | Oct   | Nov   | Dec   | Total   |
|-----------------------|----------------------------|-------|-------|-------|--------|--------|--------|--------|--------|-------|-------|-------|-------|-------|---------|
| Node 12.01 Diversions | Confluence Thomas Fork     | 12    | 0     | 0     | 0      | 0      | 0      | 0      | 0      | 0     | 0     | 0     | 0     | 0     | 0       |
| Node 12.02 Diversions | Aggregate Idaho Diversions | 12    | 0     | 0     | 0      | 0      | 14,147 | 15,309 | 8,206  | 5,183 | 4,384 | 0     | 0     | 0     | 47,229  |
| Node 12.03 Diversions | Rainbow Inlet              | 12    | 5,345 | 5,505 | 12,915 | 14,456 | 17,002 | 16,895 | 12,483 | 4,027 | 3,770 | 3,118 | 4,422 | 4,565 | 104,504 |
| Node 12.04 Diversions | Stewart Dam                | 12    | 0     | 0     | 0      | 0      | 244    | 324    | 194    | 174   | 264   | 0     | 0     | 0     | 1,200   |
|                       |                            |       |       |       |        |        |        |        |        |       |       |       |       |       | 1       |

#### Summary of Diversion Calculations: By Reach

| Reach    | Jan   | Feb   | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct   | Nov   | Dec   | Total   |
|----------|-------|-------|--------|--------|--------|--------|--------|--------|--------|-------|-------|-------|---------|
| Reach 1  | 0     | 0     | 0      | 0      | 7,922  | 14,623 | 6,450  | 2,201  | 1,565  | 0     | 0     | 0     | 32,761  |
| Reach 2  | 0     | 0     | 0      | 0      | 40     | 154    | 269    | 126    | 34     | 0     | 0     | 0     | 624     |
| Reach 3  | 0     | 1     | 2      | 3      | 1,100  | 1,514  | 1,184  | 654    | 335    | 9     | 10    | 11    | 4,822   |
| Reach 4  | 0     | 0     | 0      | 0      | 2,068  | 1,931  | 1,439  | 803    | 519    | 0     | 0     | 0     | 6,760   |
| Reach 5  | 0     | 0     | 0      | 0      | 8,637  | 5,808  | 2,734  | 698    | 1,170  | 0     | 0     | 0     | 19,045  |
| Reach 6  | 0     | 0     | 0      | 0      | 71,500 | 24,945 | 14,395 | 12,090 | 11,200 | 0     | 0     | 0     | 134,130 |
| Reach 7  | 0     | 0     | 0      | 0      | 22,452 | 48,728 | 9,629  | 2,168  | 2,680  | 0     | 0     | 0     | 85,658  |
| Reach 8  | 0     | 0     | 0      | 0      | 4,110  | 10,927 | 2,945  | 206    | 166    | 0     | 0     | 0     | 18,354  |
| Reach 9  | 0     | 0     | 0      | 0      | 691    | 2,032  | 2,454  | 1,076  | 347    | 0     | 0     | 0     | 6,600   |
| Reach 10 | 0     | 0     | 0      | 0      | 6,439  | 9,621  | 6,697  | 3,140  | 1,835  | 0     | 0     | 0     | 27,732  |
| Reach 11 | 0     | 0     | 0      | 0      | 3,757  | 5,222  | 4,631  | 3,322  | 2,301  | 0     | 0     | 0     | 19,233  |
| Reach 12 | 5,345 | 5,505 | 12,915 | 14,456 | 31,393 | 32,528 | 20,884 | 9,384  | 8,417  | 3,118 | 4,422 | 4,565 | 152,934 |
|          |       | -     | 10     |        |        |        |        |        |        |       |       |       |         |
|          |       |       |        |        |        |        |        |        |        |       |       |       | 508 652 |

#### Bear River Spreadsheet Model Dry Year Conditions

#### **Comparison of Computed vs Historic Diversions**

| Node       | Name                       | Historic | Estimated | Difference | % Diff |
|------------|----------------------------|----------|-----------|------------|--------|
| Node 1.01  | Lannon & Lone Mountain     | 2,597    | 2,597     | 0          | 0.0    |
| Node 1.02  | Hilliard West Side         | 4,178    | 4,178     | 0          | 0.0    |
| Node 1.03  | Bear Canal                 | 11,455   | 11,455    | 0          | 0.0    |
| Node 1.04  | Crown & Pine Grove         | 2,958    | 2,958     | 0          | 0.0    |
| Node 1.05  | McGraw & Big Bend          | 2,368    | 2,368     | 0          | 0.0    |
| Node 1.06  | Lewis                      | 682      | 682       | 0          | 0.0    |
| Node 1.07  | Meyers No. 2               | 754      | 754       | 0          | 0.0    |
| Node 1.08  | Meyers No. 1               | 777      | 777       | 0          | 0.0    |
| Node 1.09  | Meyers Irrigation          | 1,003    | 1,003     | 0          | 0.0    |
| Node 1.10  | Evanston Pipeline          | 1,618    | 1,618     | 0          | 0.0    |
| Node 1.11  | Booth                      | 2,008    | 2,008     | 0          | 0.0    |
| Node 1.12  | Anel                       | 915      | 915       | 0          | 0.0    |
| Node 1.13  | Evanston Water Supply      | 342      | 342       | 0          | 0.0    |
| Node 1.15  | AggDiv BR-1                | 1,106    | 1,106     | 0          | 0.0    |
| Node 2.03  | AggDiv SC-2                | 624      | 624       | 0          | 0.0    |
| Node 3.01  | Evanston Water Ditch       | 3,089    | 3,089     | 0          | 0.0    |
| Node 3.02  | Rocky Mtn & Blyth          | 1,668    | 1,668     | 0          | 0.0    |
| Node 4.01  | John Simms                 | 2,152    | 2,152     | 0          | 0.0    |
| Node 4.02  | S P Ramsey                 | 2,066    | 2,066     | 0          | 0.0    |
| Node 4.03  | AggDiv BR-2                | 2,542    | 2,542     | 0          | 0.0    |
| Node 5.01  | Chapman Canal              | 15,236   | 15,236    | 0          | 0.0    |
| Node 5.02  | Morris Bros (Lower)        | 829      | 829       | 0          | 0.0    |
| Node 5.03  | AggDiv BR-3                | 1,080    | 1,080     | 0          | 0.0    |
| Node 5.04  | Tunnel                     | 1,901    | 1,901     | 0          | 0.0    |
| Node 7.01  | Francis Lee                | 4,672    | 4,561     | 111        | 0.0    |
| Node 7.02  | Bear River Canal           | 5,265    | 4,052     | 1213       | 0.2    |
| Node 7.03  | Aggregate Utah Diversions  | 78,461   | 77,044    | 1417       | 0.0    |
| Node 8.02  | BQ Dam                     | 12,924   | 12,924    | 0          | 0.0    |
| Node 9.02  | AggDiv BR-4                | 6,600    | 6,600     | 0          | 0.0    |
| Node 10.02 | Button Flat                | 450      | 450       | 0          | 0.0    |
| Node 10.03 | Emelle                     | 1,240    | 1,240     | 0          | 0.0    |
| Node 10.04 | Cooper                     | 851      | 851       | 0          | 0.0    |
| Node 10.05 | Covey                      | 7,726    | 7,726     | 0          | 0.0    |
| Node 10.06 | VH Canal                   | 2,241    | 2,241     | 0          | 0.0    |
| Node 10.07 | Goodell                    | 1,903    | 1,903     | 0          | 0.0    |
| Node 10.08 | Whites Water               | 4,184    | 4,184     | 0          | 0.0    |
| Node 10.09 | S Branch Irrigating        | 1,782    | 1,782     | 0          | 0.0    |
| Node 10.10 | AggDiv SF-1                | 7,356    | 7,356     | 0          | 0.0    |
| Node 11.01 | AggDiv BR-5                | 5,627    | 5,627     | 0          | 0.0    |
| Node 11.02 | Alonzo F. Sights           | 1,315    | 1,315     | 0          | 0.0    |
| Node 11.03 | Oscar E. Snyder            | 1,814    | 1,814     | 0          | 0.0    |
| Node 11.04 | Cook Brothers              | 10,477   | 10,477    | 0          | 0.0    |
| Node 12.02 | Aggregate Idaho Diversions | 47,229   | 47,229    | 0          | 0.0    |
| Node 12.03 | Rainbow Inlet              | 104,504  | 104,504   | 0          | 0.0    |
Results Options

### **Diversion Summary Worksheet**

#### Summary of Diversion Calculations: By Node

#### Reach 1 Diversions Summary Table

| NODE                 |                              | Reach | Jan | Feb | Mar | Apr | May   | Jun   | Jul   | Aug | Sep | Oct | Nov | Dec | Total |
|----------------------|------------------------------|-------|-----|-----|-----|-----|-------|-------|-------|-----|-----|-----|-----|-----|-------|
| Node 1.00 Diversions | USGS 10011500: Bear River ne | 1     | 0   | 0   | 0   | 0   | 0     | 0     | 0     | 0   | 0   | 0   | 0   | 0   | 0     |
| Node 1.01 Diversions | Lannon & Lone Mountain       | 1     | 0   | 0   | 0   | 0   | 776   | 897   | 878   | 275 | 166 | 0   | 0   | 0.  | 2,993 |
| Node 1.02 Diversions | Hilliard West Side           | 1     | 0   | 0   | 0   | 0   | 561   | 1,514 | 1,343 | 219 | 339 | 0   | 0   | 0   | 3,978 |
| Node 1.03 Diversions | Bear Canal                   | 1     | 0   | 0   | 0   | 0   | 1,012 | 3,015 | 1,866 | 376 | 487 | 0   | 0   | 0   | 6,755 |
| Node 1.04 Diversions | Crown & Pine Grove           | 1     | 0   | 0   | 0   | 0   | 650   | 1,140 | 1,030 | 372 | 261 | 0   | 0   | 0   | 3,452 |
| Node 1.05 Diversions | McGraw & Big Bend            | 1     | 0   | 0   | 0   | 0   | 1,110 | 1,200 | 539   | 392 | 186 | 0   | 0   | 0   | 3,428 |
| Node 1.06 Diversions | Lewis                        | 1     | 0   | 0   | 0   | 0   | 167   | 241   | 304   | 166 | 75  | 0   | 0   | 0   | 953   |
| Node 1.07 Diversions | Meyers No. 2                 | 1     | 0   | 0   | 0   | 0   | 85    | 277   | 359   | 157 | 76  | 0   | 0   | 0   | 954   |
| Node 1.08 Diversions | Meyers No. 1                 | 1     | 0   | 0   | 0   | 0   | 133   | 221   | 207   | 151 | 61  | 0   | 0   | 0   | 773   |
| Node 1.09 Diversions | Meyers Irrigation            | 1     | 0   | 0   | 0   | 0   | 142   | 286   | 207   | 190 | 97  | 0   | 0   | 0   | 923   |
| Node 1.10 Diversions | Evanston Pipeline            | 1     | 0   | 0   | 0   | 0   | 288   | 479   | 646   | 544 | 397 | 0   | 0   | 0   | 2,355 |
| Node 1.11 Diversions | Booth                        | 1     | 0   | 0   | 0   | 0   | 363   | 728   | 689   | 471 | 300 | 0   | 0   | 0   | 2,551 |
| Node 1.12 Diversions | Anel                         | 1     | 0   | 0   | 0   | 0   | 197   | 641   | 342   | 104 | 32  | 0   | 0   | 0   | 1,317 |
| Node 1.13 Diversions | Evanston Water Supply        | 1     | 0   | 0   | 0   | 0   | 52    | 125   | 73    | 66  | 65  | 0   | 0   | 0   | 381   |
| Node 1.14 Diversions | Hilliard East Side           | 1     | 0   | 0   | 0   | 0   | 29    | 505   | 1,423 | 448 | 531 | 0   | 0   | 0   | 2,937 |
| Node 1.15 Diversions | AggDiv BR-1                  | 1     | 0   | 0   | 0   | 0   | 146   | 399   | 422   | 178 | 58  | 0   | 0   | 0   | 1,204 |

#### Reach 2 Diversions Summary Table

| NODE                 |                               | Reach | Jan | Feb | Mar | Apr | N | lay | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Total |
|----------------------|-------------------------------|-------|-----|-----|-----|-----|---|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| Node 2.00 Diversions | USGS 10015700: Sulphur Cr. ab | 2     | 0   | 0   | 0   |     | 0 | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0     |
| Node 2.01 Diversions | AggDiv SC-1/Broadbent         | 2     | 0   | 0   | 0   |     | 0 | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0     |
| Node 2.02 Diversions | Sulphur Creek Reservoir       | 2     | 0   | 0   | 0   |     | 0 | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0     |
| Node 2.03 Diversions | AggDiv SC-2                   | 2     | 0   | 0   | 0   |     | 0 | 83  | 275 | 312 | 132 | 36  | 0   | 0   | 0   | 838   |

#### **Reach 3 Diversions Summary Table**

| NODE                 | Re                              | each | Jan | Feb | Mar | A | Apr | May | Jun   | Jul | Aug | Sep | Oct | Nov | Dec | Total |
|----------------------|---------------------------------|------|-----|-----|-----|---|-----|-----|-------|-----|-----|-----|-----|-----|-----|-------|
| Node 3.00 Diversions | Confluence Sulphur Creek / Bear | 3    | 0   | 1   |     | 2 | 3   | 4   | 5     | 6   | 7   | 8   | 9   | 10  | 11  | 66    |
| Node 3.01 Diversions | Evanston Water Ditch            | 3    | 0   | 0   |     | 0 | 0   | 466 | 1,031 | 878 | 611 | 283 | 0   | 0   | 0   | 3,268 |
| Node 3.02 Diversions | Rocky Mtn & Blyth               | 3    | 0   | 0   |     | 0 | 0   | 658 | 669   | 366 | 173 | 162 | 0   | 0   | 0   | 2,028 |
|                      |                                 |      |     |     |     |   |     |     |       |     |     |     |     |     | 1   | 0     |

#### Reach 4 Diversions Summary Table

| NODE                 |                               | Reach | Jan | Feb | Mar | Apr |   | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Total |
|----------------------|-------------------------------|-------|-----|-----|-----|-----|---|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| Node 4.00 Diversions | USGS 10016900: Bear R. at Eva | 4     | 0   | 0   |     | 0   | 0 | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0     |
| Node 4.01 Diversions | John Simms                    | 4     | 0   | 0   |     | D   | 0 | 785 | 754 | 358 | 327 | 224 | 0   | 0   | 0   | 2,448 |
| Node 4.02 Diversions | S P Ramsey                    | 4     | 0   | 0   |     | D   | 0 | 475 | 666 | 329 | 196 | 178 | 0   | 0   | 0   | 1,843 |
| Node 4.03 Diversions | AggDiv BR-2                   | 4     | 0   | 0   |     | 0   | 0 | 234 | 840 | 943 | 397 | 118 | 0   | 0   | 0   | 2,532 |
|                      |                               |       |     |     |     |     |   |     |     |     |     |     |     |     |     |       |

#### **Reach 5 Diversions Summary Table**

| NODE                 |                                  | Reach | Jan | Feb | Mar | Apr | May   | Jun   | Jul   | Aug   | Sep   | Oct | Nov | Dec | Total  |
|----------------------|----------------------------------|-------|-----|-----|-----|-----|-------|-------|-------|-------|-------|-----|-----|-----|--------|
| Node 5.00 Diversions | Confluence Yellow Creek / Bear I | 5     | 0   | 0   | 0   | 0   | 0     | 0     | 0     | 0     | 0     | 0   | 0   | 0   | 0      |
| Node 5.01 Diversions | Chapman Canal                    | 5     | 0   | 0   | 0   | 0   | 6,489 | 6,562 | 3,328 | 1,233 | 1,059 | 0   | 0   | 0   | 18,671 |
| Node 5.02 Diversions | Morris Bros (Lower)              | 5     | 0   | 0   | 0   | 0   | 216   | 258   | 141   | 73    | 100   | 0   | 0   | 0   | 787    |
| Node 5.03 Diversions | AggDiv BR-3                      | 5     | 0   | 0   | 0   | 0   | 103   | 361   | 414   | 171   | 50    | 0   | 0   | 0   | 1,099  |
| Node 5.04 Diversions | Tunnel                           | 5     | 0   | 0   | 0   | 0   | 1,001 | 1,363 | 282   | 220   | 121   | 0   | 0   | O   | 2,988  |
|                      |                                  |       |     |     |     |     |       |       |       |       |       |     |     |     | 0      |

#### Reach 6 Diversions Summary Table

| NODE                 |                               | Reach | Jan | Feb | Mar | Apr | May    | Jun    | Jul    | Aug    | Sep    | Oct | Nov | Dec | Total   |
|----------------------|-------------------------------|-------|-----|-----|-----|-----|--------|--------|--------|--------|--------|-----|-----|-----|---------|
| Node 6.00 Diversions | USGS 10020100: Bear R. ab res | 6     | 0   | 0   | 0   |     | ) 0    | 0      | 0      | 0      | 0      | 0   | 0   | 0   | 0       |
| Node 6.01 Diversions | Woodruff Narrows Reservoir    | 6     | 0   | 0   | 0   | 1   | 48,365 | 28,985 | 19,029 | 17,945 | 17,153 | 0   | 0   | 0   | 131,476 |

#### Reach 7 Diversions Summary Table

| NODE                 |                                | Reach | Jan | Feb | Mar | Apr |   | May    | Jun    | Jul    | Aug   | Sep   | Oct | Nov | Dec | Total   |
|----------------------|--------------------------------|-------|-----|-----|-----|-----|---|--------|--------|--------|-------|-------|-----|-----|-----|---------|
| Node 7.00 Diversions | USGS 10020300: Bear R. bel re: | 7     | 0   | 0   | (   |     | 0 | 0      | 0      | 0      | 0     | 0     | 0   | 0   | 0   | 0       |
| Node 7.01 Diversions | Francis Lee                    | 7     | 0   | 0   | Ċ   |     | 0 | 1,680  | 2,280  | 852    | 221   | 249   | 0   | 0   | 0   | 5,282   |
| Node 7.02 Diversions | Bear River Canal               | 7     | 0   | 0   | 0   |     | 0 | 2,777  | 4,002  | 1,169  | 491   | 494   | 0   | 0   | 0   | 8,932   |
| Node 7.03 Diversions | Aggregate Utah Diversions      | 7     | 0   | 0   | C   |     | 0 | 35,953 | 58,114 | 22,558 | 3,627 | 4,812 | 0   | 0   | 0   | 125,064 |

#### Reach 8 Diversions Summary Table

| NODE                 | 1                             | Reach | Jan | Feb | Mar | Apr |   | May   | Jun   | Jul   | Aug | Sep | Oct | Nov | Dec | Total  |
|----------------------|-------------------------------|-------|-----|-----|-----|-----|---|-------|-------|-------|-----|-----|-----|-----|-----|--------|
| Node 8.00 Diversions | USGS 10026500: Bear R. nr Rai | 8     | 0   | 0   | 0   |     | 0 | 0     | 0     | 0     | 0   | 0   | 0   | 0   | 0   | 0      |
| Node 8.01 Diversions | Pixley Dam                    | 8     | 0   | 0   | 0   |     | 0 | 2,244 | 3,366 | 710   | 5   | 27  | 0   | 0   | 0   | 6,351  |
| Node 8.02 Diversions | BQ Dam                        | 8     | 0   | 0   | 0   |     | 0 | 3,425 | 8,893 | 2,317 | 143 | 52  | 0   | 0   | 0   | 14,830 |
| 1                    |                               |       |     |     |     |     |   |       |       |       |     |     |     |     |     |        |

#### **Reach 9 Diversions Summary Table**

| NODE                 |                                | Reach | Jan | Feb | Mar |   | Apr | May | Jun   | Jul   | Aug | Sep | Oct | Nov | Dec | Total |
|----------------------|--------------------------------|-------|-----|-----|-----|---|-----|-----|-------|-------|-----|-----|-----|-----|-----|-------|
| Node 9.00 Diversions | USGS 10028500: Bear R. bel Pi: | 9     | 0   | 0   |     | 0 | 0   | 0   | 0     | 0     | 0   | 0   | 0   | 0   | 0   | 0     |
| Node 9.01 Diversions | Confluence Smiths Fork / Bear  | 9     | C   | 0   |     | 0 | 0   | 0   | 0     | 0     | 0   | 0   | 0   | 0   | 0   | 0     |
| Node 9.02 Diversions | AggDiv BR-4                    | 9     | C   | 0   |     | 0 | 0   | 481 | 1,864 | 2,187 | 907 | 232 | 0   | 0   | 0   | 5,671 |
|                      |                                |       |     |     |     |   |     |     |       |       |     |     |     |     |     |       |

#### Reach 10 Diversions Summary Table

| NODE                  |                              | Reach | Jan | Feb | Mar | Apr | May   | Jun   | Jul   | Aug   | Sep | Oct | Nov | Dec | Total  |
|-----------------------|------------------------------|-------|-----|-----|-----|-----|-------|-------|-------|-------|-----|-----|-----|-----|--------|
| Node 10.01 Diversions | USGS 10032000: Smiths Fork n | i 10  | 0   | 0   | 0   | 0   | 0     | 0     | 0     | 0     | 0   | 0   | 0   | 0   | 0      |
| Node 10.02 Diversions | Button Flat                  | 10    | 0   | 0   | 0   | 0   | 63    | 165   | 158   | 96    | 11  | 0   | 0   | 0   | 493    |
| Node 10.03 Diversions | Emelle                       | 10    | 0   | 0   | 0   | 0   | 465   | 1,090 | 634   | 300   | 59  | 0   | 0   | 0   | 2,548  |
| Node 10.04 Diversions | Cooper                       | 10    | 0   | 0   | 0   | 0   | 479   | 680   | 262   | 84    | 6   | 0   | 0   | 0   | 1,511  |
| Node 10.05 Diversions | Covey                        | 10    | 0   | 0   | 0   | 0   | 3,099 | 4,272 | 3,364 | 1,541 | 873 | 0   | 0   | 0   | 13,149 |
| Node 10.06 Diversions | VH Canal                     | 10    | 0   | 0   | 0   | 0   | 561   | 624   | 591   | 575   | 463 | 0   | 0   | 0   | 2,815  |
| Node 10.07 Diversions | Goodell                      | 10    | 0   | 0   | 0   | 0   | 326   | 452   | 470   | 451   | 360 | 0   | 0   | 0   | 2,059  |
| Node 10.08 Diversions | Whites Water                 | 10    | 0   | 0   | 0   | 0   | 873   | 1,337 | 1,092 | 854   | 375 | 0   | 0   | 0   | 4,532  |
| Node 10.09 Diversions | S Branch Irrigating          | 10    | 0   | 0   | 0   | 0   | 1,001 | 1,260 | 725   | 340   | 232 | 0   | 0   | 0   | 3,558  |
| Node 10.10 Diversions | AggDiv SF-1                  | 10    | 0   | 0   | 0   | 0   | 709   | 2,607 | 3,315 | 1,355 | 365 | 0   | 0   | 0   | 8,350  |

#### Reach 11 Diversions Summary Table

|  |                  | Reach | Jan | Feb | Mar | Apr | Ma | lay            | Jun            | Jul          | Aug          | Sep          | Oct | Nov | Dec | Total  |
|--|------------------|-------|-----|-----|-----|-----|----|----------------|----------------|--------------|--------------|--------------|-----|-----|-----|--------|
| ode 11.01 Diversions                         | AggDiv BR-5      | 11    | 0   | 0   | 0   |     | 0  | 476            | 1,918          | 2,364        | 1,004        | 253          | 0   | 0   | 0   | 6,014  |
| ode 11.02 Diversions                         | Alonzo F. Sights | 11    | 0   | 0   | 0   |     | 0  | 379            | 985            | 550          | 216          | 75           | 0   | 0   | 0   | 2,204  |
| ode 11.03 Diversions                         | Oscar E. Snyder  | 11    | 0   | 0   | 0   |     | 0  | 1,174          | 1,486          | 852          | 509          | 411          | 0   | 0   | 0   | 4,432  |
| ode 11.04 Diversions                         | Cook Brothers    | 11    | 0   | 0   | 0   |     | 0  | 1,988          | 3,161          | 1,820        | 1,548        | 1,590        | 0   | 0   | 0   | 10,107 |
| ode 11.03 Diversions<br>ode 11.04 Diversions | Cook Brothers    | 11    | 0   | 0   | 0   |     | 0  | 1,174<br>1,988 | 1,486<br>3,161 | 852<br>1,820 | 509<br>1,548 | 411<br>1,590 | 0   |     | 0   | 0 0    |

### Reach 12 Diversions Summary Table

| NODE   | Reach | Jan   | Feb   | Mar    | Apr    | May    | Jun    | Jul    | Aug   | Sep   | Oct   | Nov   | Dec   | Total   |
|--|-------|-------|-------|--------|--------|--------|--------|--------|-------|-------|-------|-------|-------|---------|
| Node 12.01 Diversions Confluence Thomas Fork     | 12    | 0     | 0     | 0      | 0      | 0      | 0      | 0      | 0     | 0     | 0     | 0     | 0     | 0       |
| Node 12.02 Diversions Aggregate Idaho Diversions | 12    | 0     | 0     | 0      | 0      | 15,027 | 25,359 | 14,104 | 6,943 | 6,542 | 0     | 0     | 0     | 67,975  |
| Node 12.03 Diversions Rainbow Inlet              | 12    | 7,685 | 8,109 | 19,108 | 26,729 | 30,209 | 43,641 | 30,490 | 8,191 | 5,573 | 8,153 | 9,821 | 8,436 | 206,144 |
| Node 12.04 Diversions Stewart Dam                | 12    | 0     | 0     | 0      | 0      | 272    | 426    | 459    | 286   | 541   | 0     | 0     | 0     | 1,984   |

### Summary of Diversion Calculations: By Reach

| Reach    | Jan   | Feb   | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct   | Nov   | Dec   | Total   |
|----------|-------|-------|--------|--------|--------|--------|--------|--------|--------|-------|-------|-------|---------|
| Reach 1  | 0     | 0     | 0      | 0      | 5,712  | 11,668 | 10,328 | 4,111  | 3,134  | 0     | 0     | 0     | 34,953  |
| Reach 2  | 0     | 0     | 0      | 0      | 83     | 275    | 312    | 132    | 36     | 0     | 0     | 0     | 838     |
| Reach 3  | 0     | 1     | 2      | 3      | 1,128  | 1,705  | 1,250  | 791    | 453    | 9     | 10    | 11    | 5,363   |
| Reach 4  | 0     | 0     | 0      | 0      | 1,494  | 2,260  | 1,630  | 920    | 519    | 0     | 0     | 0     | 6,824   |
| Reach 5  | 0     | 0     | 0      | 0      | 7,809  | 8,544  | 4,165  | 1,697  | 1,330  | 0     | 0     | 0     | 23,544  |
| Reach 6  | 0     | 0     | 0      | 0      | 48,365 | 28,985 | 19,029 | 17,945 | 17,153 | 0     | 0     | 0     | 131,476 |
| Reach 7  | 0     | 0     | 0      | 0      | 40,410 | 64,396 | 24,578 | 4,339  | 5,555  | 0     | 0     | 0     | 139,278 |
| Reach 8  | 0     | 0     | 0      | 0      | 5,669  | 12,259 | 3,027  | 148    | 79     | 0     | 0     | 0     | 21,182  |
| Reach 9  | 0     | 0     | 0      | 0      | 481    | 1,864  | 2,187  | 907    | 232    | 0     | 0     | 0     | 5,671   |
| Reach 10 | 0     | 0     | 0      | 0      | 7,577  | 12,487 | 10,611 | 5,596  | 2,744  | 0     | 0     | 0     | 39,015  |
| Reach 11 | 0     | 0     | 0      | 0      | 4,017  | 7,549  | 5,586  | 3,277  | 2,329  | 0     | 0     | 0     | 22,758  |
| Reach 12 | 7,685 | 8,109 | 19,108 | 26,729 | 45,508 | 69,426 | 45,053 | 15,420 | 12,656 | 8,153 | 9,821 | 8,436 | 276,103 |
|          |       |       |        |        |        |        |        |        |        |       |       |       |         |

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### **Comparison of Computed vs Historic Diversions**

| Node       | Name                       | Historic | Estimated | Difference | % Diff |
|------------|----------------------------|----------|-----------|------------|--------|
| Node 1.01  | Lannon & Lone Mountain     | 2,993    | 2,993     | 0          | 0.0    |
| Node 1.02  | Hilliard West Side         | 3,978    | 3,978     | 0          | 0.0    |
| Node 1.03  | Bear Canal                 | 6,755    | 6,755     | 0          | 0.0    |
| Node 1.04  | Crown & Pine Grove         | 3,452    | 3,452     | 0          | 0.0    |
| Node 1.05  | McGraw & Big Bend          | 3,428    | 3,428     | 0          | 0.0    |
| Node 1.06  | Lewis                      | 953      | 953       | 0          | 0.0    |
| Node 1.07  | Meyers No. 2               | 954      | 954       | 0          | 0.0    |
| Node 1.08  | Meyers No. 1               | 773      | 773       | 0          | 0.0    |
| Node 1.09  | Meyers Irrigation          | 923      | 923       | 0          | 0.0    |
| Node 1.10  | Evanston Pipeline          | 2,355    | 2,355     | 0          | 0.0    |
| Node 1.11  | Booth                      | 2,551    | 2,551     | 0          | 0.0    |
| Node 1.12  | Anel                       | 1,317    | 1,317     | 0          | 0.0    |
| Node 1.13  | Evanston Water Supply      | 381      | 381       | 0          | 0.0    |
| Node 1,15  | AggDiv BR-1                | 1,204    | 1,204     | 0          | 0.0    |
| Node 2.03  | AggDiv SC-2                | 838      | 838       | 0          | 0.0    |
| Node 3.01  | Evanston Water Ditch       | 3,268    | 3,268     | 0          | 0.0    |
| Node 3.02  | Rocky Mtn & Blyth          | 2,028    | 2,028     | 0          | 0.0    |
| Node 4.01  | John Simms                 | 2,448    | 2,448     | 0          | 0.0    |
| Node 4.02  | S P Ramsey                 | 1,843    | 1,843     | 0          | 0.0    |
| Node 4.03  | AggDiv BR-2                | 2,532    | 2,532     | 0          | 0.0    |
| Node 5.01  | Chapman Canal              | 18,671   | 18,671    | 0          | 0.0    |
| Node 5.02  | Morris Bros (Lower)        | 787      | 787       | 0          | 0.0    |
| Node 5.03  | AggDiv BR-3                | 1,099    | 1,099     | 0          | 0.0    |
| Node 5.04  | Tunnel                     | 2,988    | 2,988     | 0          | 0.0    |
| Node 7.01  | Francis Lee                | 5,282    | 5,282     | 0          | 0.0    |
| Node 7.02  | Bear River Canal           | 8,932    | 8,932     | 0          | 0.0    |
| Node 7.03  | Aggregate Utah Diversions  | 125,064  | 125,064   | 0          | 0.0    |
| Node 8.02  | BQ Dam                     | 14,830   | 14,830    | 0          | 0.0    |
| Node 9.02  | AggDiv BR-4                | 5,671    | 5,671     | 0          | 0.0    |
| Node 10.02 | Button Flat                | 493      | 493       | 0          | 0.0    |
| Node 10.03 | Emelle                     | 2,548    | 2,548     | 0          | 0.0    |
| Node 10.04 | Cooper                     | 1,511    | 1,511     | 0          | 0.0    |
| Node 10.05 | Covey                      | 13,149   | 13,149    | 0          | 0.0    |
| Node 10.06 | VH Canal                   | 2,815    | 2,815     | 0          | 0.0    |
| Node 10.07 | Goodell                    | 2,059    | 2,059     | 0          | 0.0    |
| Node 10.08 | Whites Water               | 4,532    | 4,532     | 0          | 0.0    |
| Node 10.09 | S Branch Irrigating        | 3,558    | 3,558     | 0          | 0.0    |
| Node 10.10 | AggDiv SF-1                | 8,350    | 8,350     | 0          | 0.0    |
| Node 11.01 | AggDiv BR-5                | 6,014    | 6,014     | 0          | 0.0    |
| Node 11.02 | Alonzo F. Sights           | 2,204    | 2,204     | 0          | 0.0    |
| Node 11.03 | Oscar E. Snyder            | 4,432    | 4,432     | 0          | 0.0    |
| Node 11.04 | Cook Brothers              | 10,107   | 10,107    | 0          | 0.0    |
| Node 12.02 | Aggregate Idaho Diversions | 67,975   | 67,975    | 0          | 0.0    |
| Node 12.03 | Rainbow Inlet              | 206,144  | 206,144   | 0          | 0.0    |

Results Options

### **Diversion Summary Worksheet**

### Summary of Diversion Calculations: By Node

#### Reach 1 Diversions Summary Table

| NODE                 |                               | Reach | Jan | Feb | Mar | Apr | May   | Jun   | Jul   | Aug | Sep   | Oct | Nov | Dec | Total |
|----------------------|-------------------------------|-------|-----|-----|-----|-----|-------|-------|-------|-----|-------|-----|-----|-----|-------|
| Node 1.00 Diversions | USGS 10011500: Bear River nea | 1     | 0   | 0   | 0   | 0   | 0     | 0     | 0     | 0   | 0     | 0   | 0   | 0   | 0     |
| Node 1.01 Diversions | Lannon & Lone Mountain        | 1     | 0   | 0   | 0   | 0   | 492   | 807   | 937   | 524 | 544   | 0   | 0   | 0   | 3,304 |
| Node 1.02 Diversions | Hilliard West Side            | 1     | 0   | 0   | 0   | 0   | 100   | 1,402 | 1,935 | 386 | 926   | 0   | 0   | 0   | 4,750 |
| Node 1.03 Diversions | Bear Canal                    | 1     | 0   | 0   | 0   | 0   | 728   | 2,844 | 3,132 | 705 | 1,246 | 0   | 0   | 0   | 8,656 |
| Node 1.04 Diversions | Crown & Pine Grove            | 1     | 0   | 0   | 0   | 0   | 313   | 1,170 | 1,276 | 470 | 317   | 0   | 0   | 0   | 3,545 |
| Node 1.05 Diversions | McGraw & Big Bend             | 1     | 0   | 0   | 0   | 0   | 1,247 | 1,904 | 1,272 | 895 | 644   | 0   | 0   | 0   | 5,963 |
| Node 1.06 Diversions | Lewis                         | 1     | 0   | 0   | 0   | 0   | 109   | 376   | 369   | 251 | 138   | 0   | 0   | 0   | 1,244 |
| Node 1.07 Diversions | Meyers No. 2                  | 1     | 0   | 0   | 0   | 0   | 24    | 267   | 414   | 357 | 107   | 0   | 0   | 0   | 1,169 |
| Node 1.08 Diversions | Meyers No. 1                  | 1     | 0   | 0   | 0   | 0   | 105   | 229   | 232   | 213 | 118   | 0   | 0   | 0   | 898   |
| Node 1.09 Diversions | Meyers Irrigation             | 1     | 0   | 0   | 0   | 0   | 58    | 301   | 217   | 117 | 62    | 0   | 0   | 0   | 755   |
| Node 1.10 Diversions | Evanston Pipeline             | 1     | 0   | 0   | 0   | 0   | 290   | 453   | 711   | 657 | 474   | 0   | 0   | 0   | 2,585 |
| Node 1.11 Diversions | Booth                         | 1     | 0   | 0   | 0   | 0   | 302   | 746   | 820   | 547 | 372   | 0   | 0   | 0   | 2,787 |
| Node 1.12 Diversions | Anel                          | 1     | 0   | 0   | 0   | 0   | 196   | 605   | 415   | 219 | 247   | 0   | 0   | 0   | 1,682 |
| Node 1.13 Diversions | Evanston Water Supply         | 1     | 0   | 0   | 0   | 0   | 23    | 60    | 120   | 113 | 78    | 0   | 0   | 0   | 394   |
| Node 1.14 Diversions | Hilliard East Side            | 1     | 0   | 0   | 0   | 0   | 0     | 77    | 1,226 | 520 | 412   | 0   | 0   | 0   | 2,236 |
| Node 1.15 Diversions | AggDiv BR-1                   | 1     | 0   | 0   | 0   | 0   | 132   | 320   | 418   | 215 | 66    | 0   | 0   | 0   | 1,152 |

#### Reach 2 Diversions Summary Table

| NODE                 |                               | Reach | Jan | Feb | Mar | Арг | May | Jun  | Jul   | Aug   | Sep | Oct | Nov | Dec | Total |
|----------------------|-------------------------------|-------|-----|-----|-----|-----|-----|------|-------|-------|-----|-----|-----|-----|-------|
| Node 2.00 Diversions | USGS 10015700: Sulphur Cr. ab | 2     | 0   | 0   | 0   |     | D   | 0    | 0     | 0 0   | 0   | 0   | 0   | 0   | 0     |
| Node 2.01 Diversions | AggDiv SC-1/Broadbent         | 2     | 0   | 0   | 0   |     | D   | 0    | 0     | 0 0   | 0   | 0   | 0   | 0   | 0     |
| Node 2.02 Diversions | Sulphur Creek Reservoir       | 2     | 0   | 0   | 0   |     | D   | 0    | 0     | 0 0   | 0   | 0   | 0   | 0   | 0     |
| Node 2.03 Diversions | AggDiv SC-2                   | 2     | 0   | 0   | 0   | 1   | 0 1 | 16 3 | 19 34 | 5 158 | 50  | 0   | 0   | 0   | 989   |

#### **Reach 3 Diversions Summary Table**

| NODE                 |                                 | Reach | Jan | Feb | 2 | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Total |
|----------------------|---------------------------------|-------|-----|-----|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| Node 3.00 Diversions | Confluence Sulphur Creek / Bear | 3     |     | 0   | 1 | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 66    |
| Node 3.01 Diversions | Evanston Water Ditch            | 3     |     | 0   | 0 | 0   | 0   | 58  | 547 | 852 | 672 | 276 | 0   | 0   | 0   | 2,405 |
| Node 3.02 Diversions | Rocky Mtn & Blyth               | 3     |     | 0   | 0 | 0   | 0   | 361 | 616 | 491 | 295 | 334 | 0   | 0   | 0   | 2,097 |
|                      |                                 |       |     |     |   |     |     |     |     |     |     |     |     |     |     | 0     |

#### Reach 4 Diversions Summary Table

| NODE                 |                               | Reach | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Total |
|----------------------|-------------------------------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| Node 4.00 Diversions | USGS 10016900: Bear R. at Eva | 4     | 0   | 0   | 0   |     | 0 0 | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0     |
| Node 4.01 Diversions | John Simms                    | 4     | 0   | 0   | 0   |     | 316 | 586 | 368 | 254 | 397 | 0   | 0   | 0   | 1,921 |
| Node 4.02 Diversions | S P Ramsey                    | 4     | 0   | 0   | 0   |     | 437 | 943 | 487 | 188 | 466 | 0   | 0   | 0   | 2,521 |
| Node 4.03 Diversions | AggDiv BR-2                   | 4     | 0   | 0   | 0   |     | 284 | 756 | 933 | 480 | 111 | 0   | 0   | 0   | 2,563 |
|                      |                               |       |     |     |     |     |     |     |     |     |     |     |     |     | 1     |

#### **Reach 5 Diversions Summary Table**

| NODE                 |                                  | Reach | Jan | Feb | Mar | Apr |   | May   | Jun   | Jul   | Aug   | Sep   | Oct | Nov | Dec | Total  |
|----------------------|----------------------------------|-------|-----|-----|-----|-----|---|-------|-------|-------|-------|-------|-----|-----|-----|--------|
| Node 5.00 Diversions | Confluence Yellow Creek / Bear F | 5     | 0   | 0   | 0   |     | 0 | 0     | 0     | 0     | 0     | 0     | 0   | 0   | 0   | 0      |
| Node 5.01 Diversions | Chapman Canal                    | 5     | 0   | 0   | 0   |     | 0 | 5,808 | 8,002 | 4,961 | 2,195 | 1,430 | 0   | 0   | 0   | 22,396 |
| Node 5.02 Diversions | Morris Bros (Lower)              | 5     | 0   | 0   | 0   |     | 0 | 226   | 330   | 398   | 18    | 97    | 0   | 0   | 0   | 1,069  |
| Node 5.03 Diversions | AggDiv BR-3                      | 5     | 0   | 0   | 0   |     | 0 | 127   | 340   | 421   | 216   | 50    | 0   | 0   | 0   | 1,154  |
| Node 5.04 Diversions | Tunnel                           | 5     | 0   | 0   | 0   |     | 0 | 507   | 1,190 | 390   | 319   | 166   | 0   | 0   | 0   | 2,571  |
|                      |                                  |       |     |     |     |     |   |       |       |       |       |       |     |     |     | 0      |

#### **Reach 6 Diversions Summary Table**

| NODE                 |                               | Reach | Jan | Feb | Mar | Apr |   | May    | Jun    | Jul    | Aug    | Sep    | Oct | Nov | Dec | Total   |
|----------------------|-------------------------------|-------|-----|-----|-----|-----|---|--------|--------|--------|--------|--------|-----|-----|-----|---------|
| Node 6.00 Diversions | USGS 10020100: Bear R. ab res | 6     | 0   | 0   |     | )   | 0 | 0      | 0      | 0      | 0      | 0      | 0   | 0   | 0   | 0       |
| Node 6.01 Diversions | Woodruff Narrows Reservoir    | 6     | 0   | 0   | 1   | )   | 0 | 27,380 | 21,764 | 28,546 | 25,818 | 23,230 | 0   | 0   | 0   | 126,738 |

#### **Reach 7 Diversions Summary Table**

| NODE                 |                                | Reach | Jan | Feb | Mar | Apr |   | May    | Jun    | Jul    | Aug   | Sep   | Oct | Nov | Dec | Total  |
|----------------------|--------------------------------|-------|-----|-----|-----|-----|---|--------|--------|--------|-------|-------|-----|-----|-----|--------|
| Node 7.00 Diversions | USGS 10020300: Bear R. bel re: | 7     | 0   | 0   |     | 0   | 0 | 0      | 0      | 0      | 0     | 0     | 0   | 0   | 0   | 0      |
| Node 7.01 Diversions | Francis Lee                    | 7     | 0   | 0   |     | 0   | 0 | 1,781  | 2,443  | 1,040  | 45    | 393   | 0   | 0   | 0   | 5,701  |
| Node 7.02 Diversions | Bear River Canal               | 7     | 0   | 0   |     | 0   | 0 | 2,330  | 4,035  | 2,047  | 228   | 507   | 0   | 0   | 0   | 9,147  |
| Node 7.03 Diversions | Aggregate Utah Diversions      | 7     | 0   | 0   |     | 0   | 0 | 20,641 | 45,859 | 18,234 | 1,361 | 2,608 | 0   | 0   | 0   | 88,702 |
|                      |                                |       |     |     |     |     |   |        |        |        |       |       |     |     |     |        |

#### Reach 8 Diversions Summary Table

| NODE                 |                               | Reach | Jan | Feb | Mar | Арг | May   | Jun   | Jul   | Aug | Sep | Oct | Nov | Dec | Total  |
|----------------------|-------------------------------|-------|-----|-----|-----|-----|-------|-------|-------|-----|-----|-----|-----|-----|--------|
| Node 8.00 Diversions | USGS 10026500: Bear R. nr Rai | 8     | 0   | 0   | 0   | 0   | 0     | 0     | 0     | 0   | 0   | 0   | 0   | 0   | 0      |
| Node 8.01 Diversions | Pixley Dam                    | 8     | 0   | 0   | 0   | 0   | 2,672 | 3,736 | 389   | 9   | 133 | 0   | 0   | 0   | 6,938  |
| Node 8.02 Diversions | BQ Dam                        | 8     | 0   | 0   | 0   | 0   | 3,395 | 6,072 | 1,928 | 158 | 17  | 0   | 0   | 0   | 11,571 |
|                      |                               |       |     |     |     |     |       |       |       |     |     |     |     |     |        |

#### **Reach 9 Diversions Summary Table**

| NODE                                   | Reach             | Jan |   | Feb | Mar | Apr |   | May | Jun   | Jul   | Aug | Sep | Oct | Nov | Dec | Total |
|--|-------------------|-----|---|-----|-----|-----|---|-----|-------|-------|-----|-----|-----|-----|-----|-------|
| Node 9.00 Diversions USGS 10028500:    | Bear R. bel Pi: 9 | )   | 0 | 0   | 0   |     | 0 | 0   | 0     | 0     | 0   | 0   | 0   | 0   | 0   | 0     |
| Node 9.01 Diversions Confluence Smiths | s Fork / Bear 9   | 1   | 0 | 0   | 0   |     | 0 | 0   | 0     | 0     | 0   | 0   | 0   | 0   | 0   | 0     |
| Node 9.02 Diversions AggDiv BR-4       | 9                 | )   | 0 | 0   | 0   |     | 0 | 453 | 1,708 | 2,034 | 897 | 139 | 0   | 0   | 0   | 5,231 |

#### Reach 10 Diversions Summary Table

| Node 10.01 Diversions USGS 10032000: Smiths Fork n 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 0      |
|---|--------|
| Node 10.02 Diversions Button Flat 10 0 0 0 16 199 262 151 22 0 0                        |        |
|   | 650    |
| Node 10.03 Diversions Emelle 10 0 0 0 0 94 588 829 541 42 0 0                           | 2,094  |
| Node 10.04 Diversions Cooper 10 0 0 0 0 279 1,023 159 40 22 0 0                         | 1,523  |
| Node 10.05 Diversions Covey 10 0 0 0 1,162 3,927 3,062 1,575 1,387 0 0                  | 11,113 |
| Node 10.06 Diversions VH Canal 10 0 0 0 0 434 836 773 771 499 0 0                       | 3,313  |
| Node 10.07 Diversions Goodell 10 0 0 0 0 209 307 417 345 239 0 0                        | 1,517  |
| Node 10.08 Diversions Whites Water 10 0 0 0 0 687 1,900 1,310 1,104 292 0 0             | 5,293  |
| Node 10.09 Diversions S Branch Irrigating 10 0 0 0 0 1,619 1,867 1,163 705 418 0 0      | 5,771  |
| Node 10.10 Diversions AggDiv SF-1 10 0 0 0 0 818 3,119 3,132 1,340 136 0 0              | 8,544  |

#### Reach 11 Diversions Summary Table

| NODE                  |                  | Reach | Jan | Feb | Mar | Apr |   | May   | Jun   | Jul   | Aug | Sep   | Oct | Nov | Dec | Total |
|-----------------------|------------------|-------|-----|-----|-----|-----|---|-------|-------|-------|-----|-------|-----|-----|-----|-------|
| Node 11.01 Diversions | AggDiv BR-5      | 11    | 0   | 0   |     | 0   | 0 | 562   | 1,984 | 2,247 | 952 | 148   | 0   | 0   | 0   | 5,893 |
| Node 11.02 Diversions | Alonzo F. Sights | 11    | 0   | 0   |     | 0   | 0 | 111   | 675   | 730   | 267 | 177   | 0   | 0   | 0   | 1,961 |
| Node 11.03 Diversions | Oscar E. Snyder  | 11    | 0   | 0   |     | D   | 0 | 760   | 1,934 | 1,163 | 215 | 315   | 0   | 0   | 0   | 4,386 |
| Node 11.04 Diversions | Cook Brothers    | 11    | 0   | 0   |     | 0   | 0 | 1,466 | 3,480 | 1,449 | 995 | 1,569 | 0   | 0   | 0   | 8,959 |
|                       |                  |       |     |     |     |     |   |       |       |       |     |       |     |     |     |       |

#### Reach 12 Diversions Summary Table

| NODE                  |                            | Reach | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Total   |
|-----------------------|----------------------------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| Node 12.01 Diversions | Confluence Thomas Fork     | 12    | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0       |
| Node 12.02 Diversions | Aggregate Idaho Diversions | 12    | 0      | 0      | 0      | 0      | 10,091 | 24,426 | 14,442 | 7,496  | 6,193  | 0      | 0      | 0      | 62,648  |
| Node 12.03 Diversions | Rainbow Inlet              | 12    | 15,385 | 15,549 | 33,929 | 68,534 | 91,726 | 88,053 | 44,631 | 17,848 | 13,269 | 17,217 | 16,662 | 14,906 | 437,710 |
| Node 12.04 Diversions | Stewart Dam                | 12    | 0      | 0      | 0      | 0      | 584    | 1,413  | 524    | 330    | 608    | 0      | 0      | 0      | 3,460   |
|                       |                            |       |        |        |        |        |        |        |        |        |        |        |        |        |         |

### Summary of Diversion Calculations: By Reach

| Reach    | Jan    | Feb    | Mar    | Apr    | May     | Jun     | Jul    | Aug    | Sep    | Oct    | Nov    | Dec    | Total   |
|----------|--------|--------|--------|--------|---------|---------|--------|--------|--------|--------|--------|--------|---------|
| Reach 1  | 0      | 0      | 0      | 0      | 4,119   | 11,562  | 13,495 | 6,193  | 5,751  | 0      | 0      | 0      | 41,120  |
| Reach 2  | 0      | 0      | 0      | 0      | 116     | 319     | 345    | 158    | 50     | 0      | 0      | 0      | 989     |
| Reach 3  | 0      | 1      | 2      | 3      | 423     | 1,168   | 1,349  | 974    | 618    | 9      | 10     | 11     | 4,568   |
| Reach 4  | 0      | 0      | 0      | 0      | 1,037   | 2,285   | 1,787  | 922    | 974    | 0      | 0      | 0      | 7,005   |
| Reach 5  | 0      | 0      | 0      | 0      | 6,668   | 9,862   | 6,169  | 2,748  | 1,743  | 0      | 0      | 0      | 27,190  |
| Reach 6  | 0      | 0      | 0      | 0      | 27,380  | 21,764  | 28,546 | 25,818 | 23,230 | 0      | 0      | 0      | 126,738 |
| Reach 7  | 0      | 0      | 0      | 0      | 24,752  | 52,336  | 21,320 | 1,633  | 3,508  | 0      | 0      | 0      | 103,551 |
| Reach 8  | 0      | 0      | 0      | 0      | 6,067   | 9,808   | 2,317  | 167    | 150    | 0      | 0      | 0      | 18,509  |
| Reach 9  | 0      | 0      | 0      | 0      | 453     | 1,708   | 2,034  | 897    | 139    | 0      | 0      | 0      | 5,231   |
| Reach 10 | 0      | 0      | 0      | 0      | 5,318   | 13,766  | 11,107 | 6,572  | 3,056  | 0      | 0      | 0      | 39,818  |
| Reach 11 | 0      | 0      | 0      | 0      | 2,899   | 8,073   | 5,589  | 2,429  | 2,209  | 0      | 0      | 0      | 21,200  |
| Reach 12 | 15,385 | 15,549 | 33,929 | 68,534 | 102,402 | 113,892 | 59,597 | 25,674 | 20,070 | 17,217 | 16,662 | 14,906 | 503,818 |

### **Comparison of Computed vs Historic Diversions**

| Node       | Name                       | Historic | Estimated | Difference | % Diff |
|------------|----------------------------|----------|-----------|------------|--------|
| Node 1.01  | Lannon & Lone Mountain     | 3,304    | 3,304     | 0          | 0.0    |
| Node 1.02  | Hilliard West Side         | 4,750    | 4,750     | 0          | 0.0    |
| Node 1.03  | Bear Canal                 | 8,656    | 8,656     | 0          | 0.0    |
| Node 1.04  | Crown & Pine Grove         | 3,545    | 3,545     | 0          | 0.0    |
| Node 1.05  | McGraw & Big Bend          | 5,963    | 5,963     | 0          | 0.0    |
| Node 1.06  | Lewis                      | 1,244    | 1,244     | 0          | 0.0    |
| Node 1.07  | Mevers No. 2               | 1,169    | 1,169     | 0          | 0.0    |
| Node 1.08  | Meyers No. 1               | 898      | 898       | 0          | 0.0    |
| Node 1.09  | Meyers Irrigation          | 755      | 755       | 0          | 0.0    |
| Node 1.10  | Evanston Pipeline          | 2,585    | 2,585     | 0          | 0.0    |
| Node 1.11  | Booth                      | 2,787    | 2,787     | 0          | 0.0    |
| Node 1.12  | Anel                       | 1,682    | 1,682     | 0          | 0.0    |
| Node 1.13  | Evanston Water Supply      | 394      | 394       | 0          | 0.0    |
| Node 1.15  | AggDiv BR-1                | 1,152    | 1,152     | 0          | 0.0    |
| Node 2.03  | AgaDiv SC-2                | 989      | 989       | 0          | 0.0    |
| Node 3.01  | Evanston Water Ditch       | 2,405    | 2,405     | 0          | 0.0    |
| Node 3.02  | Rocky Mtn & Blyth          | 2,097    | 2,097     | 0          | 0.0    |
| Node 4.01  | John Simms                 | 1.921    | 1,921     | 0          | 0.0    |
| Node 4.02  | S P Ramsey                 | 2.521    | 2,521     | 0          | 0.0    |
| Node 4.03  | And Div BR-2               | 2.563    | 2,563     | 0          | 0.0    |
| Node 5.01  | Chapman Canal              | 22,396   | 22,396    | 0          | 0.0    |
| Node 5.02  | Morris Bros (Lower)        | 1.069    | 1.069     | 0          | 0.0    |
| Node 5.03  | AagDiv BR-3                | 1,154    | 1,154     | 0          | 0.0    |
| Node 5.04  | Tunnel                     | 2,571    | 2,571     | 0          | 0.0    |
| Node 7.01  | Francis Lee                | 5,701    | 5,701     | 0          | 0.0    |
| Node 7.02  | Bear River Canal           | 9,147    | 9,147     | 0          | 0.0    |
| Node 7.03  | Aggregate Utah Diversions  | 88,702   | 88,702    | 0          | 0.0    |
| Node 8.02  | BQ Dam                     | 11,571   | 11,571    | 0          | 0.0    |
| Node 9.02  | AggDiv BR-4                | 5,231    | 5,231     | 0          | 0.0    |
| Node 10.02 | Button Flat                | 650      | 650       | 0          | 0.0    |
| Node 10.03 | Emelle                     | 2,094    | 2,094     | 0          | 0.0    |
| Node 10.04 | Cooper                     | 1,523    | 1,523     | 0          | 0.0    |
| Node 10.05 | Covey                      | 11,113   | 11,113    | 0          | 0.0    |
| Node 10.06 | VH Canal                   | 3,313    | 3,313     | 0          | 0.0    |
| Node 10.07 | Goodell                    | 1,517    | 1,517     | 0          | 0.0    |
| Node 10.08 | Whites Water               | 5,293    | 5,293     | 0          | 0.0    |
| Node 10.09 | S Branch Irrigating        | 5,771    | 5,771     | 0          | 0.0    |
| Node 10.10 | AggDiv SF-1                | 8,544    | 8,544     | 0          | 0.0    |
| Node 11.01 | AggDiv BR-5                | 5,893    | 5,893     | 0          | 0.0    |
| Node 11.02 | Alonzo F. Sights           | 1,961    | 1,961     | 0          | 0.0    |
| Node 11.03 | Oscar E. Snyder            | 4,386    | 4,386     | 0          | 0.0    |
| Node 11.04 | Cook Brothers              | 8,959    | 8,959     | 0          | 0.0    |
| Node 12.02 | Aggregate Idaho Diversions | 62,648   | 62,648    | 0          | 0.0    |
| Node 12.03 | Rainbow Inlet              | 437,710  | 437,710   | 0          | 0.0    |
| Node 12.04 | Stewart Dam                | 5,233    | 3,460     | 1773       | 0.3    |

### **Uinta County Diversion Systems District 4**

|                                    | Major      | Major      |                  |                 |
|------------------------------------|------------|------------|------------------|-----------------|
|                                    | Diversions | Diversions | Major Diversions | Average         |
| Major Diversions Name              | 2012 (AFY) | 2013 (AFY) | 2014 (AFY)       | Diversion (AFY) |
| Grassy Lake Storage Release        | 2/8        | 214.5      | 141.9            | 211             |
| whichey Reservoir                  |            |            |                  |                 |
| Whitney Reservoir Storage Release  | 4976       | 3059       | 1418             | 3 151           |
| Whitney Reservoir Outflow          | 5160       | 5055       | 1,10             | 5,252           |
| Sulpher Creek Reservoir            |            |            |                  |                 |
|                                    |            |            |                  |                 |
| Sulpher Creek Res. Storage Release | 7787       | 6933       | 5534.5           | 6,752           |
| Sulpher Creek Below Res.           | 12903      | 8713.61    | 12158.68         | 11,258          |
| Woodrow Narrows Res.               |            |            |                  |                 |
| A.W.Sims                           | 355.3      | 283.4      |                  | 319             |
| Almy                               | 188.19     | 316.8      | 290.5            | 265             |
| Anel Irrigating                    | 1310       | 1225       | 1012.32          | 1,182           |
| B.E.A.R. Project Pipeline          | 68         | 51.18      | 60.7             | 60              |
| Bear (Bear K)                      | 4298       | 2005       | 8394.31          | 6,428           |
| Beath                              | 2155       | 2137       | 243              | 2 242           |
| Bowns                              | 164.45     | 356.8      | 2433.04          | 248             |
| Bowns & Bruce                      | 2.58       | 14.1       | 127              | 48              |
| Bruce-Barton                       | 359.8      | 369.57     |                  | 365             |
| Chapman Headgate                   | 13400      | 20599.8    | 22465.32         | 18,822          |
| Chapman (Stateline)                | 6899.57    | 13823.9    | 16049.84         | 12,258          |
| Coffman                            | 305.67     | 313.97     | 229.11           | 283             |
| Cornelison                         | 474.94     | 341.36     | 634.09           | 483             |
| Crown & Pine Grove                 | 3060       | 2927.22    | 270.33           | 2,086           |
| Danielson                          | 550.23     | 555.1      | 780.54           | 629             |
| Evanston Pipeline                  | 2754       | 2521       | 2453             | 2,576           |
| Evanston Water                     | 3030       | 2833.53    | 2813.36          | 2,892           |
| Evanston water Supply              | 105.3/     | 1/2.9      | 816.6            | 385             |
| Fearne Irrigating (and Sayton-     | 157.55     | 70.03      | 254.5            | 14/             |
| Thomas)                            | 231.78     | 252        |                  | 747             |
| Fife Irrigating                    | 0          | 0          | 0                | -               |
| Frances Lee (*)                    | 2572.4     | 2096.93    | 1465.4           | 2,045           |
| Fritzy                             | 227.35     | 207.89     |                  | 218             |
| Hare                               | 40.7       | 173.88     | 308.2            | 174             |
| Hatch (W Fk)                       | 425.07     | 482.3      | 798.08           | 568             |
| Havorka (E Fk)                     | 691        | 933        | 1024.47          | 883             |
| Hillard East Fork (E Fk)           | 3402.11    | 3039.99    | 3099.64          | 3,181           |
| Hillard West Side                  | 2920       | 3106.87    | 3711.64          | 3,246           |
| Homer                              | 206        | 195.7      | 3/3.5            | 258             |
| John Sins                          | 2100       | 2495.28    | 1942.21          | 2,155           |
| Johnston & Narramore               | 96.2       | 173 3      | 213.4            | 161             |
| Junction                           | 0          | 8.33       |                  | 4               |
| Knight No. 1 & 2                   | 569.71     | 762.48     | 1121.85          | 818             |
| Knoder                             | 758.72     | 844.16     | 589.94           | 731             |
| Kreider Domestic Pump              | 9.91       | 0          | 0                | 3               |
| Lannon & Lone Mtn.                 | 2803.32    | 2174.26    | 2671.67          | 2,550           |
| Lewis (D4)                         | 1020.83    | 638.32     | 591.57           | 750             |
| Lewis & Blanchard                  | 155.2      | 200.74     | 311.44           | 222             |
| McGraw                             | 1920       | 1766.06    | 2541.08          | 2,076           |
| Michael Sims                       | 0          | 13.5       | 89.3             | 34              |
| Morris Proc Issignting (Lawar)     | 0          | 5.16       | 400.00           | 3               |
| Myers Irrigating                   | 6/3.1      | 1177 56    | 486.63           | 1.070           |
| Myers No. 1                        | 420.41     | 388.05     | 1000.78          | 1,070           |
| Myers No. 2                        | 494.07     | 331.39     | 390.94           | 427             |
| Nixon West Side                    | 2.38       | 24.97      | 0                | 9               |
| Olson No. 1 Pump                   | 17.65      | 16.84      | 19.44            | 18              |
|                                    |            |            |                  |                 |
| Rocky Mtn & Blyth (and Compton)    | 1390       | 1393.2     | 1589.25          | 1,457           |
| S.P.                               | 1470       | 1571.93    | 2378.4           | 1,807           |
| Sim's Creek Slough Diversion       |            |            | 1558.4           | 1,558           |
| Sims, Blight & Turner              | 327.04     | 418.03     | 460              | 402             |
| State Hospital Ditch               | 0          | 0          | 0                |                 |
|                                    | 437.09     | 488.82     | 489.48           | 472             |
| Turper                             | 1492.48    | 2324.11    | 2959.08          | 2,259           |
| Wilson Irrigating                  | 253.3      | 44.26      | 300.94           | - 200           |
| Yellow Indicates Measurement Only  | 67,885     | 74,542     | 81.824           | 76.173          |

### **Uinta County Diversion Systems District 4**

|                                      | Minor       | Minor       |                  |                  |                |
|--------------------------------------|-------------|-------------|------------------|------------------|----------------|
|                                      | Diversions  | Diversions  |                  |                  |                |
|                                      | 2012 CFS    | 2013 CFS    | Minor Diversions |                  | 3 month        |
|                                      | Range (Spot | Range (Spot | 2014 CFS Range   |                  | demand in Acre |
| Minor Diversions Name (Spot          | Measurement | Measurement | (Spot            |                  | Feet based on  |
| Measurements)                        | s)          | s)          | Measurements)    | Average Minor Di | max flow       |
| Clark-Titmus                         |             | .5-1        | 1.5              | 0.75             | 134            |
| Broadbent (Bones)                    | 0.1         |             | 0                | 0.1              | 18             |
| Heber Supply                         | 0           | 01          | 0                | 0.1              | 18             |
| Broadbent (LaChapelle)               | 0.8         | 1-2.5       | 0.5              | 2                | 357            |
| Dexter                               | 0           | 1-1.5       | 0                | 1                | 179            |
| Eureka                               | 0           | 2.0-3.0     | 0                | 2                | 357            |
| Fearn & Rufi                         | 2           | 3           | 1.5              | 2                | 357            |
| Garden                               | 0-1         | 0           | 0                | 0.5              | 89             |
| Gerrard                              | 0           | 2           | 0                | 1                | 179            |
| Goodman Terr Irrigating              | 1           | 0           | 0                | 0.5              | 89             |
| Goodman Terr Irrigating No. 2        | 0           | 0-3         | 0                | 1.5              | 268            |
| Goodman-Cunningham                   | 0           | .2-8        |                  | 4                | 714            |
| Hardscrabble                         | 2.0-3       | 2.5-3       | 0                | 2.5              | 446            |
| Hatten Irrigating                    | 0           | 0           | 0.5              | 0.5              | 89             |
| Hillard East Fork (Mill)             | .8-5        | 0-4         | 0.5              | 3                | 536            |
| John Goodman                         |             | 0-3         | 0                | 1.5              | 268            |
| Lewis & Coffman                      | 0-5         | 3           | 2                | 2.5              | 446            |
| Lewis (Mill Creek rediversion)       | 0-3         | 3           | 1                | 2                | 357            |
| Lowham Irrigating                    | 1           | 3           | 0                | 2                | 357            |
| Lowham No. 2                         | 0           | 3           | 0                | 2                | 357            |
| Lowham No. 3                         | 0           | 1           | 0                | 0.5              | 89             |
| Myers No. 2 (Mill Creek rediversion) | 0           | 4           | 2                | 2                | 357            |
| Pioneer (D4)                         | 0           | 2           | 0                | 1 1              | 179            |
| Stedman No. 1                        | 0           | 1           | 0.5              |                  | 179            |
| Tibbets No. 1                        | 0           | 1           | 0.5              | 05               | 89             |
| Tibbets No. 2                        |             | 3           | 0                | 3                | 536            |
| Willow                               | 01          | 0-2         | 0                | 1                | 179            |
| B & I                                | 0.2         |             | 04               | 04               | 71             |
| Banks                                | 01          | 2           | 0.9              | 0.4              | 143            |
| Bear (Sulphur Cr)                    | 0.1         | 15          | 0.0              | 1                | 179            |
| Bell's                               |             | 1.5         | 0                | 0.25             | 45             |
| Cornelison No. 5 Pump                | 21          | 19          | 19               | 19               | 330            |
| Holmes                               |             | 1.5         | 1.5              | 1.5              | 0              |
| Lester (10-12-119)                   |             | 05          | 0                |                  | 142            |
| Lester (27-13-119)                   | 1.1         | 50.70       | 0.8              | 0.0<br>5         | 145            |
| Rocky Point (D4)                     |             | 15.0-7.0    | 1 5              |                  | 257            |
| Sulphur Creek Ber Inflow             |             | 0.115       | 1.5              | 2                | 337            |
| Mape                                 | 0           | 0-115       |                  | 0.5              | 0              |
| Rorgon Dortable Sprinkler            |             | 0.5         | 0                | 0.5              | 89             |
| Sector Inization System              | 0           | 0           | 0                | 0                | 0              |
| Laston irrigating system             | 0           | 0           |                  | 0                | 0              |
| Linder Bostable Sprinkler            | 0           | 02          |                  | 0.2              | 36             |
|                                      |             |             | 0                | 0                | 0              |
| Stevens Portable Sprinkler           | 0           | 0           |                  | 0                | 0              |
| Christensen                          | 0-3         | 0-4         | 0                | 2                | 357            |
| Christensen No. 2                    | 0-3         | 0-3         | 0                | 1.5              | 268            |
| Daniel Cochran                       | 0-3         | 0-2.5       | 0-1              | 1.75             | 312            |
| Forbes                               | 0-2.2       |             | 09               | 2                | 357            |
| Harriet Cook                         | ļ0          | 1.0-4.0     | 0                | 3                | 536            |
| Jacob Stahley No. 1                  | .1-1.5      | 0-4         | .7-1             | 2                | 357            |
| Jacob Stahley No. 2                  | 0           | 0           | 0                | 4                | 0              |
| Jacob Stahley No. 3                  | 0           |             | 0                | 4                | 0              |
| Joseph Cook                          | 0-4         | 0-1         | 0                | 2                | 357            |
| McCuaig                              | 0-10        | 03          | 0                | 5                | 893            |
| Moon                                 | 0-1.5       | 0-2         | 0                | 1                | 179            |
| Saxton Irrigating                    | 0-5         | 0-4         | 0                | 2                | 357            |
| Thomas                               | 0-3         | 0-2.5       | 0                | 1.5              | 268            |
| Wahsatch Irrigating                  |             | 0-2.5       | 0                | 2.5              | 446            |

|                                    | Major Diversions | Major Diversions | Major<br>Diversions 2014 | Average         |
|------------------------------------|------------------|------------------|--------------------------|-----------------|
| Major Diversions Name              | 2012 (AFT)       | 2013 (AFT)       | (AFT)                    | Diversion (AFT) |
| Abraham Stoner (Sub. County)       | 158.68           | 444.2            | 246                      | 20,413          |
|                                    |                  |                  |                          |                 |
| Alonzo F. Sights                   | 1710             | 1277.37          | 1311.92                  | 1,433           |
| Rourne (S. Branch)                 | 909.02           | 033.5            | 1300.99                  | 1.045           |
|                                    | 505.02           | 555.5            | 1300.99                  | 1,040           |
| Bridge Pump                        | 1.39             | 0                | 5.95                     | 2               |
| Button Flat                        | 730              | 388.5            | 953.52                   | 691             |
| .B.D. No. 7                        | 110.68           | 0                | 342.8                    | 151             |
|                                    |                  |                  |                          |                 |
| Cokeville Water (M Branch)         | 466.41           | 11.11            | 11608.38                 | 13 090          |
| Cooper                             | 573.67           | 353.28           | 2593.65                  | 1 174           |
| Tovey Headgate                     | 12300            | 6679.16          | 16272.96                 | 11.751          |
| Covey (Bruner Ck.)                 | 1832.59          | 1248.73          | 1698.02                  | 1,593           |
| Covey (Spring Ck.)                 | 1409.65          | 1173.08          | 1573.62                  | 1,385           |
| Curtis Pump (Bruner Ck.)           | 91.93            | 0                | 90.2                     | 61              |
| D.C.P. (Bruner Ck.)                | 0                | 234              | 97.1                     | 110             |
|                                    |                  |                  |                          |                 |
| Dimond No. 2 (Spring Ck.)          | 0                | 0                | 29.77                    | 10              |
| Emelle                             | 2180             | 1332.3           | 2330.07                  | 1,94            |
| Forgeon Irrigating (S. Branch)     | 507.47           | 590.6            | 771.87                   | 623             |
| rancis Larson                      | 841              | 432.4            | 1093.11                  | 789             |
| Sastenaga North (M Branch)         | 207.27           | 51.2             | 186.4                    | 148             |
| Sastenaga South (M Branch)         | 369.92           | 138.3            | 186.47                   | 232             |
| soodell (Pine Cr)                  | 3650             | 2455             | 2980                     | 3,020           |
| arade (Grade Canyon Cr)            | 331.24           | 340.14           | 305.4                    | 320             |
| Taggerty No. 3 (Bruner Cr)         | 0                | 0                | 0                        |                 |
| go No. 2 (INI Branch)              | 6.94             | 33.01            | 18.75                    | 20              |
|                                    |                  |                  |                          |                 |
| go No. 3 (M Branch)                | 178.39           | 0                | 0                        | 5               |
| .R. Richards                       | 248              | 794.2            | 1213.43                  | 752             |
|                                    |                  |                  |                          |                 |
| (enyon (Spring Cr)                 | 0                | 0                | 0                        | -               |
| arson Pump                         | 0                | 0                | 0                        | -               |
| Minnie Roberts (M Branch)          | 212.73           | 20.02            | 859                      | 364             |
| N Cokeville / Morgan (M Branch     | 1208.13          | 415.4            | 1378                     | 1,00            |
| Nate North Pump                    | 0                | 0                | 72.9                     | 24              |
| Nate South Pump                    | 0                | 0                | 0                        | -               |
| Oscar E. Snyder                    | 2740             | 2498             | 8740                     | 4,65            |
| Peterson Pump (S Branch)           | 136.07           | 87.7             | 167.2                    | 130             |
| Peterson Yard P.L.                 |                  | 1.55             | 6.82                     |                 |
|                                    |                  |                  |                          |                 |
| Progress                           | 253.3            | 199              | 406.2                    | 280             |
| Quinn Bourne                       | 1260             | 799.93           | 1495.09                  | 1,18            |
| Reed (N Branch)                    | 651.47           | 397.8            | 665.4                    | 572             |
| Rocky Point D2                     | 1740             | 703.74           | 3032.05                  | 1,82            |
| Seven C Ranch N Pivot & Pipeline   | 81.76            | 45.6             | 97.2                     | 7               |
| Seven C Ranch S Pivot & Pipeline   | 39.68            | 8.33             | 0                        | 10              |
| Smith's Fork Ditch (M Branch)      | 932.94           | 467.9            | 1365.37                  | 92              |
| South Branch Irrigating (N Branch) | 3250             | 1257.01          | 4055.54                  | 2,85            |
| Chan (Md Burnach)                  | +                |                  |                          |                 |
| Star (M Branch)                    |                  | 0                | 8.57                     |                 |
| Stenes & Nich-le (M Branch)        | 7.5              |                  | 0                        |                 |
|                                    | 669.42           | 80.83            | 932.46                   | 50              |
| Teichert Bro's Ditch               | 08.33            |                  | 89.8                     | 5               |
| Feichert Bro's Spreader Dike       |                  |                  | 15.9                     | 1               |
| Sector Dive Spreader Dike          |                  |                  | 152.7                    | 15:             |
| Thornock Pump & Pivot              | 297 5            | 97 9             | 747 33                   | 21              |
| V.H. (Pine Cr)                     | 2350             | 3134             | 2321                     | 2.02            |
| Wheelock                           | 1270             | 309 5            | 1939 9                   | 1.17            |
| Whites Water                       | 4571             | 30.88            | 3743                     | 2.78            |
| Wyman No. 1 (East)                 | 262.84           | 679.12           | 2423.47                  | 1,12            |
| Wyman No. 2 (West)                 | 3680             | 1340.85          | 7718.88                  | 4,24            |
| B.Q. East                          | 12800            | 6029.01          | 13901.12                 | 10,91           |
| B.Q. West                          | 2367             | 1260             | 1384.35                  | 1,67            |
| C-12 Pump                          | 376.2            | 271.03           | 269.7                    | 30              |
| Johnson Pipeline 1                 | 309.4            | 278.39           | 304.2                    | 29              |
| Johnson Pipeline 2                 | 105.7            | 90.3             | 44.18                    | 8               |
| Johnson Pipeline 2 (Pivot 3)       |                  | 80.9             | 51.14                    | 6               |
| Johnson Pipeline 3 (Pivots 4-8)    | 77.91            | 441              | 242.25                   | 25              |
| McFarland                          | 838              | 539.51           | 1326.6                   | 90              |
| Pixley Irrigating (East)           | 2960             | 1649.8           | 4216                     | 2,94            |
| Pixley Irrigating (West)           | 5215             | 2611.69          | 5666.18                  | 4,49            |
| Weston Ranch Pump 1                | 482.62           | 482.62           | 269.8                    | 41              |
| Weston Ranch Pump 2                | 406.6            | 476.82           | 275.21                   | . 38            |
|                                    |                  |                  |                          |                 |
| Alonzo F. Sights (Tributary)       | 0-5.7            | 0-3.8            | 0-3.8                    |                 |
| Bernadine Pump and Pipeline        | 0                |                  |                          |                 |
| Corina Pipe Line                   | 0-1              |                  | 0.5                      |                 |
| Yellow Indicates Measurement Only  | 93,923           | 56,785           | 118,415                  | 89,844          |

89,844 Average demand in acre feet

| LIIICOIII COUNTY DIVERSION SYSTEMS DISTINCT | Lincoln | County | <b>Diversion</b> | Systems | District | 2 |
|---|---------|--------|------------------|---------|----------|---|
|---|---------|--------|------------------|---------|----------|---|

|                             |                  |                         |                 |                 | 3 month  |
|-----------------------------|------------------|-------------------------|-----------------|-----------------|----------|
|                             |                  |                         |                 |                 | demand   |
|                             | Minor Diversions | <b>Minor Diversions</b> | Minor           |                 | in Acre  |
|                             | 2012 CFS Range   | 2013 CFS Range          | Diversions 2014 |                 | Feet     |
| Minor Diversions Name (Spot | (Spot            | (Spot                   | CFS Range (Spot |                 | based on |
| Measurements)               | Measurements)    | Measurements)           | Measurements)   | Maximum 3 yr de | max flow |
| Buyers No. 1                | 01               | 01                      | 0.1             | 0.1             | 17.85124 |
| Cash No. 1                  | 0                | 03                      | 0               | 0.3             | 53.55372 |
| Chalk Creek Pipe Line       | 0-1.5            |                         | 0               | 1.5             | 267.7686 |
| Fred                        | 02               | 0                       |                 | 0.2             | 35.70248 |
| Fossil Pipeline             | 0                |                         | 0               | 0               | 0        |
| Lower No. 1                 | 03               | 02                      | 0.2             | 0.3             | 53.55372 |
| Lower No. 2                 | 03               | 02                      | .12             | 0.3             | 53.55372 |
| Maggie Lewis No. 1          | 05               | 0                       | 03              | 0.5             | 89.2562  |
| Maggie Lewis No. 2          | 0                | 03                      | 0               | 0.3             | 53.55372 |
| Susana                      | 05               | 02                      |                 | 0.5             | 89.2562  |
| C.B.D. No. 4                | .3-3             |                         |                 | 3               | 535.5372 |
| Shuster No. 2               | 01               |                         |                 | 0.1             | 17.85124 |
| Shuster No. 4               | 0                |                         |                 | 0               | 0        |
| Icebox No. 1                | 02               | 0-1                     | 0               | 1               | 178.5124 |
| Icebox No. 2                | 01               | 02                      | 0               | 0.2             | 35.70248 |
| Icebox No. 3                | 02               | 03                      | 0               | 0.3             | 53.55372 |
| JD No. 1                    | 0                | 0                       |                 | 0               | 0        |
| JD No. 2                    | 0                | 01                      |                 | 0.1             | 17.85124 |
| Schuster No. 1              | 01               |                         |                 | 0.1             | 17.85124 |
| Francis (D2)                | 0-1.5            | 0                       | 0.3             | 1.5             | 267.7686 |
| McLennan                    | 2.4-5.7          | 07                      | 0.8             | 5.7             | 1017.521 |
| Petereit                    | 03               | 01                      | 0.1             | 0.3             | 53.55372 |
| Raymond & Foreman           | 0-1.6            | 0                       | 0               | 1.6             | 285.6198 |
| Cooper Pipeline             | 0                |                         | 0               | 0               | 0        |
| Failoni No. 5               | 05               | 05                      | 0               | 0.5             | 89.2562  |
| Failoni No. 3               | 0-1.5            | 0-1.5                   | 0               | 1.5             | 267.7686 |
| Jane No. 1                  | 0-2              | 0-1.5                   | 0               | 2               | 357.0248 |
| Jane No. 3                  | 0-1              | 0-1                     | 0               | 1               | 178.5124 |
| Morrision Pipe Line         | 05               | 01                      | 0.1             | 0.5             | 89.2562  |
| Porter No. 1                | 0-3              | 0-2                     | 02              | 3               | 535.5372 |
|                             |                  |                         | ļ               |                 | 0        |
| Buyer No. 5                 | 01               | 01                      | 0               | 0.1             | 17.85124 |
|                             |                  |                         |                 |                 | 0        |
| Buyer No. 5-A               | 02               | 01                      | 0.3             | 0.3             | 53.55372 |
| Buyer No. 6                 | 05               | 01                      | 0               | 0.5             | 89.2562  |
| Succor Springs Ditch        | 0-3              | 0-3                     | 0-3.0           | 3               | 535.5372 |
|                             |                  |                         |                 | 0               | 0        |
| Sulpher Springs Pipeline    | 0                | 0                       | 0               | 0               | 0        |
|                             |                  |                         |                 | 0               | 0        |
| Sage                        | 0-2.5            | 0-2.5                   | 0               | 2.5             | 446.281  |
| Twin Creek Ditch            | 1.9-8.5          | 1.6-4.6                 | 1.6-18.5        | 9               | 1606.612 |
| Ulrich Pipeline             | 0                | 0                       | 0               | 0               | 0        |

41.8 7461.818 Additional Demand in acre feet

**APPENDIX H** 

SAGE GROUSE INFORMATION



United States Department of the Interior



BUREAU OF LAND MANAGEMENT Wyoming State Office P.O. Box 1828 Cheyenne, Wyoming 82009-1828

IN REPLY REFER TO: 6840 (930) P

February 10, 2012

EMS TRANSMISSION: 02/15/2012 Instruction Memorandum No. WY-2012-019 Expires: 9/30/2013

To: District Managers and Deputy State Directors

From: State Director

Subject: Greater Sage-Grouse Habitat Management Policy on Wyoming Bureau of Land Management (BLM) Administered Public Lands Including the Federal Mineral Estate

Program Area: All programs

**Purpose**: This Instruction Memorandum (IM) provides guidance to Bureau of Land Management Wyoming (BLM WY) Field Offices (FOs) regarding management consideration of Greater Sage-Grouse habitats for proposed activities until resource management planning updates are completed. This guidance is in place of direction provided in Washington Office (WO) IM No. 2012-043 concerning interim management policies and procedures for Greater Sage-Grouse. Specifically, this IM addresses all BLM WY programs and provides all necessary interim program direction consistent with WO IM No. 2012-043. Where planning efforts to update and incorporate this guidance are not yet completed, the BLM WY State Office will conduct periodic review of the implementation of measures and directives contained in this IM to determine their applicability and effectiveness and make changes as necessary. This IM replaces IM No. WY-2010-012 and IM No.WY-2010-013 (USDI BLM 2010a, USDI BLM 2010b). This IM also acknowledges that Wyoming BLM will be meeting the intent of WO IM-No. 2012-044, BLM National Greater Sage Grouse Land Use Planning Strategy.

**Policy/Action**: It is the policy of BLM WY to manage Greater Sage-Grouse seasonal habitats and maintain connectivity in identified areas in support of the population management objectives set by the State of Wyoming. This guidance is consistent with guidelines and recommendations

provided for in the Wyoming Governor's Sage-Grouse Implementation Team's Core Population Area Strategy and the most recent Wyoming Governor's Executive Order (EO) 2011-5. This IM is also consistent with the BLM National Sage-grouse Habitat Conservation Strategy (USDI BLM 2004a), WO policy guidance including:

- IM No. WO-2011-138 (Sage-Grouse Conservation Related to Wildland Fire and Fuels Management);
- IM No.WO-2010-071 (Gunnison and Greater Sage-Grouse Management Considerations for Energy Development);
- IM No.WO-2012-043 (Greater Sage-Grouse Interim Management Policies and Procedures);
- National BLM Policy Manual 6840 which provides direction for the management of BLM Sensitive Species; and
- IM NO. WO-2012-044, BLM National Greater Sage-Grouse Land Use Planning Strategy.

Because Washington Office IM No. WO-2012-043 references the terms Preliminary Priority Habitat (PPH) and Preliminary General Habitat (PGH), the following explanation of terms used in Wyoming to describe these areas is necessary. BLM WY will refer to PPH in this IM as "core" or "connectivity" areas because these areas currently correspond to the mapped boundaries of the State of Wyoming's Core Population Area Strategy and meet the instructed intent of WO guidance. Connectivity areas are not the same as core areas in Wyoming, but they are a high priority for management, as identified by the State (EO 2011-5; Figure 1). Additionally, the BLM WY, Buffalo Field Office (BFO) has identified sage-grouse "Focus Areas" for adaptive management direction during the Buffalo resource management plan revision process. A record of the management direction for these existing "focus areas" can be reviewed by visiting the following BLM WY BFO web-site:

(http://www.blm.gov/wy/st/en/field\_offices/Buffalo/wildlife/sagegrouse.html).

Finally, PGH in Wyoming corresponds to all Greater Sage-Grouse habitats not located within identified core, connectivity or focus areas.

This guidance is structured to utilize an adaptive management approach that effectively adopt the goals and objectives of the State's Sage-Grouse Core Protection Area Strategy regarding habitat conservation, restoration, and reclamation practices for Sage-Grouse habitats in Wyoming.

The IM policy guidance will be implemented in conjunction with existing program-specific policies and Best Management Practices (BMPs) such as, but not limited to, those contained in the fluid minerals program and the lands and realty program. It is the goal of BLM WY to continue to work toward the long-term conservation of Greater Sage-Grouse habitats in

Wyoming through coordination with partners, including the Governor's Office of the State of Wyoming, the Wyoming Game and Fish Department (WGFD) and the U.S. Fish and Wildlife Service (FWS), and to also utilize input from the Resource Advisory Council (RAC), Local Sage-Grouse Working Groups (LWGs), BLM cooperators and stakeholders through a process that includes the immediate implementation of the following measures and statements.

# **Policy Statement 1: Habitat Mapping and Assessment**

The BLM WY State Office will, along with other involved partners, continue to support the development and use of the statewide sage-grouse seasonal habitat models. In addition, BLM WY will continue to support the development of genetic connectivity information and other tools appropriate and necessary to support BLM management decisions. It is anticipated that regionally-based, seasonal habitat models will be fully developed for nesting, early brood-rearing and winter habitat areas by 2013. BLM WY FOs are encouraged to work with the WGFD, using input from LWGs, researchers, industry, and other partners to identify, delineate, and manage important sage-grouse seasonal habitats and movement corridors even before the completion of these models. BLM WY will refer to core area maps located in the State's EO 2011-5. EO 2011-5 also includes clarified management prescriptions for the designated areas of non-core and connectivity areas. If, through the planning process, BLM proposes to adjust management strategy or boundaries of these areas from the State EO, all such adjustments must be coordinated with the State of Wyoming and other cooperators throughout the established NEPA and planning compliance processes.

The BLM WO has finalized the Sage-grouse Habitat Assessment Framework (HAF) as of August 2010, and instruction from the HAF must be considered when assessing the use of best tools for delineating relative abundance or quality of important seasonal sage-grouse habitats in core. Wyoming Sage-Grouse definitions are provided in Attachment 1 of this IM for reference and consideration of the following statements. Additionally, Attachment 2 provides habitat component descriptions for reference and consideration of the following statements.

# Policy Statement 2: Timing, Distance, Disturbance, and Density Restrictions

Pending completion of ongoing land use planning revisions and amendments, BLM WY FOs must consider and evaluate the following sage-grouse habitat conservation measures related to timing, distance, disturbance, and density for proposed projects both within and outside of core areas as appropriate. FOs should, on a project-by-project basis, evaluate these and other project-specific habitat conservation measures within the context of the proposal and associated documentation of National Environmental Policy Act (NEPA) compliance.

With regard to timing limitations, the Governor's EO presents timing restrictions, as recommended by the Sage-Grouse Implementation Team (SGIT), of March 15 to June 30 for the protection of breeding activities (*i.e.*, lek, nesting, and early brood rearing) as well as the winter seasonal protections from November 1 to March 14 for Winter Concentration Areas (WCAs). At a minimum, the BLM will consider these recommended timing restrictions in core areas. Where local FOs have obtained credible data and information to support an additional 2 weeks of

protection preceding these recommended dates or subsequent to these dates, then BLM FOs may consider expanding the dates of restriction for the protection of sage-grouse breeding, early brood rearing, and winter concentration habitat areas. This instruction is consistent with the Wyoming Governor's EO (EO 2011-5; Attachment B; Statement 2).

The following sage-grouse habitat conservation measures, which FOs must consider and evaluate consistent with applicable laws, when considering proposed actions, are concentrated on providing direction for identified core and connectivity habitats and those areas of habitat outside these designations. For management prescriptions within WY BLM - BFO focus areas, refer to established management prescriptions for these areas that would be applied during the RMP revision process. The BFO is the only WY BLM FO that has, or will, identify sage-grouse focus areas.

## Timing and Distance:

<u>Sage-grouse leks inside core/connectivity areas</u>: Surface occupancy and/or disruptive activities are prohibited on or within a six tenths (0.6) mile radius of the perimeter<sup>1</sup> of occupied<sup>2</sup> sage-grouse leks.

For the purposes of implementation of this policy, FOs must consider and evaluate an alternative that would not allow new surface facilities, including roads, to be authorized within a 0.6-mile buffer around occupied core or connectivity leks. Other actions <u>may</u> be consistent with the State's strategy when authorized (e.g., buried power and flowlines) with adherence to seasonal restrictions in nesting/early brood-rearing habitat and/or winter concentration areas, where the action(s) would not result in adverse impacts to core sage-grouse populations.

<u>Sage-grouse outside core/connectivity areas</u><sup>3</sup>: Surface occupancy and/or disruptive activities are prohibited on or within a one-quarter (0.25) mile radius of the perimeter of occupied sage-grouse leks.

For the purposes of implementation of this policy, FOs must consider and evaluate an alternative that would not allow new surface facilities, including roads, to be authorized within a 0.25 mile buffer around occupied leks outside core or connectivity areas. Other actions <u>may</u> be consistent with the State's strategy when authorized (e.g., buried power and flowlines) with adherence to seasonal restrictions in nesting/early brood-rearing habitat

<sup>&</sup>lt;sup>1</sup> Mapping of lek perimeters is underway in cooperation with the WGFD. Field Offices are encouraged to continue to coordinate with WGFD to complete lek perimeter mapping. FOs must use lek perimeter data from WGFD if available, and until such time as the perimeter is mapped, use 0.6 miles from the center of the lek.

<sup>&</sup>lt;sup>2</sup> Wyoming Sage-Grouse Definitions are in Attachment 1.

<sup>&</sup>lt;sup>3</sup> Connectivity Areas as identified by SGIT recommendations and Wyoming Governor's EO 2011-5.

and/or winter concentration areas, where the action(s) would not result in adverse impacts to core sage-grouse populations.

<u>Sage-grouse nesting/early brood-rearing habitat in core areas</u>: Surface disturbing and/or disruptive activities are prohibited from March 15–June 30 to protect sage-grouse nesting and early brood rearing habitat. Apply this restriction to all nesting and early brood-rearing habitats inside core areas regardless of distance from the lek. Where credible data support different timeframes for this seasonal restriction, dates may be expanded by up to 14 days prior to or subsequent to the above dates.

**Sage-grouse nesting/early brood-rearing habitat in connectivity areas**: Surface disturbing and/or disruptive activities are prohibited from March 15–June 30 to protect nesting and early brood-rearing habitats within 4 miles of the lek or lek perimeter of any occupied sage-grouse lek within identified connectivity areas. Where credible data support different timeframes for this seasonal restriction, dates may be expanded by 14 days prior or subsequent to the above dates.

**Sage-grouse nesting/early brood-rearing habitat outside core or connectivity areas**: Surface disturbing and/or disruptive activities are prohibited from March 15–June 30 to protect sage-grouse nesting and early brood rearing habitats within 2 miles of the lek or lek perimeter of any occupied lek located outside core or connectivity areas. Where credible data support different timeframes for this restriction, dates may be expanded by 14 days prior or subsequent to the above dates.

**Sage-grouse late brood-rearing and Winter Concentration Areas (WCAs)**: Surface disturbing and/or disruptive activities in sage-grouse WCAs are prohibited from December 1–March 14 to protect core populations of sage-grouse that use these winter concentration habitats. While the bulk of winter and late brood rearing habitat necessary to support core area populations is available within core population areas, it may be necessary to protect additional areas of winter concentration that are not located within the current core area boundaries. Appropriate seasonal timing restrictions and habitat protection measures must be considered and evaluated where WCAs or important late brood-rearing areas are identified as supporting populations of Greater Sage-Grouse that attend leks within core.

## Surface Disturbance and Disruptive Activities:

Surface disturbing and disruptive activities are defined in the WY BLM Guidance for Use of Standardized Surface Use Definitions (WY IB 2007-029). For actions other than those taken for human health and safety, regulatory compliance or emergency, BLM FOs must determine if any activity proposed in sage-grouse nesting, brood-rearing or WCA habitat is "disruptive" by determining if the activity would require people and/or the structure or activity to be present in these habitats for a duration of more than 1 hour during any one 24 hour period during the applicable season in a site-specific area. Disruptive activity restrictions are not applicable to mandatory actions including those required to ensure compliance with existing permits, 43 CFR §3162.1(a) and 43 CFR §3162.5-1(a) and (c), or activities meeting any of the definitions of casual use as found in the Code of Federal Regulations.

### **Density and Disturbance**:

### Inside Sage-Grouse Core Areas:

For authorization of new proposed actions within sage-grouse core areas, including where there are valid existing rights, FOs must consider an alternative that would limit activities to an average of no more than one oil and gas and/or mining location per 640 acres and no more than 5 percent habitat disturbance (related to all programs or applicable sources of "disturbance" – see Disturbance Density Calculation Tool (DDCT) Manual within the core areas using the DDCT. Exempted activities not subject to the disturbance limits will not require use of the DDCT, but their associated disturbance will be captured (i.e., toward the 5 percent threshold) and will count toward the disturbance limits for non-exempted actions. Include results of the tool in the record when conducting site-specific or project-level documentation of National Environmental Policy Act (NEPA) compliance as appropriate.

The overall goal of the core area strategy as it relates to density and disturbance measures is to limit the fragmentation or loss of sagebrush habitats that support core populations. The BLM will consider and evaluate measures that limit or reduce the density of oil and gas or mining activities to no more than an average of 1 location per 640 acres; and to limit all surface disturbance (any program area) to no more than 5 percent of the core landscape using the DDCT. The consolidation and minimization of disruptive human influences and infrastructure is a basic strategy in limiting wildlife habitat fragmentation and habitat disturbance. The effort to consolidate or minimize fragmentation and disturbance must be considered regardless of whether proposed activities are located inside or outside of Sage-Grouse core or connectivity areas (see Attachment 3) and regardless of land ownership patterns.

## Inside Greater Sage-Grouse core areas the density and disturbance goals include:

• The maintenance of sagebrush communities by maintaining or reducing the density of disturbance locations and disruptive activities on the landscape; or

• To not exceed an average of one oil and gas or mining location per 640 acres within the DDCT area identified using the DDCT, and total surface disturbance including existing disturbance and any proposed activity disturbance within the DDCT area should not exceed 5 percent disturbance of core sage-grouse habitats (See Policy Statement 4).

### Inside Greater Sage-Grouse connectivity areas the disturbance goals include:

• To not exceed 5 percent habitat disturbance (up to 32 acres) per 640 acres using the DDCT process. For authorization of any proposed action within sage-grouse connectivity areas, including where there are valid existing rights, FOs must consider an alternative that would limit habitat disturbance to no more than 5 percent (up to 32 acres) per 640 acres of suitable sage-grouse habitat within connectivity areas in site-specific or project-level documentation of NEPA compliance.

The overall goal of the core population area strategy within connectivity areas is to minimize habitat loss within these areas sufficient to maintain high probability of lek persistence such that

conservation of population linkage for genetic transfer between sage-grouse populations in Wyoming and those within Montana and the Dakotas is achieved.

## Activities excepted by the State plan from the conductance of a DDCT calculation:

Although the following land uses and land management practices must consider and evaluate provisions that support the goals of the core area strategy, including appropriate sage-grouse management protection and conservation measures (*i.e.*, seasonal timing, applicable spatial restrictions, etc.), they will not be subject to, nor require use of the DDCT in order to be consistent with this policy or the State's core population area strategy and EO.

- Herbicide use on or within existing well pads, roads, pipelines and powerline rights-of-way.
- Insecticide application using spot treatments for Grasshopper/Mormon cricket control or where aerial treatments follow accepted Reduced Agent-Area Treatments (RAATS) protocol and other common avoidance measures/protocols as appropriate and/or necessary.
- Existing public road maintenance activities (new roads and/or upgrading of existing roads will be subject to consideration of DDCT and results).
- Emergency response or actions specifically taken to avoid an emergency.
- Agricultural livestock reservoirs, water pipelines and protected spring developments.
- Fences (necessary construction and maintenance actions, seasonal restriction, relocation and/or marking of fences with high potential for strike mortality). Seasonal removals or adaptive modifications should be considered prior to any approval or construction of new fences in sage-grouse core area habitats.
- Cultural resource pedestrian surveys.
- All actions taken to comply with other existing statutes, regulations or terms of an existing permit.
- Actions taken to comply with new or existing livestock grazing authorizations.

Exceptions to lease stipulations, Conditions of Approval (COAs), and terms and conditions (T&Cs), etc. will continue to be considered on a case-by-case basis consistent with approved Resource Management Plans (RMPs) and other BLM policy and regulations as they relate to exceptions. Adequate pre-planning can reduce or eliminate the need for exceptions to sagegrouse protections or restrictions in many cases. When considering exceptions to timing, distance, disturbance and density restrictions applied to oil and gas activities, BLM WY FOs will coordinate with the WGFD in accordance with Appendix 5G of the Umbrella MOU (WGFD and USDI BLM 1990, as updated) and the coordination diagram for interactions between BLM WY and the WGFD specific to this IM (Attachment 4). All necessary timing, distance, disturbance and density restrictions will be considered across all FOs within appropriate NEPA compliance documentation for new projects under consideration. BLM WY FOs may vary somewhat in their application of these restrictions when that variance is based on locally collected scientific data and information, and such information is included in project-specific NEPA analysis (including analysis and rationale that support existing Records of Decision). Additionally, variance or determinations that do not apply the measures located in this policy IM may be necessary where BLM is required to comply with other non-discretionary statutes and regulations (i.e., valid existing rights, oil and gas "drainage", etc.).

### **Policy Statement 3: Conservation Objectives and Mitigation**

Through this policy IM, BLM WY will include site-specific, measurable conservation objectives for the management of core sage-grouse habitats are included in all new project NEPA documents (internal and external proposals). Documentation will include a discussion on the collection of baseline data and an outline for post-project monitoring that will be conducted if a proposal is ultimately approved. FOs are directed to coordinate with WGFD and to utilize LWG plans and other sources of information to guide development of additional conservation objectives for localized management of sage-grouse habitats. BLM WY FOs will work within multiple programs, such as the hazardous fuels, fire management, range, and wildlife programs, to accomplish sage-grouse habitat conservation objectives that would be consistent with the core population area management strategy.

BLM WY FOs will continue to work with project proponents, partners, and stakeholders to implement direct mitigation (e.g. relocating disturbance, timing and distance restrictions, etc.), utilize BMPs, and consider off-site compensatory mitigation as appropriate. Information sources to consider when identifying additional measures to reduce impacts include, but are not limited to, the BLM WY Mitigation Guidelines for Surface-Disturbing and Disruptive Activities (USDI BLM 1990) and the BLM Offsite Mitigation policy (USDI BLM 2008), and the National BLM Sage-Grouse Habitat Conservation Strategy (USDI BLM 2004). Reclamation of surface disturbance within Sage-Grouse core areas will include consideration of methods to assist in the restoration or augmentation of appropriate functional sage-grouse seasonal habitats. These measures will be in accordance with the BLM Wyoming Reclamation Policy (USDI BLM 2009b) and further guidance and information on these practices is anticipated in 2014 or earlier, with the signing of the RMP Amendments for Greater Sage-Grouse management. BLM WY will recognize the population management goals set by the WGFD when considering new or additional mitigation strategies throughout the NEPA process. The BLM's goal inside sagegrouse core areas is to maintain or enhance seasonal habitats thereby providing support for sagegrouse population management objectives of the State. Outside sage-grouse core areas, the BLM's goal is to sustain important habitats that support core populations and to maintain lek persistence over the long term in sufficient proportions of the sage-grouse population to facilitate movement and genetic transfer between core populations, including those found in adjacent States. Within sage-grouse connectivity habitats identified by the Governor's EO (2011-5), the BLM's goal is to maintain or enhance seasonal habitats in support of the connectivity population management objectives of the State.

This policy does not preclude the development and immediate implementation of new, or innovative mitigation, or other conservation measures that would also be expected to reduce activity/project impacts to sage-grouse or their habitats. New measures applied for sage-grouse will be coordinated as necessary with the WGFD. All recommendations, mitigation and conservation measures will be considered in site-specific documentation of NEPA compliance. As appropriate, these measures may be incorporated into COAs of permits, plans of development, and/or other use authorizations.

### **Policy Statement 4: Project Locations and Analyses**

BLM WY regularly conducts wildlife habitat evaluations in response to applications and proposed activities in coordination with an interdisciplinary team. Evaluations involve a review of baseline data from office-based sources including, but not limited to, aerial photography, satellite imagery and sage-grouse demographic data which may refer to activities which pose potential threats to sage-grouse habitat. Evaluations typically include field visits to identify where impacts can be reduced by protecting seasonal habitats, especially leks, nesting, early brood-rearing, and WCAs. During these habitat evaluations, other vegetation communities not generally used by sage-grouse can be identified as potential sites in which to relocate certain projects with proposed surface disturbance or disruptive activity. In order to claim that the overall relocation results in having no substantive impacts on sage-grouse, the "patch" of nonhabitat would need to be quite large and activities would have to be further than 0.6mi from the edge of suitable habitat. This same principle would apply in the case of timing restrictions/limitations. In any case, relocation into least sensitive habitats or vegetation types would still be appropriate. Sage-grouse habitat indicators that may be useful to consider when identifying conservation measures may include existing disturbance, habitat availability, patch size, currently approved or proposed fragmentation of existing habitats, patch connectivity, patch dynamics (*i.e.*, seral stages of vegetation), habitat edge characteristics and corridors potentially used for seasonal migration. The interdisciplinary team will consider and weigh potential impacts on other resources, such as cultural resources, soils and water to determine siting within the least environmentally sensitive area. In all cases, direct, indirect and cumulative impacts of proposed action on sage-grouse, other wildlife and all other impacted resources must be described regardless of distance from the project or whether inside or outside sage-grouse core areas.

### Disturbance Density Calculation Tool (DDCT) Review:

For activity proposals within core areas, the effort to establish compliance with this IM and support of the State's strategy and EO will be to evaluate habitat disturbance (*i.e.*, percent of lost habitat within core) and then determine density of disruptive activities (oil and gas and mining locations) by using a quantitative disturbance and density calculation called the DDCT. The DDCT utilizes a GIS platform to conduct this review. Within the DDCT process, where habitat assessment information is comprehensive enough to measure, unsuitable habitats including those associated with disturbances occurring within the DDCT area may be excluded in the disturbance calculations as described in Attachment 5. Impacts and habitat evaluations under NEPA should continue to be analyzed and described for all populations to extend out to the distances and locations appropriate to the population which is likely to be affected. To conduct a project-level review of disturbance and density using the DDCT, there is a detailed, step-by-step DDCT Process Manual in Attachment 5 of this IM. Updates and additional information will be made available as the strategy is implemented and updates to the DDCT Manual are expected to occur over time.

The remaining portion of Policy Statement 4 addresses BLM WY program activities that may occur within sage-grouse seasonal habitats and have varying degrees of impact to the health and

connectivity of the sage-steppe communities therein. There is a focus on minimizing impacts and improving the health of sagebrush habitats for sage-grouse and other sagebrush obligates in core areas.

# **Existing Activities**:

The State's strategy and this policy IM recognize and acknowledge that certain activities related to valid existing rights (oil and gas leases and mining operations), agricultural grazing activities and other existing activities will continue to occur within core areas. It is also acknowledged that existing operations and activities may have localized impacts on Greater Sage-Grouse. To offset these potential impacts, the mapping of core areas included more habitat than that which is strictly necessary for long-term conservation of the sage-grouse within the State of Wyoming (Wyoming EO 2011-5, provision No. 14). Consideration of existing activities (e.g., existing permits and developments already in place) will be expected to continue. Any expansion or new individual development proposals that require new BLM permits or decisions will remain a case-by-case determination of the BLM AO and conservation measures must be considered and evaluated before making new decisions.

# New Activity Proposals:

The BLM's goal for any new activity or development proposal within core areas is to provide consistent support for population management objectives of the State. Activities would be consistent with the strategy where it can be sufficiently demonstrated that no declines to core populations would be expected as a result of the proposed action. Published research suggests that impacts to sage-grouse leks associated primarily with infrastructure and energy development are discernible at a distance of at least 4 miles and that many leks within this radius have been extirpated as a direct result of development (Walker et al. 2007, Walker 2008). Research also suggests that an evaluation of habitats and sage-grouse populations that attend leks within an 11-mile radius from the project boundary in the context of "large" projects may be appropriate in order to consider all seasonal habitats that may be affected for birds that use the habitats associated with the proposal during some portion of the life-cycle of seasonally migratory sage-grouse (Connelly et al. 2000).

Based on this information, the potential for direct and indirect impacts to sage-grouse within core areas shall be evaluated at minimum, out to 4 miles from relatively small individual proposed actions. Effects analyses may extend out 11 miles or more from the project boundary for large-scale projects depending on local knowledge and information regarding the site-specific population. The evaluation of "large" or "small" projects is not related to the disturbance density calculation or DDCT. This determination of size will be based on the distance at which an appropriate effects analysis under NEPA should be conducted unless pertinent data and information indicates a greater distance would be appropriate.

For the purpose of illustrating the implementation of the "large" or "small" determination within this policy statement, examples of relatively small actions may include but are not limited to, minor exploratory natural gas well drilling proposals, individual rights-of-way (including below ground linear projects), vegetation treatments conducted in accordance with the sagebrush treatment protocols (See Integrated Vegetation Management below, and Attachment 6 – WGFD

Protocols for Treating Sagebrush to be Consistent with Wyoming Executive Order 2011-5), wind energy site testing and sage-grouse monitoring projects. Examples of large-scale actions may include, but are not limited to, oil and gas field developments, wind energy farm/field development projects, large interstate transmission power lines and vegetation treatments that eliminate functional habitat for sage-grouse. In all cases, these distances are only a suggested distance for evaluation and project specific distances for evaluation can be modified based upon available data and information. Additionally, in the event that these measures are all adopted in a final proposal, this does not mean that the proposed activity would be automatically approved. BLM must evaluate proposed actions on a case-by-case basis while meeting its obligations under NEPA, FLPMA, and other applicable laws.

## Noise:

BLM WY FOs will work with proponents to limit project related noise where it would be expected to reduce functionality of habitats that support core area populations. BLM will evaluate the potential for limitation of new noise sources on a case-by-case basis as appropriate. BLM's near-term goal is to continue to limit noise sources that would be expected to negatively impact core area sage-grouse populations and to continue to support the establishment of ambient baseline noise levels for occupied core area leks. As additional research and information emerges, specific new limitations appropriate to the type of projects being considered will be evaluated and appropriate limitations will be implemented where necessary to minimize potential for noise impacts on core sage-grouse population behavioral cycles.

### **Integrated Vegetation Management**

For vegetation treatments in sagebrush within core areas, refer to Attachment 6 – WGFD Protocols for Treating Sagebrush to Benefit Sage-Grouse (WGFD 2011, as updated). These recommended protocols will be used in determining whether proposed treatment constitutes a "disturbance" that will contribute toward the 5 percent threshold for habitat maintenance or not. Additionally, these protocols will be used to determine whether the proposed treatment configuration would be expected to have neutral or beneficial impacts for core populations or if they represent additional habitat loss or fragmentation. Treatments to enhance sagebrush/grasslands habitat for sage-grouse will be evaluated based upon habitat quality and the functionality/use of treated habitats post-treatment.

BLM will work collaboratively with partners at the State and local level to maintain and enhance sage-grouse habitats in a manner consistent with the core population area strategy for conservation.

## Wildfire Emergency Stabilization (ES) and Burned Area Rehabilitation (BAR)

BLM will work collaboratively with partners at the Federal, State, and local level to maintain and enhance sage-grouse habitats in a manner consistent with the core population area strategy for conservation. Conduct DDCT reviews in coordination with the WGFD - Habitat Protection Program located in Cheyenne at the WGFD headquarters. Areas within core are high priority for restoration of sage-grouse habitat beyond immediate response.

### Wildfire Suppression and Fuels Management

Wildfire suppression efforts in core areas should be emphasized, recognizing that other local, regional, and national suppression priorities may take precedence. Public and firefighter safety remains the number one priority for all fire management activities. BLM WY will recognize and implement the measures found in WO IM No. 2011-138 (Sage-Grouse Conservation Related to Wildland Fire and Fuels Management), or successor guidance, regarding suppression operations and fuels management which is consistent with the State plan. For fuels management, BLM WY will consider multiple tools for fuels reduction in subject NEPA compliance documentation before electing to implement prescribed fire in sage-grouse core areas. Avoid the use of prescribed fire in areas of Wyoming big sagebrush and/or within areas of less than 12 inches of annual precipitation.

## Rights-of-Way (ROW), (e.g. Powerline Transmission, Wind Energy Projects)

### Powerline Transmission:

In conducting review of powerline transmission proposals, the use of the Framework for Sage-Grouse Impacts Analysis for Interstate Transmission Lines is necessary. The framework for analysis focuses on the evaluation of direct and indirect impacts to sage-grouse specific to large interstate transmission lines, as well as direct loss of birds that may occur and finally, mitigation (which includes the use of habitat equivalency analysis or HEA). Secondarily, a DDCT will be required for all areas of core habitat that would be crossed by transmission if proposals or alternatives are identified outside the State's preferred corridors for transmission (see EO 2011-5; Statement 15; pg. 4). The results of the DDCT would be used to evaluate opportunities to: minimize density of disturbance within core areas that are outside the State's preferred disturbance corridor, as identified in the Wyoming Governor's Executive Order 2011-5; and to identify opportunities to restore and/or enhance important sage-grouse habitat as a part of project-related mitigation. The site-specific habitat evaluation of a DDCT will enable BLM to: (a) demonstrate compliance with the Greater Sage-Grouse Habitat Management Policy on Wyoming BLM Administered Public Lands including Federal Mineral Estate (IM WY-2012-019); and (b) demonstrate consistency with the Greater Sage-Grouse Core Area Protection, Wyoming Governor's Executive Order 2011-5 which requires use of designated corridors to traverse core areas. For clarity, the DDCT is not, by itself, an analysis of impacts from proposed transmission on BLM-administered properties for the purposes of NEPA and thus, BLM WY FOs are directed to observe the Framework for Sage-grouse Impacts Analysis for Interstate Transmission Lines.

## Wind Energy:

It is the policy of BLM WY to consider, based on site specific analysis, deferral of approval of new applications and proposals for wind power development inside Greater Sage-Grouse core areas until the WY RMP updates have been finalized (*i.e.*, on-going RMP revision or on-going amendments for Greater Sage-Grouse management), unless it can be sufficiently demonstrated that the development activity would not result in declines of core sage-grouse populations. Sufficient demonstration of "no declines" should be coordinated with the WGFD and U.S. Fish and Wildlife Service. BLM WY will continue to contribute and support research and monitoring efforts to study the various environmental consequences of wind energy development on Greater Sage-Grouse or their habitats.

## Leasable Minerals:

# Energy Development and Valid Existing Rights:

Many sage-grouse seasonal habitats within and outside of core areas are encumbered by valid existing rights, such as mineral leases or existing rights-of-way. Fluid mineral leases often will include less stringent lease stipulations than the timing, distance, and density requirements identified for consideration in this policy. BLM WY FOs will work with project proponents in these situations to promote measurable sage-grouse conservation objectives such as but not limited to, consolidation of project related infrastructure to reduce habitat fragmentation and loss and to promote effective conservation of seasonal habitats and connectivity areas that support population management objectives set by the State. BLM WY FOs will continue to work with project proponents (including those from within the BLM) to site their projects in locations that meet the purpose and need for their project, but have been determined to contain the least sensitive habitats and resources whether inside or outside of core areas. Valid existing rights will be recognized and respected. In some cases, the goals of this strategy may not be met but, it remains the objective of the BLM to limit habitat loss and fragmentation within core areas.

### Solid Mineral Leases (Coal, Oil Shale and Non-energy):

For all new coal and non-coal leasing applications, BLM will assess the potential impacts to sage-grouse through the NEPA process and as applicable identify mitigation to minimize habitat loss, fragmentation and direct and indirect effects to Greater Sage-Grouse and its habitat. The State regulatory agency would apply any BLM identified mitigation attached to the final lease document, as well as protective measures consistent with the State Policy for solid leasable minerals mining actions at the permitting stage. For solid non-energy leasable minerals, the BLM has regulatory authority to approve surface disturbing activities on Federal land only. In Wyoming, the State Department of Environmental Quality also has the regulatory authority to approve surface disturbing activities associated with Federal and non-Federal non-energy solid leasable mineral operations. Wyoming Department of Environmental Quality (DEQ) is the regulatory authority on non-Federal surface disturbing activities and is best suited to determine if development of a DDCT is required for permitting and may also impose restrictions that are not described for evaluation by BLM in this BLM WY policy IM.

### Fluid Mineral Leasing Screen

In review of parcels nominated for lease of Federal fluid minerals in Wyoming, FOs are directed to utilize the following lease screen instruction.

Evaluate all proposed lease parcels by answering the following questions (Sage-Grouse Lease Screen - Attachment 7):

1. Is the parcel wholly or partially inside a Sage-Grouse Core Area? YES or NO?

- If YES, then move to question 2.
- If NO, then recommend the parcel or portion of parcel outside core, be offered for lease sale after attaching Lease Notice No. 3, Stipulation Controlled Surface Use for Threatened, Endangered, and Sensitive Species, and also attach all other land-use plan derived stipulations, as appropriate.

\* Note that specialists must continue to use the most up to date GIS information and layers that reflect any changes in core areas or their boundaries.

2. Is the parcel part of at least eleven square miles of contiguous, manageable, Federal fluid mineral estate? YES or NO?

- If YES, then move to question 3A by referring the parcel to the State Office Reservoir Management Group (RMG) for preliminary review regarding potential drainage and/or whether the parcel is part of an oil and gas unit.
- If NO, then move to question 3B.

\* Note: This component of the screen will assist BLM in identifying opportunities where BLM can conserve large contiguous blocks of manageable, unleased habitats for Greater Sage-Grouse within core areas. Many factors will be considered in determining manageability such as land and mineral ownership patterns, lease or land ownership arrangement, expiration date of adjacent leases and any existing development capable of production or disturbances that would affect or influence habitat functionality. Include a review of any adjacent fee and State lands as practicable.

3.A. Did the BLM WY RMG identify the parcel as having any potential drainage issues, or is the parcel part of an oil and gas unit? YES or NO?

- If YES, then recommend the parcel or portions be offered for lease sale after attaching Lease Notice No. 3, Stipulation Controlled Surface Use for Threatened, Endangered, and Sensitive Species, and also attach all other land-use plan derived stipulations, as appropriate.
- If NO, then recommend parcel for deferral.

\* Note: For all nominated parcels that meet all of the criteria, the FO may recommend deferral for sage-grouse habitat conservation. Deferred parcel areas will remain deferred from leasing until conservation planning and management potential can be evaluated in the context of a Land Use Planning action (*i.e.*, revision, maintenance, or amendment). This approach will ensure appropriate conservation measures and strategy can be effectively applied within core areas.

3.B. Is the parcel partially or entirely within 0.6-mi. of an occupied core area sage-grouse lek? YES or NO?

- If YES, move to question 4.
- If NO, the recommend that the parcel be offered for lease sale after attaching Lease Notice No. 3, Stipulation Controlled Surface Use for Threatened, Endangered, and Sensitive Species, and also attach all other land-use plan derived stipulations, as appropriate.
- 4. Is parcel entirely within 0.6 mile? YES or NO?
  - If YES, move to question 3A for review by RMG for potential drainage issues and possible deferral.
  - If NO, then the parcel must be divided using geographic coordinate database (GCDB) aliquot parts to determine the approximately 40-acre portions of parcel touching or within the 0.6 mile buffer of the occupied lek.
  - a. For the portions entirely outside the 0.6mi lek buffer, recommend they be offered for lease sale after attaching Lease Notice No. 3, Stipulation - Controlled Surface Use for Threatened, Endangered, and Sensitive Species, and also attach all other land-use plan derived stipulations, as appropriate.

b. For portions touching or within the 0.6 mile buffer of the lek, move to question 3A.

# Grazing Management:

Properly managed livestock grazing activities and sage-grouse conservation are compatible. According to the U.S. FWS's March 2010 listing determination for Greater Sage-Grouse, the influence of livestock grazing on sage-grouse habitats varies across the range of the species. This variability of potential impacts is one factor used in determining the appropriate administrative level to prescribe proper livestock grazing management practices that would maintain or enhance localized habitat conditions for sage-grouse. It is the policy of BLM WY to promote proper livestock grazing management practices that maintain or enhance desired sage-grouse habitat conditions. In order to ensure the necessary implementation of these types of practices and protections, this policy IM directs FOs to implement the following practices for all on-going and proposed permits for livestock grazing authorizations and activities in the context of the Wyoming Governor's core population area strategy for Greater Sage-Grouse. These measures have been adapted from and are in conformance with WO IM 2012-043 for grazing management guidance.

# **Ongoing Authorization Activities**

- If periods of drought occur, where appropriate, the AO will evaluate the season of use and stocking rate and adjust through coordination with grazing permittee/lessee and annual billings processes.
- Continue to coordinate with other Federal agencies, State agencies, and non-Federal partners. Leverage funding to implement habitat projects and implement the recent Memorandum of Understanding between the BLM, NRCS, FWS, and USFS maintain or enhance core habitats through grazing practices.
- Continue to prioritize oversight and effectiveness monitoring of grazing activities to ensure compliance with permit conditions and that progress is being made on achieving WY land health standards.
- Continue to evaluate existing range improvements (e.g., fences, watering facilities) associated with grazing management operations for impacts on Greater Sage-Grouse and its habitat.
- Livestock trailing that is authorized through crossing permits under Section 123 of H.R. 2055-228 and 43 CFR 4130.6-3 will include a trailing plan that is designed to avoid sensitive areas and/or time periods for sage-grouse. The plan will include specific routes and timeframes for trailing.

## Proposed Authorizations/Activities - Permit/Lease Renewal/Issuance

- When several small or isolated allotments occur within a watershed or delineated geographic area, strive to evaluate all of the allotments together. Prioritize this larger geographic area against other core areas for processing permits/leases for renewal.
- Coordinate BMPs and vegetative objectives with NRCS for consistent application across jurisdictions where the BLM and NRCS have the greatest opportunities to benefit Greater Sage-Grouse, particularly as it applies to the NRCS's National Sage-Grouse Initiative (http://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/national/programs/farmbill/initiative s/and cid=steldevb1027671).

- Evaluate opportunities to coordinate management plans and strategies on multiple allotments where coordination under a single management plan/strategy would result in enhancing Greater Sage-Grouse populations or its habitat as determined in coordination with the State wildlife agency.
- Where current livestock grazing management has been identified as a causal factor in not meeting Land Health Standards (43 CFR 4180), use the process in WO-IM-2009-007, Process for Evaluating Status of Land Health and Making Determinations of Causal Factors When WY Land Health Standards Are Not Achieved, to identify appropriate actions.
- Evaluate progress towards meeting standards that may affect Greater Sage-Grouse or its habitat prior to authorizing grazing on an allotment that was not achieving land health standards in the last renewal cycle, and livestock was a significant causal factor. Where available, use current monitoring data to identify any trends (e.g., progress) toward meeting the standards. Where monitoring data are not available or are inadequate to determine whether progress is being made toward achieving WY Land Health Standards. An interdisciplinary team should be deployed as practicable to conduct a new land health assessment in coordination with the grazing permittee/lessee. The NEPA analysis for the permit/lease renewal must address a range of reasonable alternatives including alternatives that maintain or enhance Greater Sage-Grouse habitat.
- If livestock grazing was the cause of not achieving land health standards that have potential to impact Greater Sage-Grouse or its habitat in the last permit renewal cycle, an interdisciplinary team should be deployed as practicable to conduct a new land health evaluation to determine if the allotment is making progress and if livestock grazing remains a causal factor.
- Plan and authorize livestock grazing and associated range improvement projects on BLM lands in a way that maintains and/or improves Greater Sage-Grouse and its habitat. Analyze through a reasonable range of alternatives any direct, indirect, and cumulative effects of grazing on Greater Sage-Grouse and its habitats through the NEPA process:
  - Incorporate available site information collected using the Sage-Grouse Habitat Assessment Framework and utilize these data when evaluating existing resource conditions and to develop any necessary resource solutions.
  - Incorporate management practices that will provide for maintenance and/or enhancement of sage-grouse habitats, including specific attention to maintenance of desired understories of sagebrush plant communities. When developing objectives for residual cover and species diversity, identify the ecological site(s) within the planning area and refer to the appropriate Ecological Site Description(s).
  - In determining appropriate management actions that will be considered, refer to the document, "Grazing Influence, Management, and Objective Development in Wyoming's Greater Sage-Grouse Habitat" (Cagney et al. 2010) for guidance. This peer reviewed document is the result of a collaborative effort in Wyoming to ensure proper livestock grazing practices with sage-grouse habitats. It is the culmination of efforts to gather and integrate current knowledge and practices regarding livestock grazing in respect to important sage-grouse habitats within Wyoming. The information and discussion materials found within this document

will provide resource professionals in BLM WY in planning livestock grazing strategies that meet the objectives of the Wyoming policy and strategy. Additional instruction for use and implementation of this document is described in Attachment 8 - Management of Livestock Grazing in Sage-Grouse Habitats on Lands Administered by the Bureau of Land Management in Wyoming.

- Evaluate and implement grazing practices that promote the growth and persistence of native shrubs, grasses, and forbs. Grazing practices include kind and numbers of livestock, distribution, seasons of use, and other livestock management practices needed to meet both livestock management and Greater Sage-Grouse habitat objectives.
- Evaluate the potential risk to Greater Sage-Grouse and its habitats from existing structural range improvements. Address potential for modification of those structural range improvements identified as posing a risk during the renewal process.
- Balance grazing between riparian habitats and upland habitats to promote the production and availability of beneficial forbs to Greater Sage-Grouse in meadows, mesic habitats, and riparian pastures for Greater Sage-Grouse use during nesting and brood-rearing while maintaining upland conditions and functions. Consider changes to season-of-use in riparian/wetland areas before or after the summer growing season.

• To ensure that the NEPA analysis for permit/lease renewal has a range of reasonable alternatives:

• Include at least one alternative that would implement a deferred or rest-rotation grazing system, if one is not already in place and the size of the allotment warrants it.

• Include a reasonable range of alternatives (e.g., no grazing or a significantly reduced grazing alternative, current grazing alternative, increased grazing alternative, etc.) to compare the impacts of livestock grazing on Greater Sage-Grouse habitat and land health from the proposed action.

• If land treatments and/or range improvements are the primary action for achieving land health standards for Greater Sage-Grouse habitat maintenance or enhancement, clearly display the effects of such actions in the alternatives analyzed.

### Fence Construction:

As stated above, fence proposals are subject to necessary provisions that support the goals of the core area strategy and consideration of necessary impact minimization and mitigation measures that avoid sage-grouse conflicts (*i.e.*, seasonal timing or spatial restriction, etc.). Evaluate the need for proposed fences, especially within 1.25 miles of occupied core area leks (Stephens 2010). Consider deferral of fence construction unless the objective is to maintain or enhance Greater Sage-Grouse habitats, maintain or enhance land health, promote successful reclamation, protect human health or safety or provide resource protection. Fence construction proposals will not require the development of a DDCT.

Where fence construction is authorized then, where appropriate, apply mitigation (e.g., timing limitations for construction/maintenance, proper siting outside scientifically supported buffer

zones, marking, or adjustment to post and pole construction of fences, etc.) to minimize or eliminate potential impacts to grouse, as determined in coordination with WGFD.

Consider and evaluate opportunities to modify or increase visibility of fences that are identified as posing a high risk of collision for sage-grouse. Prioritize evaluations of fences within 1.25 miles of occupied leks within core areas.

## Water Developments:

See Policy Statement 7 below.

## Special Recreation Permits (SRP) and Recreation Sites:

BLM will work collaboratively with partners at the Federal, State and local level to maintain and enhance sage-grouse habitats in a manner consistent with the core population area strategy for conservation. New proposals for SRPs or recreation site would be subject to "new activity proposals" as discussed above.

## Travel Management:

For new road proposals, consider an alternative that would locate new primary and secondary roads greater than 1.9 mi from the perimeter of occupied sage-grouse leks inside core areas. Additionally, for new proposals, consider and evaluate an alternative that would locate new tertiary roads greater than 0.6 mile from the perimeter of occupied leks.

Construct new roads to a minimum design standard needed for proposed activity.

## **Locatable Mineral Activities**:

Existing Notices and Approved Plans of Operations under 43 CFR 3809: For projects that overlap core areas, operators may be requested to submit modifications to the accepted notice or approved plan of operations so that the operations minimally impact core area habitats. The AO may convey to the operator suggested conservation measures, based upon the notice or plan level operations and the geographic area of those operations [also called the project area which is defined in CFR 3809.5]. These suggested conservation measures include measures that support the overall goals and objectives of the core population area strategy, though measures listed for evaluation in Policy Statement 2 of this IM may not be reasonable or applicable to the BLM's determination of whether the proposed operations will cause unnecessary or undue degradation under 43 CFR 3809.5. The request containing the suggested conservation measures must make clear that the operator's compliance is not mandatory.

Notices or Plans of Operation, or modifications thereto, submitted following the issuance of this guidance: As part of the 15 day completeness review of notices [or modifications thereto] and 30 day completeness review of plans of operations [or modifications thereto], the proposed project area(s) where exploration, development, mining, access and reclamation would take place should be reviewed for overlap of sage-grouse core areas in the corporate GIS database. If there is overlap, the BLM AO may notify the operator of ways that they may minimize impacts to core area habitats and request the operator to amend its notice or plan to include such measures. The request to amend the submitted notice or plan of operations must make clear that the operator's

compliance is not mandatory and that including such measures is not a requirement for completeness of either the notice or a plan of operations, nor is it a condition of acceptance of the notice or approval of the plan of operations.

# Saleable Minerals:

Where valid existing rights exist, work with permit holders to develop mutually agreeable actions such as siting/design of infrastructure or timing that will avoid or minimize effects to core populations and habitats.

For processing new permits, refer to "New Activity Proposals" above where consideration and evaluation of measures in Policy Statement 2 of this IM would be necessary.

# **Grasshopper/Mormon Cricket Control and Management**:

FOs may implement treatments within sage-grouse core areas where outbreaks of grasshopper or Mormon cricket populations are expected to rise above economic levels. Treatments must be conducted only following reduced agent-area treatments (RAATS) protocols. BLM will work collaboratively with partners at the Federal, State, and local levels to maintain and enhance sagegrouse habitats in a manner consistent with the core population area strategy for conservation. FOs are directed to utilize http://www.blm.gov/wy/st/en/info/NEPA/documents/ghopper.html as a resource for updated information when conducting analysis of grasshopper and Mormon cricket control in sage-grouse habitats.

# Wild Horse and Burro Management:

FOs will prioritize the management of wild horse populations in core areas to within established Appropriate Management Levels (AML). In accordance with National direction, wild horse herd management areas within the State's core areas should be considered for priority removal of excess horses, except where removals are necessary in non-core population areas to prevent catastrophic environmental issues, including herd health impacts.

# Realty Actions – (e.g. Land Exchanges, Transfers, and Sales):

BLM WY will consider, based on site specific analysis, deferring final action on public land disposals within core areas where such authorizations or approvals could result in a net loss of core sage-grouse habitat until the RMP amendments or revisions are completed. Evaluation of lands identified as suitable for disposal in current RMPs will be conducted through the RMP amendment or revision process.

# Vegetation and Resource Monitoring:

See Policy Statements 3 and 9 for guidance and information regarding objectives and importance of monitoring.

# **Policy Statement 5: Resource Management Plans (RMPs)**

For ongoing and future RMP revisions, follow Section 1.3.1 of BLM's National Sage-Grouse Habitat Conservation Strategy (USDI BLM 2004a) as well as WO IM No. 2012-044, BLM

National Greater Sage-Grouse Land Use Planning Strategy, for sagebrush habitat conservation in BLM RMPs.

As WY BLM RMPs undergo revision, amendment, or modification, BLM FOs will identify any areas that would be considered under at least one alternative as unavailable for oil and gas leasing or wind energy development, ROW exclusions, etc., as appropriate. As part of this consideration FOs are encouraged to consider when existing leases are set to expire. BLM will also review the recommended management practices and sage-grouse conservation measures from section 1.4.1 of BLM's National Sage-Grouse Habitat Conservation Strategy (USDI BLM 2004a), the Wyoming Greater Sage-Grouse Conservation Plan, LWG plans and recommendations, peer reviewed research, and other available information, to the extent possible, for public lands and the Federal mineral estates.

Observe and analyze the objectives for maintenance and improvement of sage-grouse habitats that support population management objectives set by the State of Wyoming. The objectives and associated management practices will be designed to limit habitat loss, degradation, simplification, and fragmentation (US EPA 1993).

BLM WY FOs will develop plans addressing RMP objectives and to monitor sage-grouse habitats in order to assess effectiveness of conservation measures that will be applied in achieving the long-term conservation of sage-grouse habitats. All BLM authorized activities located in sage-grouse habitats will require appropriate sage-grouse conservation measures.

BLM WY RMP revisions and/or amendments will follow all applicable principles laid out in WO IM No. 2012-044 and analyze appropriate sage grouse habitat conservation regulatory mechanisms in at least one alternative of the RMP/EIS.

BLM WY RMP revisions and/or amendments will develop specific exception criteria for sagegrouse restrictions and application of greater or lesser restrictions for short or long-term activities. Exception, waiver, or modification evaluation factors may include, but are not limited to, localized population conditions, relative quality or condition of the habitat, presence/absence of sage-grouse or their sign, presence of other activities in the area, importance for migration or genetic connectivity, duration and timing of the proposed activity, local topography, severity and forecast of weather, beneficial aspects of the project for sage-grouse habitats, including possible reclamation activities, and cover or forage availability.

Consider landscape scale conservation strategies that may include special management of seasonal habitats and linkage zones. Use program-specific BMPs such as, but not limited to, temporary set-asides, phased development and/or off-site mitigation if offered by the proponent, sage-grouse habitat reclamation objectives, buried power lines, and other efforts that reduce or consolidate surface-disturbing and disruptive activities in these strategies.

## Policy Statement 6: Lek Data

The official Wyoming sage-grouse lek database is maintained by the WGFD in accordance with Appendix 4B of the Umbrella Memorandum of Understanding (MOU) between the WGFD and BLM (WGFD and USDI BLM 1990).

Use of WGFD lek data in conducting DDCT review is required.

BLM WY FO specialists and local WGFD personnel will meet at least annually to locally coordinate and review the accuracy of data and incorporate the most up-to-date information as necessary. Scheduling of these annual coordination meetings is up to the individual FOs with their local WGFD counterparts. For data to be included in the WGFD database, it must be collected using techniques and accuracy standards agreed upon by WGFD and BLM. Annual lek surveys and lek counts will be coordinated between WGFD and the BLM to reduce duplicated efforts and minimize disturbance in accordance with the Umbrella MOU.

## **Policy Statement 7: West Nile Virus**

Artificial water impoundments will be managed to the extent of BLM's authority for the prevention and/or spread of West Nile virus (WNv) where the virus poses a threat to sage-grouse. This may include but is not limited to: (a) the use of larvicides and adulticides to treat waterbodies; (b) overbuilding ponds to create non-vegetated, muddy shorelines; (c) building steep shorelines to reduce shallow water and emergent aquatic vegetation; (d) maintaining the water level below rooted vegetation; (e) avoiding flooding terrestrial vegetation in flat terrain or low lying areas; (f) constructing dams or impoundments that restrict seepage or overflow; (g) lining the channel where discharge water flows into the pond with crushed rock, or use a horizontal pipe to discharge inflow directly into existing open water; (h) lining the overflow spillway with crushed rock and construct the spillway with steep sides to preclude the accumulation of shallow water and vegetation; and (i) restricting access of ponds to livestock and wildlife (Doherty 2007).

Field Offices should consider alternate means to manage produced waters that could present additional vectors for WNv. Such remedies may include re-injection under an approved Underground Injection Control (UIC) permit, transfer to single/centralized facility, etc.

Policy Statement 7 regarding WNv does not apply to naturally occurring waters.

Impoundments for wildlife and/or livestock use should be designed to reduce the potential to produce vectors for WNv where the virus may pose a threat to sage-grouse.

### **Policy Statement 8: Use of Dogs**

Based on current research and consultation of experts, BLM WY cannot consider any technique other than radio telemetry to be effective for detecting individual nesting sage-grouse. Field Offices are not to utilize or accept domestic dogs as the sole mechanism for conducting site

clearances for provision of exception for activities to occur within sage-grouse nesting habitat during the nesting season. BLM WY FOs are directed to carefully consider the impacts of disturbing sage-grouse during this crucial season and the potential for mortality of birds before approving any use of this methodology. Further, given the knowledge that detection of nesting grouse is so unlikely, BLM WY FOs must consider whether any exceptions to this important seasonal protection can be granted at all within the context of your own RMP's existing analysis of the criteria for exception. The use of well-trained dogs and experienced handlers for conducting clearances of winter concentration areas is permissible only when conducted with simultaneous verification of bird presence by visual observation of sage-grouse or their sign. This policy is in compliance with the WY BLM policy (USDI BLM 2009c) which does not allow employees to transport dogs in Government vehicles.

## **Policy Statement 9: Monitoring Effectiveness**

It is extremely important that the directives contained in this IM are monitored to determine the effectiveness of their implementation until RMPs are updated. BLM WY FOs are to establish monitoring protocols that will be incorporated into individual project approvals as appropriate and necessary. Small or in-house projects within core areas will also have a monitoring plan for sage-grouse incorporated in the approval document.

# **Policy Statement 10: Deviations from the Policy and Strategy**

This statewide policy is intended to provide consistent sage-grouse habitat management directives on BLM administered public lands including Federal mineral estate in Wyoming. Because Wyoming is a diverse State, there may be occasional circumstances which could justify deviation from the policies stated herein. FOs may vary in the implementation of this policy IM where locally collected scientific data and information supported by comprehensive and objective NEPA analysis of a proposed action presents compelling justification for deviation. In all cases, prior to actions where deviations from policy may take place, FOs will coordinate with WGFD counterparts and advise the Deputy State Director for Resources Policy and Management (WY 930) and the Deputy State Director for Minerals and Lands (WY 920) through the District Office of their intent to take such actions. The purpose of such notification and interaction is to ensure State Office approval for such actions.

## Timeframe: Effective immediately.

**Budget Impact**: There may be a significant effect on budgets.

## Background:

In March 2010, the FWS published its finding on the petition for the Greater Sage-Grouse to be listed as Threatened or Endangered. The finding was that the species is "warranted, but precluded." The inadequacy of regulatory mechanisms was identified as one of the major factors in the FWS's finding on Greater Sage-Grouse. The FWS has identified the principal regulatory
mechanism for the BLM as protective measures embedded in land use plans. The BLM is identifying sage-grouse conservation measures for consideration through the planning process, with a target decision date of September 2014. The goal of the overall planning effort is to conserve and manage habitats necessary to sustain Greater Sage-Grouse populations and reduce the likelihood of listing under the Endangered Species Act.

In July 2011, the BLM announced the National Greater Sage-Grouse Planning Strategy which provides a framework for establishing adequate regulatory mechanisms (conservation measures) in applicable BLM LUPs throughout the range of the Greater Sage-Grouse. BLM WY will be working to incorporate the Wyoming Core Strategy into LUPs throughout the State and this IM will assist in preserving decision space that may be needed in the selection of potential alternatives.

Manual or Handbook Sections Affected: No manual or handbook sections are affected.

**Coordination**: This IM was coordinated among the BLM Washington D.C. Directorate, WY BLM Field Offices, other BLM State Offices, the Wyoming Office of Governor Mead and the Wyoming Game and Fish Department.

**Contacts**: Chris Keefe, Wildlife Biologist, 307-775-6101, and Buddy Green, Deputy State Director for Resources Policy and Management, 307-775-6113.

| Signed By:        | Authenticated By: |
|-------------------|-------------------|
| Donald A. Simpson | Sherry Dixon      |
| State Director    | Secretary         |

9 Attachments:

- 1 Wyoming Sage-Grouse Definitions (4 pp)
- 2 Seasonal Sage-grouse Habitat Component Descriptions (2 pp)
- 3 Wyoming Core Areas Map ver. 3 (1 p)
- 4 Coordination with Wyoming Game and Fish Diagram (1 p)
- 5 DDCT Process Manual (31 pp)

6 – Wyoming Game and Fish Department Protocols for Treating Sagebrush to be Consistent with Wyoming Executive Order 2011-5; Greater Sage-Grouse Core Area Protection (5 pp)

7 – BLM Wyoming Sage-Grouse Fluid Mineral Lease Screen (1 p)

8 – Management of Livestock Grazing in Sage-Grouse Habitats on Lands Administered by the Bureau of Land Management in Wyoming (4 pp)

9 – References (3 pp)

<u>Distribution</u> Director (230), Room 204, LS CF

1 (w/o atchs) 1(w/atchs) MATTHEW H. MEAD GOVERNOR



STATE CAPITOL CHEYENNE, WY 82002

# Office of the Governor

#### STATE OF WYOMING EXECUTIVE DEPARTMENT EXECUTIVE ORDER

#### Order 2011-5 (Replaces 2010-4)

#### **GREATER SAGE-GROUSE CORE AREA PROTECTION**

WHEREAS, the Greater Sage-Grouse (Centrocercus urophasianus) inhabits much of the sagebrushsteppe habitat in Wyoming; and

WHEREAS, the sagebrush-steppe habitat type is abundant across the state of Wyoming; and

WHEREAS, the state of Wyoming currently enjoys robust populations of Greater Sage-Grouse; and

WHEREAS, the state of Wyoming has management authority over Greater Sage-Grouse populations in Wyoming; and

WHEREAS, the Greater Sage-Grouse has been the subject of several petitions to list the species as a threatened or endangered species pursuant to the Endangered Species Act; and

WHEREAS, the United States Department of the Interior has determined that listing the Greater Sage-Grouse as a threatened or endangered species is warranted over all of its range, including the populations in Wyoming; and

WHEREAS, the United States Department of the Interior has determined that listing the Greater Sage-Grouse as a threatened or endangered species is currently precluded by higher priority listing actions; and

WHEREAS, the Greater Sage-Grouse is currently considered a "candidate" species under the auspices of the Endangered Species Act; and

WHEREAS, the United States Department of the Interior is required to review the status of all candidate species every year; and

WHEREAS, the listing of the Greater Sage-Grouse would have a significant adverse effect on the economy of the state of Wyoming, including the ability to generate revenues from state lands; and

WHEREAS, the listing of the Greater Sage-Grouse would have a significant adverse effect on the custom and culture of the state of Wyoming; and

WHEREAS, the Wyoming State Legislature and other agencies have dedicated significant state resources to conserve Greater Sage-Grouse populations in Wyoming; and

WHEREAS, the state of Wyoming has developed a "Core Population Area" strategy to weave the many on-going efforts to conserve the Greater Sage-Grouse in Wyoming into a statewide strategy; and

WHEREAS, members of the Sixtieth Legislature of the State of Wyoming signed a Joint Resolution recognizing "the Greater Sage Grouse Core Area Strategy [then embodied under Governor's Executive Order 2008-2] as the State of Wyoming's primary regulatory mechanism to conserve sage-grouse and preclude the need for listing the bird as a threatened or endangered species pursuant to the Endangered Species Act of 1973."; and

WHEREAS, on April 17, 2008, the Office of the Governor requested that the U.S. Fish and Wildlife Service review the "Core Population Area" strategy to determine if it was a "sound policy that should be moved forward" and on May 7, 2008, the U.S. Fish and Wildlife Service responded that the "core population area strategy, as outlined in the Implementation Team's correspondence to the Governor, is a sound framework for a policy by which to conserve greater sage-grouse in Wyoming"; and

WHEREAS, on November 10, 2010, the U.S. Fish and Wildlife Service again confirmed that "This longterm, science-based vision for the conservation of greater sage-grouse has set the stage for similar conservation efforts across the species range," and that "the Core Population Area Strategy for the greater sage-grouse provides an excellent model for meaningful conservation of sage-grouse is fully supported and implemented"; and

WHEREAS, several western states have adopted or are considering adopting the Wyoming Core Area Strategy, thus making the concept consistent across the species range; and

WHEREAS, new science, information and data continue to emerge regarding "Core Population Areas" and the habitats and behaviors of the Greater Sage-Grouse, which led the Governor's Sage-Grouse Implementation Team to re-evaluate the original "core population areas" and protective stipulations for Greater Sage-Grouse.

**NOW, THEREFORE**, pursuant to the authority vested in me by the Constitution and Laws of the State, and to the extent such actions are consistent with the statutory obligations and authority of each individual agency including those found in Title 9, Chapter 5, Article 3 of Wyoming State Statutes, otherwise cited as the Wyoming Regulatory Takings Act, I, Matthew H. Mead, Governor of the State of Wyoming, do hereby issue this Executive Order providing as follows:

1. Management by state agencies should focus on the maintenance and enhancement of Greater Sage-Grouse habitats, populations and connectivity areas identified in Attachment A. Absent substantial and compelling information, these Core Population Areas should not be altered for at least five (5) years.

2. Existing land uses within Core Population Areas should be recognized and respected by state agencies. It is assumed that activities existing in Core Population Areas prior to August 1, 2008 will not be managed under Core Population Area stipulations. Examples of existing activities include oil and gas, mining, agriculture, processing facilities, housing and other uses that were in place prior to the development of the Core Population Areas (prior to August 1, 2008). Provided these activities are within a defined project boundary (such as a recognized federal oil and gas unit, drilling and spacing unit, mine plan, subdivision plat, etc.) they should be allowed to continue within the existing boundary, even if the

use exceeds recommended stipulations (see Attachment B)\_recognizing that all applicable federal actions shall continue.

3. New development or land uses within Core Population Areas should be authorized or conducted only when it can be demonstrated that the activity will not cause declines in Greater Sage-Grouse populations.

4. Development consistent with the stipulations set forth in Attachment B shall be deemed sufficient to demonstrate that the activity will not cause declines in Greater Sage-Grouse populations.

5. Funding, assurances (including efforts to develop Candidate Conservation Agreements and Candidate Conservation Agreements with Assurances), habitat enhancement, reclamation efforts, mapping and other associated proactive efforts to assure viability of Greater Sage-Grouse in Wyoming should be focused and prioritized to take place in Core Population Areas.

6. To the greatest extent possible, a non-regulatory approach shall be used to influence management alternatives within Core Population Areas. Management alternatives should reflect unique localized conditions, including soils, vegetation, development type, predation, climate and other local realities.

7. For activities outside of Core Population Areas, no more than a one-quarter (1/4) mile no surface occupancy standard and a two (2) mile seasonal buffer should be applied to occupied leks. Incentives to enable development of all types outside Core Population Areas should be established (these should include stipulation waivers, enhanced permitting processes, density bonuses, and other incentives). Development scenarios should be designed and managed to maintain populations, habitats and essential migration routes where possible. It is recognized that some incentives may result in reduced numbers of sage-grouse outside of Core Population Areas.

8. Incentives to accelerate or enhance required reclamation in habitats adjacent to Core Population Areas should be developed, including but not limited to stipulation waivers, funding for enhanced reclamation, and other strategies. It is recognized that some incentives may result in reduced numbers of sage-grouse outside of the Core Population Areas.

9. Existing rights should be recognized and respected.

10. On-the-ground enhancements, monitoring, and ongoing planning relative to sage-grouse and sage-grouse habitat should be facilitated by sage-grouse local working groups whenever possible.

11. Fire suppression efforts in Core Population Areas should be emphasized, recognizing that other local, regional, and national suppression priorities may take precedent. However, public and firefighter safety remains the number one priority for all fire management activities.

12. State and federal agencies, including the U.S. Fish and Wildlife Service, Bureau of Land Management, U.S. Forest Service, and other federal agencies shall work collaboratively to ensure a uniform and consistent application of this Executive Order to maintain and enhance Greater Sage-Grouse habitats and populations.

13. State agencies shall work collaboratively with local governments and private landowners to maintain and enhance Greater Sage-Grouse habitats and populations in a manner consistent with this Executive Order.

14. It is critical that existing land uses and landowner activities continue to occur in core areas, particularly agricultural activities on private lands. For the most part, these activities on private lands are not subject to state agency review or approval. Only those activities occurring after August 1, 2008 which state agencies are required by state or federal statute to review or approve are subject to consistency review. This Executive Order in no way adds or expands the review or approval authority of any state agency. It is acknowledged that such land uses and activities could have localized impacts on Greater Sage-Grouse. To offset these impacts, Core Population Areas have been mapped to include additional habitat beyond that strictly necessary to prevent listing of the species. The additional habitat included within the Core Population Area boundaries is adequate to accommodate continuation of existing land uses and landowner activities in Core Population Areas for consistency with this Executive Order. Attachment C contains a list of existing land uses and landowner activities that do not require review for consistency.

15. It will be necessary to construct significant new transmission infrastructure to transport electricity generated in Wyoming to out-of-state load centers. New transmission lines constructed within Core Population Areas will be consistent with this Executive Order if they are constructed between July 1 and March 14 (or between July 1 and November 30 in winter concentration areas) and within one half (1/2) mile either side of existing (prior to Governor's Executive Order 2010-4) 115 kV or larger transmission lines creating a corridor no wider than one (1) mile. New transmission lines outside this one (1) mile wide corridor within Core Population Areas should be authorized or conducted only when it can be demonstrated that the activity will not cause declines in Greater Sage-Grouse populations.

16. For purposes of consistency with this Executive Order there is established a transmission line corridor through Core Population Areas in south central and southwestern Wyoming as illustrated on Attachment D. This two (2) mile wide corridor represents the state of Wyoming's preferred alternative for routing transmission lines across the southern portion of the state while reducing impacts to Core Population Areas and other natural resources. New transmission lines constructed within this corridor shall be considered consistent with this Executive Order if construction occurs within the corridor between July 1 and March 14 (or between July 1 and November 30 in winter concentration areas).

17. New distribution, gathering, and transmission lines sited outside established corridors within Core Population Areas should be authorized or conducted only when it can be demonstrated by the state agency that the activity will not cause declines in Greater Sage-Grouse populations.

18. State agencies shall strive to maintain consistency with the items outlined in this Executive Order, but it should be recognized that adjustments to the stipulations may be necessary based upon local conditions and limitations. The goal is to minimize future disturbance by co-locating proposed disturbances within areas already disturbed or naturally unsuitable.

19. The protective stipulations outlined in this Executive Order should be reevaluated on a continuous basis and at a minimum annually, as new science, information and data emerge regarding Core Population Areas and the habitats and behaviors of the Greater Sage-Grouse.

20. State agencies shall report to the Office of the Governor within ninety (90) days of signing and annually thereafter detailing their actions to comply with this Executive Order.

This Executive Order shall remain in effect until August 18, 2015, at which time all provisions of this Executive Order shall be reevaluated.

Given under my hand and the Executive Seal of the State of Wyoming this  $\leq 2$  day of  $2\pi c^2$ , 2011.



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Matthew H. Mead Governor

# **ATTACHMENT A**



#### ATTACHMENT B

#### Permitting Process and Stipulations for Development in Sage-Grouse Core Areas

#### **PERMITTING PROCESS**

**Point of Contact:** The first point of contact for addressing sage-grouse issues for any state permit application should be the Wyoming Game and Fish Department (WGFD). Project proponents (proponents) need to have a thorough description of their project and identify the potential effects on sage-grouse prior to submitting an application to the permitting agency (details such as a draft project implementation area analysis, habitat maps and any other information will help to expedite the project). Project proponents should contact WGFD at least 45-60 days prior to submitting their application. More complex projects will require more time. It is understood that WGFD has a role of consultation, recommendation, and facilitation, and has no authority to either approve or deny the project. The purpose of the initial consultation with the WGFD is to become familiar with the project proposal and ensure the project proponent understands recommended stipulations and stipulation implementation process.

**Maximum Disturbance Process:** All activities will be evaluated within the context of maximum allowable disturbance (disturbance percentages, location and number of disturbances) of suitable sage-grouse habitat (See Appendix 1 for definition of suitable sage-grouse habitat and disturbance of suitable sage-grouse habitat) within the area affected by the project. The maximum disturbance allowed will be analyzed via a Density/Disturbance Calculation Tool (DDCT) process conducted by the Federal Land Management Agency on federal Land and the project proponent on non-federal (private, state) land. Unsuitable habitat occurring within the project area will not be included in the disturbance cap calculations.

1. Density/Disturbance Calculation Tool (DDCT): Determine all occupied leks within a core population area that may be affected by the project by placing a 4 mile boundary around the project boundary (as defined by the proposed area of disturbance related to the project). All occupied leks located within the 4 mile boundary and within a core population area will be considered affected by the project.

A four-mile boundary will then be placed around the perimeter of each affected lek. The core population\_area within the boundary of affected leks and the 4 mile boundary around the project boundary creates the DDCT for each individual project. Disturbance will be analyzed for the DDCT as a whole and for each individual affected lek within the DDCT. Any portion of the DDCT occurring outside of core area will be removed from the analysis.

If there are no affected leks within the 4 mile boundary around the project boundary, the DDCT area will be that portion of the 4 mile project boundary within the core population area.

- 2. Disturbance analysis: Total disturbance acres within the DDCT will be determined through an evaluation (Appendix 1) of:
  - a. Existing disturbance (sage-grouse habitat that is disturbed due to existing anthropogenic activity and wildfire).

- b. Approved permits (that have approval for on the ground activity) not yet implemented.
- 3. Habitat Assessment:
  - a. A habitat assessment is not needed for the initial DDCT area provided that the entire DDCT area is considered suitable.
  - b. A habitat assessment should be conducted when the initial DDCT indicates proposed project will cause density/disturbance thresholds to be exceeded, to see whether siting opportunities exist within unsuitable or disturbed areas that would reduce density/disturbance effects.
  - c. When a habitat assessment is conducted it should create a baseline survey identifying:
    - i. Suitable and unsuitable habitat within the DDCT area
    - ii. Disturbed habitat within the DDCT area
    - iii. Sage-grouse use of suitable habitat (seasonal, densities, etc.)
    - iv. Priority restoration areas (which could reduce the 5% cap)
      - A. Areas where plug and abandon activities will eliminate disturbance
      - B. Areas where old reclamation has not produced suitable habitat
    - v. Areas of invasive species
    - vi. Other assurances in place (CCAA, easements, habitat, contracts, etc.)
- 4. Determination of existing and allowable suitable habitat disturbance: Acres of disturbance within suitable habitat divided by the total suitable habitat within the DDCT area times 100 equals the percent of disturbed suitable habitat within the DDCT area. Subtracting the percentage of existing disturbed suitable habitat from 5% equals new allowable suitable habitat disturbance until plant regeneration or reclamation reduces acres of disturbed habitat within the DDCT area.

**Permitting:** The complete analysis package developed by consultation and review outlined herein will be forwarded to the appropriate permitting agency. WGFD recommendations will be included, as will other recommendations from project proponents and other appropriate agencies. Project proponent shall have access to all information used in developing recommendations. Where possible and when requested by the project proponent, state agencies shall provide the project proponent with development alternatives other than those contained in the project proposal.

**Exempt Activities:** A list of exempt ("de minimus") activities, including standard uses of the landscape is available in Attachment C.

#### GENERAL STIPULATIONS

These stipulations are designed to maintain existing suitable sage-grouse habitat by permitting development activities in core areas in a way that will not cause declines in sage-grouse populations. General stipulations are recommended to apply to all activities in core areas, with the exception of exempt ("de minimus") actions defined herein (Attachment C) or specifically identified activities. The specific industry stipulations are considered in addition to the general stipulations.

1. **Surface Disturbance:** Surface disturbance will be limited to 5% of suitable sage-grouse habitat per an average of 640 acres. The DDCT process will be used to determine the

level of disturbance. Distribution of disturbance may be considered and approved on a case-by-case basis. Unsuitable habitat should be identified in a seasonal and landscape context, on a case-by-case basis, outside the 0.6 mile buffer around leks. This will incentivize proponents to locate projects in unsuitable habitat to avoid creating additional disturbance acres. Acres of development in unsuitable habitat are not considered disturbance acres. The primary focus should be on protection of suitable habitats and protecting from habitat fragmentation. See Appendix 1 for a description of suitable, unsuitable habitat and disturbance.

- 2. Surface Occupancy: Within 0.6 miles of the perimeter of occupied sage-grouse leks there will be no surface occupancy (NSO). NSO, as used in these recommendations, means no surface facilities including roads shall be placed within the NSO area. Other activities may be authorized with the application of appropriate seasonal stipulations, provided the resources protected by the NSO are not adversely affected. For example, underground utilities may be permissible if installation is completed outside applicable seasonal stipulation periods and significant resource damage does not occur. Similarly, geophysical exploration may be permissible in accordance with seasonal stipulations.
- 3. Seasonal Use: Activity (production and maintenance activity exempted) will be allowed from July 1 to March 14 outside of the 0.6 mile perimeter of a lek in core areas where breeding, nesting and early brood-rearing habitat is present. In areas used solely as winter concentration areas, exploration and development activity will be allowed March 14 to December 1. Activities in unsuitable habitat may also be approved year-round (including March 15 to June 30) on a case-by-case basis (except in specific areas where credible data shows calendar deviation). Activities may be allowed during seasonal closure periods as determined on a case-by-case basis. While the bulk of winter habitat necessary to support core sage-grouse populations likely occurs inside Core Population Areas, where they have been identified as winter concentration areas necessary for supporting biologically significant numbers of sage-grouse nesting in Core Population Areas. All efforts should be made to minimize disturbance to mature sagebrush cover in identified winter concentration areas.
- 4. Transportation: Locate main roads used to transport production and/or waste products > 1 .9 miles from the perimeter of occupied sage-grouse leks. Locate other roads used to provide facility site access and maintenance > 0.6 miles from the perimeter of occupied sage-grouse leks. Construct roads to minimum design standards needed for production activities.
- 5. **Overhead Lines:** Bury lines when possible, if not; locate overhead lines at least 0.6 miles from the perimeter of occupied sage-grouse leks. New lines should be raptor proofed if not buried.
- 6. Noise: New noise levels, at the perimeter of a lek, should not exceed 10 dBA above ambient noise (existing activity included) from 6:00 p.m. to 8:00 a.m. during the initiation of breeding (March 1 May 15). Ambient noise levels should be determined by measurements taken at the perimeter of a lek at sunrise.
- 7. Vegetation Removal: Vegetation removal should be limited to the minimum disturbance required by the project. All topsoil stripping and vegetation removal in suitable habitat

will occur between July 1 and March 14 in areas that are within 4 miles of an occupied lek. Initial disturbance in unsuitable habitat between March 15 and June30 may be approved on a case-by-case basis.

- 8. Sagebrush Treatment: Sagebrush eradication is considered disturbance and will contribute to the 5% disturbance factor. Northeast Wyoming, as depicted in Figure 1, is of particular concern because sagebrush habitats rarely exceed 15% canopy cover and large acreages have already been converted from sagebrush to grassland or cropland. Absent some demonstration that the proposed treatment will not reduce canopy cover to less than 15% within the treated area, habitat treatments in northeast Wyoming (Figure 1) should not be conducted. In stands with less than 15% cover, treatment should be designed to maintain or improve sagebrush habitat. Sagebrush treatments that maintain sagebrush canopy cover at or above 15% total canopy cover within the treated acres will not be considered disturbance. Treatments that reduce sagebrush canopy cover below 15% will be allowed, excluding northeast Wyoming (Figure 1), if all such treated areas make up less than 20% of the suitable sagebrush habitat within the DDCT, and any point within the treated area is within 60 meters of sagebrush habitat with 10% or greater canopy cover. Treatments to enhance sagebrush/grassland will be evaluated based upon the existing habitat quality and the functional level post-treatment.
- 9. **Monitoring/adaptive response:** Proponents of new projects are expected to coordinate with the permitting agency and local WGFD biologist to determine which leks need to be monitored and what data should be reported by the proponent. Certain permits may be exempted from monitoring activities pending permitting agency coordination. If declines in affected leks (using a three-year running average during any five year period relative to trends on reference leks) are determined to be caused by the project, the operator will propose adaptive management responses to increase the number of birds. If the operator cannot demonstrate a restoration of bird numbers to baseline levels (established by predisturbance surveys, reference surveys and taking into account regional and statewide trends) within three years, operations will cease until such numbers are achieved.
- 10. **Reclamation:** Reclamation should re-establish native grasses, forbs and shrubs during interim and final reclamation to achieve cover, species composition, and life form diversity commensurate with the surrounding plant community or desired ecological condition to benefit sage-grouse and replace or enhance sage-grouse habitat to the degree that environmental conditions allow. Seed mixes should include two native forbs and two native grasses with at least one bunchgrass species. Where sagebrush establishment is prescribed, establishment is defined as meeting the standard prescribed in the individual reclamation plan. Landowners should be consulted on desired plant mix on private lands. The operator is required to control noxious and invasive weed species, including cheatgrass. Rollover credit, if needed, will be outlined in the individual project reclamation plan.

Credit may be given for completion of habitat enhancements on bond released or other minimally functional habitat when detailed in a plan. These habitat enhancements may be used as credit for reclamation that is slow to establish in order to maintain the disturbance cap or to improve nearby sage-grouse habitat.



Figure 1. Wyoming Core Area with northeast Wyoming core (dark green) and connectivity areas (yellow).

- 11. **Existing Activities:** Areas already disturbed or approved for development within Core Areas prior to August 1, 2008 are not subject to new sage-grouse stipulations with the exception existing operations may not initiate activities resulting in new surface occupancy within 0.6 mile of the perimeter of a sage-grouse lek. Any existing disturbance will be counted toward the calculated disturbance cap for a new proposed activity. The level of disturbance for existing activity and rollover credit may exceed 5%.
- 12. **Exceptions:** Any exceptions to these general or specific stipulations will be considered on a case by case basis and must show that the exception will not cause declines in sage-grouse populations.

# SPECIFIC STIPULATIONS (To be applied in addition to general stipulations)

- 1. <u>Oil and Gas</u>: Well pad densities not to exceed an average of one pad per square mile (640 acres) and suitable habitat disturbed not to exceed 5% of suitable habitat within the DDCT. As an example, the number of well pads within a two mile radius of the perimeter of an occupied sage-grouse lek should not exceed 11, distributed preferably in a clumped pattern in one general direction from the lek.
- 2. <u>Mining</u>
  - a. For development drilling or ore body delineation drilled on tight centers, (approximately 100'X100') the disturbance area will be delineated by the external limits of the development area. Assuming a widely-spaced disturbance pattern, the actual footprint will be considered the disturbance area.
  - b. Monitoring results will be reported annually in the mine permit annual report and to WGFD. Pre-disturbance surveys will be conducted as required by the appropriate regulatory agency.
  - c. The number of active mining development areas (e.g., operating equipment and significant human activity) are not to exceed an average of one site per square mile (640 acres) within the DDCT.
  - d. Surface disturbance and surface occupancy stipulations will be waived within the Core Area when implementing underground mining practices that are necessary to protect the health, welfare, and safety of miners, mine employees, contractors and the general public. The mining practices include but are not limited to bore holes or shafts necessary to: 1) provide adequate oxygen to an underground mine;
    2) supply inert gases or other substances to prevent, treat, or suppress combustion or mine fires; 3) inject mine roof stabilizing substances; and 4) remove methane from mining areas. Any surface disturbance or surface occupancy necessary to access the sites to implement these mining practices will also be exempt from any stipulation.
  - e. Coal mining operations will be allowed to continue under the regulatory and permit-specific terms and conditions authorized under the federal Surface Mining Control and Reclamation Act.
- 3. <u>Connectivity</u>:
  - a. The suspension of federal and state leases in connectivity corridors (Figure 1) is encouraged where there is mutual agreement by the leasing agency and the operator. These suspensions should be allowed until additional information

clarifies their need. Where suspensions cannot be accommodated, disturbance should be limited to no more than 5% (up to 32 acres) per 640 acres of suitable sage-grouse habitat within connectivity corridors.

- b. For protection of connectivity corridors (Figure 1), a controlled surface use (CSU) buffer of 0.6 miles around leks or their documented perimeters is required. In addition, a March 15 to June 30 timing limitation stipulation is required within nesting habitat within 4 miles of leks.
- 4. <u>Process Deviation or Undefined Activities</u>: Development proposals incorporating less restrictive stipulations or development that is not covered by these stipulations may be considered depending on site-specific circumstances and the proponent must have data demonstrating that the alternative development proposal will not cause declines in sage-grouse populations in the core area. Proposals to deviate from standard stipulations will be considered by a team including WGFD and the appropriate land management and permitting agencies, with input from the U.S. Fish and Wildlife Service. Project proponents need to demonstrate that the project development would meet at least one of the following conditions:
  - a. No suitable habitat is present in one contiguous block of land that includes at least a 0.6 mile buffer between the project area and suitable habitat;
  - b. No sage-grouse use occurs in one contiguous block of land that includes at least a 0.6 mile buffer between the project area and adjacent occupied habitat, as documented by total absence of sage-grouse droppings and an absence of sage-grouse activity for the previous ten years;
  - c. Provision of a development/mitigation plan that has been implemented and demonstrated by previous research not to cause declines in sage-grouse populations. The demonstration must be based on monitoring data collected and analyzed with accepted scientific based techniques.
- 5. <u>Wind Energy Development</u>: Wind development is not recommended in sage-grouse core areas, but will be reevaluated on a continuous basis as new science, information and data emerges.

#### Appendix I Suitable Sage-Grouse Habitat Definition

Sage-grouse require somewhat different seasonal habitats distributed over large areas to complete their life cycle. All of these habitats consist of, are associated with, or are immediately adjacent to, sagebrush. If sage-grouse seasonal habitat use maps do not exist for the project site the following description of suitable habitat should be used to determine areas of unsuitable sage-grouse habitat for development siting purposes. An abbreviated description of a complex system cannot incorporate all aspects of, or exceptions to, what habitats a local sage-grouse population may or may not utilize.

Suitable sage-grouse habitat (nesting, breeding, brood-rearing, or winter) is within the mapped occupied range of sage-grouse, and:

- 1) has 5% or greater sagebrush canopy cover as measured by the technique developed by interagency efforts. "Sagebrush" includes all species and sub-species of the genus Artemisia except the mat-forming sub-shrub species: frigida (fringed) and pedatifida (birdfoot); or
- 2) is riparian, wet meadow (native or introduced) or areas of alfalfa or other suitable forbs (brood rearing habitat) within 60 meters of sagebrush habitat with 10% or greater canopy cover and the early brood rearing habitat does not exceed 20% of the suitable sagebrush habitat present within the DDCT, Larger riparian/wet meadow, and grass/forb producing areas may be considered suitable habitat as determined on a case by case basis.

**Transitional sage-grouse habitat** is land that has been treated or burned prior to 2011 resulting in <5% sagebrush cover but is actively managed to meet a minimum of 5% sagebrush canopy cover with associated grasses and forbs by 2021 (by analysis of local condition and trend) and may or may not be considered disturbed. Land that does not meet the above vegetation criteria by 2021 should be considered disturbed.

Land treatments post 2010 must meet sagebrush vegetation treatment guidelines or the treatment will be considered disturbed. Following wildfire, lands shall be treated as disturbed pending an implementation management plan with trend data showing the area returning to functional sage-grouse habitat.

To evaluate the 5% disturbance cap per average 640 acres using the DDCT, suitable habitat is considered disturbed when it is removed and unavailable for immediate sage-grouse use.

The following items are guidelines for determining suitable habitat:

- a. Long-term removal occurs when habitat is physically removed through activities that replace suitable habitat with long term occupancy of unsuitable habitat such as a road, well pad or active mine.
- b. Short—term removal occurs when vegetation is removed in small areas, but restored to suitable habitat within a few years of disturbance, such as a successfully reclaimed pipeline, or successfully reclaimed drill hole or pit.
- c. There may be additional suitable habitat considered disturbed between two or more long term (greater than 1 year) anthropogenic disturbance activities with a footprint greater than 10 acres each if the activities are located such that sage-grouse use of the suitable habitat between these activities is significantly reduced due to the close proximity (less than 1.2 miles apart, 0.6 miles from each activity) and resulting in cumulative effects of these large scale activities. Exemptions may be provided.

d. Land in northeast Wyoming (Figure 1 of Attachment B) that has had sagebrush removed post-1994 (based on Orthophoto interpretation) and not recovered to suitable habitat will be considered disturbed when using the DDCT.

# ATTACHMENT C Exempt ("de minimus") Activities

#### Existing Land Uses and Landowner Activities in Greater Sage-Grouse Core Population Areas That Do Not Require State Agency Review for Consistency With Executive Order No. 2011-02

1. Existing animal husbandry practices (including branding, docking, herding, trailing, etc).

2. Existing farming practices (excluding conversion of sagebrush/grassland to agricultural lands).

3. Existing grazing operations that utilize recognized rangeland management practices (allotment management plans, NRCS grazing plans, prescribed grazing plans, etc).

4. Construction of agricultural reservoirs and habitat improvements less than 10 surface acres and drilling of agriculture and residential water wells (including installation of tanks, water windmills and solar water pumps) more than 0.6 miles from the perimeter of the lek. Within 0.6 miles from leks no review is required if construction does not occur March 15 to June 30 and construction does not occur on the lek. All water tanks shall have escape ramps.

5. Agricultural and residential electrical distribution lines more than 0.6 miles from leks. Within 0.6 miles from leks no review is required if construction does not occur March 1 5 to June 30 and construction does not occur on the lek. Raptor perching deterrents shall be installed on all poles within 0.6 miles from leks.

6. Agricultural water pipelines if construction activities are more than 0.6 miles from leks. Within 0.6 miles from leks no review is required if construction does not occur March 15 to June 30 and construction is reclaimed.

7. New fencing more than 0.6 miles from leks and maintenance on existing fence. For new fencing within 0.6 miles of leks, fences with documented high potential for strikes should be marked.

8. Irrigation (excluding the conversion of sagebrush/grassland to new irrigated lands).

9. Spring development if the spring is protected with fencing and enough water remains at the site to provide mesic (wet) vegetation.

10. Herbicide use within existing road, pipeline and power line rights-of-way. Herbicides application using spot treatment. Grasshopper/Mormon cricket control following Reduced Agent-Area Treatments (RAATS) protocol.

11. Existing county road maintenance.

12. Cultural resource pedestrian surveys.

13. Emergency response.



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# WYOMING GAME AND FISH DEPARTMENT PROTOCOLS FOR TREATING SAGEBRUSH TO BE CONSISTENT WITH WYOMING EXECUTIVE ORDER 2011-5; GREATER SAGE-GROUSE CORE AREA PROTECTION (7/8/2011)

Sagebrush treatments have been implemented or proposed with the assumption of benefiting sage-grouse. Research, monitoring and anecdotal observations suggest that treatments can result in beneficial, benign or harmful impacts to sage-grouse habitat depending on many known and unknown factors.

These protocols are to be used to guide the development of Wyoming Game and Fish Department (WGFD) sponsored or supported sagebrush treatments. The purpose of these protocols is to provide a framework for WGFD projects to ensure that they are consistent with sage-grouse core area and non-core area stipulations. This framework will not answer all questions associated with treatments. It is assumed that these protocols may be revisited as new science becomes available. Communication with the WGFD Director's Office or sage-grouse coordinator will be necessary for many situations.

# Core Area Treatments:

The following sagebrush treatment protocols are designed to ensure future habitat treatments conform to the provisions of Executive Order 2011-5, to conserve sage-grouse and prevent population declines in core habitat areas. Treatments that will NOT reduce sagebrush canopy cover to less than 15% are NOT subject to the Density/Disturbance Calculation Tool (DDCT) step prescribed below. However, such treatment proposals should still follow the other steps outlined in order to determine and document purpose and need, appropriately apply stipulations and monitor results. In northeast Wyoming core areas (Figure 1), treatments that will result in sagebrush canopy cover being reduced to less than 15% should not be conducted.

- 1. Determine and document the purpose and need for the treatment (adapted from Wyoming Interagency Vegetation Committee 2002):
  - A. Evaluate the juxtaposition, extent, importance and value of the sagebrush patch in the landscape (is this the only patch of sagebrush in the landscape?).
  - B. Identify the sagebrush species/subspecies/variety and assess the ecological site potential and treatment effects.
  - C. Determine the associated vegetation composition and condition (e.g. composition of desirable and non-desirable species and their response to treatment) and their contribution to wildlife habitat.
  - D. Assess site potential and resilience of the site to recover.
  - E. Assess other existing site influences (e.g., current grazing use, presence of noxious/exotic plant infestations, cumulative impacts, etc.).
  - F. Evaluate past management history of the site.
  - G. Establish post-treatment vegetation management objectives tiered to the management plan for the site.

- H. Create a baseline for short-term/long-term post-treatment monitoring of the site.
- 2. If there is justified purpose and need, then utilize the Density/Disturbance Calculation Tool (DDCT) outlined in Executive Order 2011-5 and conduct the prescribed analysis.
  - A. If the cumulative disturbance, including the proposed treatment, is less than 5% of suitable sage-grouse habitat as defined in the Executive Order, the project may proceed.
    - Recognize any treatment reducing sagebrush canopy cover to less than 15% will be considered disturbance for future disturbance calculations (adapted from Connelly et al. 2000a, Stiver et al. 2010).
    - ii. A project plan must be developed that considers, evaluates and appropriately applies the following stipulations:
      - 1. No treatment should occur within 0.6-mile of any occupied lek that results in less than 15% sagebrush canopy cover unless:
        - a. The proposed treatment is necessary to maintain the viability of the lek such as removing conifers or sagebrush encroaching on the lek site.
      - Treatment implementation should not occur within 4-miles of any occupied lek from March 15 – June 30 (Wyoming Game and Fish Dept. 2010).
      - Treatment implementation should not occur in designated and/or mapped sage-grouse winter concentration areas from November 15 – March 14 (Wyoming Game and Fish Dept. 2010).
      - 4. Avoid the use of fire to treat sagebrush in less than 12-inch precipitation zones (Beck et al 2009, Connelly et al 2000b, WAFWA, 2009).
      - 5. Control and monitor noxious and/or invasive vegetation post-treatment.
      - 6. Rest the treated area from grazing for two full growing seasons unless vegetation recovery dictates otherwise.
  - B. If the cumulative disturbance, including the proposed treatment, within the DDCT boundary, is greater than 5% of the suitable sage-grouse habitat and the goal of the treatment is to reduce sagebrush canopy cover to less than 15%, the project shall NOT proceed except when:
    - i. Acreage of treatment is reduced so cumulative disturbance does not exceed 5% of suitable habitat.
    - The treatment is configured such that all treated habitat is within 60 meters of sagebrush habitat (adapted from Danvir 2002, Slater 2003, Wyoming Game and Fish Department 2003, Dahlgren et al. 2006) with 10% or greater canopy cover (Connelly et al. 2000a) and no more than 20% of

suitable sage-grouse habitat in the DDCT boundary is treated in this manner (adapted from Connelly et al. 2000a).

- 3. Refer to the BLM/WAFWA Sage-grouse Habitat Assessment Framework (HAF) when conducting habitat evaluations to determine the need to treat sagebrush to enhance sage-grouse habitat and when devising standardized monitoring protocols to assess the effectiveness of treatments (Stiver et al. 2010).
- 4. In stands with less than 15% sagebrush cover pretreatment, any proposed treatment should be designed to maintain or improve sagebrush habitat (within the limits of the ecological site).

# Non-Core Area Treatments:

As is the case with industrial development outside of Core Areas, there will be greater flexibility to conduct sagebrush treatments outside of Core Areas. There can be more emphasis placed upon the habitat needs of species other than sage-grouse.

- 1. Determine and document the purpose and need for the treatment (adapted from Wyoming Interagency Vegetation Committee 2002):
  - A. Evaluate the juxtaposition, extent, importance and value of this sagebrush patch in the landscape (is this the only patch of sagebrush in the landscape?).
  - B. Identify the sagebrush species/subspecies/variety and understand the ecology and treatment effects.
  - C. Determine the associated vegetation composition and condition (e.g. composition of desirable and non-desirable species and their response to treatment) and their effects on wildlife habitat.
  - D. Consider site potential and resilience of the site to recover.
  - E. Assess the existence of other potential site influences (e.g., current grazing use, presence of noxious/exotic plant infestations, cumulative impacts, etc.).
  - F. Evaluate past management history of the site.
  - G. Establish post-treatment vegetation management objectives tiered to the future management plan.
  - H. Create a baseline for short-term/long-term post-treatment monitoring of the site.
- 2. Conduct the treatment.
- 3. Rest the treated area from grazing for two full growing seasons unless vegetation recovery dictates otherwise.
- 4. Monitor post treatment habitat conditions and grazing/browsing by ungulates to determine success.
- 5. Monitor and control noxious and/or invasive vegetation post-treatment.

# Protocol Exceptions:

Exceptions for treatments in Core Areas will be considered only if it can be demonstrated by previous research the activity will not cause declines in sage-grouse populations. The demonstration must be based on monitoring data collected and analyzed with accepted scientific based techniques.



Figure 1. Wyoming sage-grouse core areas with northeast core areas differentiated.

Literature Cited:

- Beck, J.L., J.W. Connelly, and K.P. Reese. 2009. Recovery of greater sage-grouse habitat features in Wyoming big sagebrush following prescribed fire. Restoration Ecology 17 (3):393-403.
- Connelly, J. W., M. A. Schroeder, A. R. Sands, and C. E. Braun. 2000a. Guidelines for management of sage grouse populations and habitats. Wildlife Society Bulletin 28:967-985.
- Connelly, J. W., K. P. Reese, R. A. Fischer, and W. L. Wakkinen. 2000b. Response of sage grouse breeding population to fire in southeastern Idaho. Wildlife Society Bulletin 28:90-96.
- Dahlgren, D. K., R. Chi, and T. Messmer. 2006. Greater sage-grouse response to sagebrush management in Utah. Wildlife Society Bulletin. 34:975-985
- Danvir, R. E. 2002. Sage grouse ecology and management in northern Utah sagebrush-steppe. Unpublished report. Deseret Land and Livestock Ranch and the Utah Foundation for Quality Resource Management. Woodruff, UT.
- Slater, S. J. 2003. Sage-grouse (*Centrocercus urophasianus*) use of different-aged burns and the effects of coyote control in southwestern Wyoming. Thesis, University of Wyoming, Laramie.
- Stiver, S.J., E.T Rinkes, and D.E. Naugle. 2010. Sage-grouse habitat assessment framework. U.S. Bureau of Land Management, Idaho State Office, Boise.
- Western Association of Fish and Wildlife Agencies Sage and Columbian Sharp-tailed Grouse Technical Committee. 2009. Prescribed fire as a management tool in xeric sagebrush ecosystems; is it worth the risk to sage-grouse? Unpublished report. Western Association of Fish and Wildlife Agencies. Cheyenne, WY. 22 pp.
- Wyoming Game and Fish Dept. 2003. Wyoming greater sage-grouse conservation plan. Wyoming Game and Fish Department, Cheyenne. 97 pp.
- Wyoming Game and Fish Department. 2010. Recommendations for development of oil and gas resources within important wildlife habitats version 6.0. Wyoming Game and Fish Department, Cheyenne. 236 pp.
- Wyoming Interagency Vegetation Committee. 2002. Wyoming Guidelines for Managing Sagebrush Communities with Emphasis on Fire Management. Wyoming Game and Fish Department and Wyoming BLM, Cheyenne. 53 pp.

# WYOMING GAME AND FISH DEPARTMENT PROTOCOLS FOR TREATING SAGEBRUSH TO BE CONSISTENT WITH WYOMING EXECUTIVE ORDER 2011-5; GREATER SAGE-GROUSE CORE AREA PROTECTION (7/8/2011)

Sagebrush treatments have been implemented or proposed with the assumption of benefiting sage-grouse. Research, monitoring and anecdotal observations suggest that treatments can result in beneficial, benign or harmful impacts to sage-grouse habitat depending on many known and unknown factors.

These protocols are to be used to guide the development of Wyoming Game and Fish Department (WGFD) sponsored or supported sagebrush treatments. The purpose of these protocols is to provide a framework for WGFD projects to ensure that they are consistent with sage-grouse core area and non-core area stipulations. This framework will not answer all questions associated with treatments. It is assumed that these protocols may be revisited as new science becomes available. Communication with the WGFD Director's Office or sage-grouse coordinator will be necessary for many situations.

# Core Area Treatments:

The following sagebrush treatment protocols are designed to ensure future habitat treatments conform to the provisions of Executive Order 2011-5, to conserve sage-grouse and prevent population declines in core habitat areas. Treatments that will NOT reduce sagebrush canopy cover to less than 15% are NOT subject to the Density/Disturbance Calculation Tool (DDCT) step prescribed below. However, such treatment proposals should still follow the other steps outlined in order to determine and document purpose and need, appropriately apply stipulations and monitor results. In northeast Wyoming core areas (Figure 1), treatments that will result in sagebrush canopy cover being reduced to less than 15% should not be conducted.

- 1. Determine and document the purpose and need for the treatment (adapted from Wyoming Interagency Vegetation Committee 2002):
  - A. Evaluate the juxtaposition, extent, importance and value of the sagebrush patch in the landscape (is this the only patch of sagebrush in the landscape?).
  - B. Identify the sagebrush species/subspecies/variety and assess the ecological site potential and treatment effects.
  - C. Determine the associated vegetation composition and condition (e.g. composition of desirable and non-desirable species and their response to treatment) and their contribution to wildlife habitat.
  - D. Assess site potential and resilience of the site to recover.
  - E. Assess other existing site influences (e.g., current grazing use, presence of noxious/exotic plant infestations, cumulative impacts, etc.).
  - F. Evaluate past management history of the site.
  - G. Establish post-treatment vegetation management objectives tiered to the management plan for the site.

- H. Create a baseline for short-term/long-term post-treatment monitoring of the site.
- 2. If there is justified purpose and need, then utilize the Density/Disturbance Calculation Tool (DDCT) outlined in Executive Order 2011-5 and conduct the prescribed analysis.
  - A. If the cumulative disturbance, including the proposed treatment, is less than 5% of suitable sage-grouse habitat as defined in the Executive Order, the project may proceed.
    - Recognize any treatment reducing sagebrush canopy cover to less than 15% will be considered disturbance for future disturbance calculations (adapted from Connelly et al. 2000a, Stiver et al. 2010).
    - ii. A project plan must be developed that considers, evaluates and appropriately applies the following stipulations:
      - 1. No treatment should occur within 0.6-mile of any occupied lek that results in less than 15% sagebrush canopy cover unless:
        - a. The proposed treatment is necessary to maintain the viability of the lek such as removing conifers or sagebrush encroaching on the lek site.
      - Treatment implementation should not occur within 4-miles of any occupied lek from March 15 – June 30 (Wyoming Game and Fish Dept. 2010).
      - Treatment implementation should not occur in designated and/or mapped sage-grouse winter concentration areas from November 15 – March 14 (Wyoming Game and Fish Dept. 2010).
      - 4. Avoid the use of fire to treat sagebrush in less than 12-inch precipitation zones (Beck et al 2009, Connelly et al 2000b, WAFWA, 2009).
      - 5. Control and monitor noxious and/or invasive vegetation post-treatment.
      - 6. Rest the treated area from grazing for two full growing seasons unless vegetation recovery dictates otherwise.
  - B. If the cumulative disturbance, including the proposed treatment, within the DDCT boundary, is greater than 5% of the suitable sage-grouse habitat and the goal of the treatment is to reduce sagebrush canopy cover to less than 15%, the project shall NOT proceed except when:
    - i. Acreage of treatment is reduced so cumulative disturbance does not exceed 5% of suitable habitat.
    - The treatment is configured such that all treated habitat is within 60 meters of sagebrush habitat (adapted from Danvir 2002, Slater 2003, Wyoming Game and Fish Department 2003, Dahlgren et al. 2006) with 10% or greater canopy cover (Connelly et al. 2000a) and no more than 20% of

suitable sage-grouse habitat in the DDCT boundary is treated in this manner (adapted from Connelly et al. 2000a).

- 3. Refer to the BLM/WAFWA Sage-grouse Habitat Assessment Framework (HAF) when conducting habitat evaluations to determine the need to treat sagebrush to enhance sage-grouse habitat and when devising standardized monitoring protocols to assess the effectiveness of treatments (Stiver et al. 2010).
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  - A. Evaluate the juxtaposition, extent, importance and value of this sagebrush patch in the landscape (is this the only patch of sagebrush in the landscape?).
  - B. Identify the sagebrush species/subspecies/variety and understand the ecology and treatment effects.
  - C. Determine the associated vegetation composition and condition (e.g. composition of desirable and non-desirable species and their response to treatment) and their effects on wildlife habitat.
  - D. Consider site potential and resilience of the site to recover.
  - E. Assess the existence of other potential site influences (e.g., current grazing use, presence of noxious/exotic plant infestations, cumulative impacts, etc.).
  - F. Evaluate past management history of the site.
  - G. Establish post-treatment vegetation management objectives tiered to the future management plan.
  - H. Create a baseline for short-term/long-term post-treatment monitoring of the site.
- 2. Conduct the treatment.
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- Connelly, J. W., K. P. Reese, R. A. Fischer, and W. L. Wakkinen. 2000b. Response of sage grouse breeding population to fire in southeastern Idaho. Wildlife Society Bulletin 28:90-96.
- Dahlgren, D. K., R. Chi, and T. Messmer. 2006. Greater sage-grouse response to sagebrush management in Utah. Wildlife Society Bulletin. 34:975-985
- Danvir, R. E. 2002. Sage grouse ecology and management in northern Utah sagebrush-steppe. Unpublished report. Deseret Land and Livestock Ranch and the Utah Foundation for Quality Resource Management. Woodruff, UT.
- Slater, S. J. 2003. Sage-grouse (*Centrocercus urophasianus*) use of different-aged burns and the effects of coyote control in southwestern Wyoming. Thesis, University of Wyoming, Laramie.
- Stiver, S.J., E.T Rinkes, and D.E. Naugle. 2010. Sage-grouse habitat assessment framework. U.S. Bureau of Land Management, Idaho State Office, Boise.
- Western Association of Fish and Wildlife Agencies Sage and Columbian Sharp-tailed Grouse Technical Committee. 2009. Prescribed fire as a management tool in xeric sagebrush ecosystems; is it worth the risk to sage-grouse? Unpublished report. Western Association of Fish and Wildlife Agencies. Cheyenne, WY. 22 pp.
- Wyoming Game and Fish Dept. 2003. Wyoming greater sage-grouse conservation plan. Wyoming Game and Fish Department, Cheyenne. 97 pp.
- Wyoming Game and Fish Department. 2010. Recommendations for development of oil and gas resources within important wildlife habitats version 6.0. Wyoming Game and Fish Department, Cheyenne. 236 pp.
- Wyoming Interagency Vegetation Committee. 2002. Wyoming Guidelines for Managing Sagebrush Communities with Emphasis on Fire Management. Wyoming Game and Fish Department and Wyoming BLM, Cheyenne. 53 pp.

**APPENDIX I** 

# **BEAR RIVER SCHEMATICS**











**APPENDIX J** 

**IRRIGATION SURFACE WATER RIGHTS** 

# **INSTREAM FLOW FILINGS**
| LINCOLN COL                | NTY                      |  |  |                          |                  |  |                            |                |              |          |                          |              |                  |                    |        |   |                           |                    |                     |                     |                                   |                      |                       |  |
|----------------------------|--------------------------|--|--|--------------------------|------------------|--|----------------------------|----------------|--------------|----------|--------------------------|--------------|------------------|--------------------|--------|---|---------------------------|--------------------|---------------------|---------------------|-----------------------------------|----------------------|-----------------------|--|
|                            |                          |  |  |                          |                  |  |                            |                |              |          |                          |              | GPM              |                    |        | (Ft)  |                           |                    |                     |                     |                                   |                      |                       |  |
|                            |                          |  |  |                          |                  |  |                            |                |              |          |                          | rey<br>Urvej | (CFS             | th (Ft)<br>erLev   | (NIX)  | un de la companya de la compa | Div                       | iversion           |                     |                     |                                   |                      | (N)A                  |  |
|                            |                          |  |  |                          |                  |  |                            |                |              |          |                          | Surv         | Plov             | dept               | Log    | 10  | Ca<br>Total at            | apacity            | Active I            | nactive \$          | lize of                           |                      | rical<br>(Sis(        |  |
| WR Number                  | Priority Date            | Priority Summary WR<br>text Status                         | Company  | First Name               | Last Name        | Facility Name  | Uses                       | Twn            | Rng          | Sec      | Qtr-Qtr                  | lype,        | Appr             | Ft)                | Mell I | 훕<br>중 Stream Source  | Capacity He<br>(AF/Yr) CF | eadgate(C<br>FS) ( | Capacity (<br>AF) ( | Capacity I<br>AF) r | Reservoi Facility<br>(AF) type    | Supply<br>Type       | Latitude              | Created<br>Longitude By  |
| CR CC37/512                | 06/17/1910               | 06/17/191 Fully Adjudicated                                |  | JOHN                     | HEATON           | ENLARGED H B M DITCH   | IRR_SW                     | 019N           | 120W         | 08       | NE1/4NE1/4               | A            | 2.18             |                    |        | Cottonwood Creek  |                           |                    | 0                   | 0                   | 0 Stream                          | Original             | 41.6502               | -111.00419 External  |
| CR CC37/513<br>P1288.0R    | 05/03/1910<br>04/20/1908 | 05/03/191 Fully Adjudicated<br>04/20/190 Cancelled         |  | JOHN<br>JOSEPH B.        | HEATON<br>SMITH  | H B M DITCH<br>SOUTH COTTONWOOD RESERVOIR                      | IRR_SW<br>DOM_SW; STO      | 019N<br>019N   | 120W<br>120W | 08<br>14 | NE1/4NE1/4<br>SW1/4SW1/4 | A            | 1.83             |                    |        | Cottonwood Creek<br>South Cottonwood Creek  | 2.6                       |                    | 0                   | 0                   | 0 Stream<br>2.6 Reservoir         | Original             | 41.6502               | <ul> <li>-111.00419 External</li> <li>-110.96063 External</li> </ul>   |
| P1289.0R                   | 04/20/1908               | 04/20/190 Cancelled  |  | JOSEPH B.                | SMITH            | NORTH COTTONWOOD RESERVOIR                                     | DOM_SW; STO                | 019N           | 120W         | 13       | SW1/4NW1/4               | A            |                  |                    |        | Cottonwood Creek  | 8.5                       |                    | 8.5                 | 0                   | 8.5 Reservoir                     |                      | 41.6318               | -110.94132 External  |
| P34172.0D<br>P9092.0S      | 05/26/2009<br>06/30/1983 | 05/26/200 Cancelled<br>06/30/198 Cancelled                 | UINTA LIVESTOCK GRAZING PARTN                                  | IE EDWARD                | BOWN             | COTTONWOOD SPRING NO. 1<br>SPRING CREEK 14-1 STOCK RESERVOIR   |                            | 019N<br>019N   | 120W<br>120W | 15<br>14 | SW1/4SW1/4<br>NE1/4NE1/4 | A            | 0.06             |                    |        | Ulg Draw<br>Spring Creek  | 0.06                      |                    | 0                   | 0                   | 0 Stream<br>0 Reservoir           |                      | 41.6254               | -110.98103 External<br>-110.94612 External                             |
| P9910.05                   | 03/04/1986               | 03/04/198 Complete   |  |                          |                  | PARACHUTE PIT STOCK RESERVOIR                                  |                            | 019N           | 120W         | 09       | NW1/4SE1/4               | А            |                  |                    |        | Parachute Draw  | 1.9                       |                    | 0                   | 1.9                 | 1.9 Reservoir                     |                      | 41.6443               | -110.9878 External   |
| P10338.0D<br>P1969.0D      | 11/11/1910<br>09/28/1898 | 11/11/191/ Cancelled<br>09/28/189: Cancelled               |  | GILBERT<br>JOSEPH HYRUM  | SMITH            | Smith Ditch<br>Neville Ditch No. 1                             | DOM_SW; IRR_SW;<br>IRR_SW  | S 019N<br>019N | 121W<br>120W | 25<br>20 | NE1/4NE1/4<br>SE1/4SW1/4 |              | 0.3              |                    |        |   |                           | -1                 | 0                   | 0                   | 0 Stream<br>0 Stream              |                      | 41.61006              | External<br>-111.013129 External                                       |
| P1970.0D                   | 09/28/1898               | 09/28/189 Cancelled  |  | JOSEPH HYRUM             | NEVILLE          | Neville Ditch No. 2  | IRR_SW                     | 019N           | 121W         | 25       | NW1/4NE1/4               | 11           | 0.4              |                    |        |   |                           |                    | 0                   | 0                   | 0 Stream                          |                      | 43.02800              | -107.551068 External   |
| CR CC77/063<br>CR CC77/064 | 04/17/1888<br>04/17/1888 | 04/17/188 Fully Adjudicated<br>04/17/188 Fully Adjudicated | JULIAN LAND AND LIVESTOCK CON<br>JULIAN LAND AND LIVESTOCK CON | 41<br>41                 |                  | BUYER NO. 6 DITCH<br>BUYER NO. 5 DITCH ACIPT BUYER NO. 5A DITC | IRR_SW<br>FIRR_SW          | 020N<br>020N   | 118W<br>118W | 13<br>13 | SW1/4SE1/4<br>SW1/4SE1/4 | A            | 0.96             |                    |        | South Fork Twin Creek<br>South Fork Twin Creek  |                           |                    | 0                   | 0                   | 0 Stream<br>0 Stream              | Original<br>Original | 41.7111               | <ul> <li>-110.70087 External</li> <li>-110.70055 External</li> </ul>   |
| CR CC77/065                | 04/17/1888               | 04/17/188: Fully Adjudicated                               | JULIAN LAND AND LIVESTOCK CON                                  | 41                       |                  | BUYER NO. 2 DITCH ACT CASH NO. 1 DITCH                         | IRR_SW                     | 020N           | 118W         | 12       | SW1/4NE1/4               | А            | 0.37             |                    |        | Buyer Creek   |                           |                    | 0                   | 0                   | 0 Stream                          | Original             | 41.7338               | -110.69895 External  |
| CR CC77/066<br>CR CC77/067 | 04/17/1888 07/01/1886    | 04/17/188 Fully Adjudicated<br>07/01/188 Fully Adjudicated | JULIAN LAND AND LIVESTOCK CON<br>JULIAN LAND AND LIVESTOCK CO  | AI .                     |                  | BUYERS NO. 1 DITCH<br>BUYER IRRIGATING NO. 1 DITCH ACT BUYER N | IRR_SW<br>IRR_SW           | 020N<br>020N   | 118W<br>118W | 12<br>13 | SW1/4NE1/4<br>SW1/4SE1/4 | A            | 0.8              |                    |        | Buyer Creek<br>South Fork Twin Creek  |                           |                    | 0                   | 0                   | 0 Stream<br>0 Stream              | Original<br>Original | 41.7335               | <ul> <li>-110.69939 External</li> <li>-110.70034 External</li> </ul>   |
| CR CC77/068                | 07/01/1886               | 07/01/188 Fully Adjudicated                                | JULIAN LAND AND LIVESTOCK CO                                   |                          |                  | BUYER IRRIGATING NO. 2 DITCH ACT BUYER N                       | IRR_SW                     | 020N           | 118W         | 13       | SW1/4SE1/4               | A            | 0.1              |                    |        | South Fork Twin Creek   |                           |                    | 0                   | ō                   | 0 Stream                          | Original             | 41.7116               | -110.70057 External  |
| CR CR13/187<br>P11007.05   | 03/25/1921<br>06/04/1990 | 03/25/192 Fully Adjudicated<br>06/04/199 Complete          | JULIAN LAND AND LIVESTOCK CO.                                  |                          |                  | BUYERS NO. 1 RESERVOIR<br>WEST ANGELO STOCK RESERVOIR          | IRR_SW<br>STO              | 020N<br>020N   | 118W<br>118W | 24<br>02 | NW1/4NE1/4<br>NE1/4SW1/4 | A            |                  |                    |        | South Fork Twin Creek<br>Angelo Draw  | 47<br>3.67                |                    | 0<br>3.48           | 0                   | 47 Reservoir<br>3.48 Reservoir    | Original             | 41.70825              | <ul> <li>-110.703017 External</li> <li>-110.726333 External</li> </ul> |
| P11008.05                  | 06/04/1990               | 06/04/199 Complete   |  |                          |                  | SOUTH VIEW STOCK RESERVOIR                                     | STO                        | 020N           | 120W         | 13       | NE1/4SE1/4               | А            |                  |                    |        | View Draw   | 1.53                      |                    | 0                   | 1.53                | 1.53 Reservoir                    |                      | 41.7157               | -110.92665 External  |
| P1430.0R<br>P1431.0R       | 02/27/1908               | 02/27/190 Cancelled<br>02/27/190 Cancelled                 |  | JOHN                     | WALTERS          | WEST SPRING RESERVOIR<br>FOSSIL SPRINGS RESERVOIR              | DOM_SW; STO<br>DOM_SW: STO | 020N<br>020N   | 119W         | 14       | NE1/4SE1/4<br>SE1/4SE1/4 | A<br>A       |                  |                    |        | Bridger Creek<br>Fossil Spring  | 1.4                       |                    | 1.4                 | 0                   | 1.4 Reservoir<br>2 Reservoir      |                      | 41.7149               | -110.83084 External<br>-110.81153 External                             |
| P1433.0R                   | 02/27/1908               | 02/27/190 Cancelled  |  | JOHN                     | WALTERS          | HAY HOLLOW RESERVOIR   | DOM_SW; STO                | 020N           | 119W         | 01       | SE1/4NE1/4               | 11           |                  |                    |        | Hay Hollow Creek  | 5.4                       |                    | 0                   | ō                   | 5.4 Reservoir                     |                      | 41.7481               | -110.81297 External  |
| P1436.0R<br>P1910.0R       | 02/27/1908 07/19/1910    | 02/27/190: Cancelled<br>07/19/191: Expired                 |  | JOHN<br>JOHN J AND CLARA | WALTERS<br>MCKEE | ELK MT. RESERVOIR<br>MC KEE RESERVOIR                          | DOM_SW; STO<br>IRR_SW      | 020N<br>020N   | 118W<br>120W | 08<br>34 | SE1/4NE1/4<br>SW1/4NW1/4 | A            |                  |                    |        | Buyer Creek<br>Spring Creek   | 6.75<br>120               |                    | 0<br>120            | 0                   | 6.75 Reservoir<br>120 Reservoir   |                      | 41.7330               | <ul> <li>-110.77335 External</li> <li>-110.97792 External</li> </ul>   |
| P204549.0W                 | 09/14/2015               | Incomplete   | W & M THOMAN RANCHES LLC                                       |                          |                  | ELK MOUNTAIN-N BUCK PASTURE SPRING                             | STK                        | 020N           | 118W         | 17       | NW1/4NW1/4               | А            | 25               |                    |        |   |                           |                    | 0                   | 0                   | 0 Spring                          |                      | 41.7221               | -110.78786 SEO   |
| P204704.0W                 | 09/14/2015               | Incomplete<br>07/11/191/ Complete                          | W & M THOMAN RANCHES LLC                                       | CURTIS                   | RICHEV           | ELK MOUNTAIN STATE LEASE 3-7277<br>RICHEV RESERVOIR            | STK<br>IRR SW              | 020N           | 118W         | 16       | NE1/4NE1/4<br>NE1/4SE1/4 | A            | 25               |                    |        | South Fork Twin Creek   | 135.05                    |                    | 135.95              | 0                   | 0 Spring                          |                      | 41.7221               | -110.754 SEO   |
| P3398.0R                   | 10/20/1914               | 10/20/191 Complete   |  | ERNEST                   | SMITH            | E. W. SMITH RESERVOIR  | IRR_SW; STO                | 020N           | 120W         | 34       | SW1/4NW1/4               | Â            |                  |                    |        | Spring Creek  | 20.7                      |                    | 20.7                | ō                   | 20.7 Reservoir                    |                      | 41.6768               | -110.97792 External  |
| P3869.0R                   | 03/25/1921               | 03/25/192 Complete   | JULIAN LAND AND LIVESTOCK CO                                   | IOHN                     | BLIVERS          | BUYERS NO. 1 RESERVOIR<br>BUYERS RESERVOIR NO. 2 RESERVOIR     | IRR_SW                     | 020N           | 118W         | 24       | NW1/4NE1/4<br>SW1/4NE1/4 | A<br>A       |                  |                    |        | Twin Creek  | 47                        |                    | 47                  | 0                   | 47 Reservoir                      |                      | 41.7090               | -110.7031 External   |
| P5703.0R                   | 09/04/1947               | 09/04/194 Complete   | JULIAN LAND AND LIVESTOCK CO                                   | 20114                    | DOTENS           | ANGELO RESERVOIR   | IRR_SW; STO                | 020N           | 118W         | 12       | SW1/4NE1/4<br>SW1/4NE1/4 | A            |                  |                    |        | Buyer Creek   | 29.64                     |                    | 29.64               | 0                   | 29.64 Reservoir                   |                      | 41.7337               | -110.6987 External   |
| P8027.0R                   | 01/19/1979               | 01/19/197: Cancelled<br>01/24/198: Complete                | KEMMERER COAL CO.  |                          |                  | 12-U-B SEDIMENTATION RESERVOIR                                 | IND_SW                     | 020N           | 117W         | 04       | SE1/4NE1/4<br>SE1/4NE1/4 | L8           |                  |                    |        | Miccy Draw  | 19.2                      |                    | 0                   | 7 97                | 19.2 Reservoir<br>25.69 Reservoir |                      | 41.7487               | -110.63931 External  |
| P9917.05                   | 03/04/1986               | 03/04/198 Complete   | WESTHORED REMINEREN INC  |                          |                  | SAND KNOWW #2 PIT STOCK RESERVOIR                              | 100, 110_010               | 020N           | 119W         | 05       | NW1/4SE1/4               | A-           |                  |                    |        | Sand Knoll Draw   | 1.2                       |                    | 0                   | 1.2                 | 1.2 Reservoir                     |                      | 41.7444               | -110.89275 External  |
| P9938.05                   | 06/04/1986               | 06/04/198 Complete   |  |                          |                  | NORTH VIEW STOCK RESERVOIR                                     |                            | 020N           | 119W         | 08       | NE1/4SW1/4               | A            |                  |                    |        | Sillem Draw   | 3.1                       |                    | 0                   | 3.1                 | 3.1 Reservoir                     |                      | 41.728                | -110.89623 External  |
| P9944.0S                   | 06/04/1986               | 06/04/198 Complete   |  |                          |                  | CARLISLE #2 STOCK RESERVOIR                                    |                            | 020N           | 120W         | 19       | NE1/4NE1/4               | Â            |                  |                    |        | Carlisle Draw   | 8.7                       |                    | 0                   | 8.7                 | 8.7 Reservoir                     |                      | 41.7070               | -111.0218 External   |
| CR CC28/235                | 08/15/1883               | 08/15/188: Fully Adjudicated                               |  | JOHN                     | CALLAGHAN        | LOWER NO. 1 DITCH  | IRR_SW; STO                | 021N           | 117W         | 17       | SE1/4NE1/4               | A            | 0.64             |                    |        | Clear Creek   |                           |                    | 0                   | 0                   | 0 Stream                          |                      | 41.80006              | -110.713633 External   |
| CR CC28/237                | 06/22/1898               | 06/22/189 Fully Adjudicated                                |  | WILLIAM AND JOHN         | LEWIS            | MAGGIE LEWIS NO 2 DITCH  | IRR_SW; STO                | 021N           | 117W         | 30       | NE1/4NE1/4               | Ā            | 0.14             |                    |        | Clear Creek   |                           |                    | 0                   | 0                   | 0 Stream                          | Original             | 41.77537              | -110.734544 External   |
| CR CC28/238                | 06/22/1898               | 06/22/189 Fully Adjudicated                                |  | WILLIAM AND JOHN         | LEWIS            | MAGGIE LEWIS NO 1 DITCH  | IRR_SW; STO                | 021N           | 117W         | 30       | NE1/4NE1/4               | A            | 0.35             |                    |        | Clear Creek   |                           |                    | 0                   | 0                   | 0 Stream                          | Original             | 41.77577              | -110.734219 External   |
| CR CC66/079                | 07/01/1882               | 07/01/188: Fully Adjudicated                               |  | GERTRUDE                 | LEWIS            | FOSSIL PIPELINE  | S&D                        | 021N<br>021N   | 120W         | 16       | SW1/4SE1/4<br>SW1/4NW1/4 | A            | 0.309            |                    |        | Clear Creek   |                           |                    | 0                   | 0                   | 0 Stream                          | Original             | 41.80004              | -111.02916 External  |
| CR CC83/027                | 11/30/1878               | 11/30/187: Fully Adjudicated                               |  | ROLAND C AND LINDA L     | WILLIS           | TWIN CREEK DITCH   | IRR_SW                     | 021N           | 119W         | 07       | NW1/4SW1/4               | L7           | 16.46            |                    |        | Twin Creek  |                           |                    | 0                   | 0                   | 0 Stream                          | Original             | 41.8115               | -110.98337 External  |
| CR CC94/210<br>CR CC94/280 | 02/23/2012               | Fully Adjudicated  | L & N JOHNSON PROPERTIES LLC                                   | KODAND C AND LINDA L     | WILLIS           | JOHNSON PIPELINE NO. 3   | IRR_SW                     | 021N           | 120W         | 000      | 14991/43101/4            | T37          | 2.81             |                    |        | Bear River  |                           | 2.81               | 0                   | 0                   | 0 Stream                          | Original             | 41.8320               | -111.04497 External  |
| CR CR02/069                | 10/26/1916               | 10/26/191 Fully Adjudicated                                | 11501 0104   | СН                       | SMITH            | C H SMITH RESERVOIR  | IRR_SW                     | 021N           | 117W         | 27       | SE1/4SE1/4               | A            |                  |                    |        | South Fork Twin Creek   | 84.55                     |                    | 0                   | 0                   | 84.55 Reservoir                   | Original             | 41.76589              | -110.678617 External   |
| CR UW03/482                | 05/03/1978               | 05/03/197: Fully Adjudicated                               | UNION PACIFIC RAILROAD   |                          |                  | SAGE NO. 1 WELL  | MIS                        | 021N           | 119W         | 08       | SW1/4NW1/4               | Â            | 10               |                    |        | Crossing braw   | 0.9                       |                    | 0                   | 0                   | 0 Well                            | Original             | 41.8148               | -110.95946 External  |
| CR UW20/031                | 04/09/2003               | Fully Adjudicated  |  | ROLAND                   | LEWIS            | LEWIS HOMESTEAD NO. 3 WELL                                     | DOM_GW                     | 021N           | 117W         | 20       | SE1/4NW1/4               | A            | 4                |                    |        |   |                           |                    | 0                   | 0                   | 0 Well                            |                      | 41.78679              | -110.725311 External   |
| P10061.05                  | 11/25/1986               | 11/25/198 Complete   |  | ALFRED                   | THOMAN           | PAPE DRAW PIT STOCK RESERVOIR                                  | STO                        | 021N           | 119W         | 03       | NW1/4NE1/4               | A            | 10               |                    |        | Pape Draw   | 0.26                      |                    | 0                   | 0.26                | 0.26 Reservoir                    |                      | 41.83371              | -110.913511 External   |
| P10204.0R                  | 03/20/1995               | 03/20/199: Complete<br>11/04/199: Complete                 | WESTMORELAND KEMMERER INC                                      |                          |                  | TC-B RESERVOIR   | IND_SW<br>STO              | 021N           | 116W         | 000      | SE1/ANE1/A               | T100         |                  |                    |        | KSB-A Creek<br>Sagebruch Draw   | 11.6                      |                    | 7.92                | 3.68                | 11.6 Reservoir<br>0.33 Reservoir  |                      | 41.8043               | -110.61651 External  |
| P13009.0R                  | 03/02/2007               | 03/02/200 Incomplete                                       | WESTMORELAND KEMMERER, INC                                     | :                        |                  | LOWER 1-UD RESERVOIR   | STO; WL                    | 021N           | 116W         | 17       | SE1/4NW1/4               | T100         |                  |                    |        | Cumberland Gulch  | 0.55                      |                    | 0                   | 113.7               | 113.7 Reservoir                   |                      | 41.802                | -110.6123 External   |
| P1360.0R                   | 07/18/1908               | 07/18/190 Expired  | BECKWITH QUINN & CO.   | MARY                     | U U IAN          | TWIN CREEK RESERVOIR   | IRR_SW                     | 021N           | 120W         | 11       | SW1/4SW1/4               | A            | 0                |                    |        | Twin Creek  | 8527.9                    | 77.6               | 5847                | 0                   | 5847 Reservoir                    |                      | 41.8084               | -111.01954 External  |
| P150331.0W                 | 04/09/2003               | Fully Adjudicated  |  | ROLAND                   | LEWIS            | LEWIS HOMESTEAD NO. 3 WELL                                     | DOM_GW                     | 021N           | 117W         | 20       | SE1/4NW1/4               | Â            | 4 11.0           | 0 5                | N      | 0   |                           | 23.0               | 0                   | 0                   | 0 Well                            | N                    | 41.7868               | -110.72521 External  |
| P164654.0W                 | 10/10/2003               | Fully Adjudicated  |  | ROLAND                   | LEWIS            | LEWIS HOMESTEAD NO. 2A WELL                                    | STK                        | 021N           | 117W         | 20       | SE1/4NW1/4               | A            | 10 13.0          | 0 3.3              | N      | 8   |                           |                    | 0                   | 0                   | 0 Well                            | N                    | 41.7868               | -110.72521 External  |
| P202492.0W                 | 07/17/2014               | Incomplete   |  | TIM AND SHELLEY          | SANDALL          | SANDALL WELL #2  | DOM_GW                     | 021N           | 117W         | 15       | NW1/4NE1/4               | A            | 25 4.00          |                    | '      | 0   |                           |                    | 0                   | 0                   | 0 Well                            |                      | 41.8049               | -110.68173 SEO   |
| P28331.0D                  | 01/16/1984               | 01/16/198 Cancelled  | WYOMING HWY DEPT   |                          |                  | PMP-012-1(41) WATER HAUL                                       |                            | 021N           | 120W         | 12       | NW1/4SE1/4               | A            | 0                |                    |        | Twin Creek  |                           | 1                  | 0                   | 0                   | 0 Stream                          |                      | 41.8113               | -110.99052 External  |
| P31298.0D                  | 10/24/1994               | 10/24/199 Cancelled  | SEARLE BROS CONSTRUCTION CO                                    |                          |                  | Kemmerer Loop Water Haul                                       | IND_SW; TEM                | 021N           | 114W         | 31       | SW1/4NW1/4               | 12           | 2.7              |                    |        | ROCK CIEEK  |                           | 2.7                | 0                   | 0                   | 0 Stream                          |                      | 41.8203               | External   |
| P3212.0R                   | 09/18/1915               | 09/18/191: Expired   |  | FRANK                    | KEEN             | NELLIE RESERVOIR   | IRR_SW                     | 021N           | 119W         | 09       | SE1/4NE1/4               | A            | 0.20             |                    |        | Snow Water  | 9.45                      |                    | 9.45                | 0                   | 9.45 Reservoir                    |                      | 41.8148               | -110.92785 External  |
| P32433.0D                  | 12/13/1999               | 12/13/199 Fully Adjudicated                                |  |                          |                  | SNELL DITCH  |                            | 021N           | 117W         | 33       | NE1/4NE1/4               | A            | 0.28             |                    |        | Johnson Creek   |                           | 1.1                | 0                   | 0                   | 0 Stream                          |                      | 41.7611               | -110.6975 External   |
| P32793.0D                  | 03/11/2002               | 03/11/200 Cancelled  |  |                          |                  | JOHNSON PIPE LINE NO. 3  | 10.0 5147                  | 021N           | 120W         | 000      |                          | T37          | 0.89             |                    |        | Bear River  |                           | 0.89               | 0                   | 0                   | 0 Stream                          |                      | 41.7922               | -111.02188 External  |
| P3326.0R<br>P3350.0R       | 08/22/1916               | 08/22/191 Cancelled  |  | EZRA                     | PATE             | LATE RESERVOIR   | IRR_SW<br>IRR_SW; S&D      | 021N<br>021N   | 119W         | 03       | NE1/4NE1/4               | L5           |                  |                    |        | Twin Creek  | 74.1                      |                    | 74.1                | 0                   | 74.1 Reservoir                    |                      | 41.8340               | -110.90133 External  |
| P3370.0R                   | 10/26/1916               | 10/26/191 Complete   |  | CHARLES HENRY            | SMITH            | C. H. SMITH RESERVOIR  | IRR_SW; STO                | 021N           | 117W         | 27       | SE1/4SE1/4               | A            |                  |                    |        | South Fork Twin Creek   | 84.55                     |                    | 84.55               | 0                   | 84.55 Reservoir                   |                      | 41.7660               | -110.67869 External  |
| P3413.05<br>P3445.0R       | 11/19/1967               | 11/19/196 Incomplete                                       | JULIAN LAND AND LIVESTOCK CO                                   | JOHN                     | SCHNICKS         | SCHNICKS RESERVOIR   | IRR_SW; S&D                | 021N<br>021N   | 118W         | 14       | SE1/4SE1/4<br>SE1/4NW1/4 | A            |                  |                    |        | Bull Pen Creek  | 54.1                      |                    | 54.1                | 0.84                | 54.1 Reservoir                    |                      | 41.78044              | -110.832583 External   |
| P34673.0D                  | 02/23/2012               | Complete   | L AND N PROPERTIES LLC   |                          | Ch (171)         | JOHNSON PIPELINE NO. 3   | 100 614                    | 021N           | 120W         | 000      | CH4 (19)74 (1            | T37          | 2.81             |                    |        | Bear River  |                           | 2.81               | 0                   | 0                   | 0 Stream                          |                      | 41.831                | -111.0452 External   |
| P3481.0R<br>P3607.0R       | 05/20/1918<br>03/19/1920 | ub/20/191: Expired<br>03/19/192: Cancelled                 |  | ADA                      | SMILH<br>PATE    | B W SMITH RESERVOIR<br>TATE RESERVOIR                          | IRR_SW<br>IRR_SW; S&D      | 021N<br>021N   | 117W<br>119W | 26<br>03 | 5W1/4NE1/4<br>NE1/4NE1/4 | A<br>LS      |                  |                    |        | smith Draw<br>Grooseberry Draw Creek  | 4.65<br>74.1              |                    | 4.65<br>0           | 0                   | 4.65 Reservoir<br>0 Reservoir     |                      | 41.7738               | -110.66024 External<br>-110.91069 External                             |
| P5513.0R                   | 09/16/1943               | 09/16/194 Complete   |  | ALFRED                   | THOMAN           | THOMAN RESERVOIR   | IRR_SW; STO                | 021N           | 119W         | 03       | NE1/4NE1/4               | L5           |                  |                    |        | Grooseberry Draw Creek  | 98.08                     |                    | 98.08               | 0                   | 98.08 Reservoir                   |                      | 41.8342               | -110.91087 External  |
| P5550.05<br>P5551.05       | 01/14/1966<br>01/14/1966 | 01/14/196 Complete<br>01/14/196 Complete                   |  | ALFRED C<br>ALFRED C     | THOMAN           | KED DRAW STOCK RESERVOIR<br>WHITE SAGE DRAW STOCK RESERVOIR    | STO                        | 021N<br>021N   | 119W<br>119W | 03<br>04 | 5E1/4NE1/4<br>SE1/4NW1/4 | A-<br>A-     |                  |                    |        | Red Draw<br>White Sage Draw   | 0.55                      |                    | 0                   | 0.55                | 0.55 Reservoir<br>0.54 Reservoir  |                      | 41.83012<br>41.8301   | <ul> <li>-110.908686 External</li> <li>-110.937686 External</li> </ul> |
| P5552.05                   | 01/14/1966               | 01/14/196 Complete   | 1040C DANGU  | ALFRED C                 | THOMAN           | CACTUS DRY DRAW STOCK RESERVOIR                                | STO                        | 021N           | 119W         | 02       | NE1/45W1/4               | A-           |                  |                    |        | Cactus Dry Draw   | 0.88                      |                    | 0                   | 0.88                | 0.88 Reservoir                    |                      | 41.82676              | -110.898394 External   |
| P6166.05<br>P6176.05       | 04/02/1968<br>12/23/1966 | u4/02/195: Complete<br>12/23/196: Cancelled                | LEWIS KANCH<br>THOMPSON LAND & LIVESTOCK CO                    | D.                       |                  | LEWIS STUCK RESERVOIR<br>HAY HOLLOW NO. 1 STOCK RESERVOIR      | 510                        | 021N<br>021N   | 117W<br>117W | 20<br>02 | NE1/4SW1/4<br>NE1/4NE1/4 | A<br>1.5     |                  |                    |        | Zebre Draw  | 5.95<br>1.23              |                    | 0                   | 5.4<br>0            | 5.4 Reservoir<br>0 Reservoir      |                      | 41.783221<br>41.83248 | <ul> <li>-110./25197 External</li> <li>-110.657703 External</li> </ul> |
| P6177.0S                   | 04/30/1968               | 04/30/196 Cancelled  | THOMPSON LAND & LIVESTOCK CO                                   | D.                       |                  | HAY HOLLOW #2 STOCK RESERVOIR                                  |                            | 021N           | 117W         | 01       | SW1/4NW1/4               | A            |                  |                    |        | Hay Hollow Creek  | 19.95                     |                    | Ó                   | 0                   | 0 Reservoir                       |                      | 41.83098              | -110.651069 External   |
| P69838.0W<br>P69839.0W     | 04/12/1985<br>04/12/1985 | Abandoned<br>Abandoned                                     | PITISBURG AND MIDWAY COAL M<br>PITTSBURG & MIDWAY COAL MIN     | III HOWARD               | GESLIN           | I WIN CREEK WATER - NO. 12<br>TWIN CREEK WATER - NO. 13        | MON                        | 021N<br>021N   | 116W<br>116W | 17<br>17 | NE1/4SW1/4<br>NE1/4SW1/4 | T97<br>T97   | 0 838            | .00 249<br>.00 275 |        |   |                           |                    | 0                   | 0                   | 0 Well<br>0 Well                  | N                    | 41.7979               | -110.60939 External<br>-110.60937 External                             |
| P69840.0W                  | 04/12/1985               | Abandoned  | PITTSBURG & MIDWAY COAL MIN                                    | Iħ                       |                  | TWIN CREEK WATER - NO. 14                                      | MON                        | 021N           | 116W         | 17       | NE1/45W1/4               | T97          | 0 516            | .00 385            |        |   |                           |                    | 0                   | 0                   | 0 Well                            | N                    | 41.7979               | -110.6093 External   |
| P69841.0W<br>P69842.0W     | 04/12/1985<br>04/12/1985 | Abandoned<br>Abandoned                                     | PITTSBURG & MIDWAY COAL MIN<br>PITTSBURG & MIDWAY COAL MIN     | ir<br>Ið                 |                  | TWIN CREEK WATER - NO. 15<br>TWIN CREEK WATER - NO. 16         | MON                        | 021N<br>021N   | 116W<br>116W | 17       | NE1/45W1/4<br>NE1/45W1/4 | 197<br>T97   | U 618.<br>0 540. | .00 276<br>.00 283 |        |   |                           |                    | 0                   | 0                   | 0 Well                            | N                    | 41.7979               | -110.60941 External<br>-110.60943 External                             |
| P69843.0W                  | 04/12/1985               | Abandoned  | PITTSBURG & MIDWAY COAL MIN                                    | IF.                      |                  | TWIN CREEK WATER - NO. 17                                      | MON                        | 021N           | 116W         | 17       | NE1/4SW1/4               | T97          | 0 281            | .00 135            |        |   |                           |                    | 0                   | 0                   | 0 Well                            | N                    | 41.7979               | -110.60946 External  |
| P/411.05<br>P9093.05       | 11/UB/1972<br>07/13/1983 | 11/08/197. Complete<br>07/13/198. Complete                 | I NUMAN LIVES FOCK COMPANY                                     |                          |                  | BUTTE STOCK RESERVOIR<br>BULL PEN STOCK RESERVOIR              |                            | 021N<br>021N   | 119W<br>118W | 21<br>23 | NW1/4NE1/4<br>NE1/4NW1/4 | A            |                  |                    |        | Twin Creek<br>Duck Draw   | 4.93<br>8.84              |                    | 0                   | 4.93<br>8.84        | 4.93 Reservoir<br>8.84 Reservoir  |                      | 41.7892               | -110.93471 External<br>-110.78426 External                             |

| LINCOLN COU                | INTY          |                              |                                |                      |               |   |                     |        |        |          |                           |                              | _                              |                             |                              |                            |                      |                             |          |                                    |          |                              |            |                     |
|----------------------------|---------------|------------------------------|--------------------------------|----------------------|---------------|---|---------------------|--------|--------|----------|---------------------------|------------------------------|--------------------------------|-----------------------------|------------------------------|----------------------------|----------------------|-----------------------------|----------|------------------------------------|----------|------------------------------|------------|---------------------|
|                            |               |                              |                                |                      |               |   |                     |        |        |          |                           | , Survey<br>ber, Survey<br>x | r I pw(CFS)/<br>ropriation(GPM | l depth (Ft)<br>cWaterLevel | Log (Y/N)<br>th Of Pump (Ft) |                            | Di<br>Ca<br>Total at | version<br>pacity<br>Active | Inactiv  | re Size of                         |          | ysis(Y/N)                    |            |                     |
| WR Number                  | Priority Date | text Status                  | Company                        | First Name           | Last Name     | Facility Name                             | Uses                | Twn    | Rng    | Sec      | Qtr-Qtr                   |                              | App .                          | Ft)                         | Mell                         | Stream Source              | (AF/Yr) CF           | adgate(Capacity<br>S) (AF)  | (AF)     | r(AF) type                         | Type     | 5 F Latitude                 | Long       | aitude Bv           |
| P9095.05                   | 07/13/1983    | 07/13/198 Complete           |                                |                      |               | DUCK POND STOCK RESERVOIR                 |                     | 021N   | 118W   | 14       | NE1/4SE1/4                | A                            |                                |                             | -                            | Duck Draw                  | 11.83                |                             | 0 11     | .83 11.83 Reservoir                |          | 41.79                        | 767        | -110.77139 External |
| P9254.0R                   | 01/08/1987    | 01/08/198 Complete           | WESTMORELAND KEMMERER INC      |                      |               | 1-U-D WEST RESERVOIR                      | IND_SW              | 021N   | 116W   | 18       | NW1/4NE1/4                | T96                          |                                |                             |                              | KSB-A Creek                | 19.92                | (                           | 5        | 0 19.92 Reservoir                  |          | 41.80                        | 171        | -110.62532 External |
| P9909.0S                   | 03/04/1986    | 03/04/198 Complete           |                                |                      |               | SNOWBERRY PIT STOCK RESERVOIR             |                     | 021N   | 119W   | 20       | NW1/4SE1/4                | A                            |                                |                             |                              | Snowberry Hollow           | 0.4                  | 0                           |          | 0.4 0.4 Reservoir                  |          | 41.78                        | 324        | -110.952 External   |
| P9911.05                   | 03/04/1986    | 03/04/198 Complete           |                                |                      |               | URD PIT STOCK RESERVOIR                   |                     | 021N   | 119W   | 35       | NE1/4SE1/4                | A-                           |                                |                             |                              | Urd Draw                   | 1.4                  |                             |          | 1.4 1.4 Reservoir                  |          | 41.75                        | 170        | -110.88/0/ External |
| P9913.05                   | 03/04/1986    | 03/04/198 Complete           |                                |                      |               | SDW PIT STOCK RESERVOIR                   |                     | 021N   | 115W   | 18       | SE1/4NW1/4                | A                            |                                |                             |                              | Crossing Draw              | 0.9                  |                             | 5        | 0.9 0.9 Reservoir                  |          | 41.79                        | 953        | -110.85966 External |
| P9914.05                   | 03/04/1986    | 03/04/198 Complete           |                                |                      |               | NUGGET #1 PIT STOCK RESERVOIR             |                     | 021N   | 118W   | 18       | NE1/4NW1/4                | Â                            |                                |                             |                              | Deer Draw                  | 1                    |                             | 5        | 1 1 Reservoir                      |          | 41.80                        | 572        | -110.86141 External |
| P9915.05                   | 03/04/1986    | 03/04/198 Complete           |                                |                      |               | JULIAN PIT STOCK RESERVOIR                |                     | 021N   | 119W   | 22       | NW1/4NE1/4                | А                            |                                |                             |                              | Julian Draw                | 0.8                  | c                           |          | 0.8 0.8 Reservoir                  |          | 41.78                        | 957        | -110.91133 External |
| P9916.05                   | 03/04/1986    | 03/04/198 Complete           |                                |                      |               | IVY PIT STOCK RESERVOIR                   |                     | 021N   | 119W   | 34       | NW1/4SW1/4                | A-                           |                                |                             |                              | Ivy Draw                   | 1.3                  | (                           | ) :      | 1.3 1.3 Reservoir                  |          | 41.75                        | 187        | -110.92413 External |
| P9918.05                   | 03/04/1986    | 03/04/198 Complete           |                                |                      |               | OPUNTIA PIT STOCK RESERVOIR               |                     | 021N   | 120W   | 25       | NW1/4NW1/4                | A-                           |                                |                             |                              | Opuntia Draw               | 2                    | (                           | 5        | 2 2 Reservoir                      |          | 41.7                         | 751        | -110.9988 External  |
| P9940.05                   | 06/04/1986    | 06/04/198 Complete           |                                |                      |               | JULIAN #2 STOCK RESERVOIR                 |                     | 021N   | 119W   | 19       | SE1/4NW1/4                | A                            |                                |                             |                              | D.E.W. Draw                | 13.9                 | 0                           | 0 1      | 3.9 13.9 Reservoir                 |          | 41.78                        | 582        | -110.97617 External |
| P9941.05                   | 06/04/1986    | 06/04/198 Complete           |                                |                      |               | SAGEBRUSH STUCK RESERVUIR                 | 570                 | 021N   | 119W   | 31       | SW1/4NW1/4                | LD                           |                                |                             |                              | Parallel Draw              | 15.3                 |                             |          | 5.3 15.3 Reservoir                 |          | 41.75                        | 103        | 110.98271 External  |
| CR CC28/007                | 12/31/1879    | 1879 Fully Adjudicated       | BECKWITH QUINN AND COMPANY     |                      |               | PIXLEY DAM DITCH                          | IRR SW              | 021N   | 120W   | 01       | NW1/4NW1/4                | T51L9                        | 2.71                           |                             |                              | Bear River                 | 10.0                 |                             | , 1      | 0 0 Stream                         |          | 41.920                       | 256 -:     | 110.999775 External |
| CR CC28/027                | 04/01/1883    | 04/01/188 Fully Adjudicated  | BECKWITH QUINN AND COMPANY     |                      |               | B. Q. DAM SLOUGH DITCH (WEST)             | IRR SW              | 022N   | 120W   | 26       | NE1/45W1/4                | T41L18                       | 28.64                          |                             |                              | Bear River                 |                      | c                           | 5        | 0 0 Stream                         |          | 41.8                         | 69 -:      | 111.012453 External |
| CR CC28/110                | 06/12/1901    | 06/12/190 Fully Adjudicated  |                                | FRANK                | BECKWITH      | MACFARLAND DITCH                          | IRR_SW              | 022N   | 120W   | 26       | NW1/4NE1/4                | T41L3                        | 1.14                           |                             |                              | Bear River                 |                      | 0                           | 0        | 0 0 Stream                         |          | 41.862                       | 956        | -111.0095 External  |
| CR CC28/111                | 06/12/1901    | 06/12/190 Fully Adjudicated  |                                | FRED                 | BECKWITH      | MACFARLAND DITCH                          | IRR_SW              | 022N   | 120W   | 26       | NW1/4NE1/4                | T41L3                        | 0.57                           |                             |                              | Bear River                 |                      | (                           | 5        | 0 0 Stream                         |          | 41.862                       | 956        | -111.0095 External  |
| CR CC28/112                | 06/12/1901    | 06/12/190 Fully Adjudicated  | BECKWITH QUINN AND COMPANY     |                      |               | MACFARLAND DITCH                          | IRR_SW              | 022N   | 120W   | 26       | NW1/4NE1/4                | T41L3                        | 3.42                           |                             |                              | Bear River                 |                      | (                           | 5        | 0 0 Stream                         |          | 41.862                       | 956        | -111.0095 External  |
| CR CC28/228                | 07/30/1885    | 07/30/188 Fully Adjudicated  | BECKWITH QUINN AND COMPANY     |                      | 0500          | ANTELOPE CREEK DITCH ACT ANTELOPE CREEK   | IRR_SW              | 022N   | 119W   | 05       | SE1/4SE1/4                | L20                          | 0.5                            |                             |                              | Antelope Creek             |                      | (                           | 2        | 0 0 Stream                         | Original | 41.911                       | 003 -:     | 10.948469 External  |
| CR CC38/25/                | 05/12/1909    | 05/12/190 Abandoned          | BECKWITH-QUINN AND COMPANY     | JNO                  | REDD          | AN IELOPE CREEK NO 2 DITCH                |                     | 022N   | 119W   | 05       | SE1/4SE1/4                | L20                          |                                |                             |                              | Antelope Creek             |                      |                             |          | 0 0 Stream                         | Original | 41.911                       | 103 -:     | 110.948469 External |
| CR CC79/315                | 10/21/1991    | 10/31/197 Fully Adjudicated  | FAILONI LAND AND LIVESTOCK     |                      |               | ENLARGED JD NO 1 DITCH                    | IRR_SW              | 022N   | 118W   | 29       | NW1/4NE1/4                | A<br>A                       | 0.04                           |                             |                              | KOCK Creek<br>Milett Creek |                      |                             | ,<br>,   | 0 0 Stream                         | Original | 41.80.                       | 236        | -110.83651 External |
| CR CC79/321                | 10/31/1973    | 10/31/197 Fully Adjudicated  | FAILONI LAND AND LIVESTOCK     |                      |               | ENLARGED SULPHUR SPRINGS DITCH ACT SULF   | IRR SW              | 022N   | 118W   | 20       | SF1/4NF1/4                | Â                            | 0.12                           |                             |                              | Sulphur Springs Creek      |                      |                             | 5        | 0 0 Stream                         | Original | 41.87                        | 299        | -110.83115 External |
| CR CC81/225                | 09/04/1992    | 09/04/199. Fully Adjudicated |                                | ROLAND C AND LINDA L | WILLIS        | ENLARGED B Q DAM SLOUGH DITCH (WEST)      | IRR_SW              | 022N   | 120W   | 26       | NW1/4SE1/4                | T41L3                        | 0.49                           |                             |                              | Bear River                 |                      | (                           | 5        | 0 0 Stream                         | Original | 41.857                       | 389 -:     | 111.012414 External |
| CR CC81/226                | 09/04/1992    | 09/04/199: Fully Adjudicated |                                | ROLAND C AND LINDA L | WILLIS        | ENLARGED B Q DAM SLOUGH DITCH (WEST)      | IRR_SW              | 022N   | 120W   | 26       | NW1/4SE1/4                | T41L3                        | 2.23                           |                             |                              | Bear River                 |                      | 0                           | D        | 0 0 Stream                         | Original | 41.857                       | 389 -:     | 111.012431 External |
| CR CC83/082                | 07/30/1879    | 07/30/187: Fully Adjudicated |                                | ROLAND C AND LINDA L | WILLIS        | SUCCOR SPRINGS DITCH                      | IRR_SW; S&D         | 022N   | 120W   | 26       | SE1/4SW1/4                | T41L24                       | 0                              |                             |                              | Succor Springs             |                      | (                           | D        | 0 0 Spring                         | Original | 41.85                        | 051        | -111.01487 External |
| CR CC90/182                | 06/10/1887    | 06/10/188' Fully Adjudicated | DON D FAILONI TRUST            |                      |               | PORTER NO. 1 DITCH                        | IRR_SW              | 022N   | 118W   | 32       | NE1/4NE1/4                | A                            | 0.88                           |                             |                              | Rock Creek                 |                      | 0                           | 0        | 0 0 Stream                         | Original | 41.848                       | 147 -:     | 110.830156 External |
| CR CC90/183                | 06/10/1887    | 06/10/188 Fully Adjudicated  | DON D FAILONI TRUST            |                      |               | ROCK CREEK NO. 1 DITCH ACT PORTER NO. 1 D | I IRR_SW            | 022N   | 118W   | 32       | NE1/4NE1/4                | A                            | 0.34                           |                             |                              | Rock Creek                 |                      | 0                           | 2        | 0 0 Stream                         | Original | 41.84                        | 845        | -110.83016 External |
| CR CC90/184                | 02/27/2007    | 00/10/188 Fully Adjudicated  | DON D FAILONT TRUST            | POLAND CANDUNDAL     | AND US        | C 12 DIDELINE AND DIVOT                   | IRR_SW              | 022N   | 12014/ | 29       | NE1/45E1/4                | A<br>T411                    | 0.98                           |                             |                              | ROCK Creek                 |                      | 1 6                         |          | 0 0 Stream                         | Original | 41.855                       | :31        | 1110.83345 External |
| CR CC91/127<br>CR CC91/130 | 06/06/2008    | 06/06/200 Fully Adjudicated  | DON D FAILONI TRUST            | KODAND C AND LINDA L | WILLIS        | ICEBOX STREAM NO. 1 DITCH                 | IRR_SW              | 022N   | 118W   | 33       | SW1/4NW1/4                | A                            | 0                              |                             |                              | Icebox Draw                |                      | 4.5 0                       | 5        | 0 0 Stream                         |          | 41.802                       | 361 -:     | 110.827083 External |
| CR CC91/131                | 06/06/2008    | 06/06/200 Fully Adjudicated  | DON D FAILONI TRUST            |                      |               | ICEBOX STREAM NO. 2 DITCH                 | IRR SW              | 022N   | 118W   | 33       | NW1/45W1/4                | А                            | 0                              |                             |                              | Icebox Draw                |                      | 4.5 0                       | 5        | 0 0 Stream                         |          | 41.840                       | 22         | -110.825 External   |
| CR CC91/132                | 06/06/2008    | 06/06/200 Fully Adjudicated  | FAILONI LAND & LIVESTOCK       |                      |               | ICEBOX STREAM NO. 3 DITCH                 | IRR_SW              | 022N   | 118W   | 33       | NW1/4SW1/4                | A                            | 0                              |                             |                              | Icebox Draw                |                      | (                           | D        | 0 0 Stream                         |          | 41.841                       | - 800      | 110.826617 External |
| CR CC93/009                | 08/29/1910    | 08/29/191 Fully Adjudicated  | JULIAN LAND & LIVESTOCK, CO.   |                      |               | JANE NO. 1 DITCH ACT JANE NO. 2 DITCH     | IRR_SW              | 022N   | 118W   | 08       | SW1/4SE1/4                | А                            | 0.94                           |                             |                              | Rock Creek                 |                      | (                           | 5        | 0 0 Stream                         |          | 41.895                       | 158 -:     | 110.835583 External |
| CR CC93/010                | 08/29/1910    | 08/29/191 Fully Adjudicated  | JULIAN LAND & LIVESTOCK, CO.   |                      |               | JANE NO. 2 DITCH                          | IRR_SW              | 022N   | 118W   | 08       | SW1/4SE1/4                | А                            | 0.57                           |                             |                              | Rock Creek                 |                      | (                           | 5        | 0 0 Stream                         |          | 41.895                       | - 069      | 110.835561 External |
| CR CC93/093                | 06/04/2010    | Fully Adjudicated            | DON D FAILONI TRUST            |                      |               | MORRISON PIPELINE                         | STO                 | 022N   | 118W   | 29       | NE1/4SE1/4                | A                            | 0.056                          |                             |                              | Rock Creek                 |                      | 0.056 0                     |          | 0 0 Stream                         |          | 41.853                       | 333 -:     | 10.832417 External  |
| CR CR22/132                | 05/27/2007    | 05/27/200 Fully Adjudicated  | UNION PACIFIC PAUROAD CO       |                      |               | POTNAM RANCH EQIP STOCK RESERVOIR         | SIU                 | 022N   | 110W   | 03       | NE1/4NW1/4                | 126                          | 10                             |                             |                              | South Lake Canyon Creek    |                      |                             |          | 0 0.06 Reservoir                   | Original | 41.920                       | 170        | -111.03335 External |
| CR UW05/308                | 07/25/1977    | 03/03/197/ Pully Adjudicated | UNION PACIFIC RAILROAD CO      | KEITH LAND FRMA N    | PUTNAM        | PUTNAM RANCH NO. 1 WELL                   | IRR GW              | 022N   | 120W   | 03       | SE1/43E1/4<br>SE1/4SW1/4  | A                            | 325                            |                             |                              |                            |                      |                             | 5        | 0 0 Well                           | Original | 41.50                        | 172        | -111.03484 External |
| P10060.05                  | 11/25/1986    | 11/25/198 Complete           |                                | ALFRED               | THOMAN        | ROCK DRAW STOCK RESERVOIR                 | STO                 | 022N   | 119W   | 33       | SE1/4SE1/4                | A                            |                                |                             |                              | Rock Draw                  | 2.12                 |                             | -<br>D 2 | .12 2.12 Reservoir                 | 0.19.101 | 41.837                       | 308 -:     | 110.928031 External |
| P10180.05                  | 06/02/1987    | 06/02/198 Complete           |                                | ALFRED               | THOMAN        | COTTONWOOD DRAW STOCK RESERVOIR           | STO                 | 022N   | 119W   | 36       | NE1/4SE1/4                | T57                          |                                |                             |                              | Cottonwood Draw Creek      | 1.7                  | 1.5                         | 7        | 0 1.7 Reservoir                    |          | 41.840                       | 381 -:     | 110.869972 External |
| P10187.05                  | 07/09/1987    | 07/09/198 Complete           | FAILONI LAND & LIVESTOCK       |                      |               | FAILONI L&L STOCK RESERVOIR               | STO                 | 022N   | 118W   | 32       | NW1/4NE1/4                | A                            |                                |                             |                              | Tunp Draw                  | 0.41                 | 0                           | 0.0      | .41 0.41 Reservoir                 |          | 41.848                       | 239 -:     | 110.836297 External |
| P11405.05                  | 11/04/1991    | 11/04/199 Complete           |                                |                      |               | COOPER PIT NO. 2 STOCK RESERVOIR          | STO                 | 022N   | 118W   | 30       | SE1/4NE1/4                | А                            |                                |                             |                              | Aspen Draw                 | 0.28                 | c                           | 0 0      | .28 0.28 Reservoir                 |          | 41.859                       | 97 -:      | 110.850808 External |
| P1375.0R                   | 07/29/1908    | 07/29/190 Expired            |                                | Dave                 | Boise         | DOCK RESERVOIR                            | IRR_SW              | 022N   | 118W   | 35       | NE1/4NW1/4                | A                            |                                |                             |                              | West Fork                  | 11                   | 11                          | 1        | 0 11 Reservoir                     |          | 41.84                        | 324        | -110.78441 External |
| P147.00                    | 10/10/1891    | 10/10/189 Cancelled          | WILLIE BANCH                   | FREDERICK            | LOOK          | COUK DITCH                                | IRR CW STR          | 022N   | 118W   | 1/       | NW1/4NE1/4                | A<br>T40                     | 9.14                           |                             |                              | ROCK Creek                 |                      | -1 (                        |          | 0 0 Stream                         |          | 41.89                        | 15<br>10   | -110.83518 External |
| P154578.0W                 | 05/09/2003    | Cancelled                    | WILLIS RANCH                   | KODAND               | WILLIS        | COVEY WELL #1                             | IRR GW: STK         | 022N   | 120W   | 25       | NF1/45E1/4                | A                            | 2000                           |                             |                              |                            |                      |                             | 5        | 0 0 Well                           |          | 41.505                       | 55 -       | 110.985989 External |
| P1569.0W                   | 11/16/1965    | Incomplete                   |                                | DONALD D.            | JULIAN        | JULIAN #1                                 | IRR GW              | 022N   | 118W   | 20       | NE1/4NW1/4                | A                            | 240 600.0                      | 10 -6                       |                              |                            |                      | c                           | 5        | 0 0 Well                           | N        | 41.87                        | 21         | -110.84116 External |
| P1588.0R                   | 08/04/1909    | 08/04/190 Complete           |                                | AUGUST               | LINDEN        | GUS RESERVOIR                             | IRR_SW              | 022N   | 118W   | 13       | NE1/4SE1/4                | A                            |                                |                             |                              | Dipper Creek               | 20                   | 20                          | 2        | 0 20 Reservoir                     |          | 41.88                        | 293        | -110.75271 External |
| P1589.0R                   | 08/04/1909    | 08/04/190 Complete           |                                | ANNA                 | LINDEN        | ANNA RESERVOIR                            | IRR_SW              | 022N   | 118W   | 24       | SE1/4NE1/4                | А                            |                                |                             |                              | Linden Creek               | 12                   | 12                          | 2        | 0 12 Reservoir                     |          | 41.8                         | 737        | -110.75414 External |
| P189090.0W                 | 10/17/2008    | Cancelled                    | MILLIS DANCH                   | ROLAND               | WILLIS        | BQ CORRAL ONE                             | MIS                 | 022N   | 120W   | 22       | NE1/4SE1/4                | T43                          | 25                             |                             |                              |                            |                      | (                           | 2        | 0 0 Well                           |          | 41.869                       | 364 -:     | 111.024719 External |
| P191803.0W                 | 12/22/2009    | Incomplete                   | USDA EISH AND WILDLIEF SERVICE |                      |               | BECKWITH & ENLARGEMENT REPLACEMENT W      | SIN (IPP GW)        | 022N   | 120W   | 25       | SE1/4NE1/4<br>NE1/ASM/1/A | 10                           | 20 318.0                       | 10 2                        | N 21                         | J                          |                      |                             | 5        | 0 0 Well                           | IN       | 41.858                       | 64         | 110.984433 SEO      |
| P2387.0R                   | 03/02/1912    | 03/02/191 Cancelled          |                                | A E AND MINNIE M     | SCHMIDT       | SCHMIDT RESERVOIR                         | DOM SW: IRR SW:     | 5 022N | 119W   | 34       | SE1/4NE1/4                | A                            | 2000                           |                             |                              | Grooseberry Draw Creek     | 78.4                 |                             | 5        | 0 0 Reservoir                      |          | 41.84                        | 153        | -110.90866 External |
| P24744.0D                  | 02/18/1975    | 02/18/197: Complete          | USDI - BLM                     |                      |               | DEEP HOLE SPRING PIPELINE                 |                     | 022N   | 119W   | 13       | SE1/4SW1/4                | А                            | 0.042                          |                             |                              | Deep Hole Spring           |                      | 0.042 0                     | 5        | 0 0 Spring                         |          | 41.88                        | 074        | -110.87875 External |
| P2673.0R                   | 06/01/1914    | 06/01/191 Complete           |                                | ELLEN                | BOWCUTT       | ELLEN RESERVOIR                           | IRR_SW              | 022N   | 119W   | 04       | SE1/4SW1/4                | T50L28                       |                                |                             |                              | Antelope Creek             | 12.8                 | 12.8                        | в        | 0 12.8 Reservoir                   |          | 41.9                         | 106        | -110.93673 External |
| P2748.0R                   | 10/03/1914    | 10/03/191 Complete           |                                | WALTER               | HANKS         | RICH RESERVOIR                            | IRR_SW              | 022N   | 117W   | 21       | NW1/4NE1/4                | A                            |                                |                             |                              | Hartley Hollow Creek       | 72.5                 | 72.5                        | 5        | 0 72.5 Reservoir                   |          | 41.87                        | 739        | -110.69317 External |
| P2805.0R                   | 01/05/1915    | 01/05/191 Cancelled          |                                | CHARLES              | KING          | CHARLES KING RESERVOIR                    | IRR_SW              | 022N   | 117W   | 29       | NE1/4SW1/4                | A                            |                                |                             |                              | Dry Gulch                  | 15.3                 | (                           | )        | 0 0 Reservoir                      |          | 41.85                        | 561        | -110.71758 External |
| P2887.0R                   | 07/30/1915    | 07/30/191 Cancelled          | FAIL ONLY AND AND INCOME       | LILLY                | KING          | KING NO. TWO RESERVOIR                    | IRR_SW              | 022N   | 117W   | 32       | NW1/4SW1/4                | A                            |                                |                             |                              | Spring No. 1               | 2.58                 |                             | 2        | 0 0 Reservoir                      |          | 41.84                        | 131        | -110.72487 External |
| P30703.00                  | 01/26/1989    | 01/26/198 Complete           | FAILONI LAND AND LIVESTOCK     |                      |               | SUIPHUR SPRINGS PIPEUNE                   |                     | 022N   | 118W   | 29<br>20 | SF1/4NE1/4                | A .                          | 1.74                           |                             |                              | Sulphur Springe Creek      |                      | 151 (                       | -<br>1   | 0 0 Stream                         |          | 41.86.                       | 299        | -110.83115 External |
| P32034.0D                  | 06/12/1998    | 06/12/199 Complete           |                                | ROLAND C             | WILLIS        | WESTON RANCH PIPELINE AND SPRINKLER IRR   |                     | 022N   | 120W   | 26       | NW1/4NE1/4                | L3                           | 5.86                           |                             |                              | Bear River                 |                      | 6.68 0                      | -        | 0 0 Stream                         |          | 41.86                        | 808        | -111.00872 External |
| P32633.0D                  | 04/11/2002    | 04/11/200 Cancelled          | NORTHWEST PIPELINE CORP        |                      |               | PEGRAM LOOP WATER HAUL                    | IND SW              | 022N   | 120W   | 000      |                           | T41                          |                                |                             |                              | Bear River                 |                      | 1.78 0                      | 0        | 0 0 Stream                         |          | 41.87                        | 904        | -111.02246 External |
| P3307.0R                   | 06/28/1916    | 06/28/191 Expired            |                                | EDWARD               | MORGAN        | MORGAN RESERVOIR                          | IRR_SW              | 022N   | 118W   | 15       | NW1/4NE1/4                | А                            |                                |                             |                              | Morgan Draw                | 37.15                | 37.15                       | 5        | 0 37.15 Reservoir                  |          | 41.89                        | 215        | -110.80002 External |
| P3379.0R                   | 10/17/1916    | 10/17/191 Incomplete         |                                | MABEL CHASE          | BARRET        | BARRET RESERVOIR                          | IRR_SW; STO         | 022N   | 117W   | 22       | SE1/4NE1/4                | А                            |                                |                             |                              | Bonner Draw                | 15.05                | 15.05                       | 5        | 0 15.05 Reservoir                  |          | 41.87                        | 186        | -110.67021 External |
| P34073.0D                  | 06/06/2008    | 06/06/200 Complete           |                                |                      |               | ICEBOX STREAM NO. 1 DITCH                 |                     | 022N   | 118W   | 33       | SW1/4NW1/4                | A                            |                                |                             |                              | Icebox Draw                |                      | 4.5 0                       | 2        | 0 0 Stream                         |          | 41.84                        | 177        | -110.82668 External |
| P34074.0D                  | 06/06/2008    | Ub/Ub/200 Complete           |                                |                      |               | ILLEUX STREAM NO. 2 DITCH                 |                     | 022N   | 118W   | 33       | NW1/45W1/4                | A                            |                                |                             |                              | Icebox Draw                |                      | 4.5 0                       | 1        | U O Stream                         |          | 41.84                        | J95        | -110.82668 External |
| P34075.00                  | 02/27/2007    | 02/22/200 Complete           |                                |                      |               | C-12 PINOT AND PIPELINE                   |                     | 022N   | 120W   | 33       | ww1/45W1/4                | A<br>T/1                     | 2 27                           |                             |                              | Rear River                 |                      | 1 7                         | ,        | 0 U Stream                         |          | 41.0                         | 941<br>964 | -111 00050 External |
| P35491.0D                  | 05/04/2015    | Incomplete                   |                                | ROLAND C AND LINDA I | WILLIS        | WILLIS PIPELINE                           | IRR SW              | 022N   | 120W   | 000      |                           | T51                          | 0.64                           |                             |                              | Bear River                 |                      | 4.4 0                       | 5        | 0 0 Stream                         |          | 41.80.                       |            | 111.001643 SEO      |
| P3608.0R                   | 08/04/1919    | 08/04/191' Expired           |                                | ADA                  | PATE          | ADA RESERVOIR                             | IRR_SW; S&D         | 022N   | 119W   | 34       | SE1/4NE1/4                | A                            |                                |                             |                              | Grooseberry Draw Creek     | 12.08                | c.                          | 5        | 0 12.07 Reservoir                  |          | 41.8                         | 157        | -110.90865 External |
| P15719.0D                  | 08/04/1919    | 08/04/191                    |                                | Ada R.               | Pate          | Ada Ditch                                 | DOM_SW; IRR_SW;     | S 022N | 119W   | 34       | SE1/4NE1/4                |                              | 1.46                           |                             |                              |                            |                      | 4.68 0                      | 5        | 0 0 Stream                         |          | 41.844                       | 526 -:     | 110.908658 External |
| P24060.0D                  | 04/26/1973    | 04/26/197: Fully Adjudicated |                                |                      |               | Johnson Pipe Line                         | IRR SW              | 022N   | 120W   | 34       | NW1/4SE1/4                | A14-                         | 8.95                           |                             |                              |                            |                      | 4.46 0                      | )        | 0 0 Stream                         |          |                              |            | External            |
| P27946.0D                  | 02/16/1983    | 02/16/198 Cancelled          |                                |                      | Gulf Oil Expl | or Gulf Velocity Holes                    | DRI; IND_SW; OIL; T | E 022N | 120W   | 00       |                           | T46                          | 0.11                           |                             |                              |                            |                      | 0.11 0                      | 0        | 0 0 Stream                         |          | 41.879                       | 043 -:     | 11.022458 External  |
| P27959.0D                  | 02/28/1983    | 02/28/198 Cancelled          |                                | laha A               | B.J. Explorat | io B. J. Water Haul #4456                 | DRI; IND SW; OIL; T | E 022N | 120W   | 34       | ANALIA (ANITA ) -         | T38                          | 0.5                            |                             |                              |                            |                      | 0.5 0                       | 2        | 0 0 Stream                         |          | 41.842                       | 912 -      | 111.031859 External |
| P3264.00                   | ub/12/1901    | 06/12/190 Complete           |                                | John A.              | BECKWITH      | MACHARLAND DITCH                          | IRR SW              | 022N   | 120W   | 20<br>24 | NW1/4NE1/4                | A2-                          | 15./1                          |                             |                              |                            |                      | (                           |          | U U Stream                         | ~        | 41.862                       | - 60       | 111.009/46 External |
| CR CC82/066                | 06/12/19/3    | 04/20/197. Fully Adjudicated |                                | ROLAND C AND LINDA L | JUNNSON, E    | WESTON RANCH PIPELINE AND SODING OF THE   | IRR SW              | 022N   | 120W   | 34<br>26 | 3E1/45W1/4<br>NW1/4NE1/4  | 13/L25<br>T4113              | 0.4<br>5.86                    |                             |                              |                            |                      | (<br>/                      | ,        | 0 U Stream                         | Ori      | ginal 41.836<br>ginal 41.864 | 03<br>206  | 111.009658 External |
| P3955.0R                   | 08/04/1919    | 08/04/191 Expired            |                                | LILY                 | KING          | KING RESERVOIR                            | DOM SW; IRR SW:     | 5 022N | 117W   | 21       | NW1/4NE1/4                | A                            | 5.00                           |                             |                              | Hartley Hollow Creek       | 52.3                 | 52.3                        | -        | 0 52.3 Reservoir                   | On       | 41.87                        | 735        | -110.69513 External |
| P41762.0W                  | 12/27/1977    | Cancelled                    |                                | ROLAND C.            | WILLIS        | WILLIS #1                                 | IRR_GW              | 022N   | 120W   | 11       | SW1/4NW1/4                | T49L8                        | 1200                           |                             |                              |                            |                      |                             | 0        | 0 0 Well                           |          | 41.90                        | 234        | -111.02017 External |
| P7811.0E                   | 05/04/2015    | 5/4/2015 Incomplete          |                                | ROLAND C AND LINDA L | WILLIS        | WILLIS ENLARGEMENT OF B. Q. DAM SLOUGH    | IRR_SW              | 022N   | 120W   | 11       |                           | T49                          | 0.59                           |                             |                              | Bear River                 |                      | 390.846 0                   | )        | 0 0 Stream                         |          | 41.9                         | 161 -:     | 111.001643 SEO      |
| P8208.05                   | 07/29/1976    | 07/29/197 Complete           | ROCK CREEK GRAZING ASSOCIATIO  | I GEORGE             | COOPER        | THORNOCK DRAW STOCK RESERVOIR             |                     | 022N   | 119W   | 16       | NE1/4SW1/4                | T56                          |                                |                             |                              | Thornock Draw              | 1.85                 | 0                           | 1        | .85 1.85 Reservoir                 |          | 41.88                        | 521        | -110.93535 External |
| P8209.05                   | 07/29/1976    | U//29/197 Complete           | KUCK CREEK GRAZING ASSOCIATIO  | r GEORGE             | COOPER        | PETERSEN DRAW STOCK RESERVOIR             |                     | 022N   | 119W   | 21       | SW1/4SW1/4                | L24                          |                                |                             |                              | Petersen Draw              | 1.38                 | 0                           | J 1.     | .38 1.38 Reservoir                 |          | 41.86                        | 14         | -110.94471 External |
| P8287.05                   | 04/11/1977    | 04/11/197 Complete           | BUREAU OF LAND MANAGEMENT      |                      |               | BOULDER RIDGE PIT #1 STOCK RESERVOIR      |                     | 022N   | 119W   | 29<br>20 | NW1/45E1/4                | A<br>16                      |                                |                             |                              | South Gap Draw             | 1.35                 | (<br>,                      | ) 1<br>) | .35 1.35 Keservoir                 |          | 41.85                        | 585        | -110.95255 External |
| P8289.05                   | 04/11/1977    | 04/11/197 Complete           | BUREAU OF LAND MANAGEMENT      |                      |               | GOOSEBERRY PIT STOCK RESERVOIR            |                     | 022N   | 119W   | 27       | SW1/4NW1/4                | A                            |                                |                             |                              | South Fork Antelone Creek  | 1.4                  | ,<br>,                      | -<br>- 1 | .4 Reservoir<br>.42 1.47 Reservoir |          | 41.8                         | 584        | -110.92285 External |
| P8290.05                   | 04/11/1977    | 04/11/197 Complete           | BUREAU OF LAND MANAGEMENT      |                      |               | ANTELOPE STOCK RESERVOIR                  |                     | 022N   | 119W   | 22       | NE1/4NE1/4                | A                            |                                |                             |                              | Section Line Draw          | 3.14                 | ć                           | 3        | .14 3.14 Reservoir                 |          | 41.87                        | 713        | -110.90641 External |
| P8299.05                   | 04/11/1977    | 04/11/197 Cancelled          | BUREAU OF LAND MANAGEMENT      |                      |               | FOSSIL #3-774 PIT STOCK RESERVOIR         |                     | 022N   | 117W   | 29       | NE1/4SW1/4                | А                            |                                |                             |                              | North Fork Twin Creek      | 3.12                 | c                           | 5        | 0 0 Reservoir                      |          | 41.85                        | 506        | -110.72039 External |
| P881.0R                    | 07/23/1906    | 07/23/190 Expired            |                                | JOHN                 | MCMINN        | MCMINN RESERVOIR                          |                     | 022N   | 117W   | 16       | SE1/4SE1/4                | А                            |                                |                             |                              | Hartley Hollow Creek       | 800                  | 240                         | )        | 0 240 Reservoir                    |          | 41.88                        | 99         | -110.69141 External |
| P9943.05                   | 06/04/1986    | 06/04/198 Complete           |                                |                      |               | SHORTLINE #2 STOCK RESERVOIR              |                     | 022N   | 119W   | 32       | NW1/45E1/4                | A-                           |                                |                             |                              | Boulder Ridge Draw         | 8.2                  | c                           |          | 8.2 8.2 Reservoir                  |          | 41.84                        | 233        | -110.95225 External |
| CR CC28/009                | 12/31/1880    | 1880 Fully Adjudicated       | AFTON LIVE STOCK COMPANY       |                      |               | PIXLEY IRRIGATING DITCH (WEST)            | IKR SW              | 023N   | 120W   | 25       | SW1/4SE1/4                | T72L25                       |                                |                             |                              | Bear River                 |                      | (                           | j i      | U 0 Stream                         |          | 41.939                       | 147 -:     | 110.989431 External |

| LINCOLN COL                | NIY                      |  |                                   |                       |             |  |                           |              |        |              |                          |                  |  |         | ~                         |            |            |            |                          |                 |          |                           |  |
|----------------------------|--------------------------|--|-----------------------------------|-----------------------|-------------|--|---------------------------|--------------|--------|--------------|--------------------------|------------------|--|---------|---------------------------|------------|------------|------------|--------------------------|-----------------|----------|---------------------------|--|
|                            |                          |  |                                   |                       |             |  |                           |              |        |              |                          |                  | E .  | 7       | E.                        |            |            |            |                          |                 |          |                           |  |
|                            |                          |  |                                   |                       |             |  |                           |              |        |              |                          | Py Inve          | Log L  | Lev III | li m                      | D          | iversion   |            |                          |                 |          | N.                        |  |
|                            |                          |  |                                   |                       |             |  |                           |              |        |              |                          | nrv.             | or at at or of the second seco | ate /   |                           | C          | apacity    |            |                          |                 |          | is s                      |  |
|                            |                          | Priority Summary WR  |                                   |                       |             |  |                           |              |        |              |                          | fix ac           | Tord la  | tic M   | tt                        | Capacity H | eadgate( C | apacity Ca | active Siz<br>apacity Re | servoi Facility | Supply   | alysi                     | Created                                    |
| WR Number                  | Priority Date            | text Status  | Company                           | First Name            | Last Name   | Facility Name  | Uses                      | Twn          | Rng S  | Sec          | Qtr-Qtr                  | 1 P N            | <u>e</u> ⊈_ ₽  | st y    | Stream Source             | (AF/Yr) C  | FS) (/     | AF) (A     | F) r(A                   | VF) type        | Туре     | <del>ວິ≨</del> Latitude L | ongitude By                                |
| CR CC28/010                | 12/31/1880               | 1880 Fully Adjudicated                                     |                                   | E                     | VIBRANS     | PIXLEY IRRIGATING DITCH (WEST)                                 | IRR_SW                    | 023N         | 120W 3 | 36           | SE1/4NW1/4               | T46              | 12.65  |         | Bear River                |            |            | 0          | 0                        | 0 Stream        |          | 41.933297                 | -110.994614 External                       |
| CR CC28/022<br>CR CC28/170 | 08/03/1907               | 08/03/190 Fully Adjudicated                                | AFTON LIVE STOCK COMPANY          | w                     | VIBRANS     | ENLARGED PIXLEY DITCH  | IRR_SW                    | 023N         | 120W 3 | 25           | SW1/4SE1/4               | T72L25           | 0.08   |         | Bear River                |            |            | 0          | 0                        | 0 Stream        |          | 41.935592                 | -110.993544 External                       |
| CR CC28/245                | 12/31/1888               | 1888   | AFTON LIVESTOCK COMPANY           |                       |             | LEEDS CREEK DITCH  |                           | 023N         | 119W 3 | 33           | SE1/4NW1/4               | T39L5            |  |         | Leeds Creek               |            |            | ō          | ō                        | 0 Stream        |          | 41.930058                 | -110.939789 External                       |
| CR CC28/246                | 07/21/1904               | 07/21/190  |                                   | CHARLES               | PAGE        | ENLARGED LEEDS CREEK DITCH                                     | IRR_SW                    | 023N         | 119W 3 | 33           | SE1/4NW1/4               | T39L5            | 4.5  |         | Leeds Creek               |            |            | 0          | 0                        | 0 Stream        |          | 41.930058                 | -110.939789 External                       |
| CR CC28/272                | 12/31/1881               | 1881 Fully Adjudicated                                     | AFTON LIVE STOCK COMPANY          |                       | 504445      | NORTH LAKE DITCH   | IRR_SW; STO               | 023N         | 120W 2 | 26           | NW1/4NE1/4               | L3               | 0.28   |         | North Lake Spring Creek   |            |            | 0          | 0                        | 0 Spring        |          | 41.950936                 | -111.012236 External                       |
| CR CC46/369                | 09/27/1927               | 09/27/192 Fully Adjudicated<br>09/27/192 Fully Adjudicated |                                   | R. A.                 | FRAME       | FRAME NO 5 DITCH   | RES: STO                  | 023N         | 118W 0 | )4 :<br>)9   | SE1/45W1/4<br>NW1/4NW1/4 | A                | 0.71   |         | Unnamed Spring            |            |            | 0          | 0                        | 0 Spring        |          | 41.99552                  | -110.82661 External                        |
| CR CC92/147                | 12/08/2006               | 12/08/200 Fully Adjudicated                                | RUSS AND EMMA LUE THORNOCK        | 1                     |             | STIRRUP SPRING PIPELINE  | STO                       | 023N         | 120W 2 | 22 1         | SE1/4SE1/4               | А                | 0.056  |         | Stirrup Spring            |            | 0.056      | 0          | 0                        | 0 Spring        |          | 41.95322                  | -111.02498 External                        |
| CR CC92/166                | 10/21/1911               | 10/21/191 Fully Adjudicated                                |                                   | JAMES                 | BUCKLEY     | HOLLAND DITCH  | IRR_SW                    | 023N         | 119W 3 | 33 :         | SW1/4NW1/4               | T39L4            | 0.71   |         | Leeds Creek               |            |            | 0          | 0                        | 0 Stream        |          | 41.930894                 | -110.942775 External                       |
| CR UW08/077                | 04/14/1981               | 04/14/198 Fully Adjudicated                                |                                   | JOHN RUSSELL AND EMN  | M THORNOCK  | RUSSELL THORNOCK NO. 3 WELL                                    | IRR_GW; STK               | 023N         | 120W 2 | 25           | NE1/45W1/4               | T37L17           | 1200   |         |                           |            |            | 0          | 0                        | 0 Well          | Original | 41.94356                  | -110.99404 External                        |
| CR UW08/182                | 04/08/1977               | 04/08/197 Fully Adjudicated                                |                                   | LEO PETER AND IOY     | CORNIA      | CORNIA NO 3 WELL   | IRR_GW-STK                | 023N         | 119W 1 | 16           | NW1/4NW1/4               | T6116            | 1100   |         |                           |            |            | 0          | 0                        | 0 Well          | Original | 41.94330                  | -110.99404 External                        |
| CR UW09/154                | 06/20/1956               | 06/20/195 Fully Adjudicated                                |                                   | JOSEPH JAMES          | BUCKLEY     | BUCKLEY NO. 1 WELL   | IRR_GW                    | 023N         | 119W 3 | 32           | NE1/4NW1/4               | LG               | 1800   |         |                           |            |            | 0          | ō                        | 0 Well          | Original | 41.93606                  | -110.95757 External                        |
| CR UW19/068                | 09/19/2008               | Fully Adjudicated  | USDI FISH AND WILDLIFE SERVICE    |                       |             | MAINTENANCE BUILDING WELL NO. 1                                | MIS                       | 023N         | 119W 3 | 32           | NE1/4NW1/4               | L6               | 20   |         | 60                        |            |            | 0          | 0                        | 0 Well          |          | 41.934808                 | -110.957522 External                       |
| P12973.05                  | 07/31/1997               | 07/31/199 Complete   |                                   | JASON AND BRANDON     | BROOKS      | BROOKS STOCK RESERVOIR   | STO                       | 023N         | 119W 1 | 13           | NE1/4NW1/4               | A                |  |         | Sublet Trail Creek        | 1.63       | 1.63       | 0          | 1.02                     | 1.02 Reservoir  |          | 41.978017                 | -110.877719 External                       |
| P1537.0R                   | 05/12/1909               | 05/12/190 Incomplete                                       |                                   | PERRY W. & JULIA A.   | HENDRICKS   | HENDRICKS RESERVOIR  | IRR_SW                    | 023N         | 119W 1 | 16 1         | SW1/4NE1/4               | A                |  |         | Horse Creek               | 165        |            | 167        | 0                        | 167 Reservoir   |          | 41.97517                  | -110.93292 External                        |
| P1592.0R                   | 08/02/1909               | 08/02/190 Expired  |                                   | J.D.                  | Noblitt     | WYMAN CREEK RESERVOIR  | DOM_SW: IRR_SW:           | S 023N       | 119W 0 | 01 1         | NW1/4NE1/4               | L22              |  |         | Wyman Creek               | 14.42      |            | 11.2       | o                        | 11.2 Reservoir  |          | 42.00731                  | -110.87581 External                        |
| P1761.0E                   | 08/03/1907               | 08/03/190 Complete   |                                   | WILLIAM               | VIBRANS     | PIXLEY ENLARGEMENT OF PIXLEY IRRIGATING I                      | D IRR_SW                  | 023N         | 120W 2 | 25           |                          | T7225            |  |         | Bear River                |            |            | 0          | 0                        | 0 Stream        |          | 41.9392                   | -110.9895 External                         |
| P188952.0W                 | 09/19/2008               | Fully Adjudicated  | USDI FISH AND WILDLIFE SERVICE    |                       |             | MAINTENANCE BUILDING WELL NO. 1                                | MIS                       | 023N         | 119W 3 | 32           | NE1/4NW1/4               | L6               | 20 92.00   | 21 N    | 60                        |            |            | 0          | 0                        | 0 Well          | N        | 41.93481                  | -110.95685 External                        |
| P192924.0W                 | 04/21/2010               | Complete   |                                   | ERNEST                | THORNOCK    | ET WELL  | STK                       | 023N         | 120W 2 | 26           | NE1/4SE1/4               | T37L             | 12 155.00  | 80 N    | 140                       |            |            | 0          | 0                        | 0 Well          | N        | 41.941417                 | -111.003617 External                       |
| P195332.0W                 | 12/22/2010               | 12/08/198 Cancelled  | USDA, FISH AND WILDLIFE SERVICE   | E                     | Www.State H | I HORNOCK BROS. #1 REPLACEMENT WELL<br>in IRP 12-66 Water Haud | IRR_GW                    | 023N         | 119W 3 | 52 :<br>16   | SW1/4NE1/4<br>NW1/4NE1/4 | L10              | 1200 315.00  | 20 N    | 160                       |            | 1          | 0          | 0                        | 0 Well          | N        | 41.931/58                 | -110.955061 SE0                            |
| P5718.0E                   | 04/24/1930               | 04/24/193 Complete   |                                   | HAROLD AND LILUAN     | THOMPSON    | STOFFERS EXTENSION & ENLARGEMENT ENLAR                         | R IRR SW                  | 023N         | 120W 2 | 25           | 1001,4002,4              | T7225            | 2.95   |         |                           |            | 200        | o          | o                        | 0 Stream        |          | 41.9392                   | -110.9895 External                         |
| P5719.0E                   | 04/24/1930               | 04/24/193 Complete   |                                   | HAROLD AND LILUAN     | THOMPSON    | STOFFERS EXTENSION & ENLARGEMENT ENLAR                         | R -                       | 023N         | 120W 2 | 25           |                          | T7225            |  |         |                           |            | 200        | 0          | 0                        | 0 Stream        |          | 41.9392                   | -110.9895 External                         |
| P8686.0D                   | 09/22/1908               | 09/22/190 Cancelled  |                                   | William               | Clark       | Clark Ditch No. 1  | DOM SW; IRR SW;           | S 023N       | 119W 1 | 13           | NW1/4NE1/4               |                  | 1  |         |                           |            |            | 0          | 0                        | 0 Stream        |          | 41.977754                 | -110.873457 External                       |
| P9241.0D                   | 04/24/1020               | Unadjudicated  |                                   | J.D.                  | Noblitt     | Trail Ditch  | DOM SW; IRR SW;           | S 023N       | 119W 1 | 13 1         | NW1/4NE1/4               | 773135           | 0.43   |         |                           |            |            | 0          | 0                        | 0 Stream        |          | 41.977754                 | -110.873457 External                       |
| CR CC64/472                | 04/24/1930               | 04/24/193 Fully Adjudicated                                |                                   | LILLIAN               | THOMPSON    | ENLARGED PIXLET IRRIGATION DITCH (WEST)                        | IRR_SW                    | 023N         | 120W 2 | 25           | SW1/43E1/4               | T72L25           | 6.74   |         |                           |            |            | 0          | 0                        | 0 Stream        |          | 41.939147                 | -110.989431 External                       |
| P21237.0D                  | 08/05/1953               | 08/05/195 Cancelled  |                                   | JOSEPH J.             | BUCKLEY     | BUCKLEY DITCH NO. 1  | -                         | 023N         | 120W 0 | 000          |                          | T46              | 18.17  |         | Bear River                |            | 32.14      | 0          | 0                        | 0 Stream        |          | 41.92972                  | -110.99326 External                        |
| P2213.0R                   | 06/03/1910               | 06/03/191/ Complete  |                                   | FREDERICK             | STOFFERS    | FREDERICK RESERVOIR NO. 1                                      | IRR_SW; STO               | 023N         | 118W 0 | 06           | NW1/4NW1/4               | А                |  |         | Underwood/Trail Creek     | 1.32       |            | 1.32       | 0                        | 1.32 Reservoir  |          | 42.00738                  | -110.86648 External                        |
| P2214.0R                   | 08/16/1910               | 08/16/191 Complete   |                                   | FREDERICK             | STOFFERS    | STOFFERS RESERVOIR   | IRR_SW                    | 023N         | 118W 0 | 06 1         | NW1/45W1/4               | A                |  |         | Wyman Creek               | 3.74       |            | 3.74       | 0                        | 3.74 Reservoir  |          | 42.00034                  | -110.86586 External                        |
| P2378.0R                   | 10/21/1911               | 10/21/191 Cancelled<br>11/12/191 Evoired                   |                                   | STEVE                 | BARTEK      | BARTEK RESERVOIR   | DOM SW; IRR SW;<br>IRR SW | 5 023N       | 118W 0 | 14 :<br>14 i | SE1/4NW1/4               | A<br>17          |  |         | Rock Creek                | 41.65      |            | 36.12      | 0                        | 26.12 Reservoir |          | 42.00397                  | -110.82221 External                        |
| P3355.0R                   | 10/03/1916               | 10/03/191/ Incomplete                                      |                                   | SAMANTHA PALESTINE    | STOFFERS    | 1ST ENL FREDERICK NO. 1 RESERVOIR                              | IRR SW                    | 023N         | 118W 0 | 06 I         | NW1/4NW1/4               | L4               |  |         | Underwood/Trial Creek     | 5.54       |            | 2.9        | o                        | 4.22 Reservoir  |          | 42.00615                  | -110.86442 External                        |
| P3356.0R                   | 10/03/1916               | 10/03/191 Cancelled  |                                   | SAMANTHA PALESTINE    | STOFFERS    | 1ST ENL STOFFERS RESERVOIR                                     | IRR_SW                    | 023N         | 118W 0 | 06           | NW1/45W1/4               | L13              |  |         | Wyman Creek               | 126.1      |            | 0          | 0                        | 0 Reservoir     |          | 42.00025                  | -110.86589 External                        |
| P33663.0D                  | 12/08/2006               | 12/08/200 Complete   |                                   | ERNEST                | THORNOCK    | STIRRUP SPRING PIPELINE  |                           | 023N         | 120W 2 | 22           | SE1/4SE1/4               | А                | 0.056  |         | Stirrup Spring            |            | 0.056      | 0          | 0                        | 0 Spring        |          | 41.95477                  | -111.02481 External                        |
| P4054.0R                   | 09/27/1927               | 09/27/192 Complete   |                                   | R                     | FRAME       | FRAME RESERVOIR  | STE                       | 023N         | 118W 0 | 9            | SW1/4NW1/4               | Α                |  |         | Rock Creek and Two Unnan  | t€ 1.27    |            | 0          | 1.27                     | 1.27 Reservoir  |          | 41.98948                  | -110.82705 External                        |
| P42138.0W                  | 11/12/1952               | 11/12/195 Incomplete                                       |                                   | DOVIE                 | KNOUSE      | KNOUSE ENLARGEMENT OF PIXLEY IRRIGATING                        | IRR_GW; STK               | 023N         | 120W 2 | 25           | NE1/45E1/4               | T7225            | 1300 217.00  | 17.75   | Bear River                |            | 325.4      | 0          | 0                        | 0 Stream        | N        | 41.97299                  | -110.94936 External                        |
| P8286.05                   | 04/11/1977               | 04/11/197 Complete   | BUREAU OF LAND MANAGEMENT         |                       |             | NORTH FORK PIT STOCK RESERVOIR                                 |                           | 023N         | 119W 2 | 26 :         | SE1/4NW1/4               | A                |  |         | Gentle Draw               | 1.91       |            | 0          | 1.91                     | 1.91 Reservoir  |          | 41.9461                   | -110.89878 External                        |
| P8291.05                   | 04/11/1977               | 04/11/197 Complete   | BUREAU OF LAND MANAGEMENT         |                       |             | STOFFER RIDGE PIT #2 STOCK RESERVOIR                           |                           | 023N         | 119W 0 | 33           | NW1/45W1/4               | А                |  |         | Section 3 Draw            | 1.92       |            | 0          | 1.92                     | 1.92 Reservoir  |          | 41.99977                  | -110.92289 External                        |
| P8298.05                   | 04/11/1977               | 04/11/197 Complete   | BUREAU OF LAND MANAGEMENT         |                       |             | ROCK CR. PIT #2-4494 STOCK RESERVOIR                           |                           | 023N         | 118W 3 | 33           | NE1/4SE1/4               | A                |  |         | Rock Creek No. 2 Draw     | 1.97       |            | 0          | 1.97                     | 1.97 Reservoir  |          | 41.92746                  | -110.80989 External                        |
| CR CC28/200                | 06/10/1885               | 06/10/188 Fully Adjudicated                                |                                   | TIMOTHY               | KINNEY      | WHITES WATER DITCH   | DOM_SW; IRR_SW;           | S 024N       | 119W 0 | )4<br>16     |                          | T103             | 12.42  |         | Smith's Fork              |            |            | 0          | 0                        | 0 Stream        |          | 42.095656                 | -110.943775 External                       |
| CR CC28/203                | 05/20/1887<br>06/01/1887 | 05/20/188 Fully Adjudicated<br>06/01/188 Fully Adjudicated |                                   | PETER                 | OLSON       | MARTIN DITCH   | DOM SW; IKK SW;           | 024N         | 119W 0 | 75<br>18     |                          | T82L5            | 1.64   |         | Smith's Fork              |            |            | 0          | 0                        | 0 Stream        | Original | 42.089403                 | -110.953453 External                       |
| CR CC28/205                | 06/16/1887               | 06/16/188 Fully Adjudicated                                |                                   | ALICE                 | RYAN        | SOUTH BRANCH IRRIGATING DITCH ACIPT REEL                       | D IRR_SW                  | 024N         | 119W 0 | 05           |                          | T106L20          | 6.21   |         | Smith's Fork              |            |            | 0          | 0                        | 0 Stream        |          | 42.094272                 | -110.962483 External                       |
| CR CC28/206                | 04/17/1888               | 04/17/188 Fully Adjudicated                                | JOHN W STONER ESTATE              |                       |             | STONER AND NICHOLLS DITCH ACIPT VARIOUS                        | IRR_SW; STO               | 024N         | 119W 0 | 05           |                          | T106L17          | 2.6  |         | Smith's Fork              |            |            | 0          | 0                        | 0 Stream        | Original | 42.093919                 | -110.946894 External                       |
| CR CC28/207                | 10/01/1889               | 10/01/188' Fully Adjudicated                               |                                   | HAROLD                | ANDERSON    | TANNER HUNT AND GARRETT DITCH ACT WHI                          | T IRR_SW                  | 024N         | 119W 0 | 04           |                          | T104L8           | 0.15   |         | Smith's Fork              |            |            | 0          | 0                        | 0 Stream        | Original | 42.097544                 | -110.936775 External                       |
| CR CC28/208                | 10/01/1889               | 10/01/188 Fully Adjudicated                                |                                   | FRED                  | TWISS       | TANNER HUNT AND GARRETT DITCH ACT WHI                          | TIRR_SW; S&D              | 024N         | 119W 0 | 74<br>14     |                          | T104L8           | 0.5  |         | Smith's Fork              |            |            | 0          | 0                        | 0 Stream        | Original | 42.097544                 | -110.936775 External                       |
| CR CC28/210                | 10/01/1889               | 10/01/188 Fully Adjudicated                                |                                   | RICHARD               | ROBERTS     | TANNER HUNT AND GARRETT DITCH ACT WHI                          | T IRR_SW; STO             | 024N         | 119W 0 | 04           |                          | T104L8           | 1.28   |         | Smith's Fork              |            |            | 0          | ō                        | 0 Stream        | Original | 42.097544                 | -110.936775 External                       |
| CR CC28/211                | 10/01/1889               | 10/01/188 Fully Adjudicated                                |                                   | TIMOTHY               | KINNEY      | TANNER, HUNT & GARRETT DITCH ACT WHITE                         | S DOM_SW; IRR_SW;         | S 024N       | 119W 0 | 04           |                          | T104L8           | 1.57   |         | Smith's Fork              |            |            | 0          | 0                        | 0 Stream        | Original | 42.097544                 | -110.936775 External                       |
| CR CC28/222                | 09/26/1903               | 09/26/190 Fully Adjudicated                                |                                   | ANTONE                | QUADROS     | ENLARGED MARTIN DITCH ACIPT BOURNE DIT                         | C IRR_SW; S&D             | 024N         | 119W 0 | 04           |                          | T103L18          | 0.71   |         | Smith's Fork              |            |            | 0          | 0                        | 0 Stream        | 0.000    | 42.095194                 | -110.944858 External                       |
| CR CC28/224                | 11/01/1887               | 11/01/188 Fully Adjudicated                                |                                   | THOMAS                | COLLETT     | POISON CREEK IRRIGATING DITCH                                  | IRR_SW-STO                | 024N         | 120W 0 | /4<br>)1 '   | SF1/4NW1/4               | T41C             | 0.68   |         | Poison Creek              |            |            | 0          | 0                        | 0 Stream        | Oliginai | 42.093194                 | -110.944838 External                       |
| CR CC28/277                | 11/01/1887               | 11/01/188 Fully Adjudicated                                |                                   | THOMAS                | COLLETT     | POISON CREEK IRRIGATING DITCH                                  | IRR_SW; STO               | 024N         | 120W 0 | 01           | SE1/4NW1/4               | T41C             | 0.88   |         | Poison Creek              |            |            | 0          | ō                        | 0 Stream        |          | 42.0919                   | -110.997944 External                       |
| CR CC28/290                | 07/19/1886               | 07/19/188 Fully Adjudicated                                |                                   | ALICE                 | RYAN        | RYAN IRRIGATING DITCH  | IRR_SW; S&D               | 024N         | 119W 2 | 24 :         | SW1/4NW1/4               | L8               | 0.85   |         | Ryan Creek                |            |            | 0          | 0                        | 0 Stream        |          | 42.047689                 | -110.885994 External                       |
| CR CC28/302                | 11/26/1904               | 11/26/190 Fully Adjudicated                                |                                   | CLAUDE                | KENYON      | KENYON DITCH   | IRR_SW                    | 024N         | 119W 0 | 02           |                          | T96L25           | 0.42   |         | Spring Creek (T93-24-119) |            |            | 0          | 0                        | 0 Spring        |          | 42.09152                  | -110.89762 External                        |
| CR CC28/303                | 05/11/1901               | 05/11/190 Fully Adjudicated<br>07/01/188 Fully Adjudicated | OREGON SHORT LINE RAILROAD C      | JOHN                  | STONER      | M E HUNT DITCH<br>STEAM DI MP DI ANT. DIDEI INE AND TANK AT I  | IRR_SW; SIO               | 024N         | 119W 0 | 15           |                          | T101L1/          | 0.28   |         | Spring Creek (193-24-119) |            |            | 0          | 0                        | 0 Spring        |          | 42.09573                  | -110.91684 External                        |
| CR CC28/352                | 06/17/1898               | 06/17/189 Fully Adjudicated                                | UNEQUITISTICATE LINE INVERTIGAD C | WILLIAM               | MORGAN      | MORGAN DITCH   | IRR SW                    | 024N         | 119W 0 | )5<br>)5     |                          | T106L17          | 1.68   |         | Smith's Fork              |            |            | 0          | 0                        | 0 Stream        |          | 42.09387                  | -110.94759 External                        |
| CR CC46/087                | 12/31/1882               | 1882 Fully Adjudicated                                     |                                   | ANNET                 | STOFFERS    | STOFFERS DITCH ACIPT ABRAHAM STONER DIT                        | CIRR_SW                   | 024N         | 119W 2 | 27           |                          | T49A             | 0.71   |         | Sublette Creek            |            |            | 0          | 0                        | 0 Stream        |          | 42.0366                   | -110.9159 External                         |
| CR CC86/116                | 05/20/1887               | 05/20/188' Fully Adjudicated                               |                                   | JOHN                  | TEICHERT    | SMITHS FORK DITCH  | DOM SW; IRR SW;           | S 024N       | 119W 0 | 06           |                          | T85L44           | 1.78   |         | Smith's Fork              |            |            | 0          | 0                        | 0 Stream        |          | 42.088908                 | -110.970325 External                       |
| CR CC86/117                | 12/31/1884               | 1884 Fully Adjudicated                                     | TRICURAT ADATURAS INC             | WILLIAM J AND PEGGY T | FRISBY      | TANNER DITCH ACIPT IGO NO. 3 AND FRISBY P                      | LIRR_SW; STO              | 024N         | 119W 0 | J6           |                          | T87              | 1.35   |         | Smith's Fork              |            |            | 0          | 0                        | 0 Stream        |          | 42.089336                 | -110.971967 External                       |
| CR CC92/177                | 12/31/18/7               | 06/01/188 Fully Adjudicated                                | TEICHERT BROTHERS INC             |                       |             | EORGEON IRRIGATING DITCH                                       | IRR_SW-STO                | 024N         | 119W 0 | 18           |                          | T82L5            | 2.85   |         | Smith's Fork              |            |            | 0          | 0                        | 0 Stream        | Original | 42.081483                 | -110.952386 External                       |
| CR CC92/179                | 06/01/1885               | 06/01/188 Fully Adjudicated                                | TEICHERT BROTHERS INC             |                       |             | FORGEON IRRIGATING DITCH                                       | DOM SW; IRR SW;           | 5 024N       | 119W 0 | 08           |                          | T82L5            | 0.92   |         | Smith's Fork              |            |            | 0          | 0                        | 0 Stream        | Original | 42.081361                 | -110.952094 External                       |
| CR CC92/180                | 06/01/1887               | 06/01/188 Fully Adjudicated                                | TEICHERT BROTHERS INC             |                       |             | MARTIN DITCH ACT BOURNE DITCH ACIPT FOR                        | CIRR_SW                   | 024N         | 119W 0 | 18           |                          | T82L5            | 1.64   |         | Smith's Fork              |            |            | 0          | 0                        | 0 Stream        | Original | 42.081483                 | -110.952386 External                       |
| CR CC94/083                | 02/06/1882               | 02/06/188 Fully Adjudicated                                | TEICHERT BROTHERS LLC             |                       |             | ABRAHAM STONER DITCH ACIPT TEICHERT SPR                        | RI IRR_SW; STO            | 024N         | 119W 2 | 21           |                          | T51L37           | 7.75   |         | Sublette Creek            |            |            | 0          | 0                        | 0 Stream        |          | 42.03884                  | -110.92889 External                        |
| CR CC95/099                | 04/01/2011               | Fully Adjudicated  | TEICHERT BROTHERS LLC             |                       |             | TEICHERT SPREADER DIKE DIVERSION                               | IRR_SW                    | 024N         | 119W 0 | 08           |                          | T67L37           | 3.21   |         | Thompson Slough           |            | 5.54       | 0          | 0                        | 0 Stream        |          | 42.0677                   | -110.953 External                          |
| CR CR21/181                | 03/06/1956               | 03/06/195/ Fully Adjudicated                               | TEICHERT BRUTHERS LLC             | EVAN AND DOTTY JO     | POPE        | MAU NO. 1 STOCK RESERVOIR                                      | STO                       | 024N<br>024N | 119W 0 |              |                          | 1825<br>T61A     | 0.30   |         | Larson Draw               | 4.88       | U          | 0          | 4.88                     | 4.88 Reservoir  |          | 42.08167                  | -110.95301 External                        |
| CR UW08/352                | 11/17/1975               | 11/17/197 Fully Adjudicated                                | FLYING T INC                      |                       |             | LAVOY'S NO. 1 WELL   | DOM_GW; MIS               | 024N         | 119W 0 | 05           |                          | T90L43           | 25   |         |                           |            |            | 0          | 0                        | 0 Well          | Original | 42.08262                  | -110.94615 External                        |
| CR UW08/353                | 02/17/1977               | 02/17/197 Fully Adjudicated                                | FLYING T INC                      |                       |             | ENL. LAVOYS NO. 1 WELL   | MIS                       | 024N         | 119W 0 | 05           |                          | T90L43           | 0  |         |                           |            |            | 0          | 0                        | 0 Well          | Original | 42.08262                  | -110.94615 External                        |
| CR UW11/157                | 04/25/1960               | 04/25/196 Fully Adjudicated                                | THOMPSON LAND AND LIVESTOCK       | C)                    |             | THOMPSON NO. ONE WELL  | IRR_GW                    | 024N         | 119W 3 | 81           | NE1/4SW1/4               | A                | 1250   |         |                           |            |            | 0          | 0                        | 0 Well          | Original | 42.01358                  | -110.97881 External                        |
| CR UW11/158<br>CR UW13/159 | 05/15/1961<br>01/06/2006 | 01/06/200 Fully Adjudicated                                | THUMPSON LAND AND LIVESTOCK       | MICHAELE AND LINDA    | BIRD        | BIRD NO. 3 WELL  | IRR_GW: STK               | 024N<br>024N | 119W 1 | 12           |                          | 1/8L15<br>T83    | 1425   |         |                           |            |            | 0          | 0                        | 0 Well          |          | 42.07614                  | -110.86778 External<br>-110.96554 External |
| CR UW13/160                | 03/09/2006               | 03/09/200  |                                   | MICHAEL E AND LINDA   | BIRD        | ENL BIRD NO. 3 WELL  | IRR_GW                    | 024N         | 119W 0 | 06           |                          | T83              | 20   |         |                           |            |            | ő          | ő                        | 0 Well          |          | 42.08802                  | -110.96554 External                        |
| CR UW16/109                | 06/12/1998               | Fully Adjudicated  | TOWN OF COKEVILLE                 |                       |             | COKEVILLE NO. 2 WELL   | MUN_GW                    | 024N         | 119W 0 | 02           |                          | T96L25           | 450  |         |                           |            |            | 0          | 0                        | 0 Well          |          | 42.089564                 | -110.897214 External                       |
| CR UW16/110                | 06/12/1998               | Fully Adjudicated  | TOWN OF COKEVILLE                 |                       |             | COKEVILLE NO. 3 WELL   | MUN_GW                    | 024N         | 119W 0 | 02           |                          | T96L24           | 700  |         |                           |            |            | 0          | 0                        | 0 Well          |          | 42.089439                 | -110.896556 External                       |
| CR UW16/111<br>P110471 0W  | 06/12/1909               | Fully Adjudicated  | TOWN OF COKEVILLE                 |                       |             | ENL. CONEVILLE WELL NO. 2<br>COKEVILLE #2                      | MUN_GW                    | 024N         | 119W 0 | 12           | NET /ANW1 /A             | 196L25<br>T96L14 | 450 173 00   | 16 N    | 136                       |            |            | 0          | U                        | 0 Well          | м        | 42.089564                 | -110.897214 SEU                            |
| P110472.0W                 | 06/12/1998               | Fully Adjudicated  |                                   |                       |             | COKEVILLE #3   | MUN GW                    | 024N         | 119W 0 | 02           | SE1/4NW1/4               | T96L25           | 700 175.00   | 19.6 N  | 116                       |            |            | 0          | 0                        | 0 Well          | N        | 42.09465                  | -110.898047 External                       |
| P1153.0E                   | 09/25/1903               | 09/25/190 Complete   |                                   | JOSEPHINE A.          | JACOBSON    | MIDGET ENLARGEMENT OF MARTIN DITCH                             | IRR_SW                    | 024N         | 119W 0 | 04           |                          | T103L17          | 0.056  |         | Smith's Fork              |            | -1         | 0          | 0                        | 0 Stream        |          | 42.092756                 | -110.939961 External                       |
| P129440.0W                 | 07/27/2000               | Fully Adjudicated  | ALDER BROTHERS ENTERPRISES LL     | c                     |             | A RYAN NO. 1 WELL  | IRR_GW                    | 024N         | 119W 0 | 06           | SE1/4SE1/4               | T83              | 80 22.00   | 14 N    | 18                        |            |            | 0          | 0                        | 0 Well          | N        | 42.095617                 | -110.954203 External                       |
| P1401.05                   | 03/06/1956               | 03/06/195 Complete   |                                   | EVAN AND DOTTY JO     | POPE        | MAU # ONE STOCK RESERVOIR                                      | STO                       | 024N         | 119W 1 | L4 I         | NE1/4SW1/4               | T61A             |  |         | Larson Draw               | 4.88       |            | 0          | 4.88                     | 4.88 Reservoir  |          | 42.05625                  | -110.898167 External                       |
| P171975 0W                 | 12/08/2005               | Complete   |                                   | SANDRA AND IOSEPHIAN  | UUINTANA    | OUINTANA #1  | DOM_SW; IKR_SW;<br>DOM_GW | 024N         | 119W 0 |              | SW1/4NF1/4               | T106             | 15 60 00   | 25 N    | 50                        | 21.5       |            | 21.5       | 0                        | 0 Well          | N        | 42.08378                  | -110.950944 External                       |
| P17714.0D                  | 04/24/1930               | 04/24/193 Cancelled  |                                   | ANNET                 | STOFFERS    | PLIMP DITCH  | *                         | 024N         | 119W 3 | 12           | ,                        | T42              | 1 77   |         | Rear River                |            | 5          | ő          | ő                        | 0 Stream        | N        | 42 012608                 | -110 954839 External                       |

|  | LINCOLN COL                | INTY                     |  |                                 |                             |                    |   |  |                  |                    |                |                        |                  |             |               | -       |  |                        |                          |                       |                                   |          |              |               |  |
|--|----------------------------|--------------------------|--|---------------------------------|-----------------------------|--------------------|---|--|------------------|--------------------|----------------|------------------------|------------------|-------------|---------------|---------|--|------------------------|--------------------------|-----------------------|-----------------------------------|----------|--------------|---------------|--|
|  |                            |                          |  |                                 |                             |                    |   |  |                  |                    |                |                        | vey              | (Ft)        | evel (N)      | mp (Ft) |  |                        |                          |                       |                                   |          | ÷            |               |  |
| Image         Image <t< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th>'Sur</th><th>ep th</th><th>aterL<br/>g (X</th><th>of Pu</th><th></th><th>C</th><th>apacity</th><th></th><th></th><th></th><th>s(Y)</th><th></th><th></th></t<>   |                            |                          |  |                                 |                             |                    |   |  |                  |                    |                |                        | 'Sur             | ep th       | aterL<br>g (X | of Pu   |  | C                      | apacity                  |                       |                                   |          | s(Y)         |               |  |
| Image  |                            |                          | Priority Summary W                                   | ł                               |                             |                    |   |  |                  |                    |                |                        | fit x            | ald bron    | () (II Lo     | ŧ       |  | Total at<br>Capacity H | Active<br>eadgate( Capac | Inactiv<br>ity Capaci | e Size of<br>ty Reservoi Facility | Supply   | alysi        |               | Created                                    |
| Dist         Dist        Dist        Dist        D   | WR Number                  | Priority Date            | text Status  | Company                         | First Name                  | Last Name          | Facility Name   | Uses   | Twn              | Rng S              | ec Qtr         | tr-Qtr                 | 12233            | <u> </u>    | <u> </u>      | 8       | Stream Source  | (AF/Yr) C              | FS) (AF)                 | (AF)                  | r(AF) type                        | Туре     | ວິ≨ Latitude | Lon           | igitude By                                 |
| NAME   | P181480.0W<br>P182089.0W   | 05/18/2007               | Complete   |                                 | DAVID E.                    | WINGER             | WINGER #1   | DOM_GW<br>DOM_GW; STK                        | 024N<br>024N     | 119W 13            | 8 NE1          | 1/4NW1/4<br>E1/4NW1/4  | A5               | 18 480.00   | 174 N         | 320     |  |                        |                          | 0                     | 0 0 Well                          | N        | 42.00        | 4306          | -110.975467 External                       |
| Norw         Norw        Norw        Norw        No  | P22688.0D                  | 03/15/1966               | 03/15/196 Cancelled                                  |                                 |                             |                    | BEAR RIVER SPRINKLER IRRIGATION SYSTEM  | IRR_SW                                       | 024N             | 119W 0             | 6              |                        | T86              | 1.13        |               |         |  |                        | 0.49                     | 0                     | 0 0 Stream                        |          | 42.08        | 9208          | -110.979244 External                       |
|  | P25403.0D<br>P25571.0D     | 04/2//19//               | 11/25/197 Cancelled                                  |                                 |                             |                    | Atlantic Richfield-Bear River Water Haul No. 1<br>American Quasar-Bear River Water Haul No. 1 | DRI; IND_SW; OIL; TI<br>DRI: IND_SW: OIL: TI | E UZ4N<br>F 074N | 119W 0             | 0              |                        | 119              | 0.56        |               |         |  |                        | 0.56                     | 0                     | 0 0 Stream                        |          | 42.05        | 2752          | -110.92596 External                        |
| NAME         NAME        NAME        NAME        NAME        NAME        NAME        NAME   | P30112.0D                  | 02/07/1989               | 02/07/198 Cancelled                                  |                                 |                             | Wyo. State H       | lij BROS-1200(1) Water Haul   | IND_SW; TEM                                  | 024N             | 119W 0             | 7 NW           | N1/4SE1/4              |                  | 1           |               |         |  |                        | 1                        | 0                     | 0 0 Stream                        |          | 42.07        | 2573          | -110.972495 External                       |
| Norm         Norm        Norm        Norm        N   | P6018.0D                   | 06/04/1904               | 06/04/190 Cancelled                                  |                                 | WILLIAM                     | MORGAN SR          | Morgan Ditch  | DOM SW; IRR SW;                              | 5 024N           | 119W 0             | 5 NW           | N1/45W1/4              |                  | 1.71        |               |         | North Ford California Court                                |                        |                          | 0                     | 0 0 Stream                        |          |              | 7204          | External                                   |
| Image     Mark  | P1833.0R<br>P1834.0R       | 05/03/1910               | 05/03/191/ Expired                                   |                                 | N W AND M S                 | REYNOLDS           | SUBLETTE RESERVOIR NO. 1<br>SUBLETTE RESERVOIR NO. 2  | IRR_SW                                       | 024N             | 118W 0             | 8 NEJ<br>8 SW  | 1/45W1/4<br>V1/45E1/4  | A                |             |               |         | North Fork Sublette Creek                                  | 7.65                   |                          | 0 7                   | 65 7.65 Reservoir                 |          | 42.0         | 6919          | -110.8416 External                         |
| Math   | P186463.0W                 | 02/24/2003               | Fully Adjudica                                       | ed TOWN OF COKEVILLE            |                             |                    | ENL. COKEVILLE WELL NO. 2   | MUN_GW                                       | 024N             | 119W 0             | 2 NE1          | 1/4NW1/4               | T96 L            | 150         |               |         |  |                        |                          | 0                     | 0 0 Well                          |          | 42.09        | 9375          | -110.899525 SEO                            |
| Name   | P186738.0W                 | 05/08/2008               | Complete   |                                 | GERRY                       | LARSON             | PEE WEE #1  | DOM_GW; STK                                  | 024N             | 119W 1             | 8 NW           | N1/4NE1/4              | L69              | 15 220.00   | 80 N          | 215     |  |                        |                          | 0                     | 0 0 Well                          | N        | 42.06        | 5083          | -110.971361 SEO                            |
| Math   | P193442.0W                 | 08/02/2010               | Expired  |                                 | JASON                       | THORNOCK           | GRAVEL PIT - WELL   | STK  | 024N             | 120W 0             | 1 NE1          | 1/4501/4<br>1/45E1/4   | A .              | 25          |               |         |  |                        |                          | 0                     | 0 0 Well                          |          | 42.0         | 8683          | -110.98433 External                        |
| MADM   | P193444.0W                 | 08/02/2010               | Complete   |                                 | JASON                       | THORNOCK           | BOYD HALLOW - WELL  | STK  | 024N             | 120W 1             | 5 SW           | V1/45W1/4              | A                | 10 285.00   | 240 N         | 280     |  |                        |                          | 0                     | 0 0 Well                          | N        | 42.0         | 5528          | -111.04084 External                        |
| NAME   | P195673.0W<br>P197581.0W   | 05/11/2011               | Incomplete<br>Cancelled                              |                                 | JASON AND HOLLI<br>IONATHAN | MURDOCK<br>KOFHLER | MURDOCK #2<br>KOFHLER RESIDENCE   | IRR_GW<br>DOM_GW                             | 024N<br>024N     | 119W 1:<br>118W 0  | 8 NE1<br>6 NW  | E1/4SE1/4<br>N1/4NF1/4 | L16              | 250         |               |         |  |                        |                          | 0                     | 0 0 Well                          |          | 42           | 0578<br>9469  | -110.96713 SEO<br>-110.856147 External     |
| Name   | P198323.0W                 | 06/11/2012               | Complete   |                                 | DEWAYNE                     | PEARSON            | PEARSON #1 WELL   | DOM_GW;STK                                   | 024N             | 119W 1             | 8 SW           | V1/4NE1/4              | L11              | 15 110.00   | 75            | 80      |  |                        |                          | 0                     | 0 0 Well                          |          | 42.06        | 1964          | -110.969606 SEO                            |
| NAME   | P198324.0W                 | 06/11/2012               | Complete   |                                 | DEWAYNE                     | PEARSON            | PEARSON #2 WELL   | DOM_GW; STK                                  | 024N             | 119W 1             | 8 SE1          | 1/4NE1/4               | L13              | 15 110.00   | 70            | 85      |  |                        |                          | 0                     | 0 0 Well                          |          | 42.06        | 1964          | -110.969242 SEO                            |
| Norm   | P199246.0W<br>P199899.0W   | 11/08/2012               | Complete   | TEICHERT BROTHERS LLC           | GREG AND DENNIS             | NATE               | NATE #5<br>TEICHERT WESTHILLS #1  | STK  | 024N<br>024N     | 119W 0             | 9 NE1<br>7 SE1 | :1/4NW1/4<br>1/4SE1/4  | 176<br>T69       | 15 320.00   | 150 N<br>25 N | 270     |  |                        |                          | 0                     | 0 0 Well                          | N        | 42.0         | 8758          | -110.93611 SEO<br>-110.9676 SEO            |
| Diame         Norm         Norm        Norm        Norm   | P199900.0W                 | 03/12/2013               | Complete   | TEICHERT BROTHERS LLC           |                             |                    | TEICHERT WESTHILLS #2   | STK  | 024N             | 119W 3             | 1 SW           | V1/45W1/4              | T131             | 20 182.00   | 120 N         | 165     |  |                        |                          | 0                     | 0 0 Well                          | N        | 42           | 0129          | -110.980758 SEO                            |
| Name     Norm   | P200096.0W                 | 04/12/2013               | Incomplete   |                                 | JOHN                        | JACKMAN            | JOHN F. JACKMAN #1  | STK; DOM_GW                                  | 024N             | 119W 1             | 8 SW           | V1/4NE1/4              | T69              | 25          |               |         |  |                        |                          | 0                     | 0 0 Well                          |          | 42.0         | 6357          | -110.97041 SEO                             |
| NAME   | P201028.0W                 | 09/06/2013               | Cancelled  | TEICHERT BROTHERS LLC           |                             |                    | TEICHERT BROS. TEST WELL #1<br>TEICHERT BROS. TEST WELL #2                                    | TST  | 024N<br>024N     | 119W 2             | 9 NW           | 1/4NW1/4<br>N1/4NW1/4  | T44              | 0           |               |         |  |                        |                          | 0                     | 0 0 Well                          |          | 42.0         | 3833          | -110.95639 External                        |
| NAME   | P201030.0W                 | 09/06/2013               | Cancelled  | TEICHERT BROTHERS LLC           |                             |                    | TEICHERT BROS. TEST WELL #3   | TST  | 024N             | 119W 3             | 0 NE:          | 1/4SE1/4               | А                | 0           |               |         |  |                        |                          | 0                     | 0 0 Well                          |          | 42.0         | 2917          | -110.96694 External                        |
| NYPACE         NYPAC         NYPAC        NYPAC        NYPAC        NYPAC        NYPAC        NYPAC        NYPAC        NYPAC        NYPAC       NYPAC        NYPAC        NYPAC <td>P201031.0W</td> <td>09/06/2013</td> <td>Cancelled</td> <td>TEICHERT BROTHERS LLC</td> <td>20</td> <td></td> <td>TEICHERT BROS. TEST WELL #4</td> <td>TST CIVI</td> <td>024N</td> <td>119W 3</td> <td>1 SW</td> <td>V1/4NE1/4</td> <td>A</td> <td>0</td> <td></td> <td>250</td> <td></td> <td></td> <td></td> <td>0</td> <td>0 0 Well</td> <td></td> <td>42.0</td> <td>1949</td> <td>-110.97169 External</td>  | P201031.0W                 | 09/06/2013               | Cancelled  | TEICHERT BROTHERS LLC           | 20                          |                    | TEICHERT BROS. TEST WELL #4   | TST CIVI                                     | 024N             | 119W 3             | 1 SW           | V1/4NE1/4              | A                | 0           |               | 250     |  |                        |                          | 0                     | 0 0 Well                          |          | 42.0         | 1949          | -110.97169 External                        |
| NICLY     NUMP  | P201065.0W                 | 02/24/2013               | Incomplete   | CIRCLE BLAND COMPANY HOFFO      | ERNEST                      | THORNOCK           | PINE CREEK SOUTH  | IRR GW                                       | 024N<br>024N     | 119W 1.<br>118W 0  | 2 NEJ<br>6 NW  | N1/4NE1/4              | T97D             | 1800        | 140 N         | 260     |  |                        |                          | 0                     | 0 0 Well                          | N        | 42.0         | 9446          | -110.87032 SEO                             |
| Norm         Norm        Norm        Norm        N   | P201922.0W                 | 04/23/2014               | Incomplete   | TEICHERT BROTHERS LLC           |                             |                    | TEICHERT WESTHILLS #3   | STK  | 024N             | 120W 2             | 4 SW           | V1/4NE1/4              | A                | 25          |               |         |  |                        |                          | 0                     | 0 0 Well                          |          | 42           | 0467          | -110.9931 External                         |
| NUMBE         NUMBE        NUMBE   | P202582.0W                 | 08/07/2014               | Complete   |                                 | ZANE AND CARRIE             | GROLL              | GROLL #1  | DOM_GW; STK                                  | 024N             | 119W 1             | 8 SE1<br>8 NE1 | 1/4SE1/4               | A<br>116         | 18 160.00   | 100 N         | 140     |  |                        |                          | 0                     | 0 0 Well                          | N        | 42.0         | 5337          | -110.96938 SEO                             |
| Name   | P203332.0W                 | 11/20/2014               | Incomplete   | TEICHERT BROTHERS LLC           | IN IDALL                    | Note:              | TEICHERT BROS. WEST SIDE PIVOT NO. 1 WELL   | IRR_GW                                       | 024N             | 119W 2             | 9 NW           | N1/4NW1/4              | T4405            | 1400        |               |         |  |                        |                          | 0                     | 0 0 Well                          |          | 42.42        | 0384          | -110.9614 External                         |
| Name         Norma   | P203333.0W                 | 11/20/2014               | Incomplete   | TEICHERT BROTHERS LLC           |                             |                    | TEICHERT BROS. WESTSIDE PIVOT NO. 3 WELL  | IRR_GW                                       | 024N             | 119W 3             | 1 SE1          | 1/4NW1/4               | А                | 1000        |               |         |  |                        |                          | 0                     | 0 0 Well                          |          | 42           | 0171          | -110.9749 External                         |
| Name   | P203992.0W                 | 05/29/2015               | Incomplete   | TEICHERT BROTHERS LLC           |                             |                    | TEICHERT BROS. SECTION 26 WELL<br>TEICHERT BROS. SECTION 13 WELL                              | STK  | 024N<br>024N     | 120W 2/            | 6 NW<br>3 NF1  | N1/4NW1/4              | A<br>T39103      | 25          |               |         |  |                        |                          | 0                     | 0 0 Well                          |          | 42.0         | 3496<br>6445  | -111.02227 External<br>-110.99466 External |
| Norma  | P204258.0W                 | 07/02/2015               | Incomplete   | TEICHERT BROTHERS LLC           |                             |                    | TEICHERT BROS. WESTSIDE PIVOT NO. 2 WELL  | IRR_GW                                       | 024N             | 119W 3             | 0 NE1          | 1/4SE1/4               | A                | 1340        |               |         |  |                        |                          | 0                     | 0 0 Well                          |          | 42           | 0292          | -110.9669 External                         |
| MALE         MALE        MALE        MALE        M   | P204361.0W                 | 08/12/2015               | Incomplete   |                                 | JODY AND LORELLE            | MCPHEE             | MCPHEE #1   | DOM_GW                                       | 024N             | 119W 1             | 8 NW           | N1/4NE1/4              | L8               | 25          |               |         |  |                        |                          | 0                     | 0 0 Well                          |          | 42.0         | 6708          | -110.97339 SEO                             |
| Mathematical  | P204377.0W<br>P2884.0R     | 08/11/2015               | 05/27/191: Cancelled                                 |                                 | ROZETTA                     | ROBERTS            | ALLRED 1<br>ROZETTA W. ROBERTS RESERVOIR  | IRR SW                                       | 024N<br>024N     | 119W 10<br>120W 24 | 8 NE3<br>4 SE1 | :1/4NW1/4<br>1/4NW1/4  | A                | 25          |               |         | Boyd Creek   | 33                     |                          | 0                     | 0 0 Well<br>0 0 Reservoir         |          | 42.0         | 6558<br>4654  | -110.97645 SEO<br>-110.99458 External      |
| Physical     Phys   | P34018.0D                  | 09/19/2008               | 09/19/200 Cancelled                                  | ELLSWORTH CONSTRUCTION          |                             |                    | COKEVILLE WASTE WATER TREATMENT PLANT   | ,  | 024N             | 119W 0             | 00             | -,, .                  | T85L             | 0.44        |               |         | Bear River   |                        | 0.44                     | 0                     | 0 0 Stream                        |          | 42.0         | 7462          | -110.97409 External                        |
| Indication     Indication </td <td>P34229.0D</td> <td>09/22/2009</td> <td>Cancelled</td> <td>RJH CONSULTANTS INC</td> <td>EDWIN</td> <td>FRIEND</td> <td>SUBLETTE CREEK WATER HAUL</td> <td></td> <td>024N</td> <td>119W 0</td> <td>00</td> <td></td> <td>T51</td> <td>0</td> <td></td> <td></td> <td>Sublette Creek</td> <td></td> <td></td> <td>0</td> <td>0 0 Stream</td> <td></td> <td>42</td> <td>0387</td> <td>-110.9284 SEO</td>   | P34229.0D                  | 09/22/2009               | Cancelled  | RJH CONSULTANTS INC             | EDWIN                       | FRIEND             | SUBLETTE CREEK WATER HAUL   |  | 024N             | 119W 0             | 00             |                        | T51              | 0           |               |         | Sublette Creek   |                        |                          | 0                     | 0 0 Stream                        |          | 42           | 0387          | -110.9284 SEO                              |
| NHM     NHMM     NHMMM     NHMM     NHMMM     NHMMM <th< td=""><td>P34861.00<br/>P4095.0R</td><td>04/01/2011<br/>08/21/1928</td><td>08/21/192: Expired</td><td>TEICHERT BROTHERS LLC</td><td>1</td><td>NOBLITT</td><td>JD RESERVOIR</td><td>STO</td><td>024N<br/>024N</td><td>119W 0<br/>120W 1</td><td>8<br/>1 SE1</td><td>1/4NE1/4</td><td>167<br/>A</td><td>3.21</td><td></td><td></td><td>J.D. Spring</td><td>0.15</td><td>5.54</td><td>0 0.</td><td>0 0 Stream<br/>15 0.15 Reservoir</td><td></td><td>42.0</td><td>7653</td><td>-110.9531 External<br/>-111.00553 External</td></th<>  | P34861.00<br>P4095.0R      | 04/01/2011<br>08/21/1928 | 08/21/192: Expired                                   | TEICHERT BROTHERS LLC           | 1                           | NOBLITT            | JD RESERVOIR  | STO  | 024N<br>024N     | 119W 0<br>120W 1   | 8<br>1 SE1     | 1/4NE1/4               | 167<br>A         | 3.21        |               |         | J.D. Spring  | 0.15                   | 5.54                     | 0 0.                  | 0 0 Stream<br>15 0.15 Reservoir   |          | 42.0         | 7653          | -110.9531 External<br>-111.00553 External  |
| NEMDE       NUMBE       NUMBE <t< td=""><td>P4096.0R</td><td>08/28/1928</td><td>08/28/192: Expired</td><td></td><td>1</td><td>NOBLITT</td><td>JD NO 2 RESERVOIR</td><td>STO</td><td>024N</td><td>120W 1</td><td>6 SE1</td><td>1/4NE1/4</td><td>А</td><td></td><td></td><td></td><td>Macklin Spring</td><td>0.1</td><td></td><td>0 0</td><td>0.1 0.1 Reservoir</td><td></td><td>42</td><td>0635</td><td>-111.04445 External</td></t<>   | P4096.0R                   | 08/28/1928               | 08/28/192: Expired                                   |                                 | 1                           | NOBLITT            | JD NO 2 RESERVOIR   | STO  | 024N             | 120W 1             | 6 SE1          | 1/4NE1/4               | А                |             |               |         | Macklin Spring   | 0.1                    |                          | 0 0                   | 0.1 0.1 Reservoir                 |          | 42           | 0635          | -111.04445 External                        |
| NHARE         NUM         NUM        NUM         NUM        NUM       NUM        NUM        NUM  | P4097.0R                   | 08/28/1928               | 08/28/192: Expired                                   |                                 | J                           | NOBLITT            | JD NO 3 RESERVOIR   | STO  | 024N             | 120W 0             | 9 NE1          | E1/4SE1/4              | A                |             |               |         | Dead Man's Spring  | 4                      |                          | 0                     | 4 4 Reservoir                     |          | 42.0         | 7365          | -111.0464 External                         |
| Physic  | P4439.0R                   | 02/17/1931               | 02/17/193 Complete                                   |                                 | STEVE                       | BARTEK             | BARTEK "B" RESERVOIR  | STO  | 024N             | 118W 3             | 3 SW           | V1/43E1/4<br>V1/4NE1/4 | A                |             |               |         | Bartek B Spring  | 1/                     |                          | 0 1.                  | 1 1 Reservoir                     |          | 42.0         | 1972          | -110.81946 External                        |
| Photom       Photom<   | P5376.0E                   | 11/08/1944               | 11/08/194 Expired                                    |                                 | JD                          | NOBLITT            | JUNCTION ENLARGEMENT OF V.H. CANAL  | IRR_SW; RES                                  | 024N             | 119W 0             | 1 SW           | V1/45W1/4              | T78L44           | 0.77        |               |         | Pine Creek   |                        | 21.17                    | 0                     | 0 0 Stream                        |          | 42.0         | 8289          | -110.88242 External                        |
| NUMB         NUMB        NUMB        NUMB        NU  | P5427.0R<br>P5544.0R       | 12/05/1930               | 12/05/193 Cancelled<br>11/08/194 Expired             |                                 | 10                          | NOBLITT            | IGO NUMBER 1 RESERVOIR<br>MARTIN RESERVOIR  | IRR_SW; STO                                  | 024N<br>024N     | 119W 1/            | 4 SE1<br>6 NW  | 1/4NW1/4<br>N1/4SW1/4  | B<br>120         |             |               |         | Pine Creek<br>North Fork Sublette Creek                    | /1.13                  | 1                        | 25                    | 0 0 Reservoir<br>0 125 Reservoir  |          | 42.0         | 6198<br>8636  | -110.89923 External<br>-110.86487 External |
| Physic       Condit  | P613.0W                    | 05/15/1961               | Fully Adjudica                                       | ed THOMPSON LAND & LIVESTOCK C  | D.                          |                    | THOMPSON #4   | IRR_GW                                       | 024N             | 119W 1             | 2              | ,, .                   | T78L15           | 1000 403.00 | 120           |         |  |                        |                          | 0                     | 0 0 Well                          | N        | 42.0         | 7632          | -110.86776 External                        |
| Image         Image <th< td=""><td>P7739.0E</td><td>02/01/2013</td><td>Complete</td><td>TEICHERT BROTHERS LLC</td><td></td><td></td><td>TEICHERT ENLARGEMENT OF PIXLEY IRRIGATIN</td><td>RR_SW</td><td>024N</td><td>119W 0</td><td>00</td><td></td><td>T58</td><td>4.22</td><td></td><td></td><td>Bear River</td><td></td><td>85.26</td><td>0</td><td>0 0 Stream</td><td></td><td>42.05</td><td>3058</td><td>-110.951619 External</td></th<>   | P7739.0E                   | 02/01/2013               | Complete   | TEICHERT BROTHERS LLC           |                             |                    | TEICHERT ENLARGEMENT OF PIXLEY IRRIGATIN  | RR_SW  | 024N             | 119W 0             | 00             |                        | T58              | 4.22        |               |         | Bear River   |                        | 85.26                    | 0                     | 0 0 Stream                        |          | 42.05        | 3058          | -110.951619 External                       |
| Physical         Incl. # INACC MOM WINDE         OLD # INACC MOM WINDE         Control # 10 mode         Contro # 10 mode         Control # 10 mode  | P7778.0E                   | 05/02/2014               | Complete   | TEICHERT BROTHERS LLC           |                             |                    | TEICHERT 2ND ENLARGEMENT OF COVET CANAL<br>TEICHERT 2ND ENLARGEMENT OF COVET CANAL            | A IRR_SW                                     | 024N             | 119W 0             | 00             |                        | T49              | 2.65        |               |         | Smith's Fork   |                        | 94.7                     | 0                     | 0 0 Stream                        |          | 42.04        | 1221          | -110.9225 External                         |
| Philo         Philo <th< td=""><td>P7807.0E</td><td>07/15/2014</td><td>Incomplete</td><td>CIRCLE B LAND COMPANY HUFFO</td><td>RE</td><td></td><td>CIRCLE B ENLARGEMENT OF V.H. CANAL</td><td>IRR_SW</td><td>024N</td><td>118W 0</td><td>6 SW</td><td>V1/4SE1/4</td><td>А</td><td>5.32</td><td></td><td></td><td>Pine Creek</td><td></td><td>103.3</td><td>0</td><td>0 0 Stream</td><td></td><td>42</td><td>0855</td><td>-110.85683 External</td></th<>   | P7807.0E                   | 07/15/2014               | Incomplete   | CIRCLE B LAND COMPANY HUFFO     | RE                          |                    | CIRCLE B ENLARGEMENT OF V.H. CANAL  | IRR_SW                                       | 024N             | 118W 0             | 6 SW           | V1/4SE1/4              | А                | 5.32        |               |         | Pine Creek   |                        | 103.3                    | 0                     | 0 0 Stream                        |          | 42           | 0855          | -110.85683 External                        |
| INT CATALAND         INT M         Mar Magnedice         MARCAN         Marcan        Marcan         Marcan        <  | P8210.05                   | 07/29/1976               | 07/29/197 Cancelled                                  | ROCK CREEK GRAZING ASSOCIATI    | ION AND VICKIE              | THORNOCK           | THOMPSON DRAW STOCK RESERVOIR<br>CHILD 2ND ENLARGEMENT OF ALONZO E SIGH                       | IPP SW                                       | 024N<br>025.2N   | 119W 2             | 7 NE1<br>1 NE1 | E1/4SW1/4              | A<br>135         | 0.74        |               |         | Thompson Creek   | 1.85                   | 37.18                    | 0 1.                  | 85 1.85 Reservoir<br>0 0 Stream   |          | 42.0         | 2923          | -110.91857 External                        |
| C1/C2/C2/C3/C C1/L1/P 1/L1/P <td>CR CC27/499</td> <td>12/31/1878</td> <td>1878 Fully Adjudica</td> <td>ed</td> <td>HENRY</td> <td>SOMSEN</td> <td>JOHN R. RICHARDS TERRITORIAL DITCH</td> <td>IRR_SW</td> <td>025N</td> <td>120W 0</td> <td>1 NE1</td> <td>1/4NW1/4</td> <td>T44L9</td> <td>1.77</td> <td></td> <td></td> <td>Bear River</td> <td></td> <td>57.20</td> <td>0</td> <td>0 0 Stream</td> <td></td> <td>42</td> <td>1911</td> <td>-111.03956 External</td>   | CR CC27/499                | 12/31/1878               | 1878 Fully Adjudica                                  | ed                              | HENRY                       | SOMSEN             | JOHN R. RICHARDS TERRITORIAL DITCH  | IRR_SW                                       | 025N             | 120W 0             | 1 NE1          | 1/4NW1/4               | T44L9            | 1.77        |               |         | Bear River   |                        | 57.20                    | 0                     | 0 0 Stream                        |          | 42           | 1911          | -111.03956 External                        |
| cd C21000       Cd 11018       Cd 11018 <t< td=""><td>CR CC28/004</td><td>12/31/1878</td><td>1878 Fully Adjudica</td><td>ed</td><td>JOHN</td><td>RICHARDS</td><td>JOHN R. RICHARDS TERRITORIAL DITCH</td><td>IRR_SW</td><td>025N</td><td>120W 0</td><td>1 SE1</td><td>1/4NE1/4</td><td>T115L29</td><td>0.98</td><td></td><td></td><td>Bear River</td><td></td><td></td><td>0</td><td>0 0 Stream</td><td></td><td>42.18</td><td>3656</td><td>-111.030425 External</td></t<>  | CR CC28/004                | 12/31/1878               | 1878 Fully Adjudica                                  | ed                              | JOHN                        | RICHARDS           | JOHN R. RICHARDS TERRITORIAL DITCH  | IRR_SW                                       | 025N             | 120W 0             | 1 SE1          | 1/4NE1/4               | T115L29          | 0.98        |               |         | Bear River   |                        |                          | 0                     | 0 0 Stream                        |          | 42.18        | 3656          | -111.030425 External                       |
| C12/L128       C12/L128 <td< td=""><td>CR CC28/028</td><td>05/13/1883</td><td>05/13/188 Fully Adjudica<br/>05/13/188 Fully Adjudica</td><td>ed<br/>ed</td><td>PARLEY</td><td>ANDERSON</td><td>COOK BROTHERS CANAL</td><td>IRR_SW</td><td>025N</td><td>119W 0</td><td>7 NW<br/>7 SE1</td><td>N1/4NW1/4</td><td>T114L10</td><td>2.51</td><td></td><td></td><td>Bear River</td><td></td><td></td><td>0</td><td>0 0 Stream</td><td></td><td>42.17</td><td>3369</td><td>-111.027369 External</td></td<>   | CR CC28/028                | 05/13/1883               | 05/13/188 Fully Adjudica<br>05/13/188 Fully Adjudica | ed<br>ed                        | PARLEY                      | ANDERSON           | COOK BROTHERS CANAL   | IRR_SW                                       | 025N             | 119W 0             | 7 NW<br>7 SE1  | N1/4NW1/4              | T114L10          | 2.51        |               |         | Bear River   |                        |                          | 0                     | 0 0 Stream                        |          | 42.17        | 3369          | -111.027369 External                       |
| CRC20000       CyT/J188       CyT/J188 <th< td=""><td>CR CC28/030</td><td>05/13/1883</td><td>05/13/188 Fully Adjudica</td><td>ed</td><td>JOSEPH</td><td>COOK</td><td>COOK BROTHERS CANAL</td><td>DOM_SW; IRR_SW;</td><td>5 025N</td><td>119W 0</td><td>7 SE1</td><td>1/4NW1/4</td><td>T114L10</td><td>9.14</td><td></td><td></td><td>Bear River</td><td></td><td></td><td>0</td><td>0 0 Stream</td><td></td><td>42.17</td><td>3369</td><td>-111.027369 External</td></th<>  | CR CC28/030                | 05/13/1883               | 05/13/188 Fully Adjudica                             | ed                              | JOSEPH                      | COOK               | COOK BROTHERS CANAL   | DOM_SW; IRR_SW;                              | 5 025N           | 119W 0             | 7 SE1          | 1/4NW1/4               | T114L10          | 9.14        |               |         | Bear River   |                        |                          | 0                     | 0 0 Stream                        |          | 42.17        | 3369          | -111.027369 External                       |
| Dist         Dist<         Dist         Dist<         Dist         Dist         Dist         Dist         <  | CR CC28/031                | 05/13/1883               | 05/13/188 Fully Adjudica                             | ed                              | WILLIAM                     | EHLERT             | COOK BROTHERS CANAL   | IRR_SW; STO                                  | 025N             | 119W 0             | 7 SE1          | 1/4NW1/4               | T114L10          | 2.45        |               |         | Bear River   |                        |                          | 0                     | 0 0 Stream                        |          | 42.17        | 3369          | -111.027369 External                       |
| CC 22005       OS/13185       OS/13185 <th< td=""><td>CR CC28/032</td><td>05/13/1883</td><td>05/13/188</td><td>ZION SAVINGS BANK AND TRUST</td><td>MUMFORD</td><td>BROTHERS</td><td>COOK BROTHERS CANAL</td><td>DOM SWEIRE SWE</td><td>025N<br/>5 025N</td><td>119W 0</td><td>7 SE1</td><td>1/4NW1/4<br/>1/4NW1/4</td><td>T114L10</td><td>2.07</td><td></td><td></td><td>Bear River<br/>Bear River</td><td></td><td></td><td>0</td><td>0 0 Stream</td><td></td><td>42.17</td><td>3369</td><td>-111.02/369 External</td></th<>   | CR CC28/032                | 05/13/1883               | 05/13/188  | ZION SAVINGS BANK AND TRUST     | MUMFORD                     | BROTHERS           | COOK BROTHERS CANAL   | DOM SWEIRE SWE                               | 025N<br>5 025N   | 119W 0             | 7 SE1          | 1/4NW1/4<br>1/4NW1/4   | T114L10          | 2.07        |               |         | Bear River<br>Bear River                                   |                        |                          | 0                     | 0 0 Stream                        |          | 42.17        | 3369          | -111.02/369 External                       |
| CR C220/25       O \$1/1/18       O/S 1/1/18       O/S 1/11/18       O/S   | CR CC28/034                | 05/13/1883               | 05/13/188 Fully Adjudica                             | ed                              | PARLEY                      | ANDERSON           | COOK BROTHERS CANAL   | IRR_SW; STO                                  | 025N             | 119W 0             | 7 SE1          | 1/4NW1/4               | T114L10          | 3.47        |               |         | Bear River   |                        |                          | 0                     | 0 0 Stream                        |          | 42.17        | 3369          | -111.027369 External                       |
| A. L. Agola         O. Syl Jak Beily Algolation         O. Syl Jak Beily Algolation         D. Sulfis         A. L. Agola         Sulfis         Sulfis <t< td=""><td>CR CC28/035</td><td>05/13/1883</td><td>05/13/188</td><td></td><td>KIB</td><td>COOK</td><td>COOK BROTHERS CANAL</td><td>DOM SW; IRR SW;</td><td>5 025N</td><td>119W 0</td><td>7 SE1</td><td>1/4NW1/4</td><td>T114L10</td><td>0.71</td><td></td><td></td><td>Bear River</td><td></td><td></td><td>0</td><td>0 0 Stream</td><td></td><td>42.17</td><td>3369</td><td>-111.027369 External</td></t<>  | CR CC28/035                | 05/13/1883               | 05/13/188  |                                 | KIB                         | COOK               | COOK BROTHERS CANAL   | DOM SW; IRR SW;                              | 5 025N           | 119W 0             | 7 SE1          | 1/4NW1/4               | T114L10          | 0.71        |               |         | Bear River   |                        |                          | 0                     | 0 0 Stream                        |          | 42.17        | 3369          | -111.027369 External                       |
| CR C22/16       O/1/4/190  | CR CC28/042                | 05/30/1884               | 05/30/188 Fully Adjudica<br>05/30/188 Fully Adjudica | ed                              | MARY                        | SIGHTS             | ALONZO F. SIGHTS DITCH<br>ALONZO F. SIGHTS DITCH  | IRR_SW                                       | 025N             | 119W 2             | 2 SW<br>2 SW   | v1/45W1/4<br>V1/45W1/4 | T129L22          | 3.57        |               |         | Bear River   |                        |                          | 0                     | 0 0 Stream                        |          | 42.13        | 1044          | -110.969339 External                       |
| CR CC23/17       O 6/1/21/30 E (1/4) Adjuicted       FRAVS       SWEM AND CPH ACOPHTICAMAN PUMP AND DE REX.       CS 1199       G 8       NEI/ARL/1       T.21211       0.5       Berlaym Adjuict Chan       0       0       Stram       Original       22.13234       -11.012085       Determinal         CR CC23/17       04/3/L137  | CR CC28/166                | 03/16/1906               | 03/16/190 Fully Adjudica                             | ed                              | JOHN                        | SIGHTS             | ROCKY POINT DITCH   |  | 025N             | 119W 1             | 7 SW           | V1/4SE1/4              | A                |             |               |         | Bear River   |                        |                          | 0                     | 0 0 Stream                        |          | 42           | 1464          | -110.996839 External                       |
| Chi C C 20/2 10 NO 27/185 in July Adjustanted         Chi C 20/2 10 NO 27/185 in July Adjustanted         Chi C 20/2 10 NO 27/185 in July Adjustanted         Chi C 20/2 10 NO 27/185 in July Adjustanted         Chi C 20/2 10 NO 27/185 in July Adjustanted         Chi C 20/2 10 NO 27/185 in July Adjustanted         Chi C 20/2 10 NO 27/185 in July Adjustanted         Chi C 20/2 10 NO 27/185 in July Adjustanted         Chi C 20/2 10 NO 27/185 in July Adjustanted         Chi C 20/2 10 NO 27/185 in July Adjustanted         Chi C 20/2 10 NO 27/185 in July Adjustanted         Chi C 20/2 10 NO 27/185 in July Adjustanted         Chi C 20/2 10 NO 27/185 in July Adjustanted         Chi C 20/2 10 NO 27/185 in July Adjustanted         Chi C 20/2 10 NO 27/185 in July Adjustanted         Chi C 20/2 10 NO 27/185 in July Adjustanted         Chi C 20/2 10 NO 27/185 in July Adjustanted         Chi C 20/2 10 NO 27/185 in July Adjustanted         Chi C 20/2 10 NO 27/185 in July Adjustanted         Chi C 20/2 NO 27/185 in July Adjustanted   | CR CC28/167                | 06/12/1906               | 06/12/19D Fully Adjudica<br>04/00/187 Fully Adjudica | ed                              | FRANS                       | SWENSON            | HICKMAN DITCH ACIPT HICKMAN PUMP AND  | IRR_SW                                       | 025N             | 119W 2             | 8 NE1          | 1/4NE1/4               | T129L1           | 0.5         |               |         | Bear River Through Old Char<br>Slough of Boar Barr (Cologi |                        |                          | 0                     | 0 0 Stream                        | Original | 42.12        | 9494          | -110.970703 External                       |
| CR C22/J2       0/1/1/BP in/Jupliced       HEMP       KR0M       KR0M       IB S, W, CH       MB S, W, MB S  | CR CC28/212                | 08/27/1892               | 08/27/189: Fully Adjudica                            | ed                              | ALFRED                      | GARDNER            | COOPER IRRIGATING DITCH ACIPT COVEY CAN   | A IRR SW; STO                                | 025N             | 115W 0             | 7 SE1          | 1/45E1/4               | T70L24           | 2.94        |               |         | Smith's Fork   |                        |                          | 0                     | 0 0 Stream                        |          | 42.16        | 0875          | -110.893228 External                       |
| CR CC22/25       O/7/1/35 00 /7/1/35  | CR CC28/215                | 03/17/1897               | 03/17/189 Fully Adjudica                             | ed                              | HENRY                       | KIRKNER            | WHEELOCK DITCH  | IRR_SW; OTH                                  | 025N             | 118W 2             | 0 NE1          | 1/4NW1/4               | T53L6            | 1.71        |               |         | Smith's Fork   |                        |                          | 0                     | 0 0 Stream                        |          | 42.14        | 2267          | -110.886092 External                       |
| CK C22/37         OV/27/395         OV/27/395 <t< td=""><td>CR CC28/225</td><td>07/21/1904</td><td>07/21/19D Fully Adjudica</td><td>ed OUEAUX SHEEP AND UNE STOCK (</td><td>ONA</td><td>MAU ET AL</td><td>ENLARGED WHEELOCK DITCH</td><td>IRR_SW</td><td>025N</td><td>118W 20</td><td>6 551</td><td>1 /ANDA/1 /A</td><td>T53</td><td>0.82</td><td></td><td></td><td>Smith's Fork</td><td></td><td></td><td>0</td><td>0 0 Stream</td><td></td><td>42.14</td><td>2239</td><td>-110.886092 External</td></t<>   | CR CC28/225                | 07/21/1904               | 07/21/19D Fully Adjudica                             | ed OUEAUX SHEEP AND UNE STOCK ( | ONA                         | MAU ET AL          | ENLARGED WHEELOCK DITCH   | IRR_SW                                       | 025N             | 118W 20            | 6 551          | 1 /ANDA/1 /A           | T53              | 0.82        |               |         | Smith's Fork   |                        |                          | 0                     | 0 0 Stream                        |          | 42.14        | 2239          | -110.886092 External                       |
| CR C22/74       0/5/1/38       MPL AND Fully Adjudicated       ORESCAN BROTHERS       CARE MODE CONSTRUCT       R MR       MVL MWL       T22110       1.12       Gro Cons-Mole Construct       C 218/576       MVL MWL       T22110       1.12       Gro Cons-Mole Construct       C 218/576       MVL MWL       T22110       1.12       Gro Cons-Mole Construct       C 218/576       MVL MWL       T22110       1.12       Gro Cons-Mole Construct       C 218/576       MVL MWL       T22110       1.12       Gro Cons-Mole Construct       C 218/576       MVL MWL       T22110       1.12       Gro Cons-Mole Construct       C 218/576       MVL MWL       T22110       1.12       MVL MWL       T22110       1.12       MVL MWL       T22110  | CR CC28/230                | 09/22/1903               | 09/22/190 Fully Adjudica                             | ed                              | GEORGE                      | BOURNE             | GEORGE BOURNE DITCH ACT BERNADINE PUN   | I IRR_SW                                     | 025N             | 119W 2             | 1 SE1          | 1/4SE1/4               | T129L35          | 0.42        |               |         | Bear River Through Old Char                                |                        |                          | ō                     | 0 0 Stream                        | Original | 42.12        | 3769          | -110.971958 External                       |
| CH C C22/32         U/2 / 2/3 / 3/3         U/2 / 3/3  | CR CC28/243                | 05/31/1888               | APRIL AND Fully Adjudica                             | ed ANDERSON BROTHERS            | CLARENCE                    | ANDERSON           | LORENZO D SIGHTS DITCH  | IRR_SW                                       | 025N             | 119W 0             | 5 NW           | N1/4NW1/4              | T123L19          | 1.14        |               |         | Groo Creek   |                        |                          | 0                     | 0 0 Stream                        | -        | 42.18        | 6764          | -111.004675 External                       |
| CR C22/32         OV/2/35  | CR CC28/278                | 02/26/1903               | 02/26/190 Fully Adjudication                         | ed<br>ed                        | JUHN DENNIS                 | NOBLITT            | PUTATOE HOLLOW DITCH  | IKR_SW; S&D<br>IRR_SW: S&D                   | 025N<br>025N     | 119W 2             | 9 SE1          | 1/4NW1/4<br>N1/4NF1/4  | T53L13           | 1.71        |               |         | Potato Hollow Spring Creek                                 |                        |                          | U<br>O                | 0 0 Stream                        |          | 42.12        | 4544<br>2158  | -111.0032 External                         |
| CR C227/9       12/1.1/87       18/7       1/1/1.4/8       18/7       1/1/1.4/8       0.5       Grochrek       0.5       0.5 rptp       0riginal       0riginal       01/1.1/27       11.005955       betwind         CR C227/0       0/1/0188       1/1/1.1/87 <td>CR CC28/296</td> <td>06/22/1905</td> <td>06/22/190: Fully Adjudica</td> <td>ed</td> <td>JOHN</td> <td>NOBLITT</td> <td>NOBLITT DITCH</td> <td>IRR_SW</td> <td>025N</td> <td>119W 3</td> <td>- INV</td> <td>1/4NE1/4</td> <td>T56L5</td> <td>0.71</td> <td></td> <td></td> <td>Springs (T56-25-119)</td> <td></td> <td></td> <td>õ</td> <td>0 0 Spring</td> <td></td> <td>42.1</td> <td>2979</td> <td>-111.01175 External</td>   | CR CC28/296                | 06/22/1905               | 06/22/190: Fully Adjudica                            | ed                              | JOHN                        | NOBLITT            | NOBLITT DITCH   | IRR_SW                                       | 025N             | 119W 3             | - INV          | 1/4NE1/4               | T56L5            | 0.71        |               |         | Springs (T56-25-119)                                       |                        |                          | õ                     | 0 0 Spring                        |          | 42.1         | 2979          | -111.01175 External                        |
| CR CL22/37         Display Bit Fully Adjustanted         AUMY         Series         Serie  | CR CC28/299                | 12/31/1879               | 1879 Fully Adjudica                                  | ed                              | ORSON                       | GROO               | GROO DITCH  | IRR_SW                                       | 025N             | 119W 0             | 6 SE1          | 1/4SW1/4               | T128L49          | 0.52        |               |         | Groo Creek   |                        |                          | 0                     | 0 0 Spring                        | Original | 42.1         | 7728          | -111.02099 External                        |
| CR C223/36         D3/2/188         D5/2/188         D3/2/188         D5/2/188         D3/2/188  | CR CC28/300<br>CR CC28/327 | 04/30/1888<br>05/20/1886 | 04/00/188 Fully Adjudica<br>05/20/188 Fully Adjudica | ed ANDERSON BROTHERS            | JUHN                        | SIGHTS             | SPRING CREEK DITCH<br>SPRING CREEK NO. 1 DITCH  | IKK_SW; STO<br>IRR_SW                        | 025N<br>025N     | 119W 0             | 5 SW<br>8 N/M  | V1/4SE1/4<br>N1/4NF1/4 | 1132<br>T11219   | 0.52        |               |         | Spring Creek (5-25-119)<br>South Willow Creek              |                        |                          | 0                     | U O Spring                        |          | 42.1         | ./577<br>5865 | -110.99592 External                        |
| CR C22/345         12/31/388         181         Fully Adjudated         HARPY         NICHOLS         COULT DTCH AC GOOBEL DTCH         IRR, SW         025N         118W         34         St1/SWU/L         T38.11         2.46         Piecerek         0         0         0 stream         42.1027         -10.0472 <td>CR CC28/328</td> <td>05/20/1886</td> <td>05/20/188 Fully Adjudica</td> <td>ed ANDERSON BROTHERS</td> <td></td> <td></td> <td>SPRING CREEK NO. 2 DITCH</td> <td>IRR_SW</td> <td>025N</td> <td>119W 0</td> <td>7 SW</td> <td>V1/4NW1/4</td> <td>T114L12</td> <td>0.35</td> <td></td> <td></td> <td>North Willow Creek</td> <td></td> <td></td> <td>0</td> <td>0 0 Stream</td> <td></td> <td>42.1</td> <td>1669</td> <td>-111.02702 External</td>   | CR CC28/328                | 05/20/1886               | 05/20/188 Fully Adjudica                             | ed ANDERSON BROTHERS            |                             |                    | SPRING CREEK NO. 2 DITCH  | IRR_SW                                       | 025N             | 119W 0             | 7 SW           | V1/4NW1/4              | T114L12          | 0.35        |               |         | North Willow Creek   |                        |                          | 0                     | 0 0 Stream                        |          | 42.1         | 1669          | -111.02702 External                        |
| CR C22/38         Ligsigner         Ligsigner <thligsigner< th="">         Ligsigner         <thligsigner< th="">         Ligsigner         <thligsigner< th=""> <thligsigner< th=""> <thlig< td=""><td>CR CC28/346</td><td>12/31/1881</td><td>1881 Fully Adjudica</td><td>ed</td><td>HARRY</td><td>NICHOLLS</td><td>COLLETT DITCH ACT GOODELL DITCH</td><td>IRR_SW</td><td>025N</td><td>118W 3</td><td>4 SE1</td><td>1/4SW1/4</td><td>T38L11</td><td>2.46</td><td></td><td></td><td>Pine Creek</td><td></td><td></td><td>0</td><td>0 0 Stream</td><td></td><td>42.1</td><td>0272</td><td>-110.8472 External</td></thlig<></thligsigner<></thligsigner<></thligsigner<></thligsigner<>   | CR CC28/346                | 12/31/1881               | 1881 Fully Adjudica                                  | ed                              | HARRY                       | NICHOLLS           | COLLETT DITCH ACT GOODELL DITCH   | IRR_SW                                       | 025N             | 118W 3             | 4 SE1          | 1/4SW1/4               | T38L11           | 2.46        |               |         | Pine Creek   |                        |                          | 0                     | 0 0 Stream                        |          | 42.1         | 0272          | -110.8472 External                         |
| CR CC37/504 03/08/1909 03/08/1909 03/08/1909 Fully Adjudicated ORSON BEINION ENLARGED MAU CANAL IRR SW 025N 113W 31 SE1/ANW1/4 T78 0 Pine Creek 0 0 0 Stream 42.10849 1109/03135 External CR CC37/505 03/08/1909 03/08/1909 EXI/08/1909 03/08/ | CR CC28/347<br>CR CC28/348 | 12/31/1887               | 1887 Fully Adjudica<br>1887 Fully Adjudica           | ea<br>ed                        | HARRY                       | NICHOLLS           | GOODELL DITCH   | IRR_SW; OTH                                  | 025N<br>025N     | 118W 3             | 4              |                        | 138L11<br>T38L11 | 4.1 4.23    |               |         | Pine Creek   |                        |                          | 0                     | 0 U Stream                        |          | 42.1         | 0272          | -110.8472 External<br>-110.8472 External   |
| CR C027/55         03/06/1999         D/08/1999         D/08/1999 <thd 08="" 1999<="" th=""> <thd 08="" 1999<="" th=""> <t< td=""><td>CR CC37/504</td><td>03/08/1909</td><td>03/08/190 Fully Adjudica</td><td>ed</td><td>ORSON</td><td>BENNION</td><td>ENLARGED MAU CANAL</td><td>IRR_SW</td><td>025N</td><td>118W 3</td><td>1 SE1</td><td>1/4NW1/4</td><td>T78</td><td>0</td><td></td><td></td><td>Pine Creek</td><td></td><td></td><td>0</td><td>0 0 Stream</td><td></td><td>42.1</td><td>0849</td><td>-110.90135 External</td></t<></thd></thd>   | CR CC37/504                | 03/08/1909               | 03/08/190 Fully Adjudica                             | ed                              | ORSON                       | BENNION            | ENLARGED MAU CANAL  | IRR_SW                                       | 025N             | 118W 3             | 1 SE1          | 1/4NW1/4               | T78              | 0           |               |         | Pine Creek   |                        |                          | 0                     | 0 0 Stream                        |          | 42.1         | 0849          | -110.90135 External                        |
| A A A A A A A A A A A A A A A A A A A  | CR CC37/505                | 03/08/1909               | 03/08/190 Fully Adjudica                             | ed<br>ed                        | PARLEY                      | BENNION            | ENLARGED MAU CANAL  | IRR_SW                                       | 025N             | 118W 3             | 1 NE1          | 1/4SW1/4               | T78              | 0           |               |         | Pine Creek   |                        |                          | 0                     | 0 0 Stream                        | Original | 42.1         | 0844          | -110.90133 External                        |

| LINCOLN COU | NTY                      |  |  |                      |               |   |                 |        |      |            |                          |                   |   |                          |  |            |                     |             |                       |                   |          |                   |                      |
|-------------|--------------------------|--|--|----------------------|---------------|---|-----------------|--------|------|------------|--------------------------|-------------------|---|--------------------------|--|------------|---------------------|-------------|-----------------------|-------------------|----------|-------------------|----------------------|
|             |                          |  |  |                      |               |   |                 |        |      |            |                          | urvey<br>r,Survey | priation(GPM                            | lepth (Ft)<br>VaterLevel | Of Pump (Ft)                             | Di<br>Ci   | iversion<br>apacity | ativo In    | antiun 1              | Pize of           |          | is(Y/N)           |                      |
|             |                          | Priority Summary WR  |  |                      |               |   |                 |        |      |            |                          | The second        | L D D D D D D D D D D D D D D D D D D D | al d                     | tt                                       | Capacity H | eadgate( C          | Capacity Ca | active a<br>apacity F | Reservoi Facility | Supply   | alys              | Created              |
| WR Number   | Priority Date            | text Status  | Company  | First Name           | Last Name     | Facility Name   | Uses            | Twn    | Rng  | Sec        | Qtr-Qtr                  | LE N S E          | 4                                       | 74 To                    | Stream Source                            | (AF/Yr) C  | FS) (/              | AF) (A      | .F) ι                 | r(AF) type        | Туре     | ວິ≨ Latitude      | Longitude By         |
| CR CC37/528 | 09/25/1907               | 09/25/190 Fully Adjudicated                                |  | J. D.                | NOBLITT       | SUPPLY DITCH  | RES             | 025N   | 119W | 29         | SE1/4NW1/4               | T56L12            | 0                                       |                          | Potato Creek                             |            |                     | 0           | 0                     | 0 Stream          |          | 42.12591          | -111.00328 External  |
| CR CC39/192 | 09/21/190/<br>01/14/1915 | 01/14/191 Fully Adjudicated                                | QUEALY SHEEP AND LIVE STOCK CO                                     | MIKS. J. D.          | NUBLITI       | O-P DITCH   | STRINDINIS      | 025N   | 119W | 26         | SE1/4NW1/4               | 182L0<br>L6       | 0.00                                    |                          | Birch Creek Spring No. 1                 |            |                     | 0           | 0                     | 0 Spring          |          | 42.124572         | -110.943392 External |
| CR CC40/219 | 09/09/1915               | 09/09/191 Fully Adjudicated                                |  | LJ                   | DROUBAY       | ENLARGED GOODELL DITCH  | IRR_SW; STO     | 025N   | 118W | 34         | SW1/4SW1/4               | T38               | 1.58                                    |                          | Pine Creek                               |            |                     | 0           | 0                     | 0 Stream          |          | 42.10281          | -110.85028 External  |
| CR CC59/276 | 05/04/1916               | 05/04/191 Fully Adjudicated                                | WESTERN STATES UTILITIES COMP                                      | A,                   |               | PITT SUPPLY CONDUIT DITCH                                     | IND_SW          | 025N   | 118W | 35         | SW1/4SE1/4               | А                 | 18                                      |                          | Pine Creek                               |            |                     | 0           | 0                     | 0 Stream          | Original | 42.10445          | -110.82304 External  |
| CR CC63/034 | 05/02/1949               | 05/02/194' Fully Adjudicated                               |  | GLEN R AND VIRGINIA  | BENNION       | D C P DITCH   | IRR_SW; STO     | 025N   | 118W | 32         | NE1/4NW1/4               | T41L6             | 0.2                                     |                          | Bruner Creek                             |            |                     | 0           | 0                     | 0 Stream          |          | 42.112831         | -110.885314 External |
| CR CC63/033 | 05/18/1893               | 05/18/189. Fully Adjudicated                               |  | WELDON               | DIMOND        | FEEDER DITCH ACT COVEY CANAL                                  | IRR SW          | 025N   | 118W | 30         | NE1/4SW1/4               | T49L25            | 3.92                                    |                          | Smith's Fork                             |            |                     | 0           | 0                     | 0 Stream          | Original | 42.122078         | -110.902531 External |
| CR CC64/121 | 05/30/1881               | 05/30/188 Fully Adjudicated                                |  | ELGIN                | JACKSON       | OSCAR E. SNYDER BEAR RIVER DITCH                              | DOM SW; IRR SW; | S 025N | 119W | 21         | SE1/4NE1/4               | T7613             | 5.07                                    |                          | Bear River                               |            |                     | 0           | 0                     | 0 Stream          | -        | 42.138514         | -110.972189 External |
| CR CC64/122 | 02/27/1882               | 02/27/188 Fully Adjudicated                                |  | ELGIN                | JACKSON       | CHALK CREEK DITCH ACT CHALK CREEK PIPELIN                     | I IRR_SW; S&D   | 025N   | 119W | 09         | NE1/4SE1/4               | T97L19            | 0.71                                    |                          | Chalk Creek                              |            |                     | 0           | 0                     | 0 Stream          |          | 42.166306         | -110.974353 External |
| CR CC64/481 | 06/11/1915               | 06/11/191 Fully Adjudicated                                |  | ELI                  | LUND          | ENLARGED V H DITCH  | IRR_SW; S&D     | 025N   | 118W | 34         | SW1/4SW1/4               | T38               | 1.9                                     |                          | Pine Creek<br>Boor Biver Through Old Cho |            |                     | 0           | 0                     | 0 Stream          | Original | 42.10287          | -110.85034 External  |
| CR CC65/465 | 01/14/1915               | 01/14/191' Fully Adjudicated                               | CONTINENTAL LIVE STOCK COMPA                                       | N                    | REED          | O-P DITCH   | RFS 870         | 025N   | 119W | 26         | SE1/43E1/4<br>SE1/4NW1/4 | 16                | 0.47                                    |                          | Birch Creek Spring No. 1                 |            |                     | 0           | 0                     | 0 Spring          | Original | 42.133722         | -110.94339 External  |
| CR CC66/389 | 03/16/1906               | 03/16/19D Fully Adjudicated                                |  | LOUIS                | ROBERTS       | ROCKY POINT DITCH   | IRR_SW          | 025N   | 119W | 17         | ,, .                     | T85               | 0.43                                    |                          | Bear River                               |            |                     | ō           | ō                     | 0 Stream          |          | 42.154414         | -111.004111 External |
| CR CC80/140 | 05/22/1886               | 05/22/188 Fully Adjudicated                                | THE SMITHS FORK IRRIGATION DIS                                     | т                    |               | COLLETT DITCH ACT COVEY CANAL ACIPT STON                      | I IRR_SW; STO   | 025N   | 118W | 30         |                          | T49L25            | 1                                       |                          | Smith's Fork                             |            |                     | 0           | 0                     | 0 Stream          | Original | 42.122078         | -110.902531 External |
| CR CC80/141 | 09/26/1903               | 12/09/189: Fully Adjudicated                               | THE SMITHS FORK IRRIGATION DIS                                     | T                    |               | ENLARGED COLLETT DITCH ACT COVEY CANAL                        | IRR_SW          | 025N   | 118W | 30         | NE1/4SW1/4               | T49L25            | 0.57                                    |                          | Smith's Fork                             |            |                     | 0           | 0                     | 0 Stream          | Original | 42.122161         | -110.902531 External |
| CR CC80/143 | 10/28/1886               | 10/28/189 Fully Adjudicated<br>05/10/189 Fully Adjudicated | THE SMITH'S FORK IRRIGATION DIS<br>THE SMITH'S FORK IRRIGATION DIS | 1                    |               | MAU CANAL DITCH ACT COVEY CANAL<br>MALL CANAL ACT COVEY CANAL | IRR_SW; STO     | 025N   | 118W | 30         | NE1 ///SW/1 //           | 149L25<br>T4925   | 2.36                                    |                          | Smith's Fork                             |            |                     | 0           | 0                     | 0 Stream          | Original | 42.12233          | -110.9043 External   |
| CR CC80/145 | 06/20/1894               | 06/20/189 Fully Adjudicated                                | THE SMITHS FORK IRRIGATION DIS                                     | T                    |               | MAU CANAL ACT COVET CANAL                                     | IRR SW: STO     | 025N   | 118W | 30         | NE1/45W1/4               | T49L25            | 4.57                                    |                          | Smith's Fork                             |            |                     | ő           | 0                     | 0 Stream          | onginai  | 42.122078         | -110.902531 External |
| CR CC80/147 | 04/21/1902               | 04/21/190 Fully Adjudicated                                | THE SMITH'S FORK IRRIGATION DIS                                    | a                    |               | ENLARGED MAU CANAL ACT COVEY CANAL                            | IRR_SW          | 025N   | 118W | 30         | NE1/4SW1/4               | T49L25            | 0.49                                    |                          | Smith's Fork                             |            |                     | 0           | 0                     | 0 Stream          | Original | 42.122078         | -110.902531 External |
| CR CC81/197 | 03/06/1907               | 03/06/190' Fully Adjudicated                               | DAYTON RANCHES, INC.   |                      |               | JOHN M SIGHTS DITCH   | IRR_SW          | 025N   | 119W | 05         | SE1/4SE1/4               | T121L50           | 0.57                                    |                          | Spring Creek (5-25-119)                  |            |                     | 0           | 0                     | 0 Spring          | Original | 42.17661          | -110.99328 External  |
| CR CC82/363 | 02/12/1998               | 02/12/199 Fully Adjudicated                                | WYOMING STATE LANDS AND INVI                                       | E                    |               | MANINFIOR PIPELINE  | IRR_SW          | 025N   | 119W | 05         | NE1/4SE1/4               | T122L35           | 0.74                                    |                          | Maninfior Spring Creek                   |            |                     | 0           | 0                     | 0 Spring          | Original | 42.180217         | -110.993242 External |
| CR CC86/046 | 04/2//1998               | 04/2//199 Fully Adjudicated<br>07/11/200 Fully Adjudicated |  | JON C. AND VICKIE    | CHILD         | COOPER DITCH - CORRAL CREEK DIVERSION                         | IRR_SW          | 025N   | 119W | 18         | SW1/4NW1/4<br>NE1/ANE1/A | T122L29           | 0.8                                     |                          | Groo Creek                               |            | 24.5                | 0           | 0                     | 0 Stream          |          | 42.18297          | -111.00592 External  |
| CR CC92/145 | 12/22/2000               | 12/22/200 Fully Adjudicated                                | K H CORNIA INVESTMENTS LUMITE                                      |                      | hink          | CORNIA PIPE LINE  | IRR SW          | 025N   | 119W | 26         | NE1/45W1/4               | T68               | ō                                       |                          | Birch Creek                              |            | 1.12                | ő           | 0                     | 0 Stream          |          | 42.12106          | -110.94417 External  |
| CR CC92/146 | 10/23/2006               | Fully Adjudicated  | RUSS AND EMMA LUE THORNOCK   | F                    |               | ENLARGED V H DITCH  | IRR_SW          | 025N   | 118W | 34         | SW1/4SW1/4               | T38L10            | 3.25                                    |                          | Pine Creek                               |            | 102.86              | 0           | 0                     | 0 Stream          |          | 42.10333          | -110.85167 SEO       |
| CR CC92/172 | 09/01/1888               | 09/01/188: Fully Adjudicated                               |  | JASON J AND TRACY    | THORNOCK      | GARRETT DITCH ACT THORNCOCK PUMP AND                          | F IRR_SW; STO   | 025N   | 119W | 28         | SW1/4SE1/4               | T48L37            | 2.07                                    |                          | Bear River                               |            |                     | 0           | 0                     | 0 Stream          |          | 42.117425         | -110.977261 External |
| CR CC92/173 | 05/28/1904               | 05/28/190 Fully Adjudicated                                |  | JASON J AND TRACY    | THORNOCK      | HAMILTON DITCH  | IRR_SW; STO     | 025N   | 119W | 31         | NW1/4NE1/4               | Α                 | 0.29                                    |                          | Hamilton Springs Creek                   |            |                     | 0           | 0                     | 0 Stream          |          | 42.11478          | -111.01406 External  |
| CR CC93/256 | 01/28/2008               | 01/28/200 Fully Adjudicated                                | ERICK W AND JEANNE M ESTERHO                                       | L                    |               | MUD CREEK DIVERSION   | IRK_SW          | 025N   | 118W | 31         | SE1/4SW1/4               | 1/8L34<br>T120L2E | 0 5 4 5                                 |                          | Mud Creek                                |            | 3.44                | 0           | 0                     | 0 Stream          |          | 42.10294          | -110.90353 External  |
| CR CC94/035 | 11/30/2000               | Fully Adjudicated  | REED COMPANY   | JON C AND VICKIE     | CHILD         | ALONZO F. SIGHTS DITCH - OLD CHANNEL DIVE                     | I IRR SW: STO   | 025N   | 119W | 21         | SE1/4SE1/4               | T129L35           | 0.056                                   |                          | Bear River Through Old Cha               | n          | 37.18               | 0           | 0                     | 0 Stream          |          | 42.133719         | -110.973703 SEO      |
| CR CC95/100 | 12/22/2010               | Fully Adjudicated  |  | JAMES W              | BUCKLEY       | ENL COVEY CANAL   | IRR_SW          | 025N   | 118W | 000        |                          | T49L25            | 0.74                                    |                          | Smith's Fork                             |            | 94.7                | 0           | 0                     | 0 Stream          |          | 42.12225          | -110.90194 External  |
| CR CR11/413 | 10/31/1945               | 10/31/194 Fully Adjudicated                                |  | SHARON R AND LYNN T  | DAYTON DB/    | A MANINFIOR RESERVOIR   | IRR_SW; STO     | 025N   | 119W | 05         | SW1/4NE1/4               | T122L27           |   |                          | Maninfior Spring Creek                   | 9.76       |                     | 9.76        | 0                     | 9.76 Reservoir    | Original | 42.18364          | -110.996 External    |
| CR CR21/024 | 12/22/2000               | 12/22/200 Fully Adjudicated                                | K-H CORNIA INVESTMENTS LIMITEI                                     | D                    |               | TWISS RESERVOIR   | STO             | 025N   | 119W | 26         | NE1/4SW1/4               | T68               |   |                          | Birch Creek                              |            |                     | 18.6        | 0                     | 18.6 Reservoir    |          | 42.12106          | -110.94417 External  |
| CR CR22/180 | 09/08/1958               | Eully Adjudicated  | RUBERTS RANCH  | SCOTT JAY            | NIESLANIK     | NIESI ANIK STOCK POND RESERVOIR                               | STO             | 025N   | 119W | 24         | SE1/4NW1/4               | 103<br>TRQI 70    |   |                          | Chalk Creek                              | 8.45       |                     | 0           | 8.45                  | 0.73 Reservoir    |          | 42.140417         | -110.923806 External |
| CR UW11/159 | 01/19/1999               | 01/19/199 Fully Adjudicated                                | BOARD OF LINCOLN COUNTY COM  | N                    | HILDENHA      | PINE CREEK SKI NO. 1 WELL                                     | MIS             | 025N   | 118W | 35         | SE1/45W1/4               | A                 | 15                                      |                          | cluk creek                               | 0.75       |                     | 0           | 0.75                  | 0 Well            |          | 42.10305          | -110.82695 External  |
| OR 04/157   | 05/30/1884               | 05/30/188 Fully Adjudicated                                | ANDERSON BROTHERS  | HAROLD, CLARENCE AND | FANDERSON     | ALONZO F. SIGHTS DITCH  | IRR_SW; STO     | 025N   | 119W | 22         | SW1/4SW1/4               | T129L22           | 3.24                                    |                          | Bear River                               |            |                     | 0           | 0                     | 0 Stream          |          | 42.131044         | -110.969339 External |
| P10729.0D   | 09/05/1911               | 09/05/191  |  | J.D.                 | Noblitt       | Noblitt-Truit Ditch No. 5                                     | DOM_SW; IRR_SW; | S 025N | 119W | 00         |                          | T76               | 0                                       |                          |  |            |                     | 0           | 0                     | 0 Stream          |          | 42.144759         | -110.969804 External |
| P5483.0E    | 06/13/1949               | 06/13/194 Cancelled  |  | J.D.                 | NOBLITT       | FIRST ENLARGEMENT OF GARRETT DITCH                            | IRR_SW          | 025N   | 119W | 28         | SE1/4NW1/4               | L13               | 2.20                                    |                          |  |            | 2.08                | 0           | 0                     | 0 Stream          |          | 42.125472         | -110.981869 External |
| P557.0D     | 08/04/1893               | 05/04/189. Cancelled                                       |  | LERUY H.             | WHITE         | Leroy Ditch No. 1 and Leroy Ditch No. 2                       | IRK_SW          | 025N   | 118W | 22         | NE1/4SE1/4               | TE 11 10          | 2.28                                    |                          |  |            | -1                  | 0           | 0                     | 0 Stream          |          | 42.1//915         | -110.8/4161 External |
| P7126.0D    | 03/16/1906               | 03/16/190 Fully Adjudicated                                |  | John M.              | Sights        | Rocky Point Ditch   | DOM SW: IRR SW  | 025N   | 119W | 17         | SW1/4NE1/4<br>SW1/4SE1/4 | 131110            | 1                                       |                          |  |            |                     | 0           | 0                     | 0 Stream          |          | 42.110333         | -110.99684 External  |
| CR CC37/496 | 05/29/1911               | 05/29/191 Fully Adjudicated                                |  | PARLEY               | ANDERSON      | ENLARGED JOHN R RICHARDS TERRITORIAL DIT                      | IRR_SW          | 025N   | 120W | 01         | SE1/4NW1/4               | T43L26            | 1.03                                    |                          |  |            |                     | 0           | 0                     | 0 Stream          |          | 42.181819         | -111.039914 External |
| CR CC62/042 | 11/10/1948               | 11/10/194: Fully Adjudicated                               |  | JOHN                 | REED          | ENLARGED WYMAN NO. 2 DITCH                                    | IRR_SW          | 025N   | 119W | 22         | NW1/4NW1/4               | A                 | 2.1                                     |                          |  |            |                     | 0           | 0                     | 0 Stream          |          | 42.144739         | -110.969803 External |
| CR CC65/483 | 11/14/1958               | 11/14/195: Fully Adjudicated                               |  | JOHN                 | REED          | ENLARGED WYMAN NO. 2 DITCH                                    | IRR_SW          | 025N   | 119W | 22         | NW1/4NW1/4               | A                 | 0.64                                    |                          |  |            |                     | 0           | 0                     | 0 Stream          |          | 42.144747         | -110.9698 External   |
| CR CC67/022 | 05/04/1954               | 05/04/195 Fully Adjudicated                                |  | ELGIN H AND LEEORA I | JACKSON       | ENLARGED WYMAN NO. 2 DITCH                                    | I IKK_SW        | 025N   | 119W | 15         | SW1/4SW1/4               | 11/               | 6.31                                    |                          |  |            |                     | 0           | 0                     | 0 Stream          |          | 42.144/61         | -110.9698 External   |
| CR CC74/331 | 04/09/1962               | 04/09/196 Fully Adjudicated                                |  | LW                   | ROBERTS       | ENLARGED ROCKY POINT DITCH                                    | IRR SW          | 025N   | 119W | 17         | SW1/4SE1/4               | T79L36            | 2.77                                    |                          |  |            |                     | 0           | 0                     | 0 Stream          |          | 42.14294          | -110.996844 External |
| CR CC82/152 | 02/19/1997               | 02/19/199 Fully Adjudicated                                |  | JON C AND VICKIE     | CHILD         | ENLARGED ALONZO F. SIGHTS DITCH                               | IRR_SW          | 025N   | 119W | 21         | SE1/4SE1/4               | L34               | 0.81                                    |                          |  |            |                     | 0           | 0                     | 0 Stream          |          | 42.131033         | -110.974303 External |
| CR CC85/058 | 03/20/1995               | 03/20/199: Fully Adjudicated                               |  | JOHN                 | REED          | BRIDGE PUMP   | IRR_SW          | 025N   | 119W | 28         | SW1/4NE1/4               | T129              | 0.09                                    |                          |  |            |                     | 0           | 0                     | 0 Stream          |          | 42.125333         | -110.976578 External |
| P34396.0D   | 02/12/2010               | Complete   |  | JASON AND TRACY      | THORNOCK      | THORNOCK PUMP AND PIVOT                                       | IRR_SW          | 025N   | 119W | 000        |                          | T48               | 0.69 0                                  | .69                      |  |            | 2.6                 | 0           | 0                     | 0 Stream          |          | 42.117417         | -110.97725 SEO       |
| P107739.0W  | 01/02/1997               | Complete   |  | ION AND VICKIE       | CHILD         | 4-E #1<br>CHILD NUMBER 1                                      | DOM GW: STK     | 025N   | 118W | 04         | NW1/45E1/4<br>NF1/45W1/4 | T125122           | 25 2 00                                 | JU 15 N<br>-4            | 57                                       |            |                     | 0           | 0                     | 0 Well            | N        | 42.104528         | -110.900417 External |
| P109813.0W  | 04/27/1998               | Complete   |  | JON AND VICKIE       | CHILD         | CHILD NUMBER 2  | STK             | 025N   | 119W | 05         | SW1/4SE1/4               | T121              | 25 2.00                                 | -4                       |  |            |                     | 0           | 0                     | 0 Well            | N        | 42.17484          | -110.99541 External  |
| P109814.0W  | 04/27/1998               | Complete   |  | JON AND VICKIE       | CHILD         | CHILD NUMBER 3  | STK             | 025N   | 119W | 09         | NW1/45W1/4               | T103L15           | 25 2.00                                 | -4                       |  |            |                     | 0           | 0                     | 0 Well            | N        | 42.16461          | -110.98636 External  |
| P109815.0W  | 04/27/1998               | Complete   |  | JON AND VICKIE       | CHILD         | CHILD NUMBER 4  | STK             | 025N   | 119W | 09         | SE1/4SE1/4               | T97               | 25 21.0                                 | 0 -4                     |  |            |                     | 0           | 0                     | 0 Well            | N        | 42.16005          | -110.97415 External  |
| P1157.0R    | 10/09/1907               | 10/09/190 Expired  |  | V.                   | HUFFORD       | V. H. NO. 1 RESERVOIR   | IKK_SW          | 025N   | 118W | 26         | SE1/4SW1/4               | A                 |   |                          | Pine Creek                               | 163.81     |                     | 163.81      | 0                     | 163.81 Reservoir  |          | 42.1/6            | -110.90391 External  |
| P12708.0R   | 12/22/2000               | 12/22/200 Complete   | K-H CORNIA INVESTMENTS LLC   | v.                   | HUFFORD       | TWISS RESERVOIR   | STO             | 025N   | 118W | 26         | NW1/45W1/4               | T68L16            |   |                          | Birch Creek                              | 212.1      |                     | 18.6        | 0                     | 18.6 Reservoir    |          | 42.10333          | -110.94583 External  |
| P1669.0R    | 09/21/1907               | 09/21/190 Complete   |  | 1                    | NOBLITT       | NO. 1 RESERVOIR   | DOM SW; IRR SW; | S 025N | 119W | 20         | SW1/4SE1/4               | А                 |   |                          | Erwin Creek                              | 31.2       |                     | 31.2        | 0                     | 31.2 Reservoir    |          | 42.13192          | -110.99631 External  |
| P1670.0R    | 09/25/1907               | 09/25/190 Complete   |  | 1                    | NOBLITT       | NO. 2 RESERVOIR   | DOM_SW; IRR_SW; | S 025N | 119W | 29         | NW1/45W1/4               | A                 |   |                          | Potatoe Creek                            | 18         |                     | 18          | 0                     | 18 Reservoir      |          | 42.12195          | -111.00601 External  |
| P1671.0R    | 09/25/1907               | 09/25/190 Complete   |  | 1                    | NOBLITT       | NO. 3 RESERVOIR   | DOM SW; IRR SW; | S 025N | 119W | 29         | SE1/4NW1/4               | A                 |   |                          | Potatoe Creek                            | 24.5       |                     | 24.5        | 0                     | 24.5 Reservoir    |          | 42.12473          | -111.00115 External  |
| P1672.0R    | 05/01/1907               | 05/01/190 Complete   |  | ANNA                 | NELSON        | ANNA N RESERVOIR  | DOM_SW; IRR_SW; | 025N   | 119W | 19         | NE1/4NE1/4               | A<br>A            |   |                          | Grade Canvon Creek                       | 10.5       |                     | 10.5        | 0                     | 10.5 Reservoir    |          | 42.1429           | -111.0105 External   |
| P170139.0W  | 09/20/2005               | Complete   |  | A. MARTIN AND CODY M | A LINFORD, JR | LINFORD #1  | DOM_GW; IRR_GW; | : 025N | 118W | 31         | SW1/4SE1/4               | A                 | 20 98.00                                | 20 N                     | 80                                       | 14.1       |                     | 0           | o                     | 0 Well            | N        | 42.103394         | -110.899939 External |
| P182965.0W  | 08/24/2007               | Complete   |  | ROBERT AND LAURA LEE | BECK          | BECK NUMBER ONE   | DOM_GW; STK     | 025N   | 118W | 31         | SW1/4SE1/4               | T78L3             | 15 180.0                                | 00 40 N                  | 105                                      |            |                     | 0           | 0                     | 0 Well            | N        | 42.103614         | -110.897633 External |
| P1831.0R    | 05/03/1910               | 05/03/191/ Expired   |  | N W AND M S          | REYNOLDS      | PINE CREEK RESERVOIR NO. 1                                    | IRR_SW          | 025N   | 118W | 34         | SW1/4SW1/4               | А                 |   |                          | Pine Creek                               | 25         |                     | 0           | 25                    | 25 Reservoir      |          | 42.10344          | -110.85047 External  |
| P1832.0R    | 05/03/1910               | 05/03/191/ Expired   |  | N W AND M S          | REYNOLDS      | PINE CREEK RESERVOIR NO. 2                                    | IRR_SW          | 025N   | 118W | 35         | SW1/4SW1/4               | A                 |   |                          | Pine Creek                               | 39.6       |                     | 0           | 39.6                  | 39.6 Reservoir    |          | 42.10312          | -110.83119 External  |
| P19000.05   | 08/13/2012               | 01/21/19/ Cancelled  |  | ALEREDA              | EVANS         | HAGGERTY NO. 1 DITCH  |                 | 025N   | 119W | 31         | SE1/45W1/4               | T79               | 0                                       |                          | Bruner Creek                             | 0.73       | 0.53                | 0           | 0.73                  | 0.73 Reservoir    |          | 42.1593           | -110.9799 External   |
| P198202.0W  | 06/13/2012               | Complete   |  | ERNEST               | THORNOCK      | THORNOCK-BRUNNER (ONE WELL)                                   | STK             | 025N   | 118W | 21         | NW1/4SE1/4               | T55               | 7 200.0                                 | 00 60 N                  | 120                                      |            | 0.55                | 0           | 0                     | 0 Well            | N        | 42.135181         | -110.859636 SEO      |
| P199262.0W  | 08/13/2012               | Complete   |  | JON                  | CHILD         | ARENA SPRING  | STK             | 025N   | 119W | 09         | NW1/4SE1/4               | T97               | 5 1.00                                  | 1 N                      | 0  |            |                     | 0           | 0                     | 0 Well            | N        | 42.163889         | -110.978056 SEO      |
| P201724.0W  | 02/24/2014               | Incomplete   |  | JASON                | THORNOCK      | GARRETT WELL  | IRR_GW          | 025N   | 119W | 28         | SW1/4SE1/4               | T4837             | 1250                                    |                          |  |            |                     | 0           | 0                     | 0 Well            |          | 42.11746          | -110.97657 SEO       |
| P201783.0W  | 03/13/2014               | Incomplete   |  | JASON                | THORNOCK      | PUTATO HALLOW WELL #2   | IKR_GW          | 025N   | 119W | 21         | SW1/4SW1/4               | T60L26            | 1200                                    |                          |  |            |                     | 0           | 0                     | 0 Well            |          | 42.13188          | -110.98659 SEO       |
| P201000.0W  | 05/05/2014               | Incomplete   |  | IOHN & AND CAROLYN R | REED          | ENLARGEMENT REED #1   | DOM_GW: STK     | 025N   | 119W | 28         | NE1/4/NE1/4              | T12911            | 10                                      |                          |  |            |                     | 0           | 0<br>C                | 0 Well            |          | 42.1853           | -110 97025 SEO       |
| P204697.0W  | 10/13/2015               | Incomplete   |  | JEFFERY              | THORNOCK      | THORNOCK #1   | DOM_GW          | 025N   | 118W | 33         | NE1/4SE1/4               | T3912             | 25                                      |                          |  |            |                     | ō           | ŏ                     | 0 Well            |          | 42.10668          | -110.85715 SEO       |
| P21321.0D   | 08/26/1953               | 08/26/195 Complete   | COKEVILLE LAND & LIVESTOCK   |                      |               | NOBLITT PIPELINE AND DITCH                                    | -               | 025N   | 119W | 000        |                          | T76               | 1.23                                    |                          | Bear River                               |            | 15.1                | 0           | 0                     | 0 Stream          |          | 42.13756          | -110.97469 External  |
| P22495.0D   | 04/04/1963               | 04/04/196 Complete   |  | SEYMORE CLYNE        | CURTIS        | CURTIS DITCH  |                 | 025N   | 118W | 31         | NW1/45E1/4               | T78L28            |   |                          | Bruner Creek                             |            | 7.85                | 0           | 0                     | 0 Stream          |          | 42.107144         | -110.8998 External   |
| P2264.0R    | 09/05/1911               | U9/05/191 Expired  | OUTEN EX DETERSORY CUSED CO  | ADOLPH               | NELSON        | QUAKING ASP RESERVOIR   | DOM_SW; IRR_SW; | 5 025N | 118W | 16         | SE1/4SE1/4               | A                 |   |                          | Spring Branch                            | 0.2        |                     | 0.2         | 0                     | 0.2 Reservoir     |          | 42.14719          | -110.8559 External   |
| P25316.0D   | 01/26/1912               | 01/26/191 Cancelled<br>01/26/197 Complete                  | QUEALET-PETERSON SHEEP CO  | ALBERT               | FEUZ          | CHALK CREEK PIPE LINE   | IRR SW          | 025N   | 119W | 000        | NE1/4SE1/4               | 109<br>T97        | 0.56                                    |                          | Chalk Creek                              | 49.92      | 2.06                | 0           | 0                     | 0 Stream          |          | 42.14476          | -110.9698 External   |
| P2753.0R    | 10/12/1914               | 10/12/191 Complete   |  | KEITH                | CARNIA        | Q - P RESERVOIR   | IRR_SW          | 025N   | 119W | 25         | SW1/4NW1/4               | T69L              |   |                          | Birch Creek                              | 97.1       |                     | 97.1        | ő                     | 97.1 Reservoir    |          | 42.12354          | -110.92819 External  |
| P31464.0D   | 03/20/1995               | 03/20/199 Complete   |  |                      |               | BRIDGE PUMP   | -               | 025N   | 119W | 28         | SE1/4NE1/4               | T129              | 0.09                                    |                          | Bear River                               |            | 0.03                | 0           | 0                     | 0 Stream          |          | 42.12293          | -110.97936 External  |
| P31524.0D   | 11/22/1994               | 11/22/199 Cancelled  | ORSON A NATE ETAL  |                      |               | CHAPPEL SPRING PIPELINE NO. 2 WATER HAUL                      |                 | 025N   | 118W | 04         | NW1/4NW1/4               | L8                | 0.23                                    |                          | Chappel Spring                           |            | 0.23                | 0           | 0                     | 0 Spring          |          | 42.18743          | -110.87004 External  |
| P33627.0D   | 12/22/2000               | 12/22/200 Complete   | K-H CORNIA INVESTMENTS LLC   | EVA                  | SWENCON       | CURNIA PIPELINE   | IRR SIM STO     | 025N   | 119W | 000        | 518/1 /4551 /*           | r68               |   |                          | Birch Creek                              | 44.45      | 1.12                | 0           | 0                     | 0 Stream          |          | 42.12106          | -110.975 External    |
| P34035.0D   | 01/28/2008               | 01/28/200 Complete   |  |                      | 34VE NOUN     | MUD CREEK DIVERSION   | n_3w, 510       | 02.5N  | 115W | -**<br>000 | 3v#1/%3E1/4              | T78               |   |                          | Mud Creek                                | 44.40      | 3.44                | 44.40<br>0  | 0                     | 0 Stream          |          | 42.13194 42.10276 | -110.91902 External  |
| P34752.0D   | 08/13/2012               | Cancelled  |  | JON                  | CHILD         | CHALK CREEK WATER HAUL  |                 | 025N   | 119W | 09         | NW1/45E1/4               | T9718             | 0.17                                    |                          | Chalk Creek                              |            |                     | 0           | 0                     | 0 Stream          |          | 42.163728         | -110.976239 External |
| P516.0R     | 05/28/1904               | 05/28/190 Expired  |  | C                    | HAMILTON.     | HAMILTON RESERVOIR  | DOM SW-IRR SW   | 025N   | 119W | 31         | NW1/4NF1/4               | Δ.                |   |                          | Hamilton Springs Creek                   | 3.75       |                     | 3 75        | 0                     | 3.75 Reservoir    |          | 42 1147           | -111.01563 External  |

| LINCOLN COL                | NTY                      |  |   |  |            |  |                         |              |        |          |                          |              | -                       |                       |         |  |                        |                     |                       |                     |                                   |          |                        |  |
|----------------------------|--------------------------|--|---|--|------------|--|-------------------------|--------------|--------|----------|--------------------------|--------------|-------------------------|-----------------------|---------|--|------------------------|---------------------|-----------------------|---------------------|-----------------------------------|----------|------------------------|--|
|                            |                          |  |   |  |            |  |                         |              |        |          |                          | Survey       | ow(CFS)/<br>riation(GPM | pth (Ft)<br>aterLevel | (N/A) B | if Pump (Ft)   | Di                     | iversion<br>apacity |                       |                     |                                   | 7        | (V/N)                  |  |
|                            |                          | Priority Summary WR  |   |  |            |  |                         |              |        |          |                          | e,Su<br>fix  | al Fk                   | al de<br>ticw.        | Loi     | e<br>f   | Total at<br>Canacity H | A A                 | ctive Ir<br>anacity C | nactive<br>Canacity | Size of<br>Reservoi Facility      | Supply   | lyst                   | Created                                      |
| WR Number                  | Priority Date            | text Status  | Company   | First Name                               | Last Name  | Facility Name  | Uses                    | Twn          | Rng    | Sec      | Qtr-Qtr                  | Pur Suf      | Api Tot                 | Tot<br>Star           | We      | Stream Source  | (AF/Yr) C              | FS) (/              | AF) (/                | AF)                 | r(AF) type                        | Туре с   | Latitude               | Longitude By                                 |
| P5559.0R<br>P5885.0D       | 10/31/1945               | 10/31/194 Complete<br>Cancelled                              |   | JON AND VICKIE<br>HENRY                  | CHILD      | MANINFIOR RESERVOIR<br>KIRKNER   | IRR_SW; STO             | 025N<br>025N | 119W   | 17       | NF1/4NW1/4               | T122L        |                         |                       |         | Spring Creek<br>Smith's Fork                               | 9.76                   | 0                   | 9.76                  | 0                   | 9.76 Reservoir<br>0 Stream        |          | 42.18016               | -110.99404 External<br>-110.88773 SEO        |
| P6095.0R                   | 12/17/1953               | 12/17/195 Complete   |   | JOHN                                     | REED       | REED UPPER RESERVOIR   | FIS; IRR_SW; STO        | 025N         | 119W   | 000      | ,, .                     | T61-         |                         |                       |         | Garrett Springs  | 8.55                   | -                   | 8.55                  | 0                   | 8.55 Reservoir                    |          | 42.12375               | -110.9693 External                           |
| P6096.0R                   | 12/17/1953               | 12/17/195: Complete  |   | JOHN                                     | REED       | REED LOWER RESERVOIR   | FIS; IRR_SW; STO        | 025N         | 119W   | 01       |                          | T129         |                         |                       |         | Garrett Springs  | 21.3                   |                     | 21.3                  | 0                   | 21.3 Reservoir                    |          | 42.1317                | -110.97106 External                          |
| P5484.0R<br>P7203.0E       | 11/14/1958<br>02/19/1997 | 11/14/195 Complete<br>02/19/199 Complete                     |   | JOHN                                     | REED       | CHILD ENLARGEMENT OF ALONZO F. SIGHTS D  | IRR_SW                  | 025N<br>025N | 119W 1 | 21       |                          | T129         | 0.81                    |                       |         | Bear River<br>Bear River                                   | 21.88                  | 37.18               | 21.88                 | 0                   | 21.88 Reservoir<br>0 Stream       |          | 42.14476               | -110.9698 External<br>-110.973611 External   |
| P7658.0E                   | 11/30/2000               | Complete   | NATE RANCHES COMPANY  |  |            | GROO-BOURNE ENLARGEMENT OF ALONZO F.   | -                       | 025N         | 119W   | 08       | NE1/4NW1/4               | T110L8       | 0.546                   |                       |         | Bear River   | 34                     | 37.18               | 0                     | 0                   | 0 Stream                          |          | 42.17137               | -111.00105 SEO                               |
| P7665.0E                   | 10/23/2006               | Complete   |   | RUSSELL AND EMMALUE                      | THORNOCK   | THORNOCK ENLARGEMENT OF V.H. DITCH   | IRR_SW                  | 025N         | 118W   | 34       | SW1/4SW1/4               | A            | 3.25                    |                       |         | Pine Creek   |                        | 102.86              | 0                     | 0                   | 0 Stream                          |          | 42.103333              | -110.851667 SEO                              |
| P8528.05                   | 09/13/1977               | 09/13/197 Complete   |   | EVERETT                                  | DAYTON     | DAYTON STOCK RESERVOIR   | E IRK_SW                | 025N         | 119W 1 | 22       | SW1/4SW1/4               | А<br>T76     |                         |                       |         | Bear River Through Old Chan<br>Bear River Through Old Chan | 2.57                   | 37.18               | 2.57                  | 0                   | 2.57 Reservoir                    |          | 42.133925<br>42.1317   | -110.972194 External<br>-110.9709 External   |
| CR CC28/216                | 10/02/1901               | 10/02/190 Fully Adjudicated                                  |   | WILLIAM                                  | PERRY      | PERRY AND PARTRIDGE DITCH ACT EMELLE DIT   | IRR_SW                  | 026N         | 118W   | 32       | SE1/4SE1/4               | А            | 1.71                    |                       |         | Smith's Fork   |                        |                     | 0                     | 0                   | 0 Stream                          | Original | 42.191836              | -110.879494 External                         |
| CR CC28/218.1              | 02/28/1903               | 02/28/190: Fully Adjudicated                                 |   | ALFRED                                   | GARDNER    | ENLARGED PERRY AND PARTRIDGE DITCH ACT   | I IRR_SW; STO           | 026N         | 118W   | 32       | SE1/4SE1/4               | A            | 3.68                    |                       |         | Smith's Fork   |                        |                     | 0                     | 0                   | 0 Stream                          | Original | 42.191836              | -110.879494 External                         |
| CR CC28/279                | 05/15/1880               | 05/15/188 Fully Adjudicated                                  |   | F C AND J A                              | EVANS      | CLOW AND CONLEY DITCH AKA FRANCIS DITCH  | I IRR_SW; S&D           | 026N         | 120W   | 01       | NW1/4SE1/4               | A            | 3.41                    |                       |         | Raymond Creek  |                        |                     | 0                     | 0                   | 0 Stream                          |          | 42.270294              | -111.040725 External                         |
| CR CC28/280                | 05/15/1880               | 05/15/188 Fully Adjudicated                                  |   | JAMES                                    | FRANCIS    | CLOW AND CONLEY DITCH ACT FRANICS DITCH  | IRR_SW; STO             | 026N         | 120W   | 01       | NW1/4SE1/4               | А            | 2.28                    |                       |         | Raymond Creek  |                        |                     | 0                     | 0                   | 0 Stream                          |          | 42.270294              | -111.040725 External                         |
| CR CC28/281                | 05/15/1880               | 05/15/188 Fully Adjudicated                                  |   | MARGRETE                                 | ERANCIS    | CLOW AND CONLEY DITCH AKA FRANICS DITCH<br>ERANCIS DITCH                         | I IRR_SW; STO           | 026N         | 120W   | 01       | NW1/4SE1/4<br>NW1/4SE1/4 | A<br>A       | 0.8                     |                       |         | Raymond Creek<br>Raymond Creek                             |                        |                     | 0                     | 0                   | 0 Stream                          |          | 42.270294              | -111.040725 External                         |
| CR CC28/284                | 02/23/1901               | 02/23/190 Fully Adjudicated                                  |   | MARGARET                                 | MCLENNAN   | ENLARGED MCCLENNAN DITCH   | IRR_SW; STO             | 026N         | 120W   | 01       | SW1/4NE1/4               | Ā            | 1.88                    |                       |         | Raymond Creek  |                        |                     | ō                     | 0                   | 0 Stream                          |          | 42.271706              | -111.038639 External                         |
| CR CC28/294                | 12/31/1874               | 1874 Fully Adjudicated                                       |   | PARLEY                                   | ANDERSON   | NONE GIVEN   | S&D                     | 026N         | 119W   | 31       | SW1/4SW1/4               | L1           | 0                       |                       |         | Springs (31-26-119)  |                        |                     | 0                     | 0                   | 0 Spring                          |          | 42.193236              | -111.030614 External                         |
| CR CC34/321                | 05/15/1880               | 05/15/188 Fully Adjudicated<br>05/15/188 Fully Adjudicated   | MUMFORD BROTHERS  |  |            | RAYMOND AND FOREMAN DITCH  | DOM_SW; IRR_SW          | 026N         | 120W   | 12       | NE1/4NW1/4               | 11           | 2.28                    |                       |         | Raymond Creek<br>Raymond Creek                             |                        |                     | 0                     | 0                   | 0 Stream                          |          | 42.26199               | -111.04519 External                          |
| CR CC37/539                | 12/17/1912               | 12/17/191 Fully Adjudicated                                  |   | ROSE                                     | LAYLAND    | COAL CANYON PIPELINE   | DOM_SW; IRR_SW          | 026N         | 119W   | 07       | NW1/4NE1/4               | 11           | 0.57                    |                       |         | Spring in Coal Canyon                                      |                        |                     | ō                     | 0                   | 0 Spring                          | Original | 42.26321               | -111.01877 External                          |
| CR CC39/198                | 06/29/1910               | 06/29/191 Fully Adjudicated                                  | COKEVILLE SHEEP COMPANY                                       |  |            | ENLARGED HAWKINS CREEK DITCH   | IRR_SW                  | 026N         | 118W   | 22       | SE1/4SW1/4               | A            | 0.83                    |                       |         | Hawkins Creek  |                        |                     | 0                     | 0                   | 0 Stream                          |          | 42.2216                | -110.8512 External                           |
| CR CC52/285                | 02/28/1903               | 02/28/190: Fully Adjudicated<br>02/28/190: Fully Adjudicated |   | JAMES<br>FMORY                           | SCOTT      | ENLARGED PERRY AND PARTRIDGE DITCH ACP<br>ENLARGED PERRY AND PARTRIDGE DITCH ACT | IRR_SW; STO             | 026N         | 118W   | 32       | NW1/4NW1/4<br>SF1/4SF1/4 | A            | 1.29                    |                       |         | Smith's Fork   |                        |                     | 0                     | 0                   | 0 Stream                          | Original | 42.214933              | -110.8/5664 External<br>-110.879494 External |
| CR CC81/012                | 03/09/1903               | 03/09/190: Fully Adjudicated                                 | NATE RANCHES COMPANY PARTN                                    | El                                       | 50011      | PROGRESS DITCH ACIPT NATE NORTH AND SOL  | J IRR_SW                | 026N         | 118W   | 29       | SE1/4NE1/4               | Ā            | 1.92                    |                       |         | Smith's Fork   |                        |                     | ō                     | 0                   | 0 Stream                          | Original | 42.212739              | -110.878614 External                         |
| CR CC94/086                | 12/19/1995               | 12/19/199 Fully Adjudicated                                  | WYOMING WATER DEVELOPMEN                                      | F)                                       |            | RAYMOND CREEK INSTREAM FLOW SEGMENT  | 1                       | 026N         | 119W   | 06       | NW1/4NE1/4               | 11           | 0                       |                       |         | Raymond Creek  |                        | -1                  | 0                     | 0                   | 0 Stream                          |          | 42.27695               | -111.021086 External                         |
| CR CC94/095<br>CR CR19/125 | 06/20/1995<br>12/23/2005 | 12/23/200 Fully Adjudicated                                  | LOREN CLYDE & CAROLINE WILDE                                  | II.                                      |            | COAL CREEK INSTREAM FLOW SEGMENT NO. 1<br>WILDE RESERVOIR                        | FIS                     | 026N<br>026N | 118W   | 16       | SW1/4SW1/4<br>SW1/4NE1/4 | A            | 0                       |                       |         | Raymond Creek  |                        | 1.8                 | 0                     | 0.18                | 0.18 Reservoir                    |          | 42.232981<br>42.272839 | -110.8/1261 External<br>-111.0403 External   |
| CR UW11/255                | 08/23/1993               | 08/23/199 Fully Adjudicated                                  |   | RONALD J                                 | ROBERTS    | ROBERTS LAND AND LIVESTOCK NO. 4 WELL  | IRR_GW                  | 026N         | 120W   | 24       | SW1/4NE1/4               | А            | 1200                    |                       |         |  |                        |                     | 0                     | 0                   | 0 Well                            |          | 42.23083               | -111.04224 External                          |
| CR UW11/256                | 04/08/2003               | 04/08/200: Fully Adjudicated                                 |   | RONALD J                                 | ROBERTS    | ENL. ROBERTS LAND AND LIVESTOCK NO. 4 WE   | IRR_GW                  | 026N         | 120W   | 24       | SW1/4NE1/4               | A            | 250                     |                       |         | Decision of Council  |                        |                     | 0                     | 0                   | 0 Well                            |          | 42.23083               | -111.04224 External                          |
| P12495.0K<br>P15499.05     | 02/03/2005               | 02/03/200 Cancelled  |   | LOREN C.                                 | WILDE      | WILDE NO. 2 STOCK RESERVOIR  | STO                     | 026N         | 120W   | 01       | SW1/4NE1/4<br>SW1/4NE1/4 | A-           |                         |                       |         | Raymond Creek  |                        |                     | 0                     | 0.18                | 0.18 Reservoir<br>0 Reservoir     |          | 42.27284               | -111.03968 External<br>-111.0403 External    |
| P15500.05                  | 02/03/2004               | 02/03/200 Cancelled  |   | LOREN C.                                 | WILDE      | WILDE NO. 3 STOCK RESERVOIR  | STO                     | 026N         | 120W   | 01       | SW1/4NE1/4               | A-           |                         |                       |         | Raymond Creek  |                        |                     | 0                     | 0                   | 0 Reservoir                       |          | 42.27284               | -111.0403 External                           |
| P16.0F                     | 06/20/1995               | 06/20/199 Complete   |   |  | 14/11/05   | COAL CREEK IF SEGMENT NO. 1  | 0004 514 145            | 026N         | 118W   | 16       | NE1/4SE1/4               | A            | 7.5                     |                       |         | Coal Creek   |                        | 1.8                 | 0                     | 0                   | 0 Stream                          |          | 42.23809               | -110.85865 External                          |
| P18.0F                     | 12/19/1995               | 12/19/199 Complete   |   | KARL DEE AND KEVIN                       | WILDE      | RAYMOND CREEK INSTREAM FLOW SEGMENT  | DOM_GW; MIS             | 026N         | 119W   | 04       | NW1/4NW1/4<br>NW1/4NW1/4 | A            | U                       |                       |         | Raymond Creek  |                        | -1                  | 0                     | 0                   | 0 Stream                          |          | 42.247461<br>42.27727  | -110.99213 External                          |
| P183242.0W                 | 09/10/2007               | Incomplete   |   | RONALD                                   | WILSON     | WILSON #1  | STK                     | 026N         | 119W   | 32       | NW1/4NW1/4               | А            | 25                      |                       |         |  |                        |                     | 0                     | 0                   | 0 Well                            |          | 42.203089              | -111.012042 External                         |
| P1841.0R                   | 06/29/1910               | 06/29/191 Complete   | COKEVILLE SHEEP CO.   | C K                                      | MZRDOCK    | HAWKIN'S CREEK RESERVOIR   | IRR_SW                  | 026N         | 118W   | 22       | SE1/4SE1/4               | A            | 0.21                    |                       |         | Hawkins Creek  | 14.14                  |                     | 14.1                  | 0                   | 14.1 Reservoir                    |          | 42.22095               | -110.84122 External                          |
| P9530.0D                   | 12/27/1909               | 12/27/190  |   | G. K.                                    | MURDOCK    | First Creek Ditch No. 2  | DOM_SW; IRR_SW;         | ; S 026N     | 119W   | 30       | SW1/4SW1/4               |              | 0.14                    |                       |         |  |                        |                     | 0                     | 0                   | 0 Stream                          |          | 42.207383              | -110.918030 External                         |
| P9531.0D                   | 12/27/1909               | 12/27/190  |   | G. K.                                    | MURDOCK    | Second Creek Ditch   | DOM_SW; STO             | 026N         | 118W   | 19       | SW1/4NW1/4               |              |                         |                       |         |  |                        |                     | 0                     | 0                   | 0 Stream                          |          | 42.228299              | -110.911825 External                         |
| P198743.0W                 | 08/08/2012               | Cancelled  | OFTEDAL CONSTRUCTION INC.                                     | KARL DEF AND BONNIE                      | WILDS      | 2ND ENL. OF ROBERTS LAND & LIVESTOCK #4 V<br>WILD'S #2                           | MIS DOM GW-MIS          | 026N         | 120W   | 24       | SW1/4NE1/4<br>SE1/ANW1/A | A<br>A       | 400                     |                       |         |  |                        |                     | 0                     | 0                   | 0 Well                            |          | 42.228853              | -111.040256 SEO                              |
| P202390.0W                 | 07/03/2014               | Complete   |   | CODY                                     | DAVIS      | DAVIS WELL   | DOM_GW; STK             | 026N         | 120W   | 01       | NE1/4NW1/4               | 11           | 20 142.                 | 00 100                | N       | 130  |                        |                     | ō                     | 0                   | 0 Well                            | N        | 42.27518               | -111.04693 SEO                               |
| P202743.0W                 | 09/02/2014               | Incomplete   | CLARK COUNTY RANCH LLC  |  |            | CLARK #1   | DOM_GW;STK              | 026N         | 118W   | 21       | NW1/45W1/4               | H 3235       | 25                      |                       |         |  |                        |                     | 0                     | 0                   | 0 Well                            |          | 42.22391               | -110.87356 SEO                               |
| P203100.0W                 | 11/03/2014               | Incomplete<br>06/19/199 Complete                             |   | RONALD JAY                               | ROBERTS    | LARSON PLIMP PIPELINE  | SIK                     | 026N<br>026N | 119W   | 19<br>29 | NW1/4NW1/4<br>NF1/4SF1/4 | A            | 25                      |                       |         | Smith's Fork   |                        | -1                  | 0                     | 0                   | 0 Well<br>0 Stream                |          | 42.23293               | -111.03056 SEO<br>-110.8781 External         |
| P32330.0D                  | 08/28/2000               | 08/28/200 Cancelled  | LOUISIANA PACIFIC CORP  |  |            | LPC WATER HAUL NO. 2   | IND_SW                  | 026N         | 118W   | 16       | SE1/4SW1/4               | A            |                         |                       |         | Coal Creek   |                        | 0.45                | ō                     | 0                   | 0 Stream                          |          | 42.23389               | -110.86855 External                          |
| P32498.0D                  | 06/04/2001               | 06/04/200 Cancelled  | USFS BRIDGER-TETON NATIONAL                                   | FC                                       |            | USFS BRIDGER-TETON WATER HAUL 01-1   | IND_SW; TEM             | 026N         | 118W   | 02       | NW1/4NW1/4               | L8           |                         |                       |         | Coal Creek   |                        | 0.5                 | 0                     | 0                   | 0 Stream                          |          | 42.27444               | -110.83417 External                          |
| P32772.00<br>P33240.00     | 04/08/2003               | 04/08/200 Cancelled<br>06/15/200 Cancelled                   | USES BRIDGER TETON NATIONALI<br>USDA - BRIDGER TETON NATIONAL | -c<br>I                                  |            | USFS BRIDGER-TETON 03-1 WATER HAUL   | IND SW: TEM             | 026N         | 118W   | 02       | NW1/4NW1/4<br>SF1/4NW1/4 | 18-          |                         |                       |         | Coal Creek   |                        | 0.5                 | 0                     | 0                   | 0 Stream                          |          | 42.2/529               | -110.83507 External<br>-110.82727 External   |
| P33719.0D                  | 05/21/2007               | 05/21/200 Cancelled  | USDA FOREST SERVICE   | RONNA                                    | SIMON      | USFS BRIDGER-TETON 05-5 WATER HAUL   |                         | 026N         | 118W   | 02       | NW1/4NW1/4               | L8           |                         |                       |         | Coal Creek   |                        | 0.5                 | ō                     | 0                   | 0 Stream                          |          | 42.27391               | -110.83367 External                          |
| P34122.0D                  | 03/25/2009               | 03/25/200 Cancelled  | USDA BRIDGER TETON NATIONAL                                   | .1                                       |            | USFS BRIDGER TETON 09-5 WATER HAUL   |                         | 026N         | 118W   | 02       | SW1/4NW1/4               | A            | 0.5                     |                       |         | Coal Creek   |                        | 0.5                 | 0                     | 0                   | 0 Stream                          |          | 42.27111               | -110.83419 External                          |
| CR CC28/232                | 11/26/1904               | 11/26/19D Fully Adjudicated                                  | BRIDGER TETON NATIONAL FORES                                  | EUGENE                                   | BOURNE     | NO DITCH OR DIVERSION  | S&D                     | 026N         | 118W   | 17       | SE1/4NE1/4               | т54          | 0.5                     |                       |         | Bourne Creek   |                        |                     | 0                     | 0                   | 0 Stream                          |          | 42.326531              | -110.83419 SEO                               |
| CR CC64/473                | 05/19/1950               | 05/19/195 Fully Adjudicated                                  |   | EUGENE                                   | BAGLEY     | C B D NO 1 DITCH ACT FRANCIS LARSON DITCH  | IRR_SW                  | 027N         | 118W   | 28       | NE1/4NW1/4               | T62          | 0.93                    |                       |         | Smith's Fork   |                        |                     | 0                     | 0                   | 0 Stream                          | Original | 42.30309               | -110.87502 External                          |
| CR CC79/162                | 01/22/1987               | 01/22/198 Fully Adjudicated                                  |   | DONALD G AND BONNIE                      | R LARSON   | FRANCIS-LARSON DITCH   | IRR_SW                  | 027N         | 118W   | 28       | NE1/4NW1/4               | T62          | 1.28                    |                       |         | Smith's Fork   |                        |                     | 0                     | 0                   | 0 Stream                          | Original | 42.302917              | -110.874511 External                         |
| P184518.0W                 | 01/22/2008               | Complete   | E. GREGORY HIGLEY TRUST                                       |  |            | TRACY WELL   | DOM GW; STK             | 027N         | 117W 1 | 28       | SW1/4SW1/4               | L5<br>T75    | 25 260.                 | 00 40                 | N       | 250  |                        | 1.2                 | 0                     | 0                   | 0 Well                            | N        | 42.293867              | -110.72042 External<br>-110.87145 External   |
| P197948.0W                 | 04/30/2012               | Incomplete   | DIAMOND I RANCHES   |  |            | DIAMOND I RANCHES WELL   | STK                     | 027N         | 120W   | 13       | NE1/4NW1/4               | L1           | 25                      |                       |         |  |                        |                     | 0                     | 0                   | 0 Well                            |          | 42.33546               | -111.04581 SEO                               |
| P20.0F                     | 06/20/1995               | 06/20/199 Complete   |   | <i>C</i> <b>1</b>                        | Tannor     | HUFF CREEK INSTREAM FLOW SEGMENT NO. 1<br>Tanner Ditch                           | DOM SWAIRE SWA          | 027N         | 119W   | 10       | SW1/4NW1/4               | A            | 2.26                    |                       |         | Lake Creek   |                        |                     | 0                     | 0                   | 0 Stream                          |          | 42.34475               | -110.96998 External                          |
| P13756.0D                  | 11/18/1915               | 11/18/191: Fully Adjudicated                                 |   | Claudia                                  | Etcheverry | Claudia Ditch  | IRR_SW; STO             | 027N         | 119W   | 18       | SW1/4NW1/4               |              | 1.06                    |                       |         |  |                        | 9                   | 0                     | 0                   | 0 Stream                          |          | 42.327164              | -110.901839 External                         |
| P3181.0D                   | 05/18/1901               | 05/18/190 Cancelled  |   | George P.                                | Ball       | Ball Ditch   | IRR SW                  | 027N         | 118W   | 33       | SW1/4SW1/4               |              | 2.85                    |                       |         |  |                        |                     | 0                     | 0                   | 0 Stream                          |          | 42.278232              | -110.87553 External                          |
| P3759.0D                   | 03/12/1902               | 03/12/190 Cancelled  |   | Albert G.                                | Richards   | Berts Ditch  | IRR_SW                  | 027N         | 118W   | 17       | SE1/4NE1/4               |              | 0.28                    |                       |         |  |                        |                     | 0                     | 0                   | 0 Stream                          |          | 42.328967              | -110.881063 External                         |
| P30336.0D                  | 03/12/1902<br>01/22/1987 | 01/22/198 Complete   |   | Albert G.                                | Kicharus   | FRANCIS-LARSON DITCH   | INK SW                  | 027N         | 118W   | 28       | 1001/43001/4             | T62-         | 5.4                     |                       |         | Smith's Fork   |                        | 5.4                 | 0                     | 0                   | 0 Stream                          |          | 42.31971               | -110.85638 External                          |
| P32340.0D                  | 08/29/2000               | 08/29/200 Cancelled  | USDI BUREAU OF LAND MANAGE                                    | EN .                                     |            | SMITH'S FORK ROAD-BLM 4213 WATER HAUL  | IND SW                  | 027N         | 118W   | 000      |                          | T43          |                         |                       |         | Smith's Fork   |                        | 0.11                | 0                     | 0                   | 0 Stream                          |          | 42.34159               | -110.88597 External                          |
| P3453.0R                   | 12/17/1917               | 12/17/191 Expired  |   | IOHN R AND DATRICIA                      | CARRICARU  | NELSON RESERVOIR   | IRR_SW                  | 027N         | 118W   | 21       | SE1/4NW1/4               | A            | 0.01                    |                       |         | Nelson Creek   | 3.1                    | 0.106               | 3.1                   | 0                   | 3.1 Reservoir                     |          | 42.31507               | -110.86797 External                          |
| CR CC93/257                | 06/20/1995               | 06/20/199: Fully Adjudicated                                 | WYOMING WATER DEVELOPMEN                                      | I I I I I I I I I I I I I I I I I I I    | CARRICADOR | HOBBLE CREEK INSTREAM FLOW SEGMENT NO  | ).                      | 028N         | 117.2W | 36       | NE1/45W1/4               | A            | 0.01                    |                       |         | Hobble Creek   |                        | 0.150               | 0                     | 0                   | 0 Stream                          |          | 42.36775               | -110.79057 External                          |
| CR CC94/088                | 06/27/1996               | 06/27/199 Fully Adjudicated                                  | WYOMING WATER DEVELOPMEN                                      | D.                                       |            | SALT CREEK INSTREAM FLOW SEGMENT NO. 1   |                         | 028N         | 119W   | 16       | SW1/4SW1/4               | А            | 0                       |                       |         | Salt Creek   |                        | 4.4                 | 0                     | 0                   | 0 Stream                          |          | 42.409531              | -110.989031 External                         |
| CR CC94/092                | 06/20/1995               | 06/20/199: Fully Adjudicated<br>6/27/1996 Fully Adjudicated  | WYOMING WATER DEVELOPMENT                                     | F)<br>F)                                 |            | HUFF/LAKE CREEK INSTREAM FLOW SEGMENT  | 1                       | 028N         | 119W   | 27       | SW1/4NE1/4<br>NW1/4SE1/4 | A<br>115     | 0                       |                       |         | Lake Creek   |                        |                     | 0                     | 0                   | 0 Stream                          |          | 42.388064              | -110.961425 External                         |
| CR CC94/093                | 12/19/1995               | 12/19/199 Fully Adjudicated                                  | WYOMING WATER DEVELOPMEN                                      | F)                                       |            | SMITHS FORK INSTREAM FLOW SEGMENT NO. 1  |                         | 028N         | 119W   | 27       | SW1/45W1/4               | T67          | 0                       |                       |         | Smith's Fork   |                        |                     | 0                     | 0                   | 0 Stream                          |          | 42.378892              | -110.855339 External                         |
| CR CC94/096                | 06/27/1996               | 06/27/199 Fully Adjudicated                                  | WYOMING WATER DEVELOPMEN                                      | 0  |            | COANTAG CREEK INSTREAM FLOW SEGMENT N  | 4                       | 028N         | 117.2W | 36       | NE1/4SW1/4               | A            | 0                       |                       |         | Coantag Creek  |                        | 7.2                 | 0                     | 0                   | 0 Stream                          |          | 42.36904               | -110.78907 External                          |
| CR CC94/097<br>CR CC94/098 | 12/19/1995<br>08/25/1997 | 12/19/199 Fully Adjudicated<br>08/25/199 Fully Adjudicated   | WYOMING WATER DEVELOPMENT<br>WYOMING WATER DEVELOPMENT        | Di D |            | PURCUPINE CREEK INSTREAM FLOW SEGMENT<br>TRESPASS CREEK INSTREAM FLOW SEGMENT N  |                         | 028N<br>028N | 118W   | 27       | NE1/4NW1/4<br>SW1/4NW1/4 | T57E<br>T37F | 0                       |                       |         | Porcupine Creek<br>Trespass Creek                          |                        | 1.1                 | 0                     | 0                   | 0 Stream<br>0 Stream              |          | 42.391172<br>42.431578 | -110.848481 External<br>-110.852947 External |
| CR CR19/182                | 08/16/2006               | 08/16/200 Fully Adjudicated                                  | BISON CAPITAL, LLC  |  |            | BONNEVILLE RESERVOIR   | FIS; STO                | 028N         | 119W   | 06       | NW1/45W1/4               | A            | -                       |                       |         | Salt Basin Draw  |                        |                     | 41.39                 | 2.98                | 44.37 Reservoir                   |          | 42.445361              | -111.030017 External                         |
| P10156.05                  | 04/15/1987               | 04/15/198 Cancelled  |   |  |            | ALLRED STOCK RESERVOIR   | 515-570                 | 028N         | 119W   | 28       | SE1/4NW1/4               | A            |                         |                       |         | Price Draw   | 0.08                   |                     | 0                     | 0                   | 0 Reservoir                       |          | 42.38936               | -110.98655 External                          |
| P126/6.UK<br>P13972.0R     | 08/16/2006<br>11/18/2011 | us/10/200 Complete   | BISON CAPITAL, LLC  | DANIEL                                   | RICHINS    | DIPPER CREEK RESERVOIR   | FIS; STO<br>IRR SW; STO | 028N<br>028N | 119W   | ub<br>10 | NE1/45W1/4<br>NE1/45W1/4 | A            |                         |                       |         | Sait Basin Draw<br>Dipper Creek                            |                        |                     | 41.39<br>5.31         | 2.98                | 44.37 Keservoir<br>5.31 Reservoir |          | 42.44322<br>42.430222  | -111.02417 External<br>-110.968556 External  |
| P198091.0W                 | 05/21/2012               | Complete   |   | G.T.                                     | HAMILL     | MOLLY'S WELL   | DOM_GW                  | 028N         | 119W   | 21       | NW1/4NW1/4               | А            | 5 185.                  | 00 100                | N       | 175  |                        |                     | 0                     | 0                   | 0 Well                            | N        | 42.407519              | -110.990231 SEO                              |
| P203769.0W                 | 04/20/2015               | Incomplete   |   | LOU                                      | ANDY       | GIRAFFE CREEK RANCH NUMBER-01  | DOM_GW                  | 028N         | 119W   | 07       | NW1/4NW1/4               | A            | 25                      |                       |         |  |                        |                     | 0                     | 0                   | 0 Well                            |          | 42.43713               | -111.03053 SEO                               |
| P204310.0W<br>P204364.0W   | 08/03/2015               | Incomplete<br>Unadjudicated                                  | USA BRIDGER TETON NATIONAL F                                  | 0  | ANDY       | HOBBLE CREEK CAMPGROUND WELL NO. 1   | MIS                     | 028N<br>028N | 119W 1 | 24       | NW1/4NW1/4<br>NW1/4SE1/4 | A            | 10<br>15 68.0           | 15                    | N       | 41   |                        |                     | 0                     | 0                   | 0 Well                            | N        | 42.43686<br>42.39838   | -111.03056 SEU<br>-110.78348 SEO             |
| P23.0F                     | 06/27/1996               | 6/27/1996 Complete   |   |  |            | COAL CREEK INSTREAM FLOW SEGMENT NO. 1   |                         | 028N         | 119W   | 13       | NE1/4NE1/4               | 11           |                         |                       |         | Coal Creek   |                        |                     | 0                     | 0                   | 0 Stream                          |          | 42.42383               | -110.90121 External                          |
| P26.0F                     | 12/19/1995               | 12/19/199: Complete  |   |  |            | SMITHS FORK INSTREAM FLOW SEGMENT NO.  |                         | 028N         | 118W   | 10       | SW1/4NW1/4               | T37F         |                         |                       |         | Smith's Fork   |                        |                     | 0                     | 0                   | 0 Stream                          |          | 42.43144               | -110.8543 External                           |
| P34833.0D                  | 11/18/2011               | Incomplete   |   | DANIEL                                   | RICHINS    | DIPPER CREEK DITCH   | IRR SW                  | 028N         | 118W   | 10       | NE1/4SW1/4               | A            | 0.77                    |                       |         | Dipper Creek   |                        | 2.096               | 0                     | 0                   | 0 Stream                          |          | 42.39236               | -110.82594 External                          |

| LINCOLN COU | NTY           |                                    |                               |                    |            |  |             |      |      |     |            |  |  |  |                |                                   |                              |   |                              |                                       |                      |                |                                       |                         |
|-------------|---------------|------------------------------------|-------------------------------|--------------------|------------|--|-------------|------|------|-----|------------|--|--|--|----------------|-----------------------------------|------------------------------|---|------------------------------|---------------------------------------|----------------------|----------------|---------------------------------------|-------------------------|
| WR Number   | Priority Date | Priority Summary WR<br>text Status | Company                       | First Name         | Last Name  | Facility Name                          | Uses        | Twn  | Rng  | Sec | Qtr-Qtr    | Type, Survey<br>Number, Survey<br>Suffix | Total Flow(CFS)/<br>Appropriation(GPM<br>) | Total depth (Ft)<br>StaticWaterLevel<br>(Ft) | Well Log (Y/N) | (1) dumd JO<br>that Stream Source | Total<br>Capacity<br>(AF/Yr) | Diversion<br>Capacity<br>at Activ<br>Headgate(Capa<br>CFS) (AF) | e Inaci<br>city Capa<br>(AF) | tive Size of<br>acity Reserv<br>r(AF) | roi Facility<br>type | Supply<br>Type | Chemical<br>Analysis(Y)N)<br>apmitter | Created<br>Longitude By |
| P6006.0R    | 02/05/1953    | 02/05/195 Cancelled                |                               | JOHN               | ETCHEVERRY | THOMAS FORK RESERVOIR                  | IRR_SW      | 028N | 119W | 27  | SW1/4NW1/4 | A  |  |  |                | Thomas Fork                       | 441.36                       | i   | 0                            | 0                                     | 0 Reservoir          |                | 42.39097                              | -110.97334 External     |
| P75.0F      | 08/25/1997    | 08/25/199 Complete                 |                               |                    |            | TRESPASS CREEK INSTREAM FLOW SEGMENT   | N           | 028N | 118W | 10  | NE1/4NE1/4 | A  |  |  |                | Trespass Creek                    |                              | 1.1   | 0                            | 0                                     | 0 Stream             |                | 42.43396                              | -110.83947 External     |
| CR CC92/144 | 03/19/1993    | 03/19/199 Fully Adjudicated        |                               | ROBYN K AND RHONDA | R ERICKSON | ERICKSON SALT MINE DIVERSION           | IND_SW      | 029N | 119W | 26  | NE1/4SW1/4 | A  | 0.67                                       |  |                | Salt Spring                       |                              | 0.67  | 0                            | 0                                     | 0 Spring             |                | 42.46664                              | -110.96717 External     |
| CR CC94/087 | 06/27/1996    | 06/27/199 Fully Adjudicated        | WYOMING WATER DEVELOPMENT     | E)                 |            | GIRAFFE CREEK INSTREAM FLOW SEGMENT N  | 0           | 029N | 119W | 32  | SE1/4SE1/4 | A  | 0  |  |                | Giraffe Creek                     |                              |   | 0                            | 0                                     | 0 Stream             |                | 42.447942                             | -111.015803 External    |
| CR CC94/089 | 08/25/1997    | 8/25/1997 Fully Adjudicated        | WYOMING WATER DEVELOPMENT     | E)                 |            | PACKSTRING CREEK INSTREAM FLOW SEGMEI  | 0           | 029N | 119W | 26  | SW1/4SW1/4 | A  | 0  |  |                | Packstring Creek                  |                              |   | 0                            | 0                                     | 0 Stream             |                | 42.465797                             | -110.97155 External     |
| CR CC94/090 | 08/25/1997    | 8/25/1997 Fully Adjudicated        | WYOMING WATER DEVELOPMENT     | F)                 |            | LITTLE WHITE CREEK INSTREAM FLOW SEGME | N           | 029N | 119W | 23  | SW1/4NE1/4 | A  | 0  |  |                | Little White Creek                |                              |   | 0                            | 0                                     | 0 Stream             |                | 42.485597                             | -110.960814 External    |
| CR CC94/091 | 06/27/1996    | 06/27/199 Fully Adjudicated        | WYOMING WATER DEVELOPMENT     | E)                 |            | WATER CANYON CREEK INSTREAM FLOW SEG   | N           | 029N | 118W | 19  | SE1/4NE1/4 | U  | 0  |  |                | Water Canyon Creek                |                              |   | 0                            | 0                                     | 0 Stream             |                | 42.486072                             | -110.920194 External    |
| CR CC94/099 | 08/25/1997    | 08/25/199 Fully Adjudicated        | WYOMING WATER DEVELOPMENT     | F)                 |            | NORTH FORK SMITH'S FORK RIVER INSTREAM | F           | 029N | 118W | 25  | NW1/4NW1/4 | U  | 0  |  |                | North Fork Smith's Fork River     |                              |   | 0                            | 0                                     | 0 Stream             |                | 42.476225                             | -110.837269 External    |
| CR CC94/100 | 08/25/1997    | 08/25/199 Fully Adjudicated        | WYOMING WATER DEVELOPMENT     | F)                 |            | LANDER CREEK INSTREAM FLOW SEGMENT N   | D           | 029N | 117W | 19  | SE1/4SW1/4 | U  | 0  |  |                | Lander Creek                      |                              |   | 0                            | 0                                     | 0 Stream             |                | 42.478469                             | -110.813056 External    |
| CR CC94/101 | 08/25/1997    | 08/25/199 Fully Adjudicated        | WYOMING WATER DEVELOPMENT     | F)                 |            | POKER HOLLOW CREEK INSTREAM FLOW SEG   | М           | 029N | 117W | 09  | SE1/4NE1/4 | U  | 0  |  |                | Poker Hollow Creek                |                              |   | 0                            | 0                                     | 0 Stream             |                | 42.513911                             | -110.765372 External    |
| P17.0F      | 06/27/1996    | 06/27/199 Complete                 |                               |                    |            | SALT CREEK INSTREAM FLOW SEGMENT NO. : |             | 029N | 119W | 26  | SW1/4SW1/4 | A  | 14   |  |                | Salt Creek                        |                              | 4.4   | 0                            | 0                                     | 0 Stream             |                | 42.46574                              | -110.97166 External     |
| P186491.0W  | 03/11/2008    | Fully Adjudicated                  | USDA FOREST SERVICE           |                    |            | ALLRED FLATS CAMPGROUND WELL NO. 2     | MIS         | 029N | 119W | 23  | NW1/4NE1/4 | A  | 3 60.0                                     | 0 10   |                | 41                                |                              |   | 0                            | 0                                     | 0 Well               |                | 42.4907                               | -110.96159 SEO          |
| P186492.0W  | 03/11/2008    | Fully Adjudicated                  | USDA FOREST SERVICE           |                    |            | ALLRED FLATS CAMPGROUND WELL NO. 1     | MIS         | 029N | 119W | 14  | SW1/4SE1/4 | A  | 3 80.0                                     | 0 15   | N              | 41                                |                              |   | 0                            | 0                                     | 0 Well               | 1              | 42.49226                              | -110.96212 SEO          |
| P19.0F      | 06/27/1996    | 06/27/199 Complete                 |                               |                    |            | GIRAFFE CREEK INSTREAM FLOW SEGMENT N  | 0           | 029N | 119W | 30  | NE1/4SE1/4 | A  |  |  |                | Giraffe Creek                     |                              |   | 0                            | 0                                     | 0 Stream             |                | 42.46891                              | -111.03441 External     |
| P22.0F      | 06/27/1996    | 06/27/199 Complete                 | WYOMING WATER DEVELOPMENT     | F)                 |            | WATER CANYON CREEK INSTREAM FLOW SEG   | N           | 029N | 118W | 20  |            | U  |  |  |                | Water Canyon Creek                |                              |   | 0                            | 0                                     | 0 Stream             |                | 42.47974                              | -110.90298 External     |
| P24.0F      | 08/25/1997    | 8/25/1997 Complete                 |                               |                    |            | PACKSTRING CREEK INSTREAM FLOW SEGMEI  | 41          | 029N | 119W | 27  | NW1/4NW1/4 | A  |  |  |                | Packstring Creek                  |                              |   | 0                            | 0                                     | 0 Stream             |                | 42.47694                              | -110.99156 External     |
| P25.0F      | 08/25/1997    | 8/25/1997 Complete                 |                               |                    |            | LITTLE WHITE CREEK INSTREAM FLOW SEGME | N           | 029N | 119W | 11  | NE1/4NW1/4 | A  |  |  |                | Little White Creek                |                              |   | 0                            | 0                                     | 0 Stream             |                | 42.52047                              | -110.96535 External     |
| P31.0F      | 08/25/1997    | 08/25/199 Complete                 |                               |                    |            | NORTH FORK SMITH'S FORK RIVER INSTREAM | F           | 029N | 118W | 13  |            | U  |  |  |                | North Fork Smith's Fork River     |                              |   | 0                            | 0                                     | 0 Stream             |                | 42.50434                              | -110.82574 External     |
| P32.0F      | 08/25/1997    | 08/25/199 Complete                 |                               |                    |            | LANDER CREEK INSTREAM FLOW SEGMENT N   | 0           | 029N | 117W | 30  |            | U  |  |  |                | Lander Creek                      |                              |   | 0                            | 0                                     | 0 Stream             |                | 42.47533                              | -110.80934 External     |
| P32499.0D   | 06/04/2001    | 06/04/200 Cancelled                | USFS BRIDGER-TETON NATIONAL F | FC                 |            | USFS BRIDGER-TETON WATER HAUL 01-11    | IND_SW; TEM | 029N | 118W | 24  | SW1/4NW1/4 | U  |  |  |                | North Fork Smith's Fork River     |                              | 0.5   | 0                            | 0                                     | 0 Stream             |                | 42.48687                              | -110.83511 External     |
| P32773.0D   | 04/08/2003    | 04/08/200 Cancelled                | USFS BRIDGER TETON NATIONAL F | ÷C                 |            | USFS BRIDGER-TETON 03-11 WATER HAUL    | IND SW      | 029N | 118W | 24  | SW1/4NW1/4 | U  |  |  |                | North Fork Smith's Fork River     |                              | 0.5   | 0                            | 0                                     | 0 Stream             |                | 42.48585                              | -110.83666 External     |
| P33241.0D   | 06/15/2005    | 06/15/200 Cancelled                | USDA - BRIDGER TETON NATIONA  | L                  |            | USFS BRIDGER-TETON 05-6 WATER HAUL     | IND_SW; TEM | 029N | 118W | 24  |            | U  |  |  |                | North Fork Smith's Fork River     |                              | 0.5   | 0                            | 0                                     | 0 Stream             |                | 42.48569                              | -110.83678 External     |
| P33718.0D   | 05/21/2007    | 05/21/200 Cancelled                | USDA FOREST SERVICE           | RONNA              | SIMON      | USFS BRIDGER-TETON 05-6 WATER HAUL     |             | 029N | 118W | 24  | SW1/4NW1/4 | z  |  |  |                | North Fork Smith's Fork River     |                              | 0.5   | 0                            | 0                                     | 0 Stream             |                | 42.4885                               | -110.83331 External     |
| P34123.0D   | 03/25/2009    | 03/25/200 Cancelled                | USDA BRIDGER TETON NATIONAL   | . F                |            | USFS BRIDGER TETON 09-6 WATER HAUL     |             | 029N | 118W | 24  | SW1/4NW1/4 | z  | 0.5  |  |                | North Fork Smith's Fork River     |                              | 0.5   | 0                            | 0                                     | 0 Stream             |                | 42.4885                               | -110.83331 External     |
| P35420.0D   | 06/11/2015    | Complete                           | BRIDGER TETON NATIONAL FORES  | π                  |            | USFS BRIDGER TETON 15-6 WATER HAUL     | TEM         | 029N | 118W | 24  | NW1/4NW1/4 | Z  | 0.5  |  |                | North Fork Smith's Fork River     |                              |   | 0                            | 0                                     | 0 Stream             |                | 42.4885                               | -110.8333 SEO           |
| P21.0F      | U8/25/1997    | U8/25/199 Complete                 |                               |                    |            | POKER HOLLOW CREEK INSTREAM FLOW SEG   | м           | 030N | 117W | 33  | SE1/4SE1/4 | 2  |  |  |                | Poker Hollow Creek                |                              |   | U                            | U                                     | U Stream             |                | 42.53543                              | -110./6644 External     |
| P3613.0D    | 12/13/1901    | 12/13/190 Fully Adjudicated        |                               | CHAS. A.           | MYERS      | Myer Canal No. 2                       | IRR SW      | 031N | 120W | 26  | SW1/4SW1/4 | A11-                                     | 8.15                                       |  |                |                                   |                              |   | 0                            | 0                                     | 0 Stream             |                |                                       | External                |

| UINTA COUNT                | Y                     |  |                                 |                               |                      |   |                 |                  |              |          |                           |   |                                  |                                     |               |                                |                   |  |        |              |                              |         |                        |                            |                      |
|----------------------------|-----------------------|--|---------------------------------|-------------------------------|----------------------|---|-----------------|------------------|--------------|----------|---------------------------|---|----------------------------------|-------------------------------------|---------------|--------------------------------|-------------------|--|--------|--------------|------------------------------|---------|------------------------|----------------------------|----------------------|
|                            |                       | Priority   |                                 |                               |                      |   |                 |                  |              |          |                           | vey Type, Survey<br>nber, Survey Suffix | al Flow(CFS)<br>propriation(GPM) | al depth (Ft)<br>ticWaterLevel (Ft) | (N/N) Borj II | sth Of Pump (F1)               | Total<br>Capacity | ersion Capacity at<br>dgate (CFS)<br>protoco | nactiv | e<br>itví    | (Juliionussa) jo e Facility  | Tylogu  | smical Analysis(Y/N)   |                            | Created              |
| WR Number                  | Priority Date         | text Summary WR Status                                     | Company                         | First Name                    | Last Name            | Facility Name   | Uses            | Twn              | Rng          | Sec      | Qtr-Qtr                   | n Sur                                   | Apg                              | Star Tot                            | ¥.            | Stream Source                  | (AF/Yr)           | 금품 AF)                                       | AF)    |              | type y                       | pe      | 5 Latitude             | Longitude                  | Ву                   |
| CA2:S5R CC45/33            | 10/13/1916            | 10/13/191  |                                 | 1                             | MARTIN               | ENLARGED S P DITCH  | DOM SW; IRR S   | SW               |              |          | 0                         |   | 0                                | _                                   |               |                                |                   |  | 0      | 0            | 0 Stream                     |         |                        |                            | External             |
| CR CC63/365                | 03/22/1951            | 03/22/195 Abandoned  |                                 | HAROLD                        | HEWARD               | ENLARGED BLIGHT IRRIGATING DITCH  | 100.014         | _                |              |          |                           |   | 4.00                             |                                     |               |                                |                   |  | 0      | 0            | 0 Stream                     |         |                        |                            | External             |
| R182.0D                    | 11/27/1991            | 11/27/199 Cancelled  |                                 | LONATHAN                      | LIVESTOCK CO.        | WEST SIDE DITCH   | IKK_SW          | 002N             | 0105         | 10       | NW1/ANW1/A                | 11                                      | 26.86                            |                                     |               |                                |                   | .1   | 0      | 0            | 0 Stream                     |         | 40.98969               | -110 9642                  | External             |
| P6276.0D                   | 08/24/1904            | 08/24/190 Fully Adjudicated                                |                                 | JOINTING                      | 201123               | West Side Ditch of Hilliard Flat  | IRR SW          | 003N             | 009E         | 13       |                           | L1-                                     | 32.57                            | _                                   |               |                                |                   | -  | 0      | 0            | 0 Stream                     |         | 43.028007              | -107.551068                | External             |
| P7463.0D                   | 06/11/1906            | 06/11/190 Cancelled  | GOODMAN LAND & CATTLE           |                               |                      | JOINT CANAL   | IRR_SW          | 003N             | 010E         | 19       | SE1/4SE1/4                |   | 17.9                             |                                     |               |                                |                   |  | 0      | 0            | 0 Stream                     |         | 43.028007              | -107.551068                | External             |
| CR CC28/147                | 11/27/1891            | 11/27/189 Fully Adjudicated                                |                                 | ARTHUR AND ERNEST             | BARKER               | HILLARD WEST SIDE DITCH   | IRR_SW          | 003N             | 009E         | 13       | NE1/4SE1/4                | A                                       | 2.28                             |                                     |               |                                |                   |  | 0      | 0            | 0 Stream                     |         | 40.99572               | -110.86935                 | External             |
| CR CC28/148                | 11/27/1891            | 11/27/189 Fully Adjudicated                                |                                 | LIONEL                        | LESTER               | HILLARD WEST SIDE DITCH   | IRR_SW          | 003N             | 009E         | 13       | NE1/4SE1/4                | A                                       | 1.71                             |                                     |               |                                |                   |  | 0      | 0            | 0 Stream                     |         | 40.9957                | -110.86933                 | External             |
| CR CC28/149                | 11/27/1891            | 11/27/189 Fully Adjudicated                                |                                 | FRANCES                       | BELL                 | HILLARD WEST SIDE DITCH   | IRR_SW          | 003N             | 009E         | 13       | NE1/4SE1/4                | A                                       | 2.28                             | _                                   |               |                                |                   |  | 0      | 0            | 0 Stream                     |         | 40.995686              | -110.869336                | External             |
| CR CC28/150                | 11/2//1891            | 11/2//189 Fully Adjudicated                                |                                 | MABEL                         | BROWN                | HILLARD WEST SIDE DITCH   | IRR_SW          | 003N             | 009E         | 13       | NE1/4SE1/4                | A .                                     | 2.28                             |                                     |               |                                |                   |  | 0      | 0            | 0 Stream                     |         | 40.99569               | -110.86933                 | External             |
| CR CC28/151                | 11/27/1891            | 11/27/189 Fully Adjudicated                                |                                 | WILLIAM                       | ROBINSON             | HILLARD WEST SIDE DITCH   | IRR_SW          | 003N             | 009E         | 13       | NE1/45E1/4                | A                                       | 2.21                             |                                     |               |                                |                   |  | 0      | 0            | 0 Stream                     |         | 40.995686              | -110.869336                | External             |
| CR CC28/153                | 11/27/1891            | 11/27/189 Fully Adjudicated                                |                                 | WILLIAM                       | соок                 | HILLARD WEST SIDE DITCH   | IRR_SW          | 003N             | 009E         | 13       | NE1/4SE1/4                | A                                       | 1.71                             |                                     |               |                                |                   |  | 0      | 0            | 0 Stream                     |         | 40.995686              | -110.869336                | External             |
| CR CC28/154                | 11/27/1891            | 11/27/189 Fully Adjudicated                                |                                 | EPHRAIM                       | HARRIS               | HILLARD WEST SIDE DITCH   | IRR_SW          | 003N             | 009E         | 13       | NE1/4SE1/4                | A                                       | 2.28                             |                                     |               |                                |                   |  | 0      | 0            | 0 Stream                     |         | 40.995686              | -110.869336                | External             |
| CR CC28/156                | 11/27/1891            | 11/27/189 Fully Adjudicated                                |                                 | WALTER                        | HARRIS               | HILLARD WEST SIDE DITCH   | IRR_SW          | 003N             | 009E         | 13       | NE1/4SE1/4                | A                                       | 2.28                             | _                                   |               |                                |                   |  | 0      | 0            | 0 Stream                     |         | 40.995686              | -110.869336                | External             |
| CR CC28/157                | 11/27/1891            | 11/27/189 Fully Adjudicated                                |                                 | WILLIAM                       | LESTER               | HILLARD WEST SIDE DITCH   | IRR_SW          | 003N             | 009E         | 13       | NE1/4SE1/4                | A                                       | 2                                |                                     |               |                                |                   |  | 0      | 0            | 0 Stream                     |         | 40.995686              | -110.869336                | External             |
| CR CC28/158                | 11/2//1891            | 11/2//189 Fully Adjudicated                                |                                 | LAWREN                        | MELDRUM              | HILLARD WEST SIDE DITCH   | IRR_SW          | 003N             | 009E         | 13       | NE1/4SE1/4                | A .                                     | 2.14                             |                                     |               |                                |                   |  | 0      | 0            | 0 Stream                     |         | 40.995686              | -110.869336                | External             |
| CR CC28/160                | 11/27/1891            | 11/27/189 Fully Adjudicated                                | J H ROBINSON ESTATE             | LONE                          |                      | HILLARD WEST SIDE DITCH   | IBR SW          | 003N             | 009E         | 13       | NE1/45E1/4                | A                                       | 2.28                             |                                     |               |                                |                   |  | 0      | 0            | 0 Stream                     |         | 40.995686              | -110.869336                | External             |
| CR CC28/161                | 11/27/1891            | 11/27/189 Fully Adjudicated                                |                                 | J                             | LESTER               | HILLARD WEST SIDE DITCH   | IRR_SW          | 003N             | 009E         | 13       | NE1/4SE1/4                | A                                       | 0.57                             |                                     |               |                                |                   |  | 0      | 0            | 0 Stream                     |         | 40.995686              | -110.869336                | External             |
| CR CC28/162                | 11/27/1891            | 11/27/189 Fully Adjudicated                                |                                 | GEORGE                        | BARKER               | HILLARD WEST SIDE DITCH   | IRR_SW          | 003N             | 009E         | 13       | NE1/4SE1/4                | A                                       | 2.28                             |                                     |               |                                |                   |  | 0      | 0            | 0 Stream                     |         | 40.995686              | -110.869336                | External             |
| CR CC28/163                | 11/27/1891            | 11/27/189 Fully Adjudicated                                |                                 | ABRAHAM                       | HUTCHINSON           | HILLARD WEST SIDE DITCH   | IRR_SW          | 003N             | 009E         | 13       | NE1/4SE1/4                | A                                       | 2.28                             | _                                   |               |                                |                   |  | 0      | 0            | 0 Stream                     |         | 40.995686              | -110.869336                | External             |
| CR CC49/354                | 11/27/1891            | 11/27/189 Fully Adjudicated                                |                                 | MATTHEW                       | HARRIS               | HILLARD WEST SIDE DITCH   | IRR_SW          | 003N             | 009E         | 13       | NE1/4SE1/4                | A                                       | 2.28                             | _                                   |               |                                |                   |  | 0      | 0            | 0 Stream                     |         | 40.995722              | -110.869309                | External             |
| CR CC28/155                | 11/2//1891            | 11/2//189 Fully Adjudicated                                | MATTHEW HARRIS ESTATE           |                               |                      | HILLARD WEST SIDE DITCH   | 100 514         | 003N             | 0095         | 13       | NE1/4SE1/4                | A                                       | 1.47                             | -                                   |               |                                |                   |  | 0      | 0            | 0 Stream                     | riginal | 40.995686              | -110.869336                | External             |
| CR CC79/311                | 11/13/1991            | 11/13/199 Fully Adjudicated                                | POTRAW BARCH                    | LANNY KAY                     | PUTNAM               | ENLARGED WEST DITCH   | IRR_SW          | 011N             | 008E         | 06       | SW1/45W1/4                | LG                                      | 0.61                             |                                     |               |                                |                   |  | 0      | 0            | 0 Stream C                   | riginal | 41.719722              | -111.087494                | External             |
| P115979.0W                 | 05/17/1999            | Complete   |                                 | MACK                          | CROFT                | CROFT #1  | DOM_GW          | 012N             | 119W         | 19       | SE1/4NE1/4                | A                                       | 5 90.00                          | 38                                  | N             | 80                             |                   |  | 0      | 0            | 0 Well                       | N       | 41.00458               | -110.87443                 | External             |
| P152772.0W                 | 08/08/2003            | Complete   |                                 | JOHN SAMUEL                   | LOWAM                | NORTH SLOPE RANCHING #1   | DOM_GW          | 012N             | 119W         | 08       | NW1/4SW1/4                | А                                       | 9 150.0                          | 00 46                               |               |                                |                   |  | 0      | 0            | 0 Well                       | N       | 41.03006               | -110.86958                 | External             |
| P152773.0W                 | 08/08/2003            | Complete   |                                 | JOHN SAMUEL                   | LOWAM                | NORTH SLOPE RANCHING #2<br>DUSTIN #1                                      | DOM_GW          | 012N             | 119W         | 08       | NW1/4SW1/4<br>NE1/ANE1/A  | A<br>41                                 | 10 25.00                         | ) 4                                 | N             | 100                            |                   |  | 0      | 0            | 0 Well                       | N       | 41.03006               | -110.86958                 | External             |
| P181764.0W                 | 06/18/2007            | Complete   |                                 | DENNIS                        | REES                 | REES 1  | DOM_GW          | 012N             | 119W         | 09       | NE1/4NE1/4                | A-                                      | 20 165.0                         | 10 40                               | N             | 145                            |                   |  | ō      | 0            | 0 Well                       | N       | 41.0071                | 110.0747                   | External             |
| P183466.0W                 | 10/05/2007            | Complete   |                                 | PETER                         | WION                 | PETER I   | DOM GW          | 012N             | 119W         | 19       | NW1/4NE1/4                | A                                       | 4 250.0                          | 10 75                               | N             | 230                            |                   |  | 0      | 0            | 0 Well                       | N       | 41.007056              | -110.876778                | External             |
| P11263.0R<br>P11267.0R     | 03/23/2001            | 3/23/2001 Complete<br>8/16/2001 Complete                   |                                 | RUSSELL                       | WORRALL              | RUSSELL WORRALL RESERVOIR   | FIS; WET        | 012N             | 120W         | 08       | NE1/45W1/4<br>SE1/4NW1/4  | A                                       |                                  |                                     |               | Stoney Run                     | 2.2               |  | 1.86 0 | .88 11.8     | 21 Reservoir                 |         | 41.01481               | -110.90319                 | External             |
| P11842.0R                  | 02/13/2003            | 02/13/200 Complete   |                                 | STEVEN                        | NELSON               | NELSON RESERVOIR  | FIS; WET        | 012N             | 119W         | 19       | SW1/4NE1/4                | A                                       |                                  |                                     |               | Bear River                     |                   |  | 0      | 0.8 0        | 8 Reservoir                  |         | 41.00456               | -110.87925                 | External             |
| P12845.05<br>P14190.05     | 02/12/1997            | 02/12/199 Complete<br>01/06/199 Complete                   |                                 | LYNNE                         | FOX                  | OLD MOON STOCK RESERVOIR<br>SLAGOWSKI STOCK RESERVOIR                     | STO             | 012N             | 119W         | 11       | NW1/4NW1/4<br>SW1/4SW1/4  | A<br>A                                  |                                  |                                     |               | Old Moon Draw<br>Old Moon Draw | 5.16              |  | 0 0    | .16 5.1      | .6 Reservoir<br>09 Reservoir |         | 41.03631               | -110.81015                 | External             |
| P10186.0D                  | 09/07/1910            | 09/07/191 Fully Adjudicated                                |                                 | ARCHIE                        | MCGRAW               | Big Bend Ditch  | IRR SW          | 012N             | 120W         | 18       | NE1/4SW1/4                |   | 6.68                             |                                     |               |                                |                   |  | ō      | 0            | 0 Stream                     |         | 41.015364              | -110.999197                | External             |
| P1090.0D<br>P1503.0D       | 11/27/1895            | 11/27/189 Fully Adjudicated<br>05/21/189 Cancelled         |                                 | Charles G.<br>Zebulon P       | Danielson            | Danielson Ditch<br>Ramblar Ditch  | IRR SW; STO     | 012N             | 119W         | 18       | SE1/4SW1/4<br>SW/1/ANE1/A |   | 3.57                             |                                     |               |                                |                   |  | 0      | 0            | 0 Stream                     |         | 41.013245              | -110.882228                | External             |
| P1545.0D                   | 07/12/1897            | 07/12/189 Fully Adjudicated                                |                                 | JOHN A.                       | MCGRAW               | McGraw Ditch  | DOM SW; IRR S   | 5W 012N          | 119W         | 18       | SW1/4NW1/4                |   | 6.28                             |                                     |               |                                |                   |  | 0      | 0            | 0 Stream                     |         | 41.018092              | -110.888476                | External             |
| P1884.0D                   | 07/09/1898            | 07/09/189  |                                 | Joseph                        | Bird                 | Bear Ditch  | IRR SW          | 012N             | 119W         | 19       | NE1/4SE1/4                |   | 39.02                            |                                     |               |                                |                   | 20.42  | 0      | 0            | 0 Stream                     |         | 41.001579              | -110.876346                | External             |
| P29802.0D<br>P29755.0D     | 09/08/1987            | 09/08/198 Cancelled  |                                 | CITYOF                        | EVANSION             | Christmas Meadows Federal #4-34 Water Haul                                | DRI; IND SW; OI | U12N<br>IL; 012N | 119W         | 03       | NE1/4SE1/4                |   | 0.11                             |                                     |               |                                |                   | 0.11   | 0      | 0            | 0 Stream                     |         | 41.01112               | -110.880742                | External             |
| P30274.0D                  | 07/20/1989            | 07/20/198 Fully Adjudicated                                | B.G. & D.L. GARDNER FAMILY TRUS | T                             | 0.1                  | Kreider Domestic Pumping System No. 1                                     | DOM SW          | 012N             | 119W         | 19       | SE1/4NE1/4                | A4-                                     | 0.03                             |                                     |               |                                |                   | 0.033  | 0      | 0            | 0 Stream                     |         | 41.003627              | -110.881555                | External             |
| P62/7.0D<br>CR CC28/096    | 08/24/1904 11/27/1895 | 08/24/190 Fully Adjudicated<br>11/27/189 Fully Adjudicated |                                 | Jos.<br>CHARLES               | DANIELSON            | Bear Ditch<br>DANIELSON DITCH   | IRR SW          | 012N<br>012N     | 119W<br>119W | 19       | NE1/4SE1/4<br>SE1/4SW1/4  | A                                       | 3.18                             |                                     |               |                                |                   |  | 0      | 0            | 0 Stream C                   | riginal | 41.001561 41.013253    | -110.8/6344<br>-110.882244 | External             |
| CR CC28/099                | 07/12/1897            | 07/12/189 Fully Adjudicated                                |                                 | JOHN                          | MCGRAW               | MCGRAW DITCH  | IRR SW          | 012N             | 119W         | 18       | SW1/4NW1/4                | L2                                      | 4.5                              |                                     |               |                                |                   |  | o      | 0            | 0 Stream                     |         | 41.018081              | -110.888469                | External             |
| CR CC37/494<br>CR CC38/249 | 09/07/1910            | 09/07/191 Fully Adjudicated<br>01/06/190 Fully Adjudicated |                                 | ARCHIE                        | MCGRAW<br>SPENCER    | BIG BEND DITCH ACT MCGRAW DITCH<br>ENLARGED CROWN DITCH                   | IRR SW          | 012N<br>012N     | 119W         | 18<br>18 | SW1/4NW1/4<br>SW1/4NF1/4  | L2                                      | 6.68<br>5.73                     |                                     |               |                                |                   |  | 0      | 0            | 0 Stream 0<br>0 Stream       | riginal | 41.0181                | -110.888489<br>-110.881581 | External             |
| CR CC42/378                | 09/13/1917            | 09/13/191 Fully Adjudicated                                |                                 | BEN                           | ATKINSON             | ENLARGED TROPIC DITCH   | IRR SW          | 012N             | 119W         | 19       | SW1/4NE1/4                | A                                       | 0                                |                                     |               |                                |                   |  | 0      | 0            | 0 Stream                     |         | 41.004561              | -110.879258                | External             |
| CR CC67/309                | 05/17/1930            | 05/17/193 Fully Adjudicated                                |                                 | JOSEPH                        | GILMORE              | ENLARGED BEAR CANAL   | IRR_SW          | 012N             | 119W         | 19       | NE1/4SE1/4                | A                                       | 2.21                             |                                     |               |                                |                   |  | 0      | 0            | 0 Stream                     |         | 41.001581              | -110.87635                 | External             |
| CR CC68/191                | 05/17/1930            | 05/17/193 Fully Adjudicated                                |                                 | GLENN                         | HUTCHINSON           | ENLARGED BEAR CANAL   | IRR_SW          | 012N             | 119W         | 19       | NE1/45E1/4                | Â                                       | 0.34                             |                                     |               |                                |                   |  | 0      | 0            | 0 Stream                     |         | 41.001578              | -110.87635                 | External             |
| CR CC68/192                | 05/17/1930            | 05/17/193 Fully Adjudicated                                |                                 | HAROLD J AND ROZELLA          | HUTCHINSON           | ENLARGED BEAR CANAL   | IRR SW          | 012N             | 119W         | 19       | NE1/4SE1/4                | A                                       | 0.36                             |                                     |               |                                |                   |  | 0      | 0            | 0 Stream                     |         | 41.001581              | -110.87635                 | External             |
| CR CC68/193<br>CR CC68/194 | 01/10/1930            | 01/10/193 Fully Adjudicated                                |                                 | JOSEPH E AND FLORENCE I       | BARKER               | ENLARGED BEAR CANAL<br>ENLARGED BEAR CANAL                                | IRR_SW          | 012N             | 119W         | 19       | NE1/4SE1/4<br>NE1/4SE1/4  | A                                       | 1.19                             |                                     |               |                                |                   |  | 0      | 0            | 0 Stream                     |         | 41.001581 41.001581    | -110.87635                 | External             |
| CR CC72/495                | 05/17/1930            | 05/17/193 Fully Adjudicated                                |                                 | JOHN J AND DOROTHY B          | MARTIN               | ENLARGED BEAR CANAL   | IRR SW          | 012N             | 119W         | 19       | NE1/4SE1/4                | А                                       | 0                                |                                     |               |                                |                   |  | 0      | 0            | 0 Stream C                   | riginal | 41.001581              | -110.876353                | External             |
| CR CC79/160<br>P2434.05    | 07/20/1989            | 07/20/198 Fully Adjudicated<br>12/08/195 Complete          | B.G. AND D.L. GARDNER FAMILY TR | L                             |                      | KREIDER DOMESTIC PUMPING SYSTEM NO. 1<br>BEN LOWHAM NO. 2 STOCK RESERVOIR | DOM SW          | 012N<br>012N     | 119W         | 19       | SE1/4NE1/4<br>NW1/4NF1/4  | A<br>A6                                 | 0.033                            |                                     |               | Randal Draw                    | 0.84              |  | 0 0    | 84 0.9       | 0 Stream 0<br>R4 Reservoir   | riginal | 41.004581 41.038361    | -110.874431<br>-110.975972 | External             |
| P32372.0D                  | 01/06/1999            | 01/06/199 Complete   |                                 |                               |                      | SLAGOWSKI DITCH   |                 | 012N             | 119W         | 11       | NW1/4NW1/4                | A                                       |                                  |                                     |               | Old Moon Draw                  | 0.09              | 0.21   | 0      | 0            | 0 Stream                     |         | 41.03707               | -110.81261                 | External             |
| P33124.0D                  | 02/13/2003            | 02/13/200 Complete<br>08/01/191 Incomplete                 |                                 | STEVEN<br>ARTHUR LAND WILLIAM | NELSON               | NELSON CABIN DOMESTIC DIVERSION   | DOM SW          | 012N             | 119W         | 19       | SW1/4NE1/4<br>NE1/ANE1/A  | A                                       | 0.056                            |                                     |               | Bear River<br>Sulphur Creek    | 24.44             | 0.056  | 0      | 0 247        | 0 Stream                     |         | 41.004564              | -110.879253                | External             |
| P34133.0D                  | 02/23/2009            | 02/23/200 Complete   |                                 | JOE                           | BROADBENT            | BHL LLC SPRING DIVERSION  | DOM SW; STO     | 012N             | 118W         | 08       | SW1/4NE1/4                | A                                       | 0.056                            |                                     |               | Broadbent Spring               | 14.44             | -  | 0      | 0            | 0 Spring                     |         | 41.03515               | -110.74597                 | External             |
| P5833.05                   | 04/26/1966            | 04/26/196 Complete   |                                 | CHARLES EDWIN                 | MASSAE               | MASSAE NO. 1 STOCK RESERVOIR  | STO             | 012N             | 119W         | 16       | NW1/4SW1/4                | A                                       |                                  |                                     |               | Mill Creek                     | 15.7              |  | 15.7   | 0 15         | .7 Reservoir                 |         | 41.015633              | -110.851058                | External             |
| P6182.0R                   | 11/16/1954            | 11/16/195 Cancelled  |                                 | JAMES                         | LESTER               | LESTER RESERVOIR  | IRR SW          | 012N             | 120W         | 17       | SW1/4NE1/4<br>NW1/4NW1/4  | A-<br>A                                 |                                  |                                     |               | Spring                         | 78.24             |  | 0 0    | 0 0.1        | 0 Reservoir                  |         | 41.048239<br>41.02319  | -110.936547                | External             |
| P6884.0R                   | 01/19/1960            | 01/19/196 Complete   |                                 |                               |                      | MASSAE RESERVOIR  | IRR SW; S&D     | 012N             | 119W         | 16       | SW1/4SW1/4                | A                                       |                                  |                                     |               | Mill Creek                     | 107.5             | 1  | 07.5   | 0 107        | .5 Reservoir                 |         | 41.01229               | -110.84877                 | External             |
| P6885.0R<br>P8836.0R       | 03/1//196/            | 03/1//196 Complete<br>06/21/198 Cancelled                  |                                 |                               |                      | ENLARGED MASSAE RESERVOIR<br>IONE'S DISPOSAL PITS RESERVOIR               | IRR SW; S&D     | 012N             | 119W         | 16       | SW1/4SW1/4<br>SW1/4SW1/4  | A<br>A                                  |                                  |                                     |               | Mill Creek<br>Basin Creek      | 158.19            | 5  | 0      | 0 158.1      | .9 Reservoir<br>99 Reservoir |         | 41.01213               | -110.84841 -111.02517      | External             |
| P89.0D                     | 07/02/1891            | 07/02/189 Cancelled  |                                 | JOHN                          | HATTON               | TROPIC DITCH  |                 | 012N             | 119W         | 19       | NE1/4SE1/4                | А                                       | 2.28                             |                                     |               | Bear River                     |                   | -1   | 0      | 0            | 0 Stream                     |         | 41.00153               | -110.87636                 | External             |
| P9252.05<br>P9253.05       | 04/13/1982            | 04/13/198 Complete<br>04/13/198 Complete                   |                                 | CALVIN E. AND LOUISE C.       | ROATH                | LES POND STOCK RESERVOIR<br>HOME POND STOCK RESERVOIR                     |                 | 012N<br>012N     | 120W         | 18<br>18 | NW1/4SE1/4<br>NW1/4NF1/4  | A<br>A                                  |                                  |                                     |               | Les Draw<br>North Randal Draw  | 0.05              |  | 0 0    | 05 0.0       | JS Reservoir<br>01 Reservoir |         | 41.01696               | -110.99229                 | External             |
| P9254.0S                   | 04/13/1982            | 04/13/198 Complete   |                                 | CALVIN E. AND LOUISE C.       | ROATH                | BEAVER POND STOCK RESERVOIR   | STO             | 012N             | 120W         | 18       | SW1/4SW1/4                | L4                                      |                                  |                                     |               | Randal Draw                    | 0.19              |  | 0 0    | .19 0.1      | 19 Reservoir                 |         | 41.01078               | -111.00313                 | External             |
| P9255.05                   | 04/13/1982            | 04/13/198 Complete   |                                 | CALVIN E. AND LOUISE C.       | ROATH                | LOWER BEAVER POND STOCK RESERVOIR   | STO             | 012N             | 120W         | 18       | NE1/4SW1/4                | A                                       |                                  |                                     |               | Randal Draw                    | 0.1               |  | 0      | 0.1 0        | .1 Reservoir                 |         | 41.01433               | -110.99865                 | External             |
| P9336.05                   | 01/20/1984            | 01/20/198 Complete   |                                 |                               |                      | JONES NO. 3 STOCK RESERVOIR   | STO             | 012N             | 121W         | 12       | SW1/4SW1/4                | Ā                                       |                                  |                                     |               | Basin Creek                    | 0.3               |  | õ o    | .28 0.2      | 28 Reservoir                 |         | 41.03347               | -111.01329                 | External             |
| P9337.05                   | 01/20/1984            | 01/20/198 Complete   | LOWINANA RANCE 12               |                               |                      | JONES NO. 4 STOCK RESERVOIR   | STO             | 012N             | 121W         | 12       | NW1/45W1/4                | A                                       |                                  |                                     |               | Mabel Draw                     | 1.55              |  | 0 1    | .55 1.5      | 5 Reservoir                  |         | 41.02982               | -111.02291                 | External             |
| P958.05<br>OR 04/157       | 11/01/1954 10/05/1890 | 10/05/189 Fully Adjudicated                                | LOWNAM KANCH, LP                | CHARLES                       | LANNON               | CROWN DITCH   | 510             | 012N<br>012N     | 120W<br>119W | JD<br>18 | 51V1/45E1/4<br>NE1/4SW1/4 | A                                       | 1.92                             |                                     |               | Bear River                     | z./3              |  | 0 2    | ./s 2.7<br>0 | o Stream                     |         | 41.041833<br>41.015492 | -110.995528<br>-110.885506 | External<br>External |
| OR 04/157                  | 10/05/1890            | 10/05/189 Fully Adjudicated                                | CROWN LAND AND STOCK CO         |                               | -                    | CROWN DITCH   |                 | 012N             | 119W         | 18       | NE1/4SW1/4                | А                                       | 5.21                             |                                     |               | Bear River                     |                   |  | 0      | 0            | 0 Stream                     |         | 41.015492              | -110.885506                | External             |
| OR 04/157<br>OR 04/157     | 10/13/1890            | 10/13/189 Fully Adjudicated<br>10/13/189 Fully Adjudicated |                                 | CROWN LAND AND<br>GEORGE      | STOCK CO.<br>TIRRETS | PINE GROVE DITCH  |                 | 012N<br>012N     | 119W         | 18<br>18 | NE1/4SW1/4<br>NF1/4SW1/4  | A<br>4                                  | 1.57                             |                                     |               | Bear River<br>Bear River       |                   |  | 0      | 0            | 0 Stream                     |         | 41.015492              | -110.885506<br>-110.885506 | External             |
| CR CC28/092                | 06/30/1892            | 06/30/189 Fully Adjudicated                                |                                 | CHARLES                       | LANNON               | ENLARGED PINE GROVE DITCH   | IRR SW          | 012N             | 119W         | 18       | NE1/4SW1/4                | A                                       | 0.21                             |                                     |               | Bear River                     |                   |  | ő      | ő            | 0 Stream                     |         | 41.015492              | -110.885506                | External             |
| CR CC28/114                | 10/19/1901            | 10/19/190 Fully Adjudicated                                |                                 | SUSAN<br>IOHN LORT            | HATTEN               | ENLARGED TROPIC DITCH   | IRR SW          | 012N             | 119W         | 19<br>18 | NE1/4SE1/4                | A                                       | 1.82                             |                                     |               | Bear River                     |                   |  | 0      | 0            | 0 Stream                     |         | 40.999408              | -110.874503                | External<br>External |
| CR CC28/122                | 08/24/1904            | 08/24/190 Fully Adjudicated                                |                                 | ELIZABETH                     | BARKER               | BEAR DITCH  | IRR SW          | 012N             | 119W         | 19       | NE1/4SE1/4                | Ā                                       | 0.57                             |                                     |               | Bear River                     |                   |  | 0      | 0            | 0 Stream                     |         | 41.013492              | -110.876342                | External             |
| CR CC28/123                | 08/24/1904            | 08/24/190 Fully Adjudicated                                |                                 | WILLIAM                       | BARKER               | BEAR DITCH  | IRR SW          | 012N             | 119W         | 19       | NE1/4SE1/4                | A                                       | 3.97                             |                                     |               | Bear River                     |                   |  | 0      | 0            | 0 Stream                     |         | 41.001553              | -110.876342                | External             |
| CR CC28/124<br>CR CC28/125 | 08/24/1904 08/24/1904 | 08/24/190 Fully Adjudicated<br>08/24/190 Fully Adjudicated |                                 | JOHN                          | BATE                 | BEAR DITCH  | IRR SW          | 012N<br>012N     | 119W<br>119W | 19<br>19 | NE1/45E1/4<br>NE1/4SE1/4  | A                                       | 2.28                             |                                     |               | Bear River                     |                   |  | 0      | 0            | o stream<br>O Stream C       | riginal | 41.001553<br>41.001553 | -110.8/6342<br>-110.876342 | External<br>External |
| CR CC28/126                | 08/24/1904            | 08/24/190 Fully Adjudicated                                |                                 | JOSEPH                        | BELL                 | BEAR DITCH  | IRR SW          | 012N             | 119W         | 19       | NE1/4SE1/4                | А                                       | 2.28                             |                                     |               | Bear River                     |                   |  | 0      | 0            | 0 Stream C                   | riginal | 41.001553              | -110.876342                | External             |

| UINTA COUNT                | Y  |  |                               |                |   |               |              |                  |                  |                        |                   |                      |                 |                          |                |            |            |  |          |                        |  |
|----------------------------|--|--|-------------------------------|----------------|---|---------------|--------------|------------------|------------------|------------------------|-------------------|----------------------|-----------------|--------------------------|----------------|------------|------------|--|----------|------------------------|--|
|                            |  |  |                               |                |   |               |              |                  |                  |                        |                   |                      |                 |                          |                |            |            |  |          | -                      |  |
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|                            |  |  |                               |                |   |               |              |                  |                  |                        | nve<br>(CF)       | ig ig                | All N           | E .                      |                | C_55       |            | es<br>S  |          | Ana                    |  |
|                            |  |  |                               |                |   |               |              |                  |                  |                        | N, T, V<br>Ner, S | opria<br>dept        | Wat             | 10                       | Total          | S E Active | Inactive   | of Re  |          | hica1                  |  |
| WP Number                  | Priority<br>Priority Data taxt Summary WP Status                                 | Company  | Eiret Nama                    | Last Nama      | Escility Name   | llene         | Two          | Reg              |                  | r.01r                  | umb<br>otal       | otal                 | tatio<br>Vell 1 | Stream Source            | Capacity       | Capacity   | ( Capacity | ( e Facility   | SupplyT  | E<br>9<br>5 Istitude I | Created<br>By                                |
| CR CC28/127                | 08/24/1904 08/24/190 Fully Adjudicated   | company  | JOSEPH                        | BIRD           | BEAR DITCH  | IRR SW        | 012N         | 119W 1           | .9 NE            | 1/4SE1/4               | A 0               | ≪ ⊢<br>28            | . o z           | Bear River               | (AP/11) (      | SI AF)     | 0 1        | 0 0 Stream   | уре      | 41.001553              | -110.876342 External                         |
| CR CC28/128                | 08/24/1904 08/24/190 Fully Adjudicated   |  | HARRIET                       | BROWN          | BEAR DITCH  | IRR SW        | 012N         | 119W 1           | .9 NE            | 1/4SE1/4               | A 1               | 71                   |                 | Bear River               |                |            | 0          | 0 0 Stream   |          | 41.001553              | -110.876342 External                         |
| CR CC28/129<br>CR CC28/130 | 08/24/1904 08/24/190 Fully Adjudicated<br>08/24/1904 08/24/190 Fully Adjudicated |  | FRANKLIN                      | BURTON         | BEAR DITCH<br>REAR DITCH                                    | IRR SW        | 012N<br>012N | 119W 1           | 9 NE<br>9 NF     | 1/4SE1/4<br>1/4SE1/4   | A 1<br>A 2        | /1<br>28             |                 | Bear River<br>Bear River |                |            | 0 1        | 0 0 Stream   |          | 41.001553              | -110.8/6353 External<br>-110.876342 External |
| CR CC28/131                | 08/24/1904 08/24/190 Fully Adjudicated   |  | WILLIAM AND EDWIN W           | СООК           | BEAR DITCH  | IRR SW        | 012N         | 119W 1           | .9 NE            | 1/4SE1/4               | A 0               | 57                   |                 | Bear River               |                |            | 0          | 0 0 Stream   |          | 41.001553              | -110.876342 External                         |
| CR CC28/132                | 08/24/1904 08/24/190 Fully Adjudicated   |  | JOHN                          | HOLMES         | BEAR DITCH  | IRR SW        | 012N         | 119W 1           | 9 NE             | 1/4SE1/4               | A 2               | 28                   |                 | Bear River               |                |            | 0          | 0 0 Stream   |          | 41.001553              | -110.876342 External                         |
| CR CC28/133<br>CR CC28/134 | 08/24/1904 08/24/190 Fully Adjudicated<br>08/24/1904 08/24/190 Fully Adjudicated |  | JAMES                         | LESTER         | BEAR DITCH<br>BEAR DITCH                                    | IRR SW        | 012N<br>012N | 119W 1           | .9 NE<br>.9 NE   | 1/45E1/4<br>1/4SE1/4   | A 4               | 57                   |                 | Bear River               |                |            | 0 1        | 0 0 Stream   |          | 41.001553              | -110.876342 External                         |
| CR CC28/135                | 08/24/1904 08/24/190 Fully Adjudicated   |  | MARY                          | LESTER         | BEAR DITCH  | IRR SW        | 012N         | 119W 1           | .9 NE            | 1/4SE1/4               | A 0               | 57                   |                 | Bear River               |                |            | 0          | 0 0 Stream   | Original | 41.001553              | -110.876342 External                         |
| CR CC28/136                | 08/24/1904 08/24/190 Fully Adjudicated   |  | ELIZA                         | LOWHAN         | BEAR DITCH  | IRR SW        | 012N         | 119W 1           | 9 NE             | 1/4SE1/4               | A 2               | 28                   |                 | Bear River               |                |            | 0          | 0 0 Stream   | Original | 41.001553              | -110.876342 External                         |
| CR CC28/138                | 08/24/1904 08/24/190 Fully Adjudicated   |  | MICHAEL                       | MARIALAKY      | BEAR DITCH  | IRR SW        | 012N         | 119W 1           | .9 NE            | 1/4SE1/4               | A 2               | 85                   |                 | Bear River               |                |            | 0 1        | 0 0 Stream   |          | 41.001553              | -110.876342 External                         |
| CR CC28/139                | 08/24/1904 08/24/190 Fully Adjudicated   |  | JOSEPH                        | MARTIN         | BEAR DITCH  | IRR_SW        | 012N         | 119W 1           | .9 NE            | 1/4SE1/4               | A 2               | 85                   |                 | Bear River               |                |            | 0          | 0 0 Stream   |          | 41.001553              | -110.876342 External                         |
| CR CC28/140<br>CR CC28/141 | 08/24/1904 08/24/190 Fully Adjudicated<br>08/24/1904 08/24/190 Fully Adjudicated |  | JOSEPH<br>MARY ELLEN          | PERKINS        | BEAR DITCH<br>BEAR DITCH                                    | IRR SW        | 012N<br>012N | 119W 1<br>119W 1 | .9 NE<br>.9 NE   | 1/4SE1/4<br>1/4SE1/4   | A 1<br>A 1        | /1<br>14             |                 | Bear River<br>Bear River |                |            | 0 1        | 0 0 Stream<br>0 0 Stream                                   |          | 41.001553              | -110.8/6342 External<br>-110.876342 External |
| CR CC28/142                | 08/24/1904 08/24/190 Fully Adjudicated   |  | THOMAS                        | PHIPPS         | BEAR DITCH  | IRR SW        | 012N         | 119W 1           | .9 NE            | 1/4SE1/4               | A 3               | 42                   |                 | Bear River               |                |            | 0          | 0 0 Stream   |          | 41.001553              | -110.876342 External                         |
| CR CC28/143                | 08/24/1904 08/24/190 Fully Adjudicated   |  | GEORGE                        | SNYDER         | BEAR DITCH  | IRR SW        | 012N         | 119W 1           | .9 NE            | 1/4SE1/4               | A 5               | 71                   |                 | Bear River               |                |            | 0          | 0 0 Stream   |          | 41.001553              | -110.876342 External                         |
| CR CC28/144<br>CR CC28/145 | 08/24/1904 08/24/190 Fully Adjudicated<br>08/24/1904 08/24/190 Fully Adjudicated |  | ELIZA                         | TITMUS         | BEAR DITCH  | IRR SW        | 012N<br>012N | 119W 1           | .9 NE<br>.9 NE   | 1/4SE1/4               | A 2<br>A 3        | 28<br>42             |                 | Bear River               |                |            | 0 1        | D 0 Stream   |          | 41.001553              | -110.876342 External                         |
| CR CC28/146                | 08/24/1904 08/24/190 Fully Adjudicated   |  | JOHN                          | WAGSTAFF       | BEAR DITCH  | IRR SW        | 012N         | 119W 1           | .9 NE            | 1/4SE1/4               | A 1               | 14                   |                 | Bear River               |                |            | 0          | 0 0 Stream   |          | 41.001553              | -110.876342 External                         |
| CR CC28/169                | 07/01/1907 07/01/190 Fully Adjudicated   |  | CHARLES                       | DANIELSON      | ENLARGED DANIELSON DITCH                                    | IRR SW        | 012N         | 119W 1           | .8 SE            | 1/4SW1/4               | A 2               | 25                   |                 | Bear River               |                |            | 0          | 0 0 Stream   |          | 41.013253              | -110.882244 External                         |
| OR 14/291                  | 05/13/1889 05/13/188   | GOODMAN DAND AND CATTLE CO                                 | GEORGE                        | TIBBETS        | STEDMAN NO. 1 DITCH   | IRR SW        | 012N         | 119W 0           | 16 NV            | 1/43W1/4<br>N1/4NW1/4  | L3 0              | 92                   |                 | Mill Creek               |                |            | 0 1        | 0 0 Stream   | Original | 41.053314              | -110.887836 External                         |
| CR CC28/266                | 06/19/1899 06/19/189 Fully Adjudicated   |  | ELIZA                         | LOWHAM         | ENLARGED LOWHAM IRRIGATIING DITCH                           | IRR SW        | 012N         | 119W 0           | 17 SE            | 1/4NE1/4               | A 0               | 92                   |                 | Mill Creek               |                |            | 0          | 0 0 Stream   |          | 41.033128              | -110.872414 External                         |
| CR CC28/267                | 06/19/1899 06/19/189 Fully Adjudicated   |  | ELIZA                         | LOWHAM         | LOWHAM NO. 2 DITCH  | IRR SW        | 012N         | 119W 0           | 0 NE             | 1/4NE1/4               | A 0               | 78                   |                 | Mill Creek               |                |            | 0          | 0 O Stream   |          | 41.033128              | -110.872414 External                         |
| CR CC52/484                | 05/17/1930 05/17/193 Fully Adjudicated   |  | THOMAS                        | WILSON         | ENLARGED BEAR CANAL   | IRR SW        | 012N         | 119W 1           | .9 NE            | 1/43E1/4               | A 0               | 26                   |                 | Bear River               |                |            | 0 1        | 0 0 Stream   |          | 40.99941               | -110.87449 External                          |
| CR CC56/380                | 08/24/1904 08/24/190 Fully Adjudicated   |  | LIONEL                        | LESTER         | BEAR DITCH  | IRR SW        | 012N         | 119W 1           | .9 NE            | 1/4SE1/4               | A 0               | 43                   |                 | Bear River               |                |            | 0 1        | 0 0 Stream   |          | 41.001553              | -110.876342 External                         |
| CR CC69/282                | 01/25/1960 01/25/196 Fully Adjudicated   |  | CHARLES                       | MASSAE         | ENLARGED GOODMAN-CUNNINGTON DITCH                           | RES           | 012N         | 119W 2           | 1 SE             | 1/4SW1/4               | 13                | 0                    |                 | Mill Creek               |                |            | 0          | 0 O Stream   |          | 40.9985                | -110.84526 External                          |
| CR CR16/306                | 02/12/1997 02/12/199   |  | ANDY                          | BAILEY ET AL   | OLD MOON STOCK RESERVOIR                                    | STO           | 012N         | 119W 1           | .0 5W            | V1/4NW1/4              | A 2               | J.2                  |                 | Old Moon Draw            | 5.16           | 5.1        | 6          | 0 5.16 Reservoir   | Original | 41.03625               | -110.88833 External                          |
| CR CR05/356                | 03/17/1967 03/17/196 Fully Adjudicated   |  | CHARLES                       | MASSAE         | ENLARGED MASSAE RESERVOIR                                   | IRR SW        | 012N         | 119W 1           | .6 SV            | v1/4SW1/4              | А                 |                      |                 | Mill Creek               | 50.69          |            | 0 1        | 0 50.69 Reservoir  | Original | 41.012169              | -110.848433 External                         |
| CR CC69/308                | 07/20/1885 7/20/1885 Fully Adjudicated   |  | MILTON A AND GWENETH          | JOHNSON        | COLES IRRIGATING DITCH ACT BLIGHT IRRIGATION DIT            | IRR SW        | 012N         | 119W 1           | 9 NE             | 1/4SE1/4               | A 1               | 32                   |                 | Bear River               |                |            | 0          | 0 0 Stream   | Original | 40.999292              | -110.874308 External                         |
| CR CC28/248                | 12/31/1871 1871 Fully Adjudicated  | GOODMAN LAND AND CATTLE CO                                 | M                             | LOWHAW         | GOODMAN TERRITORIAL IRRIGATION DITCH ACIPT FE               | A IRR SW      | 012N         | 119W 1           | 7 NV             | N1/4SW1/4              | A 4               | 57                   |                 | Mill Creek               |                |            | 0 1        | 0 0 Stream   | Original | 41.033733              | -110.867836 External                         |
| CR CC28/249                | 12/31/1871 1871 Fully Adjudicated  |  | JOB                           | GOODMAN        | JOHN GOODMAN DITCH  | IRR_SW; STO   | 012N         | 119W 2           | 10 SV            | V1/4NE1/4              | A                 | 2.5                  |                 | Mill Creek               |                |            | 0          | 0 0 Stream   |          | 41.006119              | -110.858383 External                         |
| CR CC28/260                | 07/25/1883 07/25/188 Fully Adjudicated   | GOODMAN LAND AND CATTLE COI                                | M                             |                | GOODMAN TERRITORIAL IRRIGATION NO. 2 DITCH                  | IRR SW; STO   | 012N         | 119W 2           | 0 SW             | V1/4NE1/4              | A 4               | 27                   |                 | Mill Creek               |                |            | 0          | 0 0 Stream   | Original | 41.006131              | -110.858394 External                         |
| CR CC69/304                | 12/20/1883 Fall 1883 Fully Adjudicated<br>12/20/1883 Fall 1883 Fully Adjudicated | THE WITERS DAND AND LIVE STOCK                             | MILTON A AND GWENETH          | JOHNSON        | BLIGHT IRRIGATING DITCH ACT BEAR CANAL                      | IRR_SW        | 012N         | 119W 1           | .9 NE            | 1/43E1/4               | A 0               | 33                   |                 | Bear River               |                |            | 0 1        | 0 0 Stream   | Original | 40.999425              | -110.874464 External                         |
| CR CC28/307                | 05/27/1885 05/27/188 Fully Adjudicated   |  | JOSEPH                        | MARTIN         | BANKS DITCH   | IRR_SW; STO   | 012N         | 119W 0           | 13 NE            | 1/4NE1/4               | L1 0              | 57                   |                 | Sulphur Creek            |                |            | 0 1        | 0 0 Stream   |          | 41.05037               | -110.81776 External                          |
| CR CC61/087                | 12/31/1872 1872 Fully Adjudicated  |  | ALEX J AND MARY R             | LOWHAM         | TERRITORIAL DITCH   | IRR SW        | 012N         | 119W 0           | 17 SE            | 1/4NE1/4               | A 1               | 12                   |                 | Mill Creek               |                |            | 0 1        | 0 0 Stream   |          | 41.034433              | -110.872914 External                         |
| CR CC61/088<br>CR CC61/089 | 06/20/1871 Spring187: Fully Adjudicated  |  | ALEX J AND MARY R             | LOWHAM         | COTTONWOOD DITCH ACT PIONEER DITCH ACIPT GER                | IRR SW        | 012N<br>012N | 119W 0           | 17 SE<br>17 SE   | 1/4NW1/4<br>1/4NW1/4   | A 1<br>A 0        | 16<br>76             |                 | Mill Creek               |                |            | 0 1        | 0 0 Stream   |          | 41.035325              | -110.881628 External                         |
| CR CC61/091                | 06/20/1871 Spring187: Fully Adjudicated  |  | ALEX J AND MARY R             | LOWHAM         | DEXTER DITCH  | IRR SW        | 012N         | 119W 0           | 16 NE            | 1/4SW1/4               | A 0               | 65                   |                 | Mill Creek               |                |            | 0 1        | 0 0 Stream   |          | 41.043314              | -110.884317 External                         |
| CR CC61/092                | 06/20/1871 Spring187: Fully Adjudicated  | ESTATE OF ARCHIE MCGRAW                                    |                               |                | DEXTER DITCH  | IRR SW        | 012N         | 119W 0           | 16 NE            | 1/4SW1/4               | A 0               | 34                   |                 | Mill Creek               |                |            | 0          | 0 0 Stream   |          | 41.043231              | -110.884361 External                         |
| CR CC61/090<br>CR CC28/262 | 06/20/18/1 Spring18/: Fully Adjudicated<br>12/31/1886 1886 Fully Adjudicated     | GOODMAN LAND AND CATTLE CO                                 | м                             |                | WILLOW DITCH  | IRR SW        | 012N<br>012N | 119W 0<br>119W 2 | 16 NE<br>11 NV   | :1/45W1/4<br>N1/45W1/4 | A U               | 49<br>1.5            |                 | Mill Creek<br>Mill Creek |                |            | 0 1        | 0 0 Stream<br>0 0 Stream                                   |          | 41.043231<br>41.001739 | -110.884361 External<br>-110.850828 External |
| CR CC28/270                | 05/01/1889 05/01/188 Fully Adjudicated   |  | GEORGE                        | TIBBETS        | TIBBETS NO. 1 DITCH   | IRR SW        | 012N         | 119W 0           | 16 NE            | 1/4NW1/4               | L3 0              | 85                   |                 | Mill Creek               |                |            | 0          | 0 0 Stream   |          | 41.050428              | -110.885383 External                         |
| CR CC28/264                | 05/13/1889 05/13/188 Fully Adjudicated   |  | GEORGE                        | TIBBETS        | STEDMAN NO. 1 DITCH   | IRR SW        | 012N         | 119W 0           | 16 NV            | N1/4NW1/4              | L4 0              | 92                   |                 | Mill Creek               |                |            | 0          | D 0 Stream   | Original | 41.053314              | -110.887836 External                         |
| CR CC52/483                | 05/17/1930 05/17/193 Fully Adjudicated   |  | CHARLES                       | CLARK          | ENLARGED BEAR CANAL   | IRR SW        | 012N<br>012N | 119W 0           | 17 SE<br>19 NE   | 1/4NE1/4<br>1/4SE1/4   | A U               | 57                   |                 | Bear River               |                | 75.5       | 0 1        | D 0 Stream   | Unginai  | 41.035097              | -110.873233 External                         |
| CR CC92/149                | 11/14/1930 11/14/193 Fully Adjudicated   | DALE SCOTT GILMORE AND CONNI                               | IE                            |                | BEAR CANAL  | IRR SW        | 012N         | 119W 0           | 13 NE            | 1/4NE1/4               | L1                | 0                    |                 | Sulphur Creek            | 4              | 3.46       | 0 1        | 0 0 Stream   |          | 41.05176               | -110.81742 External                          |
| CR CR21/025                | 12/08/1958 12/08/195 Fully Adjudicated   | LOWHAM RANCH LIMITED PARTNE                                | EA                            |                | BEN LOWHAM NO. 2 STOCK RESERVOIR                            | STO           | 012N         | 120W 0           | 18 NV            | N1/4NE1/4              | A                 |                      |                 | Randal Draw              | 0.84           |            | 0 0        | 0 0.84 Reservoir   |          | 41.03836               | -110.97597 External                          |
| CR CR21/020<br>CR CR21/027 | 11/01/1954 11/01/195 Fully Adjudicated   | LOWHAM RANCH LIMITED PARTNE                                | ER                            |                | SECTION 6 STOCK RESERVOIR                                   | STO           | 012N         | 120W 0           | 16 SW            | V1/4SE1/4              | A                 |                      |                 | Section 6 Draw           | 2.73           |            | 0 0.3      | 3 2.73 Reservoir   |          | 41.04183               | -110.99553 External                          |
| CR CR21/028                | 01/20/1955 01/20/195 Fully Adjudicated   | LOWHAM RANCH LIMITED PARTNE                                | ER                            |                | SECTION 6 DRAW NO. 2 STOCK RESERVOIR                        | STO           | 012N         | 120W 0           | 17 NE            | 1/4NW1/4               | А                 |                      |                 | Section 6 Draw           | 0.42           |            | 0 0.4      | 2 0.42 Reservoir   |          | 41.03867               | -110.99736 External                          |
| CR CR21/029                | 12/16/2002 12/16/200 Fully Adjudicated   |  | EDNA<br>MILTON & AND CIVENETH | SLAGOWSKI      | LUNCH POND STOCK RESERVOIR                                  | STO IDD SIM   | 012N         | 119W 2           | 2 NE             | 1/4SE1/4               | A                 | 2                    |                 | Kiln Springs             | 2.75           |            | 0 2.7      | 5 2.75 Reservoir   |          | 40.99967               | -110.81638 External                          |
| CR CC92/169                | 11/14/1930 11/14/193 Fully Adjudicated   | ROCKY POINT RANCH  | METON & AND OWENEN            | 2011102011     | BEAR CANAL  | IRR SW        | 012N         | 119W 0           | 13 NE            | 1/4NE1/4               | L1 0              | 97                   |                 | Sulphur Creek            | 4              | 3.46       | 0 1        | 0 0 Stream   |          | 41.051739              | -110.817428 External                         |
| P19722.05                  | 08/02/2012 Complete  | LOWHAM RANCH LTD PARTNERSH                                 | IIP                           |                | PAUL LOWHAM # 1   | STO           | 012N         | 120W 0           | 18 NV            | N1/4SW1/4              | A                 |                      |                 | Lowham Draw              | 0.2            |            | 0 0.       | 2 0.2 Reservoir  |          | 41.0314                | -110.9854 External                           |
| P199346.0W                 | 11/28/2012 Incomplete<br>12/20/1992 Fall 1992 Fully Adjudicated                  | LOWHAM RANCH LIMITED PARTNE                                | ER                            |                | LOWHAM SPRING 1<br>BUIGHT IRRIGATING DITCH ACIPT BEAR CANAL | STK<br>IPP SW | 012N         | 120W 0           | 17 SE<br>0 NE    | 1/4SE1/4               | A 1               | 25<br>91             |                 | Baar Phoer               |                |            | 0          | 0 0 Spring   | Original | 41.0247                | -110.9892 External                           |
| CR CC69/306                | 12/20/1883 Fall 1883 Fully Adjudicated   | MILLO DAD AND LIVE STOCK COM                               | MILTON A AND GWENETH          | JOHNSON        | BLIGHT IRRIGATING DITCH ACIPT BEAR CANAL                    | IRR_SW        | 012N         | 119W 1           | .9 NE            | 1/4SE1/4               | A O               | 14                   |                 | Bear River               |                |            | 0 1        | 0 0 Stream   | Original | 40.999447              | -110.874433 External                         |
| CR CC69/309                | 12/31/1885 1885 Fully Adjudicated  |  | MILTON A AND GWENETH          | JOHNSON        | ISLAND DITCH ACT BEAR CANAL                                 | IRR SW        | 012N         | 119W 1           | .9 NE            | 1/4SE1/4               | A                 | 1                    |                 | Bear River               |                |            | 0          | 0 0 Stream   | Original | 40.999292              | -110.874308 External                         |
| CR CC28/079                | 10/05/1890 10/05/189 Fully Adjudicated   |  | ROBERT                        | IFWIS          | CROWN DITCH   | IRR SW        | 012N         | 119W 1           | .9 NE<br>8 NF    | 1/45E1/4               | A 2               | 14<br>28             |                 | Bear River               |                |            | 0 1        | 0 0 Stream   |          | 40.999408              | -110.874503 External                         |
| CR CC28/083                | 10/05/1890 10/05/189 Fully Adjudicated   |  | SADIE                         | LEWIS          | CROWN DITCH   | IRR SW        | 012N         | 119W 1           | .8 NE            | 1/4SW1/4               | A 2               | 28                   |                 | Bear River               |                |            | 0 1        | 0 0 Stream   |          | 41.015492              | -110.885506 External                         |
| CR CC28/084                | 10/05/1890 10/05/189 Fully Adjudicated   |  | CHARLES                       | LANNON         | CROWN DITCH   | IRR SW        | 012N         | 119W 1           | .8 NE            | 1/4SW1/4               | A 1               | 92                   |                 | Bear River               |                |            | 0          | 0 0 Stream   |          | 41.015492              | -110.885506 External                         |
| CR CC28/085<br>CR CC28/086 | 10/05/1890 10/05/189 Fully Adjudicated<br>10/13/1890 10/13/189 Fully Adjudicated | CROWN LAND AND STOCK CO                                    | в                             | LEWIS          | CROWN DITCH<br>PINE GROVE DITCH                             | IRR SW        | 012N<br>012N | 119W 1           | .8 NE<br>.8 NF   | 1/4SW1/4<br>1/4SW1/4   | A 5               | 21                   |                 | Bear River<br>Bear River |                |            | 0 1        | 0 0 Stream   |          | 41.015492              | -110.885506 External                         |
| CR CC28/087                | 10/13/1890 10/13/189 Fully Adjudicated   | CROWN LAND AND STOCK CO                                    |                               |                | PINE GROVE DITCH  | IRR SW        | 012N         | 119W 1           | .8 NE            | 1/4SW1/4               | A 1               | 57                   |                 | Bear River               |                |            | 0          | 0 0 Stream   |          | 41.015492              | -110.885506 External                         |
| CR CC28/088                | 10/13/1890 10/13/189 Fully Adjudicated   |  | GEORGE                        | TIBBETS        | PINE GROVE DITCH  | IRR SW        | 012N         | 119W 1           | .8 NE            | 1/4SW1/4               | A 11              | 04                   |                 | Bear River               |                |            | 0          | 0 0 Stream   |          | 41.015492              | -110.885506 External                         |
| P201514.0W<br>P201520.0W   | 01/21/2014 Incomplete<br>02/03/2014 Incomplete                                   | LOWHAM RANCH LIMITED PARTNE<br>LOWHAM RANCH LIMITED PARTNE | ER                            |                | LOWHAM SPRING 2<br>LOWHAM SPRING 3                          | STK           | 012N<br>012N | 120W 0           | 14 SW<br>14 SE   | V1/4SE1/4<br>1/4NE1/4  | A                 | 25<br>25             |                 |                          |                |            | 0 1        | 0 O Spring<br>0 O Spring                                   |          | 41.04                  | -110.957 External<br>-110.949 External       |
| P201522.0W                 | 02/03/2014 Incomplete  | LOWHAM RANCH LIMITED PARTNE                                | ER                            |                | LOWHAM SPRING 7   | STK           | 012N         | 120W 0           | 17 SE            | 1/4SW1/4               | A                 | 25                   |                 |                          |                |            | 0          | D O Spring   |          | 41.02625               | -110.99919 External                          |
| P14223.0R                  | 02/05/2014 Complete  | KINGFISHER BEND RANCH LLC                                  |                               |                | NORTH   | WL            | 012N         | 120W 1           | 4 SE             | 1/4NE1/4               | A                 |                      |                 | North Draw               | 0.93           | 0.9        | 3          | 0 0.93 Reservoir   |          | 41.0198                | -110.9151 External                           |
| P14224.0R<br>P14225.0R     | 02/05/2014 Complete<br>02/05/2014 Complete                                       | KINGFISHER BEND RANCH                                      |                               |                | TED'S   | WL            | 012N<br>012N | 120W 1<br>120W 1 | .3 INV<br>.3 INV | N1/45W1/4<br>N1/45W1/4 | A                 |                      |                 | Ted's Draw               | 1.2            | 2.0        | 9 0.0      | 3 2.18 Reservoir<br>3 1.22 Reservoir                       |          | 41.0146                | -110.9096 External                           |
| P14226.0R                  | 02/05/2014 Complete  | KINGFISHER BEND RANCH                                      |                               |                | JOEL'S  | WL            | 012N         | 120W 1           | 3 SV             | v1/4SW1/4              | A                 |                      |                 | Joel's Draw              | 1.38           | 1.3        | 1 0.0      | 7 1.38 Reservoir   |          | 41.0126                | -110.9075 External                           |
| CR CR23/153                | 01/13/2011 Fully Adjudicated   | LOWHAM RANCH LIMITED PARTNE                                | ER                            |                | MIKE LOWHAM NO 1 STOCK RESERVOIR                            | STO           | 012N         | 120W 0           | 16 NV            | N1/4SE1/4              | A                 |                      |                 | Section 6 Draw           | 1.23           |            | 0 1.2      | 3 1.23 Reservoir   |          | 41.04619               | -110.99317 External                          |
| CR CR23/154<br>CR CR23/155 | 01/13/2011 Fully Adjudicated<br>01/13/2011 Fully Adjudicated                     | LOWHAM RANCH LIMITED PARTNE                                | ER                            |                | CLARENCE LOWHAM NO 1 STOCK RESERVOIR                        | STO           | 012N         | 120W 0           | 13 SM<br>16 SE   | 1/4NE1/4               | A                 |                      |                 | Goodrich Draw            | 0.3/           |            | 0 0.3      | 1 1 Reservoir  |          | 41.04942               | -110.98580 External<br>-110.98761 External   |
| CR CR23/156                | 01/13/2011 Fully Adjudicated   | LOWHAM RANCH LIMITED PARTNE                                | ER                            |                | JUNE DONE LOWHAM NO 1 STOCK RESERVOIR                       | STO           | 012N         | 120W 0           | 18 SV            | v1/4SW1/4              | A                 |                      |                 | Randal Draw              | 0.1            |            | 0 0.       | 1 0.1 Reservoir  |          | 41.0275                | -110.98444 External                          |
| P203034.0W                 | 10/29/2014 Incomplete  | PETERSEN PROPERTIES LLC                                    | IOS ERH                       | CIA MA A CAN'S | PETERSEN #1   | DOM GW; STK   | 012N         | 119W 2           | 0 NE             | 1/45W1/4               | A                 | 25                   |                 |                          |                |            | 0          | D 0 Well   |          | 41.00095               | -110.86474 SEO                               |
| CR CR24/066                | 02/05/2014 Fully Adjudicated   | KINGFISHER BEND RANCH                                      | JUJEFN                        | CFIOININIC     | CHARLOTTE'S RESERVOIR                                       | WL SUM SW     | 012N         | 120W 1<br>120W 1 | . SE<br>3 NV     | x, →3±1/4<br>N1/4SW1/4 | Â                 | ~                    |                 | Charlotte's Draw         | 2.18           | 2.0        | 5 0.1      | 3 2.18 Reservoir   |          | 41.02642               | -110.90906 External                          |
| CR CR24/067                | 02/05/2014 Fully Adjudicated   | KINGFISHER BEND RANCH                                      |                               |                | TED'S RESERVOIR   | WL            | 012N         | 120W 1           | 3 NV             | N1/45W1/4              | A                 |                      |                 | Ted's Draw               | 1.2            | 1.1        | 9 0.0      | 3 1.22 Reservoir   |          | 41.01642               | -110.90822 External                          |
| CR CR24/068                | 02/05/2014 Fully Adjudicated<br>02/05/2014 Fully Adjudicated                     | KINGHSHER BEND RANCH LLC                                   |                               |                | NORTH RESERVOIR   | WL            | 012N         | 120W 1           | 4 SE             | 1/4NE1/4               | A<br>A            |                      |                 | North Draw               | 0.93           | 0.9        | 3 0.9      | <ol> <li>1.86 Reservoir</li> <li>1.28 Reservoir</li> </ol> |          | 41.01989               | -110.91447 External                          |
| P204628.0W                 | 10/02/2015 Incomplete  | BROADBENT LAND & RESOURCES                                 | u                             |                | QUEEN MOUNTAIN LODGE WELL                                   | DOM_GW        | 012N         | 118W 0           | 15 SE            | 1/4SW1/4               | A                 | 25                   |                 |                          | 1              | 1.5        | 0 0        | D 0 Well   |          | 41.04111               | -110.74953 SEO                               |
| P169705.0W                 | 08/29/2005 Complete  |  |                               |                | LARSON WELL   | DOM GW        | 013N         | 120W 2           | 3 NV             | W1/4SW1/4              | A                 | 15 160.00            | 50 N            | 130                      |                |            | 0          | 0 Well   | N        | 41.086944              | -110.924944 External                         |
| P1/6973.0W<br>P183241.0W   | 09/10/2007 Complete  | WAGSTAFF FAMILY LLC  | JEDD                          | LESTER         | LESTER #1<br>LUNSFORD #1                                    | DOM GW        | 013N<br>013N | 119W 0           | 13 SE<br>15 NF   | 1/4NE1/4<br>1/4NE1/4   | A<br>L1           | 8 50.00<br>10 200.00 | 12 N<br>25 N    | 48                       |                |            | 0 1        | o U Well<br>D 0 Well                                       | N        | 41.135417<br>41.13875  | -110.8159 External<br>-110.853139 External   |
| P10278.0R                  | 04/07/1995 04/07/199 Complete  |  |                               |                | BEN RESERVOIR   | IRR SW        | 013N         | 118W 3           | 13 SW            | v1/4SW1/4              | A                 |                      |                 | Van Tassel Creek         | 303.15         | 300.2      | 9 2.8      | 6 303.15 Reservoir   |          | 41.05462               | -110.73654 External                          |
| P10300.0R                  | 01/04/1995 01/04/199 Complete  |  |                               |                | JOSEPH PIT #1 RESERVOIR                                     | WET           | 013N         | 119W 0           | 15 NE            | 1/4NE1/4               | L1                |                      |                 | Joseph Draw              | 1.28           |            | 0 1.2      | 8 1.28 Reservoir   |          | 41.13919               | -110.85491 External                          |
| P10657.0K<br>P1098.0S      | 01/17/1955 01/17/195 Complete  | WYUTA CATTLE COMPANY                                       |                               |                | MYERS #1 STOCK RESERVOIR                                    | STO           | 013N         | 120W 0           | ia SM<br>19 SM   | v1/45W1/4<br>V1/4NW1/4 | A                 |                      |                 | Cove Draw                | 3U3.15<br>0.29 |            | 0 0.2      | 9 0.29 Reservoir   |          | 41.05462               | -110.96294 External                          |
|                            |  |  |                               |                |   |               |              |                  |                  |                        |                   |                      |                 |                          |                |            |            |  |          |                        |  |

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|----------------------------|--|--|--|-----------------------|---------------------|---|----------------------------|--------------|--------------------|--------------------------|------------------------------|-----------------|-------------------|--------------------------------------|---------------------|--|-----------------------|------------------------------|----------------------|------------------------|--|
|                            |  |  |  |                       |                     |   |                            |              |                    |                          | , ĕ                          | _               | ÷                 |                                      |                     | Ħ  |                       | E                            | (NI)A                |                        |  |
|                            |  |  |  |                       |                     |   |                            |              |                    |                          | ,Survey<br>vey Suf           | n(GPM           | -evel (F<br>N)    | mp (Ft)                              |                     | s)<br>S)   |                       | rvoir(A                      | alysis(              |                        |  |
|                            |  |  |  |                       |                     |   |                            |              |                    |                          | ey Type<br>ber,Sur<br>Flow(C | opriatio        | cWateri<br>Log (Y | h Of Pu                              | Total               | Ö<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S<br>S | Inactive              | of Rese                      | nical Ar             |                        |  |
| WR Number                  | Priority<br>Priority Date text               | Summary WR Status                          | Company  | First Name            | Last Name           | Facility Name   | Uses                       | Twn          | Rng See            | c Qtr-Qtr                | Numl                         | Appr<br>Total   | Static            | 8<br>옵 Stream Source                 | Capacity<br>(AF/Yr) | 亨물 Capac<br>금울 AF)   | ity( Capacity(<br>AF) | e Facility                   | SupplyT 5            | Latitude Lo            | Created<br>ongitude By                       |
| P1100.05<br>P1103.05       | 01/17/1955 01/17/19<br>01/17/1955 01/17/19   | 5 Complete<br>5 Complete                   | WYUTA CATTLE COMPANY<br>WYUTA CATTLE COMPANY         |                       |                     | MYERS #3 STOCK RESERVOIR<br>MYERS #6 STOCK RESERVOIR  | STO<br>STO                 | 013N<br>013N | 120W 10<br>120W 09 | SW1/4SW1/4<br>SE1/4NW1/4 | A                            |                 |                   | Dry Draw<br>Meadow Draw              | 0.48                |  | 0 0.48                | 0.48 Reservo<br>0.22 Reservo | r<br>r               | 41.113972<br>41.119167 | -110.947361 External<br>-110.958028 External |
| P11264.0R<br>P14180.05     | 09/18/2000 9/18/2000                         | Complete                                   |  | JAMES                 | TYBUR               | NORTH CROWN RANCH RESERVOIR<br>ROBERTS STOCK RESERVOIR  | FIS                        | 013N<br>013N | 120W 23            | SE1/4NW1/4<br>SE1/4NE1/4 | A<br>A                       |                 |                   | Bear River<br>Marie Draw             | 5.55                |  | 0 5.98                | 5.98 Reservo                 | ir<br>ir             | 41.09217<br>41.121117  | -110.9228 External<br>-110.795906 External   |
| P1862.05                   | 02/04/1957 02/04/19                          | Complete                                   |  | WILLIAM L AND AMY GAY | NARRAMORE ET AL     | OSCAR BLACK STOCK RESERVOIR   | STO                        | 013N         | 121W 24            | NE1/4NW1/4               | A                            |                 |                   | Black's Draw                         | 0.93                |  | 0 0.93                | 0.93 Reservo                 | ir                   | 41.09669               | -111.01967 External                          |
| P24325.0D<br>P32188.0D     | 04/05/1999 04/05/199                         | Complete                                   | CITY OF EVANSION                                     | ROBERT                | BURNS               | BROADBENT SUPPLY DITCH-BONES HOLLOW DIVERSIC  | IRR SW                     | 013N<br>013N | 120W 14<br>118W 31 | NE1/4NE1/4<br>NW1/4SE1/4 | A A                          | .55             |                   | Bones Hollow                         |                     | 18.66<br>77.51   | 0 0                   | 0 Stream<br>0 Stream         |                      | 41.110583<br>41.05993  | -110.911056 External<br>-110.76333 External  |
| P32189.0D<br>P32609.0D     | 04/05/1999 04/05/199                         | Complete     Complete                      |  | IAMES K               | TYBUR               | BROADBENT SUPPLY DITCH-BRANCH WILLOW CK DIVE<br>NORTH CROWN BANCH PIPELINE                    | IRR SW                     | 013N<br>013N | 119W 36<br>120W 23 | NW1/4NE1/4<br>SF1/4NW1/4 | A 1                          | .47             |                   | Branch of Willow Creek<br>Bear River | 5.98                | 77.51  | 0 0                   | 0 Stream<br>0 Stream         |                      | 41.06683               | -110.78506 External<br>-110.92302 External   |
| P5064.0R                   | 03/28/1939 03/28/19                          | 3 Complete                                 | MYERS LAND AND LIVESTOCK CO                          |                       |                     | MYERS RESERVOIR   | IRR SW                     | 013N         | 120W 13            | SW1/4SE1/4               | A                            |                 |                   | Mill Creek                           | 556.5               | 55   | 6.5 0                 | 556.5 Reservo                | r                    | 41.10013               | -110.89709 External                          |
| P5698.0R<br>P5933.0S       | 12/15/1949 12/15/19<br>02/17/1967 02/17/19   | 5 Complete                                 | WYUTA CATTLE CO.                                     | JOHN AND GEORGE       | BLAKE               | BLAKE RESERVOIR<br>SECTION 15 STOCK RESERVOIR   | IRR_SW<br>STO              | 013N<br>013N | 118W 07<br>120W 15 | NW1/4NE1/4<br>NE1/4NW1/4 | A                            |                 |                   | Clifton Draw                         | 152.71              |  | 0 0.41                | 0.41 Reservo                 | r<br>r               | 41.12519 41.109878     | -110./6544 External<br>-110.941203 External  |
| P5934.05                   | 02/17/1967 02/17/19                          | 5 Complete                                 | WYUTA CATTLE CO.                                     | HAROLD                | RURTON              | LOWER STACK YARD STOCK RESERVOIR  | STO                        | 013N         | 120W 11            | NE1/4SE1/4               | A                            |                 |                   | Fence Corner Draw                    | 0.43                |  | 0 0.43                | 0.43 Reservo                 | ir<br>u              | 41.117264              | -110.912383 External                         |
| P6020.05                   | 01/18/1967 01/18/19                          | 5 Complete<br>5 Complete                   |  | HAROLD                | BURTON              | BURTON NO. 2 STOCK RESERVOIR<br>BURTON NO. 3 STOCK RESERVOIR                                  | STO                        | 013N<br>013N | 120W 34<br>120W 34 | NE1/4SW1/4               | A                            |                 |                   | Homer Hollow                         | 3.24                |  | 0 1.04                | 3.24 Reservo                 | r<br>r               | 41.063903              | -110.9345 External                           |
| P6021.05                   | 01/18/1967 01/18/19                          | 5 Complete                                 |  | HAROLD                | BURTON              | BURTON NO. 4 STOCK RESERVOIR  | STO                        | 013N         | 120W 27            | NE1/4SE1/4               | A<br>A                       |                 |                   | Burton Hollow                        | 3.87                |  | 0 3.87                | 3.87 Reservo                 | ir<br>V              | 41.074128              | -110.933539 External                         |
| P6023.05                   | 01/18/1967 01/18/19                          | 5 Complete                                 |  | HAROLD                | BURTON              | BURTON NO. 6 STOCK RESERVOIR  | STO                        | 013N         | 120W 27            | SW1/4SW1/4               | Â                            |                 |                   | North Fork Burton Hollow             | 0.12                |  | 0 0.12                | 0.12 Reservo                 | r                    | 41.071092              | -110.944192 External                         |
| P6024.05<br>P6032.05       | 01/18/1967 01/18/19<br>08/22/1967 08/22/19   | 5 Complete<br>5 Complete                   | WYUTA CATTLE CO.                                     | HAROLD                | BURTON              | BURTON NO. 7 STOCK RESERVOIR<br>SECTION 3 STOCK RESERVOIR                                     | STO<br>STO                 | 013N<br>013N | 120W 33<br>120W 03 | NW1/4NW1/4<br>NE1/4SE1/4 | A<br>A-                      |                 |                   | Sage Creek Draw<br>Fly Draw          | 0.33                |  | 0 0.33                | 0.33 Reservo<br>0.93 Reservo | ir<br>ir             | 41.066447<br>41.131722 | -110.964822 External<br>-110.9316 External   |
| P6228.0R                   | 08/24/1953 08/24/19                          | 5 Expired                                  |  | ARTHUR                | BARKER              | BARKER RESERVOIR  | IRR SW                     | 013N         | 121W 02            | NW1/4NW1/4               | L4                           |                 |                   | Sage Creek Draw                      | 48.85               | 48   | 8.85 0                | 48.85 Reservo                | ir<br>               | 41.13966               | -111.04341 External                          |
| P6434.0R                   | 05/29/1958 05/29/19                          | 5 Complete<br>5 Complete                   |  | JOSEPH E.             | MARTIN              | MARTIN RESERVOIR  | IRR SW                     | 013N<br>013N | 119W 29<br>119W 16 | SW1/4NW1/4               | A                            |                 |                   | Bazoo Hollow                         | 87.9                | 1/   | 7.9 0<br>87.9 0       | 87.9 Reservo                 | r                    | 41.080325              | -110.864203 External<br>-110.85107 External  |
| P8338.05                   | 02/02/1978 02/02/19                          | 7 Complete                                 |  | LAWRENCE              | COOK                | COOK STOCK RESERVOIR  |                            | 013N         | 119W 34            | NW1/4SW1/4               | A                            |                 |                   | Cook Draw                            | 0.37                |  | 0 0.37                | 0.37 Reservo                 | ir<br>L              | 41.05918               | -110.831 External                            |
| P8368.05                   | 05/22/1978 05/22/19                          | 7 Complete                                 |  | ALVIN                 | LESTER              | BELL #2 STOCK RESERVOIR   |                            | 013N         | 119W 14<br>119W 14 | NW1/4NE1/4               | A                            |                 |                   | Wilson Canyon Creek                  | 0.6                 |  | 0 0.6                 | 0.6 Reservo                  | ir                   | 41.11000               | -110.80059 External                          |
| P8369.05<br>P8885.08       | 05/22/1978 05/22/19                          | 7 Complete<br>8 Complete                   |  | ALVIN                 | LESTER              | BELL #3 STOCK RESERVOIR<br>SPILL CONTROL RESERVOIR  | IND SW-STO                 | 013N<br>013N | 119W 14<br>121W 35 | NE1/4NW1/4<br>NF1/4NF1/4 | A<br>A                       |                 |                   | Wilson Canyon Creek<br>Hobbit Draw   | 0.46                |  | 0 0.46                | 0.46 Reservo<br>0.21 Reservo | r<br>r               | 41.10864               | -110.80661 External<br>-111.02975 External   |
| P896.0R                    | 08/21/1906 08/21/190                         | ) Complete                                 | HEBER LAND & LIVESTOCK                               | WILLIAM               | NEWBROUGH           | HEBER RESERVOIR   | DOM SW; IRR S              | W 013N       | 119W 36            | SW1/4NW1/4               | A                            |                 |                   | Branch of Willow Creek               | 388.5               | 38   | 88.5 0                | 388.5 Reservo                | r                    | 41.06356               | -110.7941 External                           |
| P9710.0R<br>P9711.0R       | 03/25/1991 03/25/199 03/25/199               | Cancelled     Cancelled                    |  |                       |                     | HOBBIT DRAW SPILL CONTROL RESERVOIR<br>FLARE SPILL CONTROL RESERVOIR                          | IND SW                     | 013N<br>013N | 121W 25<br>121W 26 | SW1/4SW1/4<br>NF1/4SW1/4 | A<br>A                       |                 |                   | Hobbit Draw<br>Flare Draw            | 9.2                 |  | 0 0                   | 0 Reservo<br>0 Reservo       | ir<br>ir             | 41.06985               | -111.02288 External<br>-111.03727 External   |
| CR CC28/113                | 08/07/1901 08/07/19                          | Fully Adjudicated                          | MYERS LAND AND LIVESTOCK COMP                        |                       |                     | MYERS NO. 1 DITCH   | IRR SW                     | 013N         | 119W 06            | NE1/45W1/4               | A 4                          | .35             |                   | Bear River                           |                     |  | 0 0                   | 0 Stream                     |                      | 41.130414              | -110.884192 External                         |
| CR CC28/115<br>CR CC28/297 | 12/13/1901 12/13/190<br>01/02/1906 01/02/190 | Fully Adjudicated Fully Adjudicated        | MYERS LAND AND LIVESTOCK CO                          | CLEMENT               | LACHAPELLE          | MYER CANAL NO. 2<br>LA CHAPELLE SPRING AND PIPELINE   | IRR SW<br>S&D              | 013N<br>013N | 120W 26<br>118W 19 | SW1/4SW1/4<br>NE1/4NW1/4 | A E                          | 0               |                   | Bear River<br>Spring                 |                     |  | 0 0                   | 0 Stream<br>0 Spring         | Original             | 41.069581<br>41.09419  | -110.926642 External<br>-110.76667 External  |
| CR CC28/308                | 08/03/1898 08/03/18                          | Fully Adjudicated                          |  | HENRY                 | LESTER              | B AND L DITCH   | IRR SW                     | 013N         | 119W 27            | NE1/4NW1/4               | A (                          | .28             |                   | Sulphur Creek                        |                     |  | 0 0                   | 0 Stream                     | Original             | 41.0822                | -110.82642 External                          |
| CR CC39/202<br>CR CC40/216 | 07/31/1908 07/31/190<br>07/31/1915 07/31/190 | Fully Adjudicated<br>Fully Adjudicated     |  | ELIZABETH             | PERKINS             | ENLARGED LACHAPELLE NO. 3 DITCH<br>ENLARGED CLARK-TITMUS DITCH                                | IRR_SW<br>IRR_SW; S&D      | 013N<br>013N | 119W 24<br>119W 16 | NE1/4NE1/4<br>SW1/4NW1/4 | A 4                          |                 |                   | Bazoo Hollow                         |                     |  | 0 0                   | 0 Stream<br>0 Stream         | Original             | 41.09518 41.10823      | -110.77799 External<br>-110.85074 External   |
| CR CC40/218                | 08/14/1913 08/14/19                          | L Fully Adjudicated                        |  | WILLIAM               | HOLMES              | HOLMES DITCH  | IRR_SW                     | 013N         | 119W 02            | NE1/4SW1/4               | A                            | 1               |                   | Sulphur Creek                        |                     |  | 0 0                   | 0 Stream                     |                      | 41.131792              | -110.806911 External                         |
| P1736.0D                   | 02/03/1898 02/03/18                          | Fully Adjudicated                          |  | Joseph B.             | Coffman             | Coffman Ditch   | IRR_SW                     | 012N<br>013N | 119W 19<br>120W 14 | SE1/4NW1/4               | A 2                          |                 |                   |                                      |                     | /5.5   | 0 0                   | 0 Stream                     |                      | 41.10508               | -110.874386 External<br>-110.920617 External |
| P29091.0D                  | 06/13/1985 06/13/19                          | 3 Cancelled                                | MAYERS I AND & LIVESTOCK                             |                       | Mountain Fuel Resou | IT Transmission Line 1  | IND SW; TEM                | 013N         | 120W 35            | SW1/4SW1/4               |                              | 2.7             |                   |                                      |                     | 2.7  | 0 0                   | 0 Stream                     |                      | 41.055444              | -110.928351 External                         |
| CR CC28/093                | 08/28/1893 08/28/18                          | Fully Adjudicated                          | TOWN OF EVANSTON                                     |                       |                     | EVANSTON WATER SUPPLY DITCH ACT EVANSTON PIP  | 1 MUN SW                   | 013N         | 120W 14            | NE1/4NE1/4               | A                            | 3               |                   |                                      |                     |  | 0 0                   | 0 Stream                     | Original             | 41.109994              | -110.9124 External                           |
| CR CC28/104<br>CR CC28/107 | 02/03/1898 02/03/189 04/20/190 04/20/190     | Fully Adjudicated<br>Fully Adjudicated     | MYERS LAND AND LIVESTOCK CO                          | THOMAS                | LEWIS               | COFFMAN DITCH<br>ENLARGED LEWIS DITCH   | IRR SW<br>IRR SW           | 013N<br>013N | 120W 14<br>120W 35 | SE1/4NW1/4<br>SW1/4SW1/4 | A 2                          | .57             |                   |                                      |                     |  | 0 0                   | 0 Stream<br>0 Stream         |                      | 41.105078 41.055478    | -110.920622 External<br>-110.928333 External |
| CR CC28/116                | 01/11/1902 01/11/19                          | Fully Adjudicated                          | UNION PACIFIC RAILROAD COMPAN                        |                       |                     | PIPE LINE, WINDMILL, STEAM PUMP PLANT AND TANK  | RAI                        | 013N         | 120W 14            | NE1/4NE1/4               | A 0                          | 1.27            |                   |                                      |                     |  | 0 0                   | 0 Stream                     | Original             | 41.109708              | -110.912731 External                         |
| CR CC61/169<br>CR CC72/304 | 03/28/1939 03/28/19<br>04/17/1974 04/17/19   | 3 Fully Adjudicated 7 Fully Adjudicated    | MYERS LAND AND LIVESTOCK COMP<br>CITY OF EVANSTON    |                       |                     | ENLARGED MYER CANAL NO. 2<br>EVANSTON PIPE LINE   | IRR SW<br>MUN SW           | 013N<br>013N | 120W 26<br>120W 14 | SW1/4SW1/4<br>NE1/4NE1/4 | A 0                          | 1.64            |                   |                                      |                     |  | 0 0                   | 0 Stream<br>0 Stream         | Original<br>Original | 41.070042<br>41.109708 | -110.926936 External<br>-110.912731 External |
| CR CC75/293                | 09/22/1915 09/22/19                          | L Fully Adjudicated                        | CITY OF EVANSTON                                     |                       |                     | ENLARGED EVANSTON WATER DITCH   | MUN SW                     | 013N         | 120W 14            | NE1/4NE1/4               | A (                          | .51             |                   |                                      |                     |  | 0 0                   | 0 Stream                     | Original             | 41.110011              | -110.912419 External                         |
| CR CC76/222<br>CR CC76/226 | 09/28/1933 09/28/19<br>09/22/1915 09/22/19   | Fully Adjudicated<br>Fully Adjudicated     | CITY OF EVANSTON                                     | CITYOF                | EVANSION            | ENLARGED EVANSION WATER SUPPLY DITCH ACT EVA<br>ENLARGED EVANSTON WATER DITCH                 | MUN SW<br>MUN SW           | 013N<br>013N | 120W 14<br>120W 14 | NE1/4NE1/4<br>NE1/4NE1/4 | A 0.                         | 685             |                   |                                      |                     |  | 0 0                   | 0 Stream<br>0 Stream         | Original<br>Original | 41.109989 41.109992    | -110.912425 External<br>-110.912431 External |
| CR CC78/319                | 02/01/1988 02/01/19                          | B Fully Adjudicated                        | CITY OF EVANSTON                                     |                       |                     | ENLARGED EVANSTON PIPE LINE   | RES                        | 013N         | 120W 14            | NE1/4NE1/4               | A                            | 0               |                   |                                      |                     |  | 0 0                   | 0 Stream                     | Original             | 41.109714              | -110.912731 External                         |
| P7624.0E                   | 04/01/2002                                   | Complete                                   | NORTH CROWN NAMES, EEC                               | JANICE                | GOTTFREDSON         | 1ST ENLARGEMENT OF Myers Ditch No. 1  | FTH; RES                   | 013N         | 119W 06            | SE1/4SW1/4               | A C                          | 0.06 6.57       |                   |                                      | :                   | 16.08  | 0 0                   | 0 Stream                     |                      | 41.129722              | -110.884194 SEO                              |
| P34399.0D                  | 05/06/2009                                   | Complete                                   | CITY OF EVANSTON                                     | PETER AND MARYLE      | LARSON              | LARSON PIPELINE<br>EVANSTON WATER DITCH ACT EVANSTON PIPELINE                                 | MUN SW                     | 013N         | 120W 23            | SE1/4SW1/4<br>SW1/4SW1/4 | A 2                          | .23             |                   | Bear Phoer                           |                     | 2.1  | 0 0                   | 0 Stream                     | Original             | 41.084261              | -110.924619 SEO                              |
| OR 34/175                  | 03/28/1875 03/28/18                          | ,  | CITY OF EVANSTON                                     |                       |                     | EVANSTON WATER DITCH ACT EVANSTON PIPELINE  | MUN SW                     | 013N         | 120W 14            | NE1/4NE1/4               | Â                            |                 |                   | Bear River                           |                     |  | 0 0                   | 0 Stream                     | Original             | 41.109914              | -110.910156 External                         |
| CR CC76/225<br>CR CC79/202 | 03/29/1901 03/29/190<br>07/31/1915 07/31/193 | Fully Adjudicated<br>Fully Adjudicated     | CITY OF EVANSTON                                     | DENNIS                | CORNELISON          | ENLARGED ANDERSON DITCH ACT EVANSTON PIPELIN<br>ENLARGED HOLMES DITCH ACIPT CORNELISON NO 5 F | II MUN SW<br>PIRR SW       | 013N<br>013N | 120W 14<br>119W 02 | NE1/4NE1/4<br>NE1/4SW1/4 | A 0                          | .85<br>29       |                   | Bear River<br>Sulphur Creek          |                     |  | 0 0                   | 0 Stream<br>0 Stream         | Original<br>Original | 41.11034<br>41.12997   | -110.91082 External<br>-110.80652 External   |
| CR UW06/250                | 08/02/1983 08/02/19                          | 8 Fully Adjudicated                        | AMOCO PRODUCTION COMPANY                             |                       |                     | ANSCHUTZ RANCH PLANT WELL NO. 1A  | MIS                        | 013N         | 121W 35            | NW1/4NW1/4               | A :                          | 150             |                   |                                      |                     |  | 0 0                   | 0 Well                       | Original             | 41.06596               | -111.04149 External                          |
| CR UW06/251<br>CR UW06/253 | 08/09/1983 8/9/1983<br>03/17/1986 03/17/198  | Fully Adjudicated<br>3 Fully Adjudicated   | AMOCO PRODUCTION COMPANY<br>AMOCO PRODUCTION COMPANY |                       |                     | ANSCHUTZ RANCH PLANT WELL NO. 2<br>ENL. ANSCHUTZ RANCH PLANT WELL NO. 1A                      | MIS                        | 013N<br>013N | 121W 35<br>121W 35 | NW1/4NW1/4<br>NW1/4NW1/4 | A                            | 150             |                   |                                      |                     |  | 0 0                   | 0 Well<br>0 Well             | Suppleme             | 41.06589               | -111.0402 External<br>-111.04149 External    |
| CR UW06/254                | 03/17/1986 03/17/19                          | B Fully Adjudicated                        | AMOCO PRODUCTION COMPANY                             |                       |                     | ENL ANSCHUTZ RANCH PLANT WELL NO. 2   | MIS                        | 013N         | 121W 35            | NW1/4NW1/4               | A                            | 10              |                   | 26                                   |                     |  | 0 0                   | 0 Well                       | Suppleme             | 41.06589               | -111.0402 External                           |
| P188762.0W                 | 09/08/2008                                   | Incomplete                                 | CHORCH OF JESUS CHRIST OF LATTE                      | LANETTE               | KIMBALL             | LANETTE WELL  | DOM_GW; STK                | 013N<br>013N | 119W 21<br>119W 23 | NE1/45W1/4<br>NE1/4NW1/4 | A                            | 20 35.00        | 2 N               | 20                                   |                     |  | 0 0                   | 0 Well                       | ,                    | 41.08947               | -110.84347 External                          |
| P189348.0W                 | 10/31/2008                                   | Complete                                   |  | TAMI                  | MARTIN              | T&V#1   | DOM GW                     | 013N         | 119W 16            | NW1/4NE1/4               | A                            | 25 100.00       | 7 N               | 28                                   |                     |  | 0 0                   | 0 Well                       | N                    | 41.109611              | -110.842667 External                         |
| CR CC28/263                | 09/23/1888 09/23/18                          | B Fully Adjudicated                        |  | ROBERT                | HARE                | MORSE AND COFFMAN DITCH ACT MYERS CANAL NO  | IRR SW                     | 013N         | 120W 33<br>120W 23 | NE1/4NW1/4               | A 1                          | .14             |                   | Bear River                           |                     |  | 0 0                   | 0 Stream                     | Original             | 41.096658              | -110.922089 External                         |
| CR CC28/322                | 05/31/1880 05/00/18                          | B Fully Adjudicated                        | HERER LAND AND STOCK COMPANY                         | CLEMENT               | LACHAPELLE          | GARDEN DITCH  | IRR SW; STO                | 013N         | 119W 24            | NE1/4NE1/4<br>SE1/ANE1/A | A                            | 1.9             |                   | Willow Creek                         |                     |  | 0 0                   | 0 Stream                     | Original             | 41.09486               | -110.7786 External                           |
| CR CC28/323                | 12/31/1882 1882                              | Fully Adjudicated                          | TEDER ENHO AND STOCK COMPANY                         | CLEMENT               | LACHAPELLE          | LACHAPELLE NO. 3 DITCH  | IRR SW                     | 013N         | 119W 24            | NE1/4NE1/4               | A C                          | 1.67            |                   | Willow Creek                         |                     |  | 0 0                   | 0 Stream                     | Criginal             | 41.09518               | -110.77799 External                          |
| CR CC28/324<br>CR CC28/326 | 05/31/1885 05/00/18                          | 3 Fully Adjudicated 3 Fully Adjudicated    |  | CLEMENT               | LACHAPELLE          | UPPER DITCH   | IRR SW; STO<br>IRR SW: STO | 013N<br>013N | 119W 24<br>119W 24 | SE1/4NE1/4<br>SE1/4NE1/4 | A 0                          | 1.92            |                   | Willow Creek<br>Willow Creek         |                     |  | 0 0                   | 0 Stream<br>0 Stream         | Original             | 41.09233               | -110.78036 External<br>-110.78036 External   |
| CR CC28/261                | 11/19/1885 11/19/18                          | 8 Fully Adjudicated                        | CROWN LAND AND STOCK COMPAN                          |                       |                     | LEWIS AND COFFMAN DITCH   | IRR SW                     | 013N         | 120W 25            | NE1/4SW1/4               | A 3                          | .42             |                   | Mill Creek                           |                     |  | 0 0                   | 0 Stream                     |                      | 41.073436              | -110.901839 External                         |
| CR CC28/269<br>CR CC28/271 | 12/31/1889 1889<br>05/01/1890 05/01/18       | Fully Adjudicated<br>Fully Adjudicated     |  | GEORGE                | TIBBETS             | GARDEN DITCH<br>TIBBETS NO. 2 DITCH   | IRR SW<br>IRR SW: S&D      | 013N<br>013N | 119W 31<br>119W 31 | NW1/4NW1/4<br>SW1/4NW1/4 | L1 0                         |                 |                   | Mill Creek<br>Mill Creek             |                     |  | 0 0                   | 0 Stream<br>0 Stream         |                      | 41.067044<br>41.063675 | -110.890258 External<br>-110.888936 External |
| P195993.0W                 | 07/01/2011                                   | Incomplete                                 |  | GEORGE                | BODINE              | BODINE NO. 3  | DOM GW                     | 013N         | 120W 35            | SE1/4NE1/4               | A                            | 10              |                   |                                      |                     |  | 0 0                   | 0 Well                       |                      | 41.06218               | -110.91334 SEO                               |
| P197085.0W<br>P197966.0W   | 11/23/2011<br>05/03/2012                     | Complete                                   |  | DAN CONNIE            | COWAN               | COWAN WELL  | DOM GW<br>DOM GW; STK      | 013N<br>013N | 119W 14<br>119W 07 | SE1/4SW1/4<br>SE1/4NW1/4 | A                            | 20<br>15 124.00 | 32 N              | 90                                   |                     |  | 0 0                   | 0 Well<br>0 Well             | N                    | 41.09/63 41.12195      | -110.80563 SEO<br>-110.88503 SEO             |
| CR UW19/071                | 10/01/2008                                   | Fully Adjudicated                          | CHURCH OF JESUS CHRIST OF LATTE                      |                       |                     | HILLIARD WARD NO. 2 WELL  | MIS                        | 013N         | 119W 21            | NE1/4SW1/4               | A                            | 20              |                   | Pear Diver                           |                     |  | 0 0                   | 0 Well                       | Original             | 41.088222              | -110.845444 External                         |
| CR CC76/224                | 03/28/18/5 03/28/18                          | Fully Adjudicated                          | CITY OF EVANSTON                                     |                       |                     | EVANSION WATER DITCH ACT EVANSION PIPELINE<br>EVANSTON WATER DITCH ACT EVANSTON PIPELINE      | MUN SW                     | 013N<br>013N | 120W 14<br>120W 14 | NE1/4NE1/4<br>NE1/4NE1/4 | A 0.                         | 505             |                   | Bear River                           | 106.05              |  | 0 0                   | 0 Stream                     | Original             | 41.109914              | -110.910156 External                         |
| CR CC28/036<br>CR CC28/053 | 08/31/1883 08/00/18                          | 3 Fully Adjudicated                        |  | ROBERT                | HARE                | HARE DITCH  | IRR SW                     | 013N<br>013N | 120W 23<br>120W 24 | NE1/4NW1/4<br>SE1/4SE1/4 | A 0                          | 1.82            |                   | Bear River<br>Bear River             |                     |  | 0 0                   | 0 Stream                     | Original             | 41.096658              | -110.922089 External<br>-110.929386 External |
| CR CC28/073                | 06/18/1888 06/18/18                          | B Fully Adjudicated                        | CROWN LAND AND STOCK CO                              |                       |                     | LEWIS AND BLANCHARD DITCH   | IRR SW                     | 013N         | 120W 35            | NW1/4SW1/4               | A .                          | 1               |                   | Bear River                           |                     |  | 0 0                   | 0 Stream                     |                      | 41.060792              | -110.927739 External                         |
| CR CC28/074<br>CR CC28/076 | 06/18/1888 06/18/18                          | 3 Fully Adjudicated<br>3 Fully Adjudicated | MYERS LAND AND LIVESTOCK CO.                         | ROSE                  | LEWIS               | LEWIS AND BLANCHARD DITCH<br>MORSE AND COFEMAN DITCH ACT MYERS CANAL NO.                      | IRR_SW                     | 013N<br>013N | 120W 35<br>120W 26 | NW1/4SW1/4<br>SW1/4SW1/4 | A 2                          | .71<br>47       |                   | Bear River<br>Rear River             |                     |  | 0 0                   | 0 Stream                     | Original             | 41.060792              | -110.927739 External<br>-110.928908 External |
| CR CC28/077                | 10/04/1888 10/04/18                          | 3 Fully Adjudicated                        | CROWN LAND AND STOCK CO                              |                       |                     | LEWIS DITCH   | IRR_SW                     | 013N         | 120W 35            | SW1/4SW1/4               | A 5                          | .14             |                   | Bear River                           |                     |  | 0 0                   | 0 Stream                     | ····                 | 41.054294              | -110.929128 External                         |
| P200358.0W<br>CR CC27/494  | 05/15/2013<br>12/31/1875 1875                | Complete<br>Fully Adjudicated              | TOWN OF EVANSTON                                     | LINDA                 | EZOLA               | EZOLA #1<br>EVANSTON WATER SUPPLY DITCH ACT EVANSTON PIP                                      | DOM GW<br>EMUN SW          | 013N<br>013N | 119W 02<br>120W 14 | SW1/4SE1/4<br>NE1/4NE1/4 | A                            | 10 100.00<br>4  | 12 N              | 90<br>Bear River                     |                     |  | 0 0<br>0 0            | 0 Well<br>0 Stream           | N<br>Original        | 41.1275<br>41.11058    | -110.8 SEO<br>-110.91175 External            |
| P201181.0W                 | 10/07/2013                                   | Incomplete                                 |  | HARRY AND MARILYN     | BOSTEDO             | BOSTEDO WELL  | DOM GW                     | 013N         | 119W 11            | SW1/4SW1/4               | A                            | 25              |                   |                                      |                     |  | 0 0                   | 0 Well                       |                      | 41.11358               | -110.81161 SEO                               |
| CR CC94/281<br>CR CC94/282 | 10/18/2012<br>05/06/2009                     | Fully Adjudicated<br>Fully Adjudicated     | LITY OF EVANSTON<br>LARSON RANCH LLC                 |                       |                     | ENLARGED EVANSTON PIPE LINE<br>LARSON PIPELINE  | MUN SW<br>FTH; RES         | 013N<br>013N | 120W 14<br>120W 23 | NE1/4NE1/4<br>SE1/4SW1/4 | A<br>A 2                     | 0               |                   | Bear River<br>Bear River             |                     | 34.8<br>2.1  | 0 0                   | 0 Stream<br>0 Stream         |                      | 41.11058<br>41.08402   | -110.91106 External<br>-110.92438 SEO        |
| CR CR23/151                | 05/06/2009                                   | Fully Adjudicated                          | LARSON RANCH LLC                                     | IANICE T              | COTTRECCON          | LARSON RESERVOIR  | FIS                        | 013N         | 120W 23            | NW1/4SW1/4               | A                            |                 |                   | Bear River                           |                     | 16.09  | 0 7.78                | 7.78 Reservo                 | ir                   | 41.08655               | -110.92531 SEO                               |
| CR CR23/342                | 04/01/2002                                   | Fully Adjudicated                          |  | JANICE T              | GOTTFREDSON         | FROG POND   | FIN RES                    | 013N<br>013N | 119W 06            | 3E1/45W1/4<br>NE1/4NW1/4 | L3                           |                 |                   | Bear River                           |                     | 10.08  | 0 3.41                | 3.41 Reservo                 | ir                   | 41.12986<br>41.13889   | -110.88169 SEO                               |
| CR CR23/343                | 04/01/2002                                   | Fully Adjudicated                          |  | JANICE T              | GOTTFREDSON         | DUCK POND   | FIS                        | 013N         | 119W 06            | NW1/4NE1/4               | L2                           |                 |                   | Bear River                           |                     |  | 0 3.16                | 3.16 Reservo                 | ir .                 | 41.13997               | -110.88011 SEO                               |

| UINTA COUNT                | Y                                    |  |  |  |                     |   |                                |                    |                  |                                |                        |                        |                       |  |                     |                    |                |  |                            |  |
|----------------------------|--------------------------------------|--|--|--|---------------------|---|--------------------------------|--------------------|------------------|--------------------------------|------------------------|------------------------|-----------------------|--|---------------------|--------------------|----------------|--|----------------------------|--|
|                            |                                      |  |  |  |                     |   |                                |                    |                  |                                | urvey<br>y Suffix      | Sy<br>By               | vol (Ft)              | (F1)   |                     | acity at           |                | oir(AF)  | ysis(Y/N)                  |  |
|                            |                                      |  |  |  |                     |   |                                |                    |                  |                                | ey Type,S<br>ber,Surve | Plow(CFS<br>opriation( | cWaterLer<br>Log (Y/N | n of Pum   | Total               | Igate (CFS         | Inactive       | of Reserv  | nical Anal                 |  |
| WR Number                  | Prior<br>Priority Date text          | Summary WR Status                                  | Company                                      | First Name                             | Last Name           | Facility Name   | Uses                           | Twn                | Rng S            | Sec Qtr-Qtr                    | Surv<br>Num            | Appr<br>Total<br>Total | Stati                 | Stream Source  | Capacity<br>(AF/Yr) | 亨정 Capac<br>금운 AF) | AF)            | e Facility Sup   | plyT 5<br>5 Latitude       | Created<br>Longitude By                      |
| CR CR24/070                | 01/28/1955 01/28                     | 8/195 Fully Adjudicated                            | JOHN F BURTON AND CAROLYN C                  | BL                                     | MUSS                | BURTON NO. 1 STOCK RESERVOIR  | STO                            | 013N               | 119W 3           | 33 SW1/4SW1/4<br>33 SW1/4SE1/4 | A                      | Б                      |                       | Flat Draw  | 0.44                |                    | 0 0.4          | 0.44 Reservoir   | 41.05356                   | -110.85027 SEO<br>-110.95767 External        |
| CR CR24/071<br>CR CR24/072 | 02/04/1957 02/04<br>12/21/1953 12/21 | 1/195 Fully Adjudicated<br>1/195 Fully Adjudicated | SPRING CREEK LAND AND LIVESTO                | WILLIAM L AND AMY GAY                  | NARRAMORE           | OSCAR BLACK STOCK RESERVOIR<br>HARRY LESTER STOCK RESERVOIR                       | STO<br>STO                     | 013N<br>013N       | 121W 2<br>119W 1 | 24 NE1/4NW1/4<br>L1 NE1/4SW1/4 | A                      |                        |                       | Black's Draw<br>East Draw                            | 0.93<br>2.44        |                    | 0 0.9          | 0.93 Reservoir<br>2.44 Reservoir                           | 41.09669<br>41.11736       | -111.01967 External<br>-110.80894 External   |
| CR CR24/073                | 03/01/2011                           | Fully Adjudicated                                  |  | A LYNN AND M SUSAN                     | JACKSON             | JACKSON HOLLOW STOCK RESERVOIR  | STO<br>DOM GW                  | 013N<br>014N       | 119W 0           | 01 SW1/4NW1/4                  | A                      | 20, 15,00              | -4                    | Grass Swale  | 0.2                 |                    | 0 0.2          | 0.2 Reservoir  | 41.13631<br>N 41.14628     | -110.79172 External                          |
| P114487.0W                 | 03/11/1999                           | Complete   |  | CHET AND DEBRA                         | WIITALA             | WIITALA #1  | DOM GW                         | 014N               | 119W 2           | 29 NW1/4NE1/4                  | Ā                      | 15 100.00              | 14                    |  |                     |                    | 0 0            | 0 Well   | N 41.16825                 | -110.85974 External                          |
| P114517.0W<br>P125021.0W   | 03/10/1999<br>04/24/2000             | Complete<br>Fully Adjudicated                      | ROBERTSON TRUCKING, INC.                     | LLOYD A<br>RUSS AND NANCY              | PARKER<br>ROBERTSON | BUTCH #1<br>ROBERTSON 3-3   | DOM GW<br>DOM GW; MIS          | 014N<br>014N       | 120W 0<br>120W 1 | 02 SW1/4NE1/4<br>L2 NE1/4NW1/4 | A                      | 25 186.00<br>7 127.00  | 1<br>4 N              | 120  |                     |                    | 0 0            | 0 Well<br>0 Well   | N 41.22233<br>N            | -110.91697 External<br>External              |
| P152024.0W                 | 06/16/2003                           | Complete   | ROBERTSON TRUCKING INC                       | TERRY P AND JANE                       | SIEGISMUND          | D&B#1   | DOM GW                         | 014N               | 119W 2           | 29 SW1/4NW1/4                  | A                      | 10 144.00              | 30<br>33 N            | 162  |                     |                    | 0 0            | 0 Well   | N 41.16444                 | -110.86936 External                          |
| P180564.0W                 | 03/26/2007                           | Complete   | KOBERTSON TROCKING INC                       | TIMOTHY R. & CARMEL E.                 | HOLLAND             | HOLLAND #1  | DOM_GW, MIS                    | 014N               | 118W 2           | 29 SE1/4NW1/4                  | A2                     | 2.4 210.00             | 55 N                  | 168  |                     |                    | 0 0            | 0 Well   | N 41.166514                | -110.748014 External                         |
| P181247.0W<br>P182989.0W   | 04/30/2007                           | Complete   |  | ROBERT AND CHRISTINA<br>IOHN AND SHERI | SIMON               | SIMON #1<br>ANDERSON 92   | DOM_GW; STK                    | 014N<br>014N       | 120W 0           | 02 NW1/4NE1/4<br>02 SF1/4NF1/4 | A<br>4                 | 18 275.00<br>20 280.00 | 110 N<br>50 N         | 250  |                     |                    | 0 0            | 0 Well   | N 41.225056<br>N 41.221047 | -110.918722 External<br>-110.913189 External |
| P1159.0R                   | 09/20/1907 09/20                     | 0/190 Expired                                      |  | A. V.                                  | QUINN               | EAST RESERVOIR  | IRR_SW; STO                    | 014N               | 120W 0           | 06 NE1/4SE1/4                  | A                      |                        |                       | Sulphur Creek Canyon Springs                         | 125                 | 4                  | .94 (          | 4.94 Reservoir   | 41.21853                   | -110.98877 External                          |
| P13176.0R<br>P25951.0D     | 10/04/1978 10/04                     | 1/200 Complete<br>1/197 Cancelled                  | MOUNTAIN FUEL SUPPLY COMPAN                  | KENNETH<br>NY REX                      | HEADD               | YELLOW CREEK WELL NO. 3-36 WATER HAULAGE  | IRR SW; WL                     | 014N<br>014N       | 121W 1<br>121W 0 | 14 SW1/4SE1/4<br>01 SW1/4SE1/4 | A                      | 0                      |                       | Yellow Creek<br>Yellow Creek                         |                     | 0.13               | 6.9 3.4<br>0 ( | 0 Stream   | 41.18/11<br>41.21488       | -111.03293 External<br>-111.01282 External   |
| P26220.0D                  | 06/14/1979 06/14                     | 1/197 Cancelled                                    | MOUNTAIN FUEL SUPPLY COMPAN                  | NY                                     | City of Evandor     | YELLOW CREEK AREA PIPELINES WATER HAUL  | - MUN CW                       | 014N               | 121W 0           | 01 SW1/4SE1/4                  | A                      | 0                      |                       | Yellow Creek   |                     | 0.13               | 0 0            | 0 O Stream   | 41.21491                   | -111.01286 External                          |
| P31715.0D                  | 03/11/1996 03/11                     | 1/199 Complete                                     |  |  | City of Evalision   | MARTIN-MAZE DITCH   | III MUN 3W                     | 014N               | 119W 2           | 3101/43001/4<br>32 NE1/4NE1/4  | A                      | 0.69                   |                       | Martin Draw  |                     | 0.72               | 0 0            | 0 Stream   | 41.153556                  | -110.85727 External                          |
| P32310.0D<br>P32325.0D     | 07/17/2000 07/17                     | 7/200 Cancelled<br>3/200 Cancelled                 | PIONEER PIPE LINE CO<br>PIONEER PIPE LINE CO |  |                     | BEAR RIVER WATER HAUL<br>BEAR RIVER WATER HAUL #2                                 | IND SW<br>IND SW               | 014N<br>014N       | 120W 0<br>120W 0 | 01 SW1/4NW1/4<br>01 SW1/4NW1/4 | A7-<br>A               |                        |                       | Bear River<br>Bear River                             |                     | 2.22               | 0 0            | 0 Stream<br>0 Stream                                       | 41.22229 41.22193          | -110.90624 External<br>-110.90726 External   |
| P3338.0R                   | 06/06/1916 06/06                     | 5/191 Incomplete                                   |  | IDA                                    | WATERS              | WATERS RESERVOIR  | IRR SW                         | 014N               | 119W 3           | 33 NE1/4NW1/4                  | А                      |                        |                       | Sulphur Creek  | 15.52               | 15                 | .52 (          | 15.52 Reservoir  | 41.15489                   | -110.8446 External                           |
| P3405.0R<br>P5070.0S       | 12/22/1964 12/22                     | 2/191 Complete<br>2/196 Complete                   |  | DENNIS H AND GAYLE                     | CORNELISON          | SARAH CORELISON & SONS NO. 1 STOCK RESERVOIR                                      | IKK SW; STU                    | 014N<br>014N       | 121W 0<br>119W 1 | 17 SW1/4NE1/4                  | A                      |                        |                       | Knight Swale   | 0.48                |                    | 0 0.41         | 0.48 Reservoir   | 41.22727<br>41.19506       | -111.0256 External                           |
| P5695.0R                   | 02/14/1950 02/14                     | 1/195 Complete                                     | SULPHUR CREEK RESERVOIR COMP                 | PA                                     | MOSIANDER           | SULPHUR CREEK RESERVOIR<br>MOSI ANDER NO. 1 STOCK RESERVOIR                       | IRR SW                         | 014N<br>014N       | 119W 2           | 27 SW1/4SW1/4<br>SE1/ANW1/4    | A                      |                        |                       | Sulphur Creek  | 4104.13             | 4104               | .13 (          | 4104.1 Reservoir   | 41.1559                    | -110.83231 External                          |
| P6455.0E                   | 05/02/1973 05/02                     | 2/197 Complete                                     |  | THROED                                 | mosbaben            | SECOND ENLARGEMENT OF EVANSTON WATER DITC   | CH IRR SW                      | 014N               | 120W 0           | 01 SE1/4SE1/4                  | Â                      | 0.6                    |                       | Bear River   | 30.30               | 35.21              | 0 0            | 0 Stream   | 41.214883                  | -110.891847 External                         |
| P6481.0R<br>P6562.0R       | 08/12/1958 08/12<br>10/01/1958 10/01 | 2/195 Complete<br>L/195 Complete                   | SULPHUR CREEK RESERVOIR COMP                 | PA CLARENCE                            | LOWHAM              | ENLARGEMENT SULPHUR CREEK RESERVOIR<br>SECOND                                     | DOM SW; IRR :<br>DOM SW: IRR : | SW 014N<br>SW 014N | 119W 2<br>119W 2 | 27 SW1/4SW1/4<br>27 SW1/4SW1/4 | A                      |                        |                       | Sulphur Creek<br>Sulphur Creek                       | 4614.54<br>6143.39  | 510<br>1528        | .41 (          | 4104.1 Reservoir<br>1528.9 Reservoir                       | 41.15703<br>41.157         | -110.83087 External<br>-110.83092 External   |
| P7351.0R                   | 06/04/1959 06/04                     | 1/195 Cancelled                                    |  | KENNETH E.                             | HANSEN              | NEEDLE ROCK RESERVOIR   | FLO; IRR SW                    | 014N               | 121W 2           | 26 NW1/4SW1/4                  | A                      |                        |                       | Coyote Creek   | 125.39              |                    | 0 0            | 0 Reservoir  | 41.16037                   | -111.04179 External                          |
| P8352.05<br>P8635.05       | 11/30/1979 11/30                     | 0/197 Complete<br>0/197 Complete                   |  | KEITH                                  | FRAUGHTON           | URROZ NO. 2 STOCK RESERVOIR   | 510                            | 014N<br>014N       | 118W 3<br>120W 0 | 33 SE1/4SE1/4<br>06 SW1/4NE1/4 | A                      |                        |                       | Two Mile Draw<br>Sulphur Creek Canyon Springs        | 9.97                |                    | 0 9.9          | 9.97 Reservoir   | 41.142 41.22246            | -110.720086 External<br>-110.99153 External  |
| P8673.0R                   | 04/19/1983 04/19                     | 9/198 Cancelled                                    |  |  |                     | URROZ RANCH PRODUCED WATER DISPOSAL RESERV  | VO FLO; IND SW                 | 014N               | 120W 0           | 03 SE1/4NW1/4                  | A                      |                        |                       | Seale Draw   | 6.8                 |                    | 0 0            | 12.8 Reservoir   | 41.22116                   | -110.94163 External                          |
| 9100.05                    | 07/13/1983 07/13                     | 3/198 Complete                                     |  |  |                     | SEALE 5-2 STOCK RESERVOIR   |                                | 014N               | 120W 0           | 05 SE1/4NW1/4                  | A                      |                        |                       | Deep Creek   | 0.5                 |                    | 0 0.5          | 0.5 Reservoir  | 41.22216                   | -110.97912 External                          |
| 9101.05<br>9102.05         | 07/13/1983 07/13<br>07/13/1983 07/13 | 3/198 Complete<br>3/198 Complete                   |  |  |                     | SEALE 5-4 STOCK RESERVOIR<br>SEALE 8-1 STOCK RESERVOIR                            |                                | 014N<br>014N       | 120W 0           | 05 NE1/4NE1/4<br>08 SW1/4NE1/4 | A                      |                        |                       | Deep Creek<br>Seale Draw                             | 2.8<br>4.8          |                    | 0 2.1          | 2.8 Reservoir<br>4.8 Reservoir                             | 41.22473<br>41.2063        | -110.96966 External<br>-110.9742 External    |
| 9106.05                    | 07/13/1983 07/13                     | 3/198 Complete                                     |  |  |                     | SEALE 3-1 STOCK RESERVOIR   |                                | 014N               | 120W 0           | 03 SE1/4NE1/4                  | A                      |                        |                       | Seale Draw   | 1.7                 |                    | 0 1.           | 1.7 Reservoir  | 41.22228                   | -110.93138 External                          |
| 9107.05<br>9142.05         | 07/13/1983 07/19<br>07/19/1983 07/19 | 3/198 Complete<br>3/198 Complete                   |  |  |                     | SEALE 31-1 STOCK RESERVOIR<br>SEALE 19-1 STOCK RESERVOIR                          |                                | 014N<br>014N       | 120W 3<br>120W 1 | 31 SE1/4NW1/4<br>19 NW1/4NW1/4 | A                      |                        |                       | Stock Draw   | 0.1                 |                    | 1 0.3          | 0.35 Reservoir   | 41.149/3<br>41.1815        | -110.99885 External<br>-111.0048 External    |
| 9143.05                    | 07/19/1983 07/19                     | 9/198 Complete                                     |  |  |                     | SEALE 19-2 STOCK RESERVOIR  |                                | 014N               | 120W 1           | 19 NW1/4SW1/4                  | L3                     |                        |                       | Stock Draw   | 0.44                |                    | 0 0.4          | 0.44 Reservoir   | 41.1754                    | -111.00231 External                          |
| P9145.05                   | 07/19/1983 07/19                     | 9/198 Complete                                     |  |  |                     | SEALE 19-5 STOCK RESERVOIR  |                                | 014N               | 120W 1           | 19 SW1/4SE1/4                  | A                      |                        |                       | Dew Draw   | 0.19                |                    | 0 0.1          | 0.19 Reservoir   | 41.17043                   | -110.99391 External                          |
| P9146.0S<br>P9147.05       | 07/19/1983 07/19                     | 9/198 Complete<br>9/198 Cancelled                  |  |  |                     | SEALE 19-5 STOCK RESERVOIR<br>SEALE 20-1 STOCK RESERVOIR                          |                                | 014N<br>014N       | 120W 1<br>120W 2 | 19 SE1/4SE1/4<br>NW1/4NW1/4    | A                      |                        |                       | Angel Draw<br>Angel Draw                             | 1.03                |                    | 0 1.0          | 1.03 Reservoir   | 41.17258<br>41 18124       | -110.98997 External<br>-110.98473 External   |
| P9148.05                   | 07/19/1983 07/19                     | 9/198 Complete                                     |  |  |                     | SEALE 31-2 STOCK RESERVOIR  |                                | 014N               | 120W 3           | 31 SE1/4NW1/4                  | A                      |                        |                       | Two Draw   | 0.11                |                    | 0 0.1          | 0.11 Reservoir   | 41.14973                   | -110.99885 External                          |
| P9149.05<br>P9150.05       | 07/19/1983 07/19<br>07/19/1983 07/19 | 9/198 Complete<br>9/198 Complete                   |  |  |                     | SEALE 31-3 STOCK RESERVOIR<br>SEALE 31-4 STOCK RESERVOIR                          |                                | 014N<br>014N       | 120W 3<br>120W 3 | 31 SE1/4SW1/4<br>31 SW1/4NE1/4 | A                      |                        |                       | Mary Draw<br>Mary Draw                               | 0.13                |                    | 0 0.1          | 0.13 Reservoir<br>0.2 Reservoir                            | 41.14385<br>41.14823       | -110.99833 External<br>-110.99516 External   |
| 9151.05                    | 07/19/1983 07/19                     | 9/198 Complete                                     |  |  |                     | SEALE 31-5 STOCK RESERVOIR  |                                | 014N<br>014N       | 120W 3           | B1 SE1/4NE1/4                  | A                      |                        |                       | Mary Draw<br>Real Draw                               | 0.28                |                    | 0 0.2          | 0.28 Reservoir   | 41.15068                   | -110.98865 External                          |
| 9153.05                    | 07/28/1983 07/28                     | 3/198 Complete                                     |  |  |                     | SEALE 22-3 STOCK RESERVOIR  |                                | 014N               | 120W 2           | 22 SE1/4SW1/4                  | Â                      |                        |                       | Paul Draw  | 0.3                 |                    | 0 0.3          | 0.3 Reservoir  | 41.17189                   | -110.93894 External                          |
| 9154.05<br>9155.05         | 07/28/1983 07/28<br>07/28/1983 07/28 | 3/198 Complete<br>3/198 Complete                   |  |  |                     | SEALE 26-1 STOCK RESERVOIR<br>SEALE 26-2 STOCK RESERVOIR                          | STO                            | 014N<br>014N       | 120W 2<br>120W 2 | 26 SE1/4SW1/4<br>26 NE1/4NE1/4 | A                      |                        |                       | Smitty Draw<br>William Draw                          | 1.6                 |                    | 0 1.0          | i 1.6 Reservoir<br>0.2 Reservoir                           | 41.15837<br>41.16709       | -110.92078 External<br>-110.91327 External   |
| 9156.05                    | 07/28/1983 07/28                     | 3/198 Complete                                     |  |  |                     | SEALE 26-3 STOCK RESERVOIR  | STO                            | 014N               | 120W 2           | 26 SW1/4NE1/4                  | A-                     |                        |                       | Billy Draw   | 1.3                 |                    | 0 1.           | 1.3 Reservoir  | 41.1643                    | -110.91599 External                          |
| 9157.05<br>9158.05         | 07/28/1983 07/28                     | 3/198 Cancelled<br>3/198 Complete                  |  |  |                     | SEALE 11-1 STOCK RESERVOIR<br>SEALE 14-1 STOCK RESERVOIR                          | STO                            | 014N<br>014N       | 120W 1<br>120W 1 | LI SE1/4SE1/4<br>L4 SW1/4SW1/4 | A                      |                        |                       | Bernard Hollow                                       | 0.32                |                    | 0 1            | 1 Reservoir  | 41.20138<br>41.18757       | -110.92674 External                          |
| 9159.05<br>49160.05        | 07/28/1983 07/28                     | 3/198 Complete<br>3/198 Complete                   |  |  |                     | SEALE 14-2 STOCK RESERVOIR<br>SEALE 15-1 STOCK RESERVOIR                          | STO                            | 014N<br>014N       | 120W 1           | L4 SW1/4NE1/4                  | A                      |                        |                       | Bernard Hollow<br>Bernard Hollow                     | 0.5                 |                    | 0 0.           | 0.5 Reservoir  | 41.19503<br>41 18539       | -110.91906 External<br>-110.93152 External   |
| 9161.05                    | 07/28/1983 07/28                     | 3/198 Complete                                     |  |  |                     | SEALE 35-1 STOCK RESERVOIR  | STO                            | 014N               | 120W 3           | 35 SE1/4NW1/4                  | Â                      |                        |                       | East Coyote Creek                                    | 0.4                 |                    | 0 0.4          | 0.4 Reservoir  | 41.149906                  | -110.922872 External                         |
| 9186.05<br>9187.05         | 08/11/1983 08/11<br>08/11/1983 08/11 | 1/198 Complete<br>1/198 Complete                   |  |  |                     | SEALE 3-2 STOCK RESERVOIR<br>SEALE 5-5 STOCK RESERVOIR                            |                                | 014N<br>014N       | 120W 0           | 3 NW1/4NW1/4<br>5 SE1/4SE1/4   | A L4                   |                        |                       | Knight Hollow<br>Sulphur Creek Canvon Springs        | 0.2                 |                    | 0 0.1          | 1.3 Reservoir  | 41.22713<br>41.21344       | -110.94628 External<br>-110.96971 External   |
| 9188.05                    | 08/11/1983 08/11                     | L/198 Complete                                     |  |  |                     | SEALE 9-1 STOCK RESERVOIR   | STO                            | 014N               | 120W 0           | 09 NE1/4SE1/4                  | A                      |                        |                       | Willy Draw   | 0.4                 |                    | 0 0.4          | 0.4 Reservoir  | 41.204461                  | -110.948872 External                         |
| 9190.05                    | 08/11/1983 08/11                     | 1/198 Complete                                     |  |  |                     | SEALE 10-1310CK RESERVOIR   | STO                            | 014N               | 120W 1           | 10 NW1/4SE1/4                  | A                      |                        |                       | Glasscock Hollow                                     | 0.1                 |                    | 0 0.:          | 0.1 Reservoir  | 41.2000                    | -110.94519 External                          |
| 9191.05                    | 08/11/1983 08/11                     | 1/198 Complete                                     |  |  |                     | SEALE 15-2 STOCK RESERVOIR<br>SEALE 17-2 STOCK RESERVOIR                          | STO                            | 014N<br>014N       | 120W 1           | L5 SW1/4NW1/4                  | A                      |                        |                       | Becky Draw   | 0.35                |                    | 0 0.3          | 0.35 Reservoir   | 41.19328                   | -110.94491 External                          |
| 9194.05                    | 08/11/1983 08/11                     | 1/198 Complete                                     |  |  |                     | SEALE 10-3 STOCK RESERVOIR  | STO                            | 014N               | 120W 1           | 10 NE1/4NE1/4                  | Ā                      |                        |                       | Glasscock Hollow                                     | 1.7                 |                    | 0 1.3          | 1.7 Reservoir  | 41.210861                  | -110.929206 External                         |
| 9195.0S<br>9222.0R         | 08/11/1983 08/11 09/08/1982 09/08    | L/198 Complete<br>3/198 Complete                   | SULPHUR CREEK RESERVOIR COMP                 | PA                                     |                     | SEALE 1-1B STOCK RESERVOIR<br>SULPHUR CREEK RESERVOIR 3RD ENLARGEMENT O           | STO<br>F 1 FIS: IRR SW: MI     | 014N<br>UN 014N    | 121W 0<br>119W 2 | 01 NW1/4SW1/4<br>27 SW1/4SW1/4 | A                      |                        |                       | John Draw<br>Sulphur Creek                           | 7.8<br>19774.84     | 13149              | 0 7.1          | 8 7.8 Reservoir<br>13631 Reservoir                         | 41.218031<br>41.15726      | -111.021658 External<br>-110.83091 External  |
| 9223.0R                    | 11/20/1986 11/20                     | 0/198 Cancelled                                    | CITY OF CASPER                               |  |                     | SULPHER SEDIMENTATION NO. 1 RESERVOIR   | IND SW                         | 014N               | 119W 2           | 28 SE1/4SE1/4                  | A                      |                        |                       | Sulphur Creek  | 0.84                |                    | 0 0            | 0 Reservoir  | 41.15726                   | -110.83569 External                          |
| 9225.0R                    | 11/20/1986 11/20                     | 0/198 Cancelled                                    | CITY OF EVANSTON                             |  |                     | SULPHER SEDIMENTATION NO. 2 RESERVOIR<br>SULPHER SEDIMENTATION NO. 3 RESERVOIR    | IND SW                         | 014N<br>014N       | 119W 2<br>119W 3 | 10 SE1/4SE1/4<br>33 NE1/4NE1/4 | A                      |                        |                       | Sulphur Creek  | 1.05                |                    | 0 0            | 0 Reservoir<br>0 Reservoir                                 | 41.15/26<br>41.15363       | -110.83569 External                          |
| 9226.0R                    | 11/20/1986 11/20                     | 0/198 Cancelled<br>0/198 Cancelled                 | CITY OF EVANSTON                             |  |                     | SULPHER SEDIMENTATION NO. 4 RESERVOIR<br>SULPHUR BORROW & SEDIMENTATION RESERVOIR | IND SW                         | 014N<br>014N       | 119W 3           | 33 NE1/4NE1/4<br>33 NW1/4NE1/4 | A                      |                        |                       | Sulphur Creek<br>Bazon Hollow                        | 0.97                |                    | 0 0            | 0 Reservoir  | 41.15363                   | -110.83569 External<br>-110.84049 External   |
| 9228.0R                    | 11/20/1986 11/20                     | 0/198 Cancelled                                    | CITY OF EVANSTON                             |  |                     | SULPHUR BORROW C SEDIMENTATION RESERVOIR  | IND SW                         | 014N               | 119W 2           | 27 SE1/4NE1/4                  | A                      |                        |                       | Aspen Creek  | 3.14                |                    | 0 0            | 0 Reservoir  | 41.16438                   | -110.81654 External                          |
| #237.0S<br>#238.0S         | 07/25/1983 07/25<br>07/25/1983 07/25 | 5/198 Complete<br>5/198 Complete                   |  |  |                     | SEALE 20-2 STOCK RESERVOIR<br>SEALE 21-1 STOCK RESERVOIR                          |                                | 014N<br>014N       | 120W 2<br>120W 2 | 20 SW1/4SW1/4<br>21 SE1/4NW1/4 | A                      |                        |                       | Lindley Draw<br>Corbet Draw                          | 0.7                 |                    | 0 0.           | 0.7 Reservoir<br>0.4 Reservoir                             | 41.16983<br>41.17874       | -110.98275 External<br>-110.96208 External   |
| 239.05                     | 07/25/1983 07/25                     | 5/198 Complete                                     |  |  |                     | SEALE 21-2 STOCK RESERVOIR  | 570                            | 014N               | 120W 2           | 21 SW1/4SW1/4                  | A                      |                        |                       | Cloud Draw   | 0.8                 |                    | 0 0.1          | 0.8 Reservoir  | 41.17229                   | -110.96338 External                          |
| 9240.05<br>9241.05         | 07/25/1983 07/25                     | 5/198 Complete                                     |  |  |                     | SEALE 21-3 STOCK RESERVOIR<br>SEALE 21-4 STOCK RESERVOIR                          | STO                            | 014N<br>014N       | 120W 2<br>120W 2 | 21 SW1/4NE1/4<br>21 SW1/4SE1/4 | A                      |                        |                       | Bob Draw   | 0.6                 |                    | 0 0.0          | 0.6 Reservoir  | 41.17/61 41.17024          | -110.95388 External                          |
| 242.05                     | 07/25/1983 07/25                     | 5/198 Cancelled                                    |  |  |                     | SEALE 22-1 STOCK RESERVOIR  |                                | 014N               | 120W 2           | 22 SE1/4SE1/4                  | A                      |                        |                       | Paul Draw<br>East Counte Creek                       | 0.4                 |                    | 0 0            | 0 Reservoir  | 41.17271                   | -110.93356 External                          |
| 244.05                     | 07/25/1983 07/25                     | 5/198 Cancelled                                    |  |  |                     | SEALE 27-2 STOCK RESERVOIR  |                                | 014N               | 120W 2           | 27 NW1/4NW1/4                  | A                      |                        |                       | East Coyote Creek                                    | 0.4                 |                    | õ i            | 0 Reservoir  | 41.16473 41.16795          | -110.94596 External                          |
| 9246.0S<br>9310.0S         | 07/25/1983 07/25                     | 5/198 Cancelled<br>3/198 Complete                  |  |  |                     | SEALE 29-1<br>SEALE 16-1 STOCK RESERVOIR  |                                | 014N<br>014N       | 120W 2<br>120W 1 | 29 SW1/4NE1/4<br>L6 NW1/4NE1/4 | A                      |                        |                       | Coyote Creek<br>Glasscock Hollow                     | 0.4                 |                    | 0 0.4          | 0.4 Reservoir<br>0.5 Reservoir                             | 41.1642<br>41.19776        | -110.97473 External<br>-110.95609 External   |
| 311.05                     | 11/23/1983 11/23                     | 3/198 Complete                                     |  |  |                     | SEALE 16-2 STOCK RESERVOIR  |                                | 014N               | 120W 1           | 16 NE1/4SW1/4                  | A                      |                        |                       | Pickle Draw  | 0.7                 |                    | 0 0.3          | 0.7 Reservoir  | 41.18972                   | -110.96036 External                          |
| 9312.0S<br>9313.0S         | 11/23/1983 11/23<br>11/23/1983 11/23 | 3/198 Complete<br>3/198 Complete                   |  |  |                     | SEALE 1-28 STOCK RESERVOIR<br>SEALE 2-28 STOCK RESERVOIR                          | STO<br>STO                     | 014N<br>014N       | 121W 0<br>121W 0 | J1 SE1/4SW1/4<br>D2 NE1/4SW1/4 | A                      |                        |                       | John Draw<br>Doug Draw                               | 0.7                 |                    | 0 0.3          | 0.7 Reservoir<br>0.2 Reservoir                             | 41.215789<br>41.218469     | -111.017681 External<br>-111.037169 External |
| 9314.05                    | 11/23/1983 11/23                     | 3/198 Complete                                     |  |  |                     | SEALE 2-3B STOCK RESERVOIR  | STO                            | 014N               | 121W 0           | 02 SW1/4NW1/4                  | A                      |                        |                       | Puggy Draw   | 3.29                |                    | 0 3.2          | 3.29 Reservoir   | 41.220733                  | -111.04365 External                          |
| 315.05<br>3317.05          | 11/23/1983 11/23<br>11/23/1983 11/23 | 3/198 Complete<br>3/198 Complete                   |  |  |                     | SEALE 2-48 STOCK RESERVOIR<br>SEALE 6-1 STOCK RESERVOIR                           | sfo                            | 014N<br>014N       | 121W 0<br>120W 0 | JZ NW1/4NW1/4<br>06 SW1/4NE1/4 | L4<br>A                |                        |                       | Puggy Draw<br>Sulphur Creek Canyon Springs           | 1.46<br>0.38        |                    | 0 1.4          | <ul> <li>1.46 Reservoir</li> <li>0.38 Reservoir</li> </ul> | 41.226222<br>41.22248      | -111.041342 External<br>-110.99154 External  |
| 9327.05                    | 12/14/1983 12/14                     | 1/198 Complete                                     |  |  |                     | SEALE 8-6 STOCK RESERVOIR   |                                | 014N               | 120W 0           | 08 NW1/4NE1/4                  | A                      |                        |                       | Seale Draw   | 0.18                |                    | 0 0.11         | 0.18 Reservoir   | 41.21146                   | -110.97669 External                          |
| /9329.05                   | 12/14/1983 12/14                     | 1/198 Complete                                     |  |  |                     | SEALE 6-2 STOCK RESERVOIR   | STO                            | 014N<br>014N       | 120W 0           | 06 SE1/4NW1/4                  | A                      |                        |                       | Sulphur Creek Canyon Springs                         | 1.41                |                    | 0 1.4:         | 1.41 Reservoir   | 41.222286                  | -110.999472 External                         |
| P9529.05<br>P9530.05       | 07/20/1984 07/20 07/20/1984 07/20    | 0/198 Complete<br>0/198 Complete                   |  |  |                     | HANK STOCK RESERVOIR<br>CATHY STOCK RESERVOIR                                     | STO                            | 014N<br>014N       | 120W 0           | 06 NW1/4SW1/4<br>06 SE1/4SE1/4 | L6<br>A                |                        |                       | Burton Springs Creek<br>Sulphur Creek Canvon Springs | 3.2<br>0.8          |                    | 0 3.           | 3.2 Reservoir<br>0.8 Reservoir                             | 41.21746<br>41.21493       | -111.00369 External<br>-110.98879 External   |

|                  | v                           |  |                                |                              |   |  |                   |              |                    |  |                          |                    |                  |         |                                 |                   |                       |                     |                 |                          |                   |                        |  |
|------------------|-----------------------------|--|--------------------------------|------------------------------|---|--|-------------------|--------------|--------------------|--|--------------------------|--------------------|------------------|---------|---------------------------------|-------------------|-----------------------|---------------------|-----------------|--------------------------|-------------------|------------------------|--|
|                  |                             |  |                                |                              |   |  |                   |              |                    |  | *                        |                    |                  |         |                                 |                   |                       |                     |                 |                          | 5                 | ,                      |  |
|                  |                             |  |                                |                              |   |  |                   |              |                    |  | pe,Survey<br>urvey Suffb | (CFS)<br>tion(GPM) | arLevel (Ft)     | (N/A)   | Pump (Ft)                       |                   | Capacity at<br>(CFS)  |                     |                 | is erv oir(AF)           | Are in the second |                        |  |
|                  |                             | Priority   |                                |                              |   |  |                   |              |                    |  | rvey T)<br>mber,S        | propria            | aticWat          | gol IIe | pth Of                          | Total<br>Capacity | of a cti              | ve Ina<br>acity(Caj | ctive<br>acity( | e Facility               | SupplyT           |                        | Created                                      |
| Number<br>538.0D | Priority Date<br>09/28/1912 | e text Summary WR Status<br>09/28/191 Fully Adjudicated    | Company                        | First Name                   | CORNELISON                                    | Facility Name  | Uses<br>IRR_SW    | Twn<br>014N  | Rng Se<br>119W 19  | ec Qtr-Qtr<br>SW1/4NF1/4               | ns n                     | P≹P                | 2 <del>1</del> 3 | ž       | Stream Source                   | (AF/Yr)           | <u> 숨 운 AF)</u><br>-1 | 0 AF                | 0               | 0 Stream                 | ype ź             | 41 178939              | -110 878701 External                         |
| 418.0D           | 01/14/1980                  | 01/14/198 Cancelled  |                                |                              | Amoco Production (                            | o Millis Unit # 1 Well Water Haul  | DRI; IND SW; OI   | L; 014N      | 119W 19            | 9 SW1/4SE1/4                           |                          | 0.17               |                  |         |                                 |                   | 0.167                 | ō                   | 0               | 0 Stream                 |                   | 41.1717                | -110.87809 External                          |
| 803.0D           | 10/15/1980                  | 10/15/198 Cancelled  |                                |                              | Amoco Production (                            | o Blaine Sanders Road Water Haul   | IND SW; TEM       | 014N         | 119W 18            | B NW1/4NE1/4                           |                          | 1.33               |                  |         |                                 |                   | 1.33                  | 0                   | 0               | 0 Stream                 |                   | 41.19682               | -110.878025 External                         |
| 519.0D           | 06/08/1983                  | 06/08/198 Cancelled  |                                |                              | Bear River Contracto                          | r: Bear River Contr. Water Haul  | IND SW; TEM       | 014N<br>014N | 120W 01            | 1 NW1/4SE1/4                           |                          | 0.89               |                  |         |                                 |                   | 0.89                  | 0                   | 0               | 0 Stream                 |                   | 41.210877              | -110.874796 External                         |
| 177.0D           | 08/09/1993                  | 08/09/199 Cancelled  |                                |                              |   | Painter - Anshutz Pipeline Water Haul  | IND SW; TEM       | 014N         | 119W 07            | 7 NE1/4NW1/4                           |                          | 2.2                |                  |         |                                 |                   | 2.2                   | 0                   | 0               | 0 Stream                 |                   | 41.212398              | -110.88214 External                          |
| 3.0D             | 01/11/1902                  | 01/11/190 Fully Adjudicated<br>05/05/189 Cancelled         |                                |                              | Union Pacific Railroa<br>Rear River Developer | d Bear River Pipe Line (PIPE LINE WINDMILL STEAM PU<br>w Anderson Ditch                    | IN RAI            | 014N         | 120W 01            | L SW1/4NW1/4                           | A7-                      | 0.23               |                  |         |                                 |                   | -1                    | 0                   | 0               | 0 Stream                 |                   | 41.222607              | -110.906066 External                         |
| .0D              | 08/28/1893                  | 08/28/189 Fully Adjudicated                                |                                |                              | bear finer bevelop                            | Evanston Water Supply Ditch  | DOM SW; IRR S     | W 014N       | 119W 18            | B NW1/4NE1/4                           |                          | 0.20               |                  |         |                                 |                   | -                     | ō                   | ő               | 0 Stream                 |                   | 41.196895              | -110.912302 External                         |
| 2.0D             | 04/19/1904                  | 04/19/190 Fully Adjudicated                                |                                | Robert                       | Whittaker                                     | Whittaker Ditch  | IRR SW            | 014N         | 119W 30            | 0 NW1/4NE1/4                           |                          | 0.44               |                  |         |                                 |                   |                       | 0                   | 0               | 0 Stream                 |                   | 41.167882              | -110.879101 External                         |
| 3.00             | 06/15/1909                  | 10/18/190<br>06/15/191 Fully Adjudicated                   |                                | ROY                          | WHITTAKER                                     | ENLARGED CORNELISON DITCH  | IRR SW            | 014N<br>014N | 119W 18            | 3 SW1/45E1/4<br>3 SW1/4NE1/4           | А                        | 0.54               |                  |         |                                 |                   |                       | 0                   | 0               | 0 Stream                 |                   | 41.186028              | -110.8798 External                           |
| 42/216           | 09/22/1915                  | 09/22/191 Fully Adjudicated                                |                                | CHARLES                      | HAGEMAN                                       | ENLARGED EVANSTON WATER DITCH  | IRR_SW            | 014N         | 120W 01            | L SE1/4SE1/4                           | Α                        | 1.64               |                  |         |                                 |                   |                       | 0                   | 0               | 0 Stream                 | Orig              | ir 41.21515            | -110.892878 External                         |
| 42/217           | 09/22/1915                  | 09/22/191 Fully Adjudicated                                |                                | J M                          | PEART<br>CONSTABLE                            | ENLARGED EVANSTON WATER DITCH  | IRR SW            | 014N         | 120W 01            | L SE1/4SE1/4                           | A                        | 3.45               |                  |         |                                 |                   |                       | 0                   | 0               | 0 Stream                 | Orig              | ir 41.215133           | -110.892911 External                         |
| 42/219           | 09/22/1915                  | 09/22/191 Fully Adjudicated                                |                                | HARRY                        | BODINE  | ENLARGED EVANSTON WATER DITCH  | IRR SW            | 014N         | 120W 01            | L SE1/4SE1/4                           | A                        | 4.41               |                  |         |                                 |                   |                       | 0                   | ō               | 0 Stream                 | Orig              | ir 41.215153           | -110.892889 External                         |
| 42/379           | 09/28/1912                  | 09/28/191 Fully Adjudicated                                |                                | THOMAS                       | PAINTER                                       | CORNELISON DITCH   | IRR SW            | 014N         | 119W 19            | 9 SW1/4NE1/4                           | Α                        | 0.39               |                  |         |                                 |                   |                       | 0                   | 0               | 0 Stream                 |                   | 41.178944              | -110.878697 External                         |
| 42/589           | 08/15/1916                  | 08/15/191 Fully Adjudicated                                |                                | THOMAS                       | PAINTER                                       | ENLARGED CORNELISON DITCH  | IRR SW            | 014N         | 119W 19            | 9 SW1/4NE1/4<br>NUM1/4NE1/4            | A                        | 0.14               |                  |         |                                 |                   |                       | 0                   | 0               | 0 Stream                 |                   | 41.178944              | -110.878697 External                         |
| 43/178<br>78/318 | 05/24/1978                  | 05/24/197 Fully Adjudicated                                |                                | DENNIS N. AND GAYLE          | CORNELISON                                    | ENLARGED ANEL IRRIGATING DITCH   | IRR SW            | 014N         | 119W 10            | 0 NW1/4NE1/4                           | Ä                        | 1.46               |                  |         |                                 |                   |                       | 0                   | 0               | 0 Stream                 | Orig              | tir 41.1679            | -110.87908 External                          |
| 19/394           | 09/28/1933                  | 09/28/193 Fully Adjudicated                                | UNION PACIFIC RAILROAD COMPAN  | 4                            |   | ENL. EVANSTON WATER SUPPLY (CITY) DITCH  |                   | 014N         | 119W 18            | 8 NW1/4NE1/4                           |                          | 0.5                |                  |         |                                 |                   | 14.4                  | 0                   | 0               | 0 Stream                 |                   |                        | External                                     |
| 157<br>157       | 03/28/1875                  | 05/28/18/<br>04/15/188 Fully Adjudicated                   |                                | A                            | CORNELISON                                    | EVANSI ON WATER DITCH<br>ANEL IRRIGATING DITCH   | IRR SW            | 014N<br>014N | 120W 01            | NW1/45E1/4<br>NW1/4NF1/4<br>NW1/4NF1/4 | A                        | 2.42               |                  |         | Bear River                      |                   |                       | 0                   | 0               | 0 Stream                 | Uriginal          | 41.218942 41.169539    | -110.898433 External<br>-110.877653 External |
| 157              | 10/10/1888                  | 10/10/188 Fully Adjudicated                                | BEAR RIVER DEVELOPMENT CO      |                              | - Shire Bon                                   | KNIGHT NO. 1 DITCH   | IRR SW            | 014N         | 119W 07            | 7 SW1/4SE1/4                           | Â                        | 4.35               |                  |         | Bear River                      |                   |                       | ō                   | ő               | 0 Stream                 |                   | 41.199725              | -110.876878 External                         |
| 28/121           | 04/19/1904                  | 04/19/190 Fully Adjudicated                                | CTATE DOADD OF CHARTER         | A                            | CORNELISON                                    | ENLARGED ANEL IRRIGATING DITCH   | IRR SW            | 014N         | 119W 30            | 0 NW1/4NE1/4                           | A                        | 0.44               |                  |         | Bear River                      |                   |                       | 0                   | 0               | 0 Stream                 | 0.000             | 41.168008              | -110.878897 External                         |
| 28/168<br>28/321 | u6/29/1906<br>03/29/1901    | 05/29/190 Fully Adjudicated<br>03/29/190 Fully Adjudicated | STATE BOARD OF CHARTIES AND R  | FRANCIS                      | BAYLIES                                       | ENLARGED EVANSION WATER SUPPLY DITCH ACT EV<br>ENL ANDERSON DITCH                          | IRR SW: S&D       | 014N<br>014N | 120W 01            | L SE1/4SE1/4<br>7 SE1/4SE1/4           | A                        | 4                  |                  |         | Bear River                      |                   |                       | 0                   | 0               | 0 Stream<br>0 Stream     | Original          | 41.215197 41.19896     | -110.893136 External<br>-110.87635 External  |
| 28/343           | 08/25/1894                  | 08/25/189 Fully Adjudicated                                |                                | GEORGE                       | FORBES  | FORBES DITCH   |                   | 014N         | 121W 23            | 3 SW1/4NW1/4                           | A                        |                    |                  |         | Yellow Creek                    |                   |                       | ō                   | ō               | 0 Stream                 |                   | 41.17733               | -111.04123 External                          |
| 71/390           | 02/16/1957                  | 02/16/195 Fully Adjudicated                                | WOMING STATE DOLDD OF THE      | ALVIN                        | LESTER  | A L L PIPE LINE  | S&D               | 014N         | 119W 34            | 4 SW1/4SE1/4                           | A                        | 0.021              |                  |         | Dipping Corral Spring           |                   |                       | 0                   | 0               | 0 Spring                 | Original          | 41.1427                | -110.82141 External                          |
| 525<br>'8/318    | 05/24/1978                  | 05/24/197 Fully Adjudicated                                | WTOMING STATE BOARD OF CHAR    | DENNIS N. AND GAYLE          | CORNELISON                                    | EVANSION WATER DITCH<br>ENLARGED ANEL IRRIGATING DITCH                                     | IRR SW            | 014N<br>014N | 120W 01            | 0 NW1/4SE1/4                           | A10-                     | 1.46               |                  |         | Bear River                      |                   |                       | 0                   | 0               | 0 Stream                 | Original          | 41.218942              | -110.898433 External                         |
| 13/028           | 04/24/2000                  | 04/24/200 Fully Adjudicated                                | ROBERTSON TRUCKING INC         |                              |   | ROBERTSON 3-3 WELL   | DOM GW; MIS       | 014N         | 120W 12            | 2 NE1/4NW1/4                           | А                        | 7                  |                  |         |                                 |                   |                       | ō                   | 0               | 0 Well                   |                   | 41.21244               | -110.90285 External                          |
| 13/161           | 07/31/2000                  | 07/31/200 Fully Adjudicated                                | DEAN ACRES SURDIVISION HOMEO   | MICHAEL AND CATHLEEN         | KESSENICH                                     | BEAR CITY ONE WELL   | IRR GW            | 014N         | 119W 28            | B SW1/4SW1/4                           | A                        | 20                 |                  |         |                                 |                   |                       | 0                   | 0               | 0 Well                   |                   | 41.15804               | -110.84987 External                          |
| 13/163<br>28.0W  | 06/10/2009                  | Fully Adjudicated  | DEAN ACKES SUBDIVISION HOMEO   | DAVE                         | NORRIS  | D NORRIS NO. 2 WELL  | MIS               | 014N<br>014N | 121W 12<br>120W 12 | 2 NE1/4NW1/4<br>2 SE1/4NW1/4           | A                        | 20 200.00          | 62               | N       | 185                             |                   |                       | 0                   | 0               | 0 Well                   | N                 | 41.2118 41.2082        | -110.90125 SEO                               |
| 5.0W             | 04/01/2010                  | Fully Adjudicated  |                                | MICHAEL AND CATHLEEN         | KESSENICH                                     | BEAR CITY 2  | IRR_GW            | 014N         | 119W 28            | 8 SW1/4SW1/4                           | А                        | 27 12.00           | 3                | N       | 11                              |                   |                       | ō                   | 0               | 0 Well                   | N                 | 41.15845               | -110.8494 External                           |
| 7/498            | 03/28/1875                  | 03/28/187<br>03/28/187 Eully Adjudicated                   | WYONNING STATE BOARD OF CHAR   | JOHN STAHLEY AND             | DAVID DEAN                                    | EVANSTON WATER DITCH   | MUN SW            | 014N         | 120W 01            | L NW1/4SE1/4                           | A                        | 0.20               |                  |         | Bear River                      |                   |                       | 0                   | 0               | 0 Stream                 | Original          | 41.218942              | -110.898433 External                         |
| V 155<br>V 332   | 03/28/18/5                  | 05/28/18/ Fully Adjudicated<br>06/05/188 Fully Adjudicated | WTOMING STATE BOARD OF CHAR    | FRANCIS                      | NARRAMORE                                     | DANIEL COCHRAN DITCH   | IRR_SW            | 014N<br>014N | 120W 01<br>121W 14 | 1 SW1/4SE1/4<br>1 SW1/4NE1/4           | A                        | 1.08               |                  |         | Yellow Creek                    |                   |                       | 0                   | 0               | 0 Stream                 | Unginal           | 41.216197              | -110.891728 External                         |
| 8/333            | 12/31/1884                  | 1884 Fully Adjudicated                                     |                                | THOMAS                       | WRIGHT  | JOSEPH COOK DITCH  | IRR_SW            | 014N         | 121W 27            | 7 SE1/4NE1/4                           | L2                       | 0.22               |                  |         | Yellow Creek                    |                   |                       | 0                   | 0               | 0 Stream                 |                   | 41.16406               | -111.04423 External                          |
| 8/336            | 06/30/1886                  | 06/00/188 Fully Adjudicated                                |                                | THOMAS                       | WRIGHT  | HARRIET COOK DITCH   | IRR SW            | 014N         | 121W 27            | 7 SE1/4NE1/4                           | L2                       | 0.57               |                  |         | Yellow Creek                    |                   |                       | 0                   | 0               | 0 Stream                 | 0.000             | 41.16304               | -111.04602 External                          |
| 7/496<br>8/309   | 03/28/18/5                  | 03/28/18/ Fully Adjudicated<br>04/17/188 Fully Adjudicated | BEAR RIVER DEVELOPMENT COMPA   | ARTHUR                       | QUINN   | EAST DITCH   | IRR SW: STO       | 014N<br>014N | 120W 01            | 5 NE1/4SE1/4                           | A                        | 3.79               |                  |         | Sulphur Creek Canvon Springs    |                   |                       | 0                   | 0               | 0 Spring                 | Unginal           | 41.21515               | -110.98896 External                          |
| 4.0W             | 02/01/2010                  | Incomplete   |                                | KENNETH                      | HANSEN  | HANSEN WELL NO. 5  | IRR GW            | 014N         | 121W 14            | 4 SW1/4SW1/4                           | А                        | 550                |                  |         |                                 |                   |                       | 0                   | 0               | 0 Well                   |                   | 41.18519               | -111.04184 External                          |
| 51/061           | 10/23/1889                  | 10/23/188 Fully Adjudicated                                |                                | MARGARET AND ALEX            | JAMISON                                       | BOOTH DITCH  | IRR SW            | 014N         | 119W 30            | D SE1/4SW1/4                           | A                        | 11.24              |                  |         | Bear River                      |                   |                       | 0                   | 0               | 0 Stream                 |                   | 41.157225              | -110.881686 External                         |
| 9/112            | 09/01/2006                  | 09/01/200 Fully Adjudicated                                |                                | LAMAR                        | LYM   | LAMAR NO 1 STOCK RESERVOIR   | STO               | 014N<br>014N | 119W 30            | 1 NW1/4SW1/4                           | A                        | 0.94               |                  |         | LaMar #1 Spring Draw            |                   |                       | 0                   | 0.15            | 0.15 Reservoir           |                   | 41.203333              | -110.881686 External                         |
| 19/113           | 09/01/2006                  | 09/01/200 Fully Adjudicated                                |                                | LAMAR                        | LYM   | LAMAR NO 3 STOCK RESERVOIR   | STO               | 014N         | 119W 11            | L SW1/4SW1/4                           | А                        |                    |                  |         | LaMar #3 Spring Draw            | 0.12              |                       | 0                   | 0.12            | 0.12 Reservoir           |                   | 41.201389              | -110.810361 External                         |
| 9/114            | 09/01/2006                  | 09/01/200 Fully Adjudicated                                | ROBERTSON TRUCKING INC         | LAMAR                        | LYM   | LAMAR NO 2 STOCK RESERVOIR   | STO               | 014N         | 119W 11            | L SE1/4SE1/4                           | A                        | 0                  |                  |         | LaMar #2 Spring Draw            |                   |                       | 0                   | 1.19            | 1.19 Reservoir           |                   | 41.201444              | -110.797583 External                         |
| 2/174            | 07/12/1890                  | 07/12/189 Fully Adjudicated                                | YC RANCH LLC                   |                              |   | WAHSATCH IRRIGATING DITCH  | IRR SW            | 014N         | 121W 23            | 3 SW1/4NW1/4                           | A                        | 0.17               |                  |         | Yellow Creek                    |                   |                       | 0                   | 0               | 0 Stream                 |                   | 41.17727               | -111.0412 External                           |
| 2/175            | 07/12/1887                  | 07/12/188 Fully Adjudicated                                | YC RANCH LLC                   |                              |   | WAHSATCH IRRIGATING DITCH  | IRR SW            | 014N         | 121W 23            | 3 SW1/4NW1/4                           | Α                        | 1                  |                  |         | Yellow Creek                    |                   |                       | 0                   | 0               | 0 Stream                 |                   | 41.17732               | -111.04123 External                          |
| 2/176            | 08/25/1894                  | 08/25/189 Fully Adjudicated<br>02/28/187 Fully Adjudicated | YC RANCH LLC                   |                              |   | FORBES DITCH ACT WAHSATCH IRRIGATION DITCH<br>EVANSTON WATER DITCH                         | IRR SW            | 014N         | 121W 23            | 3 SW1/4NW1/4<br>SE1/ASE1/A             | A                        | 1.77               |                  |         | Yellow Creek                    |                   |                       | 0                   | 0               | 0 Stream                 |                   | 41.17733               | -111.04123 External                          |
| 19/069           | 07/12/2004                  | Fully Adjudicated  | ROBERTSON TRUCKING, INC.       |                              |   | ROBERTSON 4-4 WELL   | DOM GW; MIS       | 014N         | 120W 12            | 2 NE1/4NW1/4                           | Â                        | 15                 |                  |         | Dear Hiver                      |                   |                       | ō                   | ő               | 0 Well                   |                   | 41.211456              | -110.902764 External                         |
| 19/070           | 09/06/2011                  | Fully Adjudicated  | ROBERTSON TRUCKING, INC.       |                              |   | ENL. ROBERTSON 4-4 WELL  | DOM GW            | 014N         | 120W 12            | 2 NE1/4NW1/4                           | A                        | 0                  |                  |         |                                 |                   |                       | 0                   | 0               | 0 Well                   |                   | 41.211444              | -110.902747 SEO                              |
| 9/072<br>2 0M    | 06/10/2009                  | Fully Adjudicated  |                                | DAVID                        | NORRIS  | D. NORRIS NO. 2 WELL   | MIS<br>DOM GW-STK | 014N         | 120W 12            | 2 SE1/4NW1/4<br>NW1/4NE1/4             | A                        | 20                 |                  |         | 185                             |                   |                       | 0                   | 0               | 0 Well                   |                   | 41.207925              | -110.902667 SEO                              |
| /048             | 12/31/1886                  | 1886 Fully Adjudicated                                     | BEAR RIVER DEVELOPMENT CO      | inde.                        | Lounan  | KNIGHT NO. 2 DITCH ACT KNIGHT NO. 1 AND NO. 2 D  | IT IRR SW         | 014N         | 119W 18            | B NW1/4NE1/4                           | Â                        | 2.75               |                  |         | Bear River                      |                   |                       | ō                   | ő               | 0 Stream                 |                   | 41.196697              | -110.877981 External                         |
| 3/068            | 04/15/1887                  | 04/15/188 Fully Adjudicated                                |                                | A. R.                        | CORNELISON                                    | ANEL IRRIGATING DITCH  | IRR SW            | 014N         | 119W 30            | 0 NW1/4NE1/4                           | A                        |                    |                  |         | Bear River                      |                   |                       | 0                   | 0               | 0 Stream                 |                   | 41.168008              | -110.878897 External                         |
| 3/09/<br>8/078   | 12/31/1888                  | 1888 Fully Adjudicated<br>10/10/188 Fully Adjudicated      | BEAR RIVER DEVELOPMENT COMPL   | 1<br>6                       |   | EVANSION WATER SUPPLY DITCH ACT EVANSION W<br>KNIGHT NO 1 DITCH ACIPT KNIGHT NO 1 AND NO 2 | A DOM_SW; IRR_S   | 014N         | 120W 01            | L SE1/4SE1/4<br>7 SW1/4SE1/4           | A<br>A                   | 1.57               |                  |         | Bear River<br>Bear River        |                   |                       | 0                   | 0               | 0 Stream                 | Original          | 41.215197<br>41.199725 | -110.893136 External<br>-110.876878 External |
| 1.0W             | 07/11/2013                  | Incomplete   |                                | COLTON                       | ELLINGFORD                                    | POVERTY FLAT WELL#1  | DOM_GW            | 014N         | 119W 32            | 2 NW1/4SE1/4                           | A                        | 25                 |                  |         |                                 |                   |                       | ō                   | ō               | 0 Well                   |                   | 41.145747              | -110.859744 SEO                              |
| .OR              | 09/12/1983                  | Complete   | YELLOW CREEK ESTATES PARTNERS  | BARLO                        | HERMANDEZ                                     | YELLOW CREEK ETATES SEWAGE   | IND SW            | 014N         | 120W 06            | 5 NW1/4NW1/4                           | L4                       | 25                 |                  |         | Sulphur Creek Canyon Springs    |                   |                       | 0                   | 22.66           | 22.66 Reservoir          |                   | 41.225147              | -111.002278 SEO                              |
| /500             | 12/31/1878                  | 1878 Fully Adjudicated                                     |                                | DAVID                        | BARTON  | WILSON IRRIGATING DITCH  | IRR SW            | 014N         | 119W 28<br>120W 02 | 2 NE1/4NW1/4                           | L3                       | 23                 |                  |         | Bear River                      |                   |                       | 0                   | 0               | 0 stream                 |                   | 41.22468               | -110.92012 External                          |
| 8.0W             | 10/02/2013                  | Cancelled  |                                | CLARK AND ARDEN              | LAWLAR  | TEST WELL #1   | TST               | 014N         | 121W 12            | 2 SW1/4NW1/4                           | А                        | 0                  |                  |         |                                 |                   |                       | 0                   | 0               | 0 Well                   |                   | 41.20756               | -111.0223 SEO                                |
| 9/302            | 04/01/2010                  | Fully Adjudicated  |                                | MICHAEL AND CATHLEEN         | KESSENICH                                     | BEAR CITY 2 WELL   | IRR GW            | 014N         | 119W 28            | B SW1/4SW1/4                           | A                        | 27                 |                  |         | 11<br>Valley Creek              |                   | 7                     | 0                   | 0               | 0 Well                   |                   | 41.15845               | -110.8494 External                           |
| /152             | 04/10/2008                  | 04/10/200 Fully Adjudicated                                |                                | KENNETH                      | HANSEN  | COY RESERVOIR  | IRR SW; WL        | 014N         | 121W 23            | 4 SW1/4SE1/4                           | Ä                        | u./                |                  |         | Yellow Creek                    |                   | /                     | 76.9                | 3.4             | 80.3 Reservoir           |                   | 41.18694               | -111.03278 External                          |
| 8.0W             | 04/18/2014                  | Complete   |                                | THOMAS E AND STARLA M        | FAIRLESS                                      | FAIRLESS WELL 1  | DOM GW            | 014N         | 119W 28            | B SE1/4SE1/4                           | А                        | 18 140.00          | 87               | N       | 122                             |                   |                       | 0                   | 0               | 0 Well                   | N                 | 41.15852               | -110.83652 SEO                               |
| 6.0W             | 04/28/2014                  | Incomplete   |                                | DAVID                        | BAIN  | BAIN #1<br>HANSEN SLOUIGH  | DOM GW            | 014N         | 119W 29            | 9 NW1/4NE1/4<br>SW1/4NE1/4             | A                        | 25                 |                  |         | Hansen Slouth                   | 2.02              |                       | 0                   | 0               | 0 Well                   |                   | 41.16823               | -110.8598 SEO                                |
| 7.0W             | 06/02/2014                  | Complete   |                                | STEPHEN                      | COX   | STEVE COX #1   | DOM GW; STK       | 014N         | 121W 14<br>120W 02 | 2 SW1/4NE1/4                           | Ä                        | 15 134.00          | 21               | N       | 100                             | 2.03              |                       | 2.03                | 0               | 2.03 Reservoir<br>0 Well | N                 | 41.22205               | -110.91598 SEO                               |
| 0.0W             | 06/09/2014                  | Complete   |                                | GEOFFREY J AND JODY R        | PHILLIPS                                      | PHILLIPS   | DOM GW;STK        | 014N         | 119W 29            | NW1/4NW1/4                             | A                        | 15 180.00          | 21               | N       | 75                              |                   |                       | 0                   | 0               | 0 Well                   | N                 | 41.16643               | -110.8678 SEO                                |
| 00<br>5 0W       | 08/28/2013                  | Incomplete   |                                | CLARK AND ARDEN              | LAWLAR  | LAWLAR DITCH   | IRK SW; STO       | 014N         | 121W 14            | SW1/4NE1/4<br>SE1/4SW1/4               | A<br>A                   | 0.23               |                  |         | fellow Creek                    |                   | 0.484                 | U<br>O              | 0               | 0 Stream<br>0 Well       |                   | 41.1933<br>41.20176    | -111.0336 External<br>-111.01765 SEO         |
| /318             | 12/22/1964                  | 12/22/196 Fully Adjudicated                                |                                | DENNIS H AND GAYLE           | CORNELISON                                    | SARAH CORELISON AND SONS NO 1 STOCK RESERVO  | IR STO            | 014N         | 119W 17            | 7 SW1/4NE1/4                           | Â                        | 300                |                  |         | Knight Swale                    | 0.48              |                       | ō                   | 0.48            | 0.48 Reservoir           |                   | 41.19506               | -110.85914 External                          |
| /319             | 01/28/1955                  | 01/28/195 Fully Adjudicated                                | LAMAR A AND LAURIE A LYM TRUST | T                            |   | LYM NO. 1 STOCK RESERVOIR  | STO               | 014N         | 119W 12            | 2 SE1/4SW1/4                           | A                        |                    |                  |         | Tunnel Draw                     | 0.66              |                       | 0                   | 0.66            | 0.66 Reservoir           |                   | 41.20008               | -110.78942 External                          |
| 320              | u1/28/1955<br>09/12/1982    | 01/28/195 Fully Adjudicated<br>Fully Adjudicated           | LIBROZ RANCH LLC               | PETE                         | LTM   | LTMI NUL 2 STUCK RESERVOIR<br>YELLOW CREEK ESTATES SEWAGE RESERVOIR                        | IND SW            | 014N<br>014N | 120W 04            | 5 SE1/4SE1/4<br>5 NW1/4NW1/4           | A<br>14                  |                    |                  |         | Sulphur Creek Canyon Soringe    | 0.63              |                       | 0                   | 0.63            | 22.66 Reservoir          |                   | 41.18647               | -110.77861 External                          |
| /346             | 05/05/2014                  | Fully Adjudicated  | YC RANCH LLC                   |                              |   | HANSEN SLOUGH RESERVOIR  | CMU; STO; WL      | 014N         | 121W 14            | 4 SW1/4NE1/4                           | A                        |                    |                  |         | Hansen Slough                   | 2.03              |                       | 0.75                | 1.28            | 2.03 Reservoir           |                   | 41.19333               | -111.03278 External                          |
| 1.0W             | 04/06/2015                  | Incomplete   |                                | KENNETH                      | HANSEN  | HANSEN WELL NO. 6  | IRR GW; STK       | 014N         | 121W 14            | 4 SW1/4SW1/4                           | A                        | 150                |                  |         | Contra Contra                   | o ·               |                       | 0                   | 0               | 0 Well                   |                   | 41.18574               | -111.04168 SEO                               |
| 40/4<br>10W      | 12/24/1964                  | 12/24/196 Fully Adjudicated<br>Fully Adjudicated           | CITY OF EVANSTON               | DAN E AND MARY ANN<br>BRIAN  | HONEY   | STEVESTER LESTER NO. 1 STOCK RESERVOIR<br>WASTEWATER PLANT #2                              | MIS               | 014N<br>015M | 120W 03            | 5 SE1/4SE1/4<br>7 SW1/4SW1/4           | L6<br>A                  | 18 220 00          | 50               | N       | Sopher Swale                    | U.48              |                       | 0                   | 0.48            | 0.48 Reservoir           | N                 | 41.14151               | -110./9564 External<br>External              |
| ow               | 12/14/1977                  | Complete   |                                | LES                          | HURST   | HURST #2   | DOM_GW            | 015N         | 121W 25            | 5 NW1/4SW1/4                           | 17                       | 11 80.00           | 50               |         |                                 |                   |                       | ō                   | ő               | 0 Well                   | N                 | 41.24754               | -111.02226 External                          |
| 0W               | 05/13/1980                  | Complete   | UINTA BIBLE CHURCH             |                              | 00070   | UINTA BIBLE CHURCH #1  | MIS               | 015N         | 121W 25            | 5 NW1/4SW1/4                           | A                        | 10 250.00          | 50               |         |                                 |                   |                       | 0                   | 0               | 0 Well                   | N                 | 41.24754               | -111.02226 External                          |
| .0W<br>.0W       | u//25/1980<br>10/27/1981    | Complete   |                                | DWAIN L. AND DONNA<br>BONNIE | RANCK   | CHADWICK #1  | DOM_GW            | 015N<br>015N | 121W 25            | 5 NW1/45W1/4<br>5 NW1/45W1/4           | L1<br>L8                 | 25 125.00          | 30               |         |                                 |                   |                       | 0                   | 0               | 0 Well                   | N                 | 41.24/54 41.24787      | -111.02226 External<br>-111.02286 External   |
| .0S              | 05/16/1988                  | 05/16/198 Complete   |                                |                              |   | ENL  | STO               | 015N         | 120W 14            | 4 SE1/4SW1/4                           | A                        |                    |                  |         | Quaker Draw West                | 1.13              |                       | 0.57                | ŏ               | 1.13 Reservoir           |                   | 41.272017              | -110.922256 External                         |
| D                | 08/12/1891                  | 08/12/189 Cancelled  |                                | ALBERT                       | DUNCOMB                                       | DUNCOMB DITCHES NOS. 1 & 2   |                   | 015N         | 119W 15            | 5 SE1/4SE1/4                           | A                        | 1.71               |                  |         | Five Springs                    |                   | -1                    | 0                   | 0               | 0 Spring                 |                   | 41.27455               | -110.81536 External                          |
| .0D              | 08/25/1891<br>07/13/1895    | us/25/189 Cancelled<br>07/13/189 Fully Adjudicated         |                                | WILLIAM<br>SARAH ANN         | 5PENCE<br>FAULKNER                            | SPENCE IRRIGATING DITCH<br>Faulkner Ditch  | IRR SW            | 015N<br>015N | 120W 16<br>120W 23 | 5 5E1/4SW1/4<br>2 NE1/4SE1/4           | А                        | 0.36               |                  |         | slough of Bear River (Evanston) |                   | -1                    | U<br>O              | 0               | 0 Stream<br>0 Stream     |                   | 41.27293               | -110.96022 External<br>External              |
| aD               | 08/01/1895                  | 08/01/189 Cancelled  |                                | JOHN                         | FELTER  | Felter & Wilson High Line Ditch  | IRR SW            | 015N         | 120W 22            | 2 SE1/4SE1/4                           |                          | 4.57               |                  |         |                                 |                   |                       | 0                   | 0               | 0 Stream                 |                   | 41.25776               | -110.930937 External                         |
| .0D              | 01/19/1911                  | 01/19/191 Fully Adjudicated                                |                                | IOHN                         | Pacific Express Co.                           | Pacific Fruit Express Company, Ice Ponds, Dam, Wate  | TV DOM SW; RAI; R | RE: 015N     | 120W 21            | L NE1/4NE1/4                           |                          | 2.89               |                  |         |                                 |                   |                       | 0                   | 0               | 0 Stream                 |                   | 41.269206              | -110.949205 External                         |
| .0D              | 05/14/1896                  | 01/13/189 Fully Adjudicated<br>05/14/189 Fully Adjudicated |                                | George                       | CUNNINGTON SR.<br>Durnford                    | Durnford-Danks Ditch   | IRR SW            | 015N<br>015N | 120W 07<br>120W 16 | 5 NW1/45E1/4<br>5 NW1/4NW1/4           |                          | 1.21               |                  |         |                                 |                   | -1                    | 0                   | 0               | 0 Stream                 |                   | 41.28/256 41.283626    | -110.993522 External<br>-110.966169 External |
|                  |                             |  |                                |                              |   |  |                   |              |                    |  |                          |                    |                  |         |                                 |                   |                       |                     |                 |                          |                   |                        |  |

| UINTA COUNT                | (   |                                |                            |   |  |                                  |                      |                    |                          |  |              |                         |  |                       |                      |                  |                                   |                                      |  |
|----------------------------|---|--------------------------------|----------------------------|---|--|----------------------------------|----------------------|--------------------|--------------------------|--|--------------|-------------------------|--|-----------------------|----------------------|------------------|-----------------------------------|--------------------------------------|--|
|                            |   |                                |                            |   |  |                                  |                      |                    |                          | Suffix<br>Suffix                                       | ſ            | al (Ft)                 | (F1)                                     | te Ajo                |                      |                  | dr(AF)                            | (N/A)sis                             |  |
|                            |   |                                |                            |   |  |                                  |                      |                    |                          | ey Type, Su<br>ber, Survey<br>Flow(CFS)<br>opriation(G | depth (Fi)   | cWaterLeve<br>Log (Y/N) | h Of Pump                                | Total g               | gate (CFS)<br>vitor  | Inactive         | of Reservo                        | nical Analy                          |  |
| WR Number                  | Priority<br>Priority Date text Summary WR Status                                  | Company                        | First Name                 | Last Name                                   | Facility Name  | Uses                             | Twn                  | Rng Se             | c Qtr-Qtr                | Surv.<br>Numl<br>Total                                 | Total        | Static                  | Stream Source                            | Capacity §<br>(AF/Yr) | 월 Capacity(<br>로 AF) | Capacity(<br>AF) | e Facility SupplyT                | E Latitude L                         | Created<br>ongitude By                       |
| P1229.0D<br>P1354.0D       | 05/18/1896 05/18/189 Fully Adjudicated<br>11/02/1896 11/02/189 Cancelled          |                                | John<br>LABAN              | HEWARD                                      | Bruce-Barton Ditch<br>Heward Ditch   | IRR SW<br>IRR SW                 | 015N<br>015N         | 120W 17<br>120W 18 | SE1/4NW1/4<br>NE1/4NW1/4 | 0.73   | 4            |                         |  |                       | 0                    | 0                | 0 Stream<br>0 Stream              | 41.280292<br>41.283836               | -110.9/9214 External<br>-110.998281 External |
| P1488.0D<br>P15182.0D      | 03/20/1897 03/20/189 Fully Adjudicated<br>08/09/1918 08/09/191 Unadjudicated      |                                | WILLIAM<br>Frank           | LONGDON<br>Wadsworth                        | Longdon Ditch<br>Wadsworth Ditch   | DOM SW; IRR :<br>IRR SW          | SW 015N<br>015N      | 120W 17<br>120W 35 | SW1/4NE1/4<br>SE1/4NW1/4 | 0.57   | 7            |                         |  | (                     | -1 0<br>.13 0        | 0                | 0 Stream<br>0 Stream              | 41.280447<br>41.237949               | -110.974305 External<br>-110.920129 External |
| P1575.0D                   | 09/09/1897 09/09/189 Fully Adjudicated  |                                | THOMAS S.                  | JOHNSTON                                    | Johnson & Narramore Ditch  | IRR SW                           | 015N                 | 120W 16            | NW1/4SW1/4               | 1.29   | 9            |                         |  |                       | 0                    | 0                | 0 Stream                          | 41.276252                            | -110.96611 External                          |
| P1607.0D<br>P16374.0D      | 05/24/189 / 05/24/189 Fully Adjudicated<br>03/25/1920 03/25/192 Fully Adjudicated |                                | GEORGE A.                  | NEVILLE                                     | Lyndon Ditch<br>Neville Ditch  | IRR SW<br>IRR SW                 | 015N<br>015N         | 120W 22<br>120W 07 | NE1/4NW1/4               | 0.11   | 4            |                         |  | 2                     | -1 0<br>.86 0        | 0                | 0 Stream<br>0 Stream              | 41.258472<br>41.297867               | -110.945/11 External<br>-110.998593 External |
| P1662.0D                   | 11/17/1897 11/17/189 Fully Adjudicated  |                                | Peter                      | Danks<br>Industrial Rinelines In            | Danks Ditch<br>w Water Supply Pine Line  | IRR SW                           | 015N                 | 120W 16            | NE1/4SW1/4               | 0.27   | 7            |                         |  |                       | -1 0                 | 0                | 0 Stream                          | 41.27802                             | -110.960249 External                         |
| P25243.0D                  | 11/19/1976 11/19/197 Cancelled  |                                |                            | industrial repetities in                    | Champlin 349-Amoco "A" Well No. 1 ( Water Haul)  | DRI; IND SW; O                   | NL; 015N             | 120W 21            | NE1/4NE1/4               | 0.35   | 9            |                         |  | (                     | .39 0                | 0                | 0 Stream                          | 41.269036                            | -110.948957 External                         |
| P25247.0D<br>P25258.0D     | 11/26/1976 11/26/197 Cancelled<br>12/06/1976 12/06/197 Cancelled                  |                                |                            |   | Champlin 352-Amoco "A" Well No. 1 (Water Haul)<br>Champlin 363-Amoco "A" Well No. 1 (Water Haul) | DRI; IND_SW; O<br>DRI: IND_SW: O | NL; 015N<br>NL: 015N | 120W 21<br>120W 21 | NE1/4NE1/4<br>NE1/4NE1/4 | 0.39   | 9            |                         |  | (                     | .39 0<br>.39 0       | 0                | 0 Stream<br>0 Stream              | 41.269057<br>41.269044               | -110.948997 External<br>-110.948979 External |
| P25826.0D                  | 07/07/1978 07/07/197 Cancelled  |                                |                            | Wyo. State Highway                          | D I-80-1(61) Water Haul  | IND_SW; MIS_S                    | W; 015N              | 120W 22            | NW1/4NW1/4               | 1  | 1            |                         |  |                       | 1 0                  | 0                | 0 Stream                          | 41.268234                            | -110.946143 External                         |
| P26019.0D<br>P26020.0D     | 12/29/19/8 12/29/19/ Cancelled<br>12/29/1978 12/29/197 Cancelled                  |                                |                            | Amoco Production C<br>Amoco Production C    | o Amoco Production Co. Bradbury Well #1 Water Haul<br>o Amoco Production Moon Well #1 Water Haul | DRI; IND_SW; O<br>DRI; IND_SW; O | NL; 015N<br>NL; 015N | 120W 21<br>120W 21 | NE1/4NW1/4<br>NE1/4NW1/4 | 0.35   | 9            |                         |  | (                     | .39 0                | 0                | 0 Stream<br>0 Stream              | 41.270357                            | -110.959804 External<br>-110.95978 External  |
| P26046.0D                  | 01/27/1979 01/27/197 Cancelled  |                                |                            | Amore Production C                          | Cities Service Company - Carpenter A-2   | DRI; IND SW; O                   | NL; 015N             | 120W 31            | NW1/4SE1/4               | 0.2  | 2            |                         |  | ,                     | 0.2 0                | 0                | 0 Stream                          | 41.232998                            | -110.993582 External                         |
| P26121.0D                  | 04/10/1979 04/10/197 Cancelled  |                                |                            | Amoco Production G                          | o Bountiful Livestock Well #1  | DRI; IND SW; O<br>DRI; IND SW; O | NL; 015N<br>NL; 015N | 120W 21<br>120W 21 | NE1/4NW1/4<br>NE1/4NW1/4 | 0.35   | 9<br>7       |                         |  | 0.                    | 167 0                | 0                | 0 Stream                          | 41.270363                            | -110.959828 External                         |
| P26169.0D                  | 05/22/1979 05/22/197 Cancelled<br>02/05/1979 02/05/197 Cancelled                  |                                |                            | Amoco Production G                          | o Amoco Cities Well #2 Water Haul  | DRI; IND SW; O                   | NL; 015N             | 120W 21            | NE1/4NW1/4               | 0.39   | 9            |                         |  | 0                     | 39 0                 | 0                | 0 Stream                          | 41.270366                            | -110.959853 External                         |
| P26419.0D                  | 01/14/1980 01/14/198 Cancelled  |                                |                            | Amoco Production G                          | b Blain Sanders # A-1 Water Haul   | DRI; IND SW; O                   | NL; 015N             | 120W 21            | NW1/4NW1/4               | 0.35   | 7            |                         |  | 0.                    | 167 0                | 0                | 0 Stream                          | 41.268224                            | -110.946123 External                         |
| P26601.0D<br>P268.0D       | 05/30/1980 05/30/198 Cancelled<br>05/02/1892 05/02/189 Fully Adjudicated          |                                |                            | R.W. Jones Trucking                         | C R.W. Jones Water Service<br>Almy Ditch   | DRI; IND SW; TI<br>IRR SW        | EM 015N<br>015N      | 120W 21<br>121W 01 | NW1/4NE1/4<br>NE1/4SF1/A | 0.62<br>A13- 0.94                                      | 2<br>6       |                         |  | (                     | -1 0                 | 0                | 0 Stream<br>0 Stream              | 41.270429<br>41 30554                | -110.954756 External<br>-111.00642 External  |
| P27051.0D                  | 03/20/1981 03/20/198 Cancelled  |                                |                            |   | Boyd Trucking, Inc. Water Haul   | DRI; IND SW; O                   | NL; 015N             | 121W 01            | NW1/4NE1/4               | 0.44   | 4            |                         |  | (                     | .44 0                | ő                | 0 Stream                          | 41.311967                            | -111.010559 External                         |
| P27515.0D<br>P27518.0D     | 02/26/1982 02/26/198 Cancelled<br>03/08/1982 03/08/198 Cancelled                  |                                |                            | Overthrust Chemical<br>Robert V. Burggraf C | 5 Overthrust Water Haul<br>a Bear River #1 Water Haul  | DRI; IND SW; O<br>IND SW; TEM    | 015N<br>015N         | 120W 21<br>120W 21 | NW1/4NE1/4<br>NE1/4NW1/4 | 0.56   | 6<br>B       |                         |  | 6                     | .56 0                | 0                | 0 Stream<br>0 Stream              | 41.270436<br>41.270369               | -110.954781 External<br>-110.959876 External |
| P27794.0D                  | 10/22/1982 10/22/198 Cancelled  |                                |                            | Amoco Production C                          | o Champlin 545 Amoco B #1 Waterhead  | DRI; IND SW; O                   | NL; 015N             | 120W 21            | NE1/4NE1/4               | 0.3  | 3            |                         |  |                       | 0.3 0                | 0                | 0 Stream                          | 41.269028                            | -110.948935 External                         |
| P30786.0D<br>P31375.0D     | 03/06/1991 03/06/199 Fully Adjudicated<br>07/15/1994 07/15/199 Complete           | CITY OF EVANSTON               |                            |   | Michael Sims Ditch<br>BEAR PROJECT PIPELINE  | RES                              | 015N<br>015N         | 120W 07<br>120W 21 | SW1/4NE1/4<br>NE1/4NE1/4 | 2.11<br>A 2.85   | 1<br>9 64.62 |                         |  | 2                     | 13 0<br>.89 0        | 0                | 0 Stream                          | 41.294511<br>41.27028                | -110.993069 External<br>-110.94834 External  |
| P5869.0E                   | 09/25/1956 09/25/195 Fully Adjudicated  |                                | LAFEARN                    | SIMS  | FIRST ENLARGEMENT OF John Sims Ditch   | IRR SW                           | 015N                 | 120W 06            | NE1/4SE1/4               | A 1.47   | 7            |                         |  | 20                    | .66 0                | 0                | 0 Stream                          | 41.306075                            | -110.990256 External                         |
| P8288.0D<br>CR CC28/094    | 03/19/1908 03/19/190 Fully Adjudicated<br>07/13/1895 07/13/189                    |                                | THOMAS<br>CHARLES          | SAXTON<br>FAULKNER                          | Saxton Thomas Ditch<br>FAULKNER DITCH  | IRR SW<br>IRR SW                 | 015N<br>015N         | 120W 07<br>120W 22 | NE1/4NW1/4<br>SE1/4SE1/4 | 1.68   | B<br>1       |                         |  |                       | -1 0                 | 0                | 0 Stream<br>0 Stream              | 41.297836<br>Origir 41.25847         | -110.998552 External<br>-110.93144 External  |
| CR CC28/095                | 07/13/1895 07/13/189  |                                | SARAH ANN                  | FAULKNER                                    | FAULKNER DITCH   | IRR SW                           | 015N                 | 120W 22            | SE1/4SE1/4               | 0.57   | 7            |                         |  |                       | 0                    | 0                | 0 Stream                          | Origir 41.25847                      | -110.93144 External                          |
| CR CC28/098<br>CR CC28/100 | 03/20/1897 03/20/189 Fully Adjudicated<br>09/09/1897 09/09/189 Fully Adjudicated  |                                | WILLIAM                    | NARRAMORE                                   | LONGDON DITCH ACT ROCKY MOUNTAIN AND BLYTE<br>JOHNSON AND NARRAMORE DITCH                        | IT IRR SW<br>IRR SW              | 015N<br>015N         | 120W 22<br>120W 16 | SE1/4NW1/4<br>NW1/4SW1/4 | A 0.57<br>A 0.14                                       | 4            |                         |  |                       | 0                    | 0                | 0 Stream<br>0 Stream              | 0rigir 41.265742<br>41.276256        | -110.940931 External<br>-110.966075 External |
| CR CC28/119                | 06/14/1902 06/14/190 Fully Adjudicated  |                                | JOSEPH                     | FIFE  | ENLARGED FIFE IRRIGATING DITCH ACT PUMP  | IRR_SW                           | 015N                 | 120W 16            | NW1/4SW1/4               | A 0.23   | 3            |                         |  |                       | 0                    | 0                | 0 Stream                          | Origir 41.276233                     | -110.966103 External                         |
| CR CC32/032<br>CR CC34/316 | 05/06/1909 05/06/190 Cancelled<br>03/19/1908 03/19/190 Fully Adjudicated          | UNION PACIFIC RAILROAD COMPAT  | MARTHA                     | SAXTON                                      | ENLARGED EVANSION PIPE LINE<br>SAXTON-THOMAS DITCH   | IRR_SW                           | 015N<br>015N         | 120W 26<br>120W 07 | NW1/4SW1/4<br>NE1/4NW1/4 | A 0.48   | в            |                         |  |                       | 0                    | 0                | 0 Stream<br>0 Stream              | Origir 41.24761<br>Origir 41.297839  | -110.92659 External<br>-110.998553 External  |
| CR CC34/317                | 03/19/1908 03/19/190 Fully Adjudicated  |                                | JAMES                      | CHESNEY                                     | SAXTON-THOMAS DITCH  | IRR SW                           | 015N                 | 120W 07            | NE1/4NW1/4               | A 1.2  | 2            |                         |  |                       | 0                    | 0                | 0 Stream                          | Origir 41.297839                     | -110.99855 External                          |
| CR CC37/495                | 03/11/1911 03/11/191 Fully Adjudicated  |                                | WILLIAM                    | NARRAMORE                                   | ENLARGED SIMS BEIGHT AND TORNER DITCH  | IRR_SW                           | 015N                 | 120W 16            | NW1/4SW1/4               | A 0.2  | *<br>2       |                         |  |                       | 0                    | 0                | 0 Stream                          | Origir 41.313835<br>Origir 41.276247 | -110.966108 External                         |
| CR CC38/252                | 08/05/1909 08/05/190 Fully Adjudicated  | ROCKY MOUNTAIN COAL AND IRON   | N                          |   | ENLARGED ROCKY MOUNTAIN AND BLYTH DITCH AC   | IRR SW                           | 015N                 | 120W 07            | SE1/4NE1/4               | A 0.95   | 9            |                         |  |                       | 0                    | 0                | 0 Stream                          | Origir 41.294833                     | -110.988725 External                         |
| CR CC38/255                | 12/04/1914 12/04/191 Fully Adjudicated  | PACIFIC PROTI EXPRESS CO.      | LILLIAN H CROMPTON         | WARDLE                                      | ENLARGED CROMPTON IRRIGATING DITCH   | IRR SW                           | 015N                 | 120W 21            | SE1/4NW1/4               | A 0.27   | 7            |                         |  |                       | 0                    | 0                | 0 Stream                          | 41.265619                            | -110.940933 External                         |
| CR CC41/027                | 03/28/1916 03/28/191 Fully Adjudicated  |                                | ETHEL                      | CARROLL                                     | ENLARGED FELTER DITCH  | DOM SW; IRR :                    | SW 015N              | 120W 16            | SW1/4SE1/4               | A 0.17   | 7            |                         |  |                       | 0                    | 0                | 0 Stream                          | 41.272989                            | -110.955383 External                         |
| CR CC41/028<br>CR CC41/029 | 12/04/1914 12/04/191 Fully Adjudicated  |                                | LILLIAN H CROMPTON         | WARDLE                                      | ENLARGED ROCKY MOUNTAIN AND BLYTH DITCH  | IRR SW                           | 015N                 | 120W 10            | SE1/4NW1/4               | A 0.03   | 7            |                         |  |                       | 0                    | 0                | 0 Stream                          | 41.276428<br>Origir 41.265756        | -110.940936 External                         |
| CR CC41/251<br>CR CC43/120 | 07/05/1911 07/05/191 Fully Adjudicated<br>07/26/1920 07/26/192 Fully Adjudicated  |                                | CHONG LOCK<br>BERT         | CHOONG<br>BENTSON                           | CHOONG DITCH<br>ENLARGED NEVILLE DITCH ACT S P DITCH   | IRR SW<br>IRR SW                 | 015N<br>015N         | 120W 21<br>120W 06 | NW1/4NW1/4<br>SW1/4SW1/4 | A 0.03   | 3<br>6       |                         |  |                       | 0                    | 0                | 0 Stream<br>0 Stream              | 41.270078<br>Origin 41.301947        | -110.964678 External<br>-111.002967 External |
| CR CC43/660                | 03/25/1920 03/25/192 Fully Adjudicated  |                                | GEORGE                     | NEVILLE                                     | NEVILLE DITCH ACT S P DITCH  | IRR SW                           | 015N                 | 120W 06            | SW1/4SW1/4               | L7 0.74  | 4            |                         |  |                       | 0                    | 0                | 0 Stream                          | Origir 41.301922                     | -111.002961 External                         |
| CR CC45/336<br>CR CC52/255 | 10/13/1916 10/13/191 Fully Adjudicated<br>11/13/1934 11/13/193 Fully Adjudicated  |                                | J H<br>ROY AND RUEL LESTER | CROMPTON                                    | ENLARGED ADIN BROWN DITCH ACT S P DITCH<br>ENLARGED ROCKY MOUNTAIN AND BLYTH DITCH               | IRR SW<br>RES                    | 015N<br>015N         | 120W 06<br>120W 22 | SW1/4SW1/4<br>SE1/4NW1/4 | L7 0.6   | 6<br>D       |                         |  |                       | 0                    | 0                | 0 Stream<br>0 Stream              | Origir 41.301944<br>Origir 41.265756 | -111.002969 External<br>-110.940939 External |
| CR CC64/234                | 10/13/1916 10/13/191 Fully Adjudicated  |                                | HUBERT                     | FADDIS                                      | ENLARGED ADIN BROWN DITCH ACT S P DITCH  | IRR SW                           | 015N                 | 120W 06            | SW1/4SW1/4               | L7 0.64  | 4            |                         |  |                       | 0                    | 0                | 0 Stream                          | Origir 41.301936                     | -111.002969 External                         |
| CR CC64/235<br>CR CC64/236 | 08/16/1922 08/16/192 Fully Adjudicated<br>08/16/1922 08/16/192 Fully Adjudicated  | UNION PACIFIC COAL CO.         | ABEL, EINO AND FLORA       | SALMELA                                     | ENLARGED NEVILLE DITCH ACT S P DITCH<br>ENLARGED NEVILLE DITCH ACT S P DITCH                     | IRR SW<br>IRR SW                 | 015N<br>015N         | 120W 06<br>120W 06 | SE1/4SW1/4<br>SE1/4SW1/4 | A 0.06   | 6            |                         |  |                       | 0                    | 0                | 0 Stream<br>0 Stream              | Origir 41.301961<br>Origir 41.301469 | -110.998333 External<br>-110.998356 External |
| CR CC66/460                | 09/25/1956 09/25/195 Fully Adjudicated  |                                | LESTER                     | SIMS  | ENLARGED JOHN SIMS DITCH   | IRR SW                           | 015N                 | 120W 07            | NE1/4SE1/4               | A 0.41   | 1            |                         |  |                       | 0                    | 0                | 0 Stream                          | 41.290992                            | -110.9884 External                           |
| CR CC67/023                | 09/25/1956 09/25/195 Fully Adjudicated  |                                | HEBER                      | BELL  | ENLARGED JOHN SIMS DITCH   | IRR SW                           | 015N                 | 120W 07            | NE1/4SE1/4               | A 0.05   | *<br>5       |                         |  |                       | 0                    | 0                | 0 Stream                          | 41.290994                            | -110.988397 External                         |
| CR CC67/025                | 09/25/1956 09/25/195 Fully Adjudicated  |                                | RONALD                     | SIMS  | ENLARGED JOHN SIMS DITCH   | IRR SW                           | 015N                 | 120W 07            | NE1/4SE1/4               | A 0.26   | 5            |                         |  |                       | 0                    | 0                | 0 Stream                          | 41.291014                            | -110.988397 External                         |
| CR CC67/210                | 09/25/1956 09/25/195 Fully Adjudicated  |                                | RALPH                      | SIMS  | ENLARGED S P DITCH   | IRR_SW                           | 015N                 | 120W 07            | SE1/4NE1/4               | A 1.55   | 9            |                         |  |                       | 0                    | ő                | 0 Stream                          | 41.293614                            | -110.987906 External                         |
| CR CC71/103<br>CR CC73/095 | 06/11/1920 05/11/192 Fully Adjudicated<br>07/13/1895 07/13/189 Fully Adjudicated  | WYOMING STATE BOARD OF CHAR    | CLARENCE AND FREDA         | LOWHAM                                      | ENLARGED ROCKY MOUNTAIN AND BLYTH DITCH  | IRR SW<br>IRR SW                 | 015N<br>015N         | 120W 22<br>120W 26 | SE1/4NW1/4<br>NW1/4NW1/4 | A 0.57   | 7<br>R       |                         |  |                       | 0                    | 0                | 0 Stream<br>0 Stream              | Origir 41.265764<br>Origir 41.254858 | -110.940914 External<br>-110.926636 External |
| CR CC73/096                | 07/13/1895 07/13/189 Fully Adjudicated  | WYOMING STATE BOARD OF CHAR    | in .                       |   | FAULKNER DITCH   | IRR SW                           | 015N                 | 120W 26            | NW1/4NW1/4               | A 0.57   | 7            |                         |  |                       | 0                    | 0                | 0 Stream                          | Origir 41.254842                     | -110.926603 External                         |
| CR CC/9/161<br>CR CC79/310 | 05/07/1990 05/07/199 Fully Adjudicated<br>03/06/1991 03/06/199 Fully Adjudicated  | WYOMING STATE PARKS AND HIST   | GILDA                      | SIMS  | ENLARGED FAULKNER DITCH<br>MICHAEL SIMS DITCH  | IRR SW                           | 015N<br>015N         | 120W 26<br>120W 07 | SW1/4NW1/4<br>SW1/4NE1/4 | A 0.11   | 1            |                         |  |                       | 0                    | 0                | 0 Stream<br>0 Stream              | Origir 41.25485<br>Origir 41.294503  | -110.926614 External<br>-110.993072 External |
| CR CC80/111                | 01/19/1911 01/19/191 Fully Adjudicated  |                                | CITY OF                    | EVANSTON                                    | PACIFIC FRUIT EXPRESS COMPANY, ICE PONDS, DAM  | N RES                            | 015N                 | 120W 21            | NE1/4NE1/4               | A 2.85   | 9            |                         |  |                       | 0                    | 0                | 0 Stream                          | Reser 41.269208                      | -110.949189 External                         |
| CR CC81/463<br>P12565.05   | 07/15/1994 07/15/199 Fully Adjudicated<br>06/24/1994 06/24/199 Complete           | STEWART-HAYDUK RANCH           |                            |   | B.E.A.K. PROJECT PIPELINE<br>STEWART-HAYDUK #1   | FIS<br>STO                       | 015N<br>015N         | 120W 21<br>121W 12 | NE1/4NE1/4<br>NW1/4NW1/4 | A1- 1.05<br>A  | a            |                         | Thomas Canyon                            | 4.16                  | 0                    | 0<br>4.16        | U Stream<br>4.16 Reservoir        | кеser 41.26937<br>41.298414          | -110.95048 External<br>-111.022164 External  |
| P256.0D                    | 04/05/1892 04/05/189 Cancelled  |                                | WILLIAM                    | NEBEKER                                     | NEBEKER AND NEUMAN CANAL OR DITCH  | 100 614                          | 015N                 | 120W 07            | SE1/4NW1/4               | A (  | D            |                         | Bear River                               |                       | -1 0                 | Ó                | 0 Stream                          | 41.2953                              | -110.9976 External                           |
| P2846.0D<br>P31375.0D      | 07/15/1994 07/15/199 Complete   | CITY OF EVANSTON               | JORN                       | aIMS, JK.                                   | BEAR PROJECT PIPELINE  | RES                              | 015N<br>015N         | 120W 07<br>120W 21 | NE1/4SE1/4<br>NE1/4NE1/4 | A 3.43<br>A 2.85                                       | 9            |                         | Bear River<br>Bear River                 | 64.62                 | .89 0                | 0                | 0 Stream                          | 41.290992<br>41.27028                | -110.988403 External<br>-110.94834 External  |
| P31453.0D                  | 12/04/1995 12/04/199 Cancelled  | DENTON CROZIER INC             | at.                        |   | DENTON CROZIER INC WATER HAUL  | IND SW; OIL; T                   | EM 015N              | 121W 01            | NE1/4NE1/4               | A (  | D            |                         | Bear River                               | (                     | .67 0                | 0                | 0 Stream                          | 41.31141                             | -111.00996 External                          |
| P3340.0R                   | 07/17/1916 07/17/191 Cancelled  | PAINTER & CO.                  | v                          |   | PAINTER RESERVOIR  | IRR SW; S&D                      | 015N<br>015N         | 120W 18<br>119W 17 | SE1/45W1/4<br>SE1/4SE1/4 | A  |              |                         | Duncomb Hollow                           | 173.6                 | 0                    | 0                | 0 Reservoir                       | 41.27261<br>41.27163                 | -110.85256 External                          |
| P3553.0R                   | 02/03/1919 02/03/191 Cancelled  |                                | JAMES AND E L              | CHESNEY                                     | CHESNEY RESERVOIR  | IRR SW                           | 015N                 | 121W 11            | SE1/4NE1/4               | A  |              |                         | Thomas Canyon                            | 128.35                | 0                    | 0                | 0 Reservoir                       | 41.29543                             | -111.02851 External                          |
| P4616.0R                   | 11/13/1934 11/13/193 Complete   | ROY CROMPTON ETAL              | 101                        | CNOWFION                                    | ENL CROMPTON RESERVOIR   | DOM SW; IKR                      | SW 015N              | 120W 09            | NW1/45W1/4               | A  |              |                         | Pleasant Valley Creek                    | 170.29                | 90.83<br>79.46       | 0                | 79.46 Reservoir                   | 41.29162                             | -110.96454 External                          |
| P5270.0R                   | 04/25/1940 04/25/194 Complete<br>03/03/1956 03/03/195 Complete                    |                                | ROY AND RUEL L             | CROMPTON<br>BAILEY                          | 2ND ENL CROMPTON RESERVOIR, 2ND ENLARGEMEN   | IT IRR SW                        | 015N<br>015N         | 120W 09            | NW1/4SW1/4<br>NW1/4NE1/4 | A  |              |                         | Pleasant Valley Creek<br>Horseshoe Swale | 378.97                | 208.68               | 0 3              | 378.97 Reservoir<br>0.5 Reservoir | 41.2922                              | -110.96455 External                          |
| P6117.0R                   | 02/05/1954 02/05/195 Complete   |                                | LESTER                     | CROMPTON                                    | THIRD  | IRR SW                           | 015N                 | 120W 15            | NW1/45W1/4               | Ā  |              |                         | Pleasant Valley Creek                    | 785.22                | 0                    | 0.5              | 785.22 Reservoir                  | 41.29264                             | -110.96442 External                          |
| P8449.0R<br>P8450.0P       | 04/29/1982 04/29/198 Cancelled<br>04/29/1982 04/29/198 Cancelled                  | CITY OF EVANSTON C/O GREAT BAS | SI<br>SI                   |   | HAW PATCH NO. 1 RESERVOIR<br>HAW PATCH NO. 2 RESERVOIP   | FLO                              | 015N<br>015N         | 120W 28            | NW1/4NE1/4               | A<br>A   |              |                         | Hawpatch Draw<br>Hawpatch Draw           | 1.26                  | 0                    | 0                | 1.26 Reservoir<br>1.49 Reservoir  | 41.25636                             | -110.95762 External                          |
| P8451.0R                   | 04/29/1982 04/29/198 Cancelled  | CITY OF EVANSTON               | -                          |   | HAW PATCH NO. 3 RESERVOIR  | FLO                              | 015N                 | 120W 28            | NW1/4NE1/4               | Â  |              |                         | Hawpatch Draw                            | 0.73                  | 0                    | 0                | 0 Reservoir                       | 41.25358                             | -110.95473 External                          |
| P8460.05<br>P8461.05       | 11/24/1978 11/24/197 Complete<br>11/24/1978 11/24/197 Complete                    |                                |                            |   | GUILD NO. 18 STOCK RESERVOIR<br>GUILD NO. 19 STOCK RESERVOIR                                     | STO<br>STO                       | 015N<br>015N         | 119W 09            | SW1/4SW1/4<br>SW1/4NF1/4 | A  |              |                         | Jeep Draw<br>Divide Draw                 | 2.9                   | 0                    | 2.9              | 2.9 Reservoir<br>0.95 Reservoir   | 41.288842<br>41 280431               | -110.850583 External<br>-110.822669 External |
| P8462.05                   | 11/24/1978 11/24/197 Complete   |                                |                            |   | GUILD NO. 20 STOCK RESERVOIR   | STO                              | 015N                 | 119W 15            | SE1/4SE1/4               | A  |              |                         | Duncomb Hollow                           | 0.95                  | 0                    | 0.95             | 0.95 Reservoir                    | 41.274608                            | -110.815125 External                         |
| P8554.05<br>P8668.05       | 03/05/1979 03/05/197 Complete<br>03/26/1979 03/26/197 Complete                    |                                | DUANE AND JOYCE            | CARPENTER                                   | JOYCE STOCK RESERVOIR<br>PAINTER NO. 15 STOCK RESERVOIR  | STO                              | 015N<br>015N         | 120W 31<br>120W 24 | NW1/4SE1/4<br>SW1/4NW1/4 | A  |              |                         | Joyce Draw<br>Fearn Draw                 | 2.6                   | 0                    | 2.6              | 2.6 Reservoir<br>0.27 Reservoir   | 41.23254<br>41.264861                | -110.99435 External<br>-110.908333 External  |
| P8669.05                   | 03/26/1979 03/26/197 Complete   |                                |                            |   | PAINTER NO.16 STOCK RESERVOIR  | STO                              | 015N                 | 120W 24            | SW1/4NW1/4               | A  |              |                         | Pid Draw                                 | 0.27                  | 0                    | 0.27             | 0.27 Reservoir                    | 41.2649                              | -110.908336 External                         |
| P8670.05<br>P8671.05       | 03/26/1979 03/26/197 Complete<br>03/26/1979 03/26/197 Complete                    |                                |                            |   | PAINTER NO. 17 STOCK RESERVOIR<br>PAINTER NO. 18 STOCK RESERVOIR                                 | STO<br>STO                       | 015N<br>015N         | 120W 24            | NW1/45W1/4<br>NE1/45W1/4 | A  |              |                         | Duncomb Hollow<br>Duncomb Hollow         | 0.27                  | 0                    | 0.27             | 0.27 Reservoir<br>0.27 Reservoir  | 41.262172<br>41 261869               | -110.907392 External<br>-110.903806 External |
| P8672.05                   | 03/26/1979 03/26/197 Complete   |                                |                            |   | PAINTER NO. 19 STOCK RESERVOIR   | STO                              | 015N                 | 120W 24            | NW1/4SE1/4               | A  |              |                         | Duncomb Hollow                           | 1.2                   | 0                    | 1.2              | 1.2 Reservoir                     | 41.260575                            | -110.898386 External                         |
| P8673.05<br>P8674.05       | U3/26/1979 03/26/197 Complete<br>03/26/1979 03/26/197 Complete                    |                                |                            |   | PAINTER NO. 20 STOCK RESERVOIR<br>PAINTER NO. 21 STOCK RESERVOIR                                 | STO<br>STO                       | 015N<br>015N         | 120W 24<br>119W 19 | SW1/4SW1/4<br>NW1/4SW1/4 | A<br>L3  |              |                         | Section 24 Draw<br>Cook Draw             | 0.27                  | 0                    | 0.27             | 0.27 Reservoir<br>0.13 Reservoir  | 41.259344<br>41.263181               | -110.90805 External<br>-110.888381 External  |
| P8675.05                   | 03/26/1979 03/26/197 Complete   |                                |                            |   | PAINTER NO. 22 STOCK RESERVOIR   | STO                              | 015N                 | 119W 19            | NE1/45W1/4               | A  |              |                         | Jonesy's Draw                            | 0.27                  | ō                    | 0.27             | 0.27 Reservoir                    | 41.262178                            | -110.883419 External                         |
| P8676.05                   | us/20/19/9 U3/26/197 Complete   |                                |                            |   | PAINTER NO. 23 STOCK RESERVOIR   | 510                              | U15N                 | 119W 19            | SW1/4SW1/4               | L4   |              |                         | Carlton Draw                             | 0.27                  | 0                    | U.27             | u.27 Reservoir                    | 41.257322                            | -110.886225 External                         |

| JINTA COUNT          | Y  |  |                           |                    |   |                    |              |                    |                          |                             |               |                          |          |  |                     |  |                  |                                  |                         |  |
|----------------------|--|--|---------------------------|--------------------|---|--------------------|--------------|--------------------|--------------------------|-----------------------------|---------------|--------------------------|----------|--|---------------------|--|------------------|----------------------------------|-------------------------|--|
|                      |  |  |                           |                    |   |                    |              |                    |                          | rey<br>Uffix                | ŝ             | E0                       | 2        | £  |                     | at A   | (AF)             |                                  | (N/A)                   |  |
|                      |  |  |                           |                    |   |                    |              |                    |                          | y Type, Sun<br>er, Survev S | Flow(CFS)     | depth (Ft)<br>WaterLevel | (N/A) Bo | Of Pump (F                                     | Total               | S of C C a b a c C C a b a c C C a b a c C C a b a c C C a b a c C C a b a c C C C a b a c C C C C C C C C C C C C C C C C C C | of Reservoin     |                                  | ical Analysi            |  |
| VR Number            | Priority<br>Priority Date text Summary WR Status                                 | Company  | First Name                | Last Name          | Facility Name   | Uses               | Twn          | Rng Se             | e Qtr-Qtr                | Surve                       | Total         | Total                    | Well     | Stream Source                                  | Capacity<br>(AF/Yr) | 호  Capacity( Capacity(<br>금  AF) AF)   | Size             | acility SupplyT<br>pe ype        | E<br>5 Latitude         | Created<br>ongitude By                       |
| 8678.05<br>8678.05   | 03/26/1979 03/26/197 Complete<br>03/26/1979 03/26/197 Complete                   |  |                           |                    | PAINTER NO. 24 STOCK RESERVOIR<br>PAINTER NO. 25 STOCK RESERVOIR                            | STO                | 015N<br>015N | 119W 19<br>120W 25 | NW1/4NW1/4<br>SE1/4NE1/4 | B                           |               |                          |          | Union Draw                                     | 0.27                | 0 0.27   | 0.27 F           | eservoir<br>eservoir             | 41.2681<br>41.251589    | -110.88/069 External<br>-110.891131 External |
| 8680.05<br>8681.05   | 03/26/1979 03/26/197 Complete<br>03/26/1979 03/26/197 Complete                   |  |                           |                    | PAINTER NO. 27 STOCK RESERVOIR<br>PAINTER NO. 28 STOCK RESERVOIR                            | STO<br>STO         | 015N<br>015N | 120W 01<br>119W 17 | NW1/4SW1/4<br>SE1/4SE1/4 | A                           |               |                          |          | Pleasant Valley Creek<br>Jeep Draw             | 0.27                | 0 0.27   | 0.27 F<br>0.99 F | eservoir<br>eservoir             | 41.30565<br>41.274133   | -110.907258 External<br>-110.852839 External |
| 8682.05              | 03/26/1979 03/26/197 Complete  |  |                           |                    | PAINTER NO. 29 STOCK RESERVOIR  | STO                | 015N         | 119W 20            | NE1/4NE1/4               | A                           |               |                          |          | Duncomb Hollow                                 | 2.45                | 0 2.45   | 2.45 F           | eservoir                         | 41.269422               | -110.854786 External                         |
| 8685.05<br>8685.05   | 03/26/19/9 03/26/197 Cancelled<br>03/26/1979 03/26/197 Complete                  |  |                           |                    | PAINTER NO. 31 STOCK RESERVOIR<br>PAINTER NO. 32 STOCK RESERVOIR                            | STO                | 015N<br>015N | 119W 19<br>119W 20 | NE1/4NE1/4<br>SW1/4NW1/4 | A                           |               |                          |          | Duncomb Hollow                                 | 1.47                | 0 0  | 1.47 F           | eservoir<br>eservoir             | 41.26805                | -110.8/507 External<br>-110.867178 External  |
| 8686.0S              | 03/26/1979 03/26/197 Complete  |  |                           |                    | PAINTER NO. 33 STOCK RESERVOIR  | STO                | 015N         | 119W 20            | NE1/4NW1/4               | A                           |               |                          |          | Duncomb Hollow                                 | 2.93                | 0 2.93   | 2.93 F           | eservoir                         | 41.268075               | -110.864417 External                         |
| 3688.05              | 03/26/1979 03/26/197 Complete  |  |                           |                    | PAINTER NO. 34 STOCK RESERVOIR  | STO                | 015N         | 119W 20            | SE1/4NE1/4               | A                           |               |                          |          | Duncomb Hollow                                 | 2.93                | 0 2.93   | 2.93 F           | eservoir                         | 41.266811               | -110.833217 External                         |
| 689.0S               | 03/26/1979 03/26/197 Complete<br>07/12/1982 07/12/198 Complete                   |  |                           |                    | PAINTER NO. 36 STOCK RESERVOIR<br>SEALE 22-16 STOCK RESERVOIR                               | STO                | 015N         | 119W 22            | NE1/4SW1/4               | A                           |               |                          |          | Lanning Draw<br>Rocky Hollow                   | 3.44                | 0 3.44   | 3.44 F           | eservoir                         | 41.2612                 | -110.826394 External                         |
| 104.05               | 07/13/1983 07/13/198 Complete  |  |                           |                    | SEALE 32-2A STOCK RESERVOIR   |                    | 015N         | 120W 32            | NE1/4SW1/4               | A                           |               |                          |          | Rocky Hollow                                   | 0.1                 | 0 0.1  | 0.1 F            | eservoir                         | 41.23299                | -110.9791 External                           |
| 105.0S<br>252.0R     | 07/13/1983 07/13/198 Complete<br>04/19/1976 04/19/197 Complete                   | WYO BOARD OF CHARITIES AND RE                    | EF                        |                    | SEALE 33-1A STOCK RESERVOIR<br>LAKE LOUISE RESERVOIR  | REC                | 015N<br>015N | 120W 33<br>120W 22 | NW1/4SW1/4<br>SW1/4NW1/4 | A                           |               |                          |          | Rocky Hollow<br>Hospital Draw                  | 1.2<br>23.85        | 0 1.2<br>4.49 0  | 1.2 F<br>4.49 F  | eservoir<br>eservoir             | 41.23289<br>41.2656     | -110.96669 External<br>-110.94635 External   |
| 316.05               | 11/23/1983 11/23/198 Complete  |  |                           |                    | SEALE 35-1B STOCK RESERVOIR   | STO                | 015N         | 121W 35            | SW1/4SW1/4               | А                           |               |                          |          | Puggy Draw                                     | 1.42                | 0 1.42   | 1.42 F           | eservoir                         | 41.229317               | -111.041581 External                         |
| 318.05<br>319.05     | 11/23/1983 11/23/198 Complete<br>11/23/1983 11/23/198 Complete                   |  |                           |                    | SEALE 35-2B STOCK RESERVOIR<br>SEALE 25-1B STOCK RESERVOIR                                  | STO<br>STO         | 015N<br>015N | 121W 35<br>121W 25 | SE1/4NW1/4<br>SE1/4SW1/4 | A                           |               |                          |          | Puggy Draw<br>Poison Draw                      | 0.35                | 0 0.35   | 0.35 F           | eservoir<br>eservoir             | 41.238375<br>41.244361  | -111.034692 External<br>-111.016844 External |
| 320.05               | 11/23/1983 11/23/198 Complete  |  |                           |                    | SEALE 26-1B STOCK RESERVOIR   | STO                | 015N         | 121W 26            | SE1/4SE1/4               | A                           |               |                          |          | Puggy Draw                                     | 1.23                | 0 1.23   | 1.23 F           | eservoir                         | 41.244158               | -111.029203 External                         |
| 121.05<br>122.05     | 11/23/1983 11/23/198 Complete<br>11/23/1983 11/23/198 Complete                   |  |                           |                    | SEALE 27-18 STOCK RESERVOIR<br>SEALE 35-3B STOCK RESERVOIR                                  | STO                | 015N<br>015N | 121W 2/<br>121W 35 | SE1/4SE1/4<br>NE1/4NW1/4 | L4<br>A                     |               |                          |          | I-80 Draw<br>Puggy Draw                        | 0.85                | 0 0.85   | 0.85 F           | eservoir<br>eservoir             | 41.244394 41.238633     | -111.044686 External<br>-111.034967 External |
| 15.0R                | 05/15/1987 05/15/198 Complete  | MERIT ENERGY CO                                  |                           |                    | PAINTER PLANT RESERVOIR   | IND SW             | 015N         | 120W 01            | SW1/4SW1/4               | A                           |               |                          |          | Pleasant Valley Creek                          | 0.82                | 0 0  | 0.82 F           | eservoir                         | 41.30201                | -110.90726 External                          |
| 04/157               | 12/31/1886 1886 Fully Adjudicated  |  | HAROLD                    | HEWARD             | SIMS, BLIGHT & TURNER DITCH   | IRR SW             | 015N         | 120W 22<br>121W 01 | NW1/45E1/4<br>NE1/4NW1/4 | A                           | 1.51          |                          |          | Bear River<br>Bear River                       | 5.2                 | 0 5.2  | 5.2 P<br>0 S     | tream                            | 41.26276<br>41.312017   | -110.93518 External                          |
| CC28/090             | 05/02/1892 05/02/189 Fully Adjudicated   |  | MARGARET                  | BUTTERFIELD        | ALMY DITCH  | IRR SW             | 015N         | 121W 01            | NE1/4SE1/4               | A                           | 0.05          |                          |          | Bear River                                     |                     | 0 0  | 0 5              | tream Original                   | 41.305533               | -111.006433 External                         |
| CC28/097             | 05/18/1896 05/18/189 Fully Adjudicated   | SIMS LAND AND LIVESTOCK CO                       |                           | SATON              | BRUCE-BARTON DITCH  | IRR SW; STO        | 015N         | 120W 17            | SE1/4NW1/4               | Ā                           | 0.78          |                          |          | Slough of Bear River (Evanston)                |                     | 0 0  | 0 5              | tream                            | 41.281364               | -110.977917 External                         |
| C28/101              | 09/09/1897 09/09/189 Fully Adjudicated<br>09/09/1897 09/09/189 Fully Adjudicated | THOMAS S IOHNSTON ESTATE                         | GEORGE                    | EWER               | JOHNSON AND NARRAMORE DITCH   | IRR SW             | 015N<br>015N | 120W 16            | NW1/4SW1/4<br>NW1/4SW1/4 | A<br>4                      | 0.12          |                          |          | Bear River<br>Bear River                       |                     | 0 0  | 0 5              | tream                            | 41.276256               | -110.966075 External<br>-110.966075 External |
| CC28/103             | 09/09/1897 09/09/189 Fully Adjudicated   |  | JAMES                     | BURNSIDE           | JOHNSON AND NARRAMORE DITCH   | IRR SW             | 015N         | 120W 16            | NW1/4SW1/4               | A                           | 0.12          |                          |          | Bear River                                     |                     | 0 0  | 0 5              | tream                            | 41.276256               | -110.966075 External                         |
| CC28/106<br>CC28/108 | 10/13/1898 10/13/189 Fully Adjudicated<br>10/05/1900 10/05/190 Fully Adjudicated |  | CORNEY<br>WILLIAM         | EDWARDS<br>SIMS    | ENLARGED ROCKY MOUNTAIN AND BLYTH DITCH<br>JOHN SIMS DITCH                                  | IRR SW<br>IRR SW   | 015N<br>015N | 120W 22<br>120W 07 | SE1/4NW1/4<br>NE1/4SE1/4 | A                           | 0.9           |                          |          | Bear River<br>Bear River                       |                     | 0 0  | 0 5              | tream Original<br>tream          | 41.265742<br>41.290567  | -110.940931 External<br>-110.986767 External |
| CC28/109             | 10/05/1900 10/05/190 Fully Adjudicated   |  | JOHN                      | SIMS               | JOHN SIMS DITCH   | IRR SW             | 015N         | 120W 07            | NE1/4SE1/4               | A                           | 0.5           |                          |          | Bear River                                     |                     | 0 0  | 0 5              | tream                            | 41.290567               | -110.986767 External                         |
| CC28/117<br>CC28/118 | 05/10/1902 05/10/190 Fully Adjudicated<br>05/10/1902 05/10/190 Fully Adjudicated |  | JAMES<br>DAVID            | CROMPTON           | ENLARGED ROCKY MOUNTAIN AND BLYTH DITCH<br>ENLARGED ROCKY MOUNTAIN AND BLYTH DITCH          | IRR SW<br>IRR SW   | 015N<br>015N | 120W 22<br>120W 22 | SE1/4NW1/4<br>SE1/4NW1/4 | A                           | 0.5           |                          |          | Bear River<br>Bear River                       |                     | 0 0  | 0 5              | tream Original                   | 41.265742<br>41.265742  | -110.940925 External<br>-110.940931 External |
| 04/177               | 05/05/1882 05/05/188 Fully Adjudicated   |  | JAMES                     | WHITTLE            | JOHN FIELDING DITCH   |                    | 015N         | 120W 22            | SE1/4NW1/4               | A                           | 1.18          |                          |          | Bear River                                     |                     | 0 0  | 0 5              | tream Original                   | 41.265744               | -110.940925 External                         |
| CC28/181<br>CC28/183 | 05/02/1892 05/02/189 Fully Adjudicated<br>01/13/1896 01/13/189 Fully Adjudicated |  | LABAN                     | HEWARD             | JOHN CUNNINGTON DITCH ACT BRUCE BARTON DITCI  | IRR_SW             | 015N<br>015N | 121W 01<br>120W 17 | SE1/4NW1/4               | A                           | 0.35          |                          |          | Bear River<br>Slough of Bear River (Evanston)  |                     | 0 0  | 0 5              | tream Original<br>tream Original | 41.305533<br>41.281364  | -111.006433 External<br>-110.977917 External |
| C28/184              | 01/17/1896 01/17/189 Fully Adjudicated   | ANDERSON LAND AND STOCK CON                      | 46                        | 1101001            | JUNCTION DITCH  | IRR SW             | 015N         | 120W 17            | NW1/4NW1/4               | A                           | 2.85          |                          |          | Slough of Bear River (Evanston)                |                     | 0 0  | 0 5              | tream Original                   | 41.284928               | -110.983297 External                         |
| C28/186              | 11/17/1897 11/17/189 Fully Adjudicated   |  | PETER                     | DANKS              | DANKS DITCH ACT ROCKY MOUNTAIN AND BLYTHE D   | I IRR SW           | 015N         | 120W 22<br>120W 22 | SE1/4NW1/4<br>SE1/4NW1/4 | A                           | 0.11          |                          |          | Bear River                                     |                     | 0 0  | 0 5              | tream Original                   | 41.265742               | -110.940931 External                         |
| C28/188              | 06/27/1898 06/27/189 Fully Adjudicated   |  | LABAN                     | HEWARD             | ENLIGHN CUNNINGTON DITCH ACT BRUCE BARTON D   | IRR SW             | 015N         | 120W 17            | SE1/4NW1/4               | A                           | 0.34          |                          |          | Slough of Bear River (Evanston)                |                     | 0 0  | 0 5              | tream Original                   | 41.281364               | -110.977917 External                         |
| C28/190              | 11/17/1900 11/17/190 Fully Adjudicated<br>11/17/1900 11/17/190 Fully Adjudicated |  | JOHN                      | STACEY             | ENLARGED ADIN BROWN DITCH ACT S P DITCH   | IRR SW             | 015N         | 120W 06            | SW1/4SW1/4<br>SW1/4SW1/4 | L7                          | 1.01          |                          |          | Bear River                                     |                     | 0 0  | 0 5              | tream Original                   | 41.302322               | -111.002936 External                         |
| C28/192              | 07/28/1905 07/28/190 Fully Adjudicated   | PAINTER AND COMPANY INC                          | DELILA                    | CALDWELL           | ENLARGED FELTER DITCH ACT ROCKY MOUNTAIN AND<br>FOOTE SPRING DITCH                          | STO                | 015N         | 120W 22            | SE1/4NW1/4<br>SE1/4SE1/4 | A                           | 0.08          |                          |          | Bear River                                     |                     | 0 0  | 0 5              | tream Original                   | 41.265742               | -110.940931 External                         |
| CC28/298             | 08/01/1907 08/01/190 Fully Adjudicated   | BEAR RIVER DEVELOPMENT COMP                      | A                         |                    | KNIGHTS HOLLOW SPRING   | S&D                | 015N         | 120W 27            | SE1/4NE1/4               | Â                           | 0             |                          |          | Knight Hollow Spring                           |                     | 0 0  | 0 5              | pring Original                   | 41.25106                | -110.92908 External                          |
| CC28/342<br>CC41/250 | 06/26/1893 06/26/189 Fully Adjudicated<br>07/12/1916 07/12/191 Fully Adjudicated |  | JANE<br>HARRY             | THOMAS             | THOMAS DITCH<br>ENLARGED MOON DITCH   | IRR SW<br>IRR SW   | 015N<br>015N | 121W 12<br>121W 36 | SE1/4NE1/4<br>NF1/4NF1/4 | A                           | 0.5           |                          |          | Yellow Creek<br>Yellow Creek                   |                     | 0 0  | 0 5              | tream Original                   | 41.295<br>41 24007      | -111.00813 External<br>-111.00769 External   |
| CC43/666             | 07/12/1916 07/12/191 Fully Adjudicated   |  | JAMES                     | ALDAZ              | ENLARGED MOON DITCH   | IRR SW             | 015N         | 121W 36            | NE1/4NE1/4               | А                           | 3.13          |                          |          | Yellow Creek                                   |                     | 0 0  | 0 5              | tream                            | 41.24005                | -111.00771 External                          |
| CC53/038<br>CC75/148 | 12/07/1943 12/07/194 Fully Adjudicated<br>05/14/1896 05/14/189 Fully Adjudicated | CITY OF EVANSTON                                 |                           |                    | PAINTER DITCH<br>DURNFORD DANKS DITCH ACT ROCKY MOUNTAIN AN                                 | IRR SW<br>MUN SW   | 015N<br>015N | 120W 11<br>120W 22 | SE1/4NW1/4               | A                           | 0.37          |                          |          | Pleasant Valley Creek<br>Bear River            |                     | 0 0  | 0 5              | tream<br>tream Original          | 41.2991/<br>41.265742   | -110.91699 External<br>-110.940931 External  |
| CC28/185             | 05/14/1896 05/14/189 Fully Adjudicated   |  | PETER                     | DANKS              | DURNFORD DANKS DITCH ACT ROCKY MOUNTAIN AN  | IRR SW             | 015N         | 120W 22            | SE1/4NW1/4               | A                           | 0.83          |                          |          | Bear River                                     |                     | 0 0  | 0 5              | tream Original                   | 41.265742               | -110.940931 External                         |
| CC79/164             | 08/18/1904 04/18/190 Fully Adjudicated<br>08/18/1980 08/18/198 Fully Adjudicated |  | ART AND JUDY              | LINDER             | LINDER PORTABLE SPRINKLER SYSTEM  | IRR SW             | 015N         | 121W 15<br>121W 26 | NW1/4SE1/4               | A                           | 0.03          |                          |          | Wasatch Creek                                  |                     | 0 0  | 0 5              | tream Original                   | 41.247519               | -111.031958 External                         |
| R13/422              | 01/19/1911 01/19/191 Fully Adjudicated   | CITY OF EVANSTON                                 | ELAINE                    | BI AKESI EE        | PACIFIC FRUIT EXPRESS CO. DAM RESERVOIR   | FIS                | 015N         | 120W 21            | NW1/4NE1/4               | A                           | 25            |                          |          | Bear River                                     |                     | 64.62 0  | 64.62 P          | eservoir Original                | 41.26937                | -110.95539 External                          |
| W04/218              | 04/24/1978 04/24/197 Fully Adjudicated   |  | GERALD R                  | CAZIN              | CAZIN NO. 1 WELL  | MIS                | 015N         | 120W 21<br>120W 21 | NW1/4NW1/4               | A                           | 20            |                          |          |  |                     | 0 0  | 0 1              | /ell Original                    | 41.27028                | -110.96604 External                          |
| W04/463              | 06/16/1981 06/16/198 Fully Adjudicated   | STATE BOARD OF LAND COMMISSI                     | RONALD ALLEN AND PIXIE LE | E GOLDIE           | GOLDIE NO. 1 WELL<br>EVANSTON LANDEUL NO. 1 WELL  | MIS                | 015N         | 120W 23            | NW1/4NE1/4               | A                           | 15            |                          |          |  |                     | 0 0  | 0 1              | /ell Original                    | 41.2706                 | -110.9157 External                           |
| W05/150              | 03/25/1981 03/25/198 Fully Adjudicated   | PGA ASSOCIATES                                   |                           |                    | D.M.B. NO. 2 WELL   | MIS                | 015N         | 120W 06            | SW1/4NE1/4               | Â                           | 20            |                          |          |  |                     | 0 0  | 0 1              | /ell Original                    | 41.30803                | -110.99284 External                          |
| JW05/151<br>JW05/152 | 07/29/1981 07/29/198 Fully Adjudicated<br>09/03/1981 09/03/198 Fully Adjudicated | UNION PACIFIC LAND RESOURCES                     | C)                        |                    | BEAR RIVER - RME 1 WELL<br>BEAR RIVER - RME 2 WELL  | MIS                | 015N<br>015N | 120W 18<br>120W 18 | SE1/4SE1/4<br>SW1/4SE1/4 | A                           | 20<br>100     |                          |          |  |                     | 0 0  | 0 1              | /ell Original<br>/ell Original   | 41.27406<br>41.27431    | -110.99012 External<br>-110.99205 External   |
| JW05/154             | 02/08/1982 02/08/198 Fully Adjudicated   |  | KILBURN I AND N EVELINE   | PORTER             | KP NO. 1 WELL   | MIS                | 015N         | 120W 19            | SE1/4SE1/4               | A                           | 15            |                          |          |  |                     | 0 0  | 0 1              | /ell Original                    | 41.25694                | -110.98946 External                          |
| JW05/311<br>JW06/252 | 04/02/1985 04/02/198 Fully Adjudicated<br>05/25/1984 05/25/198 Fully Adjudicated | UINTA COUNTY SCHOOL DISTRICT                     | N N                       |                    | SCHOOL DISTRICT NO. 1 WELL  | DOM_GW; MIS<br>MIS | 015N<br>015N | 121W 13<br>120W 29 | SE1/4NW1/4<br>NW1/4NE1/4 | A                           | 25            |                          |          |  |                     | 0 0  | 0 1              | /ell Original<br>/ell Suppleme   | 41.2/981                | -111.01663 External<br>-110.97554 External   |
| JW06/255             | 01/23/1987 01/23/198   | UINTA COUNTY                                     |                           |                    | EVANSTON BJ NO. 1 WELL  | MIS                | 015N         | 120W 23            | SW1/4NE1/4               | A                           | 15            |                          |          |  |                     | 0 0  | 0 1              | /ell Original                    | 41.26717                | -110.91879 External                          |
| JW08/233<br>JW09/382 | 06/29/1990 06/29/199 Fully Adjudicated   | WYOMING STATE HIGHWAY COMP                       | M                         |                    | PORT OF ENTRY NO. 1 WELL  | MIS                | 015N         | 119W 05<br>121W 26 | NW1/4SW1/4               | A                           | 20            |                          |          |  |                     | 0 0  | 0 1              | /ell Original<br>/ell Original   | 41.31085                | -110.85873 External                          |
| JW09/449             | 04/27/1992 04/27/199 Fully Adjudicated   | JAYGEE BROTHERS                                  |                           |                    | SAGE INDUSTRIAL PARK NO. 1 WELL   | MIS                | 015N         | 120W 15            | NW1/4SE1/4               | A                           | 48            |                          |          | 210  |                     | 0 0  | 0 1              | /ell                             | 41.27784                | -110.93817 External                          |
| C28/335              | 01/09/1884 01/09/188 Fully Adjudicated   | CHRISTENSEN AND ENGSTROM                         |                           |                    | CHRISTENSEN DITCH ACT BRUCE BARTON DITCH  | IRR SW             | 015N         | 120W 23<br>120W 17 | NW1/4NW1/4               | A                           | 30 272        | .00 .                    | 1 14     | Slough of Bear River (Evanston)                |                     | 0 0  | 0 5              | tream Original                   | 41.28246                | -110.92833 External                          |
| C28/354              | 12/31/1882 1882 Fully Adjudicated<br>05/10/1886 05/10/188 Fully Adjudicated      |  | LILLIAN                   | CROMPTON           | JOHN WILLIAMS NO. 1 DITCH<br>PLEASANT VALLEY IRRIGATING NO. 1 DITCH                         | IRR SW             | 015N<br>015N | 120W 11<br>120W 11 | SW1/4NW1/4<br>SW1/4NW1/4 | A                           | 0.28          |                          |          | Pleasant Valley Creek<br>Pleasant Valley Creek |                     | 0 0  | 0 5              | tream                            | 41.29514                | -110.92827 External                          |
| C28/275              | 06/18/1887 06/18/188 Fully Adjudicated   |  | HENRY                     | KAACK              | PLEASANT VALLEY IRRIGATING NO. 2 DITCH  | IRR SW             | 015N         | 120W 11            | SW1/4NW1/4               | Ā                           | 0.4           |                          |          | Pleasant Valley Creek                          |                     | 0 0  | 0 5              | tream                            | 41.295308               | -110.927908 External                         |
| C28/171<br>C28/334   | 12/31/1875 1875 Fully Adjudicated<br>01/09/1884 01/09/188 Fully Adjudicated      | CHRISTENSEN AND FNGSTROM                         | FH                        | HARRISON           | JOHN FELTER DITCH ACT ROCKY MOUNTAIN AND BLY<br>CHRISTENSEN NO. 2 DITCH                     | IRR SW             | 015N<br>015N | 120W 22<br>120W 19 | SE1/4NW1/4<br>NE1/4NW1/4 | A                           | 1.84          |                          |          | Bear River<br>Yellow Creek                     |                     | 0 0  | 0 5              | tream Original<br>tream          | 41.26575                | -110.94093 External<br>-111.00024 External   |
| C28/331              | 10/01/1880 10/01/188 Fully Adjudicated   | JACOB STAHLEY ESTATE                             |                           |                    | JACOB STAHLEY NO. 1 DITCH   | IRR SW             | 015N         | 121W 36            | SE1/4SE1/4               | Â                           | 1.37          |                          |          | Yellow Creek                                   |                     | 0 0  | 0 5              | tream                            | 41.22796                | -111.01008 External                          |
| C28/330<br>C28/329   | 10/01/1880 10/01/188 Fully Adjudicated<br>10/01/1880 10/01/188 Fully Adjudicated | JACOB STAHLEY ESTATE<br>JACOB STAHLEY ESTATE     |                           |                    | JACOB STAHLEY NO. 2 DITCH<br>JACOB STAHLEY NO. 3 DITCH                                      | IRR SW<br>IRR SW   | 015N<br>015N | 121W 36<br>121W 36 | SE1/4SE1/4<br>SE1/4NE1/4 | A                           | 0.65          |                          |          | Yellow Creek<br>Yellow Creek                   |                     | 0 0  | 0 5              | tream<br>tream                   | 41.23027<br>41.23762    | -111.00913 External<br>-111.0088 External    |
| C75/207              | 05/01/1887 05/01/188 Fully Adjudicated   |  | STEWART AND VIVIAN S      | HAYDUK             | SAXTON IRRIGATING DITCH   | IRR SW             | 015N         | 121W 12            | NE1/4NE1/4               | A                           | 1.1           |                          |          | Yellow Creek                                   |                     | 0 0  | 0 5              | tream Original                   | 41.2999                 | -111.00971 External                          |
| C28/340              | 05/01/1887 05/01/188 Fully Adjudicated<br>05/01/1887 05/01/188 Fully Adjudicated |  | ELI                       | SAXTON             | SAXTON IRRIGATING DITCH<br>SAXTON IRRIGATING DITCH  | IRR SW             | 015N<br>015N | 121W 12<br>121W 12 | NE1/4NE1/4<br>NE1/4NE1/4 | A                           | 0.14          |                          |          | Yellow Creek                                   |                     | 0 0  | U S<br>0 S       | tream                            | 41.2999<br>41.2999      | -111.009/1 External<br>-111.00971 External   |
| C28/172              | 12/31/1875 1875 Fully Adjudicated  | NEPONSET LAND AND LIVE STOCK                     | C                         | EALILY NC?         | JOHN FELTER DITCH ACT ROCKY MOUNTAIN AND BLY  | FIRE SW            | 015N         | 120W 22            | SE1/4NW1/4               | A                           | 0.15          |                          |          | Bear River                                     |                     | 0 0  | 0 5              | tream Original                   | 41.265742               | -110.940931 External                         |
| C28/1/3              | 12/31/18/8 18/8 Fully Adjudicated<br>12/31/1878 1878 Fully Adjudicated           |  | ADIN                      | BROWN              | ADIN BROWN DITCH ACT S P DITCH  | IRR_SW; STO        | 015N<br>015N | 120W 22<br>120W 06 | SE1/4NW1/4<br>SW1/4SW1/4 | A<br>L7                     | 0.25          |                          |          | Bear River<br>Bear River                       |                     | 0 0  | U S<br>0 S       | tream Original<br>tream Original | 41.265742<br>41.302322  | -110.940931 External<br>-111.002936 External |
| C28/176              | 05/05/1882 05/05/188 Fully Adjudicated   |  | ALBERT AND MARTHA         | PHIPPS             | JOHN FIELDING DITCH ACT ROCKY MOUNTAIN AND B  | IRR SW             | 015N         | 120W 22            | SE1/4NW1/4               | A                           | 0.42          |                          |          | Bear River                                     |                     | 0 0  | 0 5              | tream Original                   | 41.265742               | -110.940931 External                         |
| C28/179              | 12/31/1887 1887 Fully Adjudicated  |  | WILLIAM                   | SIMS               | ROCKY MOUNTAIN AND BEAR RIVER COMPANY DITCH   | I IRR SW           | 015N         | 120W 07            | NE1/4SE1/4               | Ā                           | 1.10          |                          |          | Bear River                                     |                     | 0 0  | 0 5              | tream Original                   | 41.290567               | -110.986767 External                         |
| CC28/180<br>CC28/182 | 04/01/1889 04/01/188 Fully Adjudicated<br>07/16/1892 07/16/189 Fully Adjudicated |  | LILLIAN                   | CROMPTON<br>BARNES | CROMPTON IRRIGATING DITCH ACT ROCKY MOUNTAI<br>BARNES DITCH ACT ROCKY MOUNTAIN AND BLYTHE D | I IRR_SW           | 015N<br>015N | 120W 22            | SE1/4NW1/4<br>SE1/4NW1/4 | A                           | 0.92          |                          |          | Bear River<br>Bear River                       |                     | 0 0  | 0 5              | tream Original                   | 41.265742               | -110.940931 External                         |
| 7880.0W              | 03/29/2012 Fully Adjudicated   | STATE PARKS, HISTORIC SITES AND                  | 1                         |                    | ENL UINTA COUNTY FAIRGROUNDS/EVENT CENTER #   | IRR GW             | 015N         | 120W 23            | SW1/4NW1/4               | Ā                           | 20            |                          |          | ACM HIVE                                       |                     | 0 0  | 0 1              | /ell                             | 41.26525                | -110.92649 SEO                               |
| JW11/065<br>CC28/038 | 08/08/1996 Fully Adjudicated<br>10/09/1883 10/09/188 Fully Adjudicated           | CITY OF EVANSTON<br>SIMS LAND AND LIVESTOCK COMP | A                         |                    | WASTEWATER PLANT NO. 2 WELL<br>A. W. SIMS DITCH   | MIS<br>IRR_SW: STO | 015N<br>015N | 120W 07<br>120W 17 | SW1/4SW1/4<br>NW1/4NW1/4 | L4<br>A                     | 18<br>1.71    |                          |          | Slough of Bear River (Evancton)                |                     | 0 0  | 0 1              | /ell<br>tream                    | 41.286325               | -111.004061 External<br>-110.982492 External |
| 99266.0W             | 11/02/2012 Incomplete  | GARY MAW STEWART AND MARIE                       | c                         |                    | GARY MAW STEWART AND MARIE CAMILLE COSTER J   | MIS                | 015N         | 120W 23            | SW1/4NE1/4               | A                           | 20 236        | .00 12                   | 2 N      | 208  |                     | 0 0  | 0 1              | /ell                             | N 41.26694              | -110.91583 SEO                               |
| .92/7.0W<br>CC28/041 | 05/01/1884 05/01/188 Fully Adjudicated   | GCP LLC  | JOSEPH                    | FIFE               | GLP, LLC WELL #1<br>FIFE IRRIGATING DITCH ACT PUMP ACIPT DUCHARME                           | I IRR SW           | 015N<br>015N | 120W 23<br>120W 16 | NW1/4NW1/4<br>NW1/4SW1/4 | A                           | 20 182<br>0.1 | .uu 4                    | 4 N      | 100<br>Bear River                              |                     | 0 0  | 0 V<br>0 S       | ream Original                    | N 41.26806<br>41.275275 | -110.92528 SEO<br>-110.966247 External       |
|                      |  |  |                           |                    |   |                    |              |                    |                          |                             |               |                          |          |  |                     |  |                  |                                  |                         |  |

| UINTA COUNTY               | ,                        |  |  |   |                      |  |                            |                |                    |                           |                              |                                   |                    |                                      |                   |                    |                      |  |                      |                                    |  |
|----------------------------|--------------------------|--|--|---|----------------------|--|----------------------------|----------------|--------------------|---------------------------|------------------------------|-----------------------------------|--------------------|--------------------------------------|-------------------|--------------------|----------------------|--|----------------------|------------------------------------|--|
|                            |                          |  |  |   |                      |  |                            |                |                    |                           | ۶Ĕ                           | -                                 | 9                  | _                                    | 1                 | 1                  |                      | s  |                      | (N/A)                              |  |
|                            |                          |  |  |   |                      |  |                            |                |                    |                           | ype, Surve<br>Survey St      | w(CFS)/<br>lation(GP)<br>oth (Ft) | iterLevel (        | r Pump (Ft                           |                   | e(CFS)             |                      | tes erv oir(J  |                      | l Analysis                         |  |
|                            | 0.11. D.1.               | Priority   | 0  | Elect Manual                                      |                      |  |                            |                |                    |                           | urvey <sup>1</sup><br>umber, | otal Flo<br>ppropri<br>otal dej   | taticWe<br>611 Log | 0<br>41                              | Total<br>Capacity | Active<br>Capacity | Inactive<br>Capacity | ( e Facility   | SupplyT              | hemica                             | Created                                      |
| CR CC28/049                | 12/31/1886               | 1886 Fully Adjudicated                                     | Company  | JAMES   | BLIGHT               | SIMS BLIGHT AND TURNER DITCH   | IRR SW                     | 015N           | 121W 01            | NE1/4NW1/4                | 6 <b>2</b>                   | 1.51                              | 0 S                | Bear River                           | (AF/TF) 2         | 5 ± AP) (          | AP) (                | 0 Stream   | уре                  | 41.312017                          | -111.017136 External                         |
| CR CC28/050<br>CR CC28/051 | 12/31/1886<br>12/31/1886 | 1886 Fully Adjudicated<br>1886 Fully Adjudicated           |  | HAROLD<br>ENOCH                                   | HEWARD<br>TURNER     | SIMS BLIGHT AND TURNER DITCH<br>SIMS BLIGHT AND TURNER DITCH         | IRR SW<br>IRR SW           | 015N<br>015N   | 121W 01<br>121W 01 | NE1/4NW1/4<br>NE1/4NW1/4  | A                            | 1.51<br>0.75                      |                    | Bear River<br>Bear River             |                   | 0                  | ) (<br>) (           | 0 0 Stream<br>0 0 Stream                                 |                      | 41.312017<br>41.312017             | -111.017136 External<br>-111.017136 External |
| CR CC28/054                | 07/01/1886               | 07/01/188 Fully Adjudicated                                | CHAMBERS ESTATE                                  | LABAN   | HEWARD               | FEARNE IRRIGATING DITCH  | IRR SW                     | 015N           | 120W 07            | SE1/4NW1/4<br>SW1/4SW1/4  | A                            | 0.57                              |                    | Bear River                           |                   | 0                  |                      | 0 Stream   |                      | 41.295958                          | -110.998883 External                         |
| CR CC28/060<br>CR CC28/067 | 12/31/1887               | 1887 Fully Adjudicated                                     | CHAMBERS ESTATE                                  | JOHN  | SIMS                 | ROCKY MOUNTAIN AND BEAR RIVER COMPANY DITCH                          | IRR SW                     | 015N           | 120W 00            | NE1/4SE1/4                | A                            | 1.14                              |                    | Bear River                           |                   | ,<br>c             | , i                  | 0 Stream   | Original             | 41.2924                            | -110.986481 External                         |
| P200402.0W<br>P7747.0F     | 05/20/2013               | Unadjudicated  | CITY OF EVANSTON                                 | CINDY AND CHRIS                                   | SCHWITZER            | CARTER #1<br>2ND ENLARGEMENT OF EVANSTON PIPE LINE                   | IRR GW                     | 015N<br>015N   | 120W 06<br>120W 16 | NW1/4SE1/4<br>NW1/4NW1/4  | A<br>4                       | 200 78.00                         | 10 N               | 60<br>Bear River                     |                   | 34.8 (             | ) (<br>) (           | 0 Well<br>0 Stream                                       | N                    | 41.30455                           | -110.99427 SEO<br>-110.966083 External       |
| CR CC27/495                | 12/31/1875               | 1875 Fully Adjudicated                                     |  | JOHN  | FELTER               | JOHN FELTER DITCH ACT ROCKY MOUNTAIN AND BLY                         | T IRR SW                   | 015N           | 120W 22            | SE1/4NW1/4                | A                            | 0.28                              |                    | Bear River                           |                   | (                  | i i                  | 0 0 Stream   | Original             | 41.26654                           | -110.94307 External                          |
| CR CC28/338<br>P35201.0D   | 05/01/1887<br>04/30/2014 | 05/01/188 Fully Adjudicated<br>Complete                    | LOWHAM LAND LIMITED PARTNERS                     | ENOCH<br>5 HUGH                                   | TURNER<br>LOWHAM     | SAXTON IRRIGATING DITCH<br>CLARENCE DITCH                            | IRR SW<br>STO              | 015N<br>015N   | 121W 12<br>120W 18 | NE1/4NE1/4<br>SW1/4NE1/4  | A                            | 0.68                              |                    | Yellow Creek<br>Mosey Slough         | 0                 | .056 0             | ) (<br>) (           | 0 0 Stream<br>0 0 Stream                                 |                      | 41.2999<br>41.2785                 | -111.00971 External<br>-110.9931 External    |
| CR UW21/211                | 02/09/2009               | Fully Adjudicated  | WYOMING STATE PARKS HISTORICS                    | S   |                      | UINTA COUNTY FAIRGROUND/EVENT CENTER NO. 1 V                         | IRR GW; MIS                | 015N           | 120W 23            | SW1/4NW1/4                | A                            | 50 272.00                         | 1 N                | 210                                  |                   | 0                  |                      | 0 Well   | N                    | 41.26636                           | -110.92551 External                          |
| CR CC95/148                | 01/09/1884               | 01/09/188 Fully Adjudicated                                | LOWHAM LAND LIMITED PARTNERS                     | 3   |                      | CHRISTENSEN DITCH ACT BRUCE BARTON DITCH                             | IRR SW                     | 015N           | 120W 23<br>120W 19 | SE1/4NW1/4                | A                            | 1.61                              |                    | Yellow Creek                         |                   | ,<br>c             | , i                  | 0 Stream   | Original             | 41.26567                           | -111.00031 External                          |
| CR CC95/149<br>CR CC95/219 | 01/09/1884               | 01/09/188 Fully Adjudicated<br>Fully Adjudicated           | LOWHAM LAND LIMITED PARTNERS                     | 5   |                      | CHRISTENSEN NO. 2 DITCH<br>CLARENCE DITCH                            | IRR_SW<br>STO              | 015N<br>015N   | 120W 18<br>120W 18 | SE1/4SW1/4<br>SW1/4NF1/4  | A<br>4                       | 0.47                              |                    | Yellow Creek<br>Mosey Slough         | 0                 | 056 0              |                      | 0 0 Stream   |                      | 41.27155                           | -110.99985 External<br>-110.99256 External   |
| P114525.0W                 | 03/18/1999               | Complete   |  | KENNETH   | SHIRLEY              | BPI#1  | MIS                        | 016N           | 120W 30            | NE1/4SW1/4                | A                            | 20 300.00                         | 55                 |                                      |                   | (                  |                      | 0 Well   | N                    | 41.33459                           | -110.99827 External                          |
| P114724.0W<br>P127203.0W   | 10/12/1998 07/20/2000    | Complete   |  | BRUCE AND MISTIE<br>DOUGLAS J.                    | BEUS                 | BANDIT #1<br>BEUS #3   | STK; DOM GW                | 016N<br>016N   | 121W 13<br>121W 01 | NW1/4SE1/4<br>SW1/4NE1/4  | A                            | 25 100.00<br>8 30.00              | 30<br>5 N          | 16                                   |                   |                    | ) (                  | 0 Well<br>0 Well   | Y N                  | 41.36369 41.395667                 | -111.01242 External<br>-111.011833 External  |
| P166899.0W                 | 04/19/2005               | Complete   |  | BRAD AND KRISTY                                   | MARTIN               | MARTIN #1  | DOM GW                     | 016N           | 121W 01            | SW1/4SE1/4                | Α                            | 10 180.00                         | 100 N              | 177                                  |                   | 0                  | ) (                  | 0 0 Well   | N                    | 41.3894                            | -111.0103 External                           |
| P1/6644.0W<br>P181545.0W   | 08/08/2006<br>06/05/2007 | Complete   |  | PAUL  | SHERWOOD             | GRISET #1<br>JUNIPER RIDGE #6  | DOM GW<br>DOM GW           | 016N<br>016N   | 121W 01<br>121W 01 | NE1/4NE1/4<br>NE1/4SE1/4  | A                            | 8 100.00<br>20 230.00             | 70 N<br>175 N      | 220                                  |                   |                    | ) (                  | 0 Well<br>0 Well   | N 1                  | 41.400033<br>41.392831             | -111.009833 External<br>-111.005683 External |
| P183465.0W                 | 10/03/2007               | Complete   |  | LERRY<br>RULON AND LORI                           | FADDIS               | BLUE BIRD WELL #1  | DOM GW                     | 016N           | 121W 25            | SW1/4SW1/4                | A                            | 3 130.00                          | 120 N              | 125                                  |                   | (                  |                      | 0 Well   | N                    | 41.329778                          | -111.022028 External                         |
| P64666.0W                  | 07/01/1983               | Complete   |  | W.KAY AND LISA DAWN                               | OVARD                | PARKER ELCA II #44   | DOM GW                     | 016N           | 121W 01<br>121W 12 | SW1/4NW1/4                | A                            | 25 59.00                          | 4 N                | 55                                   |                   |                    |                      | 0 Well   | N                    | 41.552085                          | External                                     |
| P73532.0W                  | 06/17/1985               | Cancelled  | MEADOW PARK VILLAGE                              |   |                      | MEADOW PARK #1<br>RONALD SIMS #2                                     | MIS                        | 016N           | 121W 36            | SE1/4NW1/4<br>SW1/4NW1/4  | A                            | 45 75.00                          | 5                  |                                      |                   | 0                  |                      | 0 Well   | Y                    | 41.32307                           | -111.01725 External                          |
| P73997.0W                  | 03/28/1985               | Fully Adjudicated  |  |   |                      | RACETRACK #1 (SOUTH)   | MIS                        | 016N           | 121W 02            | NW1/4SE1/4                | A                            | 100 260.00                        | 32 N               | 180                                  |                   | ,<br>(             | i i                  | 0 Well   | Y                    | 41.32.30                           | External                                     |
| P73998.0W<br>P10195.0R     | 03/28/1985<br>08/07/1991 | Fully Adjudicated<br>08/07/199 Complete                    |  |   |                      | RACETRACK #2 (NORTH)<br>PAINTER PLANT NO. 2 SPILL CONTROLL RESERVOIR | MIS<br>FLO: IND SW: STO    | 016N<br>0 016N | 121W 02<br>120W 36 | NW1/4SE1/4<br>SE1/4SE1/4  | A                            | 100 240.00                        | 30 N               | 180<br>Pleasant Valley Creek         | 0.25              | 0.63               | 0.2                  | 0 Well<br>0.88 Reservoi                                  | r Y                  | 41.31648                           | External<br>-110.89085 External              |
| P10518.0R                  | 09/19/1995               | 09/19/199 Complete   |  |   |                      | WYOMING DOWNS RESERVOIR  | WET                        | 016N           | 121W 02            | NE1/4SE1/4                | A                            |                                   |                    | Bear River                           | 37.34             | 37.18              | 0.1                  | 5 37.34 Reservoi   |                      | 41.39376                           | -111.02658 External                          |
| P112.0D<br>P32700.0D       | 08/21/1891<br>09/06/2002 | 08/21/189 Complete<br>09/06/200 Complete                   | MARTIN RANCH                                     | JOHN  | RUSSELL              | RUSSELL DITCH ACT BOWNS DITCH<br>RED CANYON STOCK TANK PIPELINE      |                            | 016N<br>016N   | 121W 36<br>120W 15 | SE1/4SE1/4<br>SE1/4SW1/4  | A                            | 0.21                              |                    | Bear River<br>Red Canyon Creek       | 0                 | -1 0               | ) (                  | 0 Stream<br>0 0 Stream                                   |                      | 41.31578<br>41.359517              | -111.00832 External<br>-110.938769 External  |
| P15927.0D                  | 06/07/1920               | 06/07/192 Unadjudicated                                    |  |   | Painter & Co.        | Painter Ditch  | DOM SW; IRR SV             | W 016N         | 120W 04            | SW1/4SW1/4                |                              | 0.57                              |                    |                                      |                   | 0.75 0             | ) (                  | 0 0 Stream   |                      | 41.389274                          | -110.964453 External                         |
| P15928.0D<br>P17005.0D     | 06/16/1920<br>04/30/1925 | 04/30/192 Unadjudicated<br>04/30/192 Fully Adjudicated     |  | WILLIAM   | NIXON                | Hish Hatchery Pipe Line<br>Nixon Ditch                               | FIS<br>IRR_SW              | 016N<br>016N   | 120W 04<br>121W 36 | SW1/4SW1/4<br>SE1/4SE1/4  |                              | 0.3                               |                    |                                      | C                 | 0.3 0              | ) (                  | 0 Stream<br>0 0 Stream                                   |                      | 41.389274 41.315675                | -110.964453 External<br>-111.008572 External |
| P17423.0D                  | 08/21/1926               | 08/21/192 Fully Adjudicated                                |  | WILLIAM   | NIXON                | Nixon West Side Ditch  | IRR SW                     | 016N           | 121W 36            | NW1/4SE1/4                |                              | 0.44                              |                    |                                      | 0                 | .525 0             | ) (                  | 0 O Stream   |                      | 41.319192                          | -111.013038 External                         |
| P17656.0D<br>P25298.0D     | 04/04/1921<br>01/26/1977 | 01/26/197 Cancelled  |  | HUWARD  | Wyo. State Highway   | D Bear River Pump Point Water Haul                                   | IND SW; MIS SW             | V; 016N        | 121W 13<br>121W 13 | NE1/45W1/4<br>NE1/4NW1/4  |                              | 9.15                              |                    |                                      |                   | 1 (                |                      | 0 Stream   |                      | 41.362496 41.370852                | -111.016304 External                         |
| P26902.0D                  | 12/29/1980               | 12/29/198 Cancelled  |  |   | W.L. Pride Construct | ic Construction Services Water Haul                                  | IND_SW; MIS_SW             | V; 016N        | 121W 12            | NW1/4NE1/4                |                              | 0.33                              |                    |                                      |                   | 0.33 (             |                      | 0 O Stream   |                      | 41.385135                          | -111.011531 External                         |
| P27827.0D                  | 11/08/1981               | 11/08/198 Cancelled  |  |   | Country Club Constr  | u Hoback Ranches - Sewage  | IND SW; TEM                | 016N           | 121W 12<br>121W 01 | NE1/4NW1/4                | L3                           | 0.3                               |                    |                                      |                   | 0.3 0              |                      | 0 O Stream   |                      | 41.397169                          | -111.01192 External                          |
| P6921.0D                   | 09/27/1905               | 09/27/190 Fully Adjudicated                                |  | David<br>CHARLES                                  | Turner               | Turner Ditch   | IRR SW                     | 016N           | 121W 36            | NW1/4NE1/4<br>SW/1/4SE1/4 | ٨                            | 2.48                              |                    |                                      |                   | 0                  |                      | 0 Stream   | -                    | 41.327466                          | -111.012985 External                         |
| CR CC38/251                | 02/06/1913               | 02/06/191 Fully Adjudicated                                |  | AUGUST  | WALLIN               | ENLARGED CHAPMAN CANAL   | IRR SW                     | 016N           | 121W 25            | SE1/4SW1/4                | A                            | 0.79                              |                    |                                      |                   | ,<br>(             | i i                  | 0 0 Stream   |                      | 41.331211                          | -111.017025 External                         |
| CR CC46/539<br>CR CC46/540 | 05/21/1912<br>05/03/1912 | 05/21/191 Fully Adjudicated<br>05/03/191 Fully Adjudicated | DESERET LIVESTOCK COMPANY                        | DESERET   | LIVE STOCK CO.       | ENLARGED CHAPMAN CANAL<br>ENLARGED CHAPMAN CANAL                     | IRR SW<br>IRR SW           | 016N<br>016N   | 121W 25<br>121W 25 | SE1/4SW1/4<br>SE1/4SW1/4  | A                            | 11.39<br>3.43                     |                    |                                      |                   | (                  | ) (                  | 0 0 Stream<br>0 0 Stream                                 |                      | 41.33094<br>41.330956              | -111.0173 External<br>-111.017319 External   |
| CR CC66/145                | 02/25/1959               | 02/25/195  |  | DESERET   | LIVESTOCK CO.        | ENLARGED CHAPMAN CANAL   |                            | 016N           | 121W 25            | SE1/4SW1/4                | A                            | 0                                 |                    |                                      |                   | (                  |                      | 0 0 Stream   | _                    | 41.33123                           | -111.01703 External                          |
| CR CC68/189<br>CR CC72/143 | 04/12/1912<br>04/30/1925 | 04/12/191 Fully Adjudicated<br>04/30/192 Fully Adjudicated |  | JOHN L AND BEVERLY A<br>JARED H., HELEN AND WILBU | COLES<br>IR BOWNS    | ENLARGED CHAPMAN CANAL<br>NIXON DITCH ACT BOWNS DITCH                | IRR SW                     | 016N<br>016N   | 121W 25<br>121W 36 | SE1/4SW1/4<br>SE1/4SE1/4  | A                            | 0.534                             |                    |                                      |                   |                    | ) (                  | 0 Stream<br>0 0 Stream                                   | 0                    | rigir 41.330958<br>rigir 41.315672 | -111.01/3 External<br>-111.008575 External   |
| CR CC72/144                | 08/21/1926               | 08/21/192 Fully Adjudicated                                |  | JARED H., HELEN AND WILBU                         | IR BOWNS             | NIXON WEST SIDE DITCH  | IRR SW                     | 016N           | 121W 36            | NW1/4SE1/4                | A                            | 0.44                              |                    |                                      |                   | (                  | ) (                  | 0 0 Stream   | C                    | rigir 41.319194                    | -111.013042 External                         |
| CR CC73/129<br>CR CC73/130 | 04/15/19/4               | 04/15/197 Fully Adjudicated<br>04/15/197 Fully Adjudicated |  | JARED WILBURN                                     | BOWNS                | ENLARGED BOWNS DITCH<br>ENLARGED NIXON WEST SIDE DITCH               | IRR SW                     | 016N           | 121W 36<br>121W 36 | SE1/4SE1/4<br>NW1/4SE1/4  | A                            | 0.72                              |                    |                                      |                   |                    | ) (                  | 0 Stream   | 0                    | rigir 41.315675<br>rigir 41.319189 | -111.008578 External                         |
| P5324.05                   | 02/07/1964               | 02/07/196 Cancelled<br>02/07/196 Cancelled                 |  | ROGER   | PIERCE               | ROGER PIERCE NO. 1 STOCK RESERVOIR                                   |                            | 016N           | 121W 35            | NW1/4NE1/4<br>NE1/ANE1/A  | A                            |                                   |                    | Cat Draw<br>Hamilton Springs Creek   | 0.6               | 0                  |                      | 0 Reservoi   |                      | 41.325869                          | -111.032406 External                         |
| P5515.0R                   | 12/07/1943               | 12/07/194 Complete   | PAINTER AND CO                                   | NOULN   | TIENCE               | PAINTER RESERVOIR  | IRR SW                     | 016N           | 119W 31            | SW1/4SW1/4                | L4                           |                                   |                    | Pleasant Valley Creek                | 167.61            | 167.6              |                      | 0 167.61 Reservoi  |                      | 41.31731                           | -110.89025 External                          |
| P5608.05<br>P5609.05       | 03/17/1966               | 03/17/196 Complete<br>03/17/196 Complete                   | SALMELA BROS.                                    |   |                      | FIRST STOCK RESERVOIR  | STO                        | 016N<br>016N   | 120W 18<br>120W 18 | SW1/4SW1/4<br>NF1/4SW1/4  | A<br>4                       |                                   |                    | South Draw No. 1<br>South Draw No. 2 | 0.14              | 0.14               | L (                  | 0.14 Reservoi<br>0.09 Reservoi                           |                      | 41.360067<br>41.363708             | -111.002953 External<br>-110.99835 External  |
| P5610.0S                   | 03/17/1966               | 03/17/196 Complete   | SALMELA BROS.                                    |   |                      | LITTLE STOCK RESERVOIR   | STO                        | 016N           | 120W 18            | NW1/4SE1/4                | A                            |                                   |                    | South Draw No. 4                     | 0.02              | i                  | 0.1                  | 7 0.17 Reservoi  |                      | 41.363714                          | -110.993597 External                         |
| P5611.0S<br>P5612.0S       | 03/17/1966<br>03/17/1966 | 03/17/196 Complete<br>03/17/196 Complete                   | SALMELA BROS.<br>SALMELA BROS.                   |   |                      | COAL PIT STOCK RESERVOIR<br>HORSE STOCK RESERVOIR                    | STO<br>STO                 | 016N<br>016N   | 120W 18<br>120W 18 | NW1/4SE1/4<br>SE1/4NW1/4  | A                            |                                   |                    | South Draw No. 3<br>North Draw No. 3 | 0.09              | 0                  | 0.09                 | <ol> <li>0.09 Reservoi</li> <li>0.12 Reservoi</li> </ol> |                      | 41.363714<br>41.367344             | -110.993597 External<br>-110.99835 External  |
| P5613.05                   | 03/17/1966               | 03/17/196 Complete   | SALMELA BROS.                                    |   |                      | DEAD HORSE STOCK RESERVOIR   | STO                        | 016N           | 120W 18            | SW1/4NE1/4                | A                            |                                   |                    | Draw No. 2                           | 0.06              | 0                  | 0.5                  | 5 0.56 Reservoi  |                      | 41.367347                          | -110.993581 External                         |
| P5615.05                   | 03/17/1966               | 03/17/196 Complete<br>03/17/196 Complete                   | SALMELA BROS.                                    |   |                      | ESKRIDGE STOCK RESERVOIR   | STO                        | 016N           | 120W 18<br>120W 19 | NW1/4NE1/4<br>NW1/4NE1/4  | A                            |                                   |                    | South Draw No. 5                     | 0.19              |                    | 0.1                  | 0.19 Reservoi     0.34 Reservoi                          |                      | 41.370419                          | -110.992836 External                         |
| P5616.05                   | 03/17/1966               | 03/17/196 Complete   | SALMELA BROS                                     |   |                      | BISHOP'S CANYON STOCK RESERVOIR                                      | STO                        | 016N           | 120W 19            | SW1/4SE1/4<br>NE1/ASW1/A  | A                            |                                   |                    | Bishop's Canyon                      | 0.11              | 0                  | 0.1:                 | L 0.11 Reservoi  |                      | 41.345219                          | -110.995367 External                         |
| P8452.05                   | 11/24/1978               | 11/24/197 Complete   |  |   |                      | GUILD NO. 5 STOCK RESERVOIR  | STO                        | 016N           | 119W 33            | NE1/4NE1/4                | A                            |                                   |                    | Canyon Draw                          | 2.9               | ,<br>(             | 2.9                  | 9 2.9 Reservoi   |                      | 41.327075                          | -110.836411 External                         |
| P8453.05<br>P9015.08       | 11/24/1978<br>06/27/1985 | 11/24/197 Complete<br>06/27/198 Complete                   |  |   |                      | GUILD NO. 6 STOCK RESERVOIR<br>SEDIMENT CONTROL RESERVOIR            | STO<br>CNG SW: IND SV      | 016N<br>W 016N | 119W 33<br>119W 32 | NE1/4NW1/4<br>SW1/4SF1/4  | A<br>4                       |                                   |                    | Box Draw<br>Cutoff Draw              | 2.27              | 5.43               | 0 2.2                | 7 2.27 Reservoi<br>6 92 Reservoi                         |                      | 41.328064                          | -110.843383 External<br>-110.86184 External  |
| OR 05/209                  | 08/13/1886               | 08/13/188 Fully Adjudicated                                |  | SARAH   | FADDIS               | CHAPMAN CANAL  |                            | 016N           | 121W 36            | NE1/4NE1/4                | A                            | 0.28                              |                    | Bear River                           |                   | (                  | ) (                  | 0 0 Stream   | Original             | 41.327322                          | -111.007631 External                         |
| CR CC28/089<br>CR CC28/164 | 08/21/1891<br>09/27/1905 | 08/21/189 Fully Adjudicated<br>09/27/190 Fully Adjudicated |  | MATTHEW<br>JOHN                                   | MORROW               | RUSSELL DITCH ACT BOWNS DITCH<br>TURNER DITCH                        | IRR SW<br>IRR SW           | 016N<br>016N   | 121W 36<br>121W 36 | SE1/4SE1/4<br>NW1/4NE1/4  | A                            | 0.21                              |                    | Bear River<br>Bear River             |                   | 0                  | ) (<br>) (           | 0 0 Stream<br>0 0 Stream                                 | Original             | 41.316311<br>41.327242             | -111.008678 External<br>-111.011917 External |
| CR CC28/165                | 09/27/1905               | 09/27/190 Fully Adjudicated                                |  | DAVID AND JAMES                                   | TURNER               | TURNER DITCH   | IRR SW                     | 016N           | 121W 36            | NW1/4NE1/4                | A                            | 1.41                              |                    | Bear River                           |                   | 0                  | ) (                  | 0 O Stream   | 0.000                | 41.327242                          | -111.011917 External                         |
| CR UW10/233<br>CR UW10/234 | 04/01/1983               | 04/01/198 Fully Adjudicated                                | NORTH UINTA COUNTY IMPROVEM                      | II  |                      | ENLARGEMENT DEER MOUNTAIN NO. 1 WELL                                 | MIS                        | 016N           | 121W 10<br>121W 10 | NE1/4SE1/4<br>NE1/4SE1/4  | 13                           | 0                                 |                    |                                      |                   |                    |                      | 0 Well   | Original             | 41.37779                           | -111.04401 External                          |
| CR UW10/235                | 07/23/1990               | 07/23/199 Fully Adjudicated                                | NORTH UINTA COUNTY IMPROVEM                      |   |                      | HOBACK RANCHES NO. 5 WELL  | MIS                        | 016N           | 121W 11            | SW1/4SW1/4                | A                            | 25                                |                    |                                      |                   | (                  |                      | 0 Well   | Original             | 41.37288                           | -111.04163 External                          |
| CR UW10/230<br>CR UW10/237 | 05/13/1991               | 05/13/199 Fully Adjudicated                                | NORTH UINTA COUNTY IMPROVEM                      | l   |                      | ENLARGEMENT HOBACK RANCHES NO. 5 WELL                                | MIS                        | 016N           | 121W 11<br>121W 11 | SW1/45W1/4                | A                            | 70                                |                    |                                      |                   | č                  | i i                  | 0 Well   | Original             | 41.37288                           | -111.04163 External                          |
| CR UW12/041<br>CR UW13/026 | 07/17/1997<br>03/28/1985 | 07/17/199 Fully Adjudicated<br>03/28/198 Fully Adjudicated | WYOMING HORSFRACING INC                          | GREG G AND DIANE C                                | BROWN                | AIRPORT BUSINESS LOT 3 NO. 1 WELL<br>RACETRACK NO. 1 WELL (SOUTH)    | MIS                        | 016N<br>016N   | 120W 19<br>121W 02 | SW1/4NW1/4<br>NW1/4SF1/4  | A                            | 7<br>100                          |                    |                                      |                   | 0                  | 0 0                  | 0 Well   | Original             | 41.35356                           | -111.00203 External<br>-111.03358 External   |
| CR UW13/162                | 07/09/2001               | 07/09/200 Fully Adjudicated                                | UINTA COUNTY                                     |   |                      | EVANSTON NO. 2 LANDFILL WELL   | MIS                        | 016N           | 120W 27            | SE1/4SW1/4                | A                            | 7                                 |                    |                                      |                   | ,                  | i d                  | 0 Well   |                      | 41.33273                           | -110.94093 External                          |
| CR UW13/164<br>CR UW04/216 | 08/20/2003<br>06/14/1977 | 08/20/200 Fully Adjudicated<br>06/14/197 Fully Adjudicated | UINTA COUNTY                                     | JOHN LAND E J                                     | MORTON               | ENL. EVANSTON NO. 2 LANDFILL WELL<br>MORTON NO.1 WELL                | MIS                        | 016N<br>016N   | 120W 27<br>121W 24 | SE1/4SW1/4<br>SE1/4SE1/4  | A                            | 18<br>25                          |                    |                                      |                   | 0                  | ) (<br>) (           | 0 Well<br>0 Well   | Original             | 41.33273<br>41.34569               | -110.94093 External<br>-111.00742 External   |
| CR UW04/217                | 04/05/1978               | 04/05/197 Fully Adjudicated                                | UNION PACIFIC LAND RESOURCES C                   |   |                      | AREA OFFICE WELL NO. 1   | MIS                        | 016N           | 120W 19            | SE1/4SW1/4                | A                            | 10                                |                    |                                      |                   | ,                  | , i                  | 0 Well   | Original             | 41.34542                           | -110.99824 External                          |
| CR UW04/219<br>CR UW04/220 | 07/23/1980<br>08/26/1982 | 07/23/198 Fully Adjudicated<br>08/26/198 Fully Adjudicated | BEAR RIVER COAL CO                               | JOHN L AND E J                                    | MORTON               | REPUBLIC SUPPLY NO. 1 WELL<br>EN. MORTON NO. 1 WELL                  | DOM_GW; MIS<br>DOM_GW; MIS | 016N<br>016N   | 12UW 30<br>121W 24 | NE1/4SW1/4<br>SE1/4SE1/4  | A                            | 10                                |                    |                                      |                   | 0                  | , (                  | 0 Well<br>0 Well   | Original<br>Original | 41.33597<br>41.34569               | -110.99781 External<br>-111.00742 External   |
| CR UW04/462                | 01/21/1981               | 01/21/198 Fully Adjudicated                                | FRAC TANKS INC                                   |   |                      | FRAC-TANKS NO. 2 WELL  | MIS                        | 016N           | 121W 24            | SW1/4NW1/4                | A                            | 20                                |                    |                                      |                   | (                  |                      | 0 Well   | Original             | 41.35133                           | -111.02418 External                          |
| CR UW04/465                | 04/26/1982<br>05/20/1982 | 04/20/198 Fully Adjudicated<br>05/20/198 Fully Adjudicated | WEIGHTING INDUSTRIAL DEVELOPM<br>CHEVRON USA INC |   |                      | PAINTER RESERVOIR UNIT 44-36C W.S.W. NO. 2 WELL                      | MIS                        | 016N           | 120W 31<br>120W 36 | SE1/4NW1/4<br>SE1/4SE1/4  | A                            | 10                                |                    |                                      |                   | (                  | , (<br>) (           | 0 Well<br>0 Well   | Original             | 41.32429<br>41.31706               | -110.99889 External<br>-110.89495 External   |
| CR UW04/466                | 07/19/1982               | 07/19/198 Fully Adjudicated                                | PARKER INDUSTRIES INC                            |   |                      | PARKER NO. 1 WELL  | MIS                        | 016N           | 120W 19            | NW1/4SW1/4                | L3                           | 10                                |                    |                                      |                   | (                  |                      | 0 Well   | Original             | 41.34977                           | -111.00135 External                          |
| CR UW05/153                | 11/03/1982               | 11/03/198 Fully Adjudicated                                | IMCO SERVICES A DIVISION OF HALL                 | L   |                      | IMCO NO. 1 WELL  | MIS                        | 016N           | 120W 31<br>120W 19 | 3E1/40W1/4<br>NW1/4SW1/4  | A                            | 25                                |                    |                                      |                   | (                  |                      | 0 Well   | Original             | 41.34802                           | -111.00448 External                          |
| CR UW05/155                | 07/19/1982               | 07/19/198 Fully Adjudicated                                | BEAR RIVER COAL COMPANY<br>OVERLAND WEST INC     |   |                      | NOWSCO NO. 1 WELL<br>OVERLAND WEST NO. 1 WELL                        | MIS                        | 016N           | 120W 30            | NE1/4NW1/4                | A<br>12                      | 5                                 |                    |                                      |                   |                    |                      | 0 Well   | Original             | 41.34327                           | -110.99994 External                          |
| CR UW08/232                | 07/20/1981               | 07/20/198  | EVANSTON VOLUNTEER FIREFIGHTE                    | E   |                      | PAMCO NO. 1 WELL   | MIS                        | 016N           | 120W 30            | SW1/4NE1/4                | A                            | 5                                 |                    |                                      |                   | (                  |                      | 0 Well   | Original             | 41.33683                           | -110.99372 External                          |
| P187023.0W<br>P187622.0W   | 06/03/2008<br>06/27/2008 | Complete<br>Fully Adjudicated                              | MARTIN FAMILY RANCH LLC<br>MERIT ENERGY COMPANY  |   |                      | MARTIN 2008 WELL<br>ENL. PAINTER NO. 2 WELL                          | STK<br>MIS                 | 016N<br>016N   | 120W 15<br>119W 32 | SW1/4SW1/4<br>SE1/4SE1/4  | A                            | 10 310.00<br>0                    | 215 N              | 305                                  |                   | 0                  | ) (<br>) (           | 0 Well<br>0 Well   | N                    | 41.359<br>41.31606                 | -110.945333 External<br>-110.85509 SEO       |
|                            |                          |  |  |   |                      |  |                            |                |                    |                           |                              |                                   |                    |                                      |                   |                    |                      |  |                      |                                    |  |

| UINTA COUNTY               | (                           |  |  |                             |                    |  |                               |                  |                    |                           |                                |                                    |                           |                                   |                   |                         |                          |                                |                      |                          |  |
|----------------------------|-----------------------------|--|--|-----------------------------|--------------------|--|-------------------------------|------------------|--------------------|---------------------------|--------------------------------|------------------------------------|---------------------------|-----------------------------------|-------------------|-------------------------|--------------------------|--------------------------------|----------------------|--------------------------|--|
|                            |                             |  |  |                             |                    |  |                               |                  |                    |                           | Type, Survey<br>,Survey Suffix | xw(CFS)<br>'ation(GPM)<br>pth (Ft) | atorLevel (Ft)<br>3 (Y/N) | f Pump (Ft)                       |                   | n Capacity at<br>o(CFS) |                          | Res erv oir(AF)                |                      | al Amalysis(Y/N)         |  |
|                            |                             | Priority   |  |                             |                    |  |                               |                  |                    |                           | rvey.                          | propi<br>tal Fk                    | aticW.                    | o #d                              | Total<br>Capacity | S R Active              | Inactive<br>ty( Capacity | ( Facility                     | SupplyT              | emici                    | Created                                      |
| P187623.0W                 | Priority Date<br>06/27/2008 | text Summary WR Status<br>Fully Adjudicated                | Company<br>MERIT ENERGY CORPORATION                            | First Name                  | Last Name          | Facility Name<br>ENL PAINTER NO. 1 WELL  | Uses<br>MIS                   | Twn<br>016N      | Rng Se<br>119W 32  | c Qtr-Qtr<br>SE1/4SE1/4   | <u>R</u> 8                     | <u> ř¥ ř</u>                       | ti X                      | Stream Source                     | (AF/Yr)           | ਰੇ £ੈ AF)               | AF)                      | 0 0 Well                       | уре                  | 5 Latitude L<br>41.31606 | -110.85503 SEO                               |
| P192490.0W                 | 03/09/2010                  | Complete   |  | LEISA                       | REITER             | REITER #1  | DOM GW                        | 016N             | 121W 36            | NW1/4NW1/                 | 4 A                            | 4 11.66                            | 5.75 N                    | 11                                |                   |                         | 0                        | 0 0 Well                       | N                    | 41.32611                 | -111.02028 External                          |
| CR CC28/014<br>CR CC28/242 | 10/01/1880                  | 10/01/188 Fully Adjudicated<br>03/19/188 Fully Adjudicated |  | HEBER AND ANNA<br>HENRY     | MORRIS             | MORRIS BROTHERS IRRIGATING DITCH ACT CHAPMAN<br>FOWKES DAM                                   | I IRR SW                      | 016N<br>016N     | 121W 36<br>120W 05 | NE1/4NE1/4<br>NW1/4NW1/   | A<br>4 14                      | 0.21                               |                           | Bear River<br>Fowkes Canvon Creek |                   |                         | 0                        | 0 0 Stream<br>0 0 Stream       | Original             | 41.328058                | -111.009725 External<br>-110 984236 External |
| CR CC28/194                | 12/31/1886                  | 1886 Fully Adjudicated                                     | CHAMBERS ESTATE  |                             |                    | TUNNEL DITCH   | IRR SW                        | 016N             | 121W 01            | SW1/4SE1/4                | A                              | 9.16                               |                           | Bear River                        |                   |                         | ō                        | 0 0 Stream                     | Original             | 41.389525                | -111.012261 External                         |
| CR CC28/056<br>CR CC83/148 | 08/13/1886<br>08/13/1886    | 08/13/188 Fully Adjudicated<br>08/13/188 Fully Adjudicated | CHAMBERS ESTATE<br>PHOENIX WYOMING INC                         |                             |                    | CHAPMAN CANAL<br>CHAPMAN CANAL   | IRR SW<br>IND SW              | 016N<br>016N     | 121W 36<br>121W 36 | NE1/4NE1/4<br>NE1/4NE1/4  | A                              | 12.52                              |                           | Bear River<br>Bear River          |                   |                         | 0                        | 0 0 Stream<br>0 0 Stream       | Original<br>Original | 41.328069<br>41.328069   | -111.009708 External<br>-111.009708 External |
| P196415.0W                 | 08/05/2011                  | Incomplete   |  | RILEY AND MEGAN             | HOFFMAN            | HOFFMAN 1  | DOM GW                        | 016N             | 121W 36            | NW1/4NW1/                 | 4 A                            | 15                                 |                           |                                   |                   |                         | 0                        | 0 0 Well                       |                      | 41.32684                 | -111.02214 SEO                               |
| P197675.0W                 | 03/05/2012                  | Fully Adjudicated  | BROADBENT LAND AND RESOURCE                                    | is<br>ic                    |                    | 2ND. ENL: OF PAINTER NO. 2 WELL<br>2RD. ENIL OF PAINTER NO. 1 WELL                           | STK                           | 016N<br>016N     | 119W 32            | SE1/4SE1/4<br>SE1/4SE1/4  | A                              | 0                                  |                           |                                   |                   |                         | 0                        | 0 0 Well                       |                      | 41.31606                 | -110.85503 SEO                               |
| P198181.0W                 | 06/07/2012                  | Complete   | BROADDENT EARD AND RESOURCE                                    | SANDY AND TERESA            | HOFFMAN            | HOFFMAN WELL NO. 2   | DOM_GW                        | 016N             | 121W 36            | SE1/4NW1/4                | Â                              | 15 70.00                           | 65 N                      | 65                                |                   |                         | 0                        | 0 0 Well                       | N                    | 41.324456                | -111.019614 SEO                              |
| CR CC92/148<br>CR CC28/063 | 09/06/2002<br>08/13/1886    | 09/06/200 Fully Adjudicated<br>08/13/188 Fully Adjudicated | NEPONSET LAND AND LIVESTOCK O                                  | AARON R AND NANCY H         | MARTIN             | RED CANYON STOCK TANK PIPELINE<br>CHAPMAN CANAL  | STO<br>IRR_SW: STO            | 016N<br>016N     | 120W 15<br>121W 36 | SE1/4SW1/4<br>NE1/4NE1/4  | A                              | 0.046 148.28                       |                           | Red Canyon Creek<br>Bear River    |                   | 0.046                   | 0                        | 0 0 Stream<br>0 0 Stream       | Original             | 41.35952<br>41.328069    | -110.93877 External<br>-111.009708 External  |
| CR CC28/055                | 08/13/1886                  | 08/13/188 Fully Adjudicated                                |  | JOSEPH                      | BROWN              | CHAPMAN CANAL  | IRR SW                        | 016N             | 121W 36            | NE1/4NE1/4                | A                              | 0.42                               |                           | Bear River                        |                   |                         | 0                        | 0 0 Stream                     | Original             | 41.328069                | -111.009708 External                         |
| CR CC28/057<br>CR CC28/058 | 08/13/1886                  | 08/13/188 Fully Adjudicated<br>08/13/188 Fully Adjudicated |  | SARAH                       | FADDIS             | CHAPMAN CANAL<br>CHAPMAN CANAL   | IRR_SW<br>IRR_SW              | 016N<br>016N     | 121W 36            | NE1/4NE1/4<br>NF1/4NF1/4  | A<br>A                         | 0.28                               |                           | Bear River<br>Bear River          |                   |                         | 0                        | 0 0 Stream<br>0 0 Stream       | Original             | 41.328069                | -111.009708 External<br>-111.009708 External |
| CR CC28/059                | 08/13/1886                  | 08/13/188 Fully Adjudicated                                |  | HEBER AND ANN               | MORRIS             | CHAPMAN CANAL  | IRR SW                        | 016N             | 121W 36            | NE1/4NE1/4                | Ā                              | 0.64                               |                           | Bear River                        |                   |                         | 0                        | 0 0 Stream                     | Original             | 41.328069                | -111.009708 External                         |
| CR CC28/060                | 08/13/1886                  | 08/13/188 Fully Adjudicated                                |  | MARY                        | MORRIS             | CHAPMAN CANAL<br>BOWNS AND BRUCE DITCH ACT LOWER MORPIS BROT                                 | IRR SW                        | 016N<br>A 016N   | 121W 36            | NE1/4NE1/4<br>SE1/4SW/1/4 | A                              | 0.35                               |                           | Bear River                        |                   |                         | 0                        | 0 0 Stream                     | Original             | 41.328069                | -111.009708 External                         |
| CR CC28/011                | 12/31/1880                  | 1880 Fully Adjudicated                                     |  | JAMES                       | BOWNS              | BOWNS DITCH ACIPT NIXON WEST SIDE DITCH  | DOM SW; IRR S                 | A 016N           | 121W 36            | SE1/4SE1/4                | Ā                              | 1.14                               |                           | Bear River                        |                   |                         | 0                        | 0 0 Stream                     | Original             | 41.316269                | -111.008556 External                         |
| CR CC28/012                | 12/31/1880                  | 1880 Fully Adjudicated                                     |  | JAMES                       | BOWNS              | BOWNS AND BRUCE DITCH<br>MORPIS BROTHERS IRRIGATING DITCH ACT CHARMAN                        | IRR SW; STO                   | 016N<br>016N     | 121W 13            | NE1/4SW1/4<br>NE1/4NE1/4  | A                              | 2.47                               |                           | Bear River                        |                   |                         | 0                        | 0 0 Stream                     | Original             | 41.362422                | -111.016547 External                         |
| CR CC28/016                | 10/01/1880                  | 10/01/188 Fully Adjudicated                                |  | ORSON                       | MORRIS             | MORRIS BROTHERS IRRIGATING DITCH ACIPT S P DITCH   | IRR SW                        | 016N             | 121W 36            | NE1/4NE1/4                | Ā                              | 1.08                               |                           | Bear River                        |                   |                         | 0                        | 0 0 Stream                     | Original             | 41.328044                | -111.009708 External                         |
| CR CC28/017                | 10/01/1880                  | 10/01/188 Fully Adjudicated                                |  | JOHN                        | SALAMELA           | MORRIS BROTHERS IRRIGATING DITCH ACT CHAPMAN   | I IRR SW                      | 016N             | 121W 36            | NE1/4NE1/4                | A                              | 0.57                               |                           | Bear River                        |                   |                         | 0                        | 0 0 Stream                     | Original             | 41.328069                | -111.009703 External                         |
| CR CC28/019                | 10/01/1880                  | 10/01/188 Fully Adjudicated                                |  | JOSEPH                      | BROWN              | MORRIS BROTHERS IRRIGATING DITCH ACT CHAPMAN<br>MORRIS BROTHERS IRRIGATING DITCH ACT CHAPMAN | I IRR SW                      | 016N             | 121W 36            | NE1/4NE1/4                | A                              | 0.42                               |                           | Bear River                        |                   |                         | 0                        | 0 0 Stream                     | Original             | 41.328056                | -111.009667 External                         |
| CR CC28/020                | 10/01/1880                  | 10/01/188 Fully Adjudicated                                | WILLIAMA MACODOLE ESTATE                                       | GEORGE                      | SESSIONS           | MORRIS BROS. IRRIGATING DITCH  | IRR SW                        | 016N             | 121W 13            | SE1/4SW1/4                | A                              | 1.14                               |                           | Bear River                        |                   |                         | 0                        | 0 0 Stream                     | Original             | 41.359136                | -111.015336 External                         |
| CR CC28/061                | 08/13/1886                  | 08/13/188 Fully Adjudicated                                | WILDAWI WORKIS ESTATE  | GEORGE                      | SESSIONS           | CHAPMAN CANAL<br>CHAPMAN CANAL   | IRR SW                        | 016N             | 121W 36            | NE1/4NE1/4                | A                              | 1                                  |                           | Bear River                        |                   |                         | 0                        | 0 0 Stream                     | Original             | 41.328069                | -111.009708 External                         |
| CR CC28/064                | 08/13/1886                  | 08/13/188 Fully Adjudicated                                |  | DAVID                       | REES               | CHAPMAN CANAL  | IRR SW; STO                   | 016N             | 121W 36            | NE1/4NE1/4                | A                              | 40.85                              | 67. N                     | Bear River                        |                   |                         | 0                        | 0 0 Stream                     | Original             | 41.328069                | -111.009708 External                         |
| P200068.0W<br>P201064.0W   | 09/23/2013                  | Complete   |  | SUZANNE                     | LELAND-LYM         | SELL 1   | DOM GW                        | 016N             | 121W 02<br>121W 36 | NW1/4NW1/4                | 4 A                            | 10 75.00                           | 47 N<br>23 N              | 60                                |                   |                         | 0                        | 0 0 Well                       | N                    | 41.39577                 | -111.03663 SEO<br>-111.02138 SEO             |
| CR UW20/273                | 06/27/2008                  | Fully Adjudicated  | MERIT ENERGY COMPANY   | -                           |                    | ENL PAINTER NO. 2  | MIS                           | 016N             | 119W 32            | SE1/4SE1/4                | A                              | 0                                  |                           |                                   |                   |                         | 0                        | 0 0 Well                       |                      | 41.31828                 | -110.85449 SEO                               |
| CR UW20/274<br>CR UW20/275 | 06/27/2008                  | Fully Adjudicated  | MERIT ENERGY COMPANY   | -5                          |                    | ENL OF PAINTER NO. 2<br>ENL PAINTER NO. 1  | MIS                           | 016N             | 119W 32<br>119W 32 | SE1/4SE1/4<br>SE1/4SE1/4  | A                              | 0                                  |                           |                                   |                   |                         | 0                        | 0 0 Well                       |                      | 41.31821<br>41.31826     | -110.85364 SEO                               |
| CR UW20/276                | 03/05/2012                  | Fully Adjudicated  | BROADBENT LAND AND RESOURCE                                    | is                          |                    | ENL. OF PAINTER NO. 1  | STK                           | 016N             | 119W 32            | SE1/4SE1/4                | А                              | 0                                  |                           |                                   |                   |                         | 0                        | 0 0 Well                       |                      | 41.31608                 | -110.85504 SEO                               |
| P204389.0W<br>P11315.0R    | 08/17/2015<br>08/22/2002    | 08/22/200 Complete   | MARTIN FAMILY LIMITED PARTNER                                  | BRUCE A AND MARCELLA        | RASMUSSEN          | RASMUSSEN #1<br>MARTIN POND #1 RESERVOIR   | STO; WL                       | 016N<br>017N     | 121W 13<br>120W 31 | NW1/4SW1/4<br>NW1/4SE1/4  | 4 A<br>A                       | 25                                 |                           | Bear River                        | 0.99              | 0.992 0                 | 0<br>98 0.0              | 0 0 Well<br>1 0.99 Reserv      | oir                  | 41.36364 41.41248        | -111.02221 SEO<br>-111.02401 External        |
| P11316.0R                  | 08/22/2002                  | 08/22/200 Complete   | MARTIN FAMILY LIMITED PARTNER                                  | 85                          |                    | MARTIN POND #2 RESERVOIR   | STO; WL                       | 017N             | 120W 31            | NW1/4SE1/4                | A                              |                                    |                           | Bear River                        | 0.44              | 0.442                   | 0                        | 0 0 Reserv                     | oir                  | 41.41081                 | -111.02486 External                          |
| P11317.0R<br>P11318.0R     | 08/22/2002                  | 08/22/200 Complete<br>08/22/200 Complete                   | MARTIN FAMILY LIMITED PARTNER<br>MARTIN FAMILY LIMITED PARTNER | 8                           |                    | MARTIN POND #3 RESERVOIR<br>MARTIN POND #4 RESERVOIR   | STO; WL<br>STO: WL            | 01/N<br>017N     | 120W 31<br>120W 32 | SE1/4SE1/4<br>SW1/4SW1/4  |                                |                                    |                           | Bear River<br>Bear River          | 1.69              | 1.69 1.8.62 8.          | 64 0.0<br>54 0.0         | 5 1.69 Reserv<br>8 8.62 Reserv | oir<br>oir           | 41.40687<br>41.40898     | -111.01978 External<br>-111.01468 External   |
| P11319.0R                  | 08/22/2002                  | 08/22/200 Complete   | MARTIN FAMILY LIMITED PARTNER                                  | s                           |                    | MARTIN POND #5 RESERVOIR   | STO; WL                       | 017N             | 120W 32            | SW1/4SW1/4                | A                              |                                    |                           | Bear River                        | 1.8               | 1.8 1                   | 78 0.0                   | 2 1.8 Reserv                   | pir                  | 41.40926                 | -111.01689 External                          |
| P11320.0R<br>P11321.0R     | 08/22/2002                  | 08/22/200 Complete<br>08/22/200 Complete                   | MARTIN FAMILY LIMITED PARTNER<br>MARTIN FAMILY LIMITED PARTNER | RS MIKE                     | MARTIN             | MARTIN POND #6 RESERVOIR<br>MARTIN POND #7 RESERVOIR   | STO; WL<br>STO: WI            | 017N<br>017N     | 120W 31<br>120W 31 | NE1/4SE1/4<br>NW1/4SE1/4  | A<br>A                         |                                    |                           | Bear River<br>Bear River          | 0.67              | 0.67 0.                 | 66 0.0<br>83 0.0         | 1 0.67 Reserv<br>2 0.85 Reserv | oir<br>oir           | 41.41156                 | -111.02288 External<br>-111.02455 External   |
| P11322.0R                  | 08/22/2002                  | 08/22/200 Complete   | MARTIN FAMILY LIMITED PARTNER                                  | RS MIKE                     | MARTIN             | MARTIN POND #8 RESERVOIR   | STO; WL                       | 017N             | 120W 31            | SE1/4SE1/4                | A                              |                                    |                           | Bear River                        | 0.63              | 0.63 0                  | 61 0.0                   | 2 0.63 Reserv                  | oir                  | 41.40683                 | -111.02056 External                          |
| 13823.0<br>P2738.0R        | 02/12/1998 10/02/1914       | 02/12/199 Complete<br>10/02/191 Incomplete                 |  | MERRILL J.<br>JOHN          | MARTIN<br>STAHLEY  | MARTIN STOCK RESERVOIR<br>WHITNEY CANYON RESERVOIR   | STO                           | 017N<br>017N     | 120W 31<br>120W 27 | NE1/4NE1/4<br>SW1/4NW1/4  | 4 A                            | 9.06                               |                           | Bear River<br>Whitney Canyon      | 0.78              | 9.                      | 06 0.7                   | 0 9.06 Reserv<br>8 0.78 Reserv | oir<br>oir           | 41.41864<br>41.42933     | -111.02136 External<br>-110.9795 External    |
| P2743.0R                   | 10/02/1914                  | 10/02/191 Incomplete                                       |  | JOHN                        | STAHLEY            | ACKOCKS CANYON RESERVOIR   | STO                           | 017N             | 120W 09            | SE1/4SW1/4                | А                              |                                    |                           | Bear River                        | 0.63              |                         | 0 0                      | 4 0.4 Reserv                   | pir                  | 41.46503                 | -110.99456 External                          |
| P12718.0D<br>P12719.0D     | 06/17/1914                  | 06/17/191 06/17/191  |  | Chas.                       | Stahley            | Whitney Canyon Ditch No. 1<br>Whitney Canyon Ditch No. 1                                     | DOM SW; IRR SI                | A 017N<br>A 017N | 119W 21<br>119W 19 | NW1/4SW1/4<br>NW1/4SW1/4  | 4                              | 0                                  |                           |                                   |                   |                         | 0                        | 0 0 Stream<br>0 0 Stream       |                      | 41.439979                | -110.883627 External<br>-110.922116 External |
| P12720.0D                  | 06/17/1914                  | 06/17/191  |  | John                        | Stahley            | Whitney Canyon Ditch No. 1   | DOM SW; IRR SI                | A 017N           | 119W 19            | NW1/45W1/4                | 4                              | ō                                  |                           |                                   |                   |                         | ō                        | 0 0 Stream                     |                      | 41.440049                | -110.922116 External                         |
| P2136.0D<br>P25147.0D      | 05/22/1899<br>07/23/1976    | 05/22/189 Cancelled<br>07/23/197 Cancelled                 |  | THOMAS                      | COWLISHAN          | Cowlishan Ditch No. 1<br>Amoco-Chevron-Gulf W.I. Unit Well #1 (Water Haul)                   | IRR SW<br>DRI: IND SW: OIL    | 017N<br>: 017N   | 120W 17<br>120W 29 | NE1/4SW1/4<br>NW1/4NW1/4  | 4                              | 4.28                               |                           |                                   |                   | 0.39                    | 0                        | 0 0 Stream<br>0 0 Stream       |                      | 41.454941<br>41.433798   | -111.012009 External<br>-111.015869 External |
| P25383.0D                  | 03/25/1977                  | 03/25/197 Cancelled  |  |                             | United Geophysical | C United Geophysical Corp. Water Haul No. 3  | DRI; IND SW; TEI              | V 017N           | 120W 20            | SW1/4SW1/4                |                                | 0.17                               |                           |                                   |                   | 0.17                    | 0                        | 0 0 Stream                     |                      | 41.436708                | -111.01643 External                          |
| P27061.0D<br>P31076.0D     | 04/01/1981<br>07/13/1993    | 04/01/198 Cancelled<br>07/13/199 Cancelled                 |  |                             |                    | Gulf Dow-Federal #1-14 Water Haul No. 1<br>Wasatch Gathering System Water Haul               | DRI; IND SW; OIL              | ; 017N<br>017N   | 120W 20<br>120W 17 | SW1/4SW1/4<br>SW1/4SF1/4  |                                | 0.45                               |                           |                                   |                   | 0.45                    | 0                        | 0 0 Stream<br>0 0 Stream       |                      | 41.436697<br>41.44981    | -111.016447 External<br>-111.006253 External |
| P31378.0D                  | 05/17/1995                  | 05/17/199 Cancelled  |  |                             |                    | UPRC 25-1 WATER HAUL   | IND SW; OIL; TEP              | VI 017N          | 120W 32            | NW1/4NW1/4                | 4 A                            | 0                                  |                           | Bear River                        |                   | 1.29                    | 0                        | 0 0 Stream                     |                      | 41.41832                 | -111.01823 External                          |
| P8886.0R<br>P8914.0R       | 07/24/1984 12/03/1984       | 07/24/198 Cancelled<br>12/03/198 Complete                  |  |                             |                    | #2 SPILL CONTROL RESERVOIR<br>SWEETENING PLANT RESERVOIR                                     | IND SW; STO<br>CNG SW: IND SV | 017N<br>V 017N   | 119W 07<br>119W 17 | SW1/4NE1/4<br>NW1/4SE1/4  | A                              |                                    |                           | Salt Creek<br>Plant Creek         | 0.24              | 0                       | 0                        | 0 0 Reserv<br>0 0.07 Reserv    | oir<br>oir           | 41.47262<br>41.45447     | -110.91258 External<br>-110.89329 External   |
| P9333.05                   | 01/20/1984                  | 01/20/198 Complete   |  |                             |                    | SALT CREEK 18-3 STOCK RESERVOIR  |                               | 017N             | 119W 18            | NW1/4SE1/4                | A                              |                                    |                           | Salt River                        | 0.13              |                         | 0 0.1                    | 3 0.13 Reserv                  | oir                  | 41.45309                 | -110.91186 External                          |
| CR CR17/090<br>CR CR17/093 | 08/22/2002                  | Fully Adjudicated<br>Fully Adjudicated                     | MARTIN FAMILY RANCH, LLC<br>MARTIN FAMILY RANCH, LLC           |                             |                    | MARTIN POND NO. 7 RESERVOIR<br>MARTIN POND NO. 5 RESERVOIR                                   | STO; WL<br>STO: WL            | 01/N<br>017N     | 120W 31<br>120W 32 | NW1/4SE1/4<br>SW1/4SW1/4  |                                |                                    |                           | Bear River<br>Bear River          |                   |                         | 0 0.8                    | 5 0.85 Reserv<br>0 1.8 Reserv  | oir<br>oir           | 41.41117<br>41.408       | -111.02497 External<br>-111.01736 External   |
| P187603.0W                 | 07/30/2008                  | Complete   |  | PAUL                        | ELSEN              | DOUBLE R SUBDIVISION LOT 2 WELL  | DOM_GW                        | 017N             | 120W 31            | SW1/4SW1/4                | A                              | 20 40.00                           | 15 N                      | 30                                |                   |                         | 0                        | 0 0 Well                       | N                    | 41.4085                  | -111.0355 SEO                                |
| CR CC28/241<br>CR CC28/178 | 03/19/1883<br>12/31/1885    | 03/19/188 Fully Adjudicated<br>1885 Fully Adjudicated      | FOWKES BROTHERS<br>CHAMBERS ESTATE                             |                             |                    | FOWKES DITCH<br>SLOUGH DITCH   | IRR SW<br>IRR SW              | 017N<br>017N     | 120W 33<br>120W 29 | SW1/4SW1/4<br>SW1/4NW1/4  | 4 A                            | 0.28                               |                           | Fowkes Canyon Creek<br>Bear River |                   |                         | 0                        | 0 0 Stream<br>0 0 Stream       |                      | 41.40895<br>41.428083    | -111.000133 External<br>-111.014394 External |
| CR CC69/302                | 05/15/1882                  | 05/15/188 Fully Adjudicated                                | ESTATE OF FRED B. MYERS (DECEAS                                | SI J.W.                     | MYERS              | ACOCKS AND COWLISHAN DITCH ACT EVANSTON SUP  | F IRR SW                      | 017N             | 120W 18            | SW1/4NE1/4                | L10                            | 1.97                               |                           | Bear River                        |                   |                         | 0                        | 0 0 Stream                     | Original             | 41.458592                | -111.026453 External                         |
| CR CC28/039<br>CR CC68/307 | 12/20/1883                  | Fall 1883 Fully Adjudicated<br>Fall 1883 Fully Adjudicated | CHAMBERS ESTATE  | RAI PH AND HAZEL C          | SIMS               | BLIGHT IRRIGATING DITCH ACIPT BEAR CANAL<br>BLIGHT IRRIGATING DITCH                          | IRR SW<br>IRR SW              | 017N<br>017N     | 120W 19<br>120W 19 | NW1/4NE1/4<br>NW1/4NE1/4  |                                | 1.2                                |                           | Bear River<br>Bear River          |                   |                         | 0                        | 0 0 Stream<br>0 0 Stream       | Original             | 41.446356                | -111.025161 External                         |
| CR CC28/045                | 12/31/1885                  | 1885 Fully Adjudicated                                     | CHAMBERS ESTATE  |                             |                    | ISLAND DITCH ACIPT BEAR CANAL  | IRR SW                        | 017N             | 120W 20            | NW1/4SW1/4                | 4 A                            | 2.34                               |                           | Bear River                        |                   |                         | 0                        | 0 0 Stream                     | Original             | 41.442128                | -111.018992 External                         |
| CR CC68/308<br>CR CC28/046 | 12/31/1885                  | 1885 Fully Adjudicated<br>1885 Fully Adjudicated           |  | RALPH AND HAZEL C<br>MARTIN | SIMS               | ISLAND DITCH   | IRR SW                        | 017N<br>017N     | 120W 20<br>120W 20 | NW1/4SW1/4<br>NW1/4SW1/4  | 4 A<br>4 A                     | 0.21                               |                           | Bear River<br>Bear River          |                   |                         | 0                        | 0 0 Stream<br>0 0 Stream       | Original             | 41.441961 41.442128      | -111.018958 External<br>-111.018992 External |
| CR CC28/070                | 12/31/1888                  | 1888 Fully Adjudicated                                     |  | MARTIN                      | CHRISTENSEN        | CHRISTENSEN DITCH  | IRR SW                        | 017N             | 120W 20            | SW1/4SW1/4                | Â                              | 1.64                               |                           | Bear River                        |                   |                         | 0                        | 0 0 Stream                     |                      | 41.435169                | -111.016525 External                         |
| CR CC28/071<br>R200740.0W  | 12/31/1888                  | 1888 Fully Adjudicated                                     | CHAMBERS ESTATE<br>MERIT ENERGY COMPANY                        |                             |                    | CHRISTENSEN DITCH<br>ENI, WHITNEY CANYON GAS PLANT WATER WELL #2                             | IRR SW                        | 017N<br>017N     | 120W 20            | SW1/4SW1/4<br>SE1/ANE1/A  |                                | 0.47                               |                           | Bear River                        |                   |                         | 0                        | 0 0 Stream                     |                      | 41.435169                | -111.016517 External                         |
| P200741.0W                 | 06/24/2013                  | Incomplete   | MERIT ENERGY COMPANY   |                             |                    | ENL. WHITNEY CANYON GAS PLANT WATER WELL#1   | MIS                           | 017N             | 119W 18            | NE1/4NE1/4                | Ā                              | ō                                  |                           |                                   |                   |                         | 0                        | 0 0 Well                       |                      | 41.461261                | -110.907747 SEO                              |
| CR CR23/344<br>P1305 0R    | 01/20/1984                  | 01/20/198 Fully Adjudicated<br>05/29/190 Incomplete        |  | WM                          | NEWBROUGH          | SALT CREEK 18-1 STOCK RESERVOIR<br>NARROWS RESERVOIR   | STO<br>IRR_SW                 | 017N<br>018N     | 119W 18<br>120W 22 | SW1/4NE1/4<br>NW1/4NM1/   | A<br>4 A                       |                                    |                           | Salt Creek<br>Bear River          | 0.16              | 0.                      | 16<br>5.1                | 0 0.16 Reserv                  | oir<br>oir           | 41.45737                 | -110.91163 External                          |
| P1410.0R                   | 08/05/1908                  | 08/05/190 Incomplete                                       |  | W.H.                        | Taylor             | NARROWS RESERVOIR  | IRR SW                        | 018N             | 120W 32            | SW1/4NW1/4                | 4 A                            |                                    |                           | Bear River                        | 192884.2          | 14015                   | 84                       | 0 192884 Reserv                | oir                  | 41.50286                 | -111.01679 External                          |
| P344.0D<br>P25949.0D       | 09/26/1892                  | 09/26/189 Cancelled<br>10/03/197 Cancelled                 | AMOCO PRODUCTION COMPANY                                       | J.M.                        | Baxter             | Woodruff Canal<br>CHAMPLIN 457 AMOCO B WELL #1 WATER HALL                                    | IRR SW                        | 018N<br>018N     | 120W 30            | SE1/4NE1/4<br>NW1/4SW1/4  | 4 17                           | 0                                  |                           | School Section Draw               |                   | -1                      | 0                        | 0 0 Stream                     |                      | 41 49786                 | -110 92201 External                          |
| P6556.1R                   | 02/26/1954                  | 02/26/195 Complete   | UTAH WOODRUFF NARROWS RESE                                     | F ARDEN                     | POPE               | WOODFRUFF NARROWS UTAH   | IRR SW; STO                   | 018N             | 120W 32            | NW1/4NW1/4                | 4 A                            | 0                                  |                           | Bear River                        |                   | 188                     | 00                       | 0 18800 Reserv                 | oir                  | 41.504                   | -111.01776 External                          |
| P6556.0R                   | 08/03/1959                  | 08/03/195 Complete   | LITAN BOARD OF WATER PEROLING                                  | · E                         |                    | WOODRUFF NARROWS RESERVOIR   | IRR SW; STO                   | 018N             | 120W 32            | NW1/4NW1/4                | 4 A                            |                                    |                           | Bear River                        | 28100             | 281                     | 00                       | 0 28100 Reserv                 | oir<br>oir           | 41.50378                 | -111.01723 External                          |
| P9334.05                   | 01/20/1984                  | 01/20/198 Complete   | STAT BUAND OF WATER RESUURC                                    | -                           |                    | ALKALI 3-1 STOCK RESERVOIR   | 2 min 319                     | 018N             | 120W 03            | SE1/4SE1/4                | - A-                           |                                    |                           | Little Alkali Draw                | 3/300             | 43                      | 0 0.                     | 9 0.9 Reserv                   | oir                  | 41.56664                 | -110.96508 External                          |
| P944.0R<br>P9712.0R        | 11/16/1906                  | 11/16/190 Expired<br>03/25/199 Cancelled                   |  | WILLIAM                     | NEWBOUGH           | NARROWS RESERVOIR<br>CLIMMINGS SPILL CONTROL RESERVOIR                                       | HYD; IRR SW<br>IND SW         | 018N<br>018N     | 120W 32            | NW1/4NW1/4<br>NW1/4NF1/4  | 4 A                            |                                    |                           | Bear River<br>Cummings Draw       | 1401.57           | 1401                    | 56                       | 0 1401.6 Reserv                | oir<br>oir           | 41.50397<br>41.54879     | -111.01757 External                          |
| P9713.0R                   | 03/25/1991                  | 03/25/199 Cancelled  |  |                             |                    | KEWANEE SPILL CONTROL RESERVOIR  | IND SW                        | 018N             | 120W 24            | SE1/4SW1/4                | Ā                              |                                    |                           | Kewannee Draw                     | 0.07              |                         | 0                        | 0 0 Reserv                     | pir                  | 41.52341                 | -110.9365 External                           |
| P7791.0E                   | 07/23/2009                  | Incomplete   | SILAS H ELLIS FAMILY LIVING TRUST                              | T STEPHEN                   | ELLIS              | ELLIS ENLARGEMENT OF LEE DITCH   | IRR_SW                        | 018N             | 120W 30            | NE1/4NE1/4                | А                              | 2.13                               |                           | Bear River                        |                   | 12.49                   | 0                        | 0 0 Stream                     |                      | 41.520167                | -111.023833 SEO                              |

|     |          |          |                |                                      |              |             | STREAM      |               |                   |                | WATER         |
|-----|----------|----------|----------------|--------------------------------------|--------------|-------------|-------------|---------------|-------------------|----------------|---------------|
| SEQ | TF NO    | PRIORITY | PERMIT NO.     | STREAM SEGMENT                       | HEARING HELD | DATE ISSUED | LENGTH (mi) | CFS (min-max) | BEGINNING (S-T-R) | ENDING (S-T-R) | DIVISION/DIST |
| 1   | 26 2/98  | 12/04/86 | 1 IF           | Clark's Fork R                       | Х            | 5/6/1988    | 5.85        | 225*          | 33-56-104         | 13-56-104      | 3/10          |
| 2   | 26 4/111 | 02/02/87 | 2 IF           | M Fk Powder R                        | Х            | 11/25/1989  | 9.96        | 12-25         | 28-42-85          | 22-42-85       | 2/8           |
| 3   | 26 4/144 | 06/15/87 | 3 IF           | Tongue R                             | Х            | 3/11/1990   | 8.30        | 60-180        | 22-56-88          | 10-56-87       | 2/5           |
| 4   | 26 5/157 | 07/02/87 | 4 IF           | Tensleep Cr                          | Х            | 1/13/1991   | 7.95        | 22            | 6-48-86           | 4-47-87        | 3/6           |
| 5   | 26 3/207 | 12/07/87 | 5 IF           | Sand Cr                              | Х            | 8/22/1991   | 2.50        | 16-21*        | 7-52-60           | 5-52-60        | 2/7           |
| 6   | 26 2/328 | 01/10/89 | 6 IF           | Green R                              | Х            | 1/7/1992    | 9.84        | 101-350*      | 11-36-111         | 9-35-111       | 4/11          |
| 7   | 26 2/332 | 02/02/89 |                | Ham's Fork                           | Х            |             | 10.87       | 34.5-41       | 36-23-117         | L43-22-116     | 4/9           |
| 8   | 26 4/334 | 02/10/89 | 7 IF           | W Fk New Fork R                      | X            | 1/7/1992    | 1.50        | 95-135        | 36-33-109         | 36-33-109      | 4/7           |
| 9   | 26 5/339 | 03/06/89 | 8 IF           | L Big Horn R                         | Х            | 9/19/1996   | 4.40        | 50-62         | 12-57-90          | 20-58-89       | 2/6           |
| 10  | 26 5/341 | 03/09/89 | 10 IF          | Big Wind R                           | Х            | 6/22/1997   | 5.26        | 102-110*      | 23-41-106         | 5-40-105       | 3/3           |
| 11  | 26 6/383 | 06/27/89 | 74 IF          | S Cottonwood Cr                      | X            | 1/16/2008   | 2.93        | 17*           | 11-32-115         | 7-32-114       | 4/10          |
| 12  | 26 4/388 | 07/12/89 | 73 IF          | N Cottonwood Cr                      | Х            | 1/16/2008   | 8.90        | 16-35*        | 13-33-115         | 20-33-114      | 4/10          |
| 13  | 26 5/399 | 08/04/89 | 88 IF          | S Fk Grand Encampment R              | X            | 5/19/2012   | 13.60       | 54            | 10-12-84          | 13-14-84       | 1/7           |
| 14  | 27 6/30  | 12/15/89 | 89 IF          | Laramie R                            | X            | 5/14/2012   | 3.94        | 50-100        | 26-13-77          | 10-13-77       | 1/4           |
| 15  | 27 2/146 | 12/17/90 | 85 IF          | Medicine Lodge Cr                    | X            | 2/9/2010    | 4.20        | 9-20          | 28-51-88          | T60-50-89      | 3/12          |
| 16  | 27 3/146 | 12/17/90 | 29 IF          | LaBarge Cr                           | X            | 12/3/2003   | 3.30        | 17-25         | 24-28-116         | 1-27-116       | 4/5           |
| 1/  | 27 2/185 | 03/11/91 | 66 IF          | North Platte R                       | X            | 2/28/2007   | 16.00       | 163*          | 23-12-80          | 26-14-81       | 1/1/          |
| 18  | 27 3/185 | 03/11/91 | 86 1F          | Deer Cr                              | X            | 6/23/2011   | 5.00        | 10-30         | 11-31-77          | 1110A-32-77    | 1/15-5        |
| 19  | 27 4/185 | 03/11/91 | 87 IF          | Sweetwater R                         | X            | 8/9/2011    | 10.20       | 16-80         | 17-28-98          | 34-29-97       | 1/12          |
| 20  | 27 5/185 | 03/11/91 | 35 IF          | N Piney Cr                           | X            | 2/10/2004   | 7.60        | 25-40"        | 16-31-115         | 30-31-114      | 4/10          |
|     | 27 6/185 | 03/11/91 | 36 IF          | M Piney Cr                           | X            | 2/23/2004   | 3.60        | 4-15          | 3-30-115          | 12-30-115      | 4/10          |
|     | 27 1/186 | 03/11/91 | 28 IF          | S Piney Cr                           | X            | 12/3/2003   | 7.00        | 9-15          | 17-29-115         | 12-29-115      | 4/10          |
|     | 27 2/180 | 03/11/91 | 30 IF          |                                      | X            | 12/1/2003   | 4.20        | 0-10          | 28-30-115         | 30-30-115      | 4/10          |
| 24  | 27 2/211 | 06/21/91 | 07 IF          | Lake Gr                              | X            | 2/28/2007   | 5.80        | 0.5           | 33-14-78          | 11-13-79       | 1/17          |
| 25  | 27 3/211 | 06/21/91 | 40 IF          | N FK Lille Shake K                   | ×            | 2/27/2006   | 9.10        | 2.0           | 20-13-85          | 7 10 95        | 1/8           |
| 20  | 27 4/211 | 06/21/91 | 47 IF          | Boso Cr                              | Ŷ            | 2/27/2006   | 3.20        | 0.75          | 16 12 95          | 19 12 95       | 1/0           |
| 21  | 27 5/211 | 06/21/91 | 40 IF          | Granite Glob/Groop Timber            | Ŷ            | 2/27/2006   | 1.90        | 0.75          | 34 13 85          | 10-12-00       | 1/0           |
| 20  | 27 0/211 | 06/21/91 | 49 II<br>50 IE | Harrison Cr                          | X            | 2/27/2006   | 1.70        | 0.73-1        | 32_13_85          | 4-12-05        | 1/8           |
| 30  | 27 2/212 | 06/21/91 | 51 IF          | Deadman Cr                           | X            | 2/27/2006   | 0.80        | 0.01-1        | 28_13_85          | 33-13-85       | 1/8           |
| 31  | 27 3/212 | 06/21/91 | 52 IF          | Ted Cr                               | X            | 2/27/2006   | 0.00        | 0.9-2.0       | 20-13-03          | 27-13-85       | 1/8           |
| 32  | 27 4/212 | 06/21/91 | 53 IF          | Third Cr                             | X            | 2/27/2006   | 0.00        | 0.35-1*       | 27-13-85          | 27-13-85       | 1/8           |
| 33  | 27 5/212 | 06/21/91 | 44 IF          | W Ek N Ek Little Snake B             | X            | 2/27/2006   | 6.60        | 3.5           | 24-13-86          | 14-12-86       | 1/8           |
| 34  | 27 6/212 | 06/21/91 | 45 IF          | Rabbit Cr                            | X            | 2/27/2006   | 0.00        | 0.7-1.5*      | 25-13-86          | 26-13-86       | 1/8           |
| 35  | 27 1/213 | 06/21/91 | 61 IF          | Horse Cr                             | x            | 2/28/2007   | 0.00        | 0.2           | 16-14-79          | 16-14-79       | 1/17          |
| 36  | 27 2/213 | 06/21/91 | 62 IF          | Nugget Gulch Branch                  | X            | 2/28/2007   | 0.10        | 0.2*          | 14-14-79          | 14-14-79       | 1/17          |
| 37  | 27 3/213 | 06/21/91 | 63 IF          | Beaver Cr                            | X            | 2/28/2007   | 1.90        | 0.35*         | 14-14-79          | 22-14-79       | 1/17          |
| 38  | 27 4/213 | 06/21/91 | 64 IF          | Camp Cr                              | X            | 2/28/2007   | 1.20        | 0.2*          | 13-14-79          | 19-14-78       | 1/17          |
| 39  | 27 5/213 | 06/21/91 | 65 IF          | Douglas Cr                           | Х            | 2/28/2007   | 22.30       | 5.5           | 9-14-79           | 6-13-80        | 1/17          |
| 40  | 27 3/283 | 12/31/91 |                | Shoshone R                           |              |             | 15.10       | 162-350       | 12-52-103         | 12-53-101      | 3/9           |
| 41  | 28 3/80  | 01/05/93 | 106 IF         | Salt R                               | Х            | 3/18/2014   | 2.60        | 221           | 21-36-119         | 16-36-119      | 4/12          |
| 42  | 28 2/84  | 01/21/93 | 109 IF         | E Fk Smith's Fk Cr                   | Х            | 6/25/2014   | 4.60        | 7-41          | 28-12-115         | 5-12-115       | 4/3           |
| 43  | 28 4/158 | 10/08/93 | 107 IF         | Fish Creek No. 1                     | X            | 4/8/2014    | 0.60        | 150           | 22-41-117         | 27-41-117      | 4/16          |
| 44  | 28 5/158 | 10/08/93 | 108 IF         | Fish Creek No. 2                     | X            | 4/8/2014    | 1.50        | 150           | 34-41-117         | 3-40-117       | 4/16          |
| 45  | 28 6/158 | 10/08/93 | 12 IF          | Shell Creek No. 1                    | Х            | 11/26/1999  | 10.50       | 19-70         | 27-53-88          | 7-53-89        | 3/7           |
| 46  | 28 1/159 | 10/08/93 | 13 IF          | Shell Creek No. 2                    | Х            | 11/26/1999  | 6.10        | 23-40         | 7-53-89           | 16-53-90       | 3/7           |
| 47  | 28 2/159 | 10/08/93 | 11 IF          | Greys River                          | Х            | 11/1/1998   | 10.10       | 204-350       | 7-36-117          | 33-37-118      | 4/12          |
| 48  | 28 3/159 | 10/08/93 | 43 IF          | Little Popo Agie R                   | Х            | 1/17/2006   | 1.40        | 21-45         | 4-31-99           | 34-32-99       | 3/1           |
| 49  | 28 5/302 | 10/06/94 | 91 IF          | Clear Creek Seg No. 1                | Х            | 8/6/2012    | 4.90        | 7.9-40        | 7-50-83           | 10-50-83       | 2/2           |
| 50  | 28 6/302 | 10/06/94 | 92 IF          | Clear Creek Seg No. 2                | Х            | 8/6/2012    | 4.20        | 6-40          | 10-50-83          | 5-50-82        | 2/2           |
| 51  | 29 6/38  | 6/20/95  | 16 IF          | Coal Creek Seg No. 1                 | Х            | 1/10/2002   | 0.80        | 1.8-7.5       | 16-26-118         | 16-26-118      | 4/2           |
| 52  | 29 1/39  | 06/20/95 | 14 IF          | Hobble Creek Seg No. 1               | X            | 10/3/2001   | 2.70        | 30-48*        | 24-28-117         | 36-28-117      | 4/2           |
| 53  | 29 2/39  | 06/20/95 | 20 IF          | Huff Creek Seg No. 1                 | X            | 10/9/2002   | 3.30        | 1.3-6.5*      | 10-27-119         | 27-28-119      | 4/8           |
| 55  | 29 6/74  | 12/19/95 | 18 IF          | Raymond Creek Seg No. 1              | X            | 9/15/2002   | 1.60        | 1.4-1.9       | 4-26-119          | 4-26-119       | 4/2           |
| 56  | 29 1/75  | 12/19/95 | 27 IF          | Porcupine Creek Seg No. 1            | X            | 12/8/2002   | 1.30        | 1.5-7.5*      | 23-28-118         | 27-28-118      | 4/2           |
| 59  | 29 4/75  | 12/19/95 | 26 1F          | Smiths Fork Seg No. 1                | X            | 11/26/2002  | 5.00        | 17-45*        | 10-28-118         | 27-28-118      | 4/2           |
| 60  | 29 1/128 | 6/27/96  | 17 11-         | Sall Creek Seg No. 1                 | X            | 1/18/2002   | 4.50        | 4.4-14        | 26-29-119         | 10-28-119      | 4/2           |
| 61  | 29 2/128 | 6/27/96  | 22 IF          | Water Canyon Ck Seg No. 1            | X            | 10/31/2002  | 1.20        | 2.4-10"       | 20-29-118         | 19-29-118      | 4/2           |
| 67  | 29 5/128 | 6/27/90  | 23 IF          | Ciraffa Crack Seg No. 1              |              | 10/0/2002   | 4.20        | 1.8-4.4       | 13-28-119         | 20-20-119      | 4/2           |
| 69  | 29 2/129 | 6/27/96  | 19 1           | Grante Creek Seg No. 1               | X            | 1/2/2002    | 2.40        | 1.5-5.5"      | 30-29-119         | 32-29-119      | 4/2           |
| 60  | 29 3/129 | 9/25/07  | 3215           | Lander Creek JE Segment No. 1        | ×            | 1/2/2002    | 4.90        | 1.2-24        | 4-27-117          | 10 20 447      | 4/2           |
| 74  | 29 0/237 | 9/25/97  | 32 IF          | North Fork Smiths Fork P See No.1    | ×            | 12/01/03    | 0.4         | 1.1           | 12 20 449         | 19-29-117      | 4/2           |
| 72  | 29 2/230 | 8/25/97  | 24 IF          | Packstirng Ck If Segment No. 1       | X            | 11/4/2003   | 2.4         | 0.7*          | 27-20-110         | 26-20-110      | 4/2           |
| 72  | 20 1/230 | 8/25/07  | 24 11          | Poker Hollow Ck IF Segment No. 1     | × ×          | 10/0/2002   | 1.5         | 3.7.40*       | 33_30_117         | 0_20_117       | 4/2           |
| 74  | 29 4/230 | 8/25/07  | 21 IF          | Trespass Ck IF Segment No.1          | × ×          | 1/17/2002   | 1.0         | 1 1*          | 10-28-118         | 10-28-118      | 4/2           |
| 75  | 30 5/38  | 12/6/99  | 38 IF          | Little Gilbert Creek IF Segment No 1 | X            | 1/9/2005    | 1.00        | 0.2-3.5       | 20-12-115         | 8-12-115       | 4/3           |
| 76  | 30 6/38  | 12/6/99  | 37 IF          | Gilbert Creek IF Segment No 1        | X            | 1/9/2005    | 4.4         | 13            | 25-12-115         | 5-12-115       | 4/3           |
| 77  | 30 1/39  | 12/6/99  | 40 IF          | Red Creek IF Segment No 1            | x            | 1/9/2005    | 57          | 0.7-4.8       | 3-12-103          | 35-13-104      | 4/1           |
| 78  | 30 2/39  | 12/6/99  | 41 IF          | Trout Creek IF Segment No 1          | x            | 1/9/2005    | 3.8         | 1.5-13.0      | Tr50-13-105       | 20-14-105      | 4/1           |
|     |          |          |                |                                      |              |             |             |               |                   |                |               |

| 70   | 20.3/20   | 12/6/00            | 30 IE                 | Sago Crook IE Sagmont No 1                     | l v      | 1/0/2005            | 3.6    | 1130      | 12 12 115  | 22 12 114   | 1/3  |
|------|-----------|--------------------|-----------------------|--|----------|---------------------|--------|-----------|------------|-------------|------|
| - 10 | 20.2/400  | 0/00/00            | 0415                  | Werenhound Creak                               | X        | 0/04/0000           | 0.50   | 1.1-5.5   | 24 40 70   | 6 10 70     | 4/0  |
|      | 30 3/180  | 9/22/00            | 04 IF                 |  | <u>^</u> | 8/24/2009           | 8.00   | 1.2-343   | 31-19-79   | 0-19-79     | 1/9  |
| 81   | 30 3/209  | 11/30/00           | 90 ⊩                  | Dry Fork (Little Big Horn)                     | X        | 8/3/2012            | 7.40   | 20-475    | 35-57-89   | 12-57-90    | 2/6  |
| 82   | 30 6/125  | 6/8/00             | 42 IF                 | Currant Creek IF Segment No 1                  | Х        | 1/9/2005            | 9      | 1.2-11.0  | 1-13-106   | T48-14-106  | 4/1  |
| 83   | 31 5/70   | 4/2/02             | 33 IF                 | Pine Creek IF #1- from Fremont Lake            | Х        | 12/10/03            | 8.18   | 40        | 23-34-108  | 15-33-109   | 4/7  |
| 84   | 31 4/105  | 6/4/02             | 34 IF                 | Pine Creek IF #1                               | X        | 12/10/03            | 8 18   | 40*       | 23-34-108  | 15-33-109   | 4/7  |
| 85   | 31 6/313  | 7/9/03             | 70 IE                 | Pickett Creek IE Segment No. 1                 | × ×      | 10/23/2008          | 4 74   | 9.6.10*   | 147.49.104 | 0.49.103    | 3/16 |
|      | 01 1/011  | 7/0/03             | 791                   | Pickett Creek II Segment No. 1                 | <u>^</u> | 10/23/2008          | 4.74   | 0.0-19    | 07.40.404  | 9-40-103    | 3/10 |
| 86   | 31 1/314  | 7/8/03             | 80 IF                 | Pickett Creek IF Segment No. 2                 | X        | 10/23/2008          | 3.44   | 4.4-25"   | 27-49-104  | L47-49-104  | 3/16 |
| 87   | 31 2/314  | 7/8/03             | 81 IF                 | Francs Fork IF Segment No. 1                   | Х        | 10/23/2008          | 5.20   | 8-160     | 20-47-103  | 34-48-103   | 3/16 |
| 88   | 31 3/314  | 7/8/03             | 82 IF                 | Jack Creek IF Segment No. 1                    | Х        | 10/23/2008          | 2.48   | 5.1-19*   | 33-48-104  | 21-48-104   | 3/16 |
| 89   | 31 4/314  | 7/8/03             | 83 IF                 | West Timber Creek IF Segment No. 1             | X        | 10/23/2008          | 4 35   | 2 3-5 6*  | 46-47-103  | 32-48-102   | 3/16 |
| 00   | 32 4/40   | 2/10/04            | 76 IE                 | Pinov Crock IE Sogmont No. 1                   | × ×      | 10/23/2008          | 2.32   | 2.5 5.5*  | 9 49 104   | T69B 49 104 | 3/16 |
|      | 32 4/40   | 2/10/04            | 701                   |  | <u>^</u> | 10/23/2008          | 2.32   | 2.3-33    | 0-40-104   | T07.40.404  | 3/10 |
| 91   | 32 5/40   | 2/10/04            | //IF                  | Greybull River IF Segment No. 1                | X        | 10/23/2008          | 4.31   | 25-65"    | 36-48-105  | 167-48-104  | 3/16 |
| 92   | 32 6/40   | 2/10/04            | 78 IF                 | N.F. Pickett Creek IF Segment No.1             | Х        | 10/23/2008          | 2.48   | 1.5-8.0*  | 24-49-104  | L47-49-104  | 3/16 |
| 93   | 32 1/330  | 1/21/2005          | 68 IF                 | Middle Fork Wood River Intream Flow            | Х        | 1/14/2008           | 4.90   | 9.5-20    | 11-45-103  | 30-46-102   | 3/16 |
| 94   | 32 2/330  | 1/21/2005          | 69 IF                 | Wood River Above Middle Fork IF                | X        | 1/14/2008           | 3 80   | 14-31     | 22-46-103  | 30-46-102   | 3/16 |
| 95   | 32 3/330  | 1/21/2005          | 70 IF                 | Wood River Below Middle Fork IF                | X        | 1/1//2008           | 1.00   | 24-51     | 29-46-102  | 29-46-102   | 3/16 |
|      | 02 0/000  | 1/21/2005          | 701                   | Cauth Fark Ward Diver IF                       | X        | 1/14/2000           | 1.00   | 45.00*    | 0.45.400   | 20-40-102   | 0/10 |
| 90   | 32 4/330  | 1/21/2005          | / I IF                | South Fork wood River IF                       | <u> </u> | 1/15/2008           | 3.90   | 15-33     | 8-45-102   | 28-40-102   | 3/10 |
| 97   | 32 5/330  | 1/21/2005          | 72 ⊩                  | Dick Creek IF                                  | X        | 1/15/2008           | 2.20   | 2.6-11.5* | 32-47-102  | 4-46-102    | 3/16 |
| 98   | 33 5/275  | 6/16/06            | 104 IF                | Marquette Creek IF                             | X        | 9/26/2013           | 0.5    | 1.1       | 10-50-103  | 10-50-103   | 3/9  |
| 99   | 33 6/275  | 6/16/06            | 105 IF                | Trout Creek IF                                 | X        | 9/26/2013           | 2      | 7-26      | 28-52-104  | 34-52-104   | 3/9  |
| 100  | 33 1/276  | 6/16/2006          | 103 IF                | Rock Creek IF                                  | x        | 9/5/2013            | 3 9    | 13-60     | 15-18-79   | 36-19-79    | 1/9  |
| 101  | 31/2/105  | 6/4/2002           | 100 11                | Savon Crock E from High Savon Pasancin         | ~        | 0/0/2010            | 27.69  | 10        | 16 15 99   | 19 12 90    | 1/9  |
| 101  | BOC B:    | 0/4/2002           | D00070D               | Cavery Creek II - IIOIII HIgh Savery Reservoir | N1/A     | 0/00/0007           | 21.00  | 10        | 10-13-00   | 10-12-09    | 1/0  |
| 102  | BUC Pet   | 4/19/1949          | P20272D               | Geyser Spring                                  | N/A      | 9/26/2007           | 2.29   | 3         | 29-41-106  | 15-41-106   | 3/3  |
| 103  | BOC Pet   | 4/9/1979           | P31194D               | Tensleep Cr                                    | N/A      | 9/21/2007           | 0.53   | 4.76      | T100-47-88 | T100-47-88  | 3/6  |
| 104  | BOC Pet   | 2/22/1984          | P29608D               | Carlin Springs                                 | N/A      | 5/12/2006           | 0.25   | 1.31      | 34-23-77   | 34-23-77    | 1/9  |
| 105  | 35 5/19   | 12/29/2009         | 93 IF                 | East Fork Lower Segment                        | Х        | 6/17/2013           | 4.6    | 58-100    | 9-41-105   | 28-41-105   | 3/3  |
| 106  | 35 6/19   | 12/29/2009         | 94 IF                 | Wiggins Fork Upper Segment                     | X        | 6/17/2013           | 17.6   | 28-100    | 3-44-106   | 19-42-105   | 3/3  |
| 107  | 35 1/20   | 12/20/2000         |                       | Wiggins Fork Lower Segment                     | v        | 6/17/2013           | 37     | 31_111    | 10-12 105  | 1-41, 105   | 3/3  |
| 107  | 05 1/20   | 12/23/2009         | 90 IF                 |  | ^<br>    | 0/11/2013           | J.1    | 0.00      | 13-42-100  | 4-41-103    | 3/3  |
| 108  | 35 2/20   | 12/29/2009         | 96 1F                 | Bear Creek Opper Segment                       | X        | 6/17/2013           | 7.12   | 9-32      | 34-44-105  | 31-43-105   | 3/3  |
| 109  | 35 3/20   | 12/29/2009         | 97 IF                 | Bear Creek Middle Segment                      | Х        | 6/17/2013           | 3.5    | 10-35     | 31-43-105  | 9-42-105    | 3/3  |
| 110  | 35 4/20   | 12/29/2009         | 98 IF                 | Bear Creek Lower Segment                       | Х        | 6/17/2013           | 2.56   | 11-35     | 9-42-105   | 21-42-105   | 3/3  |
| 111  | 35 5/20   | 12/29/2009         | 99 IF                 | East Fork Upper Segment                        | Х        | 6/17/2013           | 5.1    | 9-60      | 8-43-104   | 32-43-104   | 3/3  |
| 112  | 35 6/20   | 12/29/2009         | 100 IE                | East Fork BLM Upper Segment                    | X        | 6/17/2013           | 1.8    | 15-39     | 6-42-104   | 12-42-105   | 3/3  |
| 112  | 25 1/21   | 12/20/2000         | 101 IE                | East Fork BLM Lower Segment                    | X        | 6/17/2012           | 0.0    | 15 30     | 22 42 104  | 22 42 100   | 2/2  |
| 113  | 35 1/21   | 12/29/2009         | 101 IF                |  | <u>^</u> | 0/17/2013           | 0.9    | 15-39     | 22-42-105  | 22-42-105   | 3/3  |
| 114  | 35 2/21   | 12/29/2009         | 102 IF                | East Fork above Wiggins Fork Segment           | X        | 6/17/2013           | 1.6    | 27-60     | 28-42-105  | 4-41-105    | 3/3  |
| 115  | 35 4/217  | 3/8/2012           | 110 IF                | Shoal Creek Instream Flow                      | Х        | 7/13/2015           | 6.83   | 6-45      | 13-39-113  | 4-38-113    | 4/16 |
| 116  | 35 5/217  | 3/8/2012           | 119 IF                | Fisherman Instream Flow                        | Х        | 9/11/2015           | 4.06   | 1.3-13    | 11-37-112  | 21-37-112   | 4/16 |
| 117  | 35 6/217  | 3/8/2012           | 111 IF                | Cliff Creek Upper Instream Flow                | Х        | 7/13/2015           | 6.78   | 11-20     | 27-37-114  | 27-38-114   | 4/16 |
| 118  | 35 1/218  | 3/8/2012           | 112 IF                | Cliff Creek Lower Instream Flow                | X        | 7/13/2015           | 2.46   | 15-140    | 27-38-114  | 13-38-114   | 4/16 |
| 110  | 25 0/040  | 0/0/2012           | 112 1                 | Linn on Clock Edword motiodant Flow            | X        | 7/10/2010           | 1.00   | 00.40     | 20 20 444  |             | 4/10 |
| 119  | 35 2/2 18 | 3/8/2012           | 1131F                 | Opper Hoback River Instream Flow               | <u> </u> | 7/13/2015           | 1.90   | 23-40     | 29-30-114  | 32-30-114   | 4/10 |
| 120  | 35 3/221  | 3/12/2012          | 114 ⊩                 | Lower Hoback River Instream Flow               | X        | 7/13/2015           | 6.72   | 99-220    | 4-38-114   | 4-38-115    | 4/16 |
| 121  | 35 4/221  | 3/12/2012          | 115 IF                | Willow Creek Instream Flow                     | Х        | 7/13/2015           | 8.82   | 20-45     | 33-38-115  | 32-39-115   | 4/16 |
| 122  | 35 5/221  | 3/12/2012          | 116 IF                | Dell Creek Instream Flow                       | Х        | 7/13/2015           | 0.35   | 8.8-55    | 29-38-113  | 29-38-113   | 4/16 |
| 123  | 35 6/221  | 3/12/2012          | 117 IF                | Granite Creek Instream Flow                    | Х        | 7/13/2015           | 9.56   | 29-70     | 6-39-113   | 34-39-114   | 4/16 |
| 124  | 25 1/222  | 3/12/2012          | 119 10                | Little Grov's River Instream Flow              | × ×      | 7/13/2015           | 5.3    | 28.60     | 24 36 117  | 29 37 117   | 1/16 |
| 124  | 25 2/245  | 6/10/2012          | 1101                  | Muddy Crock Instream Elser                     | ^        | 1/13/2013           | 0.0    | 20-00     | 24-00-117  | 20-07-117   | 1/0  |
| 125  | 35 2/245  | 0/19/2012          |                       | wuuuuy Creek instream FIOW                     |          | 4                   | 0.3    | 2-3.5     | 3-10-89    | 20-17-89    | 1/8  |
| 126  | 35 3/245  | 6/19/2012          |                       | Little Muddy Creek Instream Flow               |          |                     | 2.04   | 0.7-2     | 7-17-88    | 6-17-88     | 1/8  |
| 127  | 35 4/245  | 6/19/2012          |                       | Littlefield Creek Instream Flow                |          |                     | 7.28   | 1-3.5     | 24-17-89   | 17-17-89    | 1/8  |
| 128  | 35 5/245  | 6/19/2012          |                       | McKinney Creek Instream Flow                   |          |                     | 1.99   | 1.1-8     | 1-17-89    | 20-17-89    | 1/8  |
| 129  | 35 1/335  | 7/30/2013          |                       | North Beaver Creek Instream Flow               |          |                     | 3.3    | 3,1-20    | 10-55-91   | 20-55-91    | 3/7  |
| 130  | 35 2/335  | 7/30/2013          |                       | South Beaver Creek Instream Flow               |          |                     | 0.85   | 2.8-17    | 28-55-01   | 33-55-01    | 3/7  |
| 124  | 25 2/225  | 7/20/2013          |                       | Dry Medicine Ledge Creak Instrument Flam       |          |                     | 0.00   | 2.0-17    | 20-00-01   | 4 54 00     | 5/1  |
| 131  | 30 3/335  | 1/30/2013          |                       | Dry Medicine Loage Creek Instream Flow         |          |                     | 4      | 3.1-20    | 20-52-88   | 4-51-88     | 3/1  |
| 132  | 36 3/43   | 10/16/2014         |                       | West Fork Little Big Horn River Instream Flow  |          |                     | 4.38   | 3.5-24    | 34-58-90   | 18-58-89    | 2/6  |
| 133  | 36 4/43   | 10/16/2014         |                       | Buckskin Ed Creek Instream Flow                |          |                     | 3.88   | 1.4-6     | 26-50-87   | 9-49-87     | 3/12 |
| 134  | 36 5/43   | 10/16/2014         |                       | Cedar Creek Instream Flow                      |          |                     | 4.3    | 7.1-13    | 24-54-90   | 11-53-90    | 3/7  |
| 135  | 36 6/43   | 10/16/2014         |                       | Lodge Grass Creek Instream Flow                |          |                     | 3.3    | 1.5-12    | 34-58-91   | 23-58-91    | 2/6  |
| 136  | 36 1/44   | 10/16/2014         |                       | Soldier Creek Instream Flow                    |          |                     | 5.0    | 16.11     | 31_50 96   | 10-40.97    | 3/10 |
| 127  | 26 2/44   | 10/10/2014         |                       |  |          |                     | 3.4    | 1.0-11    | 31-30-00   | 20 50 00    | 3/12 |
| 137  | 30 2/44   | 10/16/2014         |                       | TOUL Creek Instream Flow                       |          |                     | 2.9    | 1.3-12    | 26-58-92   | 29-58-92    | 3/15 |
| 138  |           |                    |                       |  |          |                     |        |           |            |             |      |
| 139  |           |                    |                       |  |          |                     |        |           |            |             |      |
| 140  |           |                    |                       |  |          |                     |        |           |            |             |      |
| 141  | 1         |                    |                       |  |          |                     |        |           |            |             |      |
| 141  |           |                    |                       |  |          |                     |        |           |            |             |      |
|      |           |                    |                       |  |          |                     |        |           |            |             |      |
|      | ļ         |                    |                       |  |          |                     |        |           |            |             |      |
|      |           | Green Highigh      | nting Indicates Seg   | ment Located in the Bear River Drainage        |          |                     |        |           |            |             |      |
|      | 1         |                    |                       | <b>_</b>                                       | 1        |                     |        |           |            |             |      |
|      |           | the all a set of a | na du attaur tro-stot | and the evisional filing                       |          | Annlingfigur        | 505.00 |           |            |             |      |
|      |           | - indicateds a     | reduction in cts fro  | om the original filing                         |          | Application miles = | 595.62 |           |            |             |      |
|      |           |                    |                       |  |          | Permitted miles =   | 466.89 |           |            |             |      |
|      |           |                    |                       |  |          | Board Petition =    | 3.07   |           |            |             |      |
|      |           |                    |                       |  |          |                     |        |           |            |             |      |
|      |           | -                  |                       |  |          |                     |        | -         |            |             |      |

## **APPENDIX K**

# NRCS CONSERVATION PRACTICES

#### Alphabetical Index

A-C, D-F, G-I, K-M, N-P, Q-R, S-T, U-Z

| Conservation Practice Name (Units) (Code) (Date Issued)  | Sta               | ndard      | Practice   | СРРЕ       | Implement. | National Statement of<br>Work Template | Network Effects Diagram |
|--|-------------------|------------|------------|------------|------------|--|-------------------------|
|  | PDF               | Word       | Overview   |            | Require.   |  |                         |
| Access Control (Ac.) (472) (9/10)  | <u>PDF</u>        | <u>DOC</u> | <u>PDF</u> | DOC        | DOC        | DOC                                    | PDF<br><u>DOC</u>       |
| Access Road (Ft.) (560) (7/10)   | <u>PDF</u>        | DOC        | PDF        | DOC        |            | DOC                                    | PDF<br>DOC              |
| Agrichemical Handling Facility (No.) (309) (2/08)  | <u>PDF</u>        | DOC        | <u>PDF</u> | DOC        |            | DOC                                    | <u>PDF</u><br>DOC       |
| Air Filtration and Scrubbing (No.) (371) (4/10)  | PDF               | DOC        |            |            |            | DOC                                    |                         |
| Alley Cropping (Ac.) (311) (5/11)  | <u>PDF</u>        | DOC        |            | DOC        | DOC        | DOC                                    | PDF<br>DOC              |
| Amendments for Treatment of Agricultural Waste (AU) (591) (4/13)   | <u>PDF</u>        | <u>DOC</u> |            | DOC        |            | DOC                                    | PDF<br>DOC              |
| Anaerobic Digester (No.)(366) (9/09)   | <u>PDF</u>        | <u>DOC</u> | PDF        | DOC        |            | DOC                                    | PDF<br>DOC              |
| Animal Mortality Facility (No.)(316) (9/10)  | <u>PDF</u>        | DOC        |            | DOC        |            | DOC                                    | PDF<br>DOC              |
| Animal Trails and Walkways(Ft.) (575) (4/10)   | <u>PDF</u>        | DOC        | PDF        | DOC        |            | DOC                                    | PDF<br>DOC              |
| Anionic Polyacrylamide (PAM) Application (Ac.) (450) (5/11)<br>Aquaculture Ponds (Ac.) (397) (1/10)              | <u>PDF</u><br>PDF | DOC        | PDF        | DOC        |            | DOC<br>DOC                             |                         |
| Aquatic Organism Passage (Mi.) (396) (4/11)  | PDF               | DOC        |            |            |            | DOC                                    | PDF                     |
| Bedding (Ac.) (310) (7/10)   | PDF               | DOC        | PDF        | DOC        |            | DOC                                    | PDF<br>DOC              |
| Bivalve Aquaculture Gear and Biofouling Control (Ac.) (400) (4/11)<br>Building Envelope Improvement (672) (4/13) | PDF<br>PDF        | DOC<br>DOC |            |            |            | DOC<br>DOC                             |                         |
| Brush Management (Ac.)(314) (9/09)   | <u>PDF</u>        | DOC        | PDF        | DOC        |            | DOC                                    | PDF                     |
| Channel Bed Stabilization(Ft.) (584) (9/10)  | PDF               | DOC        | PDF        | DOC        |            | DOC                                    | boe                     |
| Clearing and Snagging (FL)(326) (7/10)   | PDF               | DOC        | <u>PDF</u> | DOC        |            | DOC                                    |                         |
| Compacting Exciting (No.) (217) (0(10)   |                   | DOC        | DDE        | DOC        |            | DOC                                    | <u>PDF</u>              |
|  | PDF               | <u>000</u> |            | <u>000</u> |            | boc                                    | DOC                     |
| Conservation Cover (Ac.)(327) (9/10)   | <u>PDF</u>        | DOC        | <u>PDF</u> | DOC        | <u>PDF</u> | DOC                                    | DOC                     |
| Conservation Crop Rotation(Ac.) (328) (5/11)   | <u>PDF</u>        | <u>DOC</u> | PDF        | DOC        | PDF        | DOC                                    | PDF<br>DOC              |
| Constructed Wetland (Ac.)(656) (7/10)  | <u>PDF</u>        | DOC        |            | DOC        |            | DOC                                    | PDF<br>DOC              |
| Contour Buffer Strips (Ac.)(332) (4/10)  | <u>PDF</u>        | DOC        | <u>PDF</u> | DOC        | PDF        | DOC                                    | PDF<br>DOC              |
| Contour Farming (Ac.) (330) (12/13)  | <u>PDF</u>        | DOC        | PDF        | DOC        | PDF        | DOC                                    | PDF<br>DOC              |
| Contour Orchard and Other Perennial Crops (Ac.) (331) (1/10)   | <u>PDF</u>        | DOC        | <u>PDF</u> | DOC        | PDF        | DOC                                    | PDF<br>DOC              |
| Cover Crop (Ac.) (340) (5/11)  | <u>PDF</u>        | DOC        | <u>PDF</u> | DOC        | <u>PDF</u> | DOC                                    | PDF<br>DOC              |
| Critical Area Planting (Ac.)(342) (12/13)  | <u>PDF</u>        | DOC        | PDF        | DOC        | PDF        | DOC                                    | <u>PDF</u><br>DOC       |
| Cross Wind Ridges (Ac.) (588) (12/13)  | <u>PDF</u>        | DOC        | PDF        | DOC        | PDF        | DOC                                    |                         |

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#### Alphabetical Index

A-C, D-F, G-I, K-M, N-P, Q-R, S-T, U-Z

| Conservation Practice Name (Units) (Code) (Date Issued)  |  |                          | Practice          | СРРЕ                     | Implement. | National Statement of<br>Work Template | Network Effects Diagram |
|--|--|--------------------------|-------------------|--------------------------|------------|--|-------------------------|
|  | PDF                                    | Word                     | Overview          |                          | Require.   |  |                         |
| Cross Wind Trap Strips (Ac.)(589C) (4/11)<br>Dam (No. and Ac-Ft) (402) (5/11)<br>Dam, Diversion (No.) (348) (5/11)<br>Deep Tillage (Ac.) (324) (12/13)                           | PDF<br>PDF<br>PDF<br>PDF               | DOC<br>DOC<br>DOC<br>DOC | PDF<br>PDF<br>PDF | DOC<br>DOC<br>DOC<br>DOC | DOC<br>PDF | DOC<br>DOC<br>DOC<br>DOC               | PDF                     |
| Dike (Ft.) (356) (11/02)   | PDF                                    | DOC                      | <u>PDF</u>        | DOC                      | _          | DOC                                    | PDF                     |
| Diversion (Ft.) (362) (4/10)   | <u>PDF</u>                             | <u>DOC</u>               | <u>PDF</u>        | DOC                      |            | DOC                                    | <u>PDF</u><br>DOC       |
| Drainage Water Management(Ac.) (554) (9/08)  | <u>PDF</u>                             | DOC                      |                   | DOC                      |            | DOC                                    | <u>PDF</u><br>DOC       |
| Dry Hydrant (No.) (432) (9/11)<br>Dust Control from Animal Activity on Open Lot Surfaces (Ac.) (375) (9/10)<br>Dust Control on Unpaved Roads and Surfaces (Sq. Ft.) (373) (4/10) | <u>PDF</u><br><u>PDF</u><br><u>PDF</u> | DOC<br>DOC<br>DOC        |                   | DOC                      |            | DOC<br>DOC<br>DOC                      |                         |
| Early Successional Habitat Development/Management(Ac.) (647) (9/10)  | <u>PDF</u>                             | DOC                      |                   | DOC                      |            | DOC                                    | <u>PDF</u><br>DOC       |
| Farmstead Energy Improvement (No.) (374) (5/11)<br>Feed Management (No. of Systems and AUs Affected) (592) (9/11)  | <u>PDF</u><br><u>PDF</u>               | DOC<br>DOC               |                   | DOC                      |            | DOC<br>DOC                             |                         |
| Fence (Ft.) (382) (4/13)   | <u>PDF</u>                             | DOC                      | PDF               | DOC                      |            | DOC                                    | <u>PDF</u><br>DOC       |
| Field Border (Ac.) (386) (12/13)   | <u>PDF</u>                             | DOC                      | <u>PDF</u>        | DOC                      | PDF        | DOC                                    | PDF<br>DOC              |
| Filter Strip (Ac.) (393) (12/13)   | <u>PDF</u>                             | DOC                      | PDF               | DOC                      | PDF        | DOC                                    | <u>PDF</u><br>DOC       |
| Firebreak (Ft.) (394) (9/10)   | PDF                                    | DOC                      |                   | DOC                      |            | DOC                                    | PDF<br>DOC              |
| Fish Raceway or Tank (Ft. and Ft <sup>3</sup> ) (398) (9/09)<br>Fishpond Management (Ac.)(399) (9/11)  | PDF<br>PDF                             | DOC<br>DOC               | PDF<br>PDF        | DOC<br>DOC               |            | DOC<br>DOC                             | <u></u>                 |
| Forage and Biomass Planting (Ac.) (512) (1/10)   | PDF                                    | DOC                      | PDF               | DOC                      |            | DOC                                    | PDF                     |
| Forest Stand Improvement(Ac.) (666) (5/11)   | <u>PDF</u>                             | DOC                      | PDF               | DOC                      |            | DOC                                    | DOC<br>PDF              |
| Forest Trails and Landings(Ac.) (655) (9/11)   | <u>PDF</u>                             | DOC                      | <u>PDF</u>        | DOC                      |            | DOC                                    | <u>PDF</u><br>DOC       |
| Fuel Break (Ac.) (383) (4/05)  | <u>PDF</u>                             | DOC                      |                   | DOC                      |            | DOC                                    | <u>PDF</u><br>DOC       |
| Grade Stabilization Structure(No.) (410) (10/85)   | <u>PDF</u>                             | DOC                      | <u>PDF</u>        | DOC                      |            | DOC                                    | PDF<br>DOC              |
| Grassed Waterway (Ac.)(412) (4/10)   | <u>PDF</u>                             | DOC                      | <u>PDF</u>        | DOC                      | DOC        | DOC                                    | <u>PDF</u><br>DOC       |
| Grazing Land Mechanical Treatment (Ac.) (548) (9/10)   | PDF                                    | DOC                      |                   | DOC                      |            | DOC                                    |                         |
| Heavy Use Area Protection(Ac.) (561) (1/10)  | <u>PDF</u>                             | DOC                      | <u>PDF</u>        | DOC                      |            | DOC                                    | <u>PDF</u><br>DOC       |
| Hedgerow Planting (Ft.) (422) (9/10)   | <u>PDF</u>                             | <u>DOC</u>               | <u>PDF</u>        | DOC                      |            | DOC                                    | PDF<br>DOC              |
| Herbaceous Weed Control (315) (Ac.) (4/10)   | <u>PDF</u>                             | DOC                      |                   |                          |            | DOC                                    | <u>PDF</u><br>DOC       |

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| Conservation Practice Name (Units) (Code) (Date Issued)  | Sta  | ndard                                  | Practice                               | СРРЕ                                   | Implement. | National Statement of<br>Work Template        | Network Effects Diagram             |
|--|--|--|--|--|------------|---|-------------------------------------|
|  | PDF  | Word                                   | Overview                               |  | Require.   |   |                                     |
| Herbaceous Wind Barriers(Ft.) (603) (1/10)   | <u>PDF</u>   | DOC                                    | PDF                                    | DOC                                    | DOC        | DOC   | <u>PDF</u><br>DOC                   |
| Hillside Ditch (Ft.) (423) (5/08)<br>Integrated Pest Management(Ac.) (595) (1/10)<br>Irrigation Canal or Lateral(Ft.) (320) (9/10)<br>Irrigation Ditch Lining (Ft.)(428) (5/11)<br>Irrigation Field Ditch (Ft.)(388) (4/11)<br>Irrigation Land Leveling (Ac.)(464) (9/10)                      | PDF<br>PDF<br>PDF<br>PDF<br>PDF<br>PDF               | DOC<br>DOC<br>DOC<br>DOC<br>DOC<br>DOC | PDF<br>PDF<br>PDF<br>PDF<br>PDF<br>PDF | DOC<br>DOC<br>DOC<br>DOC<br>DOC<br>DOC |            | DOC<br>DOC<br>DOC<br>DOC<br>DOC<br>DOC<br>DOC |                                     |
| Irrigation Pipeline (Ft.) (430) (5/11)   | <u>PDF</u>   | DOC                                    | PDF                                    | DOC                                    |            | DOC   | DOC<br>PDF                          |
| Irrigation Reservoir (Ac-Ft) (436) (5/11)  | <u>PDF</u>   | DOC                                    | <u>PDF</u>                             | DOC                                    |            | DOC   | PDF<br>DOC                          |
| Irrigation System, Microirrigation (Ac.) (441) (5/11)  | <u>PDF</u>   | DOC                                    | <u>PDF</u>                             | DOC                                    |            | DOC   | PDF<br>DOC                          |
| Irrigation System, Surface and Subsurface (Ac.) (443) (5/11)   | <u>PDF</u>   | <u>DOC</u>                             | <u>PDF</u>                             | DOC                                    |            | DOC   |                                     |
| Irrigation System, Tailwater Recovery (No.) (447) (5/11)   | <u>PDF</u>   | DOC                                    | PDF                                    | DOC                                    |            | DOC   | <u>PDF</u><br><u>DOC</u>            |
| Irrigation Water Management(Ac.) (449) (5/11)  | <u>PDF</u>   | DOC                                    | <u>PDF</u>                             | DOC                                    |            | DOC   | DOC<br>PDF                          |
| Karst Sinkhole Treatment (No.) (527) (9/10)  | <u>PDF</u>   | DOC                                    |  | DOC                                    |            | DOC   | PDF<br>DOC                          |
| Land Clearing (Ac.) (460) (9/11)   | <u>PDF</u>   | DOC                                    | PDF                                    | DOC                                    |            | DOC   | <u>PDF</u><br>DOC                   |
| Land Reclamation, Abandoned Mined Land (Ac.)(544) (8/06)<br>Land Reclamation, Currently Mined Land (Ac.) (544) (8/06)<br>Land Reclamation, Landslide Treatment (No. and Ac) (453) (2/05)<br>Land Reclamation, Toxic Discharge Control (No.) (455) (4/05)                                       | <u>PDF</u><br><u>PDF</u><br><u>PDF</u><br><u>PDF</u> | DOC<br>DOC<br>DOC<br>DOC               | <u>PDF</u><br><u>PDF</u><br><u>PDF</u> | DOC<br>DOC<br>DOC<br>DOC               |            | DOC<br>DOC<br>DOC<br>DOC                      | DOC<br>DOC<br>DOC<br>DOC            |
| Land Smoothing (Ac.) (466) (12/13)   | <u>PDF</u>   | DOC                                    | PDF                                    | DOC                                    |            | DOC   | PDF<br>DOC                          |
| Lined Waterway or Outlet(Ft.) (468) (9/10)   | <u>PDF</u>   | DOC                                    | <u>PDF</u>                             | DOC                                    |            | DOC   | PDF<br>DOC                          |
| Lighting System Improvement (670) (4/13)           Livestock Pipeline (Ft.) (516) (9/11)           Livestock Shelter Structure (no) (576) (12/13)           Mine Shaft and Adit Closing(No.) (457) (2/05)           Mole Drain (Ft.) (482) (3/03)           Monitoring Well (No.) (553) (9/10) | PDF<br>PDF<br>PDF<br>PDF<br>PDF<br>PDF               | DOC<br>DOC<br>DOC<br>DOC<br>DOC<br>DOC | <u>PDF</u><br>PDF                      | DOC<br>DOC<br>DOC<br>DOC               |            | DOC<br>DOC<br>DOC<br>DOC<br>DOC<br>DOC        | PDF DOC<br><u>DOC</u><br><u>DOC</u> |
| Mulching (Ac.) (484) (5/11)  | <u>PDF</u>   | DOC                                    | <u>PDF</u>                             | DOC                                    | <u>PDF</u> | DOC   | PDF                                 |
| Multi-Story Cropping (Ac.) (379) (7/10)  | <u>PDF</u>   | DOC                                    |  | DOC                                    |            | DOC   | PDF<br>DOC                          |
| Nutrient Management (Ac.)(590) (1/12)  | <u>PDF</u>   | DOC                                    | PDF                                    | DOC                                    | PDF        | DOC   | PDF<br>DOC                          |
| Obstruction Removal (Ac.)(500) (1/10)  | <u>PDF</u>   | DOC                                    | <u>PDF</u>                             | DOC                                    |            | DOC   |                                     |
| Open Channel (Ft.) (582) (10/87)   | <u>PDF</u>   | <u>DOC</u>                             | <u>PDF</u>                             | DOC                                    |            | DOC   | PDF<br>DOC                          |
| Pond (No.) (378) (5/11)  | <u>PDF</u>   | DOC                                    | <u>PDF</u>                             | DOC                                    |            | DOC   | PDF<br>DOC                          |

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#### Alphabetical Index

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|   |            |            | Info. Sheet/ |            | Job Sheet/ |  |                          |
|---|------------|------------|--------------|------------|------------|--|--------------------------|
| Conservation Practice Name (Units) (Code) (Date Issued)                     | Sta        | ndard      | Practice     | CPPE       | Implement. | National Statement of<br>Work Template | Network Effects Diagram  |
|   | PDF        | Word       | Overview     |            | Require.   |  |                          |
| Pond Sealing or Lining, Bentonite Treatment (No.)(521C) (9/10)              | <u>PDF</u> | DOC        | PDF          | DOC        |            | DOC                                    | <u>PDF</u><br>DOC        |
| Pond Sealing or Lining, Compacted Clay Treatment (No.) (521D) (9/10)        | <u>PDF</u> | DOC        |              | DOC        |            | DOC                                    | PDF<br>DOC               |
| Pond Sealing or Lining, Flexible Membrane (No.)(521A) (9/11)                | <u>PDF</u> | DOC        | <u>PDF</u>   | DOC        |            | DOC                                    | PDF<br>DOC               |
| Pond Sealing or Lining, Soil Dispersant Treatment (No.)(521B) (9/10)        | <u>PDF</u> | DOC        | <u>PDF</u>   | DOC        |            | DOC                                    | <u>PDF</u><br>DOC        |
| Precision Land Forming (Ac.)(462) (7/02)                                    | <u>PDF</u> | DOC        | <u>PDF</u>   | DOC        |            | DOC                                    |                          |
| Prescribed Burning (Ac.) (338) (9/10)                                       | <u>PDF</u> | DOC        | PDF          | DOC        |            | DOC                                    | PDF<br>DOC               |
| Prescribed Grazing (Ac.) (528) (9/10)                                       | PDF        | DOC        | PDF          | DOC        |            | DOC                                    | <u>PDF</u>               |
| The sended of damp (ne.) (or of (3) 10)                                     | 101        | <u>000</u> |              | <u>500</u> |            |  | DOC                      |
| Pumping Plant (No.) (533) (5/11)  | <u>PDF</u> | DOC        | <u>PDF</u>   | DOC        |            | DOC                                    | DOC                      |
| Range Planting (Ac.) (550) (4/10)   | PDF        | DOC        | PDF          | DOC        |            | DOC                                    | DOC                      |
|   |            | DOC        | 2005         | DOC        |            | 200                                    | <u>PDF</u><br><u>PDF</u> |
| Recreation Area improvement(AC.) (562) (10/77)                              | PDF        | DOC        | PDF          | DOC        |            | DOC                                    | DOC                      |
| Recreation Land Grading and Shaping (Ac.) (566) (4/13)                      | <u>PDF</u> | DOC        | PDF          | DOC        |            | DOC                                    | <u>PDF</u><br>DOC        |
| Residue and Tillage Management, Mulch Till (Ac.)(345) (12/13)               | <u>PDF</u> | DOC        | PDF          | DOC        | <u>PDF</u> | DOC                                    | PDF<br>DOC               |
| Residue and Tillage Management, No-Till (Ac.)(329) (12/13)                  | <u>PDF</u> | DOC        | <u>PDF</u>   | DOC        | PDF        | DOC                                    | PDF<br>DOC               |
| Restoration and Management of Rare and Declining Habitats(Ac.) (643) (9/10) | <u>PDF</u> | DOC        |              | DOC        |            | DOC                                    | PDF<br>DOC               |
| Riparian Forest Buffer (Ac.)(391) (7/10)                                    | <u>PDF</u> | DOC        | <u>PDF</u>   | DOC        | DOC        | DOC                                    | PDF                      |
| Riparian Herbaceous Cover(Ac.) (390) (9/10)                                 | <u>PDF</u> | DOC        |              | DOC        |            | DOC                                    | PDF                      |
| Road/Trail/Landing Closure and Treatment (Ft.) (654) (11/08)                | <u>PDF</u> | DOC        |              | DOC        |            | DOC                                    | PDF<br>DOC               |
| Rock Barrier (Ft.) (555) (9/10)   | <u>PDF</u> | DOC        | PDF          | DOC        |            | DOC                                    | PDF<br>DOC               |
| Roof Runoff Structure (No.)(558) (9/09)                                     | PDF        | DOC        | <u>PDF</u>   | DOC        |            | DOC                                    | PDF<br>DOC               |
| Roofs and Covers (No.) (367) (9/10)   | <u>PDF</u> | DOC        |              | DOC        |            | DOC                                    | PDF<br>DOC               |
| Row Arrangement (Ac.) (557) (4/13)  | <u>PDF</u> | DOC        | <u>PDF</u>   | DOC        |            | DOC                                    | PDF<br>DOC               |
| Salinity and Sodic Soil Management (Ac.) (610) (9/10)                       | <u>PDF</u> | DOC        |              | DOC        |            | DOC                                    | DOC<br>PDF               |
| Sediment Basin (No.) (350) (1/10)   | <u>PDF</u> | DOC        | PDF          | DOC        |            | DOC                                    | PDF<br>DOC               |
| Shallow Water Development and Management (Ac.) (646)(9/10)                  | PDF        | DOC        |              | DOC        |            | DOC                                    | PDF<br>DOC               |
|   | PDF        | חחר        |              | DOC        |            | DOC                                    | PDF                      |

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A-C, D-F, G-I, K-M, N-P, Q-R, S-T, U-Z

| Conservation Practice Name (Units) (Code) (Date Issued)                                     | Sta                      | ndard      | Practice   | СРРЕ       | Implement. | National Statement of<br>Work Template | Network Effects Diagram  |
|---|--------------------------|------------|------------|------------|------------|--|--------------------------|
| אייטאסאמור באנטאאווורוונאני. (אסדו אי די די   | PDF                      | Word       | Overview   | <u></u>    | Require.   | <u></u>                                | 500                      |
| Spoil Spreading (Ac.) (572) (1/10)  | <u>PDF</u>               | DOC        | PDF        | DOC        |            | DOC                                    | <u>DOC</u><br>PDF<br>DOC |
| Spring Development (No.)(574) (12/13)   | <u>PDF</u>               | DOC        | <u>PDF</u> | DOC        |            | DOC                                    | <u>PDF</u><br>DOC        |
| Sprinkler System (No.) (442) (4/13)<br>Stormwater Runoff Control (No. and Ac.) (570) (9/10) | <u>PDF</u><br><u>PDF</u> | DOC<br>DOC | PDF<br>PDF | DOC<br>DOC |            | DOC<br>DOC                             |                          |
| Streambank and Shoreline Protection (Ft.) (580) (9/10)                                      | <u>PDF</u>               | DOC        | <u>PDF</u> | DOC        |            | DOC                                    | <u>PDF</u><br>DOC        |
| Stream Crossing (No.) (578) (9/11)  | <u>PDF</u>               | DOC        |            | DOC        |            | DOC                                    | PDF<br>DOC               |
| Stream Habitat Improvement and Management (Ac.)(395) (9/10)                                 | <u>PDF</u>               | DOC        |            | DOC        |            | DOC                                    | <u>PDF</u><br>DOC        |
| Stripcropping (Ac.) (585) (12/13)   | <u>PDF</u>               | DOC        | PDF        | DOC        | PDF        | DOC                                    | PDF<br>DOC               |
| Structure for Water Control(No.) (587) (4/10)   | <u>PDF</u>               | DOC        | PDF        | DOC        |            | DOC                                    | PDF<br>DOC               |
| Subsurface Drain (Ft.) (606) (9/11)   | <u>PDF</u>               | DOC        | PDF        | DOC        |            | DOC                                    | PDF<br>DOC               |
| Surface Drain, Field Ditch (Ft.)(607) (9/09)  | <u>PDF</u>               | DOC        | <u>PDF</u> | DOC        |            | DOC                                    | PDF<br>DOC               |
| Surface Drain, Main or Lateral(Ft.) (608) (9/09)  | <u>PDF</u>               | DOC        | PDF        | DOC        |            | DOC                                    | PDF<br>DOC               |
| Surface Roughening (Ac.)(609) (9/09)  | <u>PDF</u>               | DOC        | PDF        | DOC        | DOC        | DOC                                    | PDF<br>DOC               |
| Trails and Walkways (Ft.)(568) (1/10)   | <u>PDF</u>               | DOC        | <u>PDF</u> | DOC        |            | DOC                                    | PDF<br>DOC               |
| Terrace (Ft.) (600) (4/10)  | <u>PDF</u>               | DOC        | PDF        | DOC        |            | DOC                                    | PDF<br>DOC               |
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