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EXECUTIVE SUMMARY

BELLE FOURCHE RIVER WATERSHED STUDY

BASIN WIDE WATERSHED MANAGEMENT PLAN

Topical Report RSI-2501

prepared for

Wyoming Water Development Commission
6920 Yellowtail Road
Cheyenne, Wyoming 82002

March 2015

RESPEC

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Topical Report RSI-2501

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March 2015

I hereby certify that this report was prepared by us or under our direct supervision and that we are duly licensed Professional Geologists and Engineers under the laws of the State of Wyoming.

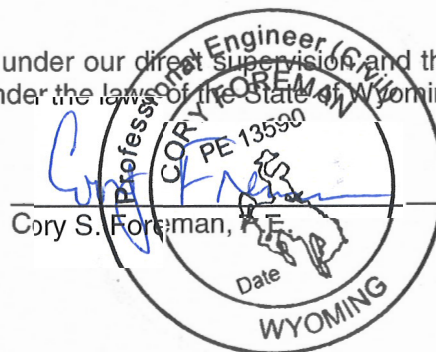
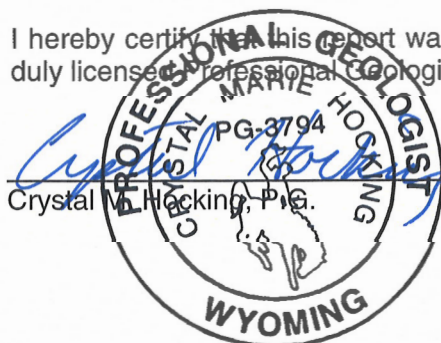


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EXECUTIVE SUMMARY

1.1 INTRODUCTION

In 2012, the Crook County Natural Resources District (CCNRD), Campbell County Conservation District (CCCD), and Crook County Irrigation District (CCID) requested that the Wyoming Water Development Commission (WWDC) conduct a comprehensive study of the Belle Fourche River Watershed and its water resources. The local sponsors requested the Level I watershed study to evaluate watershed function, assess wetland and riparian conditions, develop geomorphic classifications, and identify resource concerns and water development opportunities on irrigated lands, rangelands, wetlands, and streams. In 2013, the WWDC approved funding for the watershed study and then contracted with RESPEC and its subconsultant, Anderson Consulting Engineers, Inc. (ACE), to provide technical or professional services for the Belle Fourche River Watershed Study, Level I, in June 2013.

The Belle Fourche River Watershed Study, Level I is a comprehensive evaluation and an initial inventory of the water and land resources within the study area. This Level I watershed study provides important information that the CCNRD, CCCD, and CCID (the study's local sponsors) and the WWDC the study's sponsor, could use in developing water resources and implementing conservation practices that address water and land resource concerns within the study area. This study includes descriptions about needed water development projects that could provide economic, ecological, and social benefits to the state of Wyoming and its citizens.

Because of the size and variability of the study area for the Belle Fourche River Watershed as shown in Figure 1.1, the final reports for the watershed were separated into this basin wide summary report and a final report was completed for each of the three subareas or subbasins. The terms "watershed" and "study area" are used interchangeably throughout this study and associated reports. The "subarea" and "subbasin" terms are also used interchangeably in these reports. This basin wide summary report was completed for the study area and includes data and information regarding the overall study area along with inclusion of all three of the subbasin reports and watershed management plan and rehabilitation components. Throughout these reports, mention will be made where more specific information can be found within the subbasin reports or the basin wide summary report where appropriate.

The intent of these reports, accompanied by the "digital library" and Geographic Information System (GIS) geodatabase, is to provide the results of the Belle Fourche River Watershed Study, Level I. This effort included a review of previous work contained in numerous databases, studies, and reports regarding the natural resources within the study area. Information in the digital library was combined with the data collected during the inventory effort and used to generate proposed conceptual alternatives outlined in Chapter 4.0, the Belle Fourche River Watershed Management and Rehabilitation Plan of the basin wide summary report.

1.2 PURPOSE AND OBJECTIVES

The primary purpose of this Level I study was to combine all of the available and relevant data and information with the study-generated inventory data into a GIS geodatabase and digital library. And to develop a comprehensive watershed management and rehabilitation plan outlining proposed and potential water development opportunities and watershed improvement alternatives. To accomplish this effort, the following objectives were completed:

- Foster communication among residents and landowners, local sponsors, and the WWDC.
- Solicit public participation in the watershed study.
- Inventory and evaluate the watershed with emphasis on surface water quantity and quality, and upland and riparian ecological conditions.
- Perform a geomorphic classification of the major tributaries in the study area to identify impaired reaches and improvement options to restore channel stability.
- Assess existing irrigation systems and generate rehabilitation alternatives for the irrigators participating in the study.
- Evaluate existing surface water features, storage requirements, and potential opportunities to improve water availability for livestock and wildlife.
- Prepare a watershed management and rehabilitation plan that includes problem areas and proposes improvement alternatives within the watershed.
- Identify permits, easements, and clearances necessary for plan implementation.
- Estimate costs for proposed improvement alternatives and potential projects.
- Complete an economic analysis and identify potential sources of funding.

1.3 STUDY AREA—BASINWIDE

The study area for the Belle Fourche River Watershed encompasses the drainage area for the Belle Fourche River beginning at the headwaters of the river approximately 18 miles southwest of Wright, Wyoming and flowing generally northeast where it crosses the Wyoming–South Dakota border approximately 10 miles northeast of Aladdin, Wyoming, as shown in Figure 1.1.

The Belle Fourche River Watershed is located in the upper portion of the Belle Fourche drainage. The entire Upper Belle Fourche drainage and portions of the Lower Belle Fourche and Redwater drainages within Wyoming define the study area. The study area includes the land draining to the Belle Fourche River and tributaries within Wyoming covering approximately 3,883 square miles (2,485,020 acres) in northeast Wyoming. The watershed is situated within Campbell County and Crook Counties with a small portion in Weston County and includes the

cities, towns, and communities of Aladdin, Alva, Beulah, Carlile, Colony, Devils Tower, Gillette, Hulett, Moorcroft, Pine Haven, Rozet, Sleepy Hollow, Sundance, Wright, and Wyodak.

In addition to the study area for the Belle Fourche River Watershed described in the previous section, three subbasins were identified based on the U.S. Geological Survey (USGS) 10th order “hydrologic units” classification which has an assigned Hydrologic Unit Code (HUC). The study area contains 15 watersheds (HUC-10) and are listed in Table 1.1. Reports for the following three subbasins within the study area were completed as part of this study:

- Belle Fourche River Watershed – Subbasin above Keyhole Reservoir
- Belle Fourche River Watershed – Subbasin below Keyhole Reservoir
- Belle Fourche River Watershed – Redwater Subbasin.

These three subbasins are illustrated in Figure 1.2 and are described in the following sections.

Table 1.1. Watersheds (10th Order Hydrologic Unit Codes) by Subbasins in the Belle Fourche River Watershed Study Area

Hydrologic Unit Code	Watershed (HUC-10) Name	Study Subbasin	Acres	Square Miles
1012020101	Mud Spring Creek-Belle Fourche River	Above Keyhole Reservoir	225,640	352.6
1012020103	Caballo Creek	Above Keyhole Reservoir	166,640	260.4
1012020106	Donkey Creek	Above Keyhole Reservoir	163,250	255.1
1012020102	Hay Creek-Belle Fourche River	Above Keyhole Reservoir	180,190	281.5
1012020104	Buffalo Creek-Belle Fourche River	Above Keyhole Reservoir	299,180	467.5
1012020105	Wind Creek-Belle Fourche River	Above Keyhole Reservoir	212,050	331.3
Subtotal			1,246,950	1,948.4
1012020203	Owl Creek	Below Keyhole Reservoir	22,910	35.8
1012020201	Upper Belle Fourche River	Below Keyhole Reservoir	202,650	316.1
1012020202	Middle Belle Fourche River	Below Keyhole Reservoir	43,470	67.9
1012020107	Arch Creek-Belle Fourche River	Below Keyhole Reservoir	216,390	338.1
1012020108	Inyan Kara Creek	Below Keyhole Reservoir	215,330	336.5
1012020109	Blacktail Creek-Belle Fourche River	Below Keyhole Reservoir	199,300	311.4
Subtotal			900,050	1,406.3
1012020301	Upper Redwater Creek	Redwater	124,050	193.8
1012020304	Lower Redwater Creek	Redwater	53,790	84.0
1012020302	Sand Creek	Redwater	160,180	250.3
Subtotal			338,020	528.2
Total			2,485,020	3,882.8

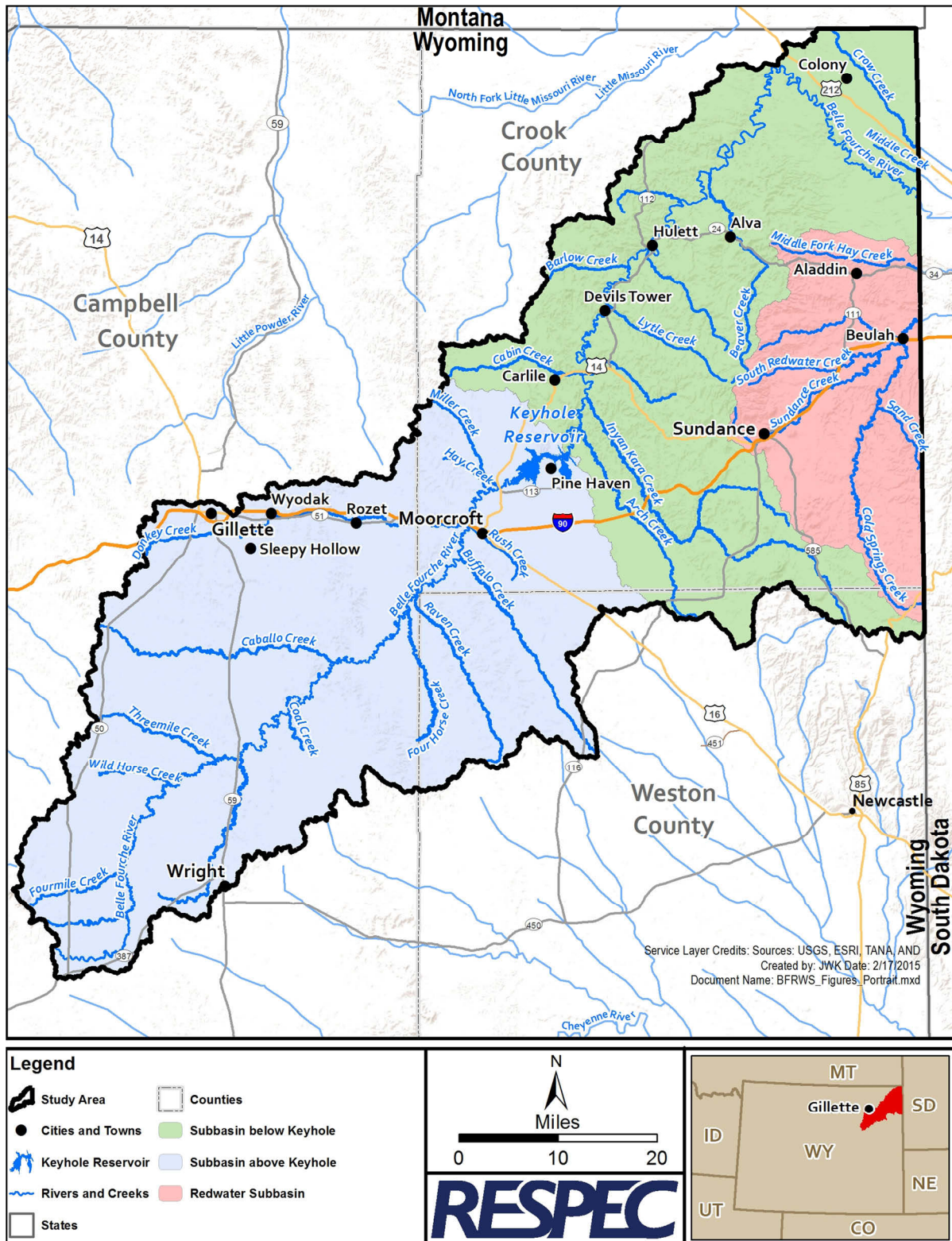


Figure 1.1. Belle Fourche River Watershed and Distinct Subbasins Within the Study Area.

1.3.1.1 Subbasin Above Keyhole Reservoir

The Belle Fourche River Watershed – Subbasin above Keyhole Reservoir encompasses the drainage area for the Belle Fourche River beginning at the headwaters of the Belle Fourche River approximately 18 miles southwest of Wright, Wyoming, and flowing generally northeast where it enters Keyhole Reservoir, which is located on the Belle Fourche River approximately 6 miles northeast of Moorcroft, Wyoming. The Subbasin above Keyhole Reservoir includes all of the land draining to the Belle Fourche River and tributaries covering approximately 1,948 square miles or 1,246,950 acres in northeast Wyoming. This subbasin is the largest of the three subbasins and encompasses over 50 percent of the study area. The subbasin is mainly situated in Campbell County with smaller portions in Crook and Weston Counties. The Subbasin above Keyhole Reservoir includes the cities, towns, and communities of Gillette, Moorcroft, Pine Haven, Rozet, Sleepy Hollow, Wright, and Wyodak.

1.3.1.2 Subbasin Below Keyhole Reservoir

The Belle Fourche River Watershed – Subbasin below Keyhole Reservoir encompasses the drainage area for the Belle Fourche River beginning at the outlet of Keyhole Reservoir where it flows generally northeast to the Wyoming–South Dakota state line approximately 10 miles northeast of Aladdin, Wyoming. The Subbasin below Keyhole Reservoir includes all of the land draining to the Belle Fourche River and tributaries covering approximately 1,406 square miles or 900,050 acres in northeast Wyoming and encompasses approximately 36 percent of the study area. The subbasin is mainly situated in Crook County with smaller portions in Weston County, including the cities, towns, and communities of Alva, Carlile, Colony, Devils Tower, and Hulett.

1.3.1.3 Redwater Subbasin

The Belle Fourche River Watershed – Redwater Subbasin encompasses the Wyoming portion of the drainage area for Redwater Creek, including Cold Springs Creek, Sand Creek, and Sundance Creek. Also included in the Redwater Subbasin are the streams that drain portions of Wyoming, but do not converge with Redwater Creek within Wyoming. The Redwater Subbasin includes all of the land draining to Redwater Creek and tributaries covering approximately 528 square miles or 338,020 acres in northeast Wyoming. The Redwater Subbasin is the smallest of the three subbasins, encompassing less than 14 percent of the study area. The subbasin is mainly situated in Crook County with a small portion in Weston County, and includes the cities, towns, and communities of Aladdin, Beulah, and Sundance, Wyoming.

1.4 WATERSHED INVENTORY

The objective of the inventory was to gather, review, and compile information, which included geology, hydrology, soils, climate, plants, wildlife habitat, infrastructure, irrigation, stream conditions, and upland conditions to describe problems and identify water development opportunities and improvements within the watershed. The spatial data gathered during the

study were mainly obtained from Campbell County, Crook County, Weston County, City of Gillette, City of Sundance, the Wyoming State Engineer's Office (SEO), WWDC, Wyoming Oil and Gas Conservation Commission (WOGCC), Wyoming Department of Environmental Quality (WDEQ), Wyoming Geographic Information Science Center (WyGIS), Wyoming Game and Fish Department (WGFD), U.S. Department of the Agriculture's Natural Resources Conservation Service (NRCS) and Forest Service (USFS), U.S. Department of the Interior's U.S. Bureau of Reclamation (USBR), Bureau of Land Management (BLM) and U.S. Geological Survey (USGS). The collected data was compiled into a Geographic Information System (GIS), which can be used to complete permits, assessments, applications, and maps.

In addition to the collecting available geospatial data and reports pertaining to the study area, landowners interested in participating in the watershed study contacted the consultant, CCNRD, CCCD, or NRCS staff. Individual meetings were then scheduled at landowners' properties where discussions focused on land and water resource concerns. During these property visits, initial planning and conceptual project designs were discussed for upland livestock/wildlife and irrigation water improvements. Field inventory efforts were often conducted in coordination with scoping meetings, open houses, CCNRD and CCCD board meetings, and landowner visits. Field activities focused on irrigation inventory, upland livestock/wildlife water opportunities, riparian and stream channel conditions, dam and reservoir assessment, and hydrologic investigations. Throughout the watershed study, local ranchers, irrigators, and residents who invited the study team to visit their properties and discuss issues and concerns demonstrated extensive knowledge and valuable insight about the watershed. Because of the willingness of landowners to share information, insight, and direction, the study team was able to incorporate this knowledge and experience into the study and provide a more effective evaluation of the watershed.

1.5 WATERSHED MANAGEMENT AND REHABILITATION PLAN

The Watershed Management and Rehabilitation Plan was developed using information from the inventory and provides recommendations for improvements for the following:

- Irrigation system rehabilitation components
- Livestock/wildlife upland watering opportunities
- Grazing management opportunities
- Storage opportunities
- Stream channel condition and stability
- Wetland enhancement opportunities
- Other watershed management opportunities.

Table 1.2 lists the irrigation system rehabilitation components of the plan. Table 1.3 presents the livestock/wildlife upland watering components. Costs were estimated for the conceptual proposed projects by using the NRCS Environmental Quality Incentives Program (EQIP) cost data, costs for similar projects, and manufacturers' and vendors' advertised product prices. Costs for potential storage alternatives were estimated using the values previously reported for these alternatives, which represent 2006 dollars and were not adjusted for this study.

Table 1.2. Estimated Costs Associated With Each of the Irrigation Rehabilitation Proposed Projects and Components of the Watershed Management Plan

Item Number	Priority	Pipeline	Structure for Water Control	Regulating Reservoir	Total Project Costs (\$)
I-01	1	5,610	2	1	167,128
I-02	1	2,620	1		63,262
I-03	1	11,920	4	1	359,753
I-03A/B	3	1,300	1		70,655
I-04	3	6,740	1	1	169,214
I-04A	3	5,890	1		119,462
I-05	3			1	TBD
I-06	3	7,670	1		147,158
I-07	2			1	TBD
I-08	2	4,510	1		89,670
I-09	3	2,470	1		69,248
I-10	3	4,760	3		138,518
I-11	3	4,540	1		98,456
I-12	3	1,820	1		70,100
I-13	3			1	TBD
I-14	3	8,920	1		182,103
I-15	2	6,800	2		143,797

Table 1.3. Estimated Costs Associated With Each of the Upland Livestock/Wildlife Water Proposed Projects of the Watershed Management Plan (Page 1 of 2)

Item Number	Plan Component	Description	Priority	Total Costs (\$)
1	LW-01	Coyote Draw Pipeline and Tank	1	101,595
2	LW-02	Coyote Stock Reservoir	1	38,625
3	LW-03	Coyote Draw Stock Reservoir	1	38,625
4	LW-04	Gold Mine Draw Pipeline and Tank	2	49,414
5	LW-05	Hallie Draw Well and Tank	2	92,993
6	LW-06	Spring/East Bluff Pipeline and Tank	1	40,875
7	LW-07	Strips/West Bluff Pipeline and Tank	2	19,813
8	LW-08	East Dry Creek Well and Tank	2	44,986
9	LW-09	Vore Draw Pipeline and Tank	3	26,291
10	LW-10	Whitelaw Storage Tank	1	20,825
11	LW-10A	Divide Allotment Pipeline and Tank	2	41,760
12	LW-11	Eagle Ridge 1 Spring Development	1	34,524
13	LW-12	Eagle Ridge 2 Spring Development	2	26,011
14	LW-12A	Marr Stock Reservoir	2	35,625
15	LW-13	Porcupine Stock Reservoir	3	38,625
16	LW-14	Johnson Draw Well and Tank	1	79,470
17	LW-15	Shenandoah #4 Well and Tank	2	69,717
18	LW-16	Dry Creek #2 Well and Tank	1	78,825
19	LW-17	Miller Creek #1 Well and Tank	1	56,118
20	LW-18	Dry Creek #4 Well and Tank	2	56,118
21	LW-19	Dry Creek #3 Well and Tank	2	56,118
22	LW-20	Hay Creek #1 & #2 Well and Tank	3	56,118
23	LW-21	Miller Creek #2 Well and Tank	3	56,118
24	LW-22	Dry Creek #5 Well and Tank	3	56,118
25	LW-23	Corral Creek #1 Well and Tank	1	114,561
26	LW-24	Alvin Creek Pipeline and Tank	2	23,228
27	LW-25	Corral Creek #2 Well and Tank	2	69,717
28	LW-26	Corral Creek #3 Spring Development	3	49,856
29	LW-27	Eggie Basin Pipeline and Tank	1	44,290
30	LW-28	Pine Ridge Well and Tank	3	82,810
31	LW-29	Little Draw #1 Well and Tank	3	56,118
32	LW-30	Alma Stock Reservoir	2	38,625
33	LW-31	Lower Alma Stock Reservoir	2	38,625
34	LW-32	Mikel Creek Well and Tank	3	56,118

Table 1.3. Estimated Costs Associated With Each of the Upland Livestock/Wildlife Water Proposed Projects of the Watershed Management Plan (Page 2 of 2)

Item Number	Plan Component	Description	Priority	Total Costs (\$)
35	LW-33	Little Draw #2 Well and Tank	1	78,825
36	LW-34	Sage Draw Well and Tank	3	60,040
37	LW-35	Tobey Draw Tank and Stock Reservoir	1	38,598
38	LW-35A	Noecker Stock Reservoir	3	70,223
39	LW-35B	Dinky Stock Reservoir	3	70,223
40	LW-36	Line Creek Spring Development	2	38,471
41	LW-37	Little Wright Draw Well and Tank	1	102,670
42	LW-38	Busby Draw Well and Tank	2	56,118
43	LW-39	Wolfe Draw Pipeline and Tank	2	33,475
44	LW-40	Kruger #1 Well and Pipeline	1	49,603
45	LW-41	Kruger #2 Pipeline and Tank	2	84,581
46	LW-42	Kruger #3 Pipeline and Tank	2	101,089
47	LW-42A	Oak Creek Well and Tank	2	96,978
48	LW-43	Kilpatrick Creek Pipeline and Tank	3	93,119
49	LW-44	Newland #4 Stock Reservoir	1	38,625
50	LW-44A	Iron Creek Well and Tank	3	56,118
51	LW-45	Sawmill Well, Tank, and Stock Pond	1	87,743
52	LW-46	Bear Gulch Well and Tank	2	87,743
53	LW-46A	Bear Stock Reservoir	3	38,625
54	LW-46B	Bear Gulch Stock Reservoir	3	38,625
55	LW-47	Shield Stock Reservoir	3	38,625
56	LW-47A	Left Creek Stock Reservoirs	3	38,625
57	LW-48	Left Creek Spring Development	2	20,002
58	LW-49	Vines Draw Well and Tank	3	87,743
59	LW-50	Grubb #3 Stock Reservoir	3	38,625
60	LW-50A	Brimmer Stock Reservoir	3	38,625
61	LW-51	Arkansas Creek Guzzler and Pond	3	39,547
62	LW-52	Upper Sundance Well and Tank	3	56,118
63	LW-53	East Rupe Spring Development	2	51,781
64	LW-54	Bennor #2 Well and Tank	1	118,166
65	LW-55	Donkey Creek Well and Tank	2	108,932
66	LW-56	Kester #1 Spring Development	1	62,266
67	LW-57	Kester #2 Spring Development	2	74,903

1.6 PERMITS

Information was provided regarding clearances, environmental reviews, agency coordination, and determination of potential impacts that may be necessary in implementing proposed projects. Some projects involve federal lands and funding that would be subject to the National Environmental Policy Act (NEPA) and other federal regulations. State regulatory approval regarding proposed projects may also be applicable. Local zoning ordinances, building and floodplain permits, and road or utility right-of-way may be required within incorporated towns, cities, and counties or from irrigation districts, road districts, and utility or energy entities.

1.7 FUNDING

Funding for the opportunities in the Watershed Management and Rehabilitation Plan are dependent on local coordination and voluntary cooperation between landowners, managers, irrigators, organizations, and agencies in addressing the land and water resource concerns. The CCCD, CENRD, or the Weston County Natural Resource District could serve as a sponsor for those funding sources requiring a sponsoring entity. For instance, the WWDC's Small Water Project Program (SWPP) funds sponsored projects which provide multiple benefits where the total project costs (including construction, permitting, construction engineering, and land procurement) are less than \$135,000 or where WWDC's maximum financial contribution is 50 percent of project costs or thirty-five thousand dollars (\$35,000), whichever is less.

By combining funding from additional sources (i.e., NRCS EQIP funding), total costs could be potentially reduced for the participants. Additionally, state and federal agencies, including but not limited to the WGFD, BLM, and NRCS have conservation programs and could potentially assist with project implementation. More information about funding potential projects can be found by accessing the WWDC's Water Management and Conservation Assistance Programs Directory, which is an overview of local, state, and federal programs with associated contact information online (<http://wwdc.state.wy.us/wconsprog/2014WtrMgntConsDirectory.html>).

1.8 CONCLUSIONS

The following the inventory efforts, proposed projects, opportunities, and recommendations were developed as part of the Watershed Management and Rehabilitation Plan.

1.8.1 Irrigation System Components

- Proposed projects and components for 15 irrigation systems were completed.
- Most structures inventoried require efforts to reduce seepage and conserve water.

- Recommended improvements involve replacing and/or rehabilitating existing but weakened diversion structures and headgates and replacing ditches with pipelines.
- Irrigation system improvements could be implemented individually or entirely at once depending on the goals of the landowner or manager.
- Irrigation projects require minor involvement from regulatory agencies to be completed.
- Irrigation water storage and regulating reservoirs are vital components are needed in close proximity to irrigated lands, which are fairly dispersed throughout the study area, especially along the Belle Fourche River below Keyhole Reservoir.

1.8.2 Livestock/Wildlife Upland Watering Opportunities

- Grazing on both rangelands and forest lands is an essential part of a typical livestock operation within the study area and often requires more reliable, plentiful water sources.
- The study area contains 159 BLM grazing allotments (309,100 acres of rangeland), 26 USFS grazing allotments (54,210 rangeland acres) consisting of private, state, and federal lands.
- The study area also contains 31 USFS grazing allotments (approximately 179,850 acres) of forest land consisting of federal, state, and private lands within the Black Hills National Forest (BHNF).
- Coordination with the BLM and the USFS regarding grazing allotment management is necessary and requires more involvement in developing proposed livestock/wildlife water supply projects beyond the conceptual level projects included within the study.
- Because of the existing regulatory environment and involvement of third-party interests, the proposed projects with portions of federal lands could be difficult and require additional review and planning efforts.
- There were 67 potential livestock/wildlife water projects identified for development in coordination with participating landowners and allotment permittees.
- Conceptual projects and components along with cost estimates were completed and included water wells, solar pumps, pipelines, and stock tanks and require additional final planning, design, and permitting completed before construction.
- Opportunities for converting CBM wells and pipelines to livestock/wildlife use but are dependent on surface use agreements, landowner liability, water rights and permitting, power infrastructure, and possible groundwater and/or surface water contamination.

1.8.3 Surface Water Storage Opportunities

- Water storage in the watershed has been impacted by the Belle Fourche River Compact of 1943 which divides the water between Wyoming and South Dakota.

- Landowners identified problems with several existing reservoirs that limited the ability to store water and also identified opportunities for water storage in the study area.
- A “short list” of five potential surface water storage sites and alternatives involving rehabilitation and enlargement of existing facilities and construction of new facilities was developed that may provide storage opportunities and were screened initially based on environmental, hydrologic, geologic, potential benefits, costs, and other data.

1.8.4 Stream Channel Condition and Stability

- Some impaired channel reaches were identified during the geomorphic assessment and classification within the study area.
- Categories of impairments were identified and included, but not limited to, degradation of riparian vegetation and degradation of riparian condition in the form of stream bank erosion and channel degradation.
- Site-specific improvements should be developed to alleviate the channel impairments and restore riparian/wetland function as part of the watershed management plan.

1.8.5 Grazing Management Opportunities

- Reliable water supply projects must be developed in areas with inadequate water sources before adjustments or alternatives in grazing management could be made.
- Available tools such as the ecological site description (ESD) and the state and transition model (STM) can be used to achieve desirable vegetation on a particular range site.

1.8.6 Other Upland Management Opportunities

- Potential wetland creation and enhancement opportunities exist on hydric soils within the Subbasin above Keyhole Reservoir.
- Potential hydrologic effects resulting from bark beetle mitigation and timber management should be evaluated in areas of the Redwater Subbasin and the Subbasin below Keyhole Reservoir.
- Noxious weed and invasive species control used to assist range and forest management according to the state and transition models (STMs).

1.9 RECOMMENDATIONS

Several proposed conceptual projects, identified opportunities, suggested alternatives, and initial conclusions have been presented and discussed within this report and watershed management plan. Summary recommendations listed below are included for consideration:

- Several irrigation system rehabilitation projects and livestock/wildlife upland water projects could be eligible to apply for funding through the WWDC SWPP.
- Surface water opportunities exist within the watershed but would require a partnership of local organizations including but certainly not limited to the CCID and the CCNRD to pursue feasibility studies and financing to implement potential projects.
- Priority projects should be reviewed, selected, and components implemented once the necessary technical and financial requirements are determined.
- Landowners or managers seeking to participate in the SWPP should consult and coordinate with their local conservation districts, which are eligible sponsors of SWPP applications and project agreements.
- The study's GIS and digital library should be used as a tool in planning and developing projects and should be updated as necessary from available information sources.
- Potential funding opportunities exist for proposed and future improvement projects within the watershed including irrigation system rehabilitation, riparian/wetland enhancements, and stream channel restoration, and surface water storage projects.
- Innovative strategies for coordinated project funding and financing involving private, local, state, and federal sources will need to be pursued since many of the opportunities are unique in this watershed and do not conform to traditional programs and guidelines.
- It is essential that this approach be based on local, collaborative endeavors that integrate more than one watershed issue that could result in achievement of multiple benefits.