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Clarks Fork/Upper Shoshone Watershed Level I Study
Executive Summary

Prepared For:

Wyoming Water Development Commission | Cody Conservation District | Powell-Clarks Fork Conservation District

Prepared By:

Trihydro Corporation

In Association With:

Anderson Consulting Engineers, Inc. | Hinckley Consulting

RESPEC Company LLC | Wyoming Water Rights Consulting, Inc.

EXECUTIVE SUMMARY

CLARKS FORK/UPPER SHOSHONE WATERSHED

LEVEL I STUDY

WYOMING WATER DEVELOPMENT COMMISSION

March 8, 2024

Project #: 0006N-006-0010

SUBMITTED BY: Trihydro Corporation

1252 Commerce Drive, Laramie, WY 82070

IN ASSOCIATION WITH:

Anderson Consulting Engineers, Inc.

RESPEC Company LLC

Hinckley Consulting

Wyoming Water Rights Consulting, Inc.

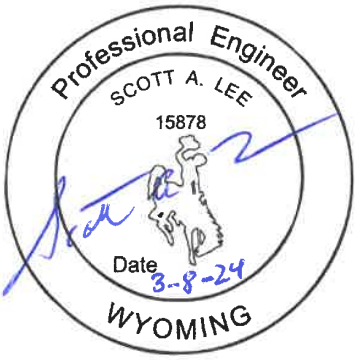

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Table of Contents

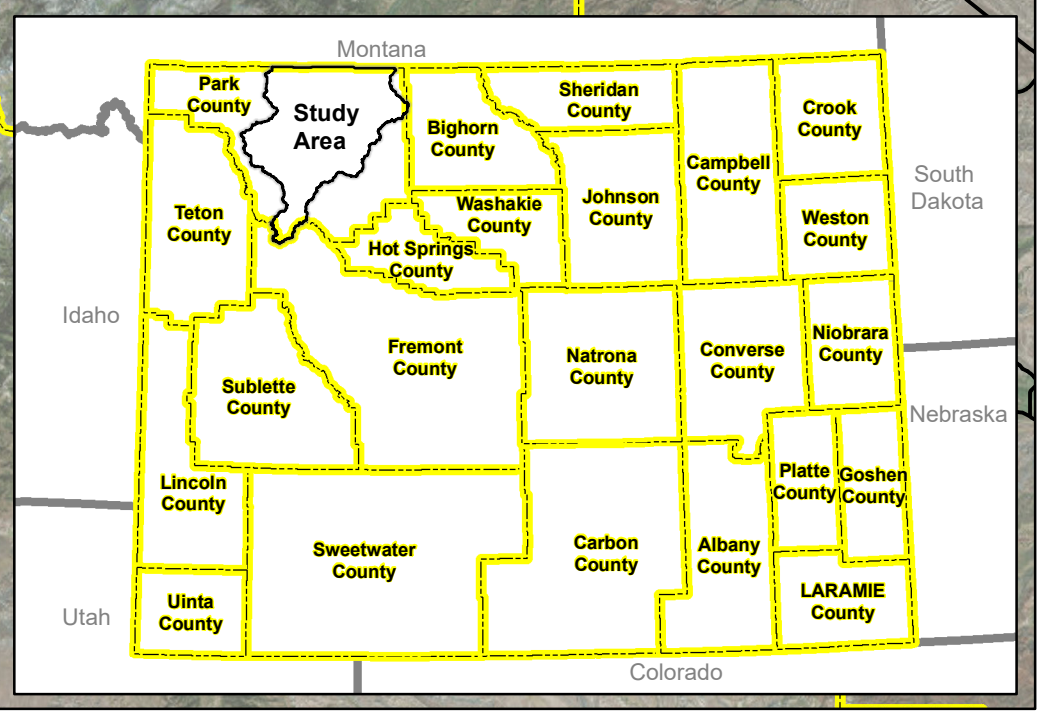
1.0 INTRODUCTION

The Cody Conservation District and the Powell-Clarks Fork Conservation District, serving as sponsors (Sponsors), submitted a funding request to the Wyoming Water Development Commission (WWDC) to support the completion of a comprehensive Clarks Fork and Upper Shoshone Watershed, Level I Study (Project) (Study) in 2021. The funding request's primary goal was to conduct a thorough watershed inventory, identifying key issues concerning land use and water resources, and develop and watershed management and rehabilitation plan. Subsequently, the plan aimed to develop strategies to address and mitigate these identified issues. The WWDC approved the funding request, and in October 2021, the Project was awarded to Trihydro Corporation (Trihydro). The Project team consisted of Trihydro and subconsultants Anderson Consulting Engineers, Inc., RESPEC Company LLC (RESPEC), Hinckley Consulting, Inc. (Hinckley), and Wyoming Water Rights Consulting, Inc.

The Study represents a comprehensive assessment and initial inventory of the water and land resources situated within the designated study area (Study Area). This Level I Study is instrumental in furnishing critical data the Sponsors and the WWDC can leverage in formulating water resource management strategies and implementing conservation practices aimed at addressing water and land resource concerns within the Study Area. This Study delves into detailed descriptions of proposed water development projects, which have the potential to yield economic, ecological, and social benefits for the State of Wyoming and its residents. The primary report objective is to present the Study findings and outcomes.

The Study Area is extensive; it covers over 2.2 million acres which converts to approximately 3,400 square miles. About 37.3 percent or approximately 1,268 square miles comprise the Clarks Fork watershed, and the remaining 62.7 percent or approximately 2,132 square miles is the Upper Shoshone River watershed. Map 1 identifies the Study Area, including the headwaters region upstream of Buffalo Bill Reservoir and easterly to the Bitter Creek / Shoshone River confluence within Park County. The Study Area includes the populated areas around Cody and Powell and smaller towns along the mainstem of the Shoshone River.

Montana
Wyoming
212
Clarks Fork Yellowstone River
Clarks Fork Basin
Bighorn County
Park County
296
294
Powell
Bitter Creek
Sunlight Creek
Pat O'Hara Creek
Shoshone River
ALT
14
120
Dead Indian Creek
Cody
20
North Fork Shoshone River
16
Buffalo Bill Reservoir
14
Upper Shoshone Basin
Sage Creek
Ishawooa Creek
South Fork Shoshone River
Park County
Meeteetse
Teton County
Fremont County
287
Dubois
Data Source:
Wyoming Geospatial Hub
USGS National Hydrography Dataset



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Legend

- City
- Streams
- Basin Divide
- Lake/Reservoir
- Primary Roads
- Study Area
- Counties

0 5 10
Miles

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Map 1

Location Map

Clarks Fork / Upper Shoshone Watershed Study
WWDC Cheyenne WY

Drawn By: BDT	Checked By: JDS	Scale: See Scale Bar	Date: 5/13/22	File: Location.mxd

2.0 PURPOSE AND OBJECTIVES

The Level I Study purpose was to combine the available data and information with the Study-generated inventory data to develop a comprehensive watershed management and rehabilitation plan outlining proposed and potential water-development opportunities. To accomplish this effort, the following objectives were completed:

- Facilitate consensus building among the conservation district, landowners and the WWDC.
- Facilitate public participation through public meetings, open houses/workshops, and advertisements.
- Conduct a Study Area evaluation and description, including quantity and quality of surface water resources, and riparian/upland conditions.
- Inventory and describe irrigation systems, water storage, and flood control needs present.
- Conduct a geomorphic primary channel assessment and identify potential mitigation measures to improve impaired channel reaches.
- Conduct an evaluation of water storage needs and opportunities to augment water available for livestock and wildlife.
- Develop a watershed management plan which identifies water resource related issues within the watershed and proposes practical economic solutions.
- Identify permits, easements, and clearances necessary for plan implementation.
- Develop improvement cost estimates.
- Complete an economic analysis and evaluate alternative funding sources.

3.0 INVENTORY AND DESCRIPTIONS

This section presents an overview of natural resources within the Study Area and corresponding existing conditions. The discussion of various watershed attributes is organized into the following sections: Physical Systems, Biological Systems, and Anthropogenic Systems. The primary goal of this task is to furnish the Sponsors with essential baseline information that can be used in subsequent planning and environmental permitting endeavors.

4.0 MANAGEMENT AND REHABILITATION PLAN

Potential projects were organized into the four general categories described below.

- **Environmental Enhancement Opportunities (ENV):** Projects within this category include streambank stabilization and fishery improvements. Benefits include water quality improvements through sediment reduction to the watershed's rivers and streams and increased fish production for wildlife food supply and recreation.
- **Fire Suppression Improvements (FS):** One project was identified to replace a local subdivision water storage tank and make it suitable to fill fire trucks for emergency response.
- **Irrigation System Improvements and Rehabilitation (IRR):** Projects within this category include irrigation structure replacement and rehabilitation, ditch to pipe conversions, spring improvements for irrigation supply, and irrigation storage facilities. Benefits include increased efficiency and water conservation.
- **Livestock/Wildlife Watering Opportunities (L/W):** Most of the potential projects identified fall into this category. Projects include spring developments and pipelines for livestock water, stock tank installation, well installation, and pond/reservoir construction and rehabilitation. Benefits include wildlife habitat improvements and improved watershed, livestock, and wildlife health through increased watering opportunities.

  The plan is summarized in Table 1.

TABLE 1. CLARKS FORK/UPPER SHOSHONE WATERSHED PLAN: PROJECT EVALUATION MATRIX

PROJECT ID	SPONSOR REFERENCE	PROJECT NAME	DESCRIPTION	SWPP ELIGIBLE	DEVELOPMENT TYPE	WWDC PRIORITY	LAND OWNERSHIP	PRACTICABILITY	EASE OF PERMITTING	ESTIMATED COST
ENV-001	Koller-002	Ishawooa Creek Streambank Stabilization	Construct bioengineered treatment along 400 feet of streambank.	Yes	New	Low	Includes Federal	Challenging	Federal/NEPA	$59,702.50
ENV-002	Nugent-001	Nugent Pond No. 1 Improvements	Install solar-powered aeration system to promote fishery.	No	Rehab	Low	Private Only	Routine	Approved/Exempt	$14,175.00
ENV-003	Montgomery-002	North Fork Streambank Stabilization	Construct bioengineered treatment along 300 feet of streambank.	Yes	New	Low	Private Only	Challenging	Federal/NEPA	$112,970.00
ENV-004	HMR-001	Crandall Creek Streambank Stabilization	Construct bioengineered treatment 900 feet of streambank.	Yes	New	Low	Private Only	Challenging	Federal/NEPA	$321,860.00
ENV-005	Hoene-001	Clarks Fork Streambank Stabilization	Construct bioengineered treatment at two select locations and install interception ditch to prevent streambank saturation.	Yes	New	Low	Private Only	Moderate	Federal/NEPA	$ 54,857.00
ENV-006	Jensen-001	Sediment Retention Structure	Install sheet pile grade control structures and construct riprap armor downstream of structures.	Yes	New	Low	Private Only	Moderate	Approved/Exempt	$28,201.25
ENV-007	Morrison-004	Wildlife Pond	Excavate off-channel pond.	Yes	New	High	Private Only	Moderate	Approved/Exempt	$133,045.00
ENV-008	B4-002	Streambank Protection	Construct bioengineered treatment along 300 feet of streambank.	Yes	New	Low	Private Only	Challenging	Federal/NEPA	$112,970.00
ENV-009	Mick-001	North Fork Streambank Stabilization	Construct bioengineered treatment along 200 feet of streambank.	Yes	New	Low	Private Only	Challenging	Federal/NEPA	$38,046.25
FS-001	RLWA-001	Sunset Lane Water Tank	Remove and replace water tank and install fittings to fill fire trucks.	Yes	Rehab	High	Private Only	Moderate	Local/State	$ 96,250.00
IRR-001	Morrison-002	Morrison Check Structure and Turnout Replacement	Remove and replace existing check structure and turnout.	Yes	Rehab	Medium	Private Only	Routine	Approved/Exempt	$13,341.63

PROJECT ID	SPONSOR REFERENCE	PROJECT NAME	DESCRIPTION	SWPP ELIGIBLE	DEVELOPMENT TYPE	WWDC PRIORITY	LAND OWNERSHIP	PRACTICABILITY	EASE OF PERMITTING	ESTIMATED COST
IRR-002	Nugent-002	Nugent Pond No. 2 Reconstruction	Rehabilitate existing irrigation pond.	Yes	Rehab	High	Private Only	Moderate	Local/State	$92,592.50
IRR-003	Nugent-003	Nugent Pond No. 3	Construct a new irrigation pond.	Yes	New	High	Private Only	Moderate	Local/State	$123,282.50
IRR-004	Nugent-004	Nugent Spring Improvement	Rehabilitate existing spring and supply water to irrigation ponds.	Yes	New and Rehab	High	Private Only	Moderate	Local/State	$9,242.75
IRR-005	Montgomery-001	Ditch to Pipe	Convert open ditch to irrigation pipe.	Yes	Rehab	Medium	Private Only	Routine	Approved/Exempt	$175,312.50
IRR-006	Whitlock-001	Ditch to Pipe	Convert open ditch to irrigation pipe.	Yes	Rehab	Medium	Private Only	Routine	Approved/Exempt	$276,065.63
IRR-007	Vogt-001	Vogt Ditch Splitter	Remove and replace existing hydraulic control structure.	Yes	Rehab	Medium	Private Only	Routine	Approved/Exempt	$15,860.63
IRR-008	Neff-001	Neff Ditch Throwback	Rehabilitate existing hydraulic control structure.	Yes	Rehab	Medium	Private Only	Routine	Approved/Exempt	$11,412.50
IRR-009	Boot and Bottle-001	Boot and Bottle Irrigation	Improve irrigation for memorial area.	Yes	New	Medium	Private Only	Moderate	Local/State	$9,900.00
IRR-010	Harrison-001	Harrison Ditch to Pipe Project	Convert open ditch to irrigation pipe.	Yes	Rehab	Medium	Private Only	Routine	Approved/Exempt	$86,350.00
IRR-011	Harrison-002	Splitter box replacement	Install hydraulic control structure.	Yes	New	Medium	Private Only	Moderate	Approved/Exempt	$21,085.63
IRR-012	TCR-001	Trout Creek Lateral Diversion Replacement	Remove and replace existing hydraulic control structure.	Yes	Rehab	Medium	Private Only	Moderate	Approved/Exempt	$27,410.63
IRR-013	TCR-002	Ditch to Pipe Conversion	Convert open ditch to irrigation pipe.	Yes	Rehab	Medium	Private Only	Routine	Approved/Exempt	$74,023.13
IRR-014	TCR-003	Sediment trap replacement	Remove and replace existing concrete vault.	Yes	Rehab	Medium	Private Only	Moderate	Approved/Exempt	$137,500.00
IRR-015	TCR-010	Trout Creek Lateral Ditch to Pipe Conversion	Convert open ditch to irrigation pipe.	Yes	Rehab	Medium	Private Only	Routine	Approved/Exempt	$294,456.25
L/W-001	Morrison-001	Morrison Pond	Construct excavated pond.	Yes	New	High	Private Only	Moderate	Local/State	$232,595.00

PROJECT ID	SPONSOR REFERENCE	PROJECT NAME	DESCRIPTION	SWPP ELIGIBLE	DEVELOPMENT TYPE	WWDC PRIORITY	LAND OWNERSHIP	PRACTICABILITY	EASE OF PERMITTING	ESTIMATED COST
L/W-002	Morrison-003	Morrison Springs	Develop two springs and install pipelines to existing stock tanks.	Yes	New	High	Private Only	Moderate	Local/State	$21,785.50
L/W-003	Christofferson-001	Christofferson Pond	Construct excavated pond.	Yes	New	High	Private Only	Moderate	Local/State	$664,262.50
L/W-004	Koller-001	Koller Wildlife Water Source and Solar Well	Grade shallow watering area and install well with solar-powered pump.	Yes	New	High	Private Only	Moderate	Local/State	$81,262.50
L/W-005	Nichols-001	Nichols Pond Improvements	Rehabilitate existing pond.	Yes	Rehab	High	Private Only	Moderate	Local/State	$66,000.00
L/W-006	Whitlock-002	Whitlock Stock Tank	Install 1,200-gallon rubber tire stock tank.	Yes	New	High	Private Only	Routine	Approved/Exempt	$ 5,527.50
L/W-007	Vogt-002	Vogt Stock Reservoir	Construct dam and reservoir.	Yes	New	High	Private Only	Moderate	Local/State	$70,785.00
L/W-008	Broussard-001	Broussard Stock Tank	Install pipeline and 1,200-gallon rubber tire stock tank.	Yes	New	High	Private Only	Moderate	Approved/Exempt	$26,626.88
L/W-009	Arnote-001	Arnote Reservoir No. 1	Construct dam and reservoir	Yes	New	High	Private Only	Moderate	Local/State	$21,972.50
L/W-010	Arnote-002	Arnote Reservoir No. 2	Construct dam and reservoir.	Yes	New	High	Private Only	Moderate	Local/State	$21,972.50
L/W-011	Bales-001	Bales Stock Tank/Pipeline Project	Install infiltration gallery, vertical wet well with solar pump, pipeline, 5,000-gallon storage tank, and 1,200-gallon rubber tire stock tank.	Yes	New	High	Private Only	Challenging	Federal/NEPA	$63,314.63
L/W-012	B4-001	Well Construction	Install well with solar-powered pump.	Yes	New	High	Private Only	Challenging	Local/State	$27,362.50
L/W-013	TCR-004	Four Bear Spring Development	Develop spring and install 1,200-gallon rubber tire stock tank.	Yes	New	High	Private Only	Moderate	Local/State	$14,770.25
L/W-014	TCR-005	Four Bear Spring #2 Development	Develop spring and install 1,200-gallon rubber tire stock tank.	Yes	New	High	Includes Federal	Moderate	Federal/NEPA	$14,770.25
L/W-015	TCR-006	Logan Mountain Spring Development	Develop spring and install 1,200-gallon rubber tire stock tank.	Yes	New	High	Private Only	Moderate	Local/State	$14,770.25

PROJECT ID	SPONSOR REFERENCE	PROJECT NAME	DESCRIPTION	SWPP ELIGIBLE	DEVELOPMENT TYPE	WWDC PRIORITY	LAND OWNERSHIP	PRACTICABILITY	EASE OF PERMITTING	ESTIMATED COST
L/W-016	TCR-007	Trout Creek Spring Development	Develop spring and install 1,200-gallon rubber tire stock tank.	Yes	New	High	Includes Federal	Moderate	Federal/NEPA	$14,770.25
L/W-017	TCR-008	Trout Creek Spring #2 Development	Develop spring and install 1,200-gallon rubber tire stock tank.	Yes	New	High	Private Only	Moderate	Local/State	$14,770.25
L/W-018	TCR-009	Murray Creek Spring Development	Develop spring and install 1,200-gallon rubber tire stock tank.	Yes	New	High	Private Only	Moderate	Local/State	$14,770.25
L/W-019	FOAL-001	FOAL Project Generic	Rehabilitate existing stock reservoir(s).	Yes	Rehab	High	Includes Federal	Moderate	Federal/NEPA	$21,972.50
L/W-020	Roberts-001	Roberts Drainage System and Pond	Install underdrain and conveyance pipeline and construct excavated pond.	Yes	New	High	Private Only	Challenging	Local/State	$261,497.50
L/W-021	Corbett-001	Tippecanoe Reservoir Rehabilitation	Replace existing low-level outlet structure, sluice gate, gate stem, and operator wheel.	Yes	Rehab	High	Private Only	Moderate	Local/State	$23,100.00

Note: Shaded cells in the Project ID column represent projects within the Powell-Clarks Fork Conservation District. All other projects are within the Cody Conservation District.

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 CONCLUSIONS

The plan includes strategies and initiatives related to the following overarching categories:

- Irrigation System Improvements and Rehabilitation (IRR)
- Livestock/Wildlife Watering Opportunities (L/W)
- Environmental Enhancement Opportunities (ENV)
- Fire Suppression Improvements (FS)

5.1.1 IRRIGATION SYSTEM IMPROVEMENTS AND REHABILITATION (IRR)

1. Irrigated agriculture is a dominant activity within the Study Area. The extent of irrigated lands, and corresponding irrigation infrastructure is significant. Irrigation districts in the Study Area include: Clarks Fork Irrigation District, Cody Canal Irrigation District, Heart Mountain Irrigation District, Lakeview Irrigation District, Shoshone Irrigation District, and Willwood Irrigation District.
2. Irrigation diversions and irrigation return flows play important roles in the character of many streams in the Study Area. For example, both Sage Creek and Sulphur Creek streamflow is augmented during the irrigation season by operation of the Cody and Lakeview Canals. Likewise, Bitter Creek streamflow consists primarily of irrigation return flows.
3. Funding assistance is available for irrigation projects from a number of sources, as previously mentioned, especially from the WWDC Small Water Project Program but also from various programs administered by the NRCS. The irrigation districts, as legal entities, are also eligible for other funding opportunities through the WWDC and other agencies and programs.
4. Partnering opportunities may exist for construction of in-stream structures such as irrigation diversions. For example, TU has recently provided partial funding for projects within the region in an effort to enhance fisheries populations. Fish passage opportunities identified in Chapter 6 could potentially be funded by multiple entities.
5. A total of fifteen (15) irrigation projects were identified and incorporated into the watershed management plan. These projects are likely eligible for funding through the SWPP.
6. The Project team is aware of numerous additional projects being considered by individual stakeholders which may be only partially eligible for SWPP funding. These projects typically include on-farm irrigation improvements not

eligible for SWPP funding but are eligible for NRCS EQIP funding. Certain components of these, may however, be eligible for SWPP funding. Information prepared in support of EQIP funding through the NRCS should be submitted to the WWDO SWPP office for consideration of partial eligibility.

5.1.2 LIVESTOCK/WILDLIFE WATERING OPPORTUNITIES (L/W)

1. There are numerous opportunities to improve range and riparian conditions by means of increasing the availability of upland water sources for wildlife and livestock use. A total of twenty-one (21) individual projects were identified.
2. Enhancing range and riparian conditions presents opportunities through the establishment and maintenance of well-distributed, dependable upland water sources and watering facilities for both wildlife and livestock. The installation of pipelines and stock tanks serves as the cornerstone of efficient grazing management and offers a cost-effective means to improve rangeland conditions. In many cases, strategic fencing is also essential to maximize the benefits derived from these initiatives.
3. Pipeline/tank systems appear to offer the most efficient and cost-effective means to provide adequate watering to large areas of rangeland. Water sources for these systems will depend on the location of the rangeland to be served and the available alternative sources. The most likely sources are wells or spring developments.
4. Most of the livestock / wildlife watering projects identified in the Plan will be completed entirely on private lands. Consequently, permitting issues are greatly simplified. However, a few will involve coordination with the BLM or USBR. Consultation will be necessary in order to obtain the requisite permits and cultural clearances.

5.1.3 ENVIRONMENTAL ENHANCEMENT OPPORTUNITIES (ENV)

1. A total of nine (9) specific environmental enhancement opportunities were identified. Most of these entailed some sort of stream channel improvement or stabilization. The projects identified generally involve protection of private property and infrastructure from damage due to streambank erosion or channel degradation.
2. It is recognized that meandering streams will continually migrate laterally resulting in erosive banks in some locations and sediment deposition in others. However, when erosion threatens highways, irrigation structures, homes, or other infrastructure, mitigation is recommended. Likewise, mitigation is also prudent when migration threatens production land such as pastures, crops, etc.
3. Channel degradation does not appear to be systemic. Significant or system-wide indicators of channel instability were not observed nor were they presented by area stakeholders. However, lower portions of the watershed do

appear to be experiencing channel degradation more regional in nature. These streams have been flagged by the WDEQ Willwood working groups as significant sources of sediment to the Shoshone River system (i.e.., Sage Creek, Sulphur Creek).

Impairments appear to be locally identifiable and include primarily:

- Riparian Vegetation Degradation: Impaired riparian condition and habitat.
- Riparian Degradation: Generally, bank erosion and physical disturbance of stream banks.
- Imbalance of Sediment Supply: Imbalance between stream capacity and sediment supply can lead to channel degradation or aggradation. Imbalance can be initiated by perturbations such as land use activities, channel modifications, or addition of flow (irrigation returns or operational waste) to the system.

5.1.4 FIRE SUPPRESSION IMPROVEMENTS (FS)

One fire suppression project was identified. This project involves the replacement of an existing aging water storage facility currently used only for irrigation purposes. By facilitating the new tank with requisite connections to accommodate fire-fighting equipment to access the water, the facility could serve multiple purposes. Coordination with local fire authorities would be required.

5.2 RECOMMENDATIONS

Based upon the information presented throughout this report, and the conclusions presented above, the recommendations listed below are presented for consideration:

1. Several irrigation districts within the Study Area, namely Heart Mountain, Willwood, Lakeview, and Cody Canal Irrigation Districts, have recently completed or are currently in the process of developing master plans through the WWDC. It is highly recommended that the Conservation Districts actively engage with these ongoing studies by participating in project meetings associated with the studies. Given the interplay between irrigation activities and sedimentation concerns in the Shoshone River system, there may be opportunities within these projects to mitigate these impacts. For instance, exploring alternative methods for managing irrigation deliveries and operational waste could potentially reduce the reliance on Sage and Sulphur Creeks for conveying additional flows, thus contributing to the enhancement of channel restoration efforts.
2. Most of the projects outlined in the Plan are at least partially eligible for funding through the WWDC's Small Water Project Program (SWPP). It is imperative to review these projects and promptly implement selected alternatives as they become viable. The timely completion of one or more of these projects will not only bring

direct benefits to those involved but will also help generate greater interest and raise awareness regarding the advantages associated with the watershed planning process.

3. Throughout the completion of this Project, we emphasized during all interaction with stakeholders that the Conservation Districts would serve as a project's sponsor for any application for funding through the WWDC SWPP. The fact that they could not apply directly to WWDC was also emphasized. We highly recommend that in any correspondence regarding the program (including web sites, ads, flyers, etc.) the Conservation Districts reiterate the fact that applicants need Conservation District sponsorship and that all projects will not necessarily be selected for sponsorship.

4. There is significant interest among irrigators in expediting the completion of projects related to on-farm improvements, particularly the construction of center pivot irrigation systems. These projects align with the Conservation Districts' objectives in mitigating sediment delivery to the Shoshone River system by reducing surface runoff. However, it's important to note that such projects typically do not qualify for funding through the SWPP. Following discussions with the WWDO and NRCS staff, it has been ascertained that specific elements within these projects may meet SWPP funding criteria. Therefore, it is strongly recommended that stakeholders seeking NRCS EQIP funding for sprinkler conversion projects submit their NRCS designs and cost estimates to WWDO for assessment of SWPP eligibility for certain project components. For instance, components such as point of diversion and the 'ditch to pipe' sections within sprinkler conversion projects may qualify for SWPP funding.

5. The Conservation Districts have expressed a keen interest in the development of a basin-wide hydrologic model, as discussed in Chapter 5: Stream Hydrology. Various modeling options are available, and the choice of model depends on specific objectives, data availability, historical preferences, or other factors unique to different entities. Before the Conservation Districts initiate future modeling efforts, clearly defined objectives need to be developed before modeling strategies can be recommended. Depending upon these objectives, different modeling platforms and strategies would be selected, especially if modeling at the scale of the Shoshone River system is being considered.

   To maximize funding opportunities and create an effective planning tool through collaborative efforts, it is highly recommended that the Conservation Districts coordinate with interested entities and, depending on the preferences of those agencies, explore the development of a hydrologic model in the event this effort aligns with the Conservation Districts' defined objectives.

6. Various alternative funding sources are available to support watershed improvements, encompassing on-farm enhancements, irrigation rehabilitation, stream restoration projects, as well as conservation and flood control

initiatives. Exploring innovative funding and financing strategies should be a priority, especially once projects worthy of further evaluation and potential implementation have been identified.

As an illustrative example, the replacement of a deteriorating ditch headgate and diversion, which also serve as impediments to fish passage according to WGFD, could potentially qualify for SWPP funding. Moreover, additional funding avenues may be accessible through organizations such as WGFD, TU, and other relevant sources due to the potential benefits the project offers to fisheries and stream habitat. By orchestrating a combination of funding sources, project owners may be able to secure grants that cover a substantial portion, if not the entirety, of the project costs.

7. Continued communication between the Conservation Districts and stakeholders concerning the SWPP is important. Although numerous projects have been identified and included in this Plan, it's essential to acknowledge that, despite diligent public outreach efforts, there may still be stakeholders who remain unaware of the Study and the SWPP. As a result, we highly recommend that the Conservation Districts consistently reference the SWPP in future newsletters and communications to enhance awareness of its benefits.

8. Upon SWPP project completion, and with the consent of the involved participants, the Conservation Districts may consider incorporating references to these completed projects to illustrate the opportunities presented by the SWPP. We have observed from previous watershed studies that interest in the program tends to grow as more projects are successfully completed.

9. Community-sponsored projects aimed at enhancing stream channels and habitat have the potential to deliver a wide array of benefits to the watershed. These prospective projects may encompass activities like bank stabilization, employing methods such as willow plantings, and the construction of beaver dam analogs.

   Beyond the direct advantages to the targeted stream, there are additional, indirect benefits that include opportunities for education and community involvement.

10. There are promising funding opportunities available for both proposed and future improvement projects within the watershed. These opportunities span a range of initiatives, including enhancements to ranches and farms, rehabilitation of irrigation systems, improvements to riparian areas and wetlands, restoration of river corridors and stream channels, and urban drainage and flood control projects.

    For instance, the Saratoga Encampment Rawlins Conservation District (SERCD) and the Popo Agie Conservation District (PACD) have both recently secured funding through the USDA Regional Conservation Partnership Program (RCPP). This funding is designated for achieving various resource management objectives, from enhancing water quality and wildlife habitat to restoring streambanks. Exploring the potential for successful RCPP

funding applications and partnering SWPP funding with RCPP-funded projects, where feasible, could offer a multifaceted approach to financial support.

11. Innovative strategies for coordinated project funding and financing should be investigated and focus on local, collaborative endeavors that integrate more than one watershed issue or concern that could potentially result in achievement of multiple benefits.

12. Every effort was made to provide information within this document to support the application for SWPP funding from the WWDC. Project narratives, conceptual designs, and cost estimates can all be incorporated directly into the SWPP application by the Sponsors.

13. The public outreach component of this Project made every effort to include all interested parties. To the best of the Study team's knowledge, we reached out to and contacted all those who expressed an interest in participating. However, based on our past experience, we anticipate that additional individuals may come forward after the completion of this Level I Study, expressing a desire to participate. It is essential to inform these new participants that they are indeed eligible for SWPP funding, even if they did not participate in the initial project. They would be expected to meet the same application requirements and adhere to the same deadlines as those who were actively involved in the Project.