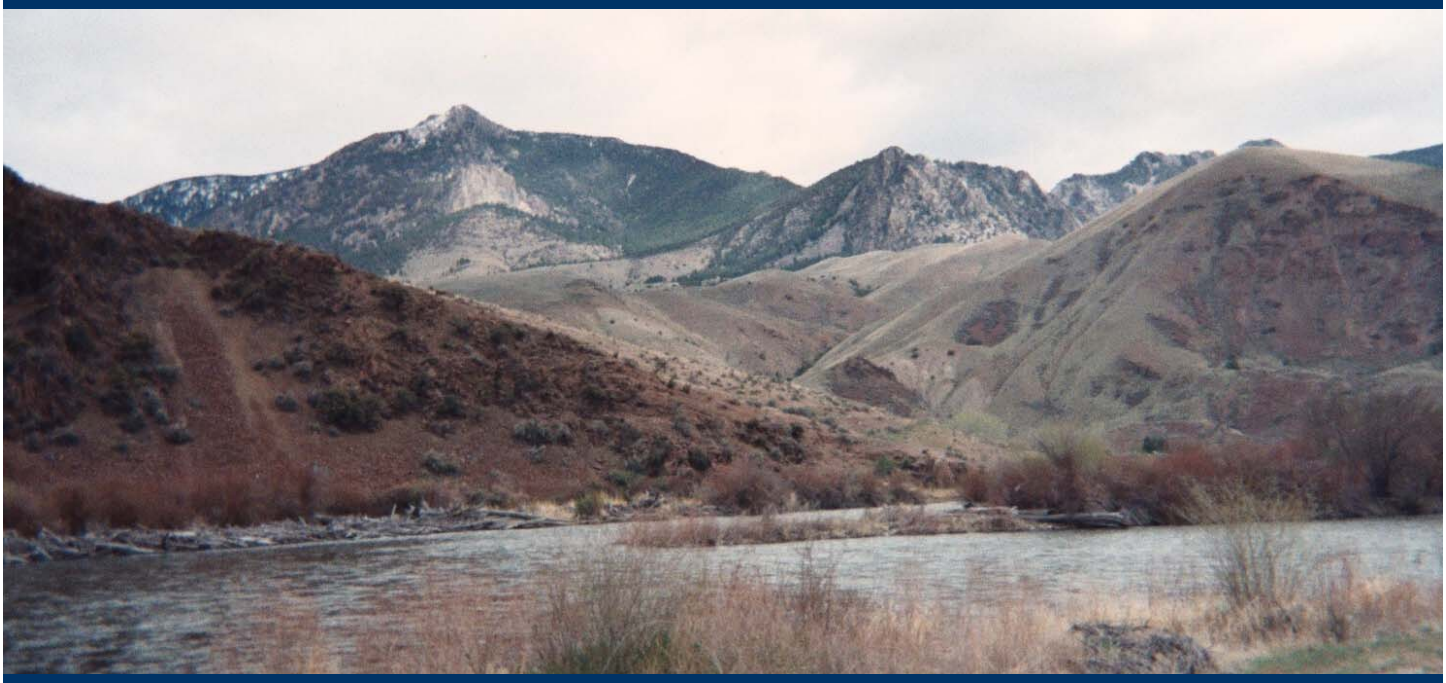
Elk Bend Sewer District

Environmental Information Document



2016

IDEQ Grant #: WWG-329-2009-5
Project #: 209003-000

KELLER associates

Elk Bend Sewer District

Environmental Information Document

PROFESSIONAL ENGINEER
LICENSED
15370
2.11.2016
STATE OF IDAHO
SKYLER D. ALLEN

IDEQ Grant # WWG-329-2009-5

Project No. 209003-000
February 2016

KELLER associates

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Authorization

In February 2009, the Elk Bend Sewer District of Elk Bend, Idaho contracted with Keller Associates, Inc. to prepare a Wastewater Facilities Planning Study and Environmental Information Document for the District's wastewater collection and treatment systems. The study was funded in part by a Wastewater System Planning Grant from the Idaho Department of Environmental Quality (WWG-329-2009-5).

Environmental Information Document

Chapter 1 Project Identification

TABLE 1 – PROJECT INFORMATION

Utility:	Elk Bend Sewer District	
Contact:	Glenn Ross, President 111 Whitetail Dr. Salmon, ID 83467 (208) 894-4549	
Engineering & Environmental Contact:	Skyler Allen, P.E./James Mullen, P.E. Project Manager Keller Associates 305 N. 3rd, Suite A Pocatello, ID 83201 (208) 238-2146 jmullen@kellerassociates.com	
Project No.:	Keller Associates, Inc. Project No. 209003	
Estimated Preferred Alternative Project Costs:		
	Pressure Sewer Line	$116,500
	Steelhead Bend Plant Improvements	$ 36,500
	Recirculating Gravel Filter	$436,500
	Lift Station Rehabilitation	$224,000
	LSAS	$436,500
	Improvements Total	**$1,250,000**
Possible Alternative Funding[1]:		
IDEQ	IDEQ SRF Loan	$900,000 - $1,250,000
	IDOC – Block Grant	$~$500,000
USDA-RD	USDA-RD – Loan	$~500,000
	USDA-RD – Grant	$~250,000
	IDOC – Block Grant	$~500,000
	Total Project Funding	**$**1,250,000
User Costs		
Current Equivalent Monthly User Charge	$18.00	
Change in O&M Monthly Charge per EDU	$6.67	
Estimated Debt Service	$43.00	
Future Equivalent Monthly User Charge	$67.36	

[1] Estimate of possible funding. Applications are pending. Any grants awarded would reduce the amount of loan funds required.

1.1 USER RATES

The District is currently funded as a Special Taxing District through the property taxes collected by the County. The sewer levy tax rate is currently (2014) 0.002523267. Taxes collected currently provide funding equivalent to a user rate of approximately $18 per month. To finance the repayment of the anticipated project loan, the Sewer District will either implement an increase of the tax levy rate, implement a sewer user rate, or a combination approach. The final determination will be made by the district in the near future.

Repayment of the loan, reserve funds, and increased O&M are anticipated to require an annual budget increase of $60,000-$75,000, depending on grants received and final construction cost. If applied as a wastewater user rate, this would require an estimated increase of $39-50 per month. A split approach or property tax increase would be distributed differently, but with the aim to achieve the same budget increase.

The debt service charge would be reduced if the District receives grant support and if final construction costs are below the preliminary estimates. With grant support (ICDBG and/or USDA-RD), the needed user rate equivalent for loan repayment is estimated to be approximately $57.36 or possibly less. Table 1-2 below shows what is considered the most conservative scenario in which the full budget is utilized from a 30 year DEQ SRF loan.

TABLE 2 – USER RATE SUMMARY

Current Monthly User Charge equivalent per EDU	$ 18.00*
Change in Operation & Maintenance Monthly Charge per EDU	$ 6.67
Change in Debt Service Monthly Charge per EDU	$43.00
Future Estimated Monthly User Charge per EDU	$ 67.36

*Current budget distributed across EDU's, these funds are currently collected by the special taxing district.

While increased user rates are a concern to the District and residents, the equivalent user rate of $67.36 per month is approximately 2% of the median household income.

1.2 PROPOSED SYSTEM IMPROVEMENTS ABSTRACT

The Elk Bend Sewer District provides wastewater collection and treatment to the approximately 138 residences. There are also a few small cabins, a 20 space RV park with showers and a small convenience store/restaurant. It is estimated that about 20-30% of the residences are occupied throughout the year with higher seasonal occupancy. Alternatives for improvement to the collection system, treatment process, and discharge method were considered and preferred alternative actions recommended by the 2012 Wastewater Facilities Planning Study.

The Elk Bend Sewer District wastewater facilities experienced documented occurrences of sewage on the ground at the Elk Bend subsurface drainfield and at the Steelhead Bend lift station. The drainfield at the Elk Bend facility has failed. The treatment systems and lift stations are at the end of their useful life.

In the 2012 Wastewater Facilities Planning Study, Keller Associates, Inc. recommended that the Elk Bend Sewer District implement the following system improvements:

- Recirculating Gravel Filter Treatment System
- Elk Bend Lift Station Rehabilitation
- Steelhead Bend Lift Station Rehabilitation
- New Large Soil Absorption System (LSAS) at Elk Bend

The implementation of these improvements will enable the Elk Bend and Steelhead Bend wastewater systems to provide wastewater collection and treatment which will comply with the current and anticipated regulations and accommodate the projected growth for the next 20 years. Without such action the wastewater systems will continue to violate federal and state regulations designed and intended to protect health, safety, and welfare of the people of Elk Bend Sewer District and the Salmon River, an important natural resource for the nation, the state, and the community.

1.3 EID ABSTRACT

The 2012 Elk Bend Sewer District Wastewater Facilities Planning Study provided recommendations for improvements to the wastewater collection and treatment systems. Potential environmental impacts of the proposed improvements were considered in this Environmental Information Document. The Salmon River is designated a special resource water by the State of Idaho, a segment several miles downstream of the District is designated as wild and scenic. The river is an important water resource for the State of Idaho, providing habitat for threatened and endangered species, a number of recreational uses, and is the foundation for a significant portion of the local economy. The proposed collection system improvements will take place primarily on previously disturbed ground with the replacement and/or repair of the existing wastewater treatment plant site. The new LSAS will be installed on land that was previously residential property with an archaeological survey of the site completed as part of this evaluation.

The recommended improvements are anticipated to have a positive impact on the environment by reducing the pollutant levels in the wastewater discharge to the Salmon River. There may be temporary negative impacts as part of the improvements, such as possible noise disturbances during construction activities due to construction equipment operating, which has been a cause of concern due to the proximity of a bald eagle nest in the vicinity of the improvements. The Idaho Department of Fish and Game conducted scheduled observations of the bald eagle nest in 2014 and indicated that construction should proceed between August 15 and January 15 to avoid negatively impacting the bald eagle nest. Environmental effects of the proposed improvements are discussed further in Chapters 5 and 6.

Agencies and other entities with authority and/or potential interest in the project were consulted for comment regarding potential environmental impacts of the proposed wastewater system improvements. Responses were received with their comments

incorporated into this document. Potential environmental impacts identified that require action during the course of the proposed improvements include:

- Floodplain encroachment review and floodplain development permit required.
- Monitor and stop work for inadvertent discovery of artifacts.
- Proper disposal of construction debris and fugitive dust control required.
- Uphold responsibilities under the endangered species act.
- Temporary construction NPDES permit and best practices for storm water runoff management required.
- Potential impacts on bald eagle nesting must be mitigated.
- Essential fish habitat and resource conservation area must be preserved.

Chapter 2 Project Purpose and Need

2.1 System Overview

The Elk Bend and Steelhead Bend wastewater systems each utilize gravity flow collection systems with lift stations to collect and transport wastewater to centralized treatment facilities. The treatment facilities are extended aeration package treatment plants which were installed in the early 1970's. The package plants include an aeration basin, clarifier, and chlorine contact chamber (unused). The Elk Bend plant has been equipped with a secondary clarifier in the form of an underground septic tank prior to discharge. The treatment plants discharge to Large Soil Absorption Systems at each site. The project improvements outlined in Chapter 3 are intended to improve public health and reduce impacts to the Salmon River by remedying violations of the wastewater rules, resolving inadequate treatment, replacing unreliable equipment, upgrading the insufficient drain field, and correcting other deficiencies of the current system.

Elk Bend Wastewater Treatment Plant

The Elk Bend package wastewater treatment plant is in very poor condition. Rust is prevalent, roof trusses are degraded, roof sheeting is rusted and pieces are missing, the comminutors have been removed, and a significant amount of scum buildup is evident in the steel tanks. Aerator blowers and motors are reaching the end of their expected life cycle with only one currently functional. Air piping above the water surface shows significant signs of corrosion. The Return Activated Sludge (RAS) system does not operate optimally and only returns a portion of the settled solids from the clarifiers to the aeration basin. The scum collection and return system is inoperable. The operator reports that once or twice per year, he pumps down the clarifier basin to remove the remaining settle sludge and scum into the overflow basin, applies chlorine and lime, and allows the sludge to dry then shovels it out and hauls to the landfill. The sludge disposal method does not meet the EPA 503 regulations for disposal of bio solids.

Treatment capability and performance of the treatment plant is very poor. Proper wastewater treatment is not occurring at the plant. A temporary 1,000 gallon septic tank with a filter at the effluent end of the plant was installed in 2007. The septic tank has significant buildup of scum since installation. The drain field failed and was recently replaced which has also failed, as indicated by ponding of wastewater on the ground surface, and needs to be addressed. Estimated influent for the Elk Bend treatment plant is 16,300 average gpd, with approximately 10,000 average gpd during winter months. This equates to approximately 133 gallons per person per day (gpcd). These estimates are based on records for pump run times; actual flow estimates were not measured. Improvements will need to add capacity that will meet projected population increases.

Steelhead Bend Wastewater Treatment Plant

The Steelhead Bend treatment plant has not experienced the same problems with the drain field as the Elk Bend plant. The plant is in slightly better condition than the Elk Bend treatment plant. The roofing appears to be in decent condition, and corrosion of piping and rust on metal surfaces inside the tank is prevalent. The comminutor has been removed. The Return Activated Sludge (RAS) system does not function fully as with the Elk Bend plant. The operator performs the same pumping of the clarifier tank into the overflow basin, application of lime and chlorine, and

removal of solids to the landfill after drying as at the Elk Bend plant. Again, it should be noted that this method of bio solids disposal does not comply with EPA 503 regulations. As with the Elk Bend plant the treatment performance is unknown. Estimated influent for the Steelhead Bend treatment plant is 5,200 average gpd, with approximately 3,300 average gpd during winter months. This equates to approximately 125 gpcd.

LIFT STATIONS

The lift stations were originally installed with heavy duty duplex submersible pumps that have been replaced with lighter duty single submersible pumps. The original effluent piping has been bypassed with flexible piping that extends out of the top of the wet well to the dry pit and connects after the control valves. Insulated plywood covers are onsite to cover the wet and dry pits do help avoid freezing in the winter months. The modifications which have been made to the lift stations did not receive design approval from IDEQ and violate the wastewater rules.

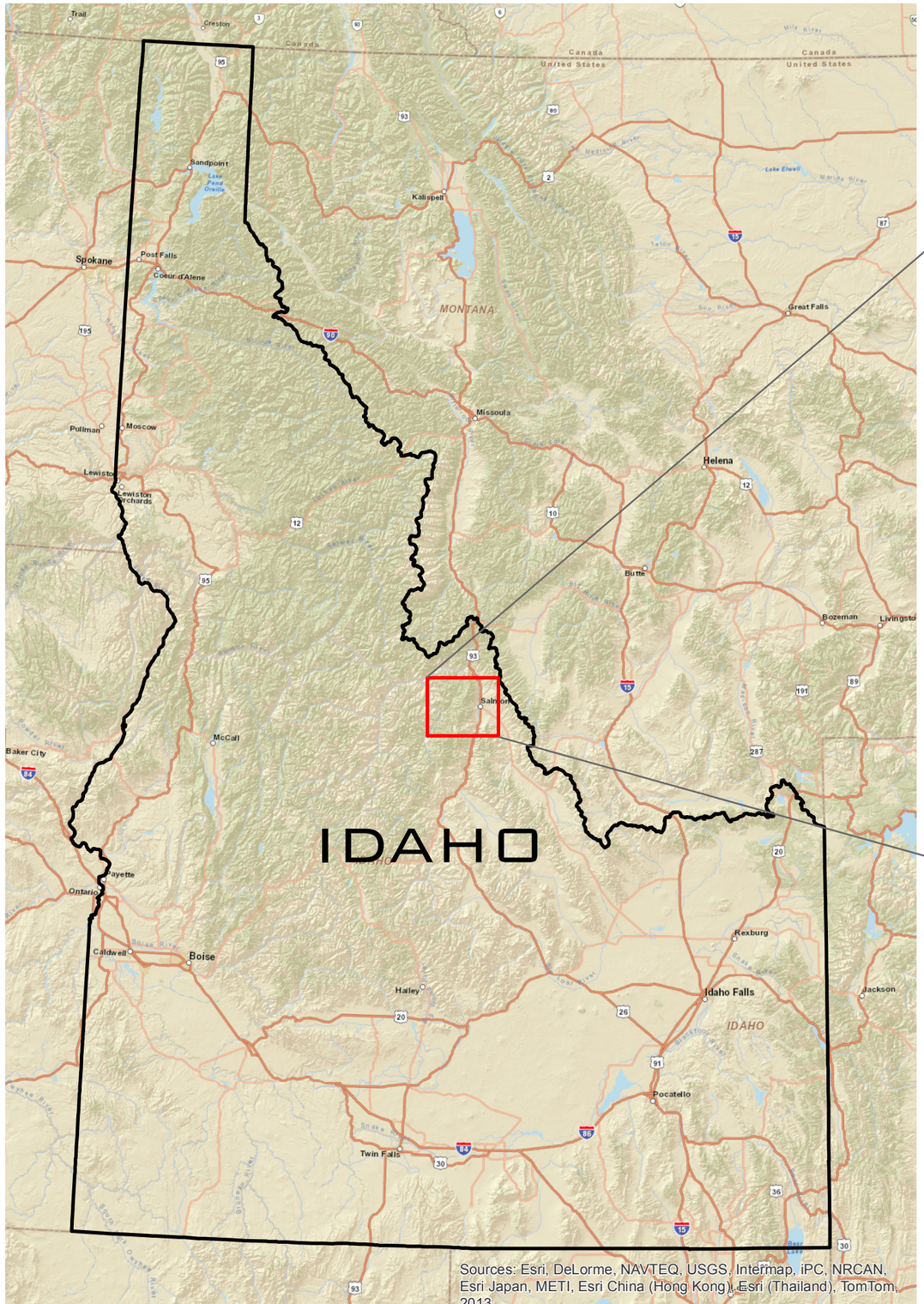
Each lift station is fenced with chain link fencing with a steel framed open sided awning shelter. The open shelters and plywood covers leave the lift station susceptible to freezing. The lift stations structural components show signs of deterioration and/or failure from exterior ground pressures and are in need of repair. The original piping needs to be replaced so that the lift station will operate as designed, as the piping and valves are currently being bypassed. Electrical control components are in need of replacement as they are showing signs of degradation.

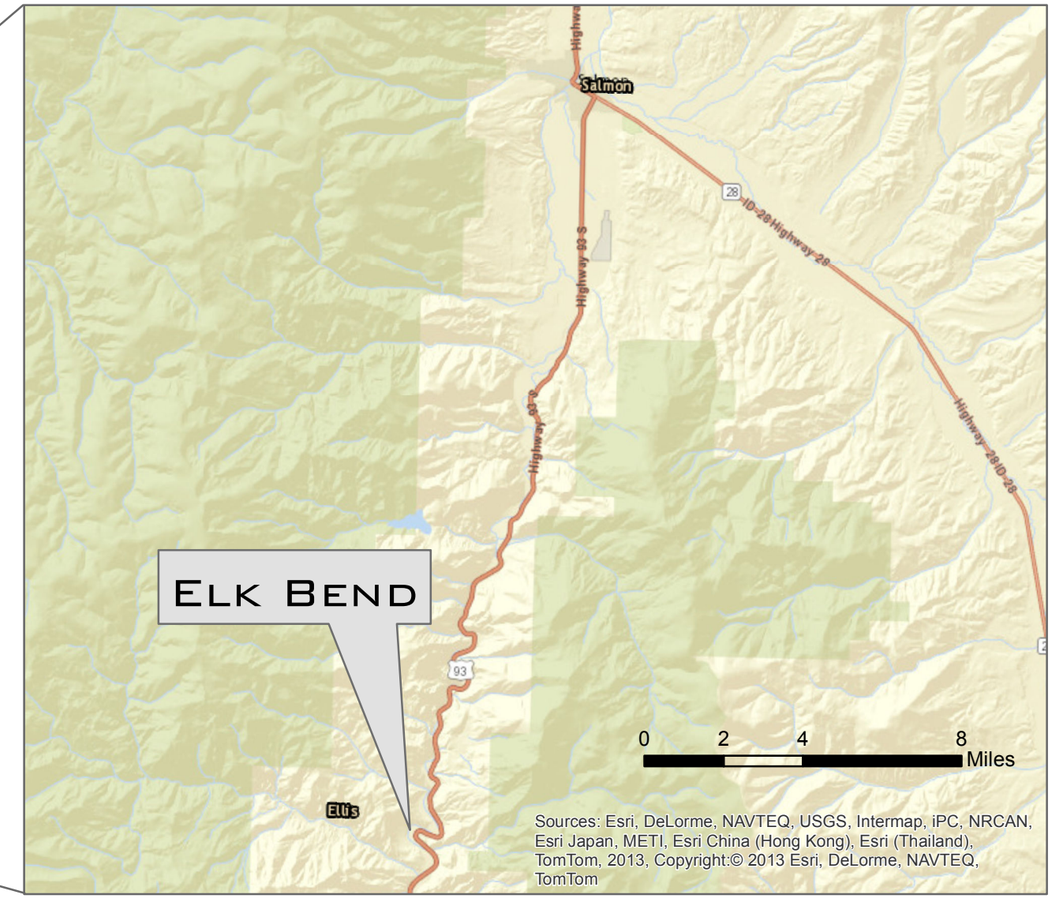
The three lift stations in use by the Elk Bend Sewer District are in disrepair and do not meet the reliability and operational integrity needed. Lift stations should be rehabilitated to accommodate the build-out pumping requirements, satisfy IDEQ requirements for lift station construction, and provide for better serviceability.

2.2 NEED FOR ACTION

The Elk Bend Sewer District entered a consent agreement with the Idaho Department of Environmental Quality in 2008. This agreement came about as a result of issues at the District with wastewater ponding on the ground surface at the Elk Bend treatment facility. The Consent Order requires the District to complete this wastewater facilities planning study and to bring the system into compliance with wastewater disposal regulations of the State of Idaho. Failure to comply with the Consent Agreement could subject the District to fines and future compliance action by IDEQ.

It is necessary for the Elk Bend Sewer District to take action by implementing wastewater treatment and disposal system improvements to bring the wastewater treatment system into compliance State regulations and to comply with the Consent Order. The actions recommended by this study will enable the District wastewater system to improve the wastewater collection, treatment and disposal systems to comply with the current and anticipated regulations, protect the public health, and reduce physical and environmental impacts from the wastewater system. Without such action the District wastewater system will continue to violate federal and state regulations designed and intended to protect the people of Elk Bend and the Salmon River, an important natural resource for the nation, the state, and the community.





N

PROJECT NO. 209003-000

FIGURE: 2.1

305 N. 3rd Avenue
Pocatello, ID 83201
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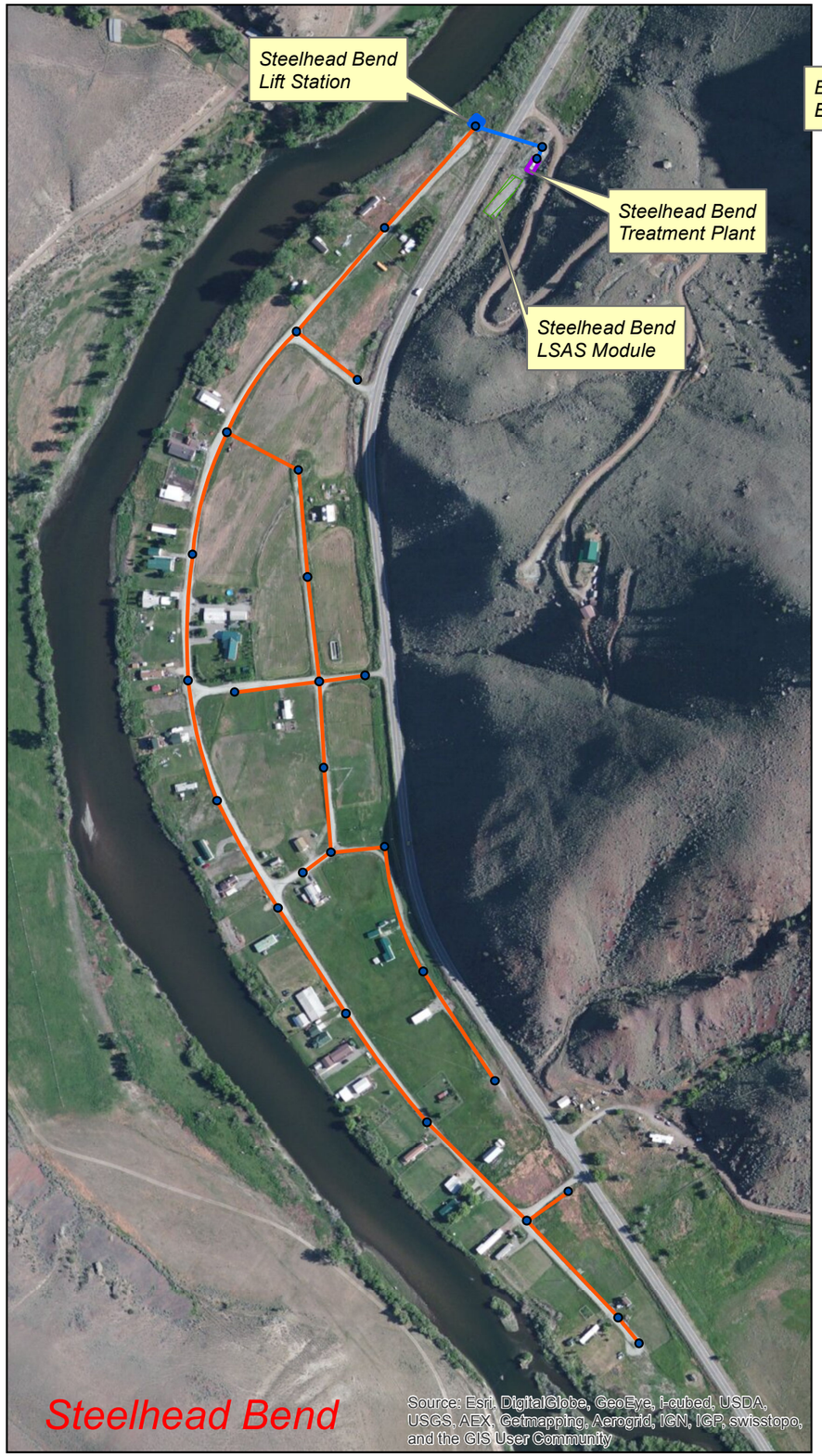
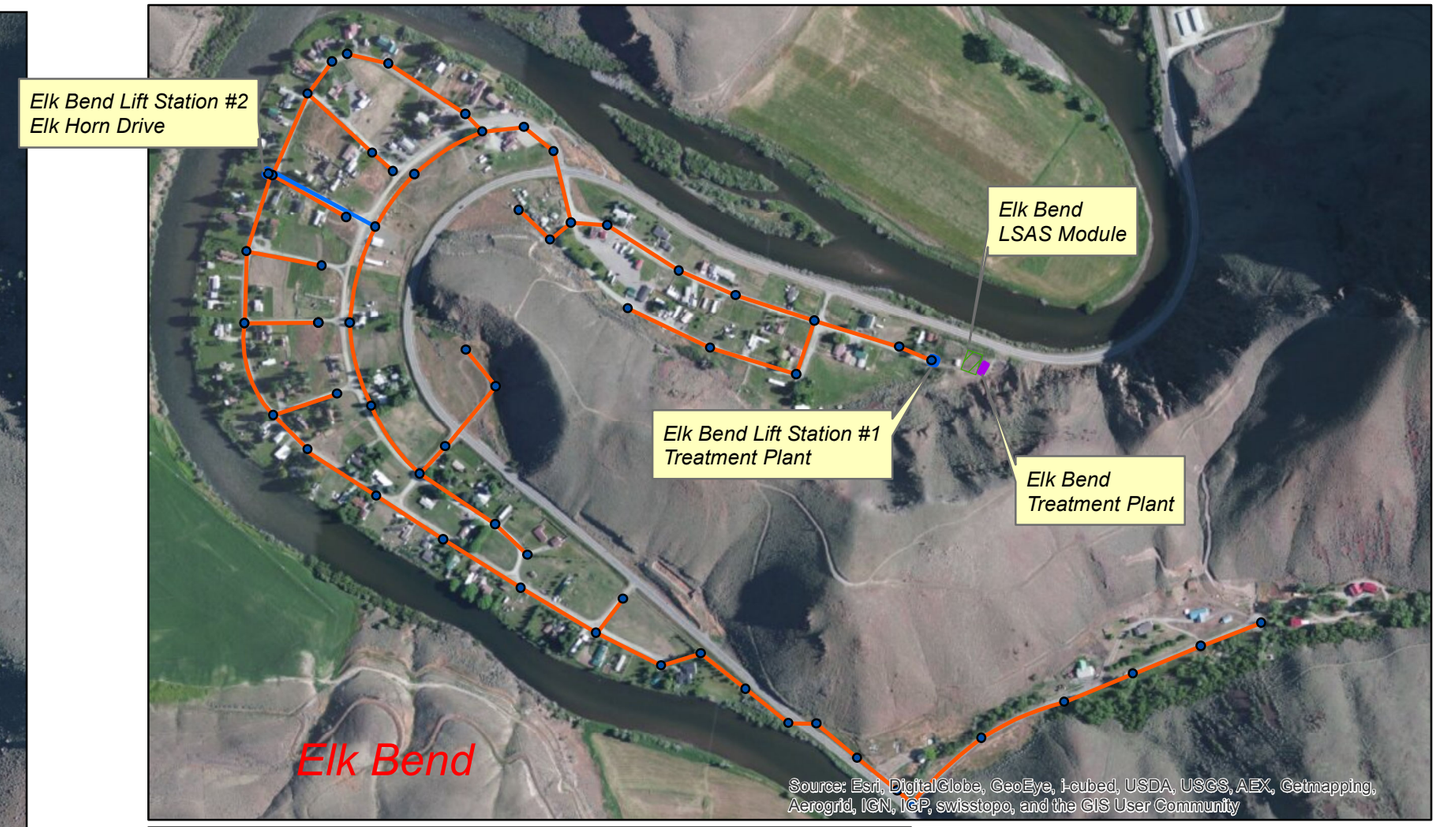
ELK BEND
SEWER DISTRICT

Wastewater Improvements

Vicinity Map

FIGURE NO.
2.1





Legend

- Collection Piping
- Pressure Lines
- Manholes
- Lift Stations
- Existing Treatment Plants
- Existing LSAS (drainfields)

N

PROJECT NO. 209003-000

FIGURE: 2.2

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Elk Bend Sewer District

Wastewater Systems

Existing Wastewater Systems

FIGURE NO. 2.2

Chapter 3 Proposed Action & Alternatives

3.1 Wastewater Disposal Alternatives

Wastewater disposal alternatives as developed in the 2012 Wastewater Facilities Planning Study were compared on the basis of five primary considerations: operator attention requirements, land requirements, general aesthetics, treatment requirements, and feasibility. The current wastewater operation is considered the baseline for each category. Operator attention refers to the additional operator time required for operation and maintenance of each alternative. Land requirement ranks the alternatives based on the quantity of land required for each alternative. General aesthetics refers to the general expected acceptability of each alternative based on appearance and impact to the community. Treatment requirements rank the alternatives based on how stringent current and anticipated treatment requirements for each alternative are. Feasibility considers both foreseeable logistic challenges and cost. A comparison table of the discharge alternatives is shown in Table 3 below.

Table 3 – Wastewater Discharge Alternative Screening

	Parameter	Large Soil Absorption Systems	Surface Water Discharge	Land Application	Rapid Infiltration	STEP system & cluster drain fields
1	Operator Attention	3	1	1	2	3
2	Land Requirements	2	3	1	2	1
3	General Aesthetics	3	1	1	1	2
4	Treatment Requirements	3	1	2	2	3
5	Feasibility	2	1	1	2	2
	Total	**13**	7	6	9	11
1- Least Favorable 2- Moderately Favorable 3- Most Favorable						

No Action

A No Action alternative would leave the system in violation of State and Federal regulations and continue to be out of compliance of the consent order issued by IDEQ.

Large Soil Absorption Systems

As the currently utilized method of wastewater disposal, this alternative does not increase the amount of operator attention. To comply with state regulations governing large soil absorption systems additional area is needed for drain fields.

Large soil absorption systems emerged from the alternative screening as the preferred alternative with the most favorable ranking from the evaluation shown in Table 3.

SURFACE WATER DISCHARGE

Surface water discharge would require additional operator attention in collection of samples and reporting to EPA to comply with the NPDES program requirements. This alternative was ranked poorly in part due to the uncertainty and anticipated difficulty of obtaining a NPDES permit for discharge from EPA.

LAND APPLICATION

A land application alternative would require a significant increase in operator attention to manage the irrigation system. Land requirements would be increased approximately 11 acres, which is in an area that is very limited for land availability. Land application was rated poorly due to the significant challenge of locating a feasible application site of adequate size and the effort of implementation and continued operation of an irrigation system.

INFILTRATION BASINS

Rapid infiltration basins ranked moderately, but were ultimately less preferred due to uncertainties such as locating a site at a suitable distance from the river and in suitable soils.

STEP SYSTEMS

STEP systems would act as a set of community septic systems. Utilizing septic tank treatment alone would not provide any opportunity for reducing the required drain field area from the base regulations. This means that a significant area would be required for active drain fields and designated replacement drain fields. This would total approximately 100,000 square feet, or a total of about 20 lots of typical size. The disposal drain fields would have to be located more than 200 feet from the river, which significantly reduces the eligible locations. Potential negative environmental impacts could result from the use of septic tanks alone for treatment. Such as multiple points of sewage treatment and disposal in an area that is in very close proximity to the Salmon River. Should one homeowner not properly install/maintain their septic system the effects may be potentially hazardous to the area.

3.2 WASTEWATER TREATMENT ALTERNATIVES

Following the selection of the discharge alternative, treatment alternatives were developed and analyzed in the 2012 Wastewater Facility Planning Study. After the approval of the study, additional discussion with the members of the Elk Bend Sewer District Board and Idaho Department of Environmental Quality led to a few minor adjustments to the recommended improvement plan and the preparation of Addendum No. 1 to the WWFPS in June of 2015. The Addendum removed the alternative component for combining the wastewater flows by way of a gravity sewer line from Elk Bend to Steelhead Bend and combining the wastewater treatment and disposal systems at Steelhead Bend. This alternative was eliminated as it was determined that the cost of installing the gravity line (estimated to be $485,000) would be prohibitive. Since

the treatment plant at Steelhead Bend does not currently have the same level of non-compliance as the Elk Bend facility. IDEQ was in agreement with an approach of addressing the Elk Bend treatment plant and, if budget allows, doing some upgrades at the Steelhead Bend plant.

The Steelhead Bend package treatment plant was originally sized to treat 15,000 gallons per day and the Elk Bend plant was sized for 22,000 gallons per day. Comparing to average and peak flow projections, the Steelhead Bend treatment plant is sized adequately for the projected flows. The Elk Bend treatment plant currently has estimated flows exceeding the treatment and discharge capacity of the plant during peak periods.

The condition of the current wastewater treatment package plants is such that the plants need equipment repair or replacement. The wastewater treatment plants are not providing the level of treatment for which they were designed or which is needed for safe disposal of wastewater.

Treatment Alternatives evaluated include:

No Action

This alternative would do nothing to resolve the problem of wastewater ponding at the surface, lack of drain field capacity, and lack of capacity for proper management through rotation. With no improvements made to the system the District will continue to be in violation of the Clean Water Act, Idaho Code, the Consent Agreement, and will continue to produce hazards to the environment and the health and safety of the community.

Rehab Package Plants

This alternative would involve full rehabilitation of the Elk Bend treatment facility and some structural, mechanical and electrical improvements to the Steelhead Bend treatment facility. Each of the lift stations would be rehabilitated and the LSAS systems replaced or expanded to accommodate future projected flows.

The replacement of the needed mechanical, electrical, and structural components will be very expensive. Also, the operation and maintenance will continue to be higher than other alternatives and will continue to require a large amount of the operator's time and attention to the system. This option does not extend the life of the system as well as anticipated for the associated cost.

The extent of repairs and replacement needed is fairly extensive and may not be less than the cost of total system replacement. The cost of this alternative for full rehabilitation of the Elk Bend plant and limited rehabilitation of the Steelhead Bend treatment plant, rehabilitation of the lift stations, and replacement/enlargement of the large soil absorption systems at both Elk Bend and Steelhead Bend was estimated to be $1,138,000.

Sequencing Batch Reactor (SBR)

This alternative would introduce Sequencing Batch Reactor treatment technology to the system. The process utilizes batch reactors in an activated sludge process. This treatment process is compact with a small footprint, produces high quality effluent, requires a high

degree of automation and operator attention, and would be susceptible to violations if automatedequipment fails. The SBR treatment plant would be initially more expensive than other options, but would provide the best treatment control out of all of the alternatives.

The construction of an SBR treatment facility at Elk Bend, limited rehabilitation of the Steelhead Bend treatment plant, rehabilitation of the lift stations, and replacement of the Elk Bend Large Soil Absorption System was estimated to cost $1,393,000, making this the highest cost alternative considered.

RECIRCULATING GRAVEL FILTER (RGF)

Recirculating media filters are relatively simple wastewater treatment technology with little mechanical equipment and low operation requirements. The system includes pretreatment using septic tanks for settling, a recirculation/dosing tank, pumps and controls, a filter bed with an underdrain system, and return piping. The system doses wastewater onto sand, gravel, or other media and percolates through the media where it is treated through biological means in a fixed film bioreactor process. The proposed system would use gravel media and would discharge to a large soil absorption system.

This alternative has less initial cost than other alternatives with less mechanical and operator time requirements. This alternative will provide very good treatment control options compared to the other alternatives.

The estimated cost of an RGF treatment plant at Elk Bend, limited rehabilitation of the Steelhead Bend treatment plant, replacement of the LSAS at Elk Bend, and rehabilitation of the lift stations was $1,250,000.

COST COMPARISON OF ALTERNATIVES

Comparing the cost of the alternatives reveals that rehabilitation is the least cost alternative, with RGF as the second least cost and SBR as the highest cost alternative. The Rehabilitation alternative would entail rehabilitating equipment in the treatment plants that is approximately 40 years old. It is anticipated that the rehabilitated components of this plant would require additional maintenance in the short term, as was revealed through a short lived assets assessment of the life cycle cost analysis presented in Addendum No. 1 to the WWFPS. Total annual costs for each of the alternatives is summarized below:

- No Action $239,950
- Rehabilitation $115,816
- SBR $131,541
- RGF $102,961

When considered on the basis of life cycle costs, the least cost alternative is the Recirculating Gravel Filter alternative. The major difference found through the life cycle

cost analysis is the short lived asset replacement cost associated with the rehabilitation alternative, being much higher than that of the SBR or RGF alternatives. This results in the least cost alternative for total life cycle cost being the Recirculating Gravel Filter alternative. This is the recommended improvement alternative as presented in Addendum No. 1 to the WWFPS.

illustrates the comparison of the considered treatment alternatives.

TABLE 4 – TREATMENT ALTERNATIVE SCREENING

	Parameter	Importance Factor	No Action		Rehabilitate Existing Package Plant		Sequencing Batch Reactor (SBR)		Recirculating Gravel Filter	
1	Capital Cost	5	5	25	3	15	2	10	4	20
2	O & M Cost	4	5	20	3	12	2	8	4	16
3	Operator Attention	4	1	4	2	8	3	12	5	20
4	Footprint	4	5	20	5	20	4	16	3	12
5	Treatment Level	3	1	3	2	6	5	15	4	12
6	Expandability	2	1	2	1	2	5	10	4	8
7	Process Complexity	3	3	9	3	9	2	6	5	15
8	Reliability	3	1	3	2	6	5	15	4	12
9	General Appearance	2	1	2	2	4	3	6	4	8
Total				**88**		**82**		**98**		**123**
1- Least Favorable 5 - Most Favorable										

ENVIRONMENTAL SCREENING OF ALTERNATIVES

TABLE 5 – ENVIRONMENTAL SCREENING OF DISPOSAL ALTERNATIVES

Environmental Criteria	Alternative No. 1 No Action	Alternative No. 2 Large Soil Absorption System	Alternative No. 3 Surface Water Discharge	Alternative No. 4 Land Application	Alternative No. 5 Rapid Infiltration	Alternative No. 6 STEP system & Cluster Drain Fields
Climate and Physical Aspects (Topography, Geology, and Soils)	Short and Long Term Adverse Impacts Due to Surface Ponding	Requires Excavation, Moderate Long Term Impacts to Soils at Drain Field	Requires Excavation, Minimal Long Term Impacts	Requires Excavation, Moderate Long Term Impacts to Soils at Land Application Site	Requires Excavation, Long Term Impacts to Soils at Basin	Requires Excavation, Minimal Long Term Impacts
Population, Economic, and Social Profile	Limit the Ability to Provide for Future Connections	Increased User Rates	Increased User Rates	Increased User Rates	Increased User Rates	Increased User Rates
Land Use	No Impact	Utilize Small Amount of Open Space	Positive Long Term Impact	Utilize Large Amount of Open Space for Discharge Area	Positive Long Term Impact	Positive Long Term Impact
Floodplain Development	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact
Wetlands and Water Quality	Long Term Adverse Impacts due to Sewage Ponding	Positive Long Term Impact	Possible Adverse Impacts	Positive Long Term Impact	Positive Long Term Impact	Positive Long Term Impact
Wild and Scenic Rivers	Long Term Adverse Impacts	Positive Long Term Impact	Possible Adverse Impacts	Positive Long Term Impact	Positive Long Term Impact	Positive Long Term Impact
Cultural Resources	No Impact	Potential for Short Term Impact During Construction	Potential for Short Term Impact During Construction	Potential for Short Term Impact During Construction	Potential for Short Term Impact During Construction	Potential for Short Term Impact During Construction
Flora and Fauna	Long Term Adverse Impacts	Positive Long Term Impact	Possible Adverse Impacts	Positive Long Term Impact	Positive Long Term Impact	Positive Long Term Impact
Recreation and Open Space	No Impact	Utilize Small Amount of Open Space	No Adverse Impact	Uses Large Amount of Open Space for Discharge Area	No Adverse Impact	No Adverse Impact
Agricultural Lands	No Impact	No Adverse Impact	No Adverse Impact	Uses Large Amount of Open Space for Discharge Area	No Adverse Impact	No Adverse Impact
Air Quality	Long Term Adverse Impacts due to Sewage Ponding	No Adverse Impact	No Adverse Impact	No Adverse Impact	No Adverse Impact	No Adverse Impact
Energy	No Change in Energy Usage	No Increase in Power Usage	Slight Increase in Power Consumption	Slight Increase in Power Consumption	No Increase in Power Usage	No Increase in Power Usage
Public Health	Public Health Risk with Sewage Ponding	No Adverse Impact	Potential Public Health Risk, Requires Compliance with EPA Discharge Permit	Potential Public Health Risk, Requires Compliance with Land Application Regulations	No Adverse Impact	No Adverse Impact

TABLE 6 – ENVIRONMENTAL SCREENING OF TREATMENT ALTERNATIVES

Environmental Criteria	Alternative No. 1 No Action	Alternative No. 2 Rehab Package Plants	Alternative No. 3 Sequencing Batch Reactor (SBR)	Alternative No. 4 Recirculating Gravel Filter (RGF)
Climate and Physical Aspects (Topography, Geology, and Soils)	Wastewater Ponding at surface will remain	Shallow Excavation Around Existing Structures, No Long Term Impacts	Excavation for new treatment plant, Minimal Long Term Impacts	Excavation for new treatment system, Minimal Long Term Impacts
Population, Economic, and Social Profile	Limits the ability to provide for future connections	Limits the ability to provide for future connections; Increased User Rates	Increased User Rates	Increased User Rates
Land Use	No Impact	No Impact	No Long Term Impact	No Long Term Impact
Floodplain Development	No Change	No Change	No Change	No Change
Wetlands and Water Quality	Long Term Adverse Impacts Likely	Positive Long Term Impact	Positive Long Term Impact	Positive Long Term Impact
Wild and Scenic Rivers	Long Term Adverse Impacts Likely	Positive Long Term Impact	Positive Long Term Impact	Positive Long Term Impact
Cultural Resources	No Impact	No Adverse Impact	No Adverse Impact	No Adverse Impact
Flora and Fauna	Long Term Adverse Impacts Likely	Positive Long Term Impact	Positive Long Term Impact	Positive Long Term Impact
Recreation and Open Space	No Impact	No Adverse Impact	No Adverse Impact	No Adverse Impact
Agricultural Lands	No Impact	No Adverse Impact	No Adverse Impact	No Adverse Impact
Air Quality	Odors from wastewater ponding to continue	No Adverse Impact	No Adverse Impact	No Adverse Impact
Energy	No Change	No Change	No Change	Less Energy Consumption
Public Health	Potential Public Health Risk	No Adverse Impact	No Adverse Impact	No Adverse Impact

RECOMMENDED ACTION

As can be seen in Table 4, the highest ranking alternative from this evaluation is the Recirculating Gravel Filter alternative. This is also the least capital cost alternative with an estimated total cost of **$1,250,000**. This alternative includes rehabilitating Elk Bend Lift Station #2 and the Steelhead Bend Lift Station, constructing a Recirculating Gravel Filter treatment facility at Elk Bend, and expanding the LSAS system at Steelhead Bend. It is estimated that this system may require additional funding for operation and maintenance of approximately $10,000 per year. This would provide for equipment maintenance for the pumps and electrical equipment. It is recommended that the Elk Bend Sewer District pursue the implementation of this alternative and complete the improvements included.

3.3 PROPOSED PROJECTS

The recommended improvements include the rehabilitation of Elk Bend Lift Station #2 at Elk Horn Drive and the Steelhead Bend Lift Station, rehab of the Steelhead Bend treatment plant, installation of a Recirculating Gravel Filter system, pressure sewer line, and new Large Soil Absorption System at Elk Bend for wastewater discharge. These improvements will provide positive effects, such as reducing the likelihood of wastewater release, for the sewer district.

The lift station rehabilitation includes removal of worn equipment and piping, rehabilitating the wet well, installing new pumps and piping, new electrical and control equipment, and weather protection. The RGF system should be sized for the treatment of 26,000 gallons per day average and 40,000 gallons per day peak. Elk Bend annual average flows are estimated to increase from 16,000 gpd currently to 20,000 gpd in 20 years and 24,000 gpd in 40 years. Steelhead Bend annual averages flows are estimated to increase from 5,000 gpd currently to 6,000gpd in 20 years and 7,500 gpd in 40 years.

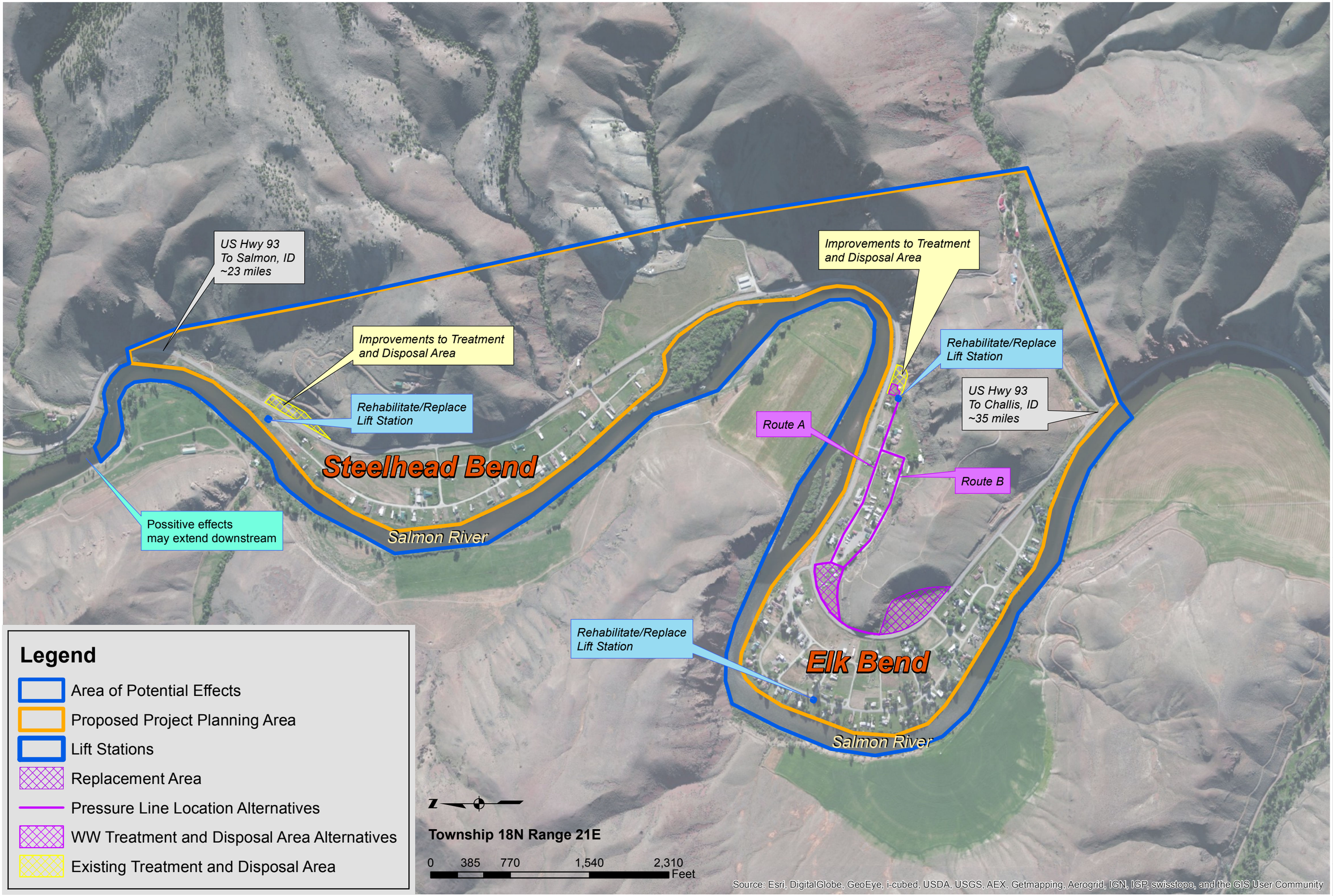
Estimated project costs are summarized below. It should be noted that the estimated cost provided here are planning level cost estimates and were prepared as part of the 2012 Wastewater Facilities Planning Study, with no inflation adjustment.

• Pressure Sewer Line	$116,500
• Steelhead Bend Plant Rehabilitation	$ 36,500
• Recirculating Gravel Filter Treatment Plant	$436,500
• Lift Station Rehabilitation	$224,000
• LSAS	$136,500
Total	**$1,250,000**

Chapter 4 Affected Environment

4.1 PROJECT PLANNING AREA

The Elk Bend Sewer District serves Units #1 and #2 of Salmon River Estates. The two units are referred to as Elk Bend and Steelhead Bend. Each unit has a separate collection and treatment system. The project planning area included as part of this study includes Elk Bend and Steelhead Bend as shown in Figure 4.1. There are approximately 100 residences in Elk Bend and 38 residences in Steelhead Bend. There are also a few small cabins, a 20 space RV park with showers and a small convenience store/restaurant. It is estimated that about 20-30% of the residences are occupied throughout the year with higher seasonal occupancy. The major features of the proposed project are described in Section 3.3.



PROJECT NO. 209003-000

Figure No. 4.1

305 N. 3rd Avenue
Pocatello, ID 83201
208.238.2146
www.kellerassociates.com
KELLER associates

ELK BEND
SEWER DISTRICT

Wastewater System
Existing System & Proposed
Improvements Preliminary Layout

FIGURE NO.
4.1

4.2 PHYSICAL ASPECTS

Elk Bend is located in the Salmon River corridor between the Cities of Challis and Salmon. The elevation is 4,345 ft above sea level and the immediate area is dominated by the mountains of the Salmon National Forest. The planning area lies in the Salmon River Valley with mildly sloping topography in the river plain and slopes increasing to 30-50% approaching the mountains in all directions. The steep slopes greatly limit the area of land available for improvements to be placed.

The proposed project area is located immediately adjacent to the steeper slopes approaching the mountains, presenting an increased hazard of rock fall and slope instability. For the project disposal areas the slope stability will be addressed during design to ensure adequate setback from the toe of slope to the disposal and treatment areas. There are no other anticipated physical conditions, unusual or unique geological features, or hazardous areas that might affect construction or development.

4.3 CLIMATE

The climate in Elk Bend is similar to adjacent communities. Climate data for weather stations at Salmon and Mackay, the closest weather monitoring stations, are found in Table 4.2 - Climate Date for Salmon Idaho and Table 8 – Climate Data for Mackay, Idaho. Climate data is summarized for each location to provide a general understanding of the prevalent climate near Elk Bend. Precipitation averages 9.91 inches in Salmon, ID and 7.77 inches in Mackay, ID per year of which about half falls during the summer months (May to August). Annual snowfall averages 26.1 inches in Salmon and 19.2 inches in Mackay, ID and the average freeze-free season in Salmon is 117 days at 32.5˚F. There are no known unusual or special meteorological constraints in the planning area that might result in an air quality problem, or that affect the feasibility of the proposed improvements.

TABLE 7 – CLIMATE DATA FOR SALMON, IDAHO[2]

Month	Mean Temp, ˚F	Precipitation, inches	Snowfall, inches	Evaporation[3,4], Inches
January	21.1	0.68	7.8	0.0
February	27.6	0.45	3.8	0.0
March	38.7	0.53	2.0	0.0
April	46.8	0.77	1.0	0.0
May	54.8	1.42	0.1	6.81
June	62.5	1.41	0.0	8.39
July	69.5	1.02	0.0	10.23
August	67.8	0.80	0.0	8.73
September	58.1	0.76	0.0	6.39

[2] Western Regional Climate Center, http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?idsalm
[3] Western Regional Climate Center, http://www.wrcc.dri.edu/htmlfiles/westevap.final.html#IDAHO - Mackay
[4] Pan evaporation measurements are not taken during the winter months, therefore "0.0" indicates that no measurement was taken.

October	46.1	0.59	0.1	0.0
November	32.6	0.76	3.8	0.0
December	22.2	0.72	7.5	0.0
Annual	45.7	9.91	26.1	40.55

TABLE 8 – CLIMATE DATA FOR MACKAY, IDAHO[5]

Month	Mean Temp, ˚F	Precipitation, inches	Snowfall, inches	Evaporation[4,5], Inches
January	18.7	0.43	5.0	0.0
February	24.0	0.28	2.7	0.0
March	34.8	0.31	2.0	0.0
April	41.7	0.56	1.2	0.0
May	50.6	1.24	0.4	6.81
June	58..2	1.38	0.0	8.39
July	65.4	0.7	0.0	10.23
August	63.0	0.7	0.0	8.73
September	54.6	0.74	0.0	6.39
October	43.0	0.44	0.4	0.0
November	29.1	0.5	2.5	0.0
December	17.2	0.5	4.9	0.0
Annual	40.2	7.77	19.2	40.55

4.4 POPULATION

Elk Bend contains approximately 100 residences. There are also a few small cabins, a 20 space RV park with showers and a small convenience store/restaurant. It is estimated that about 20-30% of the residences are occupied throughout the year with higher seasonal occupancy. The average household size in Lemhi County per the 2010 Census is 2.2 persons per household. The Elk Bend system is estimated to serve approximately 60-75 people year round and up to 200 people at peak times.

Steelhead Bend is located approximately 1-mile downriver of Elk Bend and contains approximately 38 residences, most of which are only seasonally occupied. It is estimated that approximately 20-26 people reside year round. The Steelhead Bend system is estimated to serve a peak of approximately 50 people. There are no commercial enterprises located at Steelhead Bend.

Population estimates were established from the understanding provided from the Elk Bend Sewer District board and operator regarding the number of households that are full time residents and estimating that at the peak seasonal occupancy, 90% of households would be occupied at the county household average of 2.2 persons per household. This approximation was considered by the board and operator to be extremely conservative, and much higher than they have witnessed.

[5] Western Regional Climate Center, http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?idmay

Elk Bend and Steelhead Bend are anticipated to have a similar population growth as Salmon, Idaho over the next 20-years. The town of Salmon has seen a growth rate of -0.98% from 2010 to 2013. A growth rate of 1% is utilized for the purpose of this study, which will provide reasonable flow estimates for system improvements.

4.5 ECONOMICS & SOCIAL PROFILE

The median household income of Lemhi County in 2013 is $39,762. An income survey was conducted for the Elk Bend Sewer District by the East-Central Idaho Planning & Development Association (ECIPDA) in the fall of 2013 to determine qualification for the Idaho Department of Commerce Block Grant program. The survey was completed utilizing addresses produced by a random sequence to meet the Department of Commerce requirements for income surveys. It is estimated that about 20-30% of the residences are occupied throughout the year with higher seasonal occupancy. Income surveys were sent to a selection of both seasonal and permanent residents in accordance with the random sequence developed. The survey concluded that 75.2% of households within the sewer district are in the low to moderate income category. The Elk Bend Sewer District ***is*** eligible for Idaho Department of Commerce Block Grant program.

Commerce in the Elk Bend area is largely supported by tourism and agriculture. No specific landowners or groups are anticipated to benefit from the proposed project any more than the population as a whole. The majority of the proposed improvements will be limited to the existing wastewater treatment plant site and public road and utility easements and will not substantially change the manner in which the wastewater is collected. Treatment modifications will be on the existing wastewater treatment facility site and the disposal area on properties that will be acquired for this use. The facilities are not anticipated to adversely affect land values.

Options to finance the project are currently being investigated further with options of funding the project partially or wholly through property taxes and/or partially or wholly through user rates. The use of property taxes to collect wastewater system revenues places the greater burden upon those whose property value is highest. The introduction of a direct user rate would shift some of that burden to those whose property is developed and who are direct users of the system. It is likely that a combination of taxes and user rates funding will be utilized in order to wholly benefit residents by providing the capability of wastewater services to all property owners and charging those who are connected to the system for the use and maintenance of those services. The user/tax rate structure has not yet been finalized.

4.6 LAND USE

The Salmon River Estates development was created in the 1970's with four units ultimately developed, Elk Bend, Steelhead Bend, Salmon River Meadows, and Salmon River Meadows Annex. The Elk Bend Sewer District provides wastewater collection and treatment services to Units #1 and #2 of the development known as Salmon River Estates. Lots in Units #1 and #2 (Elk Bend and Steelhead Bend) are primarily in the range of 0.1 to 0.25 acres. Several of the residential sites include multiple lots. Elk Bend and Steelhead Bend are each less than 50% developed. The majority of the residences are small cabins or mobile homes.

There is a 20 space RV park at Elk Bend with a convenience store/cafe. There is also a restaurant located in Elk Bend that is currently closed. It has been reported that the restaurant is not equipped with a grease trap. It is recommended that the sewer district adopt a policy requiring grease traps for all restaurant facilities and work to ensure that one is installed if the restaurant returns to service. The recommended system improvements include the installation of a septic tank as part of the treatment process which accomplishes sand/grease separation. The addition of the septic tank provides minimal risk of grease discharge violations after construction. The community has a small emergency response building located at Elk Bend.

Development in Elk Bend and Steelhead Bend proceeds at a fairly slow pace as reported by the residents. A few new residences may be constructed each year, but it was reported that there has yet to be a booming growth period. The anticipation is that development will continue as it has been with a few new residences constructed each year, with many utilizing two or three of the small lots. In recent years there have been several residents leave the area for various reasons. As a result, very low growth is expected at Elk Bend for the foreseeable future. The location of the wastewater treatment plant is compatible with the local land use plans for the area, and the improvements will not adversely impact inhabited areas. The improvements will consist largely within areas already improved and will minimally effect agricultural lands, and is not anticipated to contribute to any changes in land use in association with recreation, mining, or other large industrial or energy development.

4.7 PUBLIC HEALTH

The Department of Environmental Quality conducted a site investigation at the Elk Bend Sewer District on August 31, 2007 in response to a citizen complaint of raw sewage on the ground. EIPHD and IDEQ subsequently conducted a site visit on October 10, 2007 in which the following determinations were made:

- The wastewater treatment plant (WWTP) was not operating as designed
- The WWTP was consistently bypassed
- No monitoring was being performed
- The WWTP was not in good repair
- The operator was not currently licensed in accordance to State of Idaho requirements

The Department of Environmental Quality issued a Notice of Violation to the Elk Bend Sewer District on March 7, 2008. The Notice of Violation included a civil penalty. The Idaho Department of Environmental Quality held a compliance conference with representatives of the Elk Bend Sewer District on April 30, 2008. EBSD and the Idaho Department of Environmental Quality entered into a Consent Order effective June 2, 2008[6].

The Elk Bend Sewer District implemented a drain field rehabilitation project in 2008. According to documents submitted by the District to IDEQ in 2008, the existing drain field was removed, the soil excavated, stockpiled, and treated with lime. New fill was placed including a layered system of 2” drain rock, sewer sand, and 3/8-inch pea gravel with a geotextile and soil cap. The intended purpose of the temporary drain field was to improve disposal operation during the

[6] EBSD - IDEQ Consent Order

evaluation of the system and development and implementation of an acceptable treatment and disposal system. In August and September of 2010 IDEQ observed raw sewage ponding on the surface at the Elk Bend LSAS, indicating that the drain field rehabilitation has failed.

The assessment of the Elk Bend Sewer District wastewater collection and treatment systems, the recommendations, and capital improvements plan presented in this Wastewater Facilities Planning Study are intended to address some items outlined in the consent order. The implementation of a plan of action to alleviate the public health and environmental concerns related to the disposal of wastewater at Elk Bend is of high importance to the Eastern Idaho Public Health District, Idaho Department of Environmental Quality, the Elk Bend Sewer District and others.

4.8 SURFACE & GROUNDWATER HYDROLOGY

Elk Bend and the planning area lie within the Middle-Salmon-Panther IDWR planning basin. This basin is administered by the Idaho Department of Water Resources Eastern Region office in Idaho Falls, ID. The area does not contain a sole source aquifer as shown in Figure 4.3 – Aquifer Map. Surface water in the planning area is found in the Salmon River and Warm Springs Creek. Surface waters near but not within the planning area include Iron Creek, Deer Creek and other small tributary streams to the Salmon River.

The Salmon River originates to the southwest in the Sawtooth and Salmon River Mountains and the Sawtooth Valley and flows north through Elk Bend. The Salmon River is a Federal protected wild and scenic river downstream of the City of Salmon. The River is an important resource for the community in supporting sportsmen and recreation. The tourism generated by the River is a vital component of the local economy.

Designated beneficial uses for the Salmon River in the planning area include domestic water supply, agricultural water supply, cold water biota, salmonid spawning, and primary contact recreation. The main stem of the Salmon River is considered a migration corridor and essential fish habitat for sockeye and chinook salmon and steelhead trout.

The Salmon River is a 303(d) listed water but does not currently have a Total Maximum Daily Load (TMDL) for the portion within the planning area. More information regarding TMDLs and their significance to surface waters can be found at DEQ's website[7].

4.9 WATER QUALITY

Surface water bodies within the planning area are listed in the previous section. The Salmon River is a 303(d) listed water but does not currently have a TMDL for the portion within the planning area. Upstream and downstream segments of the Salmon River and tributaries within the sub basin are listed for sediment, pH, metals, DO, and nutrients. TMDL status is not anticipated to be updated within the next several years for the portion of the Salmon River within the planning area[8].

[7] http://www.deq.idaho.gov/water/data_reports/surface_water/tmdls/overview.cfm
[8] Troy Saffle, IDEQ Idaho Falls Regional Office

The proposed project will improve the quality of the effluent wastewater. This will result in a positive effect on the water quality in the river.

4.10 FLOODPLAINS

The majority of the planning area lies within the 100 year floodplain as identified by the Federal Emergency Management Administration. The low lying area along the Salmon River is categorized as flood zone A. A Flood Insurance Rate Map (FIRM) for the Elk Bend area is shown in Figure 4.2 – Floodplain Map. The proposed project area is immediately adjacent to, and in some locations within, floodplain areas.

The Idaho Department of Water Resources was consulted and provided a response indicating that the proposed project would require a floodplain development permit from Lemhi County. This permit will have conditions that must be met during the design and construction of the proposed project to mitigate impacts to the floodplain and to the wastewater system from a potential flood event. All structures must be elevated above the base flood elevation (i.e. lift stations, treatment basins). The LSAS is proposed to be located outside of the defined floodplain.

4.11 WETLANDS

The Salmon River canyon is narrow and dominated by the river and former river channel areas. Many springs are found in the area which produces localized wetland areas. The Army Corps of Engineers issued a Jurisdictional Determination on May 22, 2014 indicating that the proposed project contains no waters of the United States, including wetlands and does not require any further action to comply with section 404 of the Clean Water Act. Refer to correspondence in Appendix G.

4.12 WILD AND SCENIC RIVERS

The Salmon River has a 125 mile segment of the main stem from North Fork to Long Tom Bar that is designated as a wild and scenic river (79 miles designated as wild and 46 miles as recreational). This portion of the river begins approximately 45 miles downstream of Elk Bend. There are no wild and scenic rivers within the planning area, refer to Figure 4.5 – Wild & Scenic River Watersheds & Project Area.

4.13 CULTURAL RESOURCES

The Elk Bend area is part of the cultural and historic lands of the Shoshone-Bannock Tribes. The rich Native American heritage of the region is an important part of the historic and cultural identity of the area. There are a number of mining claims in the surrounding hills, some of which may be of historic value.

There are no historic places listed on the National Register of Historic Places in the planning area. The Idaho State Historical Society has been contacted and they recommended an archeological survey be completed. A Cultural Resource Inventory was completed by the Utah State University Archeological Services in November 2013, which can be found in Appendix G. The results of the survey concluded that no known significant cultural resources will be impacted by the proposed project. The Shoshone Paiute Tribe has also been contacted in an effort to

identify any possible historic or religious properties with no results of known cultural resources to be impacted by the proposed project. Copies of Tribal consultation requests/responses can be found in Appendix G.

If archeological artifacts (such as beads, arrow heads, pottery, fabric, grave goods, glass, metal fragments, or other human-made objects that appear to predate 1960) or human remains (such as bones, bone fragments, or teeth) are inadvertently discovered during construction, ground disturbing activities shall cease and the State Historical Preservation Officer (SHPO) and the Shoshone-Bannock and Shoshone-Paiute Tribes shall be notified. Mitigation measures will be implemented as directed by SHPO and the Tribes, and work will not resume at the discovery site without their consent.

It is recommended that the following be part of any construction specifications for site improvements:

A. The Contractor's attention is directed to the National Historic Preservation Act of 1966 (16 U.S.C. 470) and 36 CFR 800 which provides for the preservation of potential historical architectural, archaeological, or cultural resources (hereinafter called cultural resources.).
B. The Contractor shall conform to the applicable requirements of the National Historic Preservation Act of 1966 as it relates to the preservation of cultural resources.
C. In the event potential cultural resources are discovered during subsurface excavations at the site of construction, the following procedures shall be instituted:
    1. The Engineer or Construction Manager will issue a Field Order directing the Contractor to cease all construction operations at the location of such potential cultural resources find.
    2. Such Field Order shall be effective until such time as a qualified archeologist can be called to assess the value of these potential cultural resources and make recommendations to the State Historical and Preservation Office. Any Field Order shall contain the following:
        a. A clear description of the work to be suspended;
        b. Any suggestions to the Contractor as to minimization of his costs;
        c. Estimated duration of the temporary suspension.
D. If the archaeologist determines that the potential find is a bona fide cultural resource, at the direction of the Idaho State Historical Society, the Contractor shall suspend work at the location of the find under the provisions for changes contained in Articles 10, 11, and 12 of the General Conditions.
E. Equitable adjustment of the construction contract time shall be made in the following manner: If the work temporarily suspended is on the “critical path”, the total number of days for which the suspension is in effect shall be added to the number of allowable contract days.
F. The Contractor should be made aware that any archaeological material discovered on private land belongs to the landowner and it is against the law to collect archaeological resources without the private landowners consent. It is against Federal Law to collect any cultural resources on lands managed by the Federal Government.

G. If human remains are discovered the construction manager should be contacted immediately and construction should cease in the immediate vicinity. The construction manager should notify local law enforcement and the Idaho SHPO immediately.

4.14 FLORA & FAUNA

The Salmon River basin supports a wide diversity of animal and plant life. The river is a highly sought fishery which draws sportsmen for salmon and steelhead fishing. The mountains surrounding the Salmon River canyon are home to many species of large game including elk, deer, and bighorn sheep.

Animals whose range extends into the study area that are included on the US Fish and Wildlife Service Threatened and Endangered Species list include the Canada Lynx (*Lynx Canadensis*) and Bull Trout (*Salvelinus confluenius*) as threatened/designated critical habitat species. The Whitebark Pine (*Pinus albicaulis*) is also listed as a candidate plant species[9]. The main stem of the Salmon River is designated critical habitat for Snake River Basin Steelhead (Oncorhynchus mykiss) and Snake River spring/summer Chinook Salmon (Ohcorhynchus tshawytscha), with designated critical habitat for Chinook salmon extending 300 feet from either edge of the stream.

The Elk Bend Sewer District wastewater improvement project is located within Essential Fish Habitat (EFH) for steelhead trout, chinook salmon, and sockeye salmon. The National Marine Fisheries Service (NMFS) issued a letter on November 24, 2015 titled "Endangered Species Act Section 7(a)(2) Concurrence Letter and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Response for the Elk Bend Water & Sewer District Wastewater Improvement Project; Salmon River-Rattlesnake Creek (171602030301), Lemhi County, Idaho (One Project)." The letter is addressed to Bryan Riedorczyk, USEPA Region 10 and Mike May, Idaho DEQ and includes concurrence with the request that the Elk Bend Sewer District Wastewater Improvement Project "is not likely to adversely affect (NLAA) species listed as threatened or endangered or critical habitats designated under the Endangered Species Act (ESA).

The NMFS letter also outlined the following notable project design criteria (PDC) to be incorporated into the proposed project to minimize and avoid the risk of adverse effects:

1. Prior to beginning work, project sites are to be surveyed for noxious weeks and appropriate measures taken to either avoid or treat infestations.
2. Construction activities within 75 feet of stream channels or standing water, or where water may concentrate during snowmelt, standard sediment and pollution prevention and retention practices will be utilized (e.g. silt fence, wattles) and appropriately maintained.
3. Fuel storage is to be within staging areas and refueling will not occur within 150 feet of streams.
4. Washing of tools and equipment will occur only within staging areas, or other areas approved by IDEQ, where there is no potential for rinsate to reach surface waters.
5. A spill prevention and control countermeasures plan will be prepared by the contractor and approved by IDEQ prior to project initiation.
6. No construction will occur within wetland or riparian conditions.

[9] US Fish and Wildlife Service, Idaho Threatened and Endangered Species List

7. Staging areas are to be located outside of resource conservation areas (RCSs), in areas requiring the least amount of soil disturbance, and outside topographic low areas.
8. Staging areas at the lift stations must be slanted away from the river.
9. Equipment is to be cleaned of all dirt, mud, seeds, and vegetative matter prior to arriving on site and cleaned again prior to leaving.
10. Materials resulting from demolition or site preparation to be removed to an appropriate disposal site.
11. Protect RCA vegetation to the extent possible and rehabilitate disturbed areas promptly.
12. No trees will be removed.
13. Sewage shall be successfully delivered to established treatment areas and properly treated throughout construction.
14. Groundwater quality monitoring requirements of the LSAS permit are to be maintained throughout the life expectancy of the project.
15. Measures shall be taken to prevent green concrete from entering any body of water.
16. Vibratory compaction may be used, but vibratory or impact hammers may not be used.
17. Surplus excavated material to be removed from site.

These project design criteria have been included in the list of mitigation measures to be included in the proposed project.

The Idaho Department of Fish and Game have provided comment of concern with potential effects associated with a bald eagle (*Haliaeetus leucocephalus*) nest located within the project vicinity with the recommendation that ground disturbing activity be accomplished between August 15 and January 15. The bald eagle was delisted in 2007 due to recovery and is now in post-delisting monitoring.

The state of Idaho is continually working to control invasive species and noxious weeds. Invasive species are harmful, non-native plants, animals, and pathogens that damage our economy and environment. Invasive species include those species purposefully or inadvertently brought here and which exhibit "invasive" characteristics, for a current list of invasive species refer to the State of Idaho Agriculture website:
http://www.agri.idaho.gov/Categories/Environment/InvasiveSpeciesCouncil/InvSppList.php.

Idaho has identified 65 different species of weeds which are designated noxious by state law. These weeds are designated into three levels of concern. The spread of these weeds and the damage they do to Idaho agriculture can be lessened through proper identification and handling, for a current list of noxious weeds refer to the State of Idaho Agriculture website:
http://www.agri.idaho.gov/Categories/PlantsInsects/NoxiousWeeds/watchlist.php.

4.15 RECREATION AND OPEN SPACES

The Elk Bend District is surrounded by areas of open space that are used for farming and recreation. The City is nestled in a mountain river valley with mountains on every side and the Lemhi and Salmon Rivers providing numerous recreational opportunities including: fishing, hunting, hiking, mountain biking, whitewater rafting, kayaking, skiing, etc. The proposed project will not modify any recreational open space or parks. The proposed projects do not include any aspects which can reasonably be combined with recreational uses.

4.16 AGRICULTURAL LANDS

The National Resources Conservation Service Soil Resource Report was generated on January 20, 2015 from the Web Soil Survey service (websoilsurvey.sc.egov.usda.gov). This report indicates that the proposed project planning area of the Elk Bend Sewer District has approximately 38% prime farmland if irrigated. The area that is identified as prime farmland if irrigated is not currently being used as farmland, and is zoned as residential. The remainder of the PPPA is not prime farmland.

TABLE 9 – SOILS REPORT TABLE

Soil Name	Acres in AOI	Percent of AOI	Farmland
Bock-Bromaglin Complex, 1-4 Percent Slopes	185.1	37.8	Prime Farmland if Irrigated
Calcids-Rubble land-Rock outcrop complex, 50-80 percent slopes	47.4	9.7	Not Prime Farmland
Copperbasin, cool-Redfish complex, 1-4 percent slopes	18.1	3.7	Not Prime Farmland
Dawtonia-Custco association, 20-50 percent slopes	102.2	20.9	Not Prime Farmland
Millhi silt loam, 2-4 percent slopes	20.1	4.1	Not Prime Farmland
Zer gravelly loam, 20-50 percent slopes	114.2	23.3	Not Prime Farmland
Water	2.3	0.5	Not Prime Farmland

Refer to Figure 4.6 – Prime Farmland/Not Prime Farmland for the layout of farmland within the proposed project planning area.

4.17 AIR QUALITY AND NOISE

The air quality and noise levels in the planning area are consistent with other rural communities in the area. There is little industry in the area, none of which contributes to poor air quality or noise conditions. The wastewater treatment facility has the potential to produce foul odors. Noise attributed to this facility is minimal and unrecognizable outside of the treatment facility. Dust control will be implemented during construction if necessary to maintain acceptable air quality.

The Idaho Department of Environmental Quality advised that control of fugitive dust be performed during all phases of the project as required under Idaho Law. This can be accomplished by covering loads, excavations and piles of excavated material, or the application of dust suppressants, such as water, in quantities sufficient to prevent dirt and dust becoming

airborne. Additionally, construction debris and other wastes are strictly prohibited from open burning and need to be properly accumulated and disposed in a licensed landfill. These aspects can present minor to significant problems within the region and are closely monitored and strictly enforced. Refer to Appendix G for a copy of the DEQ response letter.

4.18 ENERGY PRODUCTION AND CONSUMPTION

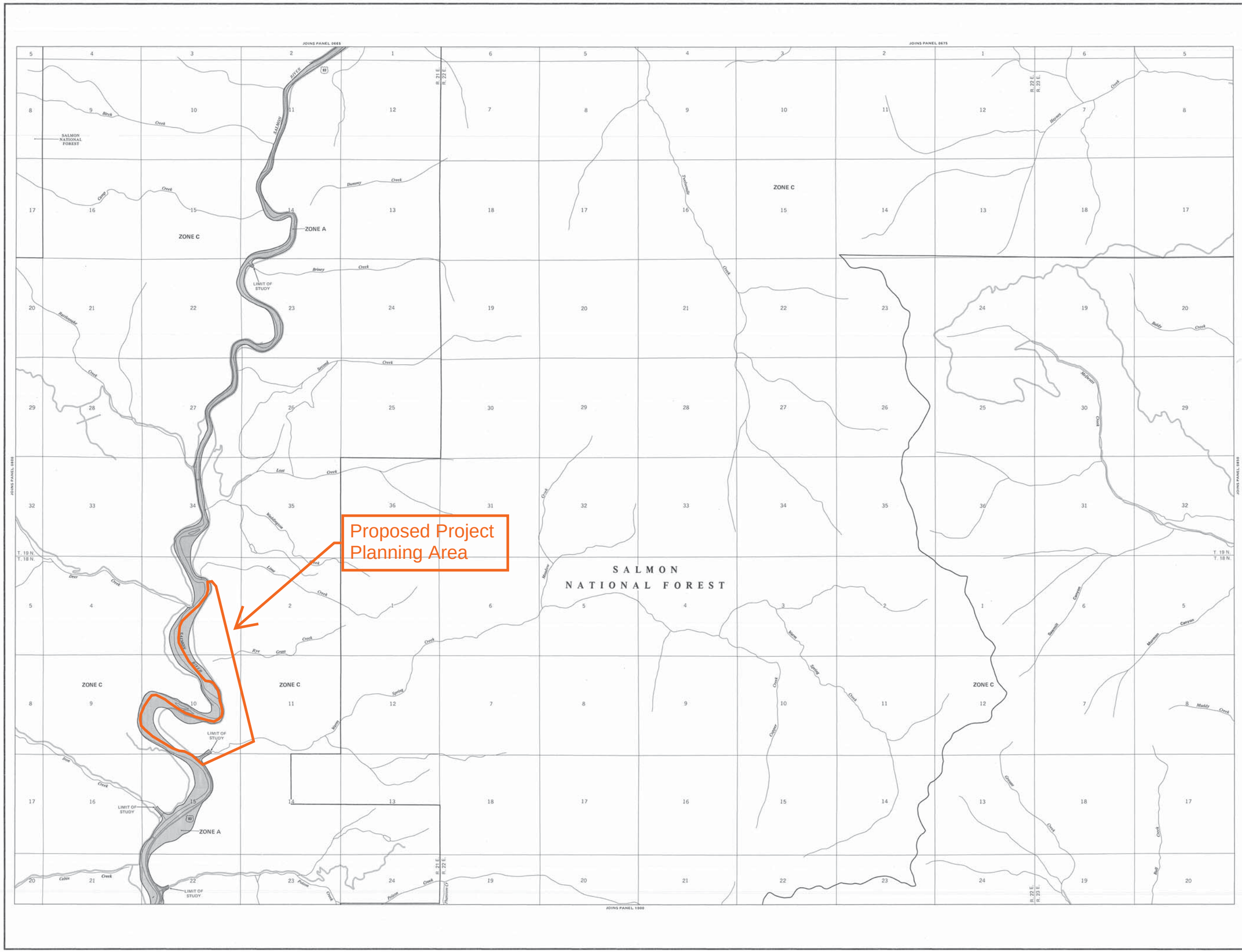
The Elk Bend area is served by Idaho Power and Century Link. Natural gas is not available. Water service is provided by local water districts.

Energy consumption within the current wastewater system includes the lift station pumps and treatment basin blowers. The proposed improvements will eliminate the blowers, but will continue to require lift station pumping, will add additional pumps for recirculation and discharge of wastewater, and will add environmental controls including fans and heaters for the new treatment system.

The net power consumption is expected to be a reduction from current use since the blowers at the Elk Bend plant will be removed (a high energy consumer) and new lift pumps will be newer higher efficiency models. Other measures for cost-effective energy efficient motors and mechanical equipment are anticipated to be incorporated during design in an effort to limit energy consumption.

4.19 REGIONALIZATION

The area immediately surrounding the project planning area has very few residences and little buildable space for future development. Units #3 and #4 of Salmon River Estates lie directly upstream of Elk Bend on the opposite side of the Salmon River. These units have larger lot sizes and typically have individual septic systems. No discussion of regionalization with residents at these locations has been entertained. Significant barriers to such consolidation exist including the distance to Elk Bend (approximately 1.5 miles) and crossing the river. Without some compelling motive to create a combined wastewater system in these developments, there would not be a viable solution for incorporation into the Elk Bend Sewer District. Additionally, there exists very little available space at Elk Bend and Steelhead Bend for the disposal of additional wastewater.



KEY TO MAP

500-Year Flood Boundary	ZONE B
100-Year Flood Boundary	ZONE A1
Zone Designations	ZONE A5
100-Year Flood Boundary	ZONE B
500-Year Flood Boundary	
Base Flood Elevation Line With Elevation In Feet**	513
Base Flood Elevation In Feet Where Uniform Within Zone**	(EL 987)
Elevation Reference Mark	RM7X
Zone D Boundary	
River Mile	•M1.5

**Referenced to the National Geodetic Vertical Datum of 1929

EXPLANATION OF ZONE DESIGNATIONS

ZONE	EXPLANATION
A	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
AO	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined.
AH	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.
A1-A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
A99	Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.
B	Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. (Medium shading)
C	Areas of minimal flooding. (No shading)
D	Areas of undetermined, but possible, flood hazards.
V	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.
V1-V30	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.

NOTES TO USER

Certain areas not in the special flood hazard areas (zones A and V) may be protected by flood control structures.

This map is for flood insurance purposes only; it does not necessarily show all areas subject to flooding in the community or all planimetric features outside special flood hazard areas.

For adjoining map panels, see separately printed Index To Map Panels.

INITIAL IDENTIFICATION:
FEBRUARY 5, 1986

FLOOD HAZARD BOUNDARY MAP REVISIONS:

FLOOD INSURANCE RATE MAP EFFECTIVE:
FEBRUARY 5, 1986

Refer to the FLOOD INSURANCE RATE MAP EFFECTIVE date shown on this map to determine when actuarial rates apply to structures in the zones where elevations or depths have been established.

To determine if flood insurance is available in this community, contact your insurance agent, or call the National Flood Insurance Program, at (800) 638-6620.

APPROXIMATE SCALE IN FEET
2000 0 2000

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

LEMHI COUNTY, IDAHO
(UNINCORPORATED AREAS)

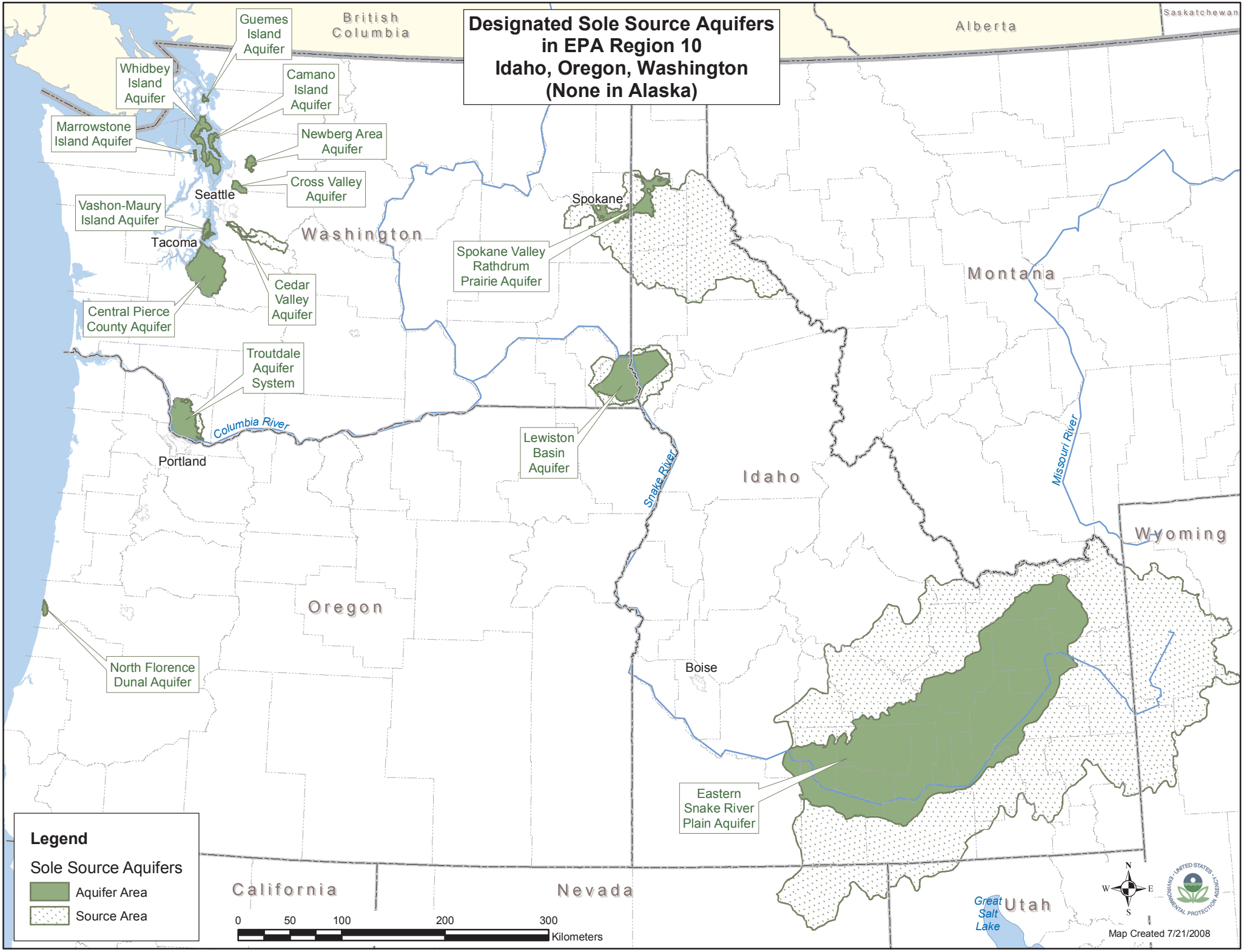
PANEL 825 OF 1700
(SEE MAP INDEX FOR PANELS NOT PRINTED)

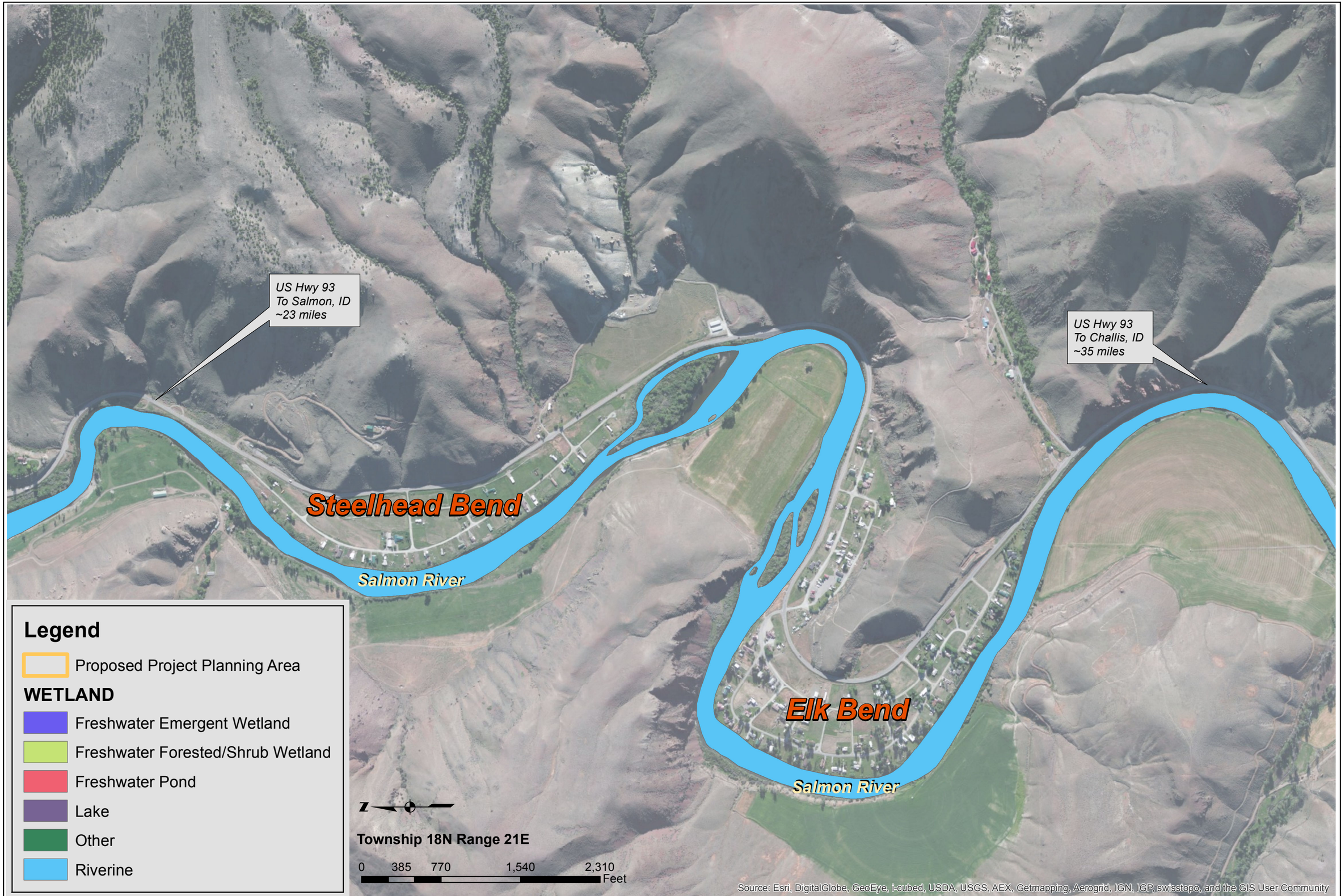
Figure 4.2 - Floodplain Map

COMMUNITY-PANEL NUMBER
160092 0825 A

EFFECTIVE DATE:
FEBRUARY 5, 1986

Federal Emergency Management Agency


Designated Sole Source Aquifers
in EPA Region 10
Idaho, Oregon, Washington
(None in Alaska)
British Columbia
Alberta
Saskatchewan
Guemes Island Aquifer
Whidbey Island Aquifer
Camano Island Aquifer
Marrowstone Island Aquifer
Newberg Area Aquifer
Cross Valley Aquifer
Seattle
Vashon-Maury Island Aquifer
Tacoma
Washington
Spokane
Spokane Valley Rathdrum Prairie Aquifer
Montana
Cedar Valley Aquifer
Central Pierce County Aquifer
Troutdale Aquifer System
Columbia River
Portland
Lewiston Basin Aquifer
Snake River
Idaho
Missouri River
Wyoming
Oregon
North Florence Dunal Aquifer
Boise
Eastern Snake River Plain Aquifer
California
Nevada
Utah
Great Salt Lake
Legend
Sole Source Aquifers
Aquifer Area
Source Area
0 50 100 200 300
Kilometers
N
W
E
S
Map Created 7/21/2008



PROJECT NO. 209003-000

Figure No. 4.4

305 N. 3rd Avenue
Pocatello, ID 83201
208.238.2146
www.kellerassociates.com
KELLER associates

ELK BEND SEWER DISTRICT

Wastewater System

Wetland Map

FIGURE NO. 4.4

FIGURE 4.5 – WILD & SCENIC RIVER WATERSHEDS & PROJECT AREA

Wild & Scenic River Watersheds

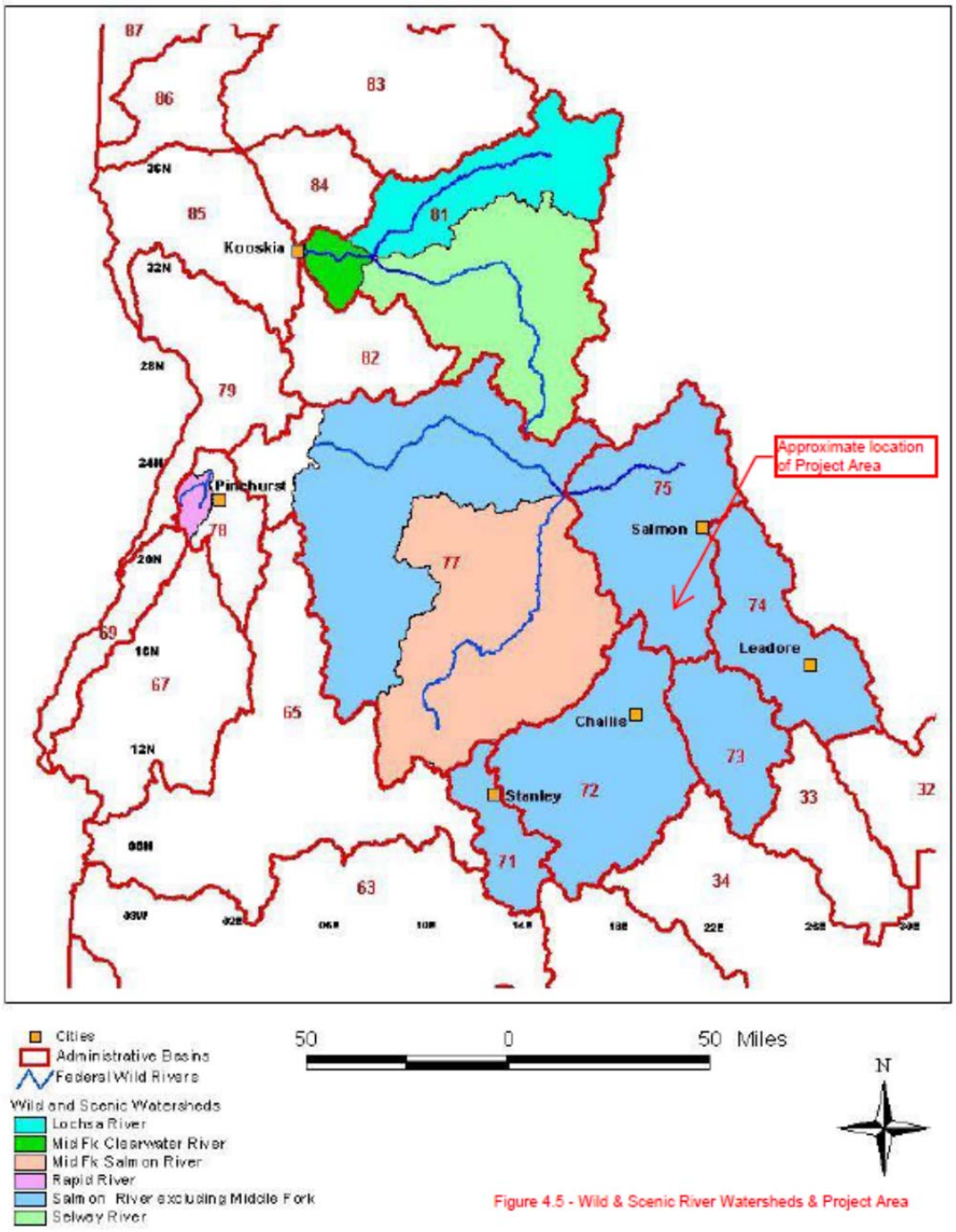
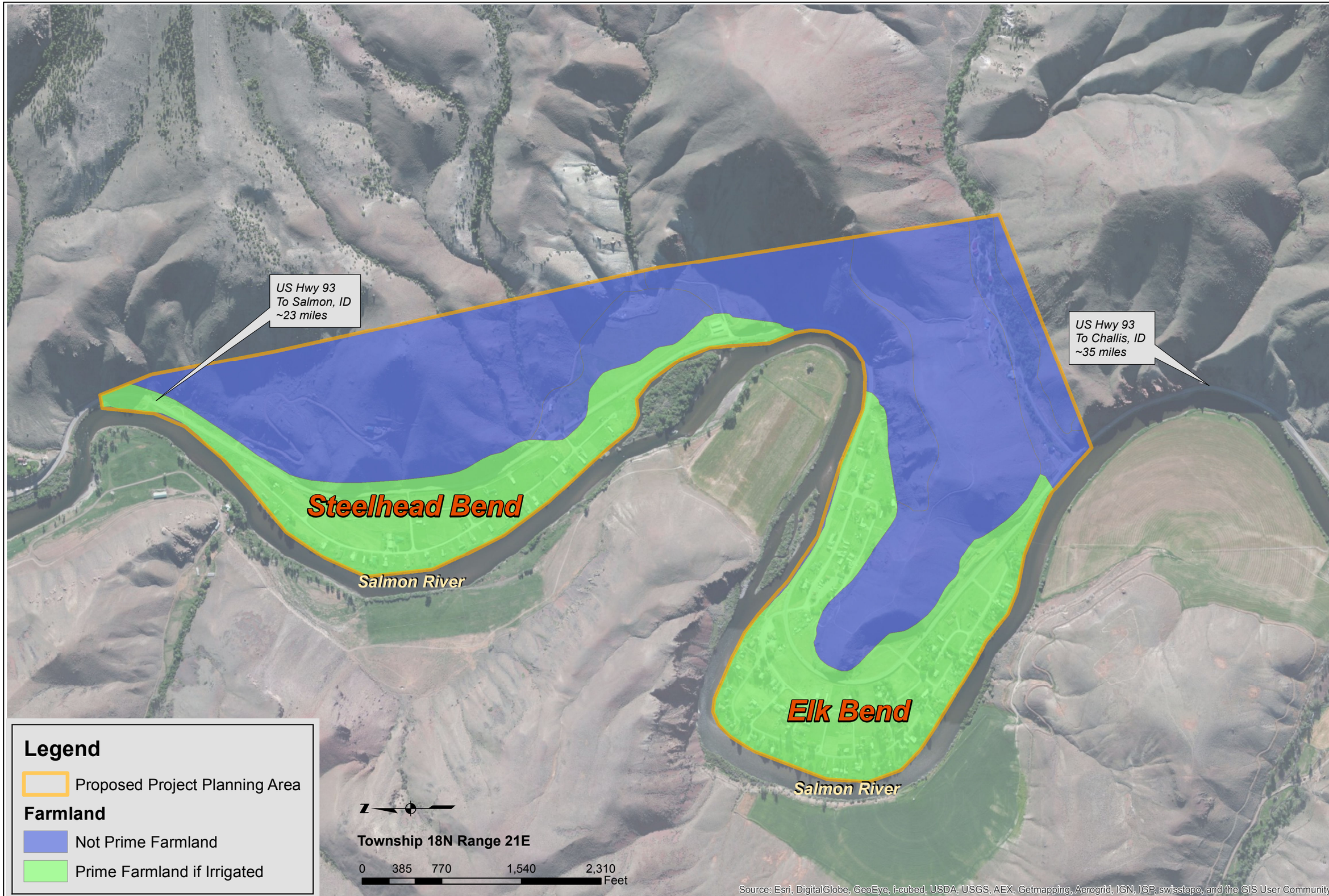


Figure 4.5 - Wild & Scenic River Watersheds & Project Area



PROJECT NO. 209003

Figure No. 4.6

305 N. 3rd Avenue
Pocatello, ID 83201
208.238.2146
www.kellerassociates.com
KELLER associates

ELK BEND
SEWER DISTRICT

Wastewater System

Prime Farmland/Not Prime Farmland

FIGURE NO.
4.6

Chapter 5 Environmental Effects of Proposed Project & Alternatives

Potential environmental impacts identified during the selection of alternatives included water quality issues in surface and groundwater. This was not an influencing factor in the alternative selection as it matches with the fact that maintaining protection for water quality of both surface and groundwater would be a requirement for any selected alternative.

Several agencies, groups, and organizations were solicited for comment regarding the proposed improvements. As a result of some of the comments provided, additional investigation was completed and some adjustments to the proposed project were made.

In their initial response, the Idaho State Historical Society requested that an archeological study be completed. The Elk Bend Sewer District hired USU Archeological Services for this task which was completed in November 2013. The study concluded that “no significant cultural resources will be impacted by this proposed project”. The Idaho State Historical Society provided a follow-up response providing approval. A response plan for the case of inadvertent discovery is recommended for inclusion in the specifications requiring reporting of discovery of historic artifacts or remains.

The Idaho Department of Fish and Game provided comment indicating that there is a known bald eagle nest located in the project vicinity. They requested that a biological assessment be completed. In 2014 the Fish and Game conducted their own scheduled observations of the nest and reported that nesting activity was observed. The follow-up response from Fish and Game indicated that construction should proceed between August 15 and January 15 to avoid negatively impacting nesting bald eagles.

The National Marine Fisheries Service provided comments regarding potential impacts to essential fish habitat. Recommended project design criteria were included outlining 17 specific items to be incorporated into the proposed action and employed to minimize and avoid the risk of adverse effects. These are enumerated in Section 4.14 and in the NMFS letter of 11/14/2015. The project design criteria have been incorporated into the mitigation measures outlined in Chapter 6 of this document.

The Army Corps of Engineers initially responded with an indication that wetlands were present within the defined project area. The proposed project area was subsequently modified and a revised inquiry relayed to ACE. In May 2014 the Army Corps of Engineers issued a revised Jurisdictional Determination indicating that no wetlands are present in the revised project area and the project would require no further review under section 404 of the Clean Water Act.

Other environmental impacts outlined in responses are typical for a project of this nature and will be mitigated as outlined in Chapter 6 by inclusion in the project plans and specifications. These include floodplain considerations, construction debris disposal, fugitive dust control, endangered species act compliance, construction storm water permit and best management practices.

The following list summarizes the potential environmental impacts identified in this document:

- Steep slopes adjacent to facilities
- Floodplain includes some project components
- Potential exists for inadvertent discovery of cultural resources
- Recovery species (bald eagle) present near the project site
- Project area is within essential fish habitat
- Potential for air quality issues (i.e. fugitive dust, open burning)

Mitigation measures to address the specific potential environmental impacts identified above and in the previous sections of this document are outlined in Chapter 6.

Chapter 6 Mitigation of Environmental Impacts

A formal letter requesting comments was sent to the agency contacts listed in Table 10 in October 2012. Following receipt of some comments and on revised direction from the Elk Bend Sewer District regarding the project, revisions to the proposed project were made to eliminate a gravity sewer connection and adjust the proposed sites for LSAS systems on March 14, 2014. Follow up calls were made to each non-responding party. Date of response received is listed in the table below. All comments received have been incorporated into their respective sections of this document and mitigation actions recommended are listed above. Copies of the information provided and agency responses are found in Appendix F.

Based upon these responses and information presented previously, the following mitigation measures or precautions should be taken during the construction process:

Environmental Impact	Mitigation Measure
Slope Stability	Structures and LSAS to be located away from the toe of steep slopes in accordance with regulations and approval by IDEQ. Protection against rockfall should be considered in construction of facilities where the hazard exists.
Floodplain	Perform floodplain encroachment review for treatment plant improvements. Floodplain encroachment is investigation of the floodplain in the area and if the improvements may affect the dynamics of the floodplain during an event.
Floodplain	Obtain a floodplain development permit from the relevant entities, including Lemhi County.
Floodplain	Manholes and other hydraulic structures should be raised above the Base Flood Elevation (BFE) or equipped with seals to prevent leakage or infiltration of flood waters.
Floodplain	Follow sound construction practices to keep project within NFIP regulations.
Archaeological	The Archaeological Survey Report recommends to monitor for inadvertent discovery of artifacts or human remains by having a professional archaeologist on-site during excavation affecting previously undisturbed earth. Shoshone-Bannock and Shoshone-Paiute Tribes requested to be notified of excavation of undisturbed earth at least two weeks in advance and invited to provide monitors. Excavation in previously disturbed earth will not require monitoring by an archaeologist; however, in the event of inadvertent discovery of potential artifacts the contractor shall follow the stop work and reporting procedures. A stop-work order will be included in the project specifications and require cessation of work and notification of tribes along with pertinent agencies in the event of inadvertent discovery.
Endangered Species	Uphold responsibility under endangered species act to ensure actions do not jeopardize any listed species.
Endangered Species	No construction will occur within wetland or riparian conditions.

Endangered Species	Vibratory compaction will be used, but vibratory or impact hammers will not be used.
Endangered Species	Due to bald eagle nesting it is recommended that construction activity at Elk Bend be accomplished between August 15 and January 15. Maintain up-to-date list of endangered/threatened species, for the area of construction, as published by U.S. Fish and Wildlife Services.
Invasive Species	Project sites to be surveyed for noxious weeks and appropriate measures taken to avoid or treat existing infestations.
Invasive Species	Equipment to be cleaned of all dirt, mud, seeds, and vegetative matter prior to arriving on site and (if warranted) cleaned prior to leaving site to protect against invasive species transport.
Vegetation	Resource Conservation Area vegetation to be protected to the extent possible and disturbed areas promptly rehabilitated. No trees will be removed.
Water Quality	A spill prevention and control countermeasures plan is to be prepared by the contractor and approved by IDEQ prior to project initiation.
Water Quality	Equipment staging areas or construction areas for the lift stations between the road and the river should be sloped away from the river to minimize sediment delivery.
Water Quality	Equipment and material staging areas, fuel storage, and equipment refueling locations to be outside of riparian conservation areas and greater than 150 feet from streams, and should be sloped away from the river to minimize sediment delivery. Equipment to be monitored for leaks and spill packs maintained on hand for minor leaks/spills
Water Quality	Construction within riparian conservation areas shall use standard sediment and pollutant prevention and retention practices and vegetation in riparian conservation areas protected to the extent possible and rehabilitated promptly. Standard sediment and pollutant prevention and retention practices include those recommended by EPA, such as silt fencing, fiber wattles for water filtration/sediment control, etc.
Water Quality	Fuel storage only within staging areas. Refueling not to occur within 150 feet of streams.
Water Quality	Equipment to be monitored for engine and hydraulic fluid leaks and repaired as needed.
Water Quality	Washing of tools and equipment to occur only within staging areas where there is no potential for rinsate to reach surface waters.
Water Quality	Obtain temporary construction NPDES permit for storm water runoff as applicable.

Water Quality	Utilize Best Management Practices for storm water runoff to prevent oils or sediment from entering surface waters.
Water Quality	Establish groundwater quality monitoring requirements in the LSAS permit to ensure sewage treatment successfully prevents contaminating the Salmon River for the life expectancy of the project. NMFS is to be provided a copy of the permit and to be notified if results indicate any type of contamination to the Salmon River is occurring.
Water Quality	A more frequent water quality monitoring plan is recommended during construction to assure construction activities do not contaminate the Salmon River for the life expectancy of the project.
Water Quality	Sewage shall be successfully delivered to established treatment areas where it may be properly treated throughout construction; establishment of temporary lift stations/delivery systems may be necessary.
Water Quality/ Solid Waste	Prevent green concrete from entering the Salmon River or any other body of water.
Solid Waste	Proper disposal of construction debris in approved solid waste facility. It is not anticipated that any asbestos, mercury or polychlorinated biphenyls will be part of the construction debris/waste. Coordination with solid waste facility will be required prior to disposal of waste. Open burning not allowed.
Solid Waste	Materials resulting from demolition or site preparation to be removed to an appropriate disposal site. Surplus excavated material to be removed to a designated upland site(s) away from any watercourses.
Air Quality	Control of fugitive dust per Idaho law, (water disturbed areas, apply magnesium chloride for lasting dust control, etc.)

These mitigation measures will be included in the construction plans and specifications as applicable to the contractor's responsibilities during construction. Monitoring for compliance with these mitigation measures should be included in construction monitoring performed by the District and/or hired consultants.

TABLE 10 – AGENCIES CONSULTED

Agency	10/2012 mailing	3/2014 mailing	Response Date	Comments
Elk Bend Sewer District	X			Concern over gravity sewer cost, LSAS locations
Lemhi County Commissioner	X			No Response
US Army Corps of Engineers	X	X	5/22/2014	No Effect
Department of Environmental Quality - Air Quality	X		10/10/2012	control fugitive dust, and maintain construction debris
Department of Environmental Quality, State Office		X	4/28/2014	List endangered, threatened, proposed, and/or candidate species
Department of Environmental Quality, Idaho Falls Office	X	X	10/18/2012	No Effect
Idaho State Historical Society	X	X	3/20/2014	No Effect
EPA Region 10, Office of Environmental Assessment (OEA-095)	X			No Response
U.S. EPA, Idaho Operations Office	X	X		No Response
Idaho Dept. of Water Resources	X	X	10/18/2012	provide system design with flood prevention components
Idaho Department of Agriculture	X		10/30/2012	No Effect
District 7 Health Department	X	X	4/9/2014	Need permit for subsurface disposal systems
Idaho Dept. of Fish and Game, Upper Snake Region	X	X	4/3/2014	Construction to take place between August 15 and January 15 to minimize impact to bald eagle nesting approximately 1300 feet from lift station.
USDA-NRCS	X			No Response
Department of Lands	X		10/24/2012	No Effect
USDA-RD	X		10/15/2012	Use USDA Environmental Reference Manual for projects funded by UDSA - contact Shoshone-Bannock and Shoshone-Paiute Tribes for their review of project area
Idaho Dept of Commerce	X		10/15/2012	No Comments
US Fish and Wildlife Service	X		4/1/2014	List endangered, threatened, proposed, and/or candidate species
Shoshone-Bannock Tribes	X	via IDEQ		No Response
Shoshone-Paiute Tribe	X	via IDEQ		No Response
NOAA - National Marine Fisheries Service		via IDEQ	11/24/2015	PDC's to protect Salmon River, EFH, and RCAs during construction

Chapter 7 Public Participation

Members of the Elk Bend Sewer District Board of Directors have been the primary contact for Keller Associates throughout the development of this study regarding the wastewater problems faced by the district and the proposed solutions.

Meetings between the District and Keller Associates over the course of the study including working sessions with the District Board on March 22, 2010 and August 18, 2011.

The Elk Bend community is primarily composed of seasonal occupants. A relatively small proportion of the residents live in Elk Bend year round. As a seasonal community, it is difficult to schedule public information sessions that will be accessible to all. To best inform all of the residents of the community and provide opportunities for comment, an informational flyer was prepared and provided to the sewer district for distribution to the residents of Elk Bend and Steelhead Bend in June 2012. A copy of the information flyer sent is included in Appendix H. No written comments were received in response to the mailing.

On June 22, 2012 at 10 am the Elk Bend Sewer District Board met for the District's annual budget meeting. A notice was published in the Salmon Recorder Herald inviting public comment on the proposed project. The notice was published on 6/14/12 and 6/21/12. A copy of the notice is included in Appendix H. In conjunction with the board meeting, a public information meeting was held to present a draft of the WWFPS and receive public comments. Discussion of the proposed improvements was held and the District Board passed a resolution accepting the recommendations of Keller Associates included in the study and Addendum No. 1. Additionally, the board passed a resolution to pursue additional grant funding to complete the necessary nutrient-pathogen evaluation.

Additional meetings have been held during regular annual meetings and discussion with DEQ regarding project adjustments and project funding.

A public hearing regarding the Judicial Confirmation for funding of the proposed project was held on April 12, 2014 in Elk Bend. Public comments were limited and not in opposition to the proposed project. The Judicial Confirmation hearing was held on July 17, 2014. No opposition to the proposed project was filed or voiced at the hearing.

7.1 REFERENCE DOCUMENTS

The Elk Bend Sewer District Wastewater Facilities Planning Study produced by Keller Associates, Inc. and approved by IDEQ September 26, 2012 was used in preparing this Environmental Information Document (EID). Additional references were utilized in the preparation of this document including:

Code of Federal Regulations – 40 CFR - www.epa.gov/lawsregs/search/40cfr.html
City of Salmon – www.cityofsalmon.com
EPA NPDES Permit and Fact Sheet– yosemite.epa.gov
FEMA Map Service Center – msc.fema.gov
IDAPA - adm.idaho.gov/adminrules/rules/idapa58/0108.pdf
Idaho Department of Commerce – commerce.idaho.gov/communities
Idaho Department of Environmental Quality – www.deq.state.id.gov
Idaho Department of Water Resources – www.idwr.idaho.gov
Lemhi County – lemhicountyidaho.org
Sacajawea Center – www.sacajaweacenter.org
US Census Bureau – centstats.census.gov
USDA NRCS Web Soil Survey – websoilsurvey.usda.nrcs.gov
US Fish and Wildlife Service Endangered Species Program – www.fws.gov/endangered
U.S. Fish and Wildlife National Wetlands Inventory – www.fws.gov/wetlands
Western Regional Climate Center – www.wrcc.dri.edu

Appendix A. Demographic Information

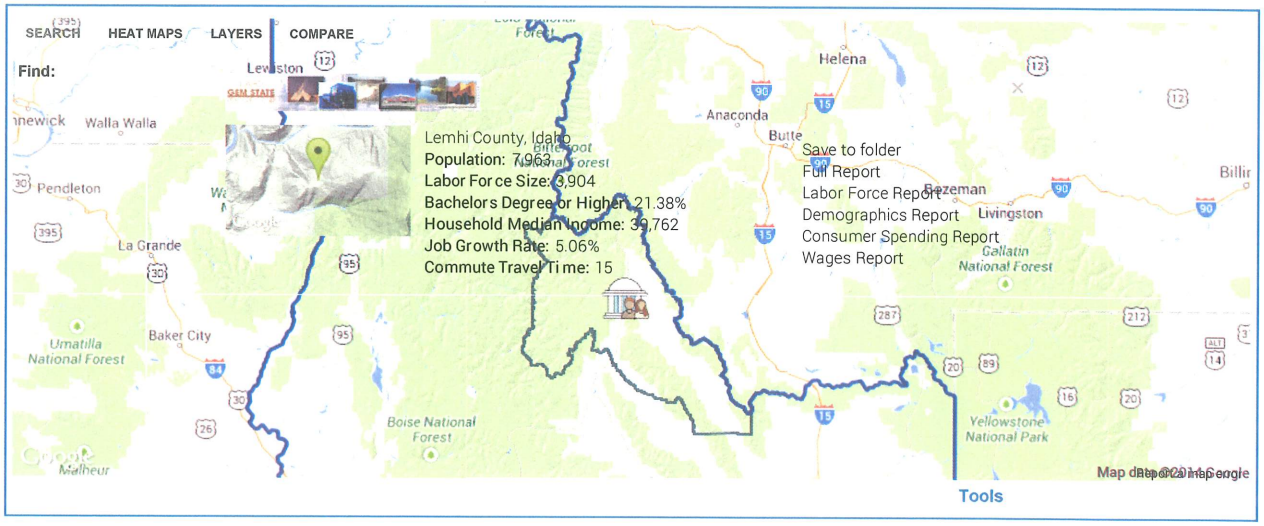
IDAHO GEM STATE PROSPECTOR

NEWS/EVENTS IDAHO.GOV CONTACT US

ROCKY MOUNTAIN POWER

IDAHO POWER. An IDACORP Company

FIND BUILDINGS FIND SITES BUSINESS SEARCH COMMUNITY PROFILES HEAT MAPS COMPARE ADD PROPERTIES HELP



Lemhi County, Idaho

Share Save Print Export Find in Community

Back to Search Results (Community)

Community Labor Force Demographics Consumer Spending Wages

EXPORT PDF

Full Community Details (Lemhi County, Idaho)

People	
Population (2013)	7,963
Labor Force	3,904
Job Growth Rate (1 Year)	5.1%
Unemployment Rate	10.1%
Median Age	50.47
Labor Force	
Bachelors Degree or higher	21.4%
High School Degree or higher	90.5%
White Collar Workers	59%
Blue Collar Workers	40%
Universities in Community offering Bachelor's Degree or Higher	0
Universities in Community + 50 miles offering Bachelor's Degree or Higher	1
Colleges in Community offering Associate's Degree or Certificate	0
Colleges in Community + 50 miles offering Associate's Degree or Certificate	1

Budgets	
Household Expenditures (Average)	44,589
Household Income (Median)	39,762
Transportation	
Commute Travel Time (minutes)	15
Airports in Community	0
Airports in Community + 50 miles	0
Distance to Interstate (miles)	16
Distance to Rail (miles)	14
Latitude	44.9433070302
Longitude	-113.933196493

Share this report:

Community ID: 16059

Share Save Print Export Find in Community

Add Properties

Business Attraction Group, Idaho Department of Commerce
For more information, please contact:
Patrick Watson
Phone: 208-287-3166
patrick.watson@commerce.idaho.gov

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DP03

SELECTED ECONOMIC CHARACTERISTICS

2008-2012 American Community Survey 5-Year Estimates

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Data and Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities and towns and estimates of housing units for states and counties.

Subject	Salmon city, Idaho			
	Estimate	Margin of Error	Percent	Percent Margin of Error
EMPLOYMENT STATUS				
Population 16 years and over	2,510	+/-114	2,510	(X)
In labor force	1,558	+/-150	62.1%	+/-6.2
Civilian labor force	1,558	+/-150	62.1%	+/-6.2
Employed	1,363	+/-168	54.3%	+/-6.7
Unemployed	195	+/-85	7.8%	+/-3.4
Armed Forces	0	+/-12	0.0%	+/-1.3
Not in labor force	952	+/-173	37.9%	+/-6.2
Civilian labor force	1,558	+/-150	1,558	(X)
Percent Unemployed	(X)	(X)	12.5%	+/-5.5
Females 16 years and over	1,174	+/-91	1,174	(X)
In labor force	702	+/-100	59.8%	+/-8.3
Civilian labor force	702	+/-100	59.8%	+/-8.3
Employed	612	+/-115	52.1%	+/-8.6
Own children under 6 years	256	+/-83	256	(X)
All parents in family in labor force	184	+/-85	71.9%	+/-21.2
Own children 6 to 17 years	371	+/-90	371	(X)
All parents in family in labor force	331	+/-88	89.2%	+/-8.8
COMMUTING TO WORK				
Workers 16 years and over	1,348	+/-169	1,348	(X)
Car, truck, or van -- drove alone	983	+/-175	72.9%	+/-8.1
Car, truck, or van -- carpooled	124	+/-62	9.2%	+/-4.5
Public transportation (excluding taxicab)	0	+/-12	0.0%	+/-2.4
Walked	89	+/-53	6.6%	+/-3.9
Other means	95	+/-77	7.0%	+/-5.5
Worked at home	57	+/-55	4.2%	+/-4.1
Mean travel time to work (minutes)	13.1	+/-4.6	(X)	(X)
OCCUPATION				
Civilian employed population 16 years and over	1,363	+/-168	1,363	(X)

Subject	Salmon city, Idaho			
	Estimate	Margin of Error	Percent	Percent Margin of Error
Management, business, science, and arts occupations	299	+/-93	21.9%	+/-5.7
Service occupations	285	+/-106	20.9%	+/-6.9
Sales and office occupations	359	+/-104	26.3%	+/-7.1
Natural resources, construction, and maintenance occupations	215	+/-88	15.8%	+/-6.2
Production, transportation, and material moving occupations	205	+/-69	15.0%	+/-5.1
INDUSTRY				
Civilian employed population 16 years and over	1,363	+/-168	1,363	(X)
Agriculture, forestry, fishing and hunting, and mining	76	+/-53	5.6%	+/-3.7
Construction	128	+/-63	9.4%	+/-4.5
Manufacturing	110	+/-59	8.1%	+/-4.4
Wholesale trade	24	+/-24	1.8%	+/-1.8
Retail trade	176	+/-84	12.9%	+/-5.9
Transportation and warehousing, and utilities	44	+/-37	3.2%	+/-2.7
Information	64	+/-72	4.7%	+/-5.2
Finance and insurance, and real estate and rental and leasing	17	+/-22	1.2%	+/-1.6
Professional, scientific, and management, and administrative and waste management services	113	+/-55	8.3%	+/-4.2
Educational services, and health care and social assistance	199	+/-75	14.6%	+/-5.1
Arts, entertainment, and recreation, and accommodation and food services	143	+/-69	10.5%	+/-4.7
Other services, except public administration	174	+/-83	12.8%	+/-5.6
Public administration	95	+/-60	7.0%	+/-4.1
CLASS OF WORKER				
Civilian employed population 16 years and over	1,363	+/-168	1,363	(X)
Private wage and salary workers	973	+/-154	71.4%	+/-7.2
Government workers	209	+/-88	15.3%	+/-5.6
Self-employed in own not incorporated business workers	151	+/-65	11.1%	+/-4.6
Unpaid family workers	30	+/-35	2.2%	+/-2.7
INCOME AND BENEFITS (IN 2012 INFLATION-ADJUSTED DOLLARS)				
Total households	1,471	+/-136	1,471	(X)
Less than $10,000	190	+/-74	12.9%	+/-4.7
$10,000 to $14,999	144	+/-77	9.8%	+/-5.1
$15,000 to $24,999	316	+/-115	21.5%	+/-7.4
$25,000 to $34,999	137	+/-62	9.3%	+/-4.1
$35,000 to $49,999	172	+/-61	11.7%	+/-4.0
$50,000 to $74,999	334	+/-103	22.7%	+/-6.9
$75,000 to $99,999	90	+/-47	6.1%	+/-3.2
$100,000 to $149,999	70	+/-43	4.8%	+/-2.9
$150,000 to $199,999	0	+/-12	0.0%	+/-2.2
$200,000 or more	18	+/-20	1.2%	+/-1.4
Median household income (dollars)	32,159	+/-8,559	(X)	(X)
Mean household income (dollars)	45,279	+/-9,425	(X)	(X)
With earnings	1,125	+/-133	76.5%	+/-6.3
Mean earnings (dollars)	42,262	+/-11,333	(X)	(X)
With Social Security	613	+/-109	41.7%	+/-7.0
Mean Social Security income (dollars)	14,183	+/-1,614	(X)	(X)
With retirement income	303	+/-86	20.6%	+/-5.7
Mean retirement income (dollars)	17,404	+/-4,664	(X)	(X)
With Supplemental Security Income	84	+/-53	5.7%	+/-3.4
Mean Supplemental Security Income (dollars)	7,673	+/-3,206	(X)	(X)
With cash public assistance income	45	+/-37	3.1%	+/-2.5

Subject	Salmon city, Idaho			
	Estimate	Margin of Error	Percent	Percent Margin of Error
Mean cash public assistance income (dollars)	4,771	+/-4,113	(X)	(X)
With Food Stamp/SNAP benefits in the past 12 months	267	+/-91	18.2%	+/-6.1
Families	696	+/-89	696	(X)
Less than $10,000	21	+/-25	3.0%	+/-3.5
$10,000 to $14,999	38	+/-36	5.5%	+/-5.0
$15,000 to $24,999	86	+/-51	12.4%	+/-7.1
$25,000 to $34,999	79	+/-45	11.4%	+/-6.3
$35,000 to $49,999	137	+/-56	19.7%	+/-7.5
$50,000 to $74,999	213	+/-73	30.6%	+/-9.2
$75,000 to $99,999	75	+/-42	10.8%	+/-6.1
$100,000 to $149,999	39	+/-33	5.6%	+/-4.7
$150,000 to $199,999	0	+/-12	0.0%	+/-4.6
$200,000 or more	8	+/-13	1.1%	+/-1.8
Median family income (dollars)	47,969	+/-9,563	(X)	(X)
Mean family income (dollars)	60,843	+/-17,284	(X)	(X)
Per capita income (dollars)	22,348	+/-5,728	(X)	(X)
Nonfamily households	775	+/-157	775	(X)
Median nonfamily income (dollars)	20,387	+/-2,174	(X)	(X)
Mean nonfamily income (dollars)	30,471	+/-6,576	(X)	(X)
Median earnings for workers (dollars)	17,433	+/-5,060	(X)	(X)
Median earnings for male full-time, year-round workers (dollars)	40,658	+/-9,240	(X)	(X)
Median earnings for female full-time, year-round workers (dollars)	26,975	+/-9,811	(X)	(X)
HEALTH INSURANCE COVERAGE				
Civilian noninstitutionalized population	3,024	+/-76	3,024	(X)
With health insurance coverage	2,349	+/-155	77.7%	+/-4.7
With private health insurance	1,574	+/-221	52.1%	+/-7.1
With public coverage	1,291	+/-196	42.7%	+/-6.5
No health insurance coverage	675	+/-143	22.3%	+/-4.7
Civilian noninstitutionalized population under 18 years	651	+/-121	651	(X)
No health insurance coverage	11	+/-16	1.7%	+/-2.5
Civilian noninstitutionalized population 18 to 64 years	1,780	+/-140	1,780	(X)
In labor force:	1,360	+/-131	1,360	(X)
Employed:	1,192	+/-143	1,192	(X)
With health insurance coverage	756	+/-127	63.4%	+/-8.5
With private health insurance	668	+/-131	56.0%	+/-8.1
With public coverage	112	+/-61	9.4%	+/-5.4
No health insurance coverage	436	+/-121	36.6%	+/-8.5
Unemployed:	168	+/-79	168	(X)
With health insurance coverage	38	+/-35	22.6%	+/-22.8
With private health insurance	31	+/-34	18.5%	+/-22.1
With public coverage	7	+/-15	4.2%	+/-8.8
No health insurance coverage	130	+/-78	77.4%	+/-22.8
Not in labor force:	420	+/-106	420	(X)
With health insurance coverage	322	+/-102	76.7%	+/-11.5
With private health insurance	180	+/-73	42.9%	+/-11.5
With public coverage	181	+/-73	43.1%	+/-14.1
No health insurance coverage	98	+/-50	23.3%	+/-11.5

Subject	Salmon city, Idaho			
	Estimate	Margin of Error	Percent	Percent Margin of Error
PERCENTAGE OF FAMILIES AND PEOPLE WHOSE INCOME IN THE PAST 12 MONTHS IS BELOW THE POVERTY LEVEL				
All families	(X)	(X)	16.8%	+/-7.8
With related children under 18 years	(X)	(X)	27.7%	+/-14.3
With related children under 5 years only	(X)	(X)	9.2%	+/-20.1
Married couple families	(X)	(X)	15.8%	+/-9.5
With related children under 18 years	(X)	(X)	31.4%	+/-20.0
With related children under 5 years only	(X)	(X)	17.9%	+/-32.9
Families with female householder, no husband present	(X)	(X)	38.9%	+/-32.2
With related children under 18 years	(X)	(X)	38.9%	+/-32.2
With related children under 5 years only	(X)	(X)	-	**
All people	(X)	(X)	25.9%	+/-7.6
Under 18 years	(X)	(X)	38.1%	+/-16.4
Related children under 18 years	(X)	(X)	38.1%	+/-16.4
Related children under 5 years	(X)	(X)	48.9%	+/-26.3
Related children 5 to 17 years	(X)	(X)	32.2%	+/-17.0
18 years and over	(X)	(X)	22.5%	+/-6.4
18 to 64 years	(X)	(X)	27.5%	+/-8.1
65 years and over	(X)	(X)	7.8%	+/-6.5
People in families	(X)	(X)	22.5%	+/-10.3
Unrelated individuals 15 years and over	(X)	(X)	33.7%	+/-10.1

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

There were changes in the edit between 2009 and 2010 regarding Supplemental Security Income (SSI) and Social Security. The changes in the edit loosened restrictions on disability requirements for receipt of SSI resulting in an increase in the total number of SSI recipients in the American Community Survey. The changes also loosened restrictions on possible reported monthly amounts in Social Security income resulting in higher Social Security aggregate amounts. These results more closely match administrative counts compiled by the Social Security Administration.

Workers include members of the Armed Forces and civilians who were at work last week.

Industry codes are 4-digit codes and are based on the North American Industry Classification System 2007. The Industry categories adhere to the guidelines issued in Clarification Memorandum No. 2, "NAICS Alternate Aggregation Structure for Use By U.S. Statistical Agencies," issued by the Office of Management and Budget.

While the 2008-2012 American Community Survey (ACS) data generally reflect the December 2009 Office of Management and Budget (OMB) definitions of metropolitan and micropolitan statistical areas; in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB definitions due to differences in the effective dates of the geographic entities.

Estimates of urban and rural population, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2000 data. Boundaries for urban areas have not been updated since Census 2000. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Source: U.S. Census Bureau, 2008-2012 American Community Survey

Explanation of Symbols:

1. An '**' entry in the margin of error column indicates that either no sample observations or too few sample observations were available to compute a standard error and thus the margin of error. A statistical test is not appropriate.
2. An '-' entry in the estimate column indicates that either no sample observations or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest interval or upper interval of an open-ended distribution.
3. An '-' following a median estimate means the median falls in the lowest interval of an open-ended distribution.

Appendix B. Environment

SALMON KSRA, IDAHO (108080)

Period of Record Monthly Climate Summary

Period of Record : 12/1/1967 to 8/31/2009

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)	29.7	37.9	50.7	60.7	69.9	78.2	87.9	86.2	75.2	60.4	42.3	30.6	59.2
Average Min. Temperature (F)	12.2	17.3	26.2	32.4	39.6	46.4	51.4	49.0	40.5	31.4	23.1	13.7	31.9
Average Total Precipitation (in.)	0.67	0.44	0.54	0.78	1.35	1.40	0.96	0.79	0.76	0.61	0.75	0.75	9.81
Average Total SnowFall (in.)	7.8	3.7	1.9	0.9	0.1	0.0	0.0	0.0	0.0	0.1	3.5	7.6	25.6
Average Snow Depth (in.)	5	3	0	0	0	0	0	0	0	0	0	2	1

Percent of possible observations for period of record.
Max. Temp.: 99.9% Min. Temp.: 99.8% Precipitation: 99.9% Snowfall: 99.2% Snow Depth: 97.7%
Check Station Metadata or Metadata graphics for more detail about data completeness.

Western Regional Climate Center, wrcc@dri.edu

MEMO

TO: **Skyler Allen, Keller Associates**
Kimberly Murphy, National Marine Fisheries Service

FROM: **Mike May, DEQ Grant and Loan Program**

SUBJECT: **Elk Bend Water & Sewer District Wastewater Improvements**
Threatened/Endangered Species and Essential Fish Habitat Determination

DATE: **July 17, 2015**

The Elk Bend Water & Sewer District (EBW&SD) is proposing upgrades to their wastewater system. The District currently serves two small residential areas on Elk Bend and Salmon Bend of the Salmon River. EBW&SD serves approximately 138 residences, a few cabins, a 20-space RV park and a restaurant. The existing wastewater facilities consist of two extended aeration package plants discharging to large soil absorption systems. These facilities were constructed in the 1970s and are in poor condition. At least one incident involving sewage overflow to the ground surface has occurred.

FEDERAL NEXUS

The proposed project is expected to be financed by the Idaho Clean Water State Revolving Fund (SRF), which is ultimately funded through the Environmental Protection Agency. Additional financing is being provided by a Community Development Block Grant using federal funds administered by the Idaho Department of Commerce and by funds from the U.S. Department of Agriculture Rural Utilities Service.

PROJECT SCOPE

The proposed wastewater improvements include:

- Construct a new recirculating gravel filter wastewater treatment facility (WWTF) at Elk Bend, consisting of a and replacement large soil absorption system;
- Replace the existing large soil absorption system (LSAS) with a new LSAS;
- Rehabilitate the existing WWTF at Steelhead Bend; and
- Rehabilitate Steelhead Bend Lift Station and Elk Bend Lift Station #1 with new pumps and electrical equipment; and

The project does not involve any water withdrawal from or discharge to the Salmon River or any of its tributaries. No ground disturbance or riparian vegetation removal within 100 feet of the river or its tributaries is anticipated. The U.S. Army Corps of Engineers issued an Approved Jurisdictional Determination (AJD) on May 22, 2014, stating that all project work is in uplands not containing waters of the U.S., including wetlands. Project features are presented on the attached map based on an underlying aerial photograph.

PROJECT SETTING

EBW&SD is located on the Salmon River main stem, extending from approximately river mile (RM) 285 to just below RM 283, which places it approximately 24 miles south of Salmon (RM 260), the nearest town.

The project site is located in the Dry Gneissic-Schistose-Volcanic Hills ecoregion, a rugged valley in the rain shadow of the Salmon River Mountains of central Idaho with sagebrush grassland native vegetation.[1] The attached project map shows that bushes and shrubs are sparse on the canyon walls, and there are a few irrigated fields in low areas. The populated zones are in relatively flat strips, no wider than about 1,000 feet, between US-93 and the Salmon River. The January average snow depth at the Salmon weather station is 4 inches, with less snow cover in December and February, based on data from 1905 to 2015.[2]

CONSERVATION MEASURES AND BEST MANAGEMENT PRACTICES

It is understood that the main stem of the Salmon River is designated critical habitat for Snake River Basin **Steelhead** (*Oncorhynchus mykiss*)[3] and Snake River spring/summer **Chinook Salmon** (*Oncorhynchus tshawytscha*),[4] with designated critical habitat for Chinook salmon extending 300 feet from either edge of the stream. Both species are listed under the Endangered Species Act (ESA) as threatened and are present in the Salmon River. **Bull trout** (*Salvelinus confluentus*), another threatened species, are also present in the Salmon River (see below). Based on these site conditions, the following conservation measures and best management practices (BMPs) are proposed during construction:

- Prior to beginning work, project sites should be surveyed for noxious weeds and appropriate measures taken to either avoid existing infestations or treat infestations to prevent a local expansion or off-site transport.

- Where construction activities occur within 75 feet of stream channels or standing water, or in areas where water may concentrate during snowmelt periods, standard sediment and pollutant prevention and retention practices will be utilized (e.g., silt fence, wattles) and appropriately maintained.

- Fuel storage will occur only within staging areas, and refueling will not occur within 150 feet of streams. If fueling must occur at less than 150 feet, it will occur inside an impervious containment structure with a volumetric holding capacity equal to at least 110 percent of the fueling tank. Engine and hydraulic fluids will be monitored for leaks. Spill packs will also be on hand for minor leaks/spills.

- Washing of tools and equipment will occur only within staging areas, or other areas approved by the SNRA permit administrator, where there is no potential for rinsate to reach surface waters.

- To minimize the potential for introducing hazardous material to the aquatic system, a spill prevention and control countermeasures plan will be prepared by the contractor and approved by the SNRA prior to project.

- No construction will occur within wetland or riparian conditions.

- Equipment and material staging areas should be located in areas lying outside of resource conservation areas (RCAs), in areas requiring the least amount of new soil disturbance, and outside topographic lows where water may concentrate during snowmelt or storm events.

- Equipment should be cleaned of all dirt, mud, seeds, and vegetative matter prior to arriving on site to reduce risk of invasive species introduction. The same equipment should be cleaned again prior to leaving, if warranted.

- Materials resulting from demolition or site preparation should be removed to an appropriate disposal site.

- RCA vegetation should be protected to the extent possible, and disturbed areas promptly rehabilitated.

- To avoid inadvertent water contamination, ensure that sewage is successfully delivered to established treatment areas where it may be properly treated throughout construction; establishment of temporary lift stations/delivery systems may be necessary.

- Consider establishing a water quality monitoring plan to assure sewage treatment successfully prevents contaminating the Salmon River for the life expectancy of the project.

USF&WS THREATENED, ENDANGERED AND CANDIDATE SPECIES

The U.S. Fish and Wildlife Service (USF&WS) revised its threatened and endangered species list[5] during the history of this project. The final revision referenced in this memo and attached was issued on August 14, 2014 and was downloaded July 9, 2015. The list was refined and species were assessed using telephone conversations and email correspondence with the USF&WS Eastern Idaho Field Office and the National Marine Fisheries Service, as well as publically available documents.

The following species are listed as threatened within Lemhi County:

1. **Canada Lynx** (*Lynx canadensis*) – The Canada Lynx reside in boreal forest landscapes and provide one or more of the following beneficial habitat elements including snowshoe hares for prey, abundant, large, woody debris piles that are used as dens, and winter snow conditions that are generally deep and fluffy for extended periods of time.[6] The proposed project is located in a narrow riverine valley with adjacent steep canyon walls nearly denuded of trees (see map). It is not typical of boreal forests and has shallow winter snow depths. The only proposed critical habitat in Idaho is in the northeast corner of Boundary County, and reflects actual distribution[7]. **The proposed project will have NO EFFECT on the Canada Lynx.**

2. **Bull Trout** (*Salvelinus confluentus*) –The Salmon River in the vicinity of the project site is designated bull trout critical habitat.[8] Bull trout are cold water fish. The species must have: cold water; clean stream substrates for spawning and rearing; complex habitats with deep pools, undercut banks and lots of large logs; and lake and river connectivity to headwater streams for annual spawning and feeding migrations. The species is sensitive to sediment. Due to the proximity of the proposed improvements, USF&WS has requested that the following measures be implemented with the primary goal of ensuring that absolutely no sediment enters the Salmon River. **DEQ is requiring that these measures are strictly followed. By following these measures, the project will have "NO EFFECT" on Bull Trout**.

a. Implementation of best management practices to avoid and minimize the introduction of sediment into the river.

   i. Erosion control wattles, sediment drift fences or other barriers to sediment traveling off the project area.
   ii. Equipment staging areas or construction area for the two lift stations must be slanted away from the river, towards the road, to minimize sediment delivery to the Salmon River.
   iii. Any other practices that would minimize the possibility of sedimentation should be incorporated into the project plans and specifications to avoid the possibility of adverse effects to bull trout.

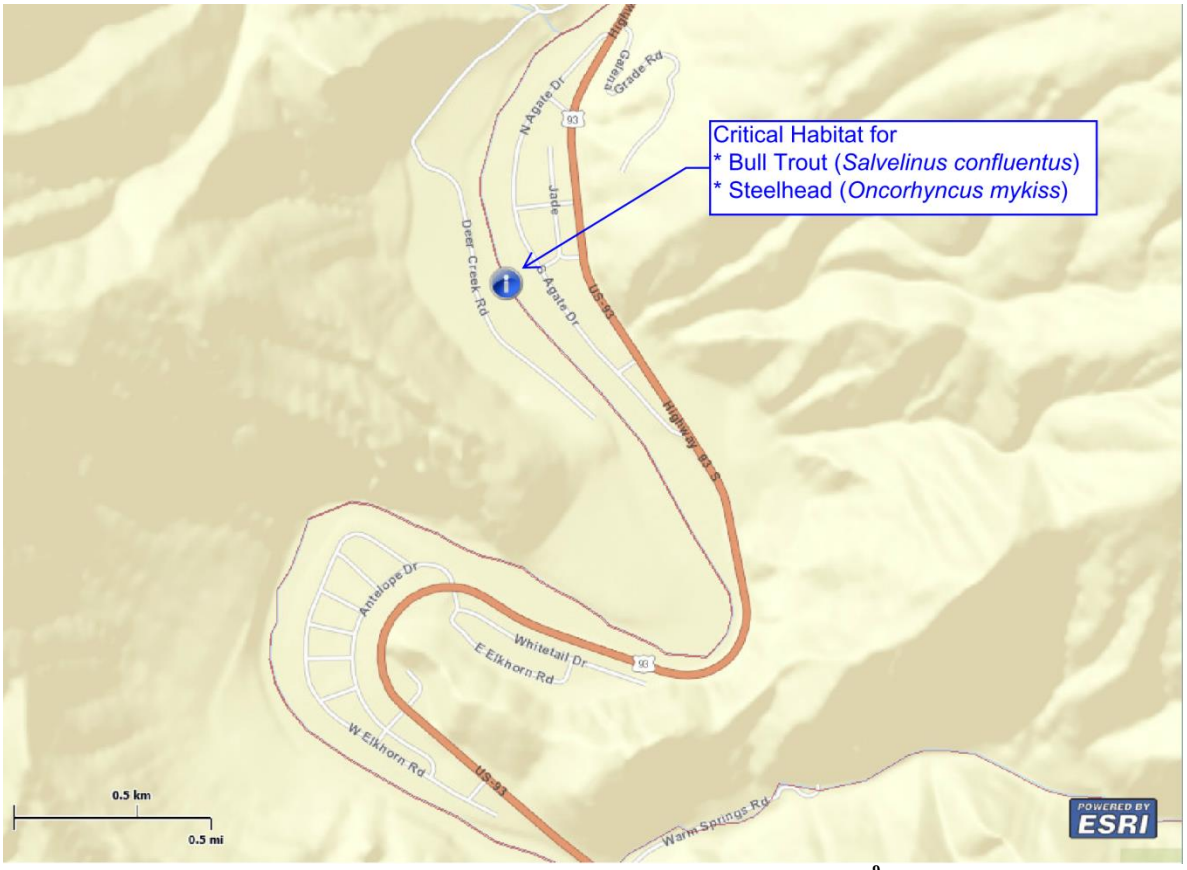

Figure 1. Critical habitat in the project area (USF&WS Critical Habitat Mapper 3.0)[9]

The following have been listed as Candidate Species within Custer County:

1. **Whitebark Pine** (*Pinus albicaulis*) – The Whitebark pine is a 5 needle conifer species that occurs from approximately 2,950 feet at its northern limit in British Columbia up to 12,000 feet in the Sierra Nevada. The Whitebark Pine is typically found at or slightly lower than alpine timberline in the upper montane zone. In the U.S. it is primarily found on public lands.[10] The proposed project is located in an arid, nearly treeless environment unsuited to Whitebark Pine. **The project will have NO EFFECT on whitebark pine**.

2. **Greater Sage-Grouse** (*Centrocercus urophasianus*) – Grouse reside in Sagebrush Steppe environments, and prefer slightly elevated features surrounded by flat terrain, but not lower portions of hillsides beneath areas that could contain raptors or other predators. The preferred Best Management Practice is avoidance: if construction activity must occur during lekking season, work should be postponed until after 10:30 a.m. As shown on the map below, the proposed project is not located in a priority area or general area for sage-grouse management (it is between areas Y and BB). All project work is proposed to be limited to lowlands within 1,000 feet of U.S. Highway 93. This makes it extremely unlikely that leks are present near the project area, since paved roads and primary and secondary routes are believed to cause adverse effects on leks at a distance of 1.6 miles.[11] **The proposed project will have NO EFFECT on the Greater Sage Grouse**.

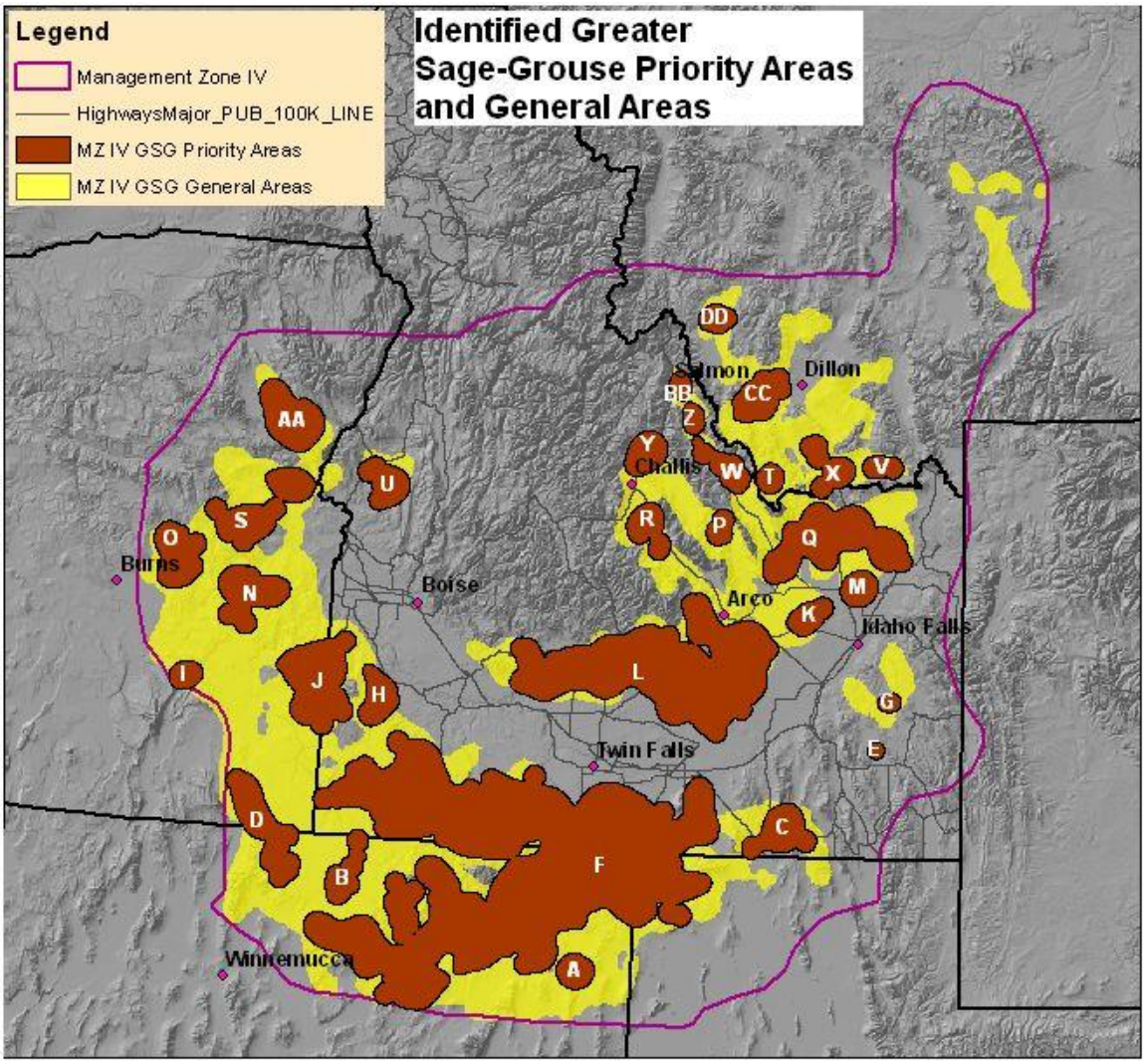

Figure 2. Greater Sage-Grouse Priority Areas and General Areas (BLM 2011)[12]

The following species are listed as a Proposed Threatened Species within Custer County:

1. **North American Wolverine** (*Gulo gulo luscus*) - The North American Wolverine was a proposed species which is not expected to be found in the proposed project planning. The proposed project is located in suburban and arid foothills environments. Wolverine distribution is

restricted to high elevation areas of deep, persistent and reliable spring snow cover (April 15 to May 14) is the best overall predictor of wolverine occurrence in the contiguous U.S.[13] Wolverines are known to travel long distances, so any individuals that may be encountered are almost certain to be travelling between other suitable habitats. January is the snowiest month for Salmon is deepest in January, with an average snow depth of 4 inches over 101 years of data.[2] This is insufficient snow depth at the project site for wolverine dens, therefore **the proposed project will have NO EFFECT on the wolverine species**.[14]

2. **Yellow-Billed Cuckoo** (*Coccyzus americanus*) –Western cuckoos breed in large blocks of riparian habitats, particularly woodlands with cottonwoods and willows. Dense understory foliage is believed to be important for nesting sites. They are generally local and uncommon in scattered drainages of the arid and semiarid portions of western Colorado, western Wyoming, Idaho, The Yellow-billed Cuckoo is not shown as "known or believed to be present" in the near vicinity of the project area, according to the USF&WS Environmental Conservation Online System (ECOS).[15] This is consistent with the 2014 proposed critical habitat designation,[16] which indicated that floodplains at least 325 feet wide with dense canopy closure greater than 200 acres in extent are generally required to support more than a single breeding pair. The critical habitat proposal includes all known nesting areas greater than 200 acres, based on breeding records between 1998 and 2012, and no such areas were identified in Lemhi County. The proposed project is in an area absent of woodlands with cottonwood and willows. **The proposed project will have NO EFFECT on the Yellow-billed cuckoo**.

ESSENTIAL FISH HABITAT

The Elk Bend Water & Sewer District wastewater improvement project is located within Essential Fish Habitat (EFH) for **Chinook Salmon** (*Oncorhynchus tshawytscha*) but not **Coho Salmon** (*Oncorhynchus kisutch*) as identified in the attached EFH map. "All those water bodies occupied or historically accessible" in the identified hydrologic units are considered EFH, according to 50 CFR 660.412. Because the SRF project will not include work in the Salmon River channel, and the conservation measures and BMPs identified above are protective of the stream, any potential effects are insignificant in size or discountable. **The SRF project "May Affect, but Is Not Likely to Adversely Affect" Essential Fish Habitat**.

MLM

Attachments: Project Map
U.S. Army Corps of Engineers Approved Jurisdictional Determination, May 22, 2014
Idaho Species List, last downloaded July 9, 2015
Critical Habitat for Bull Trout Map (Unit 27)
DEQ, Chinook Salmon Essential Fish Habitat in Idaho (map)
USF&WS consultation, 2014
NMFS consultation, 2014-2015

References

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[1] McGrath, *et al.*, 2002, *Ecoregions of Idaho*, EPA Western Ecology Division, Corvallis, Oregon, www.epa.gov/wed/pages/ecoregions/id_eco.htm.

[2] Western Regional Climate Center, *Salmon Lemhi Co AP, Idaho (108076) Monthly Climate Summary, 11/5/1905 to 1/20/2015*, http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?id8076

[3] *Federal Register*, Vol. 65, Page 7764, February 16, 2000.

[4] *Federal Register*, Vol. 70, Page 52630, September 2, 2005.

[5] USF&WS, August 14, 2014, *Idaho Species List*, www.fws.gov/idaho/Species.htm, last downloaded July 9, 2015.

[6] USF&WS Species Profile: Canada Lynx (*Lynx canadensis*), ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=A073

[7] *Federal Register*, Vol. 78, Page 59430, September 23, 2013.

[8] *Federal Register*, Vol. 75, Page 64054, October 28, 2010.

[9] USF&WS Critical Habitat Mapper 3.0, ecos.fws.gov/crithab/flex/crithabMapper.jsp, accessed July 17, 2015.

[10] USF&WS Species Profile: Whitebark pine, ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=R00E

[11] *Draft Idaho and Southwestern Montana Sub-Region Greater Sage-Grouse LUPA/EIS, Vol. II* §4.2.1

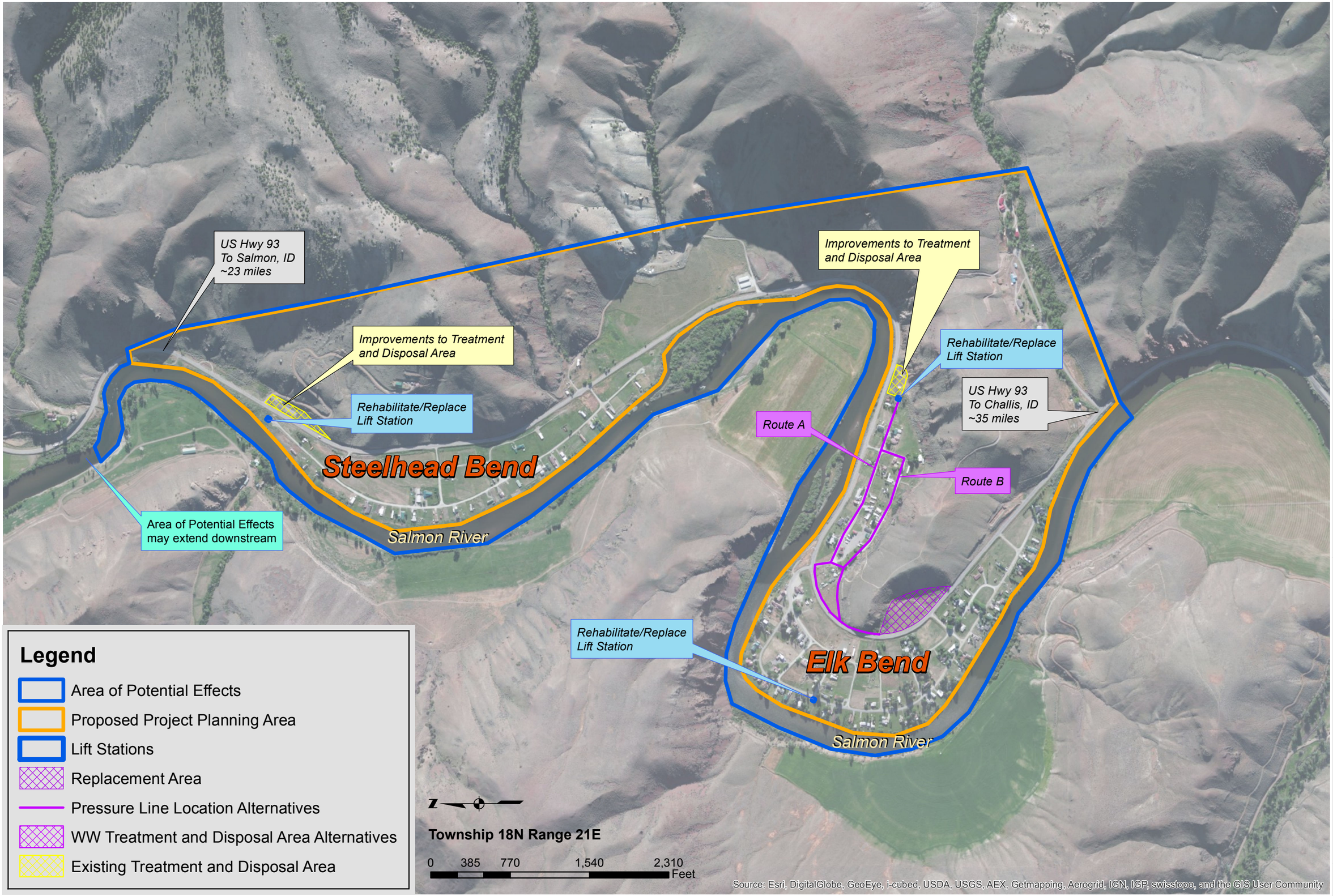
[12] BLM, 2011, *Idaho Sage-grouse Priority Areas White Paper, September 27, 2011 FINAL*, www.blm.gov/pgdata/etc/medialib/blm/id/wildlife/sensitive_species/sg_scoping_meeting.Par.67149.File.dat/Idaho_Sage-grouse_Priority_Areas_White_Paper_September_27_2011_FINAL_508.pdf

[13] USF&WS Species Profile: North American wolverine (*Gulo gulo luscus*), ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=A0FA

[14] USF&WS withdrew its proposal to list the North American wolverine as threatened with the contiguous United States; Federal Register, Vol. 79, Page 47521, August 13, 2014.

[15] USF&WS Species Profile: Yellow-Billed Cuckoo (*Coccyzus americanus*), ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B06R#candidate.

[16] *Federal Register*, Vol. 79, Page 48547, August 15, 2014.



PROJECT NO. 209003-000

Figure No. 3.1

305 N. 3rd Avenue
Pocatello, ID 83201
208.238.2146
www.kellerassociates.com
KELLER associates

ELK BEND
SEWER DISTRICT

Wastewater System
Existing System & Proposed
Improvements Preliminary Layout

FIGURE NO.
1

DEPARTMENT OF THE ARMY
WALLA WALLA DISTRICT, CORPS OF ENGINEERS
BOISE REGULATORY OFFICE
10095 WEST EMERALD STREET
BOISE, IDAHO 83704-9754

REPLY TO
ATTENTION OF

May 22, 2014

Regulatory Division

SUBJECT: NWW-2012-587, Elk Bend Sewer District Wastewater Improvement Project

Mr. Skyler Allen
Keller Associates, Inc.
305 North 3rd Avenue, Suite A
Pocatello, Idaho 83201

Dear Mr. Allen:

Enclosed is our Department of Army (DA) Approved Jurisdictional Determination (AJD) that there are no waters of the United States, including wetlands, within the proposed project area. Therefore, no DA authorization is required. This decision is based upon our review of the revised Elk Bend Sewer District Wastewater Improvement Project described in your March 14, 2014 letter. In our May 7, 2013, letter the Corps indicated that wetlands were present in the potential alternate treatment disposal area and that all other project features were located in non-wetland areas. The revised project has deleted the alternate treatment disposal area previously proposed. Based on the revision, the proposed project does not require DA approval as all work would occur in uplands which are not regulated under section 404 of the Clean Water Act.

The project site is located near, the Salmon River, at Elks Bend and Steelhead Bend, within Section 10 of Township 18 North, Range 21 East, near latitude 44.90874° N and longitude -113.96032° W, in Lemhi County, near Salmon, Idaho. This project was previously assigned file number NWW-2012-587, which should be referred to in future correspondence with our office regarding this site.

The DA exerts regulatory jurisdiction over waters of the United States (U.S.), including wetlands, pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344. Section 404 of the Clean Water Act requires a DA permit be obtained prior to discharging dredged or fill material into waters of the U.S., which includes most perennial and intermittent rivers and streams, natural and man-made lakes and ponds, irrigation and drainage canals and ditches that are tributaries to other waters, and wetlands.

The proposed project area, as shown on the attached map, dated May 21, 2014, is located entirely in uplands which do not contain waters of the U.S., including wetlands, under the Corps' regulatory jurisdiction. Therefore, a DA authorization is not required to develop the upland property.

This approved JD is valid for a period of 5-years from the date of this letter, unless new information supporting a revision is provided to this office before the expiration date. Also enclosed, you will find the Approved Jurisdictional Determination Form addressing wetlands and waters of the U.S. located within the JD review area, and a *Notification of Administrative Appeals Options and Process and Request for Appeal Form* (RFA) regarding this DA Approved Jurisdictional Determination. Should you disagree with certain terms and/or conditions of this Approved JD, the Notification of Administrative Appeal Options form outlines the steps to take to file your objection. Please note, the RFA form must be received by the Northwest Division Office no later than **July 21, 2014**.

Nothing in this letter shall be construed as excusing you from compliance with other Federal, state, or local statutes, ordinances or regulations which may affect this work.

We are interested in your thoughts and opinions concerning the quality of service you received from the Walla Walla District, Corps of Engineers Regulatory Division. Please visit us online at http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey and complete an electronic version of our Customer Service Survey form, which will be automatically submitted to us. Alternatively, you may call and request a paper copy of the survey, which you may complete and return to us by mail. For additional information about our Regulatory program please visit us at http://www.nww.usace.army.mil/BusinessWithUs/RegulatoryDivision.aspx. Your responses are appreciated and will allow us to improve our services.

If you have any questions about this determination, please contact me by telephone at (208) 322-3410, via email at casey.a.forest@usace.army.mil or by mail at the address in the above letterhead. We appreciate your cooperation with the Corps of Engineers' Regulatory Program.

Sincerely,

Casey Forest

Casey Forest
Project Manager, Regulatory Division

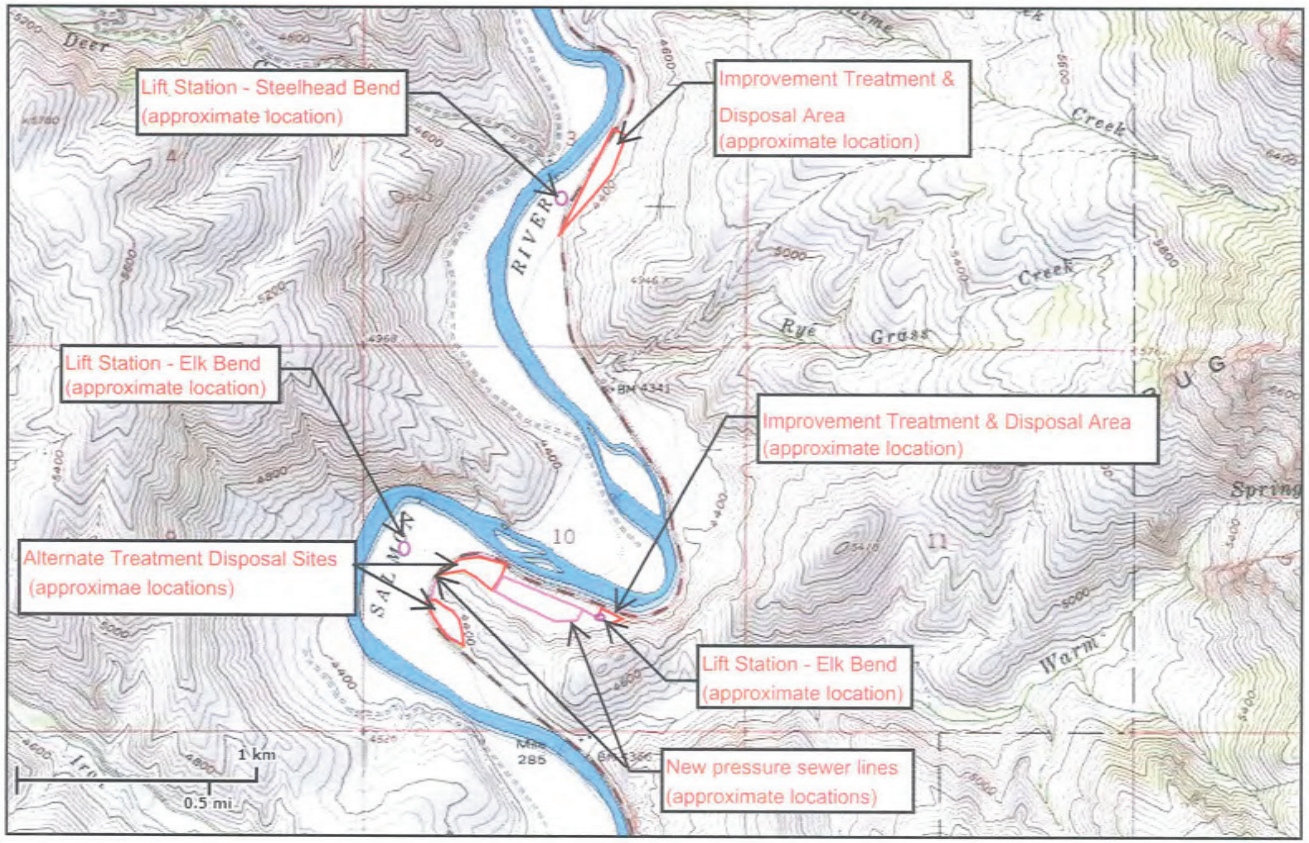
Enclosures:
Wetland/Waters Delineation Map
Approved JD Form
Notification of Administrative Appeal Options and Request for Appeal Form

U.S. Fish and Wildlife Service

National Wetlands Inventory

NWW-2012-587

May 21, 2014



Wetlands

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

User Remarks:

Elk Bend & Steelhead Bend, Waste Water Treatment Improvements

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): May 22, 2014

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Walla Walla District, NWW-2012-587, Elk Bend Sewer District Wastewater Improvement Project

C. PROJECT LOCATION AND BACKGROUND INFORMATION: located along the Salmon River, approximately 23 miles south of Salmon Idaho

State: Idaho County/parish/borough: Lemhi City: Near Salmon Idaho
Center coordinates of site (lat/long in degree decimal format): 44.90874° Lat. -113.96032° Long.
Universal Transverse Mercator: Zone 12 Northing 171651 **N**, Easting 543289 **E**.
Name of nearest waterbody: Salmon River
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Snake River
Name of watershed or Hydrologic Unit Code (HUC): 17060203

- ☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
- ☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

- ☒ Office (Desk) Determination. Date: 5/21/2014
- ☒ Field Determination. Date(s): 5/3/2013

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "*navigable waters of the U.S.*" within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]

- ☐ Waters subject to the ebb and flow of the tide.
- ☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are no** "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. **Waters of the U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
   - ☐ TNWs, including territorial seas
   - ☐ Wetlands adjacent to TNWs
   - ☐ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs
   - ☐ Non-RPWs that flow directly or indirectly into TNWs
   - ☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
   - ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
   - ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
   - ☐ Impoundments of jurisdictional waters
   - ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
   Non-wetland waters: linear feet: width (ft) and/or acres.
   Wetlands: acres.

   c. **Limits (boundaries) of jurisdiction** based on: **1987 Delineation Manual**
   Elevation of established OHWM (if known): .

2. **Non-regulated waters/wetlands (check if applicable):**[3]
   - ☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: **On May 3, 2013, a site inspection was conducted by the Corps of Engineers (Corps) and determined that except for wetlands in the October 2, 2012, potential alternate wastewater disposal area all other project features were**

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[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
[3] Supporting documentation is presented in Section III.F.

located in uplands. The revised project has deleted the alternate wastewater disposal area from consideration, thus all project features are located in uplands which are not regulated under Section 404 of the Clean Water Act.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. **TNW**
   Identify TNW: .

   Summarize rationale supporting determination: .

2. **Wetland adjacent to TNW**
   Summarize rationale supporting conclusion that wetland is "adjacent": .

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody[4] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. **Characteristics of non-TNWs that flow directly or indirectly into TNW**

   (i) **General Area Conditions:**
   Watershed size: **square miles**
   Drainage area: **acres**
   Average annual rainfall: inches
   Average annual snowfall: inches

   (ii) **Physical Characteristics:**
   (a) Relationship with TNW:
   ☐ Tributary flows directly into TNW.
   ☐ Tributary flows through **Pick List** tributaries before entering TNW.

   Project waters are **Pick List** river miles from TNW.
   Project waters are **Pick List** river miles from RPW.
   Project waters are **Pick List** aerial (straight) miles from TNW.
   Project waters are **Pick List** aerial (straight) miles from RPW.
   Project waters cross or serve as state boundaries. Explain: .

   Identify flow route to TNW[5]: .
   Tributary stream order, if known: .

[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.
[5] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

(b) General Tributary Characteristics (check all that apply):

Tributary is: ☐ Natural
☐ Artificial (man-made). Explain: .
☐ Manipulated (man-altered). Explain: .

Tributary properties with respect to top of bank (estimate):
Average width: feet
Average depth: feet
Average side slopes: **Pick List.**

Primary tributary substrate composition (check all that apply):
☐ Silts ☐ Sands ☐ Concrete
☐ Cobbles ☐ Gravel ☐ Muck
☐ Bedrock ☐ Vegetation. Type/% cover:
☐ Other. Explain: .

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: .
Presence of run/riffle/pool complexes. Explain: .
Tributary geometry: **Pick List**
Tributary gradient (approximate average slope): %

(c) Flow:
Tributary provides for: **Pick List**
Estimate average number of flow events in review area/year: **Pick List**
Describe flow regime: .
Other information on duration and volume: .

Surface flow is: **Pick List.** Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .
☐ Dye (or other) test performed: .

Tributary has (check all that apply):
☐ Bed and banks
☐ OHWM[6] (check all indicators that apply):
☐ clear, natural line impressed on the bank
☐ changes in the character of soil
☐ shelving
☐ vegetation matted down, bent, or absent
☐ leaf litter disturbed or washed away
☐ sediment deposition
☐ water staining
☐ other (list):
☐ the presence of litter and debris
☐ destruction of terrestrial vegetation
☐ the presence of wrack line
☐ sediment sorting
☐ scour
☐ multiple observed or predicted flow events
☐ abrupt change in plant community
☐ Discontinuous OHWM.[7] Explain: .

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):
☐ High Tide Line indicated by:
☐ oil or scum line along shore objects
☐ fine shell or debris deposits (foreshore)
☐ physical markings/characteristics
☐ tidal gauges
☐ other (list):
☐ Mean High Water Mark indicated by:
☐ survey to available datum;
☐ physical markings;
☐ vegetation lines/changes in vegetation types.

(iii) Chemical Characteristics:
Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: .
Identify specific pollutants, if known: .

[6] A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7] Ibid.

(iv) Biological Characteristics. Channel supports (check all that apply):

- ☐ Riparian corridor. Characteristics (type, average width): .
- ☐ Wetland fringe. Characteristics: .
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings: .
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☐ Aquatic/wildlife diversity. Explain findings: .

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland size: acres

Wetland type. Explain: .

Wetland quality. Explain: .

Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:

Flow is: **Pick List**. Explain: .

Surface flow is**: Pick List**

Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .

- ☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

- ☐ Directly abutting
- ☐ Not directly abutting
  - ☐ Discrete wetland hydrologic connection. Explain: .
  - ☐ Ecological connection. Explain: .
  - ☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Flow is from: **Pick List.**

Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: .

Identify specific pollutants, if known: .

(iii) Biological Characteristics. Wetland supports (check all that apply):

- ☐ Riparian buffer. Characteristics (type, average width): .
- ☐ Vegetation type/percent cover. Explain: .
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings: .
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☐ Aquatic/wildlife diversity. Explain findings: .

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: **Pick List**

Approximately ( ) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)

Summarize overall biological, chemical and physical functions being performed: .

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: .

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   - ☐ TNWs: linear feet width (ft), Or, acres.
   - ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   - ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: .
   - ☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: .

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

3. **Non-RPWs[8] that flow directly or indirectly into TNWs.**
☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**
☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**
☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. **Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**
☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. **Impoundments of jurisdictional waters.[9]**
As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
☐ Demonstrate that impoundment was created from "waters of the U.S.," or
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]
☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
☐ which are or could be used for industrial purposes by industries in interstate commerce.
☐ Interstate isolated waters. Explain: .
☐ Other factors. Explain: .

Identify water body and summarize rationale supporting determination: .

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[8] See Footnote # 3.
[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
[10] **Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.***

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .
☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):
☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):
☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:Map March 14, 2014.
☐ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
☐ Office concurs with data sheets/delineation report.
☐ Office does not concur with data sheets/delineation report.
☐ Data sheets prepared by the Corps: .
☐ Corps navigable waters' study: .
☐ U.S. Geological Survey Hydrologic Atlas: .
☐ USGS NHD data.
☐ USGS 8 and 12 digit HUC maps.
☒ U.S. Geological Survey map(s). Cite scale & quad name:ID-GOLDBUG RIDGE, 1:24k.
☒ USDA Natural Resources Conservation Service Soil Survey. Citation:South Elk Bend WWT Area, North Elk Bend Area & Steelhead Bend WWT Disposal location.
☒ National wetlands inventory map(s). Cite name:USFWS, NWW-2012-587.
☐ State/Local wetland inventory map(s): .
☒ FEMA/FIRM maps:1600920825A & 1600920825A.
☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
☒ Photographs: ☒ Aerial (Name & Date):Google Earth, 5/21/2014.
or ☒ Other (Name & Date):ORM2 Database, 5/21/2014.
☒ Previous determination(s). File no. and date of response letter:NWW-2012-587, May 7, 2013.
☐ Applicable/supporting case law: .
☐ Applicable/supporting scientific literature: .
☐ Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD: A review of historic Google Earth aerial photos from 1992-2011 was conducted. Per the review, the project site locations are existing waste water treatment lift stations, disposal sites, undeveloped and residential developed

locations. There are some small buildings on portions of the sites; however, there are no waters of the U.S., including wetlands present. This was previously confirmed by the Corps during the May 3, 2013, on-site inspection.

Per the review of the USFWS, NWI Topo Map the nearest water body is the Salmon River which is located 48' North at the closest point to any portion of the proposed waste treatment facility improvements/additions. The NWI maps show no wetlands within the project impact area. No waters of the U.S. are located within the project area. The project areas are located entirely in uplands .

A review of the soil survey for Lemhi County shows the soil at this location to be Bock-Bromaglin, Dawtonia-Custco and Zer gravelly loam. These soils occurs on stream terraces and hillslopes. Soils in this group are well drained with a water table generally greater than 80" from the surface.

Based on the above the project impact area contains no waters of the U.S. or wetlands. All work would occur in uplands, thus DA approval is not required for this project.

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Elk Bend Sewer District		File Number: NWW-2012-587	Date: May 22, 2014
Attached is:			See Section Below
	INITIAL PROFFERED PERMIT (Standard Permit or Letter of Permission)		A
	PROFFERED PERMIT (Standard Permit or Letter of Permission)		B
	PERMIT DENIAL		C
X	APPROVED JURISDICTIONAL DETERMINATION		D
	PRELIMINARY JURISDICTIONAL DETERMINATION		E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at http://usace.army.mil/inet/functions/cw/cecwo/reg or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations (JD) associated with the permit.

OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit,

ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.

APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.

APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMT

REASONS FOR APPEAL OR OBJECTIONS:

Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:

District Engineer
ATTN: Ms. Kelly J. Urbanek
Regulatory Division Walla Walla District
201 North 3rd Avenue
Walla Walla, Washington 99362-1876
Telephone (208) 376-1832

If you only have questions regarding the appeal process you may also contact:

U.S. Army Corps of Engineers
Northwestern Division
Attn: Mary Hoffman, Appeals Review Officer
P.O. Box 2870
Portland, Oregon 97208-2870
Telephone (503) 808-3825

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

Signature of appellant or agent:	*Date:*	*Telephone:*

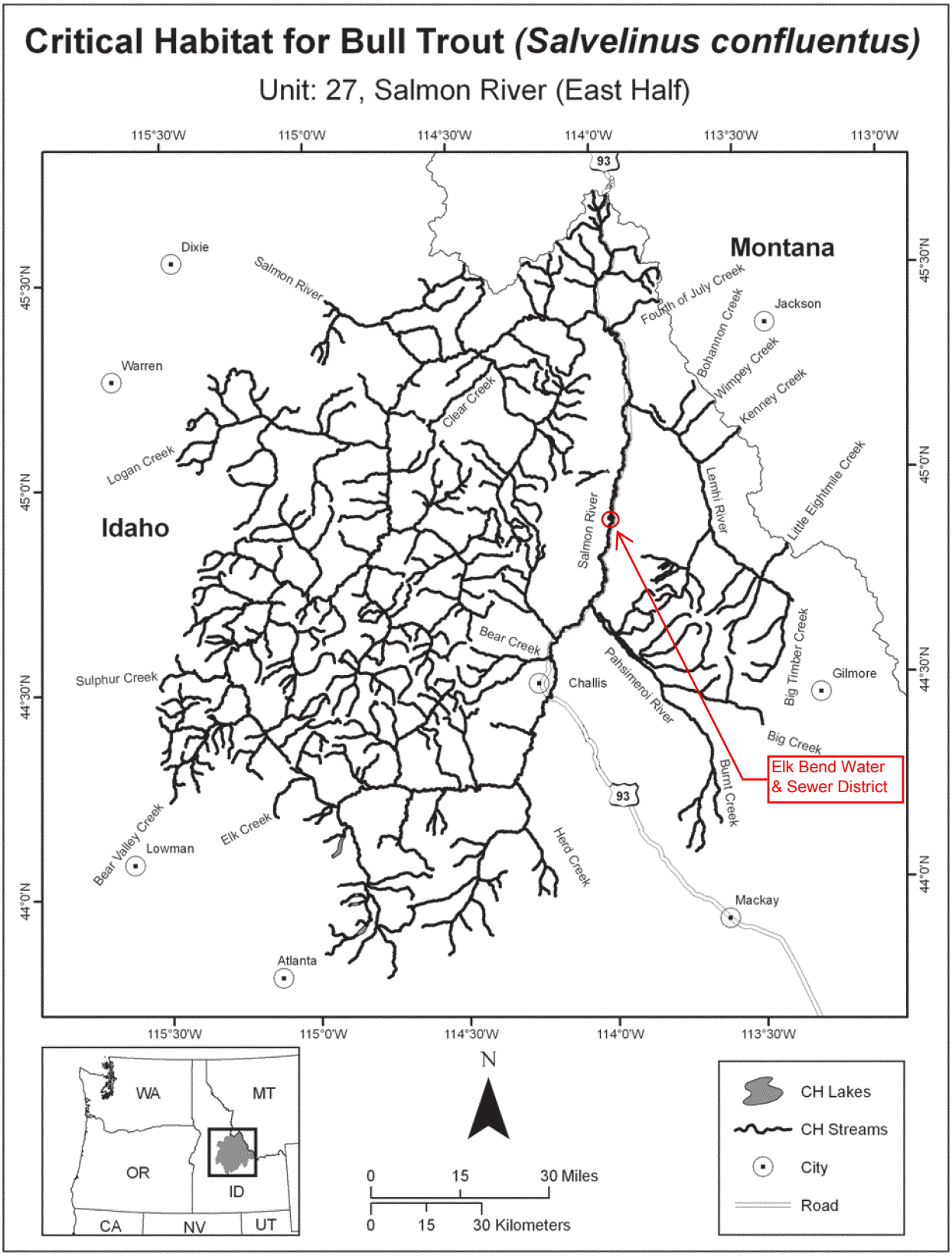
This information is for general reference only. Please visit http://ecos.fws.gov/ipac/ to obtain an official list for purposes of Endangered Species Act section 7 consultation. Revised 08/14/2014. **Downloaded 09 Jully 2015**

U.S. Fish and Wildlife Service • Idaho Fish and Wildlife Office

LISTED, CANDIDATE, AND PROPOSED SPECIES & DESIGNATED AND PROPOSED CRITICAL HABITAT IN IDAHO

	Herps	Birds		Mammals					Fish		Mollusks				Plants							
Common Name	**Columbia Spotted Frog (Great Basin Population)**	**Greater Sage-Grouse**	**Yellow-Billed Cuckoo**	**Canada Lynx**	**Grizzly Bear**	**Northern Idaho Ground Squirrel**	**Selkirk Mountains Woodland Caribou**	**Southern Idaho Ground Squirrel**	**Bull Trout**	**Kootenai River White Sturgeon**	**Banbury Springs Lanx**	**Bliss Rapids Snail**	**Bruneau Hot Springsnail**	**Snake River Physa**	**Goose Creek Milkvetch**	**MacFarlane's Four-O'Clock**	**Packard's Milkvetch**	**Slickspot Peppergrass**	**Spalding's Catchfly**	**Ute Ladies'-Tresses**	**Water Howellia**	**Whitebark Pine**
Scientific Name	*Rana luteiventris*	*Centrocercus urophasianus*	*Coccyzus americanus*	*Lynx canadensis*	*Ursus arctos horribilis*	*Spermophilus brunneus brunneus*	*Rangifer tarandus caribou*	*Spermophilus brunneus endemicus*	*Salvelinus confluentus*	*Acipenser transmontanus*	*Lanx* sp.	*Taylorconcha serpenticola*	*Pyrgulopsis bruneauensis*	*Haitia (Physa) natricina*	*Astragalus anserinus*	*Mirabilis macfarlanei*	*Astragalus cusickii var. parkardiae*	*Lepidium papilliferum*	*Silene spaldingii*	*Spiranthes diluvialis*	*Howellia aquatilis*	*Pinus albicaulis*
Gooding		C									E	T		E								
Idaho				T					T-DCH							T			T			C
Jefferson		C	P-PCH	T																T		
Jerome		C										T		E								
Kootenai			P	T					T-DCH										T		T	
Latah				T															T		T	
Lemhi		C	P	T					T-DCH													C
Lewis									T-DCH										T			
Lincoln		C	P																			
Madison		C	P-PCH	T																T		
Minidoka		C	P											E								
Nez Perce				T					T-DCH										T			
Oneida		C																				
Owyhee	C	C	P						T-DCH				E	E				P-PCH				
Payette		C						C	T					E			C	P-PCH				
Power		C	P																			
Shoshone				T					T-DCH										T		T	C
Teton				T	T																	C
Twin Falls	C	C										T		E								
Valley				T		T			T-DCH													C
Washington		C				T		C	T-DCH					E								C

Table Key: C = Candidate Species P= Proposed Species T=Threatened Species E=Endangered Species PCH= Proposed Critical Habitat DCH=Designated Critical Habitat



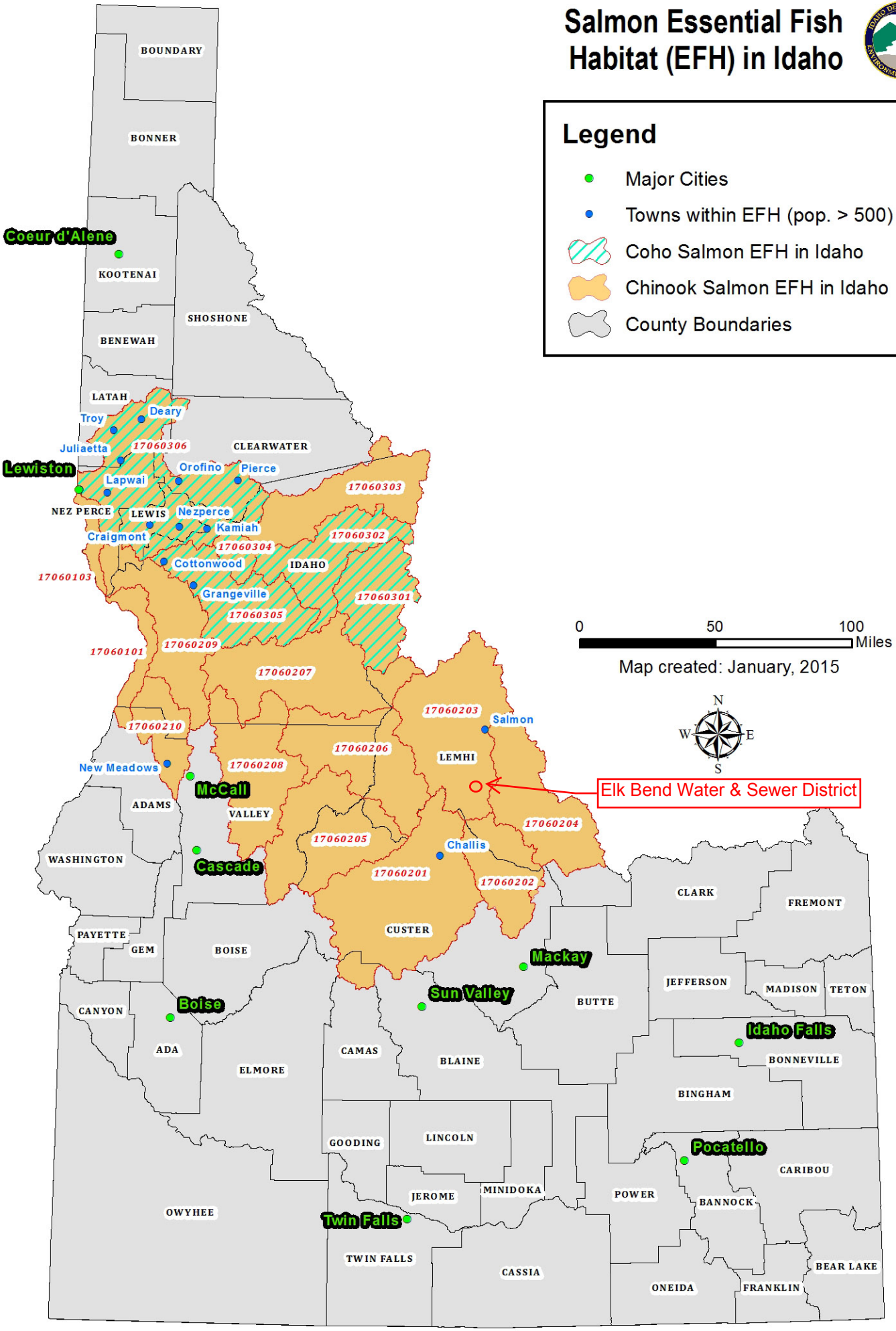
BILLING CODE 4310–55–C

(36) Unit 27: Salmon River – West Half

(i) The entire Salmon River unit consists of 7,376.5 km (4,583.5 mi) of streams and 1,683.8 ha (4,160.6 ac) of lakes and reservoirs. The unit is located in central Idaho.

(ii) See paragraph (e)(35)(ii) of this entry for a complete list of individual waterbodies in this unit.

Salmon Essential Fish Habitat (EFH) in Idaho



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Eastern Idaho Field Office
4425 Burley Dr., Suite A
Chubbuck, Idaho 83202
Telephone (208) 237-6975
http://IdahoES.fws.gov

Ester Ceja, Sr. Water Quality Analyst
State of Idaho Department of Water Quality
1410 North Hilton
Boise, Idaho 83706

APR 0 1 2014

Subject: Elk Bend Sewer District Wastewater Improvement Project
In Reply Refer To: 01EIFW00-2014-TA-0309

Dear Ms. Ceja:

We have reviewed your March 25, 2014, letter, received by our office on March 27, 2014, requesting our comments pursuant to section 7 of the Endangered Species Act of 1973 (Act), as amended (16 U.S.C. 1531 *et seq.*), on the proposed rehabilitation or replacement of three lift stations associated with wastewater treatment in Lemhi County, Idaho, by the Elk Bend Sewer District (District). Under the Act, it is incumbent upon Federal action agencies to determine whether proposed projects would affect listed species. Per your request, we provide these comments on potential impacts to listed species in order to inform your State Environmental Review Process and decision making process.

The Salmon River provides habitat for the threatened Columbia River bull trout (*Salvelinus confluentus*). Bull trout are sensitive to sediment, which can cause abrasion or interference with gill function. Because parts of the project would occur within 200 feet of the Salmon River, we recommend the District implement Best Management Practices to avoid and minimize the introduction of sediment into the river. For example, we recommend the District use erosion control waddles, sediment drift fences, or other barriers to sediment traveling off the project area. If feasible, we recommend that the equipment staging areas or construction area for the two lift stations that are between the road and the river be slanted away from the river, towards the road, to minimize sediment delivery. Any other practices that would minimize the possibility of sedimentation should be incorporated as part of project plans, to avoid the possibility of adverse effects to bull trout.

This letter does not provide an exemption for take under the Act. If the Idaho Department of Environmental Quality determines that the project may affect a listed species, consultation with the Service, pursuant to the Act, would be required.

Thank you for the opportunity to comment on the proposed project. For further information or questions, please contact Nisa Marks of this office, at (208) 237-6375.

Sincerely,

David Kampwerth
Field Supervisor

From: Ester Ceja
Sent: Tuesday, April 01, 2014 11:31
To: Marks, Nisa
Cc: Ester Ceja
Subject: RE: Elk Bend sewer district project

Nisa,

Good morning. I was able to obtain responses to your questions. In addition, I asked for approximate distance between the river and the lift stations on the map.

1. Will the proposed rehabilitation of Elk Bend Sewer District Wastewater Treatment Plant result in any water withdrawl from the Salmon River or its tributaries?
   No, the proposed improvements will not result in any water withdrawal from the river or streams.

2. Will the rehab/replacement of the lift station result in any additional disturbance (i.e. outside of current disturbance area) within 100 feet of the river or removal of any riparian vegetation?
   The proposed improvements will not result in disturbance outside the current disturbance area within 100 feet of the river and will not result in the removal of riparian vegetation.

The approximate distance from the river for the three lift stations are:
Elk Bend #1 – Elk Horn Drive – 150 feet
Elk Bend #2 – Treatment Plant – 175 feet
Steelhead Bend – 60 feet

Please let me know if you have any questions.

Thanks,
Ester

From: Marks, Nisa [mailto:nisa_marks@fws.gov]
Sent: Monday, March 31, 2014 9:22 AM
To: Ester Ceja
Subject: Elk Bend sewer district project

Hi Ester,

Would the proposed rehabilitation of Elk Bend Sewer District Wastewater Treatment Plant result in any water withdrawl from the Salmon River or its tributaries? Also, would the rehabilitation/replacement of the lift station result in any additional disturbance (i.e. outside of current disturbance area) within 100' of the River, or removal of any riparian vegetation?

Thanks,

Nisa Marks, Biologist
US Fish and Wildlife Service
Eastern Idaho Field Office
4425 Burley Dr., Suite A
Chubbuck, ID 83202
208-237-6975 x121

From: Chad Fealko - NOAA Federal <chad.fealko@noaa.gov>
Sent: Thursday, March 27, 2014 10:10
To: Ester Ceja
Cc: Bill Lind
Subject: Elk Bend Sewage Treatment Proposal

Ms. Ceja,

This email is in response to your March 25, 2014, letter requesting National Marine Fisheries Service (NMFS) input on proposed modifications to the Elk Bend and Steelhead Bend sewage treatment facilities.

NMFS supports efforts to improve sewage treatment at these sites as it may help improve water quality. The adjacent Salmon River is occupied by Endangered Species Act (ESA) listed Snake River spring/summer Chinook salmon, Snake River sockeye salmon, and Snake River Basin steelhead. The Salmon river is also designated critical habitat for all three species; including the area within 300 feet of the ordinary high water mark for salmon. Improved water quality in the Salmon River may benefit migratory, and juvenile rearing conditions, with limited potential for improving Chinook and steelhead spawning habitat.

Although we support the intent of the proposed action in a general sense, the March 25, 2014, letter and attached map provided little information regarding how the project elements would be completed and thus limits our ability to identify specific potential impacts to anadromous resources. Please consider adopting the following project design features during your environmental review process:

-
- Where construction occurs within riparian conservation areas (RCAs), or in areas where water may concentrate during snowmelt periods, standard sediment and pollutant prevention and retention practices should be utilized (e.g., silt fence, wattles, etc.) and appropriately maintained.
- Equipment and material staging areas should be located in areas lying outside of RCAs, in areas requiring the least amount of new soil disturbance, and outside topographic lows where water may concentrate during snowmelt or storm events.
- Equipment should be cleaned of all dirt, mud, seeds, and vegetative matter prior to arriving on site to reduce risk of invasive species introduction. The same equipment should be cleaned again prior to leaving, if warranted.
-
- Materials resulting from demolition or site preparation should be removed to an appropriate disposal site.
- Fuel storage should occur only within identified staging areas, and equipment refueling should not occur within RCAs. Engine and hydraulic fluids should be monitored for leaks and repaired as needed.
- RCA vegetation should be protected to the extent possible, and disturbed areas promptly rehabilitated.
-
- Prior to beginning work, project sites should be surveyed for noxious weeds and appropriate measures taken to either avoid existing infestations or treat infestations to prevent a local expansion or off-site transport.
- To avoid inadvertent water contamination, ensure sewage is successfully delivered to established treatment areas where it may be properly treated throughout construction; establishment of temporary lift stations/delivery systems may be necessary.
- Consider establishing a water quality monitoring plan to assure sewage treatment successfully prevents contaminating the Salmon River for the life expectancy of the project.

Please contact me for further input or clarification if necessary. Thanks for including us in your scoping effort.

Chad Fealko

Fisheries Biologist
NOAA Fisheries West Coast Region
U.S. Department of Commerce
Office: 208.756.5105
chad.fealko@noaa.gov
www.westcoast.fisheries.noaa.gov

From: Mike May
Sent: Thursday, February 12, 2015 15:31
To: 'Kimberly Murphy - NOAA Federal'
Cc: Skyler Allen (Keller)
Subject: RE: Lemhi County/Elk Bend Sewer District Improvement Project
Attachments: Corps of Engineers Jurisdictional Determination - Elk Bend WWG - 22 May 2014.pdf

Thanks, Kim. To address your specific questions:

- I doubt if the NPDES permit in question is covered under an existing programmatic consultation with NMFS, because it is the Storm Water Construction General Permit (CGP) <yosemite.epa.gov/R10/WATER.NSF/NPDES+Permits/Region+10+CGP+resources>. Applicants sign on to this standard permit by filing a Notice of Intent <water.epa.gov/polwaste/npdes/stormwater/EPA-Construction-General-Permit.cfm>. However, in order to be eligible to obtain coverage under the CGP, applicants must meet one of several endangered species criteria listed in the permit. It appears to me that either Criterion C, D or E will be the one applicable to this project. To quote from the permit (emphasis added)<water.epa.gov/polwaste/npdes/stormwater/upload/cgp2012_appendixd.pdf>:

  Criterion C. Federally-listed threatened or endangered species or their designated critical habitat(s) are likely to occur in or "action area," and your site's discharges and discharge-related activities are **not likely to adversely affect listed endangered species or critical habitat**. This determination may include consideration of any stormwater contro management practices you will adopt to ensure that your discharges and discharge-related activities are not l affect listed species and critical habitat. To make this certification, you must include the following in your NOI: 1 listed species and/or designated habitat located in your "action area"; and 2) the distance between your site species or designated critical habitat (in miles). You must also include a copy of your site map with your NOI.

  Criterion D. **Coordination between you and the Services has been concluded**. The coordination must have addressed the e site's discharges and discharge-related activities on federally-listed threatened or endangered species and fec critical habitat, and must have resulted in a written concurrence from the relevant Service(s) that your site's dis discharge-related activities are not likely to adversely affect listed species or critical habitat. You must include c correspondence between yourself and the Services in your SWPPP and your NOI.

  Criterion E. **Consultation between a Federal Agency and the U.S. Fish and Wildlife Service and/or the National Marine Fishe section 7 of the ESA has been concluded**. The consultation must have addressed the effects of the constructior and discharge-related activities on federally-listed threatened or endangered species and federally-designate The result of this consultation must be either:

  i. a biological opinion that concludes that the action in question (taking into account the effects of your site's discharges an related activities) is not likely to jeopardize the continued existence of listed species, nor the destruction or adverse modifica habitat; or

  ii. written concurrence from the applicable Service(s) with a finding that the site's discharges and discharge-related activitie adversely affect federally-listed species or federally-designated habitat.

  You must include copies of the correspondence between yourself and the Services in your SWPPP and your NOI.

- The Corps of Engineers issued a Jurisdictional Determination (attached) indicating that there are no waters of the US, including wetlands, within the proposed project area
- Federal financing is proposed via the Idaho Clean Water State Revolving Fund
- No biological assessment has been undertaken. If we need one, we will have to address that.

Just so you know the players, Skyler Allen of Keller Associates is the engineer on the project. I am reviewing the Environmental information Document prepared by Keller, and am making this ESA/EFH enquiry as part of our NEPA-like process.

Mike May, Idaho DEQ

From: Kimberly Murphy - NOAA Federal [mailto:kimberly.murphy@noaa.gov]
Sent: Wednesday, February 11, 2015 16:08
To: Mike May
Subject: Re: Lemhi County/Elk Bend Sewer District Improvement Project

Hi Mike,

Based on the limited information that I have it appears that the project action area includes the Salmon River. The Salmon River is occupied by ESA listed Snake River sockeye salmon, Snake River spring/summer Chinook salmon, and Snake River Basin steelhead. The Salmon River is also designated critical habitat for all three species and includes Chinook salmon EFH. Therefore, it is likely that this action will require ESA Section 7 consultation. Because I have not had an opportunity to review a biological assessment for this action I am unable to determine whether the

project will require informal or formal consultation.

Before I can further assist you, I need to better understand what the Federal nexuses are for this action. I see that this project will require an EPA NPDES permit. Do you know whether the NPDES permit is covered under an existing programmatic consultation? Will this project also require a 404 Joint Application permit from the Corps of Engineers/IDWR? Is there Federal funds being used for this project? Is there any other Federal agencies that might be involved on this project? Has a draft biological assessment been written? Please let me know if you have any questions.

Thank you,

Kim

On Tue, Feb 10, 2015 at 3:19 PM, <Michael.May@deq.idaho.gov> wrote:

Thanks, Kimberly. I do still have questions regarding this project. As you can see from the attached map, this is a wastewater upgrade for the Elk Bend Sewer District, south of Salmon Idaho. The project is intended to improve wastewater treatment and limit the potential for uncontrolled release of wastewater to the Salmon River. The scope of the project includes:

- Rehabilitating lift stations at Elk Bend and Steelhead Bend;
- Installing a recirculating gravel filter wastewater treatment system;
- Installing a new large soil absorption system (LSAS)at Elk Bend; and
- Installing underground pipes to transport treated sewage to the land disposal units, *i.e.*, LSAS.

A significant portion of the proposed project activity lies within 300 feet of the river bank, and thus falls within the Chinook Salmon Essential Fish Habitat. Mitigation measures we plan to employ to protect the river and riparian habitat include:

8) Obtain temporary construction NPDES permit for storm water runoff.
9) Utilize Best Management Practices for storm water runoff to prevent oils or sediment from entering surface waters.
10) Construction within riparian conservation areas shall use standard sediment and pollutant prevention and retention practices and vegetation in riparian conservation areas protected to the extent possible and rehabilitated promptly.
11) Equipment staging areas or construction areas for the lift stations between the road and the river should be sloped away from the river to minimize sediment delivery.
12) Equipment and material staging areas, fuel storage, and equipment refueling locations to be outside of riparian conservation areas.
13) Equipment to be cleaned of all dirt, mud, seeds, and vegetative matter prior to arriving on site and (if warranted) cleaned prior to leaving site to protect against invasive species transport.
14) Equipment to be monitored for engine and hydraulic fluid leaks and repaired as needed.
16) Ensure sewage is successfully delivered to established treatment areas where it may be properly treated throughout construction. Temporary facilities may be necessary.
17) A water quality monitoring plan is recommended to assure sewage treatment successfully prevents contaminating the Salmon River for the life expectancy of the project.
18) Due to bald eagle nesting it is recommended that ground disturbing activity be accomplished between August 15 and January 15.

Based on the above information, we believe that the project is Not Likely to Adversely Affect either endangered species or Essential Fish Habitat. We have been in contact with USF&WS, but would also like input from NMFS.

Thank you.

Mike May
Sr. Water Quality Specialist
Idaho Department of Environmental Quality
1410 North Hilton
Boise, Idaho 83706
(208) 373-0406

From: Kimberly Murphy - NOAA Federal [mailto:kimberly.murphy@noaa.gov]
Sent: Monday, February 09, 2015 16:44
To: Mike May
Subject: Lemhi County/Elk Bend Sewer District Improvement Project

Hi Michael,

I have tried several times to reach you by phone regarding the Lemhi County/Elk Bend Sewer District Improvement Project. Unfortunately, we have been playing phone tag. I wanted to check in with you one last time, using e-mail, to see if you have any questions regarding this project. If you do have any questions please let me know.

Thank you,

Kim

--
Kimberly Murphy
Fisheries Biologist
NOAA Fisheries West Coast Region
U.S. Department of Commerce
Office: 208.756.5180
Fax: 208.756.5199
Kimberly.Murphy@noaa.gov

www.westcoast.fisheries.noaa.gov

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Kimberly Murphy
Fisheries Biologist
NOAA Fisheries West Coast Region
U.S. Department of Commerce
Office: 208.756.5180
Fax: 208.756.5199
Kimberly.Murphy@noaa.gov

www.westcoast.fisheries.noaa.gov

MEMO

TO:	SKYLER ALLEN, KELLER ASSOCIATES
FROM:	ESTER CEJA – DEQ GRANT AND LOAN PROGRAM
SUBJECT:	ELK BEND WATER DISTRICT – WASTEWATER IMPROVEMENT PROJECT - THREATENED/ENDANGERED SPECIES AND ESSENTIAL FISH HABITAT
DATE:	APRIL 28, 2014

The Elk Bend Sewer District wastewater improvement project includes the following improvements:

Elk Bend

- Rehabilitation/replacement of two lift stations
- Installation of a recirculating media filter at the treatment plant
- New large soil absorption system for treated wastewater disposal

Steelhead Bend

- Rehabilitation/replacement of the lift station
- Replacement/repair of mechanical components at the treatment plant

The U.S. Fish and Wildlife (USFWS) threatened and endangered species list revised date of 10/22/2013 was used for determining endangered, threatened, and proposed species within Lemhi County. The USFWS was consulted and provided a response on April 1, 2014. There response is attached. The following species are listed within Lemhi County:

1. **Bull Trout** (threatened/designated critical habitat) – Bull trout are cold-water fish. The species must have the following: colder water; clean stream substrates for spawning and rearing; complex habitats with deep pools, undercut banks and lots of large logs; and lake and river connectivity to headwater streams for annual spawning and feeding migrations. The Salmon River provides habitat for Bull Trout and the species is sensitive to sediment. Due to the proximity of the proposed improvements, the USFWS has requested the following measures be implemented with the primary goal of making sure there is absolutely no sediment entering the Salmon River. DEQ is requiring that these measures are strictly followed. By following these measures the proposed project will have "NO EFFECT" on Bull Trout.

   (a) Implementation of best management practices to avoid and minimize the introduction of sediment into the river.
      a. Use erosion control waddles, sediment drift, fences, or other barriers to sediment traveling off the project area.

(b) Equipment staging areas or construction area for the two lift stations that are between the road and the river be slanted away from the river, towards the road, to minimize sediment delivery.

(c) Any other practices that would minimize the possibility of sedimentation should be incorporated as part of the project plans, to avoid the possibility of adverse effects to bull trout.

2. **Canada Lynx** (threatened species) – The Canadian Lynx reside in boreal forest landscapes and provide one or more of the following beneficial habitat elements including snowshoe hares for prey, abundant, large, woody debris piles that are used as dens, and winter snow conditions that are generally deep and fluffy for extended period of time. There are no boreal forests landscapes within the proposed project planning area. The proposed project will have "NO EFFECT" on the Canadian Lynx.

3. **Greater Sage-Grouse** (candidate) - Grouse reside in Sagebrush Steppe environments. The proposed project improvements are not located in priority habitat for Sage Grouse. In addition, the proposed improvements will take place at existing facilities and in adjacent property that has experienced some ground disturbance. The proposed project will have "NO EFFECT" on Sage Grouse.

4. **North American Wolverine** (candidate) - The North American Wolverine is a proposed species which does not reside in the proposed project planning area, located at an elevation of about 4400 feet. Wolverines distribution is restricted to high elevation, deep persistent, and reliable spring snow cover (April 15 to May 14) is the best overall predictor of wolverine occurrence in the contiguous U.S. (http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=A0FA). The proposed project will have a "NO EFFECT" on the wolverine species.

5. **Whitebark Pine** (candidate species) – The Whitebark Pine is a 5 needle conifer species. The species occurs from approximately 2,950 feet at its northern limit in British Columbia up to 12,000 feet in the Sierra Nevada. The Whitebark Pine is typically found at or slightly lower than alpine timberline in the upper montane zone. In the U.S. it is primarily found on public lands. The project location consists of desert landscape and will have "NO EFFECT" on Whitebark Pine.

6. **Yellow-Billed Cuckoo** (proposed) - Western cuckoos breed in large blocks of riparian habitats, particularly woodlands with cottonwoods and willows. Generally local and uncommon in scattered drainages of the arid and semiarid portions of western Colorado, western Wyoming, Idaho, Nevada and Utah. In southwestern Idaho, the yellow-billed cuckoo has been considered a rare, sometimes erratic, visitor and breeder in the Snake River Valley. No known Yellow-Billed Cuckoo's have been sited in the area. In addition, the work being proposed will take place at existing facility locations or in areas absent of woodlands with cottonwood and willows. The project will have "NO EFFECT" to the Cuckoo.

Essential Fish Habitat
The Elk Bend Sewer District wastewater improvement project is located within Essential Fish Habitat (EFH) for Salmon as identified in the attached EFH map and the National Fisheries Marine Services (NMFS) has provided the following response dated March 27, 2014 (see attached email).

DEQ is requiring that the NMFS comments are implemented as part of the project design in an effort to avoid adverse impacts to both the following species and their habitat: Snake River spring/summer Chinook salmon, Snake River sockeye salmon, and Snake River Basin steelhead.

- Where construction occurs within riparian conservation areas (RCAs), or in areas where water may concentrate during snowmelt periods, standard sediment and pollutant prevention and retention practices should be utilized (e.g., silt fence, wattles, etc.) and appropriately maintained.
- Equipment and material staging areas should be located in areas lying outside of RCAs, in areas requiring the least amount of new soil disturbance, and outside topographic lows where water may concentrate during snowmelt or storm events.
- Equipment should be cleaned of all dirt, mud, seeds, and vegetative matter prior to arriving on site to reduce risk of invasive species introduction. The same equipment should be cleaned again prior to leaving, if warranted.
- Materials resulting from demolition or site preparation should be removed to an appropriate disposal site.
- Fuel storage should occur only within identified staging areas, and equipment refueling should not occur within RCAs. Engine and hydraulic fluids should be monitored for leaks and repaired as needed.
- RCA vegetation should be protected to the extent possible, and disturbed areas promptly rehabilitated.
- Prior to beginning work, project sites should be surveyed for noxious weeds and appropriate measures taken to either avoid existing infestations or treat infestations to prevent a local expansion or off-site transport.
- To avoid inadvertent water contamination, ensure sewage is successfully delivered to established treatment areas where it may be properly treated throughout construction; establishment of temporary lift stations/delivery systems may be necessary.
- Consider establishing a water quality monitoring plan to assure sewage treatment successfully prevents contaminating the Salmon River for the life expectancy of the project.

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Eastern Idaho Field Office
4425 Burley Dr., Suite A
Chubbuck, Idaho 83202
Telephone (208) 237-6975
http://IdahoES.fws.gov

Ester Ceja, Sr. Water Quality Analyst
State of Idaho Department of Water Quality
1410 North Hilton
Boise, Idaho 83706

APR 01 2014

RECEIVED

APR 04 2014

DEPARTMENT OF ENVIRONMENTAL QUALITY
STATE WATER QUALITY PROGRAMS

Subject: Elk Bend Sewer District Wastewater Improvement Project
In Reply Refer To: 01EIFW00-2014-TA-0309

Dear Ms. Ceja:

We have reviewed your March 25, 2014, letter, received by our office on March 27, 2014, requesting our comments pursuant to section 7 of the Endangered Species Act of 1973 (Act), as amended (16 U.S.C. 1531 *et seq.*), on the proposed rehabilitation or replacement of three lift stations associated with wastewater treatment in Lemhi County, Idaho, by the Elk Bend Sewer District (District). Under the Act, it is incumbent upon Federal action agencies to determine whether proposed projects would affect listed species. Per your request, we provide these comments on potential impacts to listed species in order to inform your State Environmental Review Process and decision making process.

The Salmon River provides habitat for the threatened Columbia River bull trout (*Salvelinus confluentus*). Bull trout are sensitive to sediment, which can cause abrasion or interference with gill function. Because parts of the project would occur within 200 feet of the Salmon River, we recommend the District implement Best Management Practices to avoid and minimize the introduction of sediment into the river. For example, we recommend the District use erosion control waddles, sediment drift fences, or other barriers to sediment traveling off the project area. If feasible, we recommend that the equipment staging areas or construction area for the two lift stations that are between the road and the river be slanted away from the river, towards the road, to minimize sediment delivery. Any other practices that would minimize the possibility of sedimentation should be incorporated as part of project plans, to avoid the possibility of adverse effects to bull trout.

This letter does not provide an exemption for take under the Act. If the Idaho Department of Environmental Quality determines that the project may affect a listed species, consultation with the Service, pursuant to the Act, would be required.

Thank you for the opportunity to comment on the proposed project. For further information or questions, please contact Nisa Marks of this office, at (208) 237-6375.

Sincerely,

David Kampwerth
Field Supervisor

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Eastern Idaho Field Office
4425 Burley Dr., Suite A
Chubbuck, Idaho 83202
Telephone (208) 237-6975
http://IdahoES.fws.gov

Ester Ceja, Sr. Water Quality Analyst
State of Idaho Department of Water Quality
1410 North Hilton
Boise, Idaho 83706

APR 0 1 2014

Subject: Elk Bend Sewer District Wastewater Improvement Project
In Reply Refer To: 01EIFW00-2014-TA-0309

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Thank you for the opportunity to comment on the proposed project. For further information or questions, please contact Nisa Marks of this office, at (208) 237-6375.

Sincerely,

David Kampwerth
Field Supervisor

Ester Ceja

From: Chad Fealko - NOAA Federal <chad.fealko@noaa.gov>
Sent: Thursday, March 27, 2014 10:10 AM
To: Ester Ceja
Cc: Bill Lind
Subject: Elk Bend Sewage Treatment Proposal

Ms. Ceja,

This email is in response to your March 25, 2014, letter requesting National Marine Fisheries Service (NMFS) input on proposed modifications to the Elk Bend and Steelhead Bend sewage treatment facilities.

NMFS supports efforts to improve sewage treatment at these sites as it may help improve water quality. The adjacent Salmon River is occupied by Endangered Species Act (ESA) listed Snake River spring/summer Chinook salmon, Snake River sockeye salmon, and Snake River Basin steelhead. The Salmon river is also designated critical habitat for all three species; including the area within 300 feet of the ordinary high water mark for salmon. Improved water quality in the Salmon River may benefit migratory, and juvenile rearing conditions, with limited potential for improving Chinook and steelhead spawning habitat.

Although we support the intent of the proposed action in a general sense, the March 25, 2014, letter and attached map provided little information regarding how the project elements would be completed and thus limits our ability to identify specific potential impacts to anadromous resources. Please consider adopting the following project design features during your environmental review process:

-
- Where construction occurs within riparian conservation areas (RCAs), or in areas where water may concentrate during snowmelt periods, standard sediment and pollutant prevention and retention practices should be utilized (e.g., silt fence, wattles, etc.) and appropriately maintained.
- Equipment and material staging areas should be located in areas lying outside of RCAs, in areas requiring the least amount of new soil disturbance, and outside topographic lows where water may concentrate during snowmelt or storm events.
- Equipment should be cleaned of all dirt, mud, seeds, and vegetative matter prior to arriving on site to reduce risk of invasive species introduction. The same equipment should be cleaned again prior to leaving, if warranted.
-
- Materials resulting from demolition or site preparation should be removed to an appropriate disposal site.
- Fuel storage should occur only within identified staging areas, and equipment refueling should not occur within RCAs. Engine and hydraulic fluids should be monitored for leaks and repaired as needed.
- RCA vegetation should be protected to the extent possible, and disturbed areas promptly rehabilitated.
-
- Prior to beginning work, project sites should be surveyed for noxious weeds and appropriate measures taken to either avoid existing infestations or treat infestations to prevent a local expansion or off-site transport.
- To avoid inadvertent water contamination, ensure sewage is successfully delivered to established treatment areas where it may be properly treated throughout construction; establishment of temporary lift stations/delivery systems may be necessary.

- Consider establishing a water quality monitoring plan to assure sewage treatment successfully prevents contaminating the Salmon River for the life expectancy of the project.

Please contact me for further input or clarification if necessary. Thanks for including us in your scoping effort.

Chad Fealko

Fisheries Biologist
NOAA Fisheries West Coast Region
U.S. Department of Commerce
Office: 208.756.5105
chad.fealko@noaa.gov
www.westcoast.fisheries.noaa.gov

NOAA FISHERIES
West Coast Region

This list was revised by the USFWS on October 22, 2013.

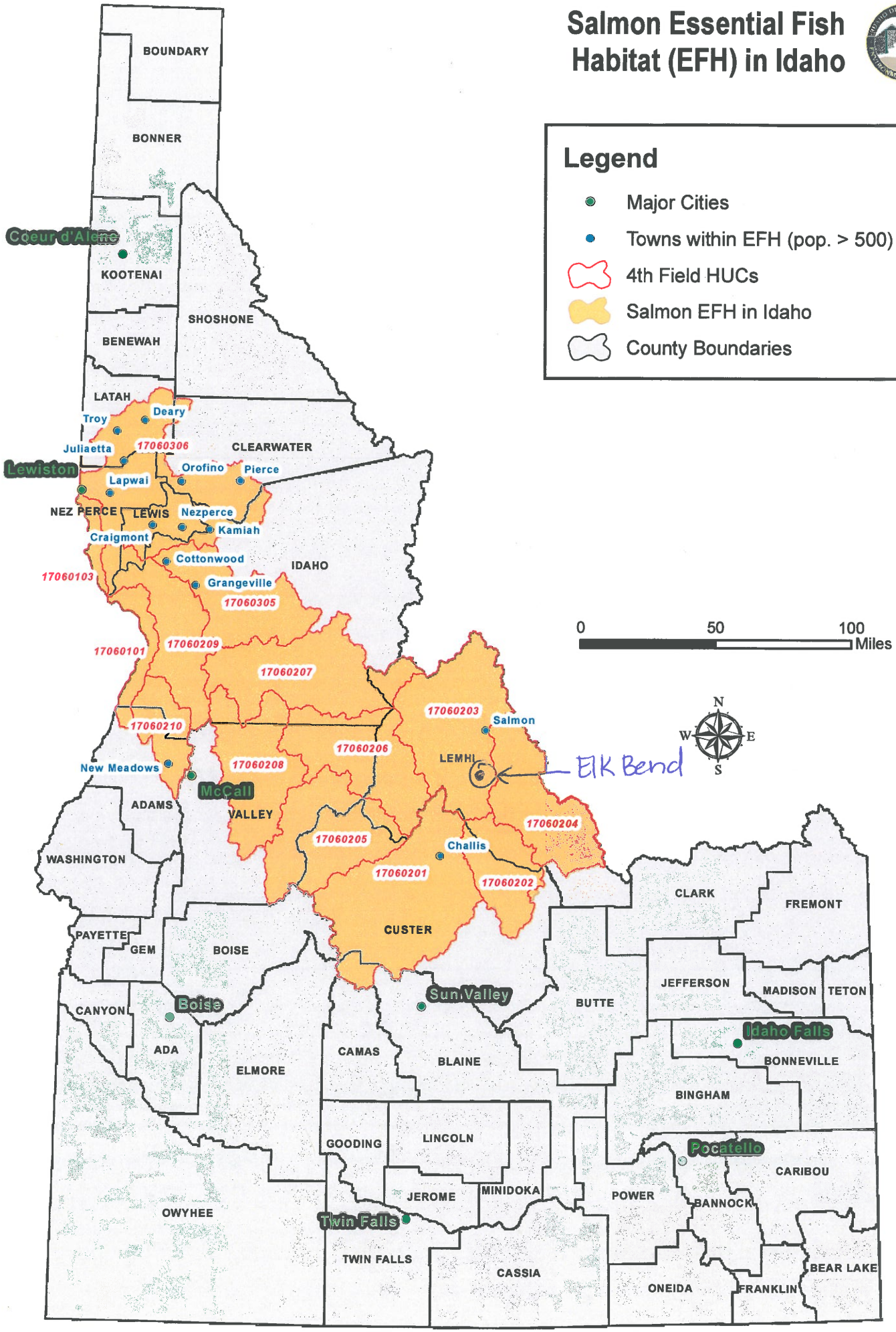
U.S. Fish and Wildlife Service • Idaho Fish and Wildlife Office

CANDIDATE, PROPOSED AND LISTED SPECIES & PROPOSED AND DESIGNATED CRITICAL HABITAT IN IDAHO

	Herps	Birds		Mammals						Fish		Mollusks				Plants							
Common Name	Columbia Spotted Frog (Great Basin Population)	Greater Sage-Grouse	Yellow-Billed Cuckoo	Canada Lynx	Grizzly Bear	Northern Idaho Ground Squirrel	Selkirk Mountains Woodland Caribou	Southern Idaho Ground Squirrel	North American Wolverine	Bull Trout	Kootenai River White Sturgeon	Banbury Springs Lanx	Bliss Rapids Snail	Bruneau Hot Springsnail	Snake River Physa	Goose Creek Milkvetch	MacFarlane's Four-O'Clock	Packard's Milkvetch	Slickspot Peppergrass	Spalding's Catchfly	Ute Ladies'-Tresses	Water Howellia	Whitebark Pine
Scientific Name	*Rana luteiventris*	*Centrocercus urophasianus*	*Coccyzus americanus*	*Lynx canadensis*	*Ursus arctos horribilis*	*Spermophilus brunneus brunneus*	*Rangifer tarandus caribou*	*Spermophilus brunneus endemicus*	*Gulo gulo luscus*	*Salvelinus confluentus*	*Acipenser transmontanus*	*Lanx* sp.	*Taylorconcha serpenticola*	*Pyrgulopsis bruneauensis*	*Haitia (Physa) natricina*	*Astragalus anserinus*	*Mirabilis macfarlanei*	*Astragalus cusickii var. parkardiae*	*Lepidium papilliferum*	*Silene spaldingii*	*Spiranthes diluvialis*	*Howellia aquatilis*	*Pinus albicaulis*
Gooding		C										E	T		E								
Idaho				T					P	T-DCH							T			T			C
Jefferson		C	P	T					P												T		
Jerome		C											T		E								
Kootenai			P	T					P	T-DCH										T		T	
Latah				T					P											T		T	
Lemhi		C	P	T					P	T-DCH													C
Lewis										T-DCH										T			
Lincoln		C	P																				
Madison		C	P	T					P												T		
Minidoka		C	P												E								
Nez Perce				T						T-DCH										T			
Oneida		C																					
Owyhee	C	C	P							T-DCH				E	E				P-PCH				
Payette		C						C		T					E			C	P-PCH				
Power		C	P																				
Shoshone				T					P	T-DCH										T		T	C
Teton				T	T				P														C
Twin Falls	C	C											T		E								
Valley				T		T			P	T-DCH													C
Washington		C				T		C	P	T-DCH					E								C

Table Key: C = Candidate Species P= Proposed Species T=Threatened Species E=Endangered Species PCH= Proposed Critical Habitat DCH=Designated Critical Habitat

Salmon Essential Fish Habitat (EFH) in Idaho



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Idaho Fish and Wildlife Office
1387 SOUTH VINNELL WAY, SUITE 368
BOISE, ID 83709
PHONE: (208)378-5243 FAX: (208)378-5262

Consultation Code: 01EIFW00-2016-SLI-0218 December 18, 2015
Event Code: 01EIFW00-2016-E-00207
Project Name: Elk Bend Sewer District Wastewater Improvements

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having

similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

Please note: The IPaC module for producing a list of proposed and designated critical habitat is currently incomplete. At this time, we ask that you use the information given below to determine whether your action area falls within a county containing proposed/designated critical habitat for a specific species. If you find that your action falls within a listed county, use the associated links for that species to determine if your action area actually overlaps with the proposed or designated critical habitat.

Canada Lynx (*Lynx canadensis*) - *Designated February 24, 2009.*
Counties: Boundary County.

Federal Register Notice:
http://www.gpo.gov/fdsys/pkg/FR-2009-02-25/pdf/E9-3512.pdf#page=1
Printable Maps:
http://www.fws.gov/mountain-prairie/species/mammals/lynx/criticalhabitat_files/20081222_fedre

GIS Data: http://criticalhabitat.fws.gov/docs/crithab/zip/lunx_ch.zip
KML for Google Earth: (None Currently Available)

Selkirk Mountains Woodland Caribou (*Rangifer tarandus Caribou*) - *Proposed November 30, 2011.*
Counties: Bonner and Boundary Counties.

Federal Register Notice: http://www.fws.gov/idaho/home/2011-30451FINALR.pdf
Printable Maps: http://www.fws.gov/idaho/home/Map1_sub1_150.pdf
GIS Data: (None Currently Available)
KML for Google Earth: (None Currently Available)

Bull Trout (*Salvelinus confluentus*) - *Designated September 30, 2010.*
Counties: Adams, Benewah, Blaine, Boise, Bonner, Boundary, Butte, Camas, Clearwater, Custer, Elmore, Gem, Idaho, Kootenai, Lemhi, Lewis, Nez Perce, Owyhee, Shoshone, Valley, and Washington Counties.

Federal Register Notice:
http://www.gpo.gov/fdsys/pkg/FR-2010-10-18/pdf/2010-25028.pdf#page=2
Printable Maps: http://www.fws.gov/pacific/bulltrout/CH2010_Maps.cfm#CHMaps
GIS Data: http://criticalhabitat.fws.gov/docs/crithab/zip/bulltrout.zip
KML for Google Earth:
http://www.fws.gov/pacific/bulltrout/finalcrithab/BT_FCH_2010_KML.zip

Kootenai River White Sturgeon (*Acipenser transmontanus*) - *Designated July 9, 2008.*
Counties: Boundary County.

Federal Register Notice:
http://www.gpo.gov/fdsys/pkg/FR-2008-07-09/pdf/E8-15134.pdf#page=1
Printable Maps: (None Currently Available)
GIS Data: http://criticalhabitat.fws.gov/docs/crithab/zip/fch_73fr39506_acit_2009.zip
KML for Google Earth: (None Currently Available)

Slickspot Peppergrass (*Lepidium papilliferum*) - Proposed May 10, 2011. Counties: Ada, Canyon, Elmore, Gem, Owyhee, and Payette Counties.

Federal Register Notice: http://www.gpo.gov/fdsys/pkg/FR-2011-10-26/pdf/2011-27727.pdf
Printable Maps: http://www.fws.gov/idaho/Lepidium.html
GIS Data: (None Currently Available)
KML for Google Earth: (None Currently Available)

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment

United States Department of Interior
Fish and Wildlife Service

Project name: Elk Bend Sewer District Wastewater Improvements

Official Species List

Provided by:

Idaho Fish and Wildlife Office
1387 SOUTH VINNELL WAY, SUITE 368
BOISE, ID 83709
(208) 378-5243

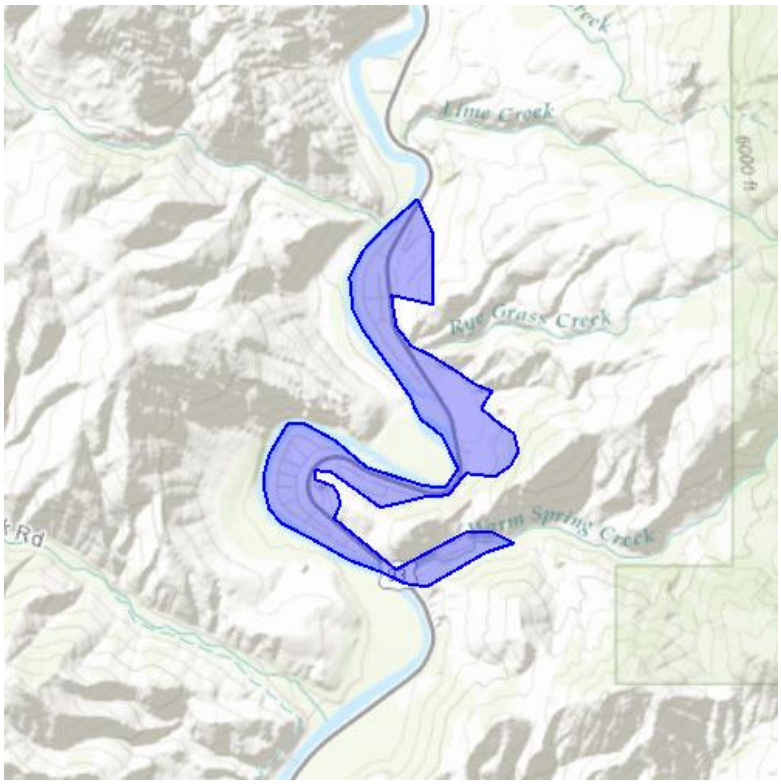
Consultation Code: 01EIFW00-2016-SLI-0218
Event Code: 01EIFW00-2016-E-00207

Project Type: WASTEWATER FACILITY

Project Name: Elk Bend Sewer District Wastewater Improvements
Project Description: * Construct new recirculating gravel filter WWTP and pressure line and replace existing large soil absorption system at Elk Bend;
* Rehab existing WWTF at Steelhead Bend; and
*Rehab Steelhead Bend lift station and Elk Bend lift station #1 w/ new pumps and electrical equipment.

Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.

Project Location Map:



Project Coordinates: The coordinates are too numerous to display here.

Project Counties: Lemhi, ID

Endangered Species Act Species List

There are a total of 3 threatened, endangered, or candidate species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Conifers and Cycads	**Status**	**Has Critical Habitat**	**Condition(s)**
Whitebark pine *(Pinus albicaulis)*	Candidate		
Fishes			
Bull Trout *(Salvelinus confluentus)* Population: U.S.A., conterminous, lower 48 states	Threatened	Final designated	
Mammals			
Canada Lynx *(Lynx canadensis)* Population: Contiguous U.S. DPS	Threatened	Final designated	

Critical habitats that lie within your project area

The following critical habitats lie fully or partially within your project area.

Fishes	Critical Habitat Type
Bull Trout *(Salvelinus confluentus)* Population: U.S.A., conterminous, lower 48 states	Final designated

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
West Coast Region
7600 Sand Point Way N.E., Bldg. 1
Seattle, WA 98115

Refer to NMFS No: 2015-3698

November 24, 2015

Bryan Fiedorczyk
U.S. Environmental Protection Agency, Region 10
Clean Water State Revolving Fund
1200 Sixth Avenue, Suite 900
Seattle, Washington 98101-3140

Mike May
Idaho Department of Environmental Quality
Senior Water Quality Specialist
1410 North Hilton
Boise, Idaho 83706

Re: Endangered Species Act Section 7(a)(2) Concurrence Letter and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Response for the Elk Bend Water & Sewer District Wastewater Improvement Project; Salmon River-Rattlesnake Creek (171602030301), Lemhi County, Idaho (One Project)

Dear Mr. Fiedorczyk and Mr. May:

On November 2, 2015, NOAA's National Marine Fisheries Service (NMFS) received your request for a written concurrence that the Elk Bend Water & Sewer District Wastewater Improvement Project is not likely to adversely affect (NLAA) species listed as threatened or endangered or critical habitats designated under the Endangered Species Act (ESA). This response to your request was prepared by NMFS pursuant to section 7(a)(2) of the ESA, implementing regulations at 50 CFR 402, and agency guidance for preparation of letters of concurrence.

NMFS also reviewed the proposed action for potential effects on essential fish habitat (EFH) designated under the Magnuson-Stevens Fishery and Conservation Management Act (MSA), including conservation measures and any determination that you made regarding the potential effects of the action. This review was pursuant to section 305(b) of the MSA, implementing regulations at 50 CFR 600.920, and agency guidance for use of the ESA consultation process to complete EFH consultation. In this case, NMFS concluded that the action would not adversely affect EFH. Thus, consultation under the MSA is not required for this action.

This letter underwent pre-dissemination review using standards for utility, integrity, and objectivity in compliance with applicable guidelines issued under the Data Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001, Public Law 106-554). The concurrence letter will be available through NMFS' Public Consultation Tracking System [https://pcts.nmfs.noaa.gov]. A complete record of this consultation is on file at the Snake Basin Area Office, Boise, Idaho.

Proposed Action and Action Area

The proposed project is expected to be financed by the Idaho Clean Water State Revolving Fund, which is funded through the U.S. Environmental Protection Agency (EPA) (Federal nexus and lead action agency). Additional financing is being provided by a Community Development Block Grant using Federal funds administered by the Idaho Department of Commerce and by funds from the U.S. Department of Agriculture Rural Utilities Service. The Idaho Department of Environmental Quality (IDEQ) is the Federal grant recipient. The project will upgrade the existing wastewater systems that serve two small residential areas in Elk Bend and Salmon Bend near the city of Elk Bend, Idaho. The current systems were constructed in the 1970s, and are in poor condition. At least one incident involving sewage overflow to the ground surface has occurred. The project is designed to improve water quality because no wastewater discharge to the Salmon River will occur. Construction is expected to be completed during the summer of 2016; however, a construction schedule has not been determined and could occur at a later time.

Activities associated with this project include: (1) Construction of a new recirculating gravel filter (RGF) wastewater treatment facility (WWTF) and pressure sewer line at Elk Bend; (2) replacement of the existing large soil absorption system (LSAS) with a new LSAS at Elk Bend; (3) rehabilitation of the existing WWTF at Steelhead Bend; and (4) rehabilitation of the Steelhead Bend Lift Station and Elk Bend Lift Station #1 with new pumps and electrical equipment; removal of worn equipment and piping, rehabilitating the wet well, installing new piping, new electrical and control equipment, and weather protection (Figure 1). The RGF system would be sized for the treatment of 26,000 gallons per day (gpd) average and 40,000 gpd peak. Elk Bend annual average flows are estimated to increase from 16,000 gpd currently, to 20,000 gpd in 20 years, and 24,000 gpd in 40 years. Steelhead Bend annual average flows are estimated to increase from 5,000 gpd currently, to 6,000 gpd in 20 years, and 7,500 gpd in 40 years.

The project does not involve any water withdrawal from or discharge to the Salmon River or any of its tributaries. No ground disturbance or riparian vegetation removal within 100 feet of the river or its tributaries is anticipated, with the exception of the Steelhead Bend lift station. Ground disturbance for rehabilitation of this lift station will extend to within 75 feet of the Salmon River. The U.S. Army Corps of Engineers (COE) issued an Approved Jurisdictional Determination on May 22, 2014, stating that all project work is in uplands not containing waters of the U.S., including wetlands. Therefore, no COE permit is required.

A nutrient-pathogen evaluation to estimate the effects of the new LSAS on groundwater and surface water quality was conducted in accordance with Idaho Individual Subsurface Sewage

Disposal rules and guidance. Modeling projected that the ground water nitrate/nitrite concentration at the riverbank would not exceed 1.3 mg N/L, and instream total phosphorus would be less than 0.4 µg P/L under annual low streamflow of 900 cubic feet per second and 20,000 gpd sanitary flow. Even allowing for larger wastewater flows of 25,550 gpd would not raise instream concentrations above 0.5 µg P/L and 0.1 µg N/L.

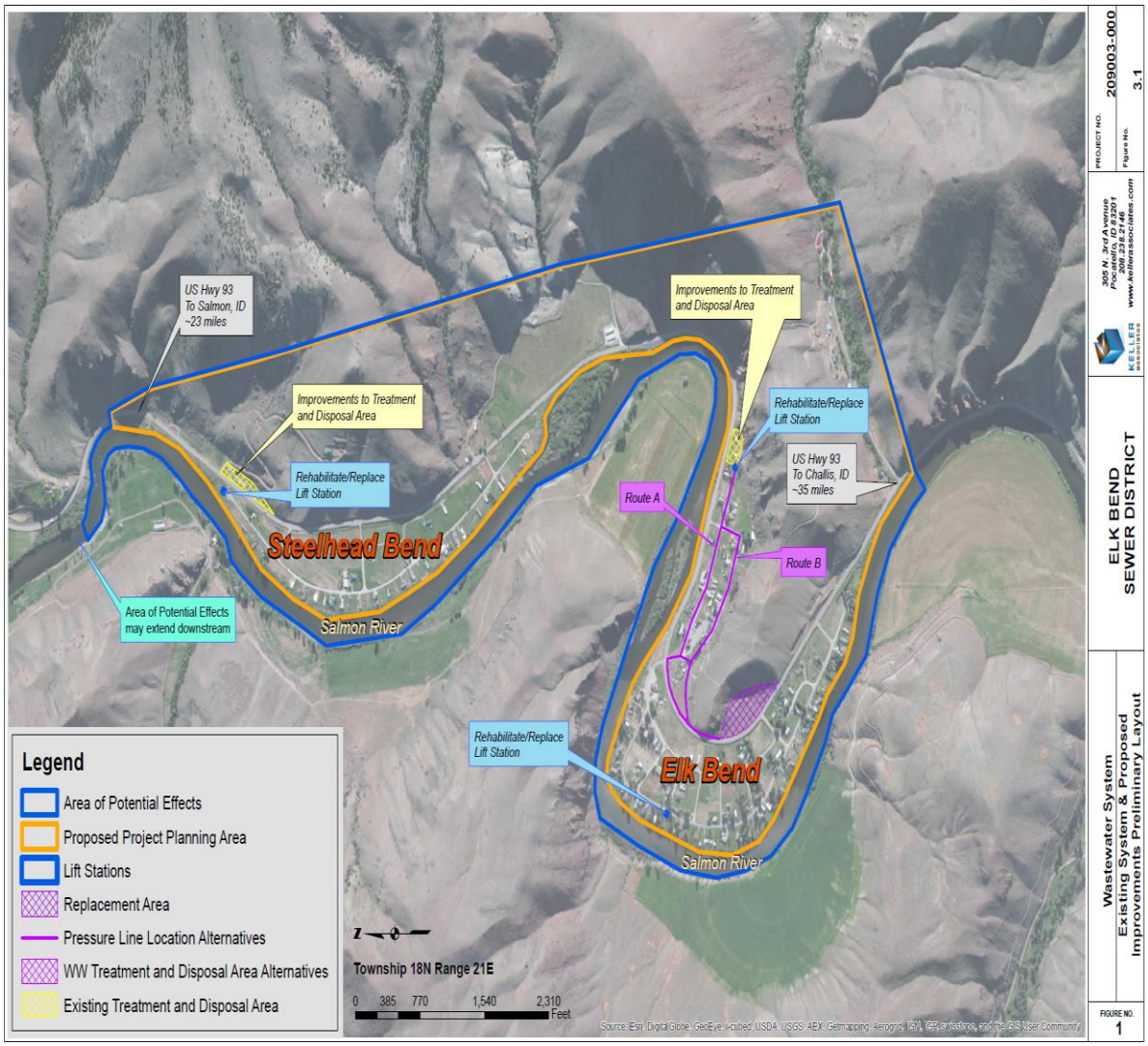


Figure 1. Elk Bend Water & Sewer District Wastewater Improvement Project.

The following notable project design criteria (PDC) are incorporated into the proposed action and will be employed to minimize and avoid the risk of adverse effects:

1. Prior to beginning work, project sites will be surveyed for noxious weeds and appropriate measures taken to either avoid existing infestations or treat infestations to prevent a local expansion or off-site transport.

2. Where construction activities occur within 75 feet of stream channels or standing water, or in areas where water may concentrate during snowmelt periods, standard sediment and pollutant prevention and retention practices will be utilized (e.g., silt fence, wattles) and appropriately maintained.

3. Fuel storage will occur only within staging areas, and refueling will not occur within 150 feet of streams. If fueling must occur at less than 150 feet, it will occur inside an impervious containment structure with a volumetric holding capacity equal to at least 110% of the fueling tank. Engine and hydraulic fluids will be monitored for leaks. Spill packs will also be on hand for minor leaks/spills.

4. Washing of tools and equipment will occur only within staging areas, or other areas approved by IDEQ, where there is no potential for rinsate to reach surface waters.

5. To minimize the potential for introducing hazardous material to the aquatic system, a spill prevention and control countermeasures plan will be prepared by the contractor and approved by IDEQ prior to project initiation.

6. No construction will occur within wetland or riparian conditions.

7. Equipment and material staging areas should be located in areas lying outside of resource conservation areas (RCAs), in areas requiring the least amount of new soil disturbance, and outside topographic lows where water may concentrate during snowmelt or storm events.

8. Equipment staging or construction areas for the two lift stations must be slanted away from the river, towards the road, to minimize sediment delivery to the Salmon River.

9. Equipment should be cleaned of all dirt, mud, seeds, and vegetative matter prior to arriving on site to reduce risk of invasive species introduction. The same equipment should be cleaned again prior to leaving, if warranted.

10. Materials resulting from demolition or site preparation should be removed to an appropriate disposal site.

11. RCA vegetation should be protected to the extent possible and disturbed areas promptly rehabilitated.

12. No trees will be removed.

13. To avoid inadvertent water contamination, sewage shall be successfully delivered to established treatment areas where it may be properly treated throughout construction; establishment of temporary lift stations/delivery systems may be necessary.

14. Establish groundwater quality monitoring requirements in the LSAS permit to ensure sewage treatment successfully prevents contaminating the Salmon River for the life expectancy of the project. NMFS will be provided a copy of the permit, and will be notified if results of water quality monitoring indicate any type of contamination to the Salmon River is occurring.

15. If poured-in-place concrete is used, measures shall be taken to prevent green concrete from entering the Salmon River or any other body of water.

16. Vibratory compaction will be used, but vibratory or impact hammers will not be used.

17. All surplus excavated material will be removed from the site to a designated upland site(s) away from any watercourses, rendering them unavailable to enter the stream channel as a result of storm runoff or a high water event.

Action Agency's Effects Determination

Snake River sockeye salmon, Snake River spring/summer Chinook salmon, and Snake River Basin steelhead are likely to occur within the action area. The action is within designated critical habitat for all three species (Table 1). This reach of river serves primarily as a migratory corridor for Chinook salmon and steelhead, and no spawning activities or redds are expected either in or downstream of the action area. Similarly, this river reach is only utilized by sockeye as they migrate to and from the Salmon River headwaters, near Stanley, Idaho. All sockeye reproduction and rearing occurs upstream of the proposed project area. No sockeye spawning activities or redds are expected either in or downstream of the action area. Juvenile steelhead, Chinook salmon, and sockeye salmon could be migrating past the project area during the proposed timing of the project.

The Federal grant recipient, IDEQ, made a NLAA effects determination for the project on Snake River sockeye salmon, Snake River spring/summer Chinook salmon, Snake River Basin steelhead, and designated critical habitat for each of the three species. They also made a no adverse effect determination for EFH. The IDEQ made this determination because the project will occur outside of the ordinary high water mark (OHWM), approximately 75 to 100 feet from the Salmon River, and has the potential for short term, temporary effects on water quality (i.e., temperature, sediment, chemical contaminants/nutrients).

Table 1. Federal Register notices for final rules that list threatened and endangered species, designated critical habitat, or apply protective regulations to listed species considered in this consultation.

Species	Listing Status	Critical Habitat	Protective Regulations
Chinook salmon (*Oncorhynchus tshawytscha*)			
Snake River spring/summer run	T 8/15/11; 76 FR 50448	12/28/93; 58 FR 68543 10/25/99; 64 FR 57399	6/28/05; 70 FR 37160
Sockeye salmon (*O. nerka*)			
Snake River	E 8/15/11 76 FR 50448	12/28/93; 58 FR 68543	ESA Section 9 applies
Steelhead (*O. mykiss*)			
Snake River Basin	T 8/15/11; 76 FR 50448	9/02/05; 70 FR 52630	6/28/05; 70 FR 37160

Note: Listing status: 'T' means listed as threatened under the ESA; 'E' means listed as endangered

Consultation History

The IDEQ submitted a request for consultation on this action in an email dated July 17, 2015. NMFS requested additional information in an e-mail dated July 21, 2015. NMFS and IDEQ corresponded on edits to the proposed action by e-mail. On November 2, 2015, NMFS received a revised request for a written concurrence that the proposed Elk Bend Water & Sewer District Wastewater Improvement Project is NLAA ESA-listed species or designated critical habitats. On November 13, 2015, IDEQ sent an email to NMFS confirming that groundwater quality monitoring requirements would be included in the LSAS permit.

ENDANGERED SPECIES ACT

Effects of the Action

Under the ESA, "effects of the action" means the direct and indirect effects of an action on the listed species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action (50 CFR 402.02). The applicable standard to find that a proposed action is NLAA listed species or critical habitat is that all of the effects of the action are expected to be discountable, insignificant, or completely beneficial. Beneficial effects are contemporaneous positive effects without any adverse effects to the species or critical habitat. Insignificant effects relate to the size of the impact and should never reach the scale where take occurs. Discountable effects are those extremely unlikely to occur. The IDEQ did not identify any interrelated and interdependent actions associated with this proposed action.

Species Determination

The proposed action has the potential to affect juvenile ESA-listed Snake River spring/summer Chinook salmon, Snake River sockeye salmon, and Snake River Basin steelhead. Adult steelhead are spring spawners, and may also still be within the action area when project work begins. Adult Chinook salmon and sockeye are fall spawners, and could

also be present during project implementation depending on when the project is completed. As previously stated, this reach of river serves primarily as a migratory corridor for all three ESA-listed fish species, and no spawning activities or redds are expected either in or downstream of the action area. There is limited rearing habitat for steelhead and Chinook salmon in the action area. The proposed action could potentially affect ESA-listed fish species through habitat-related effects to water quality (i.e., increased turbidity and/or introduction of toxic chemicals) or substrate composition.

The proposed action has the potential to affect water quality by generating minor amounts of turbidity due to project-associated soil disturbance. The timing, duration, and sediment concentrations that are likely to occur in the action area from project activities are not likely to cause harm or lethal effects to juvenile fish that may be present because of the low magnitude, infrequent, and discontinuous nature of the expected turbidity pulses. The risk that ESA-listed fish will be affected by turbidity is further minimized because all construction activities will occur 75 to 100 feet or more from the Salmon River within the existing access area footprint, no inwater work will occur, and silt fencing will be installed between the project area and the Salmon River as part of this action. Therefore, turbidity pulses will be small and localized, should they occur, and will not reach levels that will extend across the entire width of the Salmon River. If any pulses do occur, ESA-listed fish present will be readily able to move without harm to less turbid waters much as they would avoid any natural perturbation. Because PDC should effectively avoid and minimize sediment introductions from upland construction activities and the amount of sediment mobilized, effects from suspended sediment on ESA-listed fish present are expected to be insignificant.

The proposed action also has the potential to affect water quality through temporary toxic chemical contamination of the Salmon River from uncured concrete and/or petroleum-based fuels and lubricants. However, chemical contamination due to uncured concrete is extremely unlikely due to PDC that ensure concrete will be poured offsite or above the OHWM, and because sediment retention structures (in place between the pour sites and the river) will ensure that no uncured concrete reaches the river. The PDC will ensure that all equipment will be free from leaks and drips prior to arriving onsite; and will require refueling at least 150 feet from the river. In addition, due to the short duration of the project, it is unlikely that antifreeze, brake, or transmission fluid will be present onsite or spilled in volumes or concentrations large enough to harm salmonids in or downstream from the project site. Therefore, NMFS believes the potential for adverse effects from toxic chemical inputs to water quality and any ESA-listed fish present will be minimized to a discountable level with implementation of the proposed PDC.

The proposed action also has the potential to affect water quality through improved sewage and wastewater treatment, which reduces the potential for chemical contamination and nutrient releases to the Salmon River. The PDC will require that no direct discharge to the Salmon River occurs. In addition, routine groundwater quality monitoring will be conducted to ensure the sewage treatment facility prevents contamination of the Salmon River for the life expectancy of the project. NMFS will be notified if results of water quality monitoring indicate any type of contamination to the Salmon River is occurring. Therefore, NMFS believes the potential for adverse effects from chemical contamination and increased

nutrient inputs to water quality from sewage treatment and any ESA-listed fish present will be minimized to a discountable level with implementation of the proposed PDC.

Project-generated sediment also has the potential to affect ESA-listed fish by filling pools and increasing substrate fine sediment levels. However, with ground-disturbing activities taking place no closer than 75 feet to the Salmon River, combined with the anticipated effectiveness of proposed sediment control PDC, very little sediment is expected to be delivered to the river as a result of the project. Also, any sediment that is delivered to the river is not expected to remain in the substrate very long, likely remaining in place only until the next high flow event, when high flows are expected to flush out project-generated sediment. Therefore, project-generated sediment delivery is expected to be insignificant and not at a scale that is likely to affect fish use of the action area.

Critical Habitat Determination

The action as proposed has the potential to affect the following essential physical and biological features (Chinook and sockeye salmon) or primary constituent elements (PCEs) (steelhead) of designated critical habitat (hereinafter collectively referred to as PCEs): (1) Water quality; and (2) substrate/spawning gravel (Table 2). Any modification of these PCEs may affect freshwater rearing or migration in the action area. Proper function of these PCEs is necessary to support successful adult and juvenile migration, adult holding, rearing, and growth and development of juvenile fish. All remaining PCEs would not be affected by the proposed action.

The proposed action has the potential to affect water quality by generating minor amounts of turbidity due to project associated soil disturbance. However, as previously described in the species effects section, proposed PDC are expected to effectively limit sediment delivery to very low levels. Therefore, effects of the action on turbidity (water quality parameter) will be insignificant.

The proposed action also has the potential for temporary toxic chemical contamination of the Salmon River from uncured concrete and/or petroleum-based fuels and lubricants. However, as described in the species effects section, the risk of chemical contamination occurring is discountable considering implementation of the proposed PDC.

The proposed action also has the potential to affect water quality through improved sewage and wastewater treatment, which reduces the potential for chemical contamination and nutrient releases to the Salmon River. The PDC will ensure sewage treatment successfully prevents contaminating the Salmon River for the life expectancy of the project. Therefore, NMFS believes the potential for adverse effects from chemical contamination and nutrient inputs to water quality will be minimized to a discountable level with implementation of the new sewage treatment facility and proposed PDC.

As proposed, the action also has the potential to affect instream sediment levels, affecting substrate composition and spawning gravels. No ESA-listed fish spawn in this stream reach, meaning no spawning gravels will be affected. And, as described in the species effects

section, only small amounts of sediment are expected to be delivered to the river because of the anticipated effectiveness of the sediment control PDC. Because only minor amounts of sediment are expected to be delivered to the stream, effects to substrate/spawning gravel will be insignificant.

Table 2. Types of sites and essential physical and biological features designated as PCEs, and the species life stage each PCE supports.

Site	Essential Physical and Biological Features/PCEs	ESA-listed Species Life Stage
Snake River Basin Steelhead[a]		
Freshwater Spawning	Water quality, water quantity, and substrate.	Spawning, incubation, and larval development
Freshwater Rearing	Water quantity & floodplain connectivity to form and maintain physical habitat conditions	Juvenile growth and mobility
	Water quality and forage[b]	Juvenile development
	Natural cover[c]	Juvenile mobility and survival
Freshwater Migration	Free of artificial obstructions, water quality and quantity, and natural cover[c]	Juvenile and adult mobility and survival
Spring/summer Chinook Salmon		
Spawning and Juvenile Rearing	Spawning gravel, water quality and quantity, cover/shelter, food, riparian vegetation, and space	Juvenile and adult
Migration	Substrate, water quality and quantity, water temperature, water velocity, cover/shelter, food[d], riparian vegetation, space, safe passage	Juvenile and adult
Snake River Sockeye Salmon		
Spawning and Juvenile Rearing	Spawning gravel, water quality and quantity, water temperature, food, riparian vegetation, and access.	Juvenile and adult
Migration	Substrate, water quality and quantity, water temperature, water velocity, cover/shelter, food[d], riparian vegetation, space, safe passage	Juvenile and adult

[a]Additional PCEs pertaining to estuarine, nearshore, and offshore marine areas have also been described for Snake River Basin steelhead. These PCEs will not be affected by the proposed action and have therefore not been described in this letter of concurrence.
[b]Forage includes aquatic invertebrate and fish species that support growth and maturation.
[c]Natural cover includes shade, large wood, log jams, beaver dams, aquatic vegetation, large rocks and boulders, side channels, and undercut banks.
[d]Food applies to juvenile migration only.

Conclusion

Based on this analysis, NMFS concurs with EPA and the IDEQ that the proposed action is NLAA the subject listed species and designated critical habitats.

Reinitiation of Consultation

Reinitiation of consultation is required and shall be requested by EPA, IDEQ, or by NMFS, where discretionary Federal involvement or control over the action has been retained or is authorized by law, and: (1) New information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered; (2) the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this concurrence letter; or (3) if a new species is listed or critical habitat designated that may be affected by the identified action (50 CFR 402.16). This concludes the ESA portion of this consultation.

Section 7(a)(1) of the ESA directs Federal agencies to utilize their authorities to further the purposes of the ESA by carrying out conservation programs for the benefit of threatened and endangered species. The EPA and IDEQ also have the same responsibilities, and informal consultation offers action agencies an opportunity to address their conservation responsibilities under section 7(a)(1).

Please direct questions regarding this letter to Mrs. Kimberly Murphy (208) 756-5180 and Mr. Bill Lind (208) 378-5697.

Sincerely,

for William W. Stelle, Jr.
Regional Administrator

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N. LaRoque – USDA
D. Porter – IDOC

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NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Custer-Lemhi Area, Idaho, Parts of Blaine, Custer, and Lemhi Counties

January 20, 2015

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (http://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the

individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

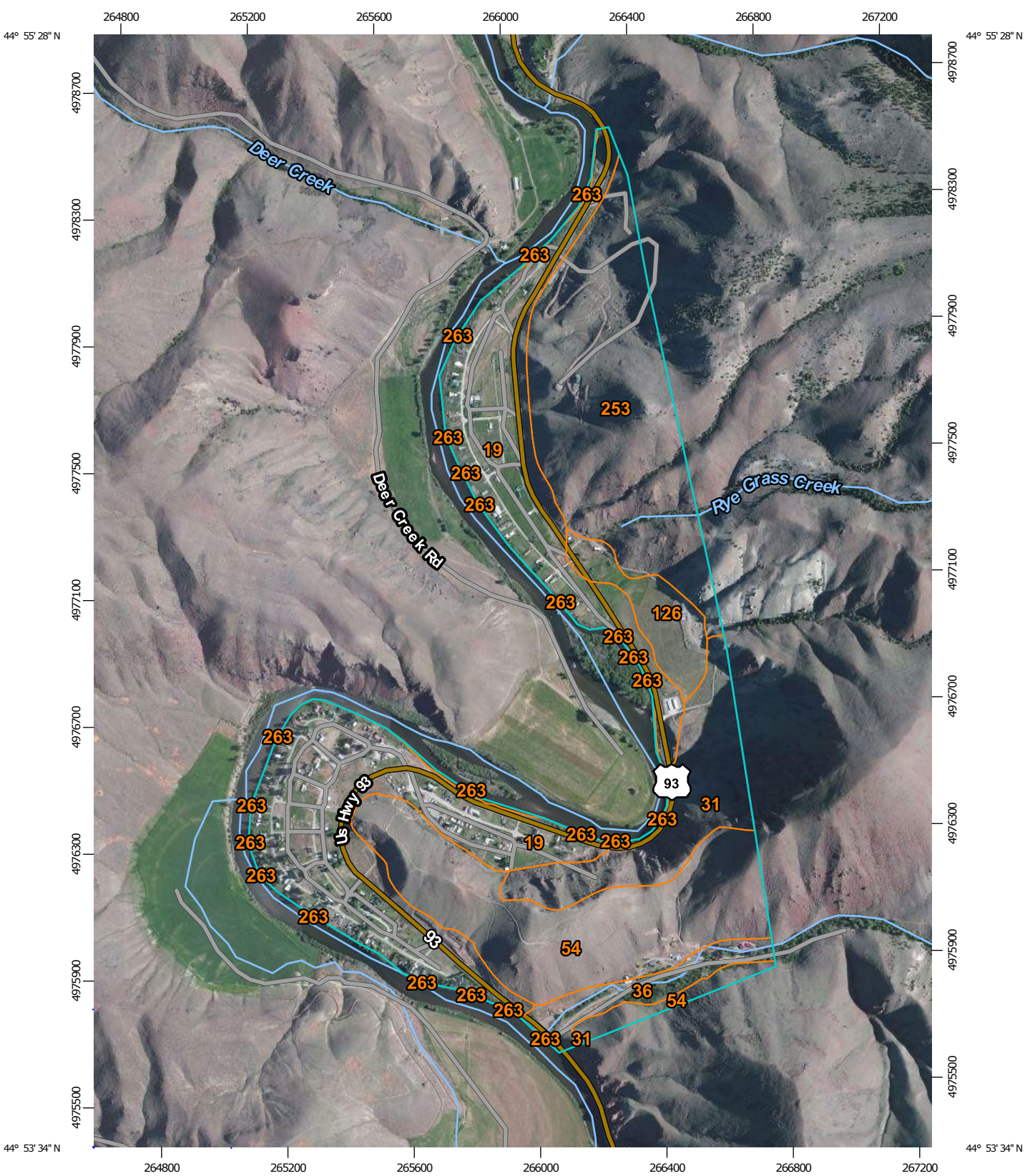
Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



Map Scale: 1:17,100 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 250 500 1000 1500

Feet: 0 500 1000 2000 3000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 12N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Custer-Lemhi Area, Idaho, Parts of Blaine, Custer, and Lemhi Counties
Survey Area Data: Version 15, Sep 9, 2014

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 19, 2010—Aug 15, 2010

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Custer-Lemhi Area, Idaho, Parts of Blaine, Custer, and Lemhi Counties (ID752)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
19	Bock-Bromaglin complex, 1 to 4 percent slopes	185.1	37.8%
31	Calcids-Rubble land-Rock outcrop complex, 50 to 80 percent slopes	47.4	9.7%
36	Copperbasin, cool-Redfish complex, 1 to 4 percent slopes	18.1	3.7%
54	Dawtonia-Custco association, 20 to 50 percent slopes	102.2	20.9%
126	Millhi silt loam, 2 to 4 percent slopes	20.1	4.1%
253	Zer gravelly loam, 20 to 50 percent slopes	114.2	23.3%
263	Water	2.3	0.5%
Totals for Area of Interest		**489.5**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with

some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Custer-Lemhi Area, Idaho, Parts of Blaine, Custer, and Lemhi Counties

19—Bock-Bromaglin complex, 1 to 4 percent slopes

Map Unit Setting

National map unit symbol: 2sfy
Elevation: 3,800 to 6,600 feet
Mean annual precipitation: 8 to 13 inches
Mean annual air temperature: 39 to 45 degrees F
Frost-free period: 75 to 100 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Bock and similar soils: 55 percent
Bromaglin and similar soils: 35 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Bock

Setting

Landform: Stream terraces, fan remnants
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Mixed alluvium

Typical profile

A - 0 to 11 inches: silt loam
Bw - 11 to 18 inches: silt loam
Bk1 - 18 to 24 inches: gravelly loam
Bk2 - 24 to 48 inches: fine sandy loam
2C - 48 to 60 inches: very gravelly loamy sand

Properties and qualities

Slope: 1 to 4 percent
Depth to restrictive feature: 40 to 60 inches to strongly contrasting textural stratification
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 25 percent
Sodium adsorption ratio, maximum in profile: 5.0
Available water storage in profile: Moderate (about 7.3 inches)

Interpretive groups

Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 6c
Hydrologic Soil Group: B
Ecological site: Loamy 8-12 artrw8/pssps (R012XY032ID)

Description of Bromaglin

Setting

Landform: Stream terraces, fan remnants

Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Mixed alluvium

Typical profile

Ap - 0 to 5 inches: silt loam
Bw - 5 to 12 inches: very fine sandy loam
Bk1 - 12 to 20 inches: sandy loam
2Bk2 - 20 to 60 inches: extremely gravelly loamy coarse sand

Properties and qualities

Slope: 1 to 4 percent
Depth to restrictive feature: 14 to 24 inches to strongly contrasting textural stratification
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 20 percent
Salinity, maximum in profile: Nonsaline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: Very low (about 2.9 inches)

Interpretive groups

Land capability classification (irrigated): 3s
Land capability classification (nonirrigated): 4c
Hydrologic Soil Group: B
Ecological site: Loamy 8-12 artrw8/pssps (R012XY032ID)

31—Calcids-Rubble land-Rock outcrop complex, 50 to 80 percent slopes

Map Unit Setting

National map unit symbol: 2sjr
Elevation: 3,900 to 7,000 feet
Mean annual precipitation: 7 to 12 inches
Mean annual air temperature: 37 to 41 degrees F
Frost-free period: 70 to 90 days
Farmland classification: Not prime farmland

Map Unit Composition

Calcids and similar soils: 50 percent
Rubble land: 25 percent
Rock outcrop: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Calcids

Setting

Landform: Mountain slopes
Down-slope shape: Convex

Across-slope shape: Convex
Parent material: Colluvium and/or mixed slope alluvium

Typical profile

A - 0 to 2 inches: very cobbly loam
Bw - 2 to 16 inches: very gravelly loam
Bk1 - 16 to 37 inches: extremely gravelly loam
2Bk2 - 37 to 60 inches: extremely gravelly coarse sandy loam

Properties and qualities

Slope: 50 to 80 percent
Depth to restrictive feature: 20 to 72 inches to lithic bedrock
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 15 percent
Salinity, maximum in profile: Nonsaline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: Low (about 4.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Hydrologic Soil Group: B
Ecological site: Steep limestone 12-20 cele3/pssps-feid (R012XY015ID)

Description of Rubble Land

Typical profile

C - 0 to 60 inches: stones, boulders

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8

Description of Rock Outcrop

Typical profile

R - 0 to 60 inches: bedrock

Properties and qualities

Slope: 50 to 80 percent
Depth to restrictive feature: 0 inches to lithic bedrock

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8

36—Copperbasin, cool-Redfish complex, 1 to 4 percent slopes

Map Unit Setting

National map unit symbol: 2sjx
Elevation: 4,500 to 7,400 feet
Mean annual precipitation: 10 to 18 inches
Mean annual air temperature: 34 to 39 degrees F
Frost-free period: 5 to 30 days
Farmland classification: Not prime farmland

Map Unit Composition

Redfish and similar soils: 45 percent
Copperbasin, cool, and similar soils: 45 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Copperbasin, Cool

Setting

Landform: Flood plains, stream terraces
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Mixed alluvium

Typical profile

A - 0 to 5 inches: very gravelly fine sandy loam
C1 - 5 to 25 inches: extremely gravelly loamy sand
C2 - 25 to 33 inches: extremely cobbly loamy sand
C3 - 33 to 60 inches: extremely cobbly loamy coarse sand

Properties and qualities

Slope: 1 to 4 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: About 18 to 42 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Available water storage in profile: Very low (about 2.5 inches)

Interpretive groups

Land capability classification (irrigated): 6c
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: B
Ecological site: Riverbottom 10-16 popul/pasm (R012XY042ID)

Description of Redfish

Setting

Landform: Flood plains, stream terraces
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Mixed alluvium

Typical profile

Oe - 0 to 3 inches: moderately decomposed plant material
A - 3 to 8 inches: gravelly sandy loam
Ag - 8 to 13 inches: very gravelly sandy loam
2Cg - 13 to 63 inches: extremely gravelly coarse sand

Properties and qualities

Slope: 1 to 4 percent
Depth to restrictive feature: 10 to 22 inches to strongly contrasting textural stratification
Natural drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: About 6 to 12 inches
Frequency of flooding: Frequent
Frequency of ponding: None
Available water storage in profile: Very low (about 2.4 inches)

Interpretive groups

Land capability classification (irrigated): 6c
Land capability classification (nonirrigated): 6c
Hydrologic Soil Group: A/D
Ecological site: Riparian salix/carex (R043AY011ID)
Other vegetative classification: RIPARIAN SALIX/CAREX (043AY011ID)

Minor Components

Aquolls

Percent of map unit: 10 percent
Landform: Flood plains

54—Dawtonia-Custco association, 20 to 50 percent slopes

Map Unit Setting

National map unit symbol: 2sl8
Elevation: 4,000 to 7,200 feet
Mean annual precipitation: 8 to 16 inches
Mean annual air temperature: 37 to 43 degrees F
Frost-free period: 60 to 90 days
Farmland classification: Not prime farmland

Map Unit Composition

Dawtonia and similar soils: 50 percent
Custco and similar soils: 35 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Dawtonia

Setting

Landform: Hillslopes, mountain slopes
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Mixed alluvium and/or colluvium

Typical profile

A - 0 to 4 inches: gravelly loam
Bt - 4 to 12 inches: very gravelly loam
Bk - 12 to 24 inches: very gravelly loam
Bkq - 24 to 60 inches: extremely gravelly loam

Properties and qualities

Slope: 20 to 50 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 30 percent
Salinity, maximum in profile: Nonsaline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: Low (about 5.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: C
Ecological site: Gravelly loam 8-12 artrw8/pssps (R012XY004ID)

Description of Custco

Setting

Landform: Hillslopes, mountain slopes
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Colluvium derived from igneous rock and/or quartzite

Typical profile

A - 0 to 4 inches: gravelly loam
Bt - 4 to 17 inches: very gravelly loam
Bk - 17 to 60 inches: extremely gravelly sandy loam

Properties and qualities

Slope: 20 to 50 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 2.00 in/hr)

Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 25 percent
Salinity, maximum in profile: Nonsaline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: Low (about 4.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: B
Ecological site: North slope loamy 12-16 artr4/feid (R012XY010ID)

126—Millhi silt loam, 2 to 4 percent slopes

Map Unit Setting

National map unit symbol: 2scp
Elevation: 3,900 to 5,200 feet
Mean annual precipitation: 7 to 10 inches
Mean annual air temperature: 43 to 45 degrees F
Frost-free period: 75 to 100 days
Farmland classification: Not prime farmland

Map Unit Composition

Millhi and similar soils: 90 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Millhi

Setting

Landform: Lake terraces, hillslopes
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Lacustrine deposits

Typical profile

A - 0 to 4 inches: silt loam
Btn - 4 to 9 inches: silt loam
Btkn - 9 to 60 inches: clay

Properties and qualities

Slope: 2 to 4 percent
Depth to restrictive feature: 1 to 12 inches to natric
Natural drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 10 percent
Gypsum, maximum in profile: 5 percent

Salinity, maximum in profile: Slightly saline to moderately saline (8.0 to 16.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 30.0
Available water storage in profile: Very low (about 1.2 inches)

Interpretive groups
Land capability classification (irrigated): 6s
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: D
Ecological site: Clayey 7-10 artrw8-atco/pssps (R012XY036ID)

253—Zer gravelly loam, 20 to 50 percent slopes

Map Unit Setting
National map unit symbol: 2sj7
Elevation: 4,000 to 8,000 feet
Mean annual precipitation: 8 to 13 inches
Mean annual air temperature: 37 to 43 degrees F
Frost-free period: 60 to 90 days
Farmland classification: Not prime farmland

Map Unit Composition
Zer and similar soils: 95 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Zer

Setting
Landform: Fan remnants
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Mixed alluvium and/or colluvium

Typical profile
A - 0 to 5 inches: gravelly loam
Bkq1 - 5 to 14 inches: very gravelly loam
Bkq2 - 14 to 26 inches: extremely gravelly sandy loam
Bkq3 - 26 to 60 inches: extremely gravelly sandy loam

Properties and qualities
Slope: 20 to 50 percent
Depth to restrictive feature: 10 to 20 inches to strongly contrasting textural stratification
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 40 percent
Salinity, maximum in profile: Nonsaline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 8.0

Available water storage in profile: Very low (about 1.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: B
Ecological site: Gravelly loam 8-12 artrw8/pssps (R012XY004ID)

263—Water

Map Unit Composition

Water: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

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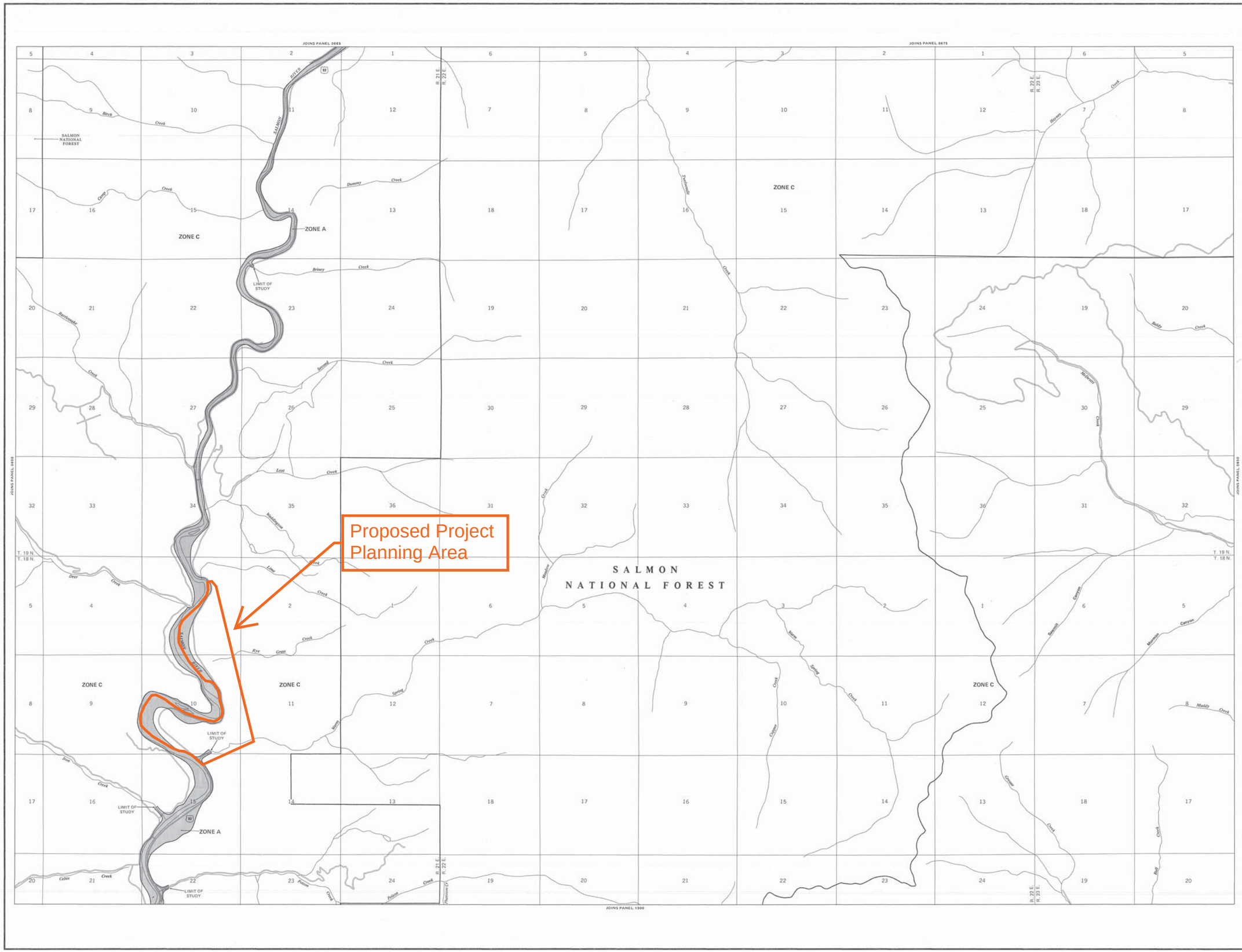
Appendix C. Floodplains



KEY TO MAP

500-Year Flood Boundary	ZONE B
100-Year Flood Boundary	ZONE A1
Zone Designations	ZONE A5
100-Year Flood Boundary	ZONE B
500-Year Flood Boundary	
Base Flood Elevation Line With Elevation In Feet**	513
Base Flood Elevation In Feet Where Uniform Within Zone**	(EL 987)
Elevation Reference Mark	RM7X
Zone D Boundary	
River Mile	•M1.5

**Referenced to the National Geodetic Vertical Datum of 1929

EXPLANATION OF ZONE DESIGNATIONS

ZONE	EXPLANATION
A	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
AO	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined.
AH	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.
A1-A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
A99	Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.
B	Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. (Medium shading)
C	Areas of minimal flooding. (No shading)
D	Areas of undetermined, but possible, flood hazards.
V	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.
V1-V30	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.

NOTES TO USER

Certain areas not in the special flood hazard areas (zones A and V) may be protected by flood control structures.

This map is for flood insurance purposes only; it does not necessarily show all areas subject to flooding in the community or all planimetric features outside special flood hazard areas.

For adjoining map panels, see separately printed Index To Map Panels.

INITIAL IDENTIFICATION:
FEBRUARY 5, 1986

FLOOD HAZARD BOUNDARY MAP REVISIONS:

FLOOD INSURANCE RATE MAP EFFECTIVE:
FEBRUARY 5, 1986

Refer to the FLOOD INSURANCE RATE MAP EFFECTIVE date shown on this map to determine when actuarial rates apply to structures in the zones where elevations or depths have been established.

To determine if flood insurance is available in this community, contact your insurance agent, or call the National Flood Insurance Program, at (800) 638-6620.

APPROXIMATE SCALE IN FEET
2000 0 2000

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

LEMHI COUNTY, IDAHO
(UNINCORPORATED AREAS)

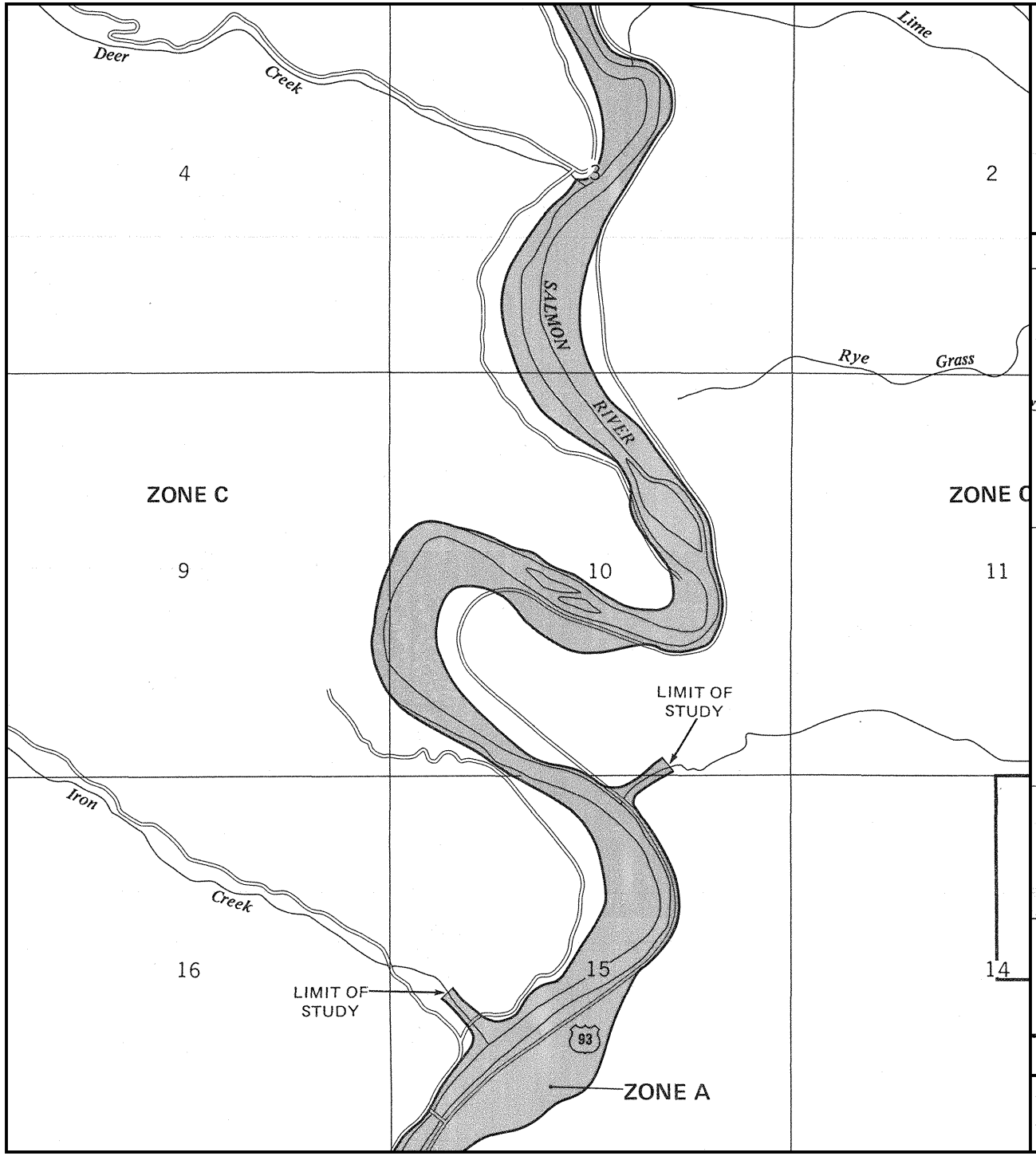
PANEL 825 OF 1700
(SEE MAP INDEX FOR PANELS NOT PRINTED)

Figure 4.2 - Floodplain Map

COMMUNITY-PANEL NUMBER
160092 0825 A

EFFECTIVE DATE:
FEBRUARY 5, 1986

Federal Emergency Management Agency



APPROXIMATE SCALE IN FEET

2000 0 2000

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

LEMHI COUNTY,
IDAHO
(UNINCORPORATED AREAS)

PANEL 825 OF 1700
(SEE MAP INDEX FOR PANELS NOT PRINTED)

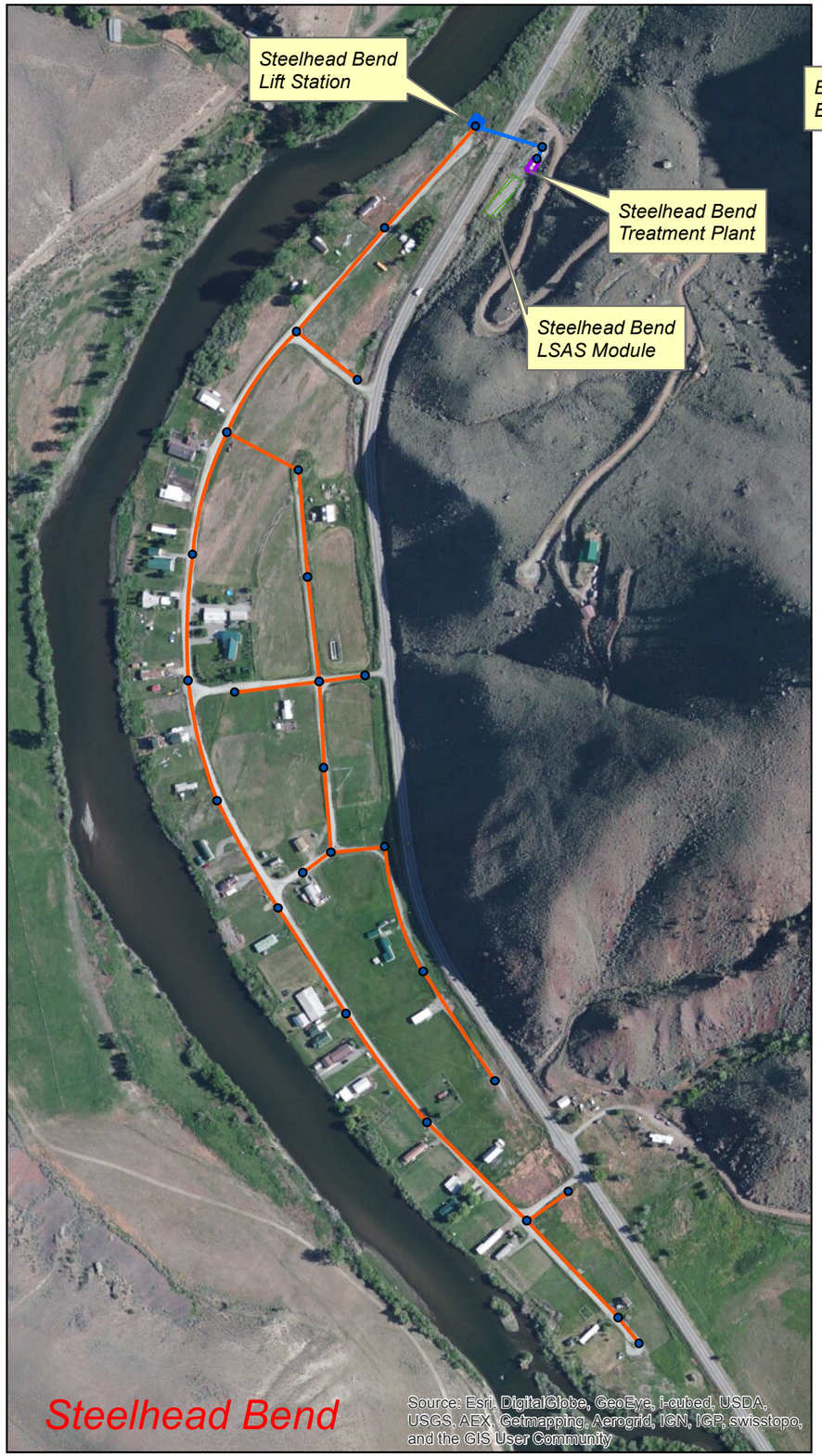
COMMUNITY-PANEL NUMBER
160092 0825 A

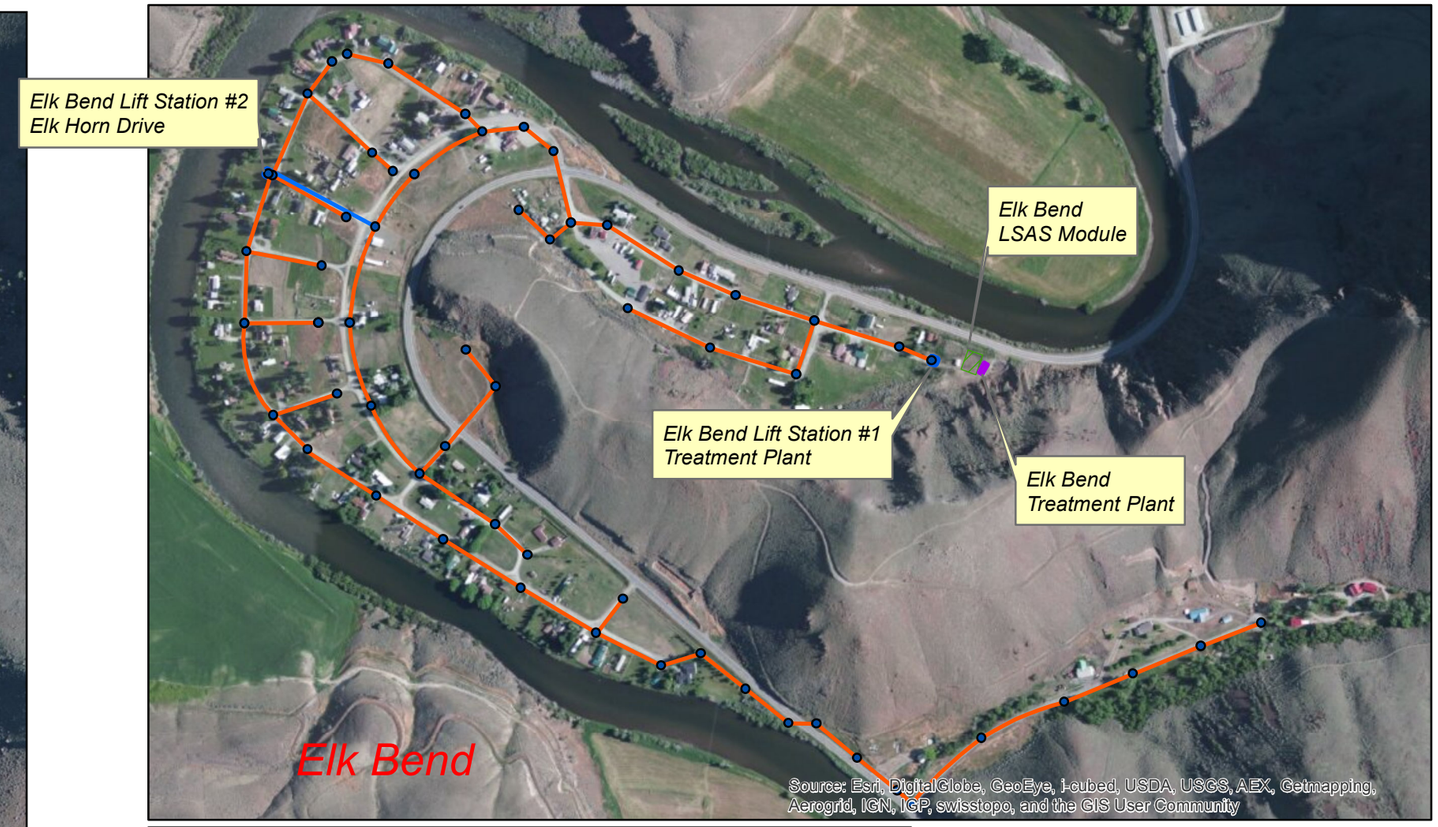
EFFECTIVE DATE:
FEBRUARY 5, 1986

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

Appendix D. Maps





Legend

- Collection Piping
- Pressure Lines
- Manholes
- Lift Stations
- Existing Treatment Plants
- Existing LSAS (drainfields)

N

PROJECT NO. 209003-000

FIGURE: 2.2

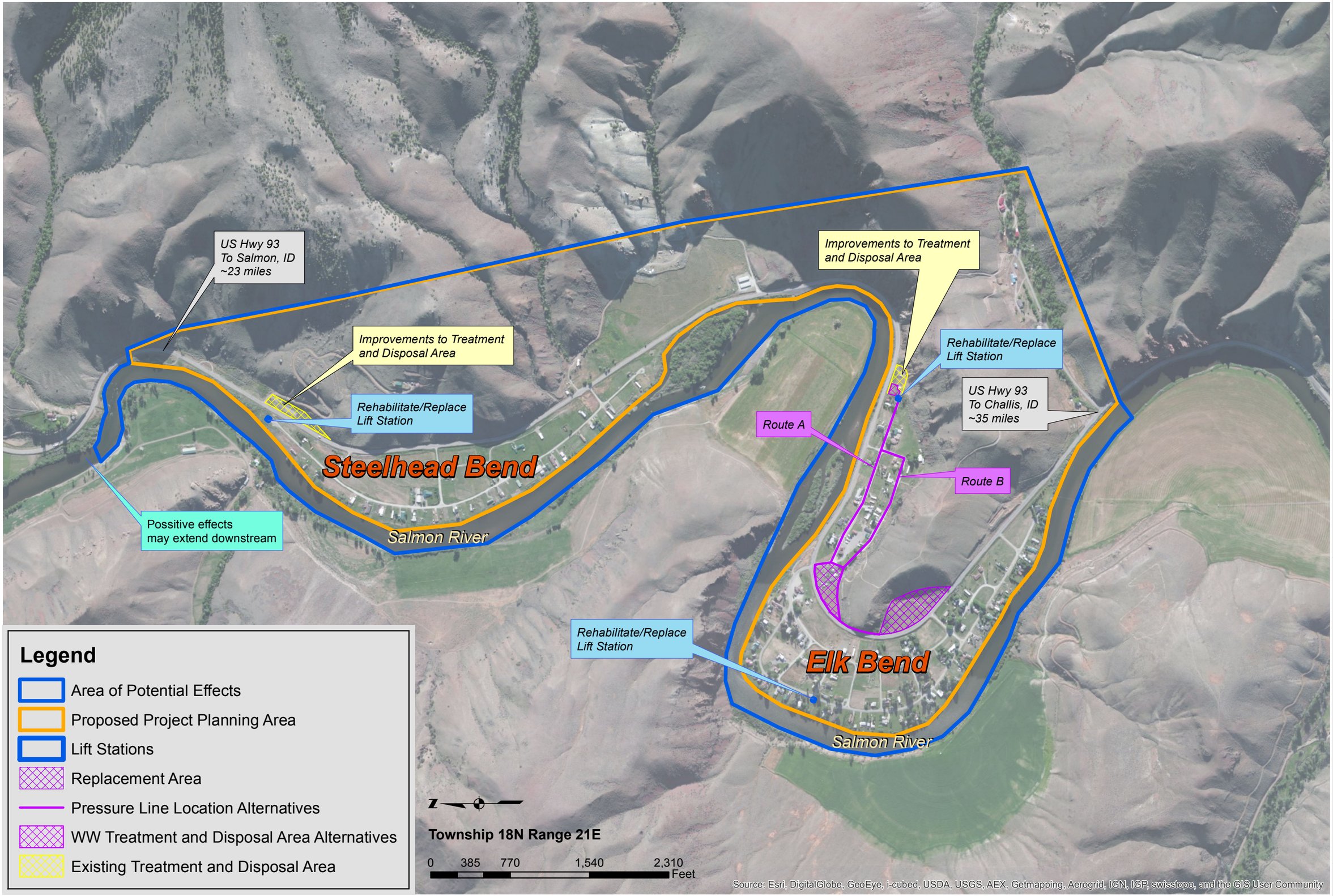
305 N. 3rd Avenue
Pocatello, ID 83201
208.238.2146
www.kellerassociates.com
KELLER associates

Elk Bend Sewer District

Wastewater Systems

Existing Wastewater Systems

FIGURE NO. 2.2



PROJECT NO. 209003-000

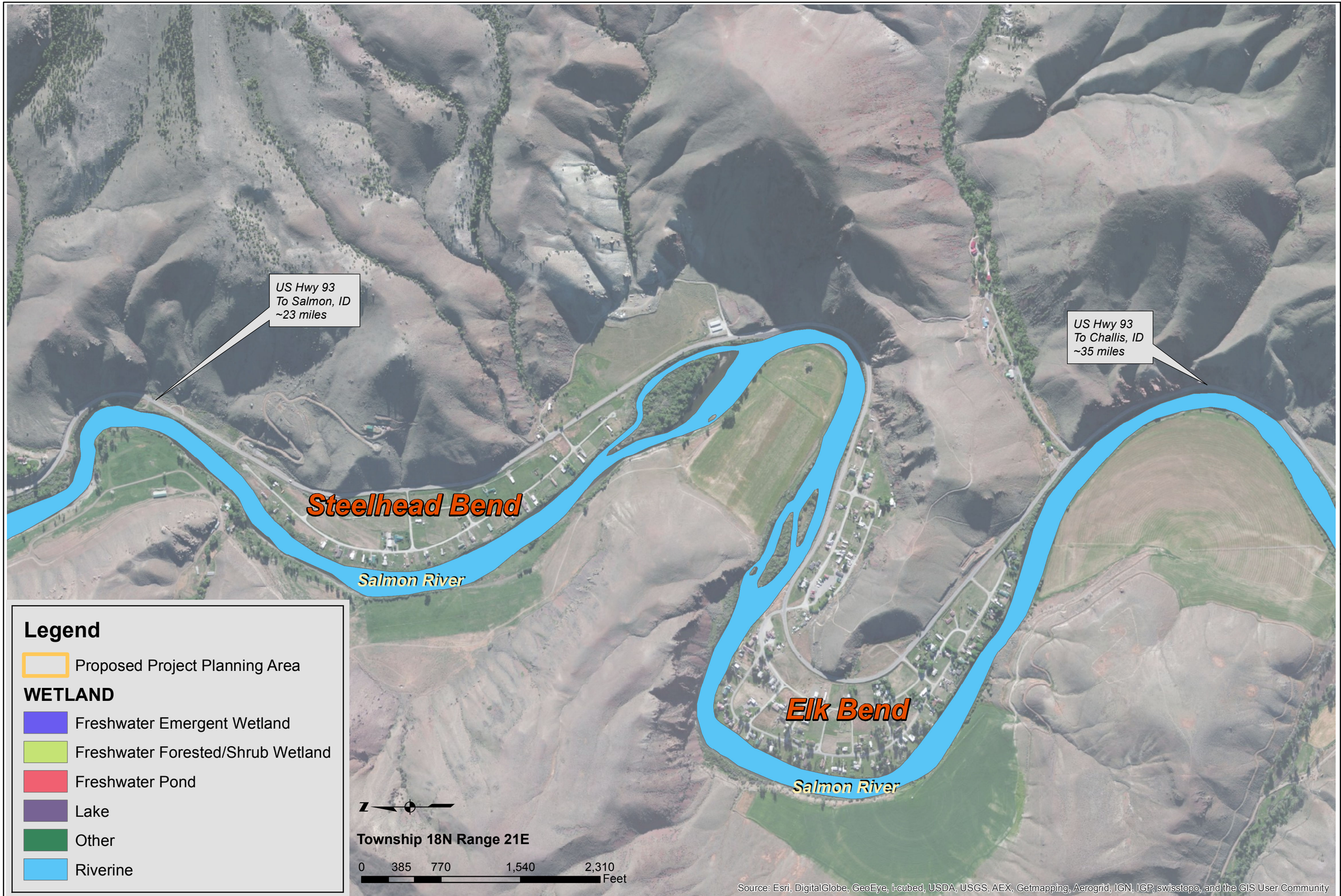
Figure No. 4.1

305 N. 3rd Avenue
Pocatello, ID 83201
208.238.2146
www.kellerassociates.com
KELLER associates

ELK BEND
SEWER DISTRICT

Wastewater System
Existing System & Proposed
Improvements Preliminary Layout

FIGURE NO.
4.1



PROJECT NO. 209003-000

Figure No. 4.4

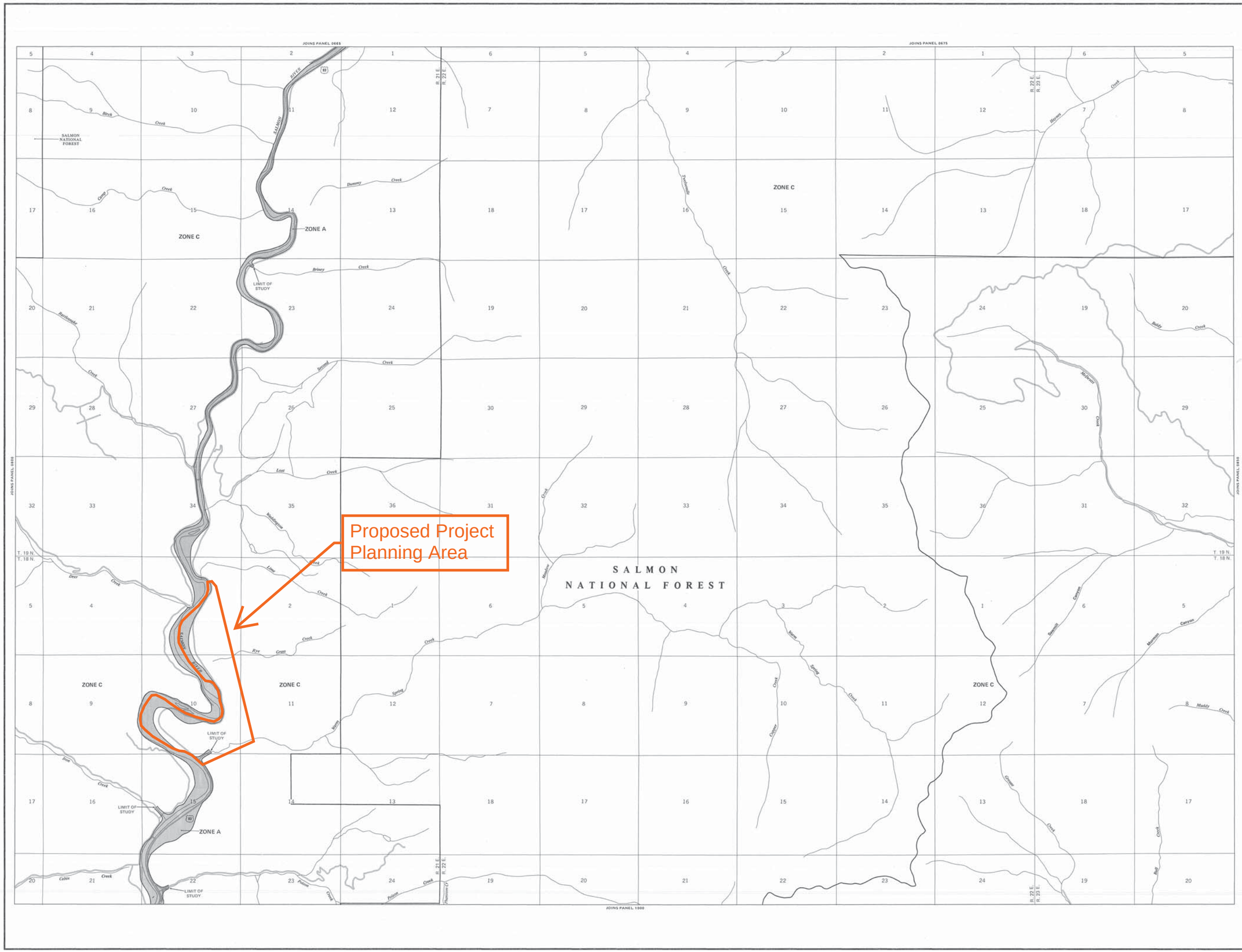
305 N. 3rd Avenue
Pocatello, ID 83201
208.238.2146
www.kellerassociates.com
KELLER associates

ELK BEND SEWER DISTRICT

Wastewater System

Wetland Map

FIGURE NO. 4.4



KEY TO MAP

500-Year Flood Boundary	ZONE B
100-Year Flood Boundary	ZONE A1
Zone Designations	ZONE A5
100-Year Flood Boundary	ZONE B
500-Year Flood Boundary	
Base Flood Elevation Line With Elevation In Feet**	513
Base Flood Elevation In Feet Where Uniform Within Zone**	(EL 987)
Elevation Reference Mark	RM7X
Zone D Boundary	
River Mile	•M1.5

**Referenced to the National Geodetic Vertical Datum of 1929

EXPLANATION OF ZONE DESIGNATIONS

ZONE	EXPLANATION
A	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
AO	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined.
AH	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.
A1-A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
A99	Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.
B	Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. (Medium shading)
C	Areas of minimal flooding. (No shading)
D	Areas of undetermined, but possible, flood hazards.
V	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.
V1-V30	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.

NOTES TO USER

Certain areas not in the special flood hazard areas (zones A and V) may be protected by flood control structures.

This map is for flood insurance purposes only; it does not necessarily show all areas subject to flooding in the community or all planimetric features outside special flood hazard areas.

For adjoining map panels, see separately printed Index To Map Panels.

INITIAL IDENTIFICATION:
FEBRUARY 5, 1986

FLOOD HAZARD BOUNDARY MAP REVISIONS:

FLOOD INSURANCE RATE MAP EFFECTIVE:
FEBRUARY 5, 1986

Refer to the FLOOD INSURANCE RATE MAP EFFECTIVE date shown on this map to determine when actuarial rates apply to structures in the zones where elevations or depths have been established.

To determine if flood insurance is available in this community, contact your insurance agent, or call the National Flood Insurance Program, at (800) 638-6620.

APPROXIMATE SCALE IN FEET
2000 0 2000

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

LEMHI COUNTY, IDAHO
(UNINCORPORATED AREAS)

PANEL 825 OF 1700
(SEE MAP INDEX FOR PANELS NOT PRINTED)

Figure 4.2 - Floodplain Map

COMMUNITY-PANEL NUMBER
160092 0825 A

EFFECTIVE DATE:
FEBRUARY 5, 1986

Federal Emergency Management Agency

Appendix E. Flow and Treatment Records

Elk Bend Sewer District - Population and Wastewater Flow Projections								
	Elk Bend Unit				Steelhead Bend Unit			
	2011	2021	2031	2051	2011	2021	2031	2051
Estimated EDUs	125	138	153	186	38	42	46	57
Estimated Year Round Population	75	83	92	112	26	29	32	39
Estimated Peak Population	200	221	244	298	50	55	61	74
Winter Average (gpd)	10,000	11,046	12,202	14,889	3,250	3,590	3,966	4,839
Annual Average (gpd)	16,330	18,038	19,926	24,313	5,150	5,689	6,284	7,668
Estimated Peak (gpd)	26,600	29,383	32,457	39,604	6,650	7,346	8,114	9,901

Elk Bend and Steelhead Bend Lift Station Summary

	LS#1			LS#2			SB		
	hr	event	Q (gpd)	hr	event	Q (gpd)	hr	event	Q (gpd)
05/08/09	3.8	114		2,626.8	19,728		309.7		
05/15/09	19.1	617	6,557.1				313.1		1,457.1
06/05/09	131.4	2,451	16,042.9	2,791.5	20,589	17,646.4	399.9	115	12,400.0
08/04/09	311.0	8,941	8,980.0	3,127.2	22,249	16,785.0	620.3	1,049	11,020.0
03/15/10	1,047.4	17,337	9,906.7	3,826.2	25,941	9,403.6			
03/16/10	1,050.5	17,346	9,300.0	3,829.4	25,959	9,600.0	848.6	2,108	3,057.6
03/17/10	1,055.1	17,349	13,800.0	3,832.8	25,978	10,200.0	849.4	2,119	2,400.0
03/18/10	1,061.4	17,352	18,900.0	3,835.5	25,995	8,100.0	849.8	2,122	1,200.0
03/19/10	1,067.8	17,354	19,200.0	3,839.0	26,015	10,500.0	850.1	2,126	900.0
08/01/11	4,309.1	18,552	19,447.8	6,550.0	26,785	16,266.0	3,446.7	34,743	15,579.6
08/06/11	4,346.7	18,580	22,560.0	6,556.9	26,813	4,140.0	3,450.4	34,574	2,220.0
08/12/11	4,382.9	18,619	18,100.0	6,562.7	26,840	2,900.0	3,455.1	34,621	2,350.0
08/17/11	4,419.7	18,651	22,080.0	6,569.5	26,888	4,080.0	3,459.8	34,668	2,820.0
08/22/11	4,455.4	18,680	21,420.0	6,575.3	26,925	3,480.0	3,464.6	34,705	2,880.0
08/28/11	4,492.2	18,719	18,400.0	6,582.1	26,962	3,400.0	3,467.3	34,743	1,350.0
09/02/11	4,528.1	18,742	21,540.0	6,588.2	27,001	3,660.0	3,472.1	34,782	2,880.0
09/06/11	4,565.3	18,765	27,900.0	6,594.6	27,030	4,800.0	3,476.5	34,811	3,300.0
09/12/11	4,601.2	18,800	17,950.0	6,601.0	27,069	3,200.0	3,480.0	34,834	1,750.0
09/18/11	4,637.1	18,821	17,950.0	6,608.2	27,095	3,600.0	3,483.2	34,867	1,600.0
09/23/11	4,674.2	18,852	22,260.0	6,615.4	27,113	4,320.0	3,487.0	34,893	2,280.0
09/28/11	4,710.3	18,871	21,660.0	6,622.3	27,142	4,140.0	3,490.1	34,911	1,860.0
10/02/11	4,750.0	18,890	29,775.0	6,629.2	27,180	5,175.0	3,493.9	34,851	2,850.0
10/07/11	4,800.2	18,910	30,120.0	6,634.0	27,219	2,880.0	3,504.1	34,942	6,120.0
10/12/11	4,833.1	18,981	19,740.0	6,659.0	27,251	15,000.0	3,524.3	35,094	12,120.0
10/14/11	4,837.9	18,993	7,200.0	6,675.9	27,280	25,350.0	3,527.9	35,112	5,400.0
10/17/11	4,859.0	18,997	21,100.0	6,683.6	27,310	7,700.0	3,530.1	35,121	2,200.0
5/09 - 10/11			16,329.1			13,643.9			10,830.9
8/09-3/10			10,001.8			9,407.0			3,037.0
5/09-3/10			10,133.3			11,544.8			5,146.7
5/09-8/09			10,811.1			17,059.1			11,377.8
8/09-8/11			16,539.8			14,056.1			11,598.8
8/11-10/11			21,424.7			5,205.2			3,249.4

Elk Bend LS#1

Q= 50 gpm

Date	Clock Hrs	Hour Reading	Event Reading	Hrs #	Event #	V (gal)	Q (gpd)
8/1/2011		43091	18552				
8/6/2011	120.0	43467	18580	376	28	112,800	22,560
8/12/2011	144.0	43829	18619	362	39	108,600	18,100
8/17/2011	120.0	44197	18651	368	32	110,400	22,080
8/22/2011	120.0	44554	18680	357	29	107,100	21,420
8/28/2011	144.0	44922	18719	368	39	110,400	18,400
9/2/2011	120.0	45281	18742	359	23	107,700	21,540
9/6/2011	96.0	45653	18765	372	23	111,600	27,900
9/12/2011	144.0	46012	18800	359	35	107,700	17,950
9/18/2011	144.0	46371	18821	359	21	107,700	17,950
9/23/2011	120.0	46742	18852	371	31	111,300	22,260
9/28/2011	120.0	47103	18871	361	19	108,300	21,660
10/2/2011	96.0	47500	18890	397	19	119,100	29,775
10/7/2011	120.0	48002	18910	502	20	150,600	30,120
10/12/2011	120.0	48331	18981	329	71	98,700	19,740
10/14/2011	48.0	48379	18993	48	12	14,400	7,200
10/17/2011	72.0	48590	18997	211	4	63,300	21,100
				344	28	103,106	21,235
							5408.682

Elk Bend LS#2

Q= 50 gpm

Date	Clock Hrs	Hour Reading	Event Reading	Hrs Count	Event Count	V (gal)	Q (gpd)
8/1/2011		65500	26785				
8/6/2011	120	65569	26813	69	28	20,700	4,140
8/12/2011	144	65627	26840	58	27	17,400	2,900
8/17/2011	120	65695	26888	68	48	20,400	4,080
8/22/2011	120	65753	26925	58	37	17,400	3,480
8/28/2011	144	65821	26962	68	37	20,400	3,400
9/2/2011	120	65882	27001	61	39	18,300	3,660
9/6/2011	96	65946	27030	64	29	19,200	4,800
9/12/2011	144	66010	27069	64	39	19,200	3,200
9/18/2011	144	66082	27095	72	26	21,600	3,600
9/23/2011	120	66154	27113	72	18	21,600	4,320
9/28/2011	120	66223	27142	69	29	20,700	4,140
10/2/2011	96	66292	27180	69	38	20,700	5,175
10/7/2011	120	66340	27219	48	39	14,400	2,880
10/12/2011	120	66690	27251	350	32	105,000	21,000
10/14/2011	48	66759	27280	69	29	20,700	10,350
10/17/2011	72	66836	27310	77	30	23,100	7,700
							5,552

Steelhead Bend LS

Q =	50	gpm					
Date	Clock hrs	Hour Reading	Event Reading	Hrs Read	Events	V (gal)	Q (gpd)
8/1/2011		34467	34743				
8/6/2011	120.00	34504	34574	37	-169	11,100	2,220
8/12/2011	144.00	34551	34621	47	47	14,100	2,350
8/17/2011	120.00	34598	34668	47	47	14,100	2,820
8/22/2011	120.00	34646	34705	48	37	14,400	2,880
8/28/2011	144.00	34673	34743	27	38	8,100	1,350
9/2/2011	120.00	34721	34782	48	39	14,400	2,880
9/6/2011	96.00	34765	34811	44	29	13,200	3,300
9/12/2011	144.00	34800	34834	35	23	10,500	1,750
9/18/2011	144.00	34832	34867	32	33	9,600	1,600
9/23/2011	120.00	34870	34893	38	26	11,400	2,280
9/28/2011	120.00	34901	34911	31	18	9,300	1,860
10/2/2011	96.00	34939	34851	38	-60	11,400	2,850
10/7/2011	120.00	35041	34942	102	91	30,600	6,120
10/12/2011	120.00	35243	35094	202	152	60,600	12,120
10/14/2011	48.00	35279	35112	36	18	10,800	5,400
10/17/2011	72.00	35301	35121	22	9	6,600	2,200
							3,374

MAGIC VALLEY LABS
210 Addison Ave / PO Box 1867
Twin Falls ID 83303-1867
Phone: (208) 733-4250
Fax: (208) 734-2539

ROGER LANNI
ELK BEND UNIT 1

P.O. BOX 1045
SALMON, ID 73467

Collection Date	6/1/2010	**Received Date**	6/2/2010	**Location**	
Collection Time	11:55 AM	**Received Time**	10:30 AM	INFLUENT-AESATION TANK	

Sample #	Test / Method Code	Results in mg/L	Date Analyzed	Analyst
1023011	BOD SM5210B	239	6/7/2010	JD
1023012	TSS SM2540D	229	6/4/2010	JD
1023013	TOTAL NITROGEN	21.2	6/7/2010	DB
1023014	TOTAL P EPA365.1	3.74	6/7/2010	SK
1023015	pH SM4500H+B	7.27	6/2/2010	MW
1023016	NITRATE/N EPA300.0	<0.30	6/3/2010	JF
1023017	NITRITE/N EPA300.0	<0.20	6/3/2010	JF
1023018	TKN PA1-DK03	21.2	6/7/2010	SK
1023019	FOG SM5520B	17.4	6/9/2010	JF

Signature

Report Date: Monday, June 14, 2010

MAGIC VALLEY LABS
210 Addison Ave / PO Box 1867
Twin Falls ID 83303-1867
Phone: (208) 733-4250
Fax: (208) 734-2539

ROGER LANNI
ELK BEND UNIT 1

P.O. BOX 1045
SALMON, ID 73467

Collection Date	6/1/2010	**Received Date**	6/2/2010	**Location**	
Collection Time	11:57 AM	**Received Time**	10:30 AM	EFFLUENT DIV BOX	

Sample #	Test / Method Code	Results in mg/L	Date Analyzed	Analyst
1023021	BOD SM5210B	53	6/7/2010	JD
1023022	TSS SM2540D	74	6/4/2010	JD
1023023	TOTAL NITROGEN	26.0	6/7/2010	DB
1023024	TOTAL P EPA365.1	3.78	6/7/2010	SK
1023025	pH SM4500H+B	7.26	6/2/2010	MW
1023026	NITRATE/N EPA300.0	<0.30	6/3/2010	JF
1023027	NITRITE/N EPA300.0	<0.20	6/3/2010	JF
1023028	TKN PA1-DK03	26.0	6/7/2010	SK
1023029	FOG SM5520B	8.00	6/9/2010	JF

Signature

Report Date: Monday, June 14, 2010

MAGIC VALLEY LABS
210 Addison Ave / PO Box 1867
Twin Falls ID 83303-1867
Phone: (208) 733-4250
Fax: (208) 734-2539

ELK BEND UNIT 1

P.O. BOX 1045
SALMON, ID 83467

Collection Date	6/1/2010	**Received Date**	6/2/2010	**Location**	
Collection Time	11:55 AM	**Received Time**	8:30 AM	EFFLUENT DIV BOX	

Sample #	Test / Method Code	Results	Units	Date Analyzed	Analyst
711688831	TOTAL COLIFORM	830000	MPN/100ML	6/3/2010	JD

Brenda Ellis
Lab Supervisor
Report Date: Monday, June 07, 2010

MAGIC VALLEY LABS
210 Addison Ave / PO Box 1867
Twin Falls ID 83303-1867
Phone: (208) 733-4250
Fax: (208) 734-2539

ROGER LANNI
STEELHEAD BEND UNIT #2

130 N AGATE DR.
SALMON ID 83467

Collection Date	6/1/2010	**Received Date**	6/2/2010	**Location**	
Collection Time	11:20 AM	**Received Time**	10:30 AM	INFLUENT	

Sample #	Test / Method Code	Results in mg/L	Date Analyzed	Analyst
1023031	BOD SM5210B	310	6/7/2010	JD
1023032	TSS SM2540D	157	6/4/2010	JD
1023033	TOTAL NITROGEN	19.4	6/7/2010	DB
1023034	TOTAL P EPA365.1	2.55	6/7/2010	SK
1023035	pH SM4500H+B	7.30	6/2/2010	MW
1023036	NITRATE/N EPA300.0	<0.30	6/3/2010	JF
1023037	NITRITE/N EPA300.0	<0.20	6/3/2010	JF
1023038	TKN PA1-DK03	19.4	6/7/2010	SK
1023039	FOG SM5520B	18.1	6/9/2010	JF

Signature

Report Date: Monday, June 14, 2010

MAGIC VALLEY LABS
210 Addison Ave / PO Box 1867
Twin Falls ID 83303-1867
Phone: (208) 733-4250
Fax: (208) 734-2539

JUN 29 2010

ROGER LANNI
STEELHEAD BEND UNIT #2

130 N AGATE DR.
SALMON ID 83467

Collection Date	6/1/2010	**Received Date**	6/2/2010	**Location**	
Collection Time	11:19 AM	**Received Time**	10:30 AM	EFFLUENT	

Sample #	Test / Method Code	Results in mg/L	Date Analyzed	Analyst
1023041	BOD SM5210B	36	6/7/2010	JD
1023042	TSS SM2540D	62	6/4/2010	JD
1023043	TOTAL NITROGEN	40.1	6/7/2010	DB
1023044	TOTAL P EPA365.1	5.31	6/7/2010	SK
1023045	pH SM4500H+B	7.27	6/2/2010	MW
1023046	NITRATE/N EPA300.0	<0.30	6/3/2010	JF
1023047	NITRITE/N EPA300.0	<0.20	6/3/2010	JF
1023048	TKN PA1-DK03	40.1	6/7/2010	SK
1023049	FOG SM5520B	16.6	6/9/2010	JF

Signature

Report Date: Monday, June 14, 2010

MAGIC VALLEY LABS
210 Addison Ave / PO Box 1867
Twin Falls ID 83303-1867
Phone: (208) 733-4250
Fax: (208) 734-2539

ROGER LANNI
STEELHEAD BEND UNIT #2

130 N AGATE DR.
SALMON ID 83467

Collection Date	6/1/2010	**Received Date**	6/2/2010	**Location**	
Collection Time	11:15 AM	**Received Time**	8:30 AM	EFFLUENT	

Sample #	Test / Method Code	Results	Units	Date Analyzed	Analyst
711688841	TOTAL COLIFORM	1550000	MPN/100ML	6/4/2010	JD

Brenda Ellis
Lab Supervisor
Report Date: Tuesday, June 08, 2010

MAGIC VALLEY LABS
210 Addison Ave / PO Box 1867
Twin Falls ID 83303-1867
Phone: (208) 733-4250
Fax: (208) 734-2539

ROGER LANNI
ELK BEND WASTEWATER

130 N AGATE DR
SALMON, ID 83467

Collection Date	7/14/2010	**Received Date**	7/15/2010	**Location**	
Collection Time	1:00 PM	**Received Time**	8:30 AM	ELK BEND INFLUENT	

Sample #	Test / Method Code	Results in mg/L	Date Analyzed	Analyst
1033821	BOD SM5210B	44	7/20/2010	JD
1033822	TSS SM2540D	84	7/22/2010	JD
1033823	TOTAL NITROGEN	19.5	8/4/2010	SK
1033824	TOTAL P EPA365.1	3.11	7/10/2010	SK
1033825	pH SM4500H+B	7.21	7/15/2010	JF
1033826	NITRATE/N EPA300.0	<0.30	7/15/2010	JF
1033827	NITRITE/N EPA300.0	<0.20	7/15/2010	JF
1033828	TKN PA1-DK03	19.5	7/20/2010	SK
1033829	FOG SM5520B	5.8	7/30/2010	JF

Signature

Report Date: Wednesday, August 04, 2010

MAGIC VALLEY LABS
210 Addison Ave / PO Box 1867
Twin Falls ID 83303-1867
Phone: (208) 733-4250
Fax: (208) 734-2539

ROGER LANNI
ELK BEND WASTEWATER

130 N AGATE DR
SALMON, ID 83467

Collection Date	7/14/2010	**Received Date**	7/15/2010	**Location**	
Collection Time	1:00 PM	**Received Time**	8:30 AM	ELK BEND FINAL EFFLUENT	

Sample #	Test / Method Code	Results in mg/L	Date Analyzed	Analyst
1033831	BOD SM5210B	26	7/20/2010	JD
1033832	TSS SM2540D	28	7/22/2010	JD
1033833	TOTAL NITROGEN	14.1	8/4/2010	SK
1033834	TOTAL P EPA365.1	2.02	7/10/2010	SK
1033835	pH SM4500H+B	7.27	7/15/2010	JF
1033836	NITRATE/N EPA300.0	<0.30	7/15/2010	JF
1033837	NITRITE/N EPA300.0	<0.20	7/15/2010	JF
1033838	TKN PA1-DK03	14.1	7/20/2010	SK
1033839	FOG SM5520B	7.7	7/30/2010	JF

Brenda Ellis

Signature

Report Date: Wednesday, August 04, 2010

MAGIC VALLEY LABS
210 Addison Ave / PO Box 1867
Twin Falls ID 83303-1867
Phone: (208) 733-4250
Fax: (208) 734-2539

ROGER LANNI
STEELHEAD BEND UNIT #2

130 N AGATE DR.
SALMON ID 83467

Collection Date	7/14/2010	**Received Date**	7/15/2010	**Location**	
Collection Time	1:00 PM	**Received Time**	8:30 AM	STEEL HEAD BEND INFLUENT	

Sample #	Test / Method Code	Results in mg/L	Date Analyzed	Analyst
1033841	BOD SM5210B	48	7/20/2010	JD
1033842	TSS SM2540D	18	7/22/2010	JD
1033843	TOTAL NITROGEN	15.0	8/4/2010	SK
1033844	TOTAL P EPA365.1	3.94	7/10/2010	SK
1033845	pH SM4500H+B	7.26	7/15/2010	JF
1033846	NITRATE/N EPA300.0	<0.30	7/15/2010	JF
1033847	NITRITE/N EPA300.0	<0.20	7/15/2010	JF
1033848	TKN PA1-DK03	15.0	7/20/2010	SK
1033849	FOG SM5520B	6.1	7/30/2010	JF

Brenda Ellis

Signature

Report Date: Wednesday, August 04, 2010

MAGIC VALLEY LABS
210 Addison Ave / PO Box 1867
Twin Falls ID 83303-1867
Phone: (208) 733-4250
Fax: (208) 734-2539

ROGER LANNI
STEELHEAD BEND UNIT #2

130 N AGATE DR.
SALMON ID 83467

Collection Date	7/14/2010	**Received Date**	7/15/2010	**Location**	
Collection Time	1:00 PM	**Received Time**	8:30 AM	STEELHEAD BEND FINAL EFFLUENT	

Sample #	Test / Method Code	Results in mg/L	Date Analyzed	Analyst
1033851	BOD SM5210B	31	7/20/2010	JD
1033852	TSS SM2540D	39	7/22/2010	JD
1033853	TOTAL NITROGEN	22.6	8/4/2010	SK
1033854	TOTAL P EPA365.1	3.94	7/20/2010	SK
1033855	pH SM4500H+B	7.60	7/15/2010	JF
1033856	NITRATE/N EPA300.0	<0.30	7/15/2010	JF
1033857	NITRITE/N EPA300.0	<0.20	7/15/2010	JF
1033858	TKN PA1-DK03	22.6	7/20/2010	SK
1033859	FOG SM5520B	7.5	7/30/2010	JF

Brenda Ellis

Signature

Report Date: Wednesday, August 04, 2010

MAGIC VALLEY LABS
210 Addison Ave / PO Box 1867
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Phone: (208) 733-4250
Fax: (208) 734-2539

ROGER LANNI
STEELHEAD BEND UNIT #2

130 N AGATE DR.
SALMON ID 83467

Collection Date	7/14/2010	**Received Date**	7/15/2010	**Location**	
Collection Time	1:15 PM	**Received Time**	8:30 AM	STEEL HEAD BEND	

Sample #	Test / Method Code	Results	Units	Date Analyzed	Analyst
711693621	TOTAL COLIFORM	>242000	MPN/100ML	7/16/2010	MW

Brenda Ellis
Lab Supervisor
Report Date: Thursday, July 22, 2010

MAGIC VALLEY LABS
210 Addison Ave / PO Box 1867
Twin Falls ID 83303-1867
Phone: (208) 733-4250
Fax: (208) 734-2539

ROGER LANNI
ELK BEND UNIT 1

AUG 12 2010

P.O. BOX 1045
SALMON, ID 83467

Collection Date 7/14/2010 **Received Date** 7/15/2010 **Location**
Collection Time 1:00 PM **Received Time** 8:30 AM ELK BEND

Sample #	Test / Method Code	Results	Units	Date Analyzed	Analyst
711693611	TOTAL COLIFORM	105000	MPN/1090ML	7/16/2010	MW

Brenda Ellis
Lab Supervisor
Report Date: Monday, July 19, 2010

IAS EnviroChem

3314 Pole Line Rd. • Pocatello, ID 83201
Phone: (208) 237-3300 • Fax: (208) 237-3336
email: iasec3308@iasenvirochem.com • www.iasenvirochem.com

Idaho Falls DEQ
Gregory Eager
900 N. Skyline, Suite B
Idaho Falls, ID 83402

Date Submitted: 09/29/2011
Date Reported: 10/06/2011

Certificate of Analysis

Sample Description: Elk Bend
Lab Tracking #: I109224-01
Sampling Date/Time: 09/28/11 16:00

Analyte	Result	Units	Method	Analyzed	Analyst
Ammonia as N	16.49	mg/L	4500 NH3 G	10/03/2011	BWH
Biochemical Oxygen Demand	48	mg/L	5210 B	09/29/2011	MPH
Nitrate as N	< 1.00	mg/L	300.0	09/30/2011	BWH
Total Kjeldahl Nitrogen	17.3	mg/L	351.2	10/05/2011	RP

ND = Not Detected
All solids are reported on a dry weight basis unless otherwise noted.

Brad W Hendricks For G. Ryan Pattie
Laboratory Director

1109224
Idaho Falls DEQ
Received: 09/29/2011
MPH

IAS EnviroChem - 3314 Pole Line Rd • Pocatello, ID 83201
P: (208) 237-3300 F: (208) 237-3336 • Email: iasec3308@iasenvirochem.com

Company Name	IDAHO DEQ
Address	900 N Skyline DR
City	Idaho Falls
Phone	208-528-2650
Email	Gregroy.Eager@deq.idaho.gov

Send Bill or Receipt To: tammy copeland, Admin Asst

Payment due with samples unless credit has been established

Email Invoice to: Gregory.Eager@deq,idaho.gov

☐ Cash ■ Bill ☐ Check# ____ ☐ PO # ____

☐ Other ____

Amount ____ Received by ____

Special Instructions

Two samples collected: One for analysis, the other is a backup sample if needed. (please discard and do not test if not needed)

Analyses Requested

SAMPLE INFORMATION

TRK # (Lab use)	Sample Description	Date/Time Collected	Number of Containers	AMMONIA	TKN	NITRATE	BOD											Comments
	Elk Bend 1	9/28, 16:00	1															
	Elk bend 2	9/28, 16:05	1															

RELINQUISHED BY

Signature: Greg Eager
Printed Name: Greg Eager
Date/Time: 9/29 9:47 am

RECEIVED BY

Signature: C Stenger
Printed Name: C Stenger
Date/Time: 092911 0947

Lab Use Only

Temp: 1.4°C
Labels and Chain Agree? YES NO
Container Sealed? YES NO

10/02/2013 14:56

=== COVER PAGE ===

TO: _____

FROM: THE RECORDER HERALD

FAX: 2087562222

TEL: 2087562221

COMMENT:

208-756-2221 Free Press — Free People Fax 208-756-2222

THE RECORDER HERALD

Official Newspaper of Lemhi County Established 1884

P.O. Box 310 • 519 Van Dreff Salmon, Idaho 83467

Fax Cover Page

and

2 Pages

Date 10 / 2 / 13

To: Skylar Allen
208-238-3162

Water test results for Dept.
Elk Bend Sewer District
Eleanor Warner

MAGIC VALLEY LABS
210 Addison Ave / PO Box 1867
Twin Falls ID 83303-1867
Phone: (208) 733-4250
Fax: (208) 734-2539

LANNI
ELK BEND UNIT 1

P.O. BOX 1045
SALMON, ID 83467

Collection Date	9/9/2013	**Received Date**	9/11/2013	**Location**	
Collection Time	2:30 PM	**Received Time**	8:30 AM	ELK BEND SEWER	

Sample #	Test / Method Code	Results	Units	Date Analyzed	Analyst
711776201	TOTAL COLIFORM SM9223BQT	>4839	MPN/100ML	9/11/2013	JD

Reviewed By: _____

Report Date: Thursday, September 12, 2013

MAGIC VALLEY LABS, Inc.

210 Addison Ave, PO BOX 1867, Twin Falls ID 83301 (208) 733-4250 FAX (208) 734-2539 ☒
1448 E Center Ste H, Pocatello ID 83201 (208) 478-1855 FAX (208) 478-4350 ☐

CHAIN OF CUSTODY

Name: ELK BEND SEWER DIST
Address: 130 N. AGATE DR
City: SALMON State: Id. Zip: 83467
Phone: 208-894-2416
Fax:
Email:

PWS #:
Project Manager: LANNI
Project Name:
Collector: LANNI
Purchase Order #:

Turn Around Time & Reporting
Normal ☐ Phone
24 hour* ☐ Mail
48 hour* ☐ Fax
Other ☐ Email
Results Needed By: / /
*All rush order requests must be approved

Sample Type: ☒ Routine ☐ Confirmation ☐ Repeat ☐ Duplicate ☐ Special ☐ Other

Compliance: ☒ Yes ☐ No

ANALYSIS REQUESTED

LAB USE ONLY SAMPLE ID No.	SAMPLE LOCATION / CLIENT SAMPLE ID	COLLECTION DATE	COLLECTION TIME	# of containers	BOD	PH	TOTAL NITR	TKN	NITROGEN	NITRITEIN	TC	Comments
711776201	ELK BEND SEWER INFLUENT	9-9-13	2:30 PM	4								

Analysis Start
9/11/13 0930 JH
Date Time Initials
Dilution 1:2 Reagent 24Ct

Relinquished by		Company	Date	Time
Received by		Company	Date	Time
Relinquished by		Company	Date	Time
Received by	MW	Company MVL	Date 09/11/13	Time 0830

LAB USE ONLY
Received Intact: Yes No
Temp Recorded: Yes No
Contained: Yes No
Preservation: Yes No
Received: Yes No
MVL Form 02

10/02/2013 14:56 2087562222 THE RECORDER HERALD PAGE 03/03

Appendix F. Financial Information

516 Main Street
Salmon, ID 83467
208-756-2525 phone
208-756-2555 fax

Bri-Easy Shipping LLC

Fax

To: Skyler Allen **From:** Eleanor Crosser
Fax: 1-208-238-2162 **Pages:** 2
Phone: **Date:** 6-25-15
Re: Budget **cc:**

☐ Urgent ☒ For Review ☐ Please Comment ☐ Please Reply ☐ Please Recycle

Comments: This is the budget approved for this year. The County and I are working on a new budget including loans, etc -
Thanks -
Eleanor

NOTICE OF BUDGET MEETING FOR THE ELK BEND SEWER DISTRICT

Notice is hereby given that a meeting of the Board of Directors as qualified vectors of the above named District will be held the 1st of June 2015 at the hour of 10:00 am in the QRU Building, Elk Bend, Lemhi County, Idaho. At this meeting there shall be a Public Hearing on the Maintenance and Operations Budget for the coming fiscal year.

The budget, as presently determined by the Board of Directors, is now available at the Elk Bend Fire Hall #1 Bulletin Board and will remain available until the hearing, as provided by law.

The budget meeting in pursuant to Section 42-3229 Idaho Code.
Dated this 15th of May 2015
Eleanor Wisner
Elk Bend Sewer District
Lemhi County, Idaho

Elk Bend Sewer District General Fund Budget 2015:

Revenues:

Estimated Elk Bend Sewer Levy	$25,850.00
Estimated Interest and Delinquent Taxes	6,000.00
Total	$31,850.00

Expenditures:

Payroll	$10,625.00
Payroll Taxes	1,200.00
Utilities	3,555.00
Chemical Tests	3,961.00
Insurance	2,804.00
Travel	827.00
Repair and Maintenance	8,631.00
Administration and Legal	247.00
Total	$31,850.00

NOTICE OF BUDGET MEETING FOR THE ELK BEND SEWER DISTRICT

Notice is hereby given that a meeting of the Board of Directors a qualified vectors of the above named District will be held the 22nd of June 2012 at the hour of 10:00am at the QRU Building, Elk Bend, Lemhi County, Idaho. At this meeting there shall be a Public Hearing on the Maintenance and Operations Budget for the coming fiscal year.

The budget as presently determined by the Board of Directors is now available at the Elk Bend Fire Hall #1 Bulletin Board and will remain available until the hearing as provided by law.

The budget meeting in pursuant to Section 42-3229 Idaho Code.
Dated this 15th of May 2012
Eleanor Wisner
Elk Bend Sewer District
Lemhi County, Idaho

Elk Bend Sewer District General Fund Budget 2012

Revenues:	
Estimated Elk Bend Sewer Levy	$ 21,848.00
Estimated Interest and Delinquent Taxes	$ 6,000.00
Total	$ 27,848.00
Expenditures:	
Payroll	$ 10,625.00
Payroll Taxes	$ 1,200.00
Utilities	$ 2,900.00
Chemical Tests	$ 5,708.00
Insurance	$ 3,630.00
Travel	$ 827.00
Repair and Maintenance	$ 2,711.00
Administration and Legal	$ 247.00
Total	$ 27,848.00

Appendix G. Agency Involvement

DEPARTMENT OF THE ARMY
WALLA WALLA DISTRICT, CORPS OF ENGINEERS
BOISE REGULATORY OFFICE
10095 WEST EMERALD STREET
BOISE, IDAHO 83704-9754

REPLY TO
ATTENTION OF

May 22, 2014

Regulatory Division

SUBJECT: NWW-2012-587, Elk Bend Sewer District Wastewater Improvement Project

Mr. Skyler Allen
Keller Associates, Inc.
305 North 3rd Avenue, Suite A
Pocatello, Idaho 83201

Dear Mr. Allen:

Enclosed is our Department of Army (DA) Approved Jurisdictional Determination (AJD) that there are no waters of the United States, including wetlands, within the proposed project area. Therefore, no DA authorization is required. This decision is based upon our review of the revised Elk Bend Sewer District Wastewater Improvement Project described in your March 14, 2014 letter. In our May 7, 2013, letter the Corps indicated that wetlands were present in the potential alternate treatment disposal area and that all other project features were located in non-wetland areas. The revised project has deleted the alternate treatment disposal area previously proposed. Based on the revision, the proposed project does not require DA approval as all work would occur in uplands which are not regulated under section 404 of the Clean Water Act.

The project site is located near, the Salmon River, at Elks Bend and Steelhead Bend, within Section 10 of Township 18 North, Range 21 East, near latitude 44.90874° N and longitude -113.96032° W, in Lemhi County, near Salmon, Idaho. This project was previously assigned file number NWW-2012-587, which should be referred to in future correspondence with our office regarding this site.

The DA exerts regulatory jurisdiction over waters of the United States (U.S.), including wetlands, pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344. Section 404 of the Clean Water Act requires a DA permit be obtained prior to discharging dredged or fill material into waters of the U.S., which includes most perennial and intermittent rivers and streams, natural and man-made lakes and ponds, irrigation and drainage canals and ditches that are tributaries to other waters, and wetlands.

The proposed project area, as shown on the attached map, dated May 21, 2014, is located entirely in uplands which do not contain waters of the U.S., including wetlands, under the Corps' regulatory jurisdiction. Therefore, a DA authorization is not required to develop the upland property.

This approved JD is valid for a period of 5-years from the date of this letter, unless new information supporting a revision is provided to this office before the expiration date. Also enclosed, you will find the Approved Jurisdictional Determination Form addressing wetlands and waters of the U.S. located within the JD review area, and a *Notification of Administrative Appeals Options and Process and Request for Appeal Form* (RFA) regarding this DA Approved Jurisdictional Determination. Should you disagree with certain terms and/or conditions of this Approved JD, the Notification of Administrative Appeal Options form outlines the steps to take to file your objection. Please note, the RFA form must be received by the Northwest Division Office no later than **July 21, 2014**.

Nothing in this letter shall be construed as excusing you from compliance with other Federal, state, or local statutes, ordinances or regulations which may affect this work.

We are interested in your thoughts and opinions concerning the quality of service you received from the Walla Walla District, Corps of Engineers Regulatory Division. Please visit us online at http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey and complete an electronic version of our Customer Service Survey form, which will be automatically submitted to us. Alternatively, you may call and request a paper copy of the survey, which you may complete and return to us by mail. For additional information about our Regulatory program please visit us at http://www.nww.usace.army.mil/BusinessWithUs/RegulatoryDivision.aspx. Your responses are appreciated and will allow us to improve our services.

If you have any questions about this determination, please contact me by telephone at (208) 322-3410, via email at casey.a.forest@usace.army.mil or by mail at the address in the above letterhead. We appreciate your cooperation with the Corps of Engineers' Regulatory Program.

Sincerely,

Casey Forest

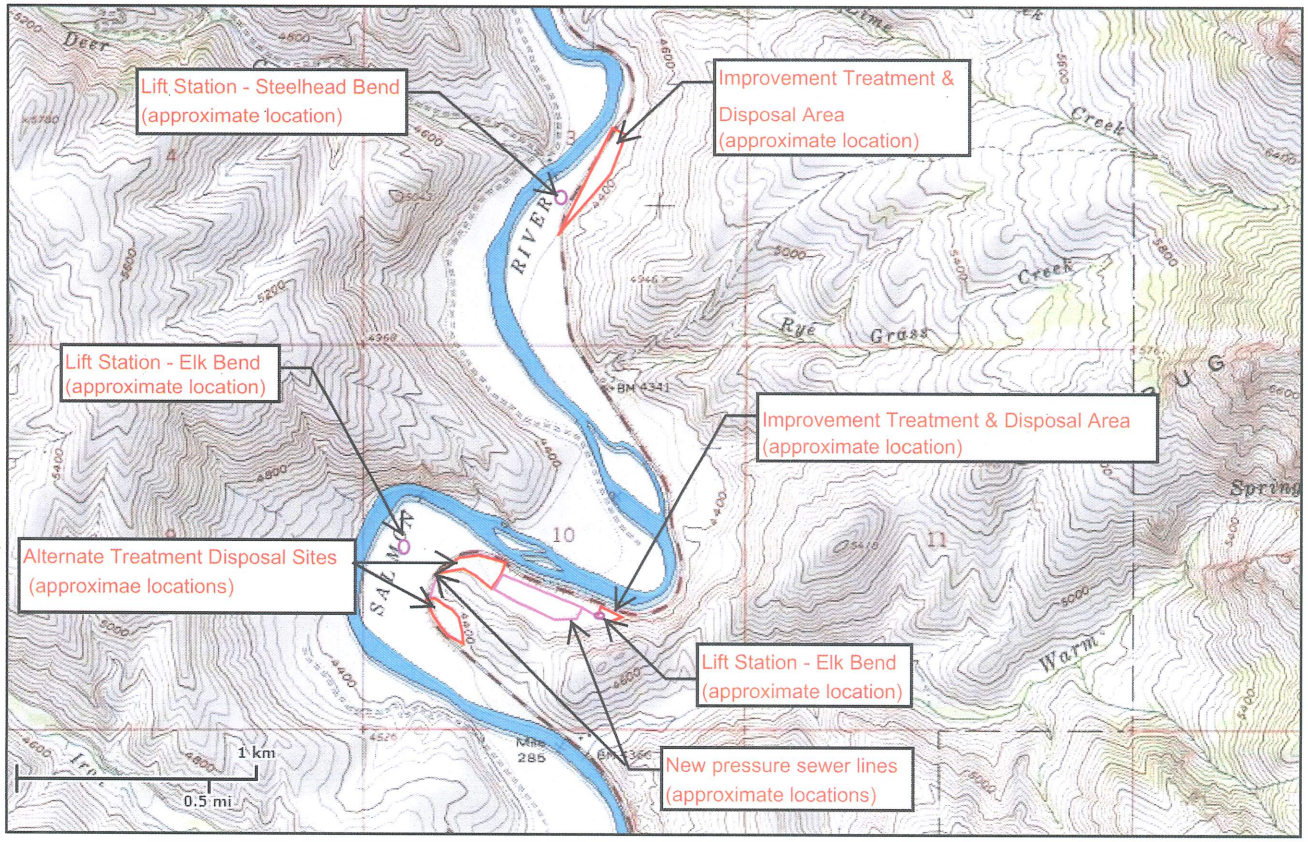
Casey Forest
Project Manager, Regulatory Division

Enclosures:
Wetland/Waters Delineation Map
Approved JD Form
Notification of Administrative Appeal Options and Request for Appeal Form

U.S. Fish and Wildlife Service
National Wetlands Inventory

NWW-2012-587

May 21, 2014



Wetlands

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

User Remarks:

Elk Bend & Steelhead Bend, Waste Water Treatment Improvements

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): May 22, 2014

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Walla Walla District, NWW-2012-587, Elk Bend Sewer District Wastewater Improvement Project

C. PROJECT LOCATION AND BACKGROUND INFORMATION: located along the Salmon River, approximately 23 miles south of Salmon Idaho

State: Idaho County/parish/borough: Lemhi City: Near Salmon Idaho
Center coordinates of site (lat/long in degree decimal format): 44.90874° Lat. -113.96032° Long.
Universal Transverse Mercator: Zone 12 Northing 171651 **N**, Easting 543289 **E**.
Name of nearest waterbody: Salmon River
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Snake River
Name of watershed or Hydrologic Unit Code (HUC): 17060203

- ☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
- ☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

- ☒ Office (Desk) Determination. Date: 5/21/2014
- ☒ Field Determination. Date(s): 5/3/2013

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "*navigable waters of the U.S.*" within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]

- ☐ Waters subject to the ebb and flow of the tide.
- ☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are no** "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. **Waters of the U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
   - ☐ TNWs, including territorial seas
   - ☐ Wetlands adjacent to TNWs
   - ☐ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs
   - ☐ Non-RPWs that flow directly or indirectly into TNWs
   - ☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
   - ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
   - ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
   - ☐ Impoundments of jurisdictional waters
   - ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
   Non-wetland waters: linear feet: width (ft) and/or acres.
   Wetlands: acres.

   c. **Limits (boundaries) of jurisdiction** based on: **1987 Delineation Manual**
   Elevation of established OHWM (if known): .

2. **Non-regulated waters/wetlands (check if applicable):**[3]
   - ☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: **On May 3, 2013, a site inspection was conducted by the Corps of Engineers (Corps) and determined that except for wetlands in the October 2, 2012, potential alternate wastewater disposal area all other project features were**

---

[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
[3] Supporting documentation is presented in Section III.F.

located in uplands. The revised project has deleted the alternate wastewater disposal area from consideration, thus all project features are located in uplands which are not regulated under Section 404 of the Clean Water Act.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. **TNW**
   Identify TNW: .

   Summarize rationale supporting determination: .

2. **Wetland adjacent to TNW**
   Summarize rationale supporting conclusion that wetland is "adjacent": .

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody[4] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. **Characteristics of non-TNWs that flow directly or indirectly into TNW**

   (i) General Area Conditions:
   Watershed size: **square miles**
   Drainage area: **acres**
   Average annual rainfall: inches
   Average annual snowfall: inches

   (ii) Physical Characteristics:
   (a) Relationship with TNW:
   ☐ Tributary flows directly into TNW.
   ☐ Tributary flows through **Pick List** tributaries before entering TNW.

   Project waters are **Pick List** river miles from TNW.
   Project waters are **Pick List** river miles from RPW.
   Project waters are **Pick List** aerial (straight) miles from TNW.
   Project waters are **Pick List** aerial (straight) miles from RPW.
   Project waters cross or serve as state boundaries. Explain: .

   Identify flow route to TNW[5]: .
   Tributary stream order, if known: .

[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.
[5] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

(b) General Tributary Characteristics (check all that apply):

Tributary is: ☐ Natural
☐ Artificial (man-made). Explain: .
☐ Manipulated (man-altered). Explain: .

Tributary properties with respect to top of bank (estimate):
Average width: feet
Average depth: feet
Average side slopes: **Pick List.**

Primary tributary substrate composition (check all that apply):
☐ Silts ☐ Sands ☐ Concrete
☐ Cobbles ☐ Gravel ☐ Muck
☐ Bedrock ☐ Vegetation. Type/% cover:
☐ Other. Explain: .

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: .
Presence of run/riffle/pool complexes. Explain: .
Tributary geometry: **Pick List**
Tributary gradient (approximate average slope): %

(c) Flow:
Tributary provides for: **Pick List**
Estimate average number of flow events in review area/year: **Pick List**
Describe flow regime: .
Other information on duration and volume: .

Surface flow is: **Pick List.** Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .
☐ Dye (or other) test performed: .

Tributary has (check all that apply):
☐ Bed and banks
☐ OHWM[6] (check all indicators that apply):
☐ clear, natural line impressed on the bank
☐ changes in the character of soil
☐ shelving
☐ vegetation matted down, bent, or absent
☐ leaf litter disturbed or washed away
☐ sediment deposition
☐ water staining
☐ other (list):
☐ the presence of litter and debris
☐ destruction of terrestrial vegetation
☐ the presence of wrack line
☐ sediment sorting
☐ scour
☐ multiple observed or predicted flow events
☐ abrupt change in plant community
☐ Discontinuous OHWM.[7] Explain: .

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):
☐ High Tide Line indicated by:
☐ oil or scum line along shore objects
☐ fine shell or debris deposits (foreshore)
☐ physical markings/characteristics
☐ tidal gauges
☐ other (list):
☐ Mean High Water Mark indicated by:
☐ survey to available datum;
☐ physical markings;
☐ vegetation lines/changes in vegetation types.

(iii) Chemical Characteristics:
Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: .
Identify specific pollutants, if known: .

---

[6]A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7]Ibid.

(iv) Biological Characteristics. Channel supports (check all that apply):

- ☐ Riparian corridor. Characteristics (type, average width): .
- ☐ Wetland fringe. Characteristics: .
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings: .
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☐ Aquatic/wildlife diversity. Explain findings: .

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland size: acres

Wetland type. Explain: .

Wetland quality. Explain: .

Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:

Flow is: **Pick List**. Explain: .

Surface flow is**: Pick List**

Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .

- ☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

- ☐ Directly abutting
- ☐ Not directly abutting
  - ☐ Discrete wetland hydrologic connection. Explain: .
  - ☐ Ecological connection. Explain: .
  - ☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Flow is from: **Pick List.**

Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: .

Identify specific pollutants, if known: .

(iii) Biological Characteristics. Wetland supports (check all that apply):

- ☐ Riparian buffer. Characteristics (type, average width): .
- ☐ Vegetation type/percent cover. Explain: .
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings: .
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☐ Aquatic/wildlife diversity. Explain findings: .

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: **Pick List**

Approximately ( ) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)

Summarize overall biological, chemical and physical functions being performed: .

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: .

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   - ☐ TNWs: linear feet width (ft), Or, acres.
   - ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   - ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: .
   - ☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: .

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

3. **Non-RPWs[8] that flow directly or indirectly into TNWs.**
☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**
☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**
☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. **Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**
☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. **Impoundments of jurisdictional waters.[9]**
As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
☐ Demonstrate that impoundment was created from "waters of the U.S.," or
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]
☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
☐ which are or could be used for industrial purposes by industries in interstate commerce.
☐ Interstate isolated waters. Explain: .
☐ Other factors. Explain: .

Identify water body and summarize rationale supporting determination: .

---

[8] See Footnote # 3.
[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
[10] **Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.***

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .
☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):
☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):
☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:Map March 14, 2014.
☐ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
☐ Office concurs with data sheets/delineation report.
☐ Office does not concur with data sheets/delineation report.
☐ Data sheets prepared by the Corps: .
☐ Corps navigable waters' study: .
☐ U.S. Geological Survey Hydrologic Atlas: .
☐ USGS NHD data.
☐ USGS 8 and 12 digit HUC maps.
☒ U.S. Geological Survey map(s). Cite scale & quad name:ID-GOLDBUG RIDGE, 1:24k.
☒ USDA Natural Resources Conservation Service Soil Survey. Citation:South Elk Bend WWT Area, North Elk Bend Area & Steelhead Bend WWT Disposal location.
☒ National wetlands inventory map(s). Cite name:USFWS, NWW-2012-587.
☐ State/Local wetland inventory map(s): .
☒ FEMA/FIRM maps:1600920825A & 1600920825A.
☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
☒ Photographs: ☒ Aerial (Name & Date):Google Earth, 5/21/2014.
or ☒ Other (Name & Date):ORM2 Database, 5/21/2014.
☒ Previous determination(s). File no. and date of response letter:NWW-2012-587, May 7, 2013.
☐ Applicable/supporting case law: .
☐ Applicable/supporting scientific literature: .
☐ Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD: A review of historic Google Earth aerial photos from 1992-2011 was conducted. Per the review, the project site locations are existing waste water treatment lift stations, disposal sites, undeveloped and residential developed

locations. There are some small buildings on portions of the sites; however, there are no waters of the U.S., including wetlands present. This was previously confirmed by the Corps during the May 3, 2013, on-site inspection.

Per the review of the USFWS, NWI Topo Map the nearest water body is the Salmon River which is located 48' North at the closest point to any portion of the proposed waste treatment facility improvements/additions. The NWI maps show no wetlands within the project impact area. No waters of the U.S. are located within the project area. The project areas are located entirely in uplands .

A review of the soil survey for Lemhi County shows the soil at this location to be Bock-Bromaglin, Dawtonia-Custco and Zer gravelly loam. These soils occurs on stream terraces and hillslopes. Soils in this group are well drained with a water table generally greater than 80" from the surface.

Based on the above the project impact area contains no waters of the U.S. or wetlands. All work would occur in uplands, thus DA approval is not required for this project.

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Elk Bend Sewer District	File Number: NWW-2012-587	Date: May 22, 2014

Attached is:		See Section Below
	INITIAL PROFFERED PERMIT (Standard Permit or Letter of Permission)	A
	PROFFERED PERMIT (Standard Permit or Letter of Permission)	B
	PERMIT DENIAL	C
X	APPROVED JURISDICTIONAL DETERMINATION	D
	PRELIMINARY JURISDICTIONAL DETERMINATION	E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at http://usace.army.mil/inet/functions/cw/cecwo/reg or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations (JD) associated with the permit.

OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit,

ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.

APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.

APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMT

REASONS FOR APPEAL OR OBJECTIONS:

Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:

District Engineer
ATTN: Ms. Kelly J. Urbanek
Regulatory Division Walla Walla District
201 North 3rd Avenue
Walla Walla, Washington 99362-1876
Telephone (208) 376-1832

If you only have questions regarding the appeal process you may also contact:

U.S. Army Corps of Engineers
Northwestern Division
Attn: Mary Hoffman, Appeals Review Officer
P.O. Box 2870
Portland, Oregon 97208-2870
Telephone (503) 808-3825

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

Signature of appellant or agent:	*Date:*	*Telephone:*

Skyler Allen

From: Bassista,Tom <thomas.bassista@idfg.idaho.gov>
Sent: Thursday, April 03, 2014 4:42 PM
To: Skyler Allen
Cc: Waterbury,Beth; Curet,Tom
Subject: Elk Bend Sewer District Wastewater Improvment Project
Attachments: Elk Bend Sewer District Wastewater Improvement Project Salmon Letter.pdf

Skyler:

I checked with our wildlife biologist, Beth Waterbury, and she is currently monitoring active nesting bald eagles in the same location described in our letter submitted to you in November of 2012. The nest would be approximately 1300 feet from the middle Lift Station (between Elk Bend and Steelhead Bend). If at all possible we would prefer to see rehabilitation or replacement work at that particular lift station between August 15 and January 15.

Thank you for the opportunity to review and comment on the project.

Tom Bassista
Environmental Staff Biologist

Idaho Department of Fish and Game
Upper Snake and Salmon Regions
4279 Commerce Circle
Idaho Falls, ID 83401
208.525.7290

www.history.idaho.gov

Idaho • State Historical SOCIETY

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Office: (208) 334-2120
Fax: (208) 334-4059

State Historic Preservation Office and Historic Sites
Archeological Survey of Idaho
210 Main Street
Boise, Idaho 83702-7264
Office: (208) 334-3861
Fax: (208) 334-2775

Statewide Sites:
• Franklin Historic Site
• Pierce Courthouse
• Rock Creek Station and
• Stricker Homesite

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2445 Old Penitentiary Road
Boise, Idaho 83712-8254
Office: (208) 334-2844
Fax: (208) 334-3225

Idaho State Archives
2205 Old Penitentiary Road
Boise, Idaho 83712-8250
Office: (208) 334-2620
Fax: (208) 334-2626

North Idaho Office
112 West 4th Street, Suite #7
Moscow, Idaho 83843
Office: (208) 882-1540
Fax: (208) 882-1763

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March 20, 2014

Skyler Allen
Keller Associates
305 North Third, Suite A
Pocatello, ID 83201

RE: Modifications to the Elk Bend District Wastewater Improvement Project (Idaho SHPO REV 2013-42)

Dear Mr. Allen,

Thank you for your informational letter and project materials regarding the modifications to the proposed undertaking. We have reviewed the proposed modifications and maintain our recommendation that the undertaking will have no effect on historic properties (36 CFR 800.4).

We appreciate your consulting with our office. If you have any questions feel free to contact me at 208-334-3861 x107 or ethan.morton@ishs.idaho.gov.

Sincerely,

Ethan Morton
Archaeologist, Idaho State Historic Preservation Office

www.history.idaho.gov

Idaho State Historical Society

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Governor of Idaho

Janet Gallimore
Executive Director

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Archeological Survey of Idaho
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Fax: (208) 334-2775

Statewide Sites:
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• Pierce Courthouse
• Rock Creek Station and
• Stricker Homesite

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Fax: (208) 334-2626

North Idaho Office
112 West 4th Street, Suite #7
Moscow, Idaho 83843
Office: (208) 882-1540
Fax: (208) 882-1763

December 20, 2013

Skyler Allen
Keller Associates
305 North Third, Suite A
Pocatello, ID 83201

RE: Elk Bend District Wastewater Improvement Project (Idaho SHPO REV 2013-42)

Dear Mr. Allen,

Thank you for your informational note and the report prepared by Kenneth Canon with USU Archaeological Services. We have reviewed the report and concur that the undertaking will have no effect on historic properties (36 CFR 800.4).

We appreciate your consulting with our office. If you have any questions feel free to contact me at 208-334-3861 x107 or ethan.morton@ishs.idaho.gov.

Sincerely,

Ethan Morton
Archaeologist, Idaho State Historic Preservation Office

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Fax: (208) 882-1763

October 18, 2012

Skyler Allen
Keller Associates
305 N. 3rd Ave.
Pocatello, Idaho 83201

RE: Elk Bend District Wastewater Improvement Project, Lemhi County, Idaho

Thank you for requesting our views on the proposed improvements to the wastewater system for the community of Elk Bend located on the Salmon River south of Salmon, Idaho. Work will involve the rehabilitation of two lift stations, construction of 3900 feet of sewer line, construction of a filter treatment plant, and expansion of a soil absorption system for treated wastewater disposal.

Our records show that the project location is an area where archaeological sites are likely to exist. We are therefore recommending an archaeological survey of the project area prior to any ground-disturbing activities. The survey should be conducted when ground visibility is good and a report sent to our office for review. Depending upon the results, we may recommend avoiding sensitive areas, archaeological testing or monitoring, or proceeding with the project as planned.

A list of archaeological consultants can be found on Preservation Idaho's website (www.preservationidaho.org) under Resources.

We appreciate your cooperation. If you have any questions, please feel free to contact me at 208-334-3847, ext. 107.

Sincerely,

Susan Pengilly
Deputy SHPO

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EASTERN IDAHO
Public Health
DISTRICT

ENVIRONMENTAL HEALTH DIVISION

1250 Hollipark Drive • Idaho Falls, ID 83401
208.523.5382 • fax 208.528.0857
www.phd7.idaho.gov

Promoting the Health of People & Their Environment

April 9, 2014

Skyler D. Allen
Keller Associates
305 North 3rd Avenue
Suite A
Pocatello, ID 83201

RE: ENVIRONMENTAL REVIEW RESPONSE

Dear Mr. Allen:

This letter is in regards to your March 14, 2014, Environmental Review letter for the Elk Bend Sewer District in Lemhi County. *Please note: the correct mailing address to receive correspondence timely is as follows:

Eastern Idaho Public Health District
1250 Hollipark Drive
Idaho Falls, ID 83401

This Department has a comment dealing with the improvement project for Elk Bend and Steelhead Bend. We hope that both project locations received comparable levels of the necessary improvements. We are not sure why there is not an "Item C" being considered for the Steelhead Bend project location.

Please be reminded that installation permits are required for subsurface disposal systems. Septic applications can be found on our website at www.phd7.idaho.gov

Thank you for the opportunity to respond. Please call if you have questions. The number is (208) 523-5382.

Sincerely,

Kellye Eager

Kellye Eager
Environmental Health Director

CC: Geri Rackow, EIPHD- District Director
Steve Adams, EIPHD- Lemhi County

EASTERN IDAHO SUPERVISORY AREA
3563 Ririe Highway
Idaho Falls, ID 83401
Phone (208) 525-7167
Fax (208) 525-7011
pbrown@idl.idaho.gov

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Brandon Woolf, State Controller
Tom Luna, Sup't of Public Instruction

OCT 25 2012

October 24, 2012

Skyler D Allen
Keller Associates
305 North 3rd Avenue, Suite A
Pocatello, ID 83201

via e-mail to sallen@kellerassociates.com

RE: Elk Bend Sewer District Wastewater Improvement Project
Elk Bend, Idaho – Section 15 T18N R21E BM

Dear Mr. Allen:

Thank you for the opportunity to review and comment on the proposed wastewater improvements for Elk Bend Sewer District, providing services to Elk Bend and Steelhead Bend, Idaho.

As you may know, Idaho Department of Lands' (IDL) mission is to manage State Endowment Trust Lands (State Trust Lands) in a manner that will maximize long-term financial returns to the Beneficiary Institutions. The IDL mission is a constitutional mandate and is overseen by the State Board of Land Commissioners. State Trust Lands are not managed for the public at large and should not be referred to as "public lands" or "open space," either specifically or in a generic sense. These are working lands producing revenue for the Beneficiary Institutions.

IDL has reviewed the request for comments provided by Keller Associates for the wastewater improvement project. Based on the documentation provided to IDL, the project will not impact State Trust Lands at this time. Should the project be modified during the review or approval process, IDL requests that updated application information be submitted to the Eastern Area Office for additional review.

Thank you again for the opportunity to review and comment on this project. Please contact our Eastern Area Manager Pat Brown at (208) 525-7167 if you have questions or need more information.

Sincerely,

Julianne Shaw
Assistant Planner

cc: Patrick A. Brown, Eastern Area Manager
Kate Langford, Strategic Business Analyst – Planning

STATE OF IDAHO

C. L. "BUTCH" OTTER
GOVERNOR
CELIA R. GOULD
DIRECTOR

October 30, 2012

Skyler Allen, EI
Keller Associates, Inc.
305 N. 3rd Avenue, Suite A
Pocatello, Idaho 83201

Dear Skyler Allen:

Thank you for inquiring with the Idaho State Department of Agriculture (ISDA) with regards to your work with the Elk Bend Sewer District Waterwater Improvement Project. The public works project being proposed will be an important project for the citizens of that area.

We have reviewed the planning documents provided to us. Your documents appear to be professional and informative. At this time we do not have comments or questions related to this project.

Thank you for contacting our agency. Feel free to contact us in the future (main number - 208-332-8500, my number - 208-332-8597).

Sincerely,

Gary Bahr

Gary Bahr

Water Quality Programs

PC: Water Program File

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Eastern Idaho Field Office
4425 Burley Dr., Suite A
Chubbuck, Idaho 83202
Telephone (208) 237-6975
http://www.fws.gov/idahoes/

OCT 16 2012

OCT 17 2012

Skyler Allen
Keller Associates, Inc.
305 N. 3rd Avenue, Suite A
Pocatello, ID 83201

Subject: Proposed Elk Bend Sewer Wastewater Improvement Project in Lemhi County, Idaho 2013-TA-0016 Species Request

Dear Mr. Allen:

The Fish and Wildlife Service (Service) is providing you with a list of endangered, threatened, proposed, and/or candidate species, and designated critical habitat which may occur in the area of the proposed Elk Bend Sewer District wastewater improvement project in Lemhi County, Idaho. You requested this list in a letter dated October 02, 2012 and received in our office October 09, 2012.

Non-Federal Lands and Section 7

Section 7 of Endangered Species Act of 1973, as amended (Act) requires Federal agencies to assure that their actions do not jeopardize any listed species and provides a process for exemption of take for Federal agencies. Although your project is located on non-Federal lands, if there is a Federal action (funding, permitting, or direct action) associated with your project, the Federal agency is required to consult with the Service if the action may affect a listed species. Section 7 regulations also allow for applicants to be involved in the consultation process. For instance, a Federal agency may designate you or another non-Federal entity to represent them in an informal consultation.

The enclosed list fulfills the requirements for a species list under section 7(c) of the Act. If the project decision has not been made within 180 days of this letter, regulations require that you request an updated list. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at: http://www.fws.gov/endangered/consultations/s7hndbk/s7hndbk.htm. Section 7 consultation information specific to Idaho listed species can also be found on the Snake River Fish and Wildlife Office website at http://www.fws.gov/idaho/agenices.htm.

Voluntary Agreements for Species Conservation on Private Lands

The Act includes provisions for the conservation of listed species on both Federal and non-Federal lands. A private landowner may wish to enter into an agreement with the Service under section 10 of the Act for activities that benefit listed, proposed, and candidate species. Voluntary agreements such as Safe Harbor Agreements or Candidate Conservation Agreements contribute

to the conservation of listed, proposed, or candidate species while allowing for management activities on non-Federal lands. In addition, Section 9 of the Act prohibits the "taking" of any listed species without an exemption (issued by the Service) for that take[1]. For private landowners, that exemption is developed through the permit process of Section 10 (through a Habitat Conservation Plan) of the Act. More information on the various mechanisms for take exemption available to private landowners under the Act can be found at http://www.fws.gov/idaho/Landowners.htm.

Also, please be aware that the Fish and Wildlife Service appointed David Kampwerth as supervisor of the Eastern Idaho Ecological Services Field Office in Chubbuck, Idaho replacing Damien Miller. In the future, please address all correspondence to Mr. Kampwerth.

If you have any questions about your responsibilities under the Act, or require further information, please contact Melanie Cota of the Eastern Idaho Field Office at (208) 237-6975 x- 115. Thank you for your continued interest in endangered species conservation.

Sincerely,

for David Kampwerth,
Field Supervisor

Enclosure

1 Take of threatened or endangered animal species is defined as; harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harm is further defined by the Service to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. Harass is defined by the Service as an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding, or sheltering.

KELLER ASSOCIATES
LEMHI COUNTY, IDAHO
SPECIES LIST 2013

LISTED SPECIES	COMMENTS
Bull trout *(Salvelinus confluentus)*	LT
PROPOSED SPECIES/CRITICAL HABITAT	
Steelhead *(Oncorhynchus mykiss)*	CH – NOAA Fisheries jurisdiction
CANDIDATE SPECIES[1]	
Yellow-billed cuckoo *(Coccyzus americanus)*	C
Greater sage-grouse (*Centrocercus urophasianus*)	C
North American Wolverine *(Gulo gulo luscus)*	C

LE - Listed Endangered
LT - Listed Threatened
XN - Experimental/Non-essential population
PT - Proposed Threatened
C - Candidate

[1]Candidate species have no protection under the Act, but are included for your early planning consideration. Candidate species could be proposed or listed during the project planning period, and would then be covered under Section 7 of the Act. The Service advises an evaluation of potential effects on candidate species that may occur in the project area.

Skyler Allen

From: McGown, Mary <Mary.McGown@idwr.idaho.gov>
Sent: Thursday, October 18, 2012 1:48 PM
To: Skyler Allen
Cc: buildingdept.lemhicounty@centurytel.net; gary@lemhicountyidaho.org
Subject: Elk Bend Sewer District Wastewater Improvement Project

Skyler,

I have reviewed the information you provided about the Elk Bend sewer improvement project. Some of the project components appear to be in the mapped flood hazard area of the Salmon River. A Floodplain Development Permit will needed from Lemhi County for work in the mapped flood hazard area. The county's ordinance may have requirements that are more stringent than the federal minimums. The Lemhi County Floodplain Administrator is Gary Goodman, (208) 756-6913.

The National Flood Insurance Program regulations for sewer projects are general for waste water system improvements.

> *[The community must] Require within flood-prone areas (i) new and replacement sanitary sewage systems to be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters ... 44 CFR 60.3(a)(6)*

In most instances, these criteria can be met through careful system design. Manholes should be raised above the Base Flood Elevation (BFE) or equipped with seals to prevent leakage. Pumping stations should have electrical panels elevated above the BFE. However, no BFEs have been identified in the project area.

Mary G. McGown, Ph.D., CFM
State Floodplain Coordinator
Idaho Department of Water Resources
322 E. Front Street
P.O. Box 83720
Boise, ID 83720-0098
(208) 287-4928

(208) 830-4174 mobile
(208) 287-6700 fax

United States Department of Agriculture
Rural Development
Eastern Idaho Area Office

October 15, 2012

Skyler D. Allen, E.I.
Keller Associates, Inc.
305 N. 3rd Avenue, Suite A
Pocatello, ID 83201

SUBJECT: USDA Rural Development comments on the Elk Bend Sewer District proposed Wastewater Improvement Project.

Dear Skyler,

Per your request, with this letter USDA Rural Development provides to you, comments for preparation of an environmental information document for the Elk Bend Sewer District proposed Wastewater Improvement Project.

Rural Development, Idaho has developed an Environmental Reference Manual for use by Engineers working on projects partially or wholly funded by Rural Development. The Manual contains guidance on developing environmental reports for water and waste projects. The Manual is available at: http://www.rurdev.usda.gov/ID_EngConstr.html##waterandwaste

Preparers of environmental documents for Rural Development funded projects shall consult with appropriate Federal, State, and local agencies to obtain information for assessing potential environmental impacts.

In Lemhi County, consultation on cultural and religious sites with the Shoshone Bannock Tribes and the Shoshone-Paiute Tribes. Contact information is:

Shoshone-Bannock Tribes
Carolyn Boyer Smith
Cultural Resources Coordinator
Phone: 208-478-3707

Shoshone-Paiute Tribes
Ted Howard, Director
Cultural Resource Program
Phone: 702-757-3161

I have enclosed with this letter USDA Rural Utilities Service Bulletin 1780-3 which is for use by Engineers working on projects that will be partially or wholly funded by Rural Development. The Bulletin contains instructions on how to prepare Preliminary Engineering Reports for wastewater system applications.

"USDA is an equal opportunity provider, employer and lender."
To file a complaint of discrimination write USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, DC 20250-9410 or call (800)795-3272 (voice) or (202) 720-6382 (TDD).

Please also note that revenue bonds must have a 40-year term for consideration of Rural Development water and waste grant funds.

We appreciate the opportunity to provide comment and will be happy to work with you and the Elk Bend Sewer District to assist them with project funding.

Please call me at 208-785-5840 ext. 115 or email julie.neff@id.usda.gov if you have any questions.

Sincerely,

JULIE NEFF
Area Specialist – Community Programs

Enclosure: 1

UNITED STATES DEPARTMENT OF AGRICULTURE
Rural Utilities Service

BULLETIN 1780-3

SUBJECT: **Preliminary Engineering Report – Wastewater Facilities**

TO: Rural Development State Directors, RUS Program Directors, State Engineers

EFFECTIVE DATE: Date of approval.

OFFICE OF PRIMARY INTEREST: Environmental and Engineering Staff, Water and Environmental Programs.

INSTRUCTIONS: This bulletin replaces previous RUS Bulletin 1780-3, Preliminary Engineering Report – Sewerage Systems.

AVAILABILITY: This bulletin is available on the Rural Utilities Services' website at www.usda.gov/rus/water.

PURPOSE: This Bulletin provides applicants and their consultants with instructions on how to prepare a Preliminary Engineering Report for a wastewater system application.

October 2, 2003

GARY J. MORGAN
Assistant Administrator
Water and Environmental Programs

Date

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INDEX:

Application Document
Preliminary Engineering Report
Project Planning
Wastewater Facility

ABBREVIATIONS

O&M – Operations and Maintenance
PER – Preliminary Engineering Report
RUS – Rural Utilities Service

1 GENERAL

A Preliminary Engineering Report (PER) should clearly describe the owner's present situation, analyze alternatives, and propose a specific course of action from an engineering perspective. The level of effort required to prepare the report and the depth of analysis within the report are proportional to the size and complexity of the proposed project. Rural Utilities Service (RUS) projects must be modest in design, size and cost, and be constructed and operated in an environmentally responsible manner. Pursuant to 7 CFR Part 1794, guidance in RUS Bulletin 1794A-602, "Guide for Preparing the Environmental Report for Water and Waste Projects", and the Agency's environmental State Supplement, the applicant shall perform the environmental review concurrently with the project engineering planning. This document must indicate that environmental issues were considered as part of the engineering planning. Information provided in the PER will be used to process the funding request, therefore completeness and accuracy are essential for timely processing of the application. Other outlines may be utilized, but the essential information must be readily identifiable. Contact the Rural Development office for further guidance. The following should be used as a guide for the preparation of PERs for RUS financed wastewater systems.

2 PROJECT PLANNING AREA

Describe the area under consideration. The project planning area may be larger than the service area determined to be economically feasible. Service may be provided by a combination of central, cluster, or individual facilities. The description should include information on the following:

a <u>Location</u>. Maps, photographs, and sketches. These materials should indicate legal and natural boundaries, major obstacles, elevations, etc.

b <u>Environmental Resources Present</u>. Maps, photographs, studies and narrative. This section should provide information on the location and significance of important land resources (farmland, rangeland, forestland, wetlands and 100/500 year floodplains, including stream crossings), historic sites, endangered species/critical habitats, etc., that were identified in the applicant's environmental information (normally an Environmental Report) and that must be considered in project planning. A narrative summary with reference to the applicant's environmental submittal is adequate.

c <u>Growth Areas and Population Trends</u>. Specific areas of concentrated growth should be identified. Population projections for the project planning area and concentrated growth areas should be provided for the project design period (typically 20-years). These projections should be based on historical records with justification from recognized sources.

3 EXISTING FACILITIES

Describe the existing facilities including at least the following information:

a Location Map. Provide a schematic layout and general service area map (may be identified on project planning area maps).

b History. Provide a brief description of when major system components were constructed or renovated.

c Condition of Facilities. Describe present condition; suitability for continued use; adequacy of current facilities; and, if any existing central facilities, the treatment, storage, and disposal capabilities. Note the quantity of inflow and infiltration/exfiltration associated with the existing collection system. Also, describe compliance with Clean Water Act and applicable State requirements.

d Financial Status of any Existing Facilities. (Note: Owner will be submitting most recent audit or financial statement as part of the application package.) Provide information regarding current rate schedules, annual operations and maintenance (O&M) cost, other capital improvement programs, and tabulation of users by monthly usage categories for the most recent typical fiscal year. Give status of existing debts and required reserve accounts.

4 NEED FOR PROJECT

Describe the needs in the following order of priority:

a Health, Sanitation, and Security. Describe concerns and include relevant regulations and correspondence from/to Federal, and State regulatory agencies.

b System O&M. Describe the concerns and indicate those with the greatest impact. Investigate infiltration and inflow, management adequacy, inefficient designs, and problem elimination prior to adding additional capacity.

c Growth. Describe the reasonable growth capacity that is necessary to meet needs during the planning period. Facilities proposed to be constructed to meet future growth needs should generally be supported by additional revenues. Consideration should be given to designing for phased capacity increases. Provide number of new customers committed to this project.

5 ALTERNATIVES CONSIDERED

This section should contain a description of the reasonable alternatives that were considered in planning a solution to meet the identified need. Documentation of alternatives considered is often a PER weakness. The following alternatives should be considered, if practicable: building new centralized facilities, optimizing the current facilities (no construction), interconnecting with other existing systems, and developing centrally managed small cluster or individual facilities. These alternatives should be

consistent with those considered in the environmental review. Mitigation measures necessary to avoid or minimize any adverse environmental effects must be integrated into project design. The description should include the following information on each alternative:

a Description. Describe the facilities associated with the alternative. Describe all feasible wastewater treatment technologies and provide comparison of such. Also, describe collection facilities. A feasible system may include a combination of centralized and decentralized (on-site or cluster) units.

b Design Criteria. State the design parameters used for evaluation purposes. These parameters must comply with RUS design policies (7 CFR 1780.57) and state regulatory requirements.

c Map. Schematic layout.

d Environmental Impacts. Do not duplicate the information in the applicant's submittal of environmental information. Describe only those unique direct and indirect impacts on floodplains, wetlands, other important land resources, endangered species, historical and archaeological properties, etc., as they relate to a specific alternative. RUS must conduct an environmental assessment prior to project approval.

e Land Requirements. Identify sites and easements required. Further specify whether these properties are currently owned, to be acquired, or leased.

f Construction Problems. Discuss concerns such as subsurface rock, high water table, limited access, or other conditions which may affect cost of construction or operation of facility.

g Cost Estimates. Provide cost estimates for each alternative, including a breakdown of the following costs:

(1) Construction.

(2) Non-Construction.

(3) Annual Operations and Maintenance.

h Advantages/Disadvantages. Describe how the specific alternative meets the owner's needs with respect to financial, managerial, and operational resources. Explain how the proposal complies with regulatory requirements and existing comprehensive area-wide development plans. Explain how the proposal satisfies public and environmental concerns.

6 SELECTION OF AN ALTERNATIVE

a Present Worth (life cycle) cost analysis (an engineering economics technique to evaluate present and future costs for comparison of alternatives) should be

completed to compare the feasible alternatives. All of the items from the cost estimate should be included in the analysis. The "real" federal discount rate from Appendix C of OMB Circular A-94 should be used for determining the present worth of the uniform series of O & M values (in today's dollars) and the salvage value. This rate may be found at: www.whitehouse.gov/omb/circulars/a094/a94_appx-c.html

b A matrix rating system could be useful in displaying the information on each alternative.

c Note that if the range of present worth values is small, then non-monetary factors should be considered in determining which alternative should be selected.

7 PROPOSED PROJECT (RECOMMENDED ALTERNATIVE)

This section should contain a fully developed description of the proposed project based on the preliminary description under the evaluation of alternatives. At least the following information should be included:

a Project Design.

(1) Collection System Layout. Identify general location of line improvements: lengths, sizes, and key components.

(2) Pumping Stations. Identify size, type, site location, and any special power requirements.

(3) Treatment. Describe process in detail and identify location of any treatment units and site of any discharges.

b Total Project Cost Estimate. Provide an itemized estimate of the project cost based on the stated period of construction. Include development and construction, land and rights, legal, engineering, interest, equipment, contingencies, refinancing, and other costs associated with the proposed project. The engineer may rely on the owner for estimates of cost for items other than construction, equipment, and engineering. (For projects containing both water and waste disposal systems, provide a separate cost estimate for each system.)

c Annual Operating Budget. Provide itemized annual operating budget information. The owner has primary responsibility for the annual operating budget, however, there are other parties that provide assistance. This information will be used to evaluate the financial capacity of the system. The engineer will incorporate information from the owner's accountant and other known technical service providers.

(1) Income. Provide a proposed rate schedule. Project income realistically for existing and proposed new users separately, based on existing user billings, wastewater treatment contracts, and other sources of income. In the absence of historic data or other reliable information, for budget

purposes, base residential wastewater generation on 60 gallons per capita per day, or 150 gallons per residential-sized connection per day, or 4,500 gallons per residential-sized connection per month. Higher per person or per EDU flows may be used with adequate justification. When large agricultural or commercial users are projected, the report should identify those users and include facts to substantiate such projections and evaluate the impact of such users on the economic viability of the project.

(2) Operations and Maintenance (O&M) Costs. Project costs realistically. Provide actual costs for existing systems and projected costs for operating the system as improved. In the absence of other reliable data, base on actual costs of other existing facilities of similar size and complexity. Include facts in the report to substantiate operation and maintenance cost estimates. Include salaries, benefits, water purchase, taxes, accounting and auditing fees, legal fees, interest, utilities, oil and fuel, insurance, annual repairs and maintenance, supplies, chemicals, office supplies and printing , and miscellaneous.

(3) Debt repayments. Describe existing and proposed financing from all sources. All estimates of RUS funding should be based on loans, not grants. RUS will evaluate the proposed project for the possible inclusion of RUS grant funds.

(4) Reserves. Describe the existing and proposed loan obligation reserve requirements for the following:

- Debt Service Reserve - Unless otherwise required by State statute the debt service reserve should be established at one-tenth (1/10) of annual debt repayment requirement (amount of debt that must be repaid to government in a given fiscal year).

- Short-Lived Asset Reserve - Additional reserve amounts may be needed to provide for timely replacement of short-lived assets. Prepare a schedule of short-lived assets and a recommended annual reserve deposit recommended to fund replacement of short-lived assets. Examples of short-lived assets include pump/motor overhaul or replacement, painting, and small equipment replacement. Short-lived assets include those items not included under O&M, however, it should not include long-lived assets such as pump station or treatment facility replacement that should be funded with long-term financing.

8 CONCLUSIONS AND RECOMMENDATIONS

Provide any additional findings and recommendations that should be considered in development of the project. This may include recommendations for special studies, highlight the need for special coordination, a recommended plan of action to expedite project development, etc.

STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

900 North Skyline Drive, Suite B • Idaho Falls, ID 83402 • (208) 528-2650

C. L. "Butch" Otter, Governor
Curt Fransen, Director

October 10, 2012

Skyler Allen, E.I.
Keller Associates Inc.
305 N. 3rd Avenue, Suite A
Pocatello, ID 83401

Subject: Air Quality Impact Review for Elk Bend Sewer District Waste Water Improvement Project

Dear Mr. Allen,

The Idaho Department of Environmental Quality (DEQ) has reviewed the information submitted regarding a construction project for the Elk Bend Sewer District Waste Water Improvement Project near Elk Bend, Idaho with respect to potential *Air Quality* impacts in the region. DEQ appreciates your efforts to apprise our agency of the planned project activity.

Please be advised that the control of fugitive dust during all phases of the project is required under Idaho law. This can be accomplished by covering loads, excavations and piles of excavated material, or the application of dust suppressants, such as water, in quantities sufficient to prevent dirt and dust becoming airborne. Additionally, construction debris and other wastes are strictly prohibited from open burning and need to be properly accumulated and disposed in a licensed landfill. These aspects can present minor to significant problems within the region and are closely monitored and strictly enforced.

If you have further questions concerning this or other matters in our region, please call me at (208) 528-2650.

Respectfully,

Rensay Owen – Idaho Falls Regional Air, Waste and Remediation Manager
Idaho Falls Regional Office

RDO

Skyler Allen

From: Sharon Deal <Sharon.Deal@commerce.idaho.gov>
Sent: Monday, October 15, 2012 7:42 AM
To: Skyler Allen
Subject: Elk Bend WWFPS

Good morning Skyler,

The Department of Commerce received your letter requesting comments for the EID on the Elk Bend project. At this time we do not have any comments.

Thank you

Sharon Deal
Community Development Specialist
Idaho Department of Commerce
208-334-2650 ext 2137
www.gemstateprospector.com

STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

900 North Skyline Dr., Suite B • Idaho Falls, Idaho 83402 • (208) 528-2650

C.L. "Butch" Otter, Governor
Curt Fransen, Director

October 18, 2012

OCT 22 2012

Skyler Allen E.I.
Keller Associates, Inc.
305 N. 3rd Avenue, Suite A
Pocatello, ID 83201

Re: Elk Bend Wastewater Improvement Project Environmental Review (WWG-329-2009-5).

Dear Mr. Allen

After review of the information on the proposed project DEQ finds that the proposed wastewater improvement project will have no significant impact on surface water or ground water in general. DEQ finds that the proposed project will actually be beneficial to the water quality of the State of Idaho. In order to further protect surface e water quality during construction the contractor will need to implement the Best Management Practices (BMPs) for storm water run off.

If you need additional information or have any questions please call.

Sincerely,

William Teuscher PE
Water Quality Engineer
Idaho Falls Regional Office

C. Elk Bend Sewer District

2012ALN2963

STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1410 North Hilton • Boise, Idaho 83706 • (208) 373-0502

C.L. "Butch" Otter, Governor
Curt Fransen, Director

March 25, 2014

Certified Mail No: 7012 3050 0001 2126 5036

Ted Howard, Director
Cultural Resources Program
Shoshone Paiute Tribe
P.O. Box 219
Owyhee, Nevada 89832

RE: Elk Bend Sewer District Wastewater Improvement Project - Request for Comments for Preparation of an Environmental Information Document

Dear Mr. Howard:

The Elk Bend Sewer District (District) is in the final planning phase of developing a wastewater improvement project which could be in full or partially funded by the Idaho Clean Water State Revolving Loan Fund. The purpose of this letter is to request your review and response regarding any historic and cultural resource impacts that the Shoshone Paiute Tribe may identify for this proposed project pursuant to the Idaho Department of Environmental Quality's State Environmental Review Process, which mirrors the National Environmental Policy Act.

The proposed project is located in Lemhi County and consists of the following improvements for Elk Bend and Steelhead Bend (see attached project map):

Elk Bend

- Rehabilitation/replacement of two lift stations
- Installation of a recirculating media filter at the treatment plant
- New large soil absorption system for treated wastewater disposal (identified in pink on the map)

Steelhead Bend

- Rehabilitation/replacement of the lift station
- Replacement/repair of mechanical components at the treatment plant

The existing package treatment plants are deteriorated and no longer provide adequate wastewater treatment. Additionally, the wastewater disposal system at Elk Bend is undersized and has failed. The proposed improvements will provide a reliable treatment and disposal solution for the Elk Bend Sewer District. Enclosed is a map of the proposed project planning area which is the same as the area of potential effect for all construction activities.

We request that you advise us of any comments that you may have regarding this project within 30 days, so the District can proceed with the completion of the Environmental Information Document.

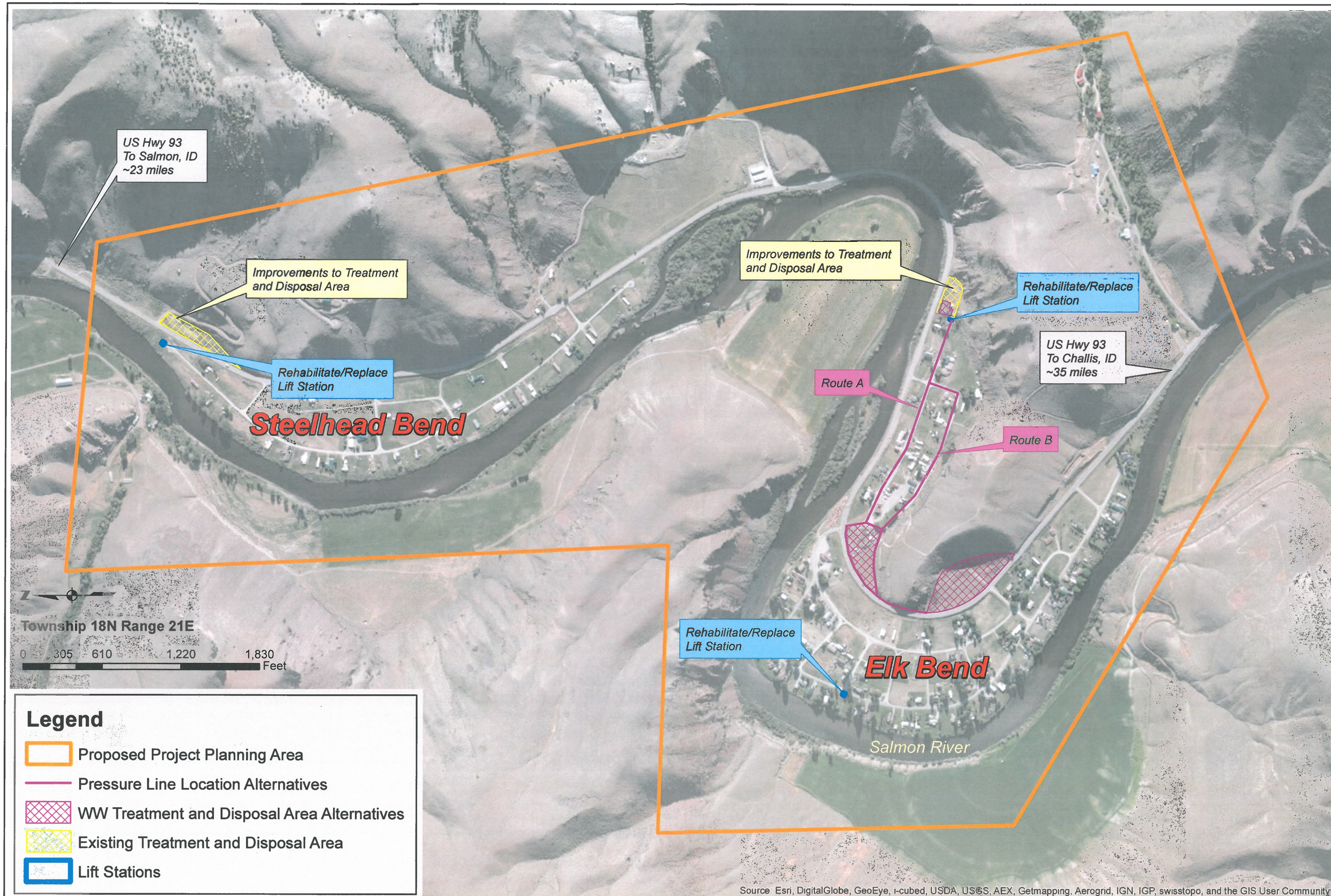
If you have any questions concerning this proposed project or if you need any further information, please feel free to contact Ester Ceja, 208-373-0585, or via email at Ester.Ceja@deq.idaho.gov at your convenience.

Sincerely,

Ester Ceja
Sr. Water Quality Analyst

Encl: PPPA/APE map

C: Skyler Allen, Keller Associates, Inc., (sallen@kellersassociates.com)



PROJECT NO. 209003-000

Figure No. 1.0

305 N. 3rd Avenue
Pocatello, ID 83201
208.238.2146
www.kellerassociates.com
KELLER associates

ELK BEND
SEWER DISTRICT

Wastewater System

Proposed Project Map

FIGURE NO.
1

MEMO

TO: **Skyler Allen, Keller Associates**
Kimberly Murphy, National Marine Fisheries Service

FROM: **Mike May, DEQ Grant and Loan Program**

SUBJECT: **Elk Bend Water & Sewer District Wastewater Improvements**
Threatened/Endangered Species and Essential Fish Habitat Determination

DATE: **July 17, 2015**

The Elk Bend Water & Sewer District (EBW&SD) is proposing upgrades to their wastewater system. The District currently serves two small residential areas on Elk Bend and Salmon Bend of the Salmon River. EBW&SD serves approximately 138 residences, a few cabins, a 20-space RV park and a restaurant. The existing wastewater facilities consist of two extended aeration package plants discharging to large soil absorption systems. These facilities were constructed in the 1970s and are in poor condition. At least one incident involving sewage overflow to the ground surface has occurred.

FEDERAL NEXUS

The proposed project is expected to be financed by the Idaho Clean Water State Revolving Fund (SRF), which is ultimately funded through the Environmental Protection Agency. Additional financing is being provided by a Community Development Block Grant using federal funds administered by the Idaho Department of Commerce and by funds from the U.S. Department of Agriculture Rural Utilities Service.

PROJECT SCOPE

The proposed wastewater improvements include:

- Construct a new recirculating gravel filter wastewater treatment facility (WWTF) at Elk Bend, consisting of a and replacement large soil absorption system;
- Replace the existing large soil absorption system (LSAS) with a new LSAS;
- Rehabilitate the existing WWTF at Steelhead Bend; and
- Rehabilitate Steelhead Bend Lift Station and Elk Bend Lift Station #1 with new pumps and electrical equipment; and

The project does not involve any water withdrawal from or discharge to the Salmon River or any of its tributaries. No ground disturbance or riparian vegetation removal within 100 feet of the river or its tributaries is anticipated. The U.S. Army Corps of Engineers issued an Approved Jurisdictional Determination (AJD) on May 22, 2014, stating that all project work is in uplands not containing waters of the U.S., including wetlands. Project features are presented on the attached map based on an underlying aerial photograph.

PROJECT SETTING

EBW&SD is located on the Salmon River main stem, extending from approximately river mile (RM) 285 to just below RM 283, which places it approximately 24 miles south of Salmon (RM 260), the nearest town.

The project site is located in the Dry Gneissic-Schistose-Volcanic Hills ecoregion, a rugged valley in the rain shadow of the Salmon River Mountains of central Idaho with sagebrush grassland native vegetation.[1] The attached project map shows that bushes and shrubs are sparse on the canyon walls, and there are a few irrigated fields in low areas. The populated zones are in relatively flat strips, no wider than about 1,000 feet, between US-93 and the Salmon River. The January average snow depth at the Salmon weather station is 4 inches, with less snow cover in December and February, based on data from 1905 to 2015.[2]

CONSERVATION MEASURES AND BEST MANAGEMENT PRACTICES

It is understood that the main stem of the Salmon River is designated critical habitat for Snake River Basin **Steelhead** (*Oncorhynchus mykiss*)[3] and Snake River spring/summer **Chinook Salmon** (*Oncorhynchus tshawytscha*),[4] with designated critical habitat for Chinook salmon extending 300 feet from either edge of the stream. Both species are listed under the Endangered Species Act (ESA) as threatened and are present in the Salmon River. **Bull trout** (*Salvelinus confluentus*), another threatened species, are also present in the Salmon River (see below). Based on these site conditions, the following conservation measures and best management practices (BMPs) are proposed during construction:

- Prior to beginning work, project sites should be surveyed for noxious weeds and appropriate measures taken to either avoid existing infestations or treat infestations to prevent a local expansion or off-site transport.

- Where construction activities occur within 75 feet of stream channels or standing water, or in areas where water may concentrate during snowmelt periods, standard sediment and pollutant prevention and retention practices will be utilized (e.g., silt fence, wattles) and appropriately maintained.

- Fuel storage will occur only within staging areas, and refueling will not occur within 150 feet of streams. If fueling must occur at less than 150 feet, it will occur inside an impervious containment structure with a volumetric holding capacity equal to at least 110 percent of the fueling tank. Engine and hydraulic fluids will be monitored for leaks. Spill packs will also be on hand for minor leaks/spills.

- Washing of tools and equipment will occur only within staging areas, or other areas approved by the SNRA permit administrator, where there is no potential for rinsate to reach surface waters.

- To minimize the potential for introducing hazardous material to the aquatic system, a spill prevention and control countermeasures plan will be prepared by the contractor and approved by the SNRA prior to project.

- No construction will occur within wetland or riparian conditions.

- Equipment and material staging areas should be located in areas lying outside of resource conservation areas (RCAs), in areas requiring the least amount of new soil disturbance, and outside topographic lows where water may concentrate during snowmelt or storm events.

- Equipment should be cleaned of all dirt, mud, seeds, and vegetative matter prior to arriving on site to reduce risk of invasive species introduction. The same equipment should be cleaned again prior to leaving, if warranted.

- Materials resulting from demolition or site preparation should be removed to an appropriate disposal site.

- RCA vegetation should be protected to the extent possible, and disturbed areas promptly rehabilitated.

- To avoid inadvertent water contamination, ensure that sewage is successfully delivered to established treatment areas where it may be properly treated throughout construction; establishment of temporary lift stations/delivery systems may be necessary.

- Consider establishing a water quality monitoring plan to assure sewage treatment successfully prevents contaminating the Salmon River for the life expectancy of the project.

USF&WS THREATENED, ENDANGERED AND CANDIDATE SPECIES

The U.S. Fish and Wildlife Service (USF&WS) revised its threatened and endangered species list[5] during the history of this project. The final revision referenced in this memo and attached was issued on August 14, 2014 and was downloaded July 9, 2015. The list was refined and species were assessed using telephone conversations and email correspondence with the USF&WS Eastern Idaho Field Office and the National Marine Fisheries Service, as well as publically available documents.

The following species are listed as threatened within Lemhi County:

1. **Canada Lynx** (*Lynx canadensis*) – The Canada Lynx reside in boreal forest landscapes and provide one or more of the following beneficial habitat elements including snowshoe hares for prey, abundant, large, woody debris piles that are used as dens, and winter snow conditions that are generally deep and fluffy for extended periods of time.[6] The proposed project is located in a narrow riverine valley with adjacent steep canyon walls nearly denuded of trees (see map). It is not typical of boreal forests and has shallow winter snow depths. The only proposed critical habitat in Idaho is in the northeast corner of Boundary County, and reflects actual distribution[7]. **The proposed project will have NO EFFECT on the Canada Lynx.**

2. **Bull Trout** (*Salvelinus confluentus*) –The Salmon River in the vicinity of the project site is designated bull trout critical habitat.[8] Bull trout are cold water fish. The species must have: cold water; clean stream substrates for spawning and rearing; complex habitats with deep pools, undercut banks and lots of large logs; and lake and river connectivity to headwater streams for annual spawning and feeding migrations. The species is sensitive to sediment. Due to the proximity of the proposed improvements, USF&WS has requested that the following measures be implemented with the primary goal of ensuring that absolutely no sediment enters the Salmon River. **DEQ is requiring that these measures are strictly followed. By following these measures, the project will have "NO EFFECT" on Bull Trout**.

a. Implementation of best management practices to avoid and minimize the introduction of sediment into the river.

   i. Erosion control wattles, sediment drift fences or other barriers to sediment traveling off the project area.
   ii. Equipment staging areas or construction area for the two lift stations must be slanted away from the river, towards the road, to minimize sediment delivery to the Salmon River.
   iii. Any other practices that would minimize the possibility of sedimentation should be incorporated into the project plans and specifications to avoid the possibility of adverse effects to bull trout.

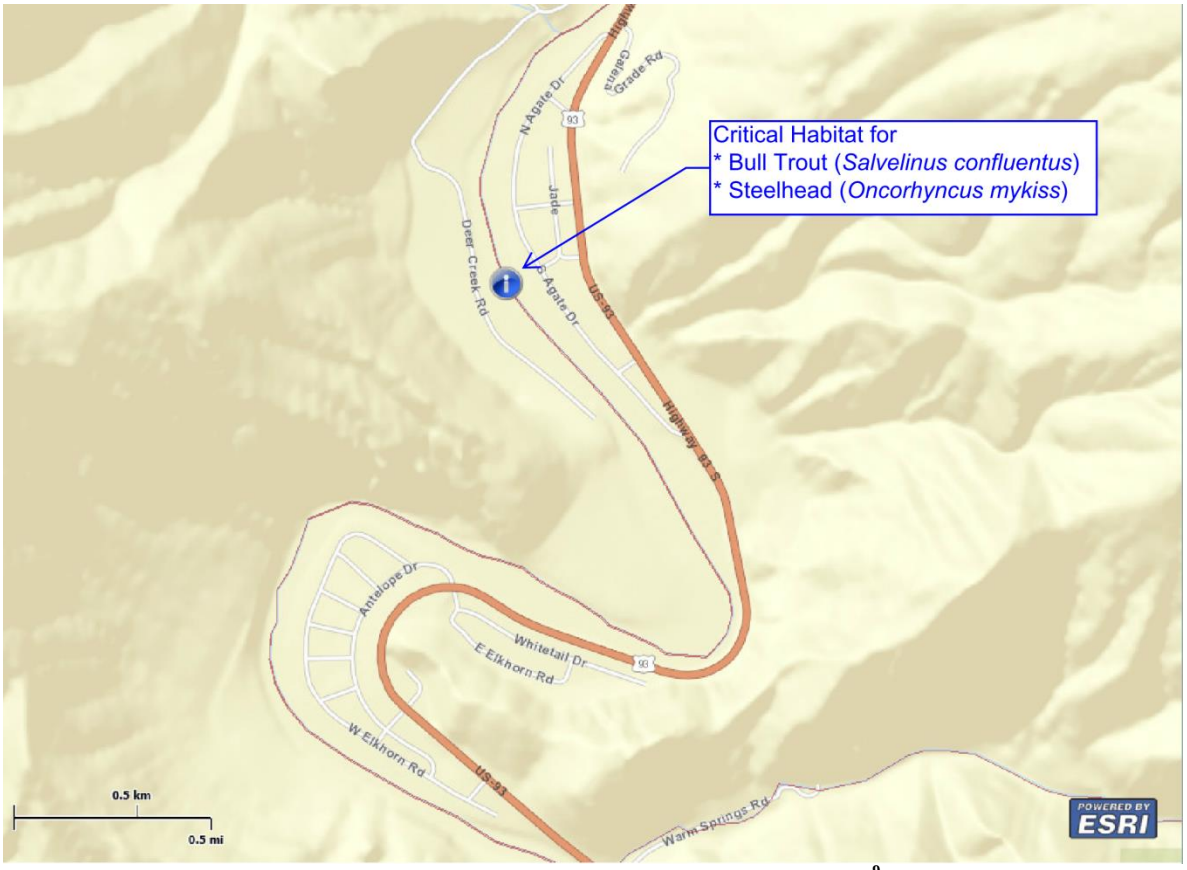


Figure 1. Critical habitat in the project area (USF&WS Critical Habitat Mapper 3.0)[9]

The following have been listed as Candidate Species within Custer County:

1. **Whitebark Pine** (*Pinus albicaulis*) – The Whitebark pine is a 5 needle conifer species that occurs from approximately 2,950 feet at its northern limit in British Columbia up to 12,000 feet in the Sierra Nevada. The Whitebark Pine is typically found at or slightly lower than alpine timberline in the upper montane zone. In the U.S. it is primarily found on public lands.[10] The proposed project is located in an arid, nearly treeless environment unsuited to Whitebark Pine. **The project will have NO EFFECT on whitebark pine**.

2. **Greater Sage-Grouse** (*Centrocercus urophasianus*) – Grouse reside in Sagebrush Steppe environments, and prefer slightly elevated features surrounded by flat terrain, but not lower portions of hillsides beneath areas that could contain raptors or other predators. The preferred Best Management Practice is avoidance: if construction activity must occur during lekking season, work should be postponed until after 10:30 a.m. As shown on the map below, the proposed project is not located in a priority area or general area for sage-grouse management (it is between areas Y and BB). All project work is proposed to be limited to lowlands within 1,000 feet of U.S. Highway 93. This makes it extremely unlikely that leks are present near the project area, since paved roads and primary and secondary routes are believed to cause adverse effects on leks at a distance of 1.6 miles.[11] **The proposed project will have NO EFFECT on the Greater Sage Grouse**.

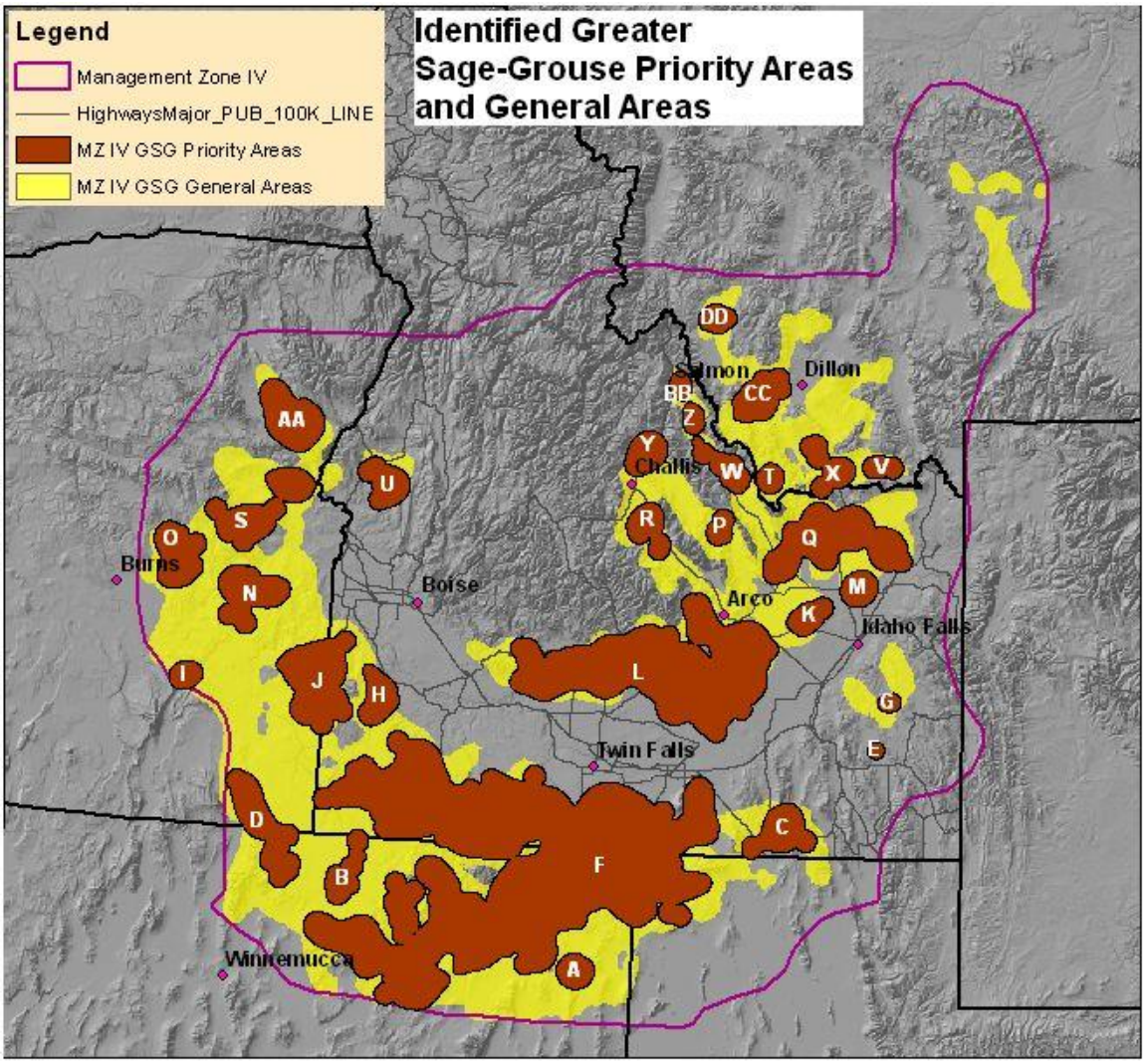


Figure 2. Greater Sage-Grouse Priority Areas and General Areas (BLM 2011)[12]

The following species are listed as a Proposed Threatened Species within Custer County:

1. **North American Wolverine** (*Gulo gulo luscus*) - The North American Wolverine was a proposed species which is not expected to be found in the proposed project planning. The proposed project is located in suburban and arid foothills environments. Wolverine distribution is

restricted to high elevation areas of deep, persistent and reliable spring snow cover (April 15 to May 14) is the best overall predictor of wolverine occurrence in the contiguous U.S.[13] Wolverines are known to travel long distances, so any individuals that may be encountered are almost certain to be travelling between other suitable habitats. January is the snowiest month for Salmon is deepest in January, with an average snow depth of 4 inches over 101 years of data.[2] This is insufficient snow depth at the project site for wolverine dens, therefore **the proposed project will have NO EFFECT on the wolverine species**.[14]

2. **Yellow-Billed Cuckoo** (*Coccyzus americanus*) –Western cuckoos breed in large blocks of riparian habitats, particularly woodlands with cottonwoods and willows. Dense understory foliage is believed to be important for nesting sites. They are generally local and uncommon in scattered drainages of the arid and semiarid portions of western Colorado, western Wyoming, Idaho, The Yellow-billed Cuckoo is not shown as "known or believed to be present" in the near vicinity of the project area, according to the USF&WS Environmental Conservation Online System (ECOS).[15] This is consistent with the 2014 proposed critical habitat designation,[16] which indicated that floodplains at least 325 feet wide with dense canopy closure greater than 200 acres in extent are generally required to support more than a single breeding pair. The critical habitat proposal includes all known nesting areas greater than 200 acres, based on breeding records between 1998 and 2012, and no such areas were identified in Lemhi County. The proposed project is in an area absent of woodlands with cottonwood and willows. **The proposed project will have NO EFFECT on the Yellow-billed cuckoo**.

ESSENTIAL FISH HABITAT

The Elk Bend Water & Sewer District wastewater improvement project is located within Essential Fish Habitat (EFH) for **Chinook Salmon** (*Oncorhynchus tshawytscha*) but not **Coho Salmon** (*Oncorhynchus kisutch*) as identified in the attached EFH map. "All those water bodies occupied or historically accessible" in the identified hydrologic units are considered EFH, according to 50 CFR 660.412. Because the SRF project will not include work in the Salmon River channel, and the conservation measures and BMPs identified above are protective of the stream, any potential effects are insignificant in size or discountable. **The SRF project "May Affect, but Is Not Likely to Adversely Affect" Essential Fish Habitat**.

MLM

Attachments: Project Map
U.S. Army Corps of Engineers Approved Jurisdictional Determination, May 22, 2014
Idaho Species List, last downloaded July 9, 2015
Critical Habitat for Bull Trout Map (Unit 27)
DEQ, Chinook Salmon Essential Fish Habitat in Idaho (map)
USF&WS consultation, 2014
NMFS consultation, 2014-2015

References

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[1] McGrath, *et al.*, 2002, *Ecoregions of Idaho*, EPA Western Ecology Division, Corvallis, Oregon, www.epa.gov/wed/pages/ecoregions/id_eco.htm.

[2] Western Regional Climate Center, *Salmon Lemhi Co AP, Idaho (108076) Monthly Climate Summary, 11/5/1905 to 1/20/2015*, http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?id8076

[3] *Federal Register*, Vol. 65, Page 7764, February 16, 2000.

[4] *Federal Register*, Vol. 70, Page 52630, September 2, 2005.

[5] USF&WS, August 14, 2014, *Idaho Species List*, www.fws.gov/idaho/Species.htm, last downloaded July 9, 2015.

[6] USF&WS Species Profile: Canada Lynx (*Lynx canadensis*), ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=A073

[7] *Federal Register*, Vol. 78, Page 59430, September 23, 2013.

[8] *Federal Register*, Vol. 75, Page 64054, October 28, 2010.

[9] USF&WS Critical Habitat Mapper 3.0, ecos.fws.gov/crithab/flex/crithabMapper.jsp, accessed July 17, 2015.

[10] USF&WS Species Profile: Whitebark pine, ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=R00E

[11] *Draft Idaho and Southwestern Montana Sub-Region Greater Sage-Grouse LUPA/EIS, Vol. II* §4.2.1

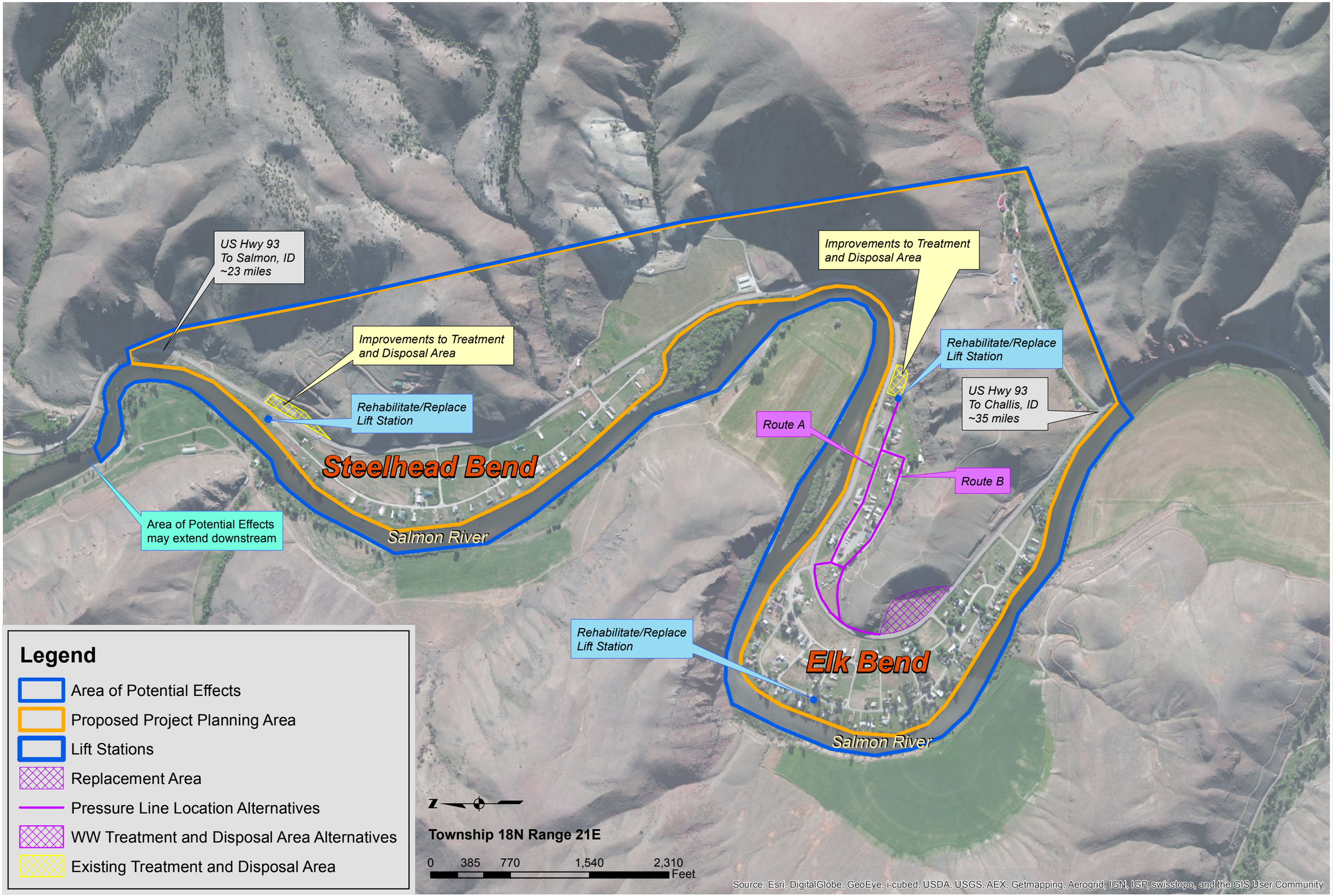
[12] BLM, 2011, *Idaho Sage-grouse Priority Areas White Paper, September 27, 2011 FINAL*, www.blm.gov/pgdata/etc/medialib/blm/id/wildlife/sensitive_species/sg_scoping_meeting.Par.67149.File.dat/Idaho_Sage-grouse_Priority_Areas_White_Paper_September_27_2011_FINAL_508.pdf

[13] USF&WS Species Profile: North American wolverine (*Gulo gulo luscus*), ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=A0FA

[14] USF&WS withdrew its proposal to list the North American wolverine as threatened with the contiguous United States; Federal Register, Vol. 79, Page 47521, August 13, 2014.

[15] USF&WS Species Profile: Yellow-Billed Cuckoo (*Coccyzus americanus*), ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B06R#candidate.

[16] *Federal Register*, Vol. 79, Page 48547, August 15, 2014.



PROJECT NO. 209003-000

Figure No. 3.1

305 N. 3rd Avenue
Pocatello, ID 83201
208.238.2146
www.kellerassociates.com
KELLER associates

ELK BEND
SEWER DISTRICT

Wastewater System
Existing System & Proposed
Improvements Preliminary Layout

FIGURE NO.
1

DEPARTMENT OF THE ARMY
WALLA WALLA DISTRICT, CORPS OF ENGINEERS
BOISE REGULATORY OFFICE
10095 WEST EMERALD STREET
BOISE, IDAHO 83704-9754

REPLY TO
ATTENTION OF

May 22, 2014

Regulatory Division

SUBJECT: NWW-2012-587, Elk Bend Sewer District Wastewater Improvement Project

Mr. Skyler Allen
Keller Associates, Inc.
305 North 3rd Avenue, Suite A
Pocatello, Idaho 83201

Dear Mr. Allen:

Enclosed is our Department of Army (DA) Approved Jurisdictional Determination (AJD) that there are no waters of the United States, including wetlands, within the proposed project area. Therefore, no DA authorization is required. This decision is based upon our review of the revised Elk Bend Sewer District Wastewater Improvement Project described in your March 14, 2014 letter. In our May 7, 2013, letter the Corps indicated that wetlands were present in the potential alternate treatment disposal area and that all other project features were located in non-wetland areas. The revised project has deleted the alternate treatment disposal area previously proposed. Based on the revision, the proposed project does not require DA approval as all work would occur in uplands which are not regulated under section 404 of the Clean Water Act.

The project site is located near, the Salmon River, at Elks Bend and Steelhead Bend, within Section 10 of Township 18 North, Range 21 East, near latitude 44.90874° N and longitude -113.96032° W, in Lemhi County, near Salmon, Idaho. This project was previously assigned file number NWW-2012-587, which should be referred to in future correspondence with our office regarding this site.

The DA exerts regulatory jurisdiction over waters of the United States (U.S.), including wetlands, pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344. Section 404 of the Clean Water Act requires a DA permit be obtained prior to discharging dredged or fill material into waters of the U.S., which includes most perennial and intermittent rivers and streams, natural and man-made lakes and ponds, irrigation and drainage canals and ditches that are tributaries to other waters, and wetlands.

The proposed project area, as shown on the attached map, dated May 21, 2014, is located entirely in uplands which do not contain waters of the U.S., including wetlands, under the Corps' regulatory jurisdiction. Therefore, a DA authorization is not required to develop the upland property.

This approved JD is valid for a period of 5-years from the date of this letter, unless new information supporting a revision is provided to this office before the expiration date. Also enclosed, you will find the Approved Jurisdictional Determination Form addressing wetlands and waters of the U.S. located within the JD review area, and a *Notification of Administrative Appeals Options and Process and Request for Appeal Form* (RFA) regarding this DA Approved Jurisdictional Determination. Should you disagree with certain terms and/or conditions of this Approved JD, the Notification of Administrative Appeal Options form outlines the steps to take to file your objection. Please note, the RFA form must be received by the Northwest Division Office no later than **July 21, 2014**.

Nothing in this letter shall be construed as excusing you from compliance with other Federal, state, or local statutes, ordinances or regulations which may affect this work.

We are interested in your thoughts and opinions concerning the quality of service you received from the Walla Walla District, Corps of Engineers Regulatory Division. Please visit us online at http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey and complete an electronic version of our Customer Service Survey form, which will be automatically submitted to us. Alternatively, you may call and request a paper copy of the survey, which you may complete and return to us by mail. For additional information about our Regulatory program please visit us at http://www.nww.usace.army.mil/BusinessWithUs/RegulatoryDivision.aspx. Your responses are appreciated and will allow us to improve our services.

If you have any questions about this determination, please contact me by telephone at (208) 322-3410, via email at casey.a.forest@usace.army.mil or by mail at the address in the above letterhead. We appreciate your cooperation with the Corps of Engineers' Regulatory Program.

Sincerely,

Casey Forest

Casey Forest
Project Manager, Regulatory Division

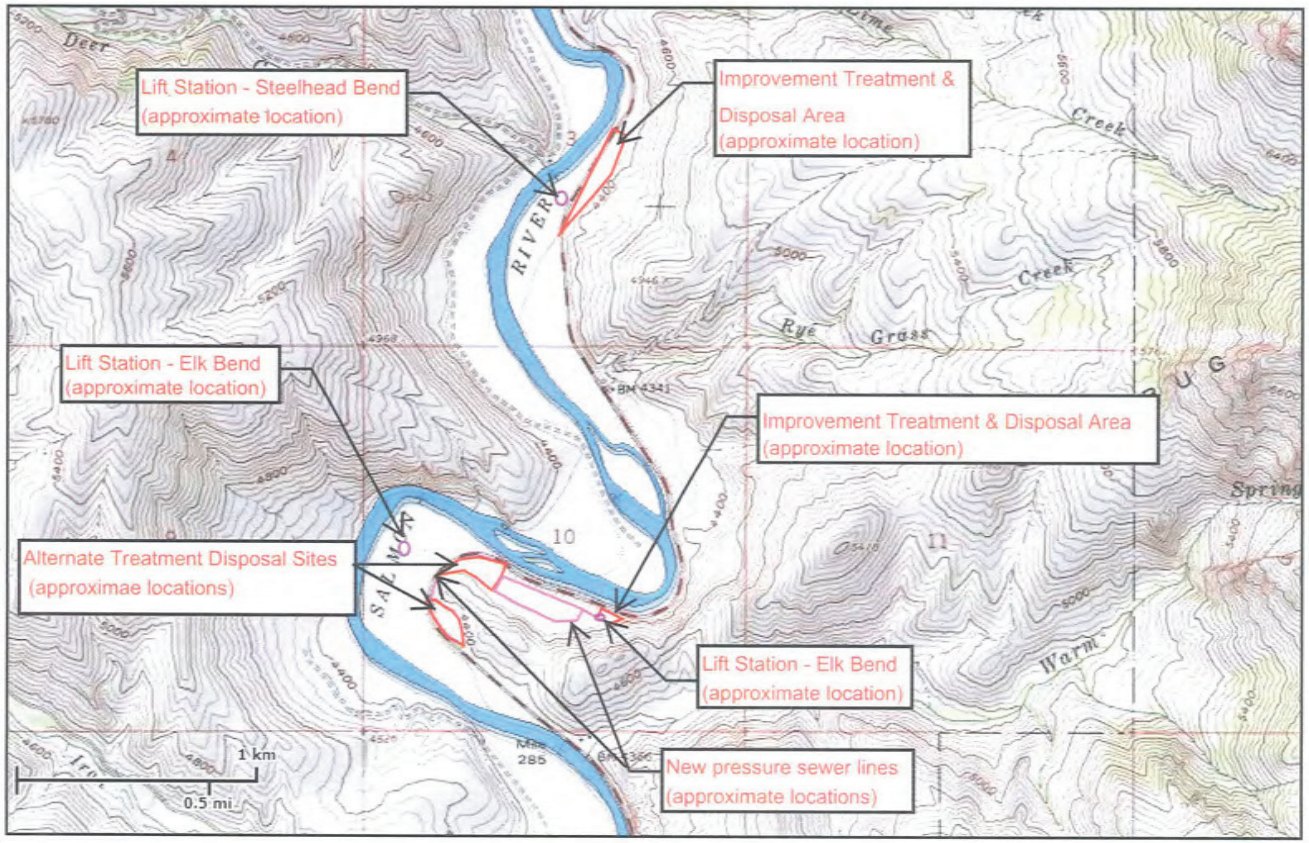
Enclosures:
Wetland/Waters Delineation Map
Approved JD Form
Notification of Administrative Appeal Options and Request for Appeal Form

U.S. Fish and Wildlife Service

National Wetlands Inventory

NWW-2012-587

May 21, 2014



Wetlands

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

User Remarks:

Elk Bend & Steelhead Bend, Waste Water Treatment Improvements

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): May 22, 2014

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Walla Walla District, NWW-2012-587, Elk Bend Sewer District Wastewater Improvement Project

C. PROJECT LOCATION AND BACKGROUND INFORMATION: located along the Salmon River, approximately 23 miles south of Salmon Idaho

State: Idaho County/parish/borough: Lemhi City: Near Salmon Idaho
Center coordinates of site (lat/long in degree decimal format): 44.90874° Lat. -113.96032° Long.
Universal Transverse Mercator: Zone 12 Northing 171651 **N**, Easting 543289 **E**.
Name of nearest waterbody: Salmon River
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Snake River
Name of watershed or Hydrologic Unit Code (HUC): 17060203

- ☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
- ☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

- ☒ Office (Desk) Determination. Date: 5/21/2014
- ☒ Field Determination. Date(s): 5/3/2013

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "*navigable waters of the U.S.*" within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]

- ☐ Waters subject to the ebb and flow of the tide.
- ☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are no** "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. **Waters of the U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
   - ☐ TNWs, including territorial seas
   - ☐ Wetlands adjacent to TNWs
   - ☐ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs
   - ☐ Non-RPWs that flow directly or indirectly into TNWs
   - ☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
   - ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
   - ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
   - ☐ Impoundments of jurisdictional waters
   - ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
   Non-wetland waters: linear feet: width (ft) and/or acres.
   Wetlands: acres.

   c. **Limits (boundaries) of jurisdiction** based on: **1987 Delineation Manual**
   Elevation of established OHWM (if known): .

2. **Non-regulated waters/wetlands (check if applicable):**[3]
   - ☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: **On May 3, 2013, a site inspection was conducted by the Corps of Engineers (Corps) and determined that except for wetlands in the October 2, 2012, potential alternate wastewater disposal area all other project features were**

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[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
[3] Supporting documentation is presented in Section III.F.

located in uplands. The revised project has deleted the alternate wastewater disposal area from consideration, thus all project features are located in uplands which are not regulated under Section 404 of the Clean Water Act.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. **TNW**
   Identify TNW: .

   Summarize rationale supporting determination: .

2. **Wetland adjacent to TNW**
   Summarize rationale supporting conclusion that wetland is "adjacent": .

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody[4] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. **Characteristics of non-TNWs that flow directly or indirectly into TNW**

   (i) **General Area Conditions:**
   Watershed size: **square miles**
   Drainage area: **acres**
   Average annual rainfall: inches
   Average annual snowfall: inches

   (ii) **Physical Characteristics:**
   (a) Relationship with TNW:
   ☐ Tributary flows directly into TNW.
   ☐ Tributary flows through **Pick List** tributaries before entering TNW.

   Project waters are **Pick List** river miles from TNW.
   Project waters are **Pick List** river miles from RPW.
   Project waters are **Pick List** aerial (straight) miles from TNW.
   Project waters are **Pick List** aerial (straight) miles from RPW.
   Project waters cross or serve as state boundaries. Explain: .

   Identify flow route to TNW[5]: .
   Tributary stream order, if known: .

[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.
[5] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

(b) General Tributary Characteristics (check all that apply):

Tributary is: ☐ Natural
☐ Artificial (man-made). Explain: .
☐ Manipulated (man-altered). Explain: .

Tributary properties with respect to top of bank (estimate):
Average width: feet
Average depth: feet
Average side slopes: **Pick List.**

Primary tributary substrate composition (check all that apply):
☐ Silts ☐ Sands ☐ Concrete
☐ Cobbles ☐ Gravel ☐ Muck
☐ Bedrock ☐ Vegetation. Type/% cover:
☐ Other. Explain: .

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: .
Presence of run/riffle/pool complexes. Explain: .
Tributary geometry: **Pick List**
Tributary gradient (approximate average slope): %

(c) Flow:
Tributary provides for: **Pick List**
Estimate average number of flow events in review area/year: **Pick List**
Describe flow regime: .
Other information on duration and volume: .

Surface flow is: **Pick List.** Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .
☐ Dye (or other) test performed: .

Tributary has (check all that apply):
☐ Bed and banks
☐ OHWM[6] (check all indicators that apply):
☐ clear, natural line impressed on the bank
☐ changes in the character of soil
☐ shelving
☐ vegetation matted down, bent, or absent
☐ leaf litter disturbed or washed away
☐ sediment deposition
☐ water staining
☐ other (list):
☐ the presence of litter and debris
☐ destruction of terrestrial vegetation
☐ the presence of wrack line
☐ sediment sorting
☐ scour
☐ multiple observed or predicted flow events
☐ abrupt change in plant community
☐ Discontinuous OHWM.[7] Explain: .

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):
☐ High Tide Line indicated by:
☐ oil or scum line along shore objects
☐ fine shell or debris deposits (foreshore)
☐ physical markings/characteristics
☐ tidal gauges
☐ other (list):
☐ Mean High Water Mark indicated by:
☐ survey to available datum;
☐ physical markings;
☐ vegetation lines/changes in vegetation types.

(iii) Chemical Characteristics:
Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: .
Identify specific pollutants, if known: .

[6] A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7] Ibid.

(iv) Biological Characteristics. Channel supports (check all that apply):

- ☐ Riparian corridor. Characteristics (type, average width): .
- ☐ Wetland fringe. Characteristics: .
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings: .
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☐ Aquatic/wildlife diversity. Explain findings: .

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland size: acres

Wetland type. Explain: .

Wetland quality. Explain: .

Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:

Flow is: **Pick List**. Explain: .

Surface flow is**: Pick List**

Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .

- ☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

- ☐ Directly abutting
- ☐ Not directly abutting
  - ☐ Discrete wetland hydrologic connection. Explain: .
  - ☐ Ecological connection. Explain: .
  - ☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Flow is from: **Pick List.**

Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: .

Identify specific pollutants, if known: .

(iii) Biological Characteristics. Wetland supports (check all that apply):

- ☐ Riparian buffer. Characteristics (type, average width): .
- ☐ Vegetation type/percent cover. Explain: .
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings: .
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☐ Aquatic/wildlife diversity. Explain findings: .

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: **Pick List**

Approximately ( ) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)

Summarize overall biological, chemical and physical functions being performed: .

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: .

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   - ☐ TNWs: linear feet width (ft), Or, acres.
   - ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   - ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: .
   - ☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: .

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

3. **Non-RPWs[8] that flow directly or indirectly into TNWs.**
☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**
☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**
☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. **Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**
☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. **Impoundments of jurisdictional waters.[9]**
As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
☐ Demonstrate that impoundment was created from "waters of the U.S.," or
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]
☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
☐ which are or could be used for industrial purposes by industries in interstate commerce.
☐ Interstate isolated waters. Explain: .
☐ Other factors. Explain: .

Identify water body and summarize rationale supporting determination: .

---

[8] See Footnote # 3.
[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
[10] **Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.***

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .
☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):
☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):
☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:Map March 14, 2014.
☐ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
☐ Office concurs with data sheets/delineation report.
☐ Office does not concur with data sheets/delineation report.
☐ Data sheets prepared by the Corps: .
☐ Corps navigable waters' study: .
☐ U.S. Geological Survey Hydrologic Atlas: .
☐ USGS NHD data.
☐ USGS 8 and 12 digit HUC maps.
☒ U.S. Geological Survey map(s). Cite scale & quad name:ID-GOLDBUG RIDGE, 1:24k.
☒ USDA Natural Resources Conservation Service Soil Survey. Citation:South Elk Bend WWT Area, North Elk Bend Area & Steelhead Bend WWT Disposal location.
☒ National wetlands inventory map(s). Cite name:USFWS, NWW-2012-587.
☐ State/Local wetland inventory map(s): .
☒ FEMA/FIRM maps:1600920825A & 1600920825A.
☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
☒ Photographs: ☒ Aerial (Name & Date):Google Earth, 5/21/2014.
or ☒ Other (Name & Date):ORM2 Database, 5/21/2014.
☒ Previous determination(s). File no. and date of response letter:NWW-2012-587, May 7, 2013.
☐ Applicable/supporting case law: .
☐ Applicable/supporting scientific literature: .
☐ Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD: A review of historic Google Earth aerial photos from 1992-2011 was conducted. Per the review, the project site locations are existing waste water treatment lift stations, disposal sites, undeveloped and residential developed

locations. There are some small buildings on portions of the sites; however, there are no waters of the U.S., including wetlands present. This was previously confirmed by the Corps during the May 3, 2013, on-site inspection.

Per the review of the USFWS, NWI Topo Map the nearest water body is the Salmon River which is located 48' North at the closest point to any portion of the proposed waste treatment facility improvements/additions. The NWI maps show no wetlands within the project impact area. No waters of the U.S. are located within the project area. The project areas are located entirely in uplands .

A review of the soil survey for Lemhi County shows the soil at this location to be Bock-Bromaglin, Dawtonia-Custco and Zer gravelly loam. These soils occurs on stream terraces and hillslopes. Soils in this group are well drained with a water table generally greater than 80" from the surface.

Based on the above the project impact area contains no waters of the U.S. or wetlands. All work would occur in uplands, thus DA approval is not required for this project.

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Elk Bend Sewer District		File Number: NWW-2012-587	Date: May 22, 2014
Attached is:			See Section Below
	INITIAL PROFFERED PERMIT (Standard Permit or Letter of Permission)		A
	PROFFERED PERMIT (Standard Permit or Letter of Permission)		B
	PERMIT DENIAL		C
X	APPROVED JURISDICTIONAL DETERMINATION		D
	PRELIMINARY JURISDICTIONAL DETERMINATION		E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at http://usace.army.mil/inet/functions/cw/cecwo/reg or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations (JD) associated with the permit.

OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit,

ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.

APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.

APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMT

REASONS FOR APPEAL OR OBJECTIONS:

Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:

District Engineer
ATTN: Ms. Kelly J. Urbanek
Regulatory Division Walla Walla District
201 North 3rd Avenue
Walla Walla, Washington 99362-1876
Telephone (208) 376-1832

If you only have questions regarding the appeal process you may also contact:

U.S. Army Corps of Engineers
Northwestern Division
Attn: Mary Hoffman, Appeals Review Officer
P.O. Box 2870
Portland, Oregon 97208-2870
Telephone (503) 808-3825

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

Signature of appellant or agent:	*Date:*	*Telephone:*

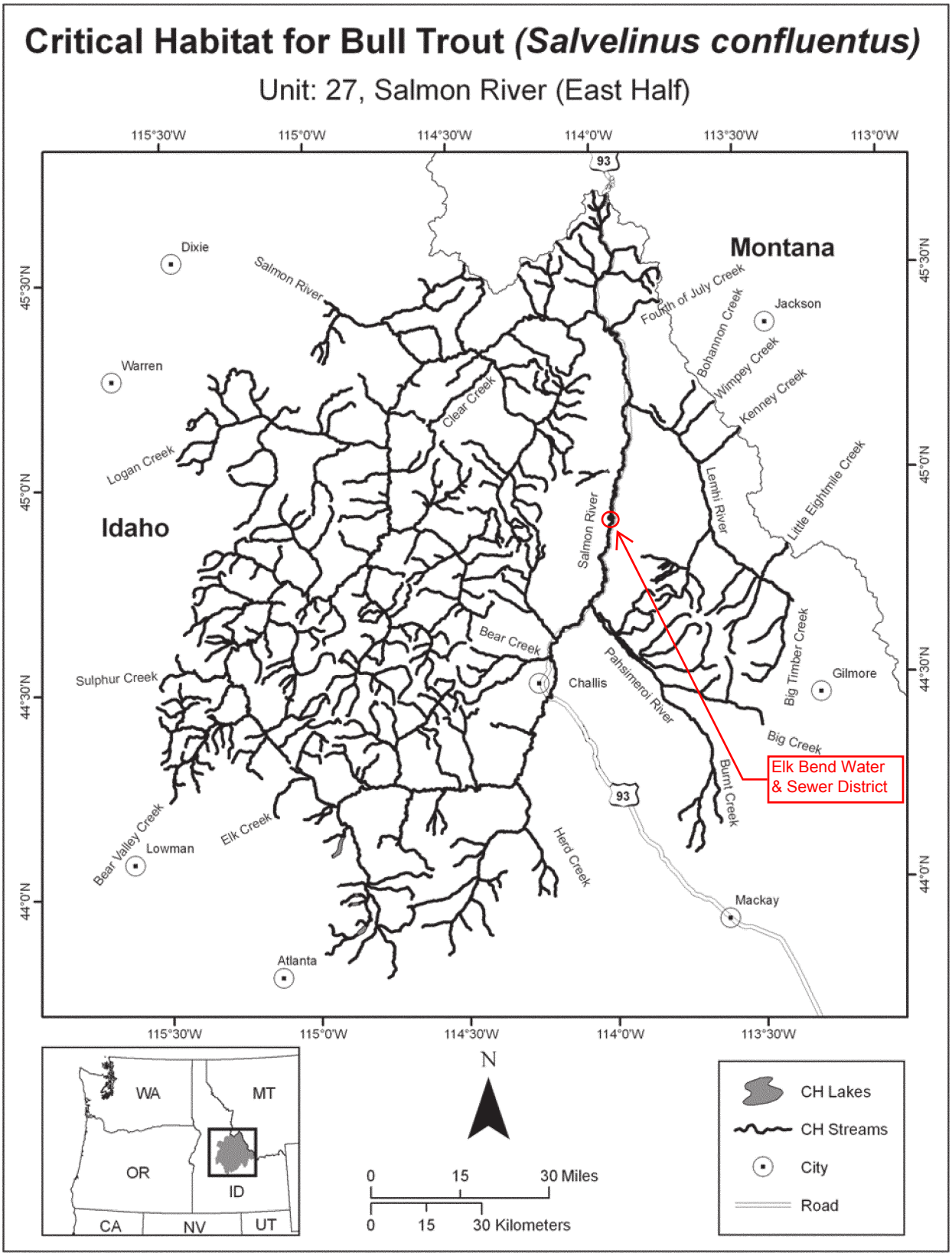
This information is for general reference only. Please visit http://ecos.fws.gov/ipac/ to obtain an official list for purposes of Endangered Species Act section 7 consultation. Revised 08/14/2014. **Downloaded 09 Jully 2015**

U.S. Fish and Wildlife Service • Idaho Fish and Wildlife Office

LISTED, CANDIDATE, AND PROPOSED SPECIES & DESIGNATED AND PROPOSED CRITICAL HABITAT IN IDAHO

	Herps	Birds		Mammals					Fish		Mollusks				Plants							
Common Name	**Columbia Spotted Frog (Great Basin Population)**	**Greater Sage-Grouse**	**Yellow-Billed Cuckoo**	**Canada Lynx**	**Grizzly Bear**	**Northern Idaho Ground Squirrel**	**Selkirk Mountains Woodland Caribou**	**Southern Idaho Ground Squirrel**	**Bull Trout**	**Kootenai River White Sturgeon**	**Banbury Springs Lanx**	**Bliss Rapids Snail**	**Bruneau Hot Springsnail**	**Snake River Physa**	**Goose Creek Milkvetch**	**MacFarlane's Four-O'Clock**	**Packard's Milkvetch**	**Slickspot Peppergrass**	**Spalding's Catchfly**	**Ute Ladies'-Tresses**	**Water Howellia**	**Whitebark Pine**
Scientific Name	*Rana luteiventris*	*Centrocercus urophasianus*	*Coccyzus americanus*	*Lynx canadensis*	*Ursus arctos horribilis*	*Spermophilus brunneus brunneus*	*Rangifer tarandus caribou*	*Spermophilus brunneus endemicus*	*Salvelinus confluentus*	*Acipenser transmontanus*	*Lanx* sp.	*Taylorconcha serpenticola*	*Pyrgulopsis bruneauensis*	*Haitia (Physa) natricina*	*Astragalus anserinus*	*Mirabilis macfarlanei*	*Astragalus cusickii var. parkardiae*	*Lepidium papilliferum*	*Silene spaldingii*	*Spiranthes diluvialis*	*Howellia aquatilis*	*Pinus albicaulis*
Gooding		C									E	T		E								
Idaho				T					T-DCH							T			T			C
Jefferson		C	P-PCH	T																T		
Jerome		C										T		E								
Kootenai			P	T					T-DCH										T		T	
Latah				T															T		T	
Lemhi		C	P	T					T-DCH													C
Lewis									T-DCH										T			
Lincoln		C	P																			
Madison		C	P-PCH	T																T		
Minidoka		C	P											E								
Nez Perce				T					T-DCH										T			
Oneida		C																				
Owyhee	C	C	P						T-DCH				E	E				P-PCH				
Payette		C						C	T					E			C	P-PCH				
Power		C	P																			
Shoshone				T					T-DCH										T		T	C
Teton				T	T																	C
Twin Falls	C	C										T		E								
Valley				T		T			T-DCH													C
Washington		C				T		C	T-DCH					E								C

Table Key: C = Candidate Species P= Proposed Species T=Threatened Species E=Endangered Species PCH= Proposed Critical Habitat DCH=Designated Critical Habitat



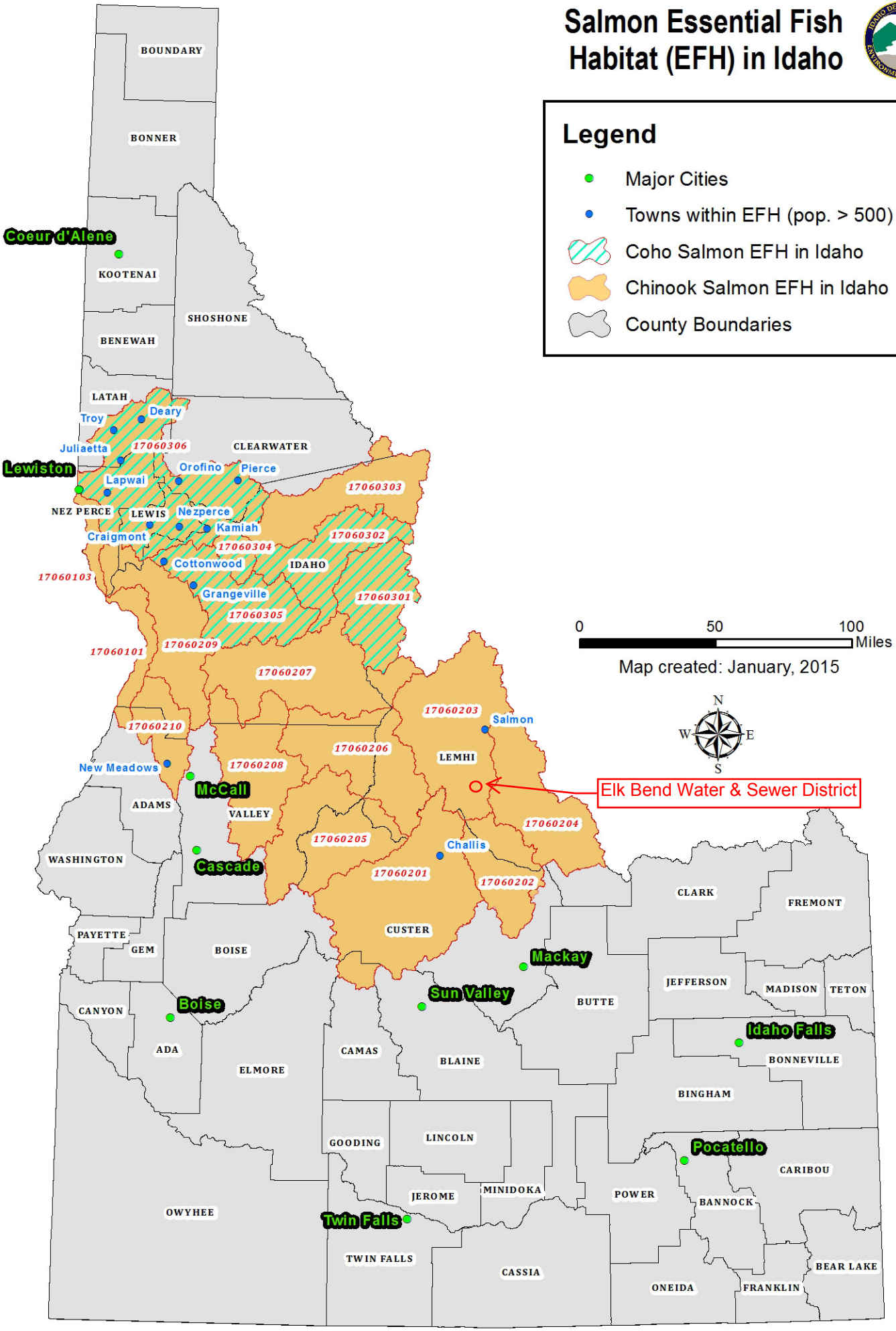
BILLING CODE 4310–55–C

(36) Unit 27: Salmon River – West Half

(i) The entire Salmon River unit consists of 7,376.5 km (4,583.5 mi) of streams and 1,683.8 ha (4,160.6 ac) of lakes and reservoirs. The unit is located in central Idaho.

(ii) See paragraph (e)(35)(ii) of this entry for a complete list of individual waterbodies in this unit.

Salmon Essential Fish Habitat (EFH) in Idaho



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Eastern Idaho Field Office
4425 Burley Dr., Suite A
Chubbuck, Idaho 83202
Telephone (208) 237-6975
http://IdahoES.fws.gov

Ester Ceja, Sr. Water Quality Analyst
State of Idaho Department of Water Quality
1410 North Hilton
Boise, Idaho 83706

APR 0 1 2014

Subject: Elk Bend Sewer District Wastewater Improvement Project
In Reply Refer To: 01EIFW00-2014-TA-0309

Dear Ms. Ceja:

We have reviewed your March 25, 2014, letter, received by our office on March 27, 2014, requesting our comments pursuant to section 7 of the Endangered Species Act of 1973 (Act), as amended (16 U.S.C. 1531 *et seq.*), on the proposed rehabilitation or replacement of three lift stations associated with wastewater treatment in Lemhi County, Idaho, by the Elk Bend Sewer District (District). Under the Act, it is incumbent upon Federal action agencies to determine whether proposed projects would affect listed species. Per your request, we provide these comments on potential impacts to listed species in order to inform your State Environmental Review Process and decision making process.

The Salmon River provides habitat for the threatened Columbia River bull trout (*Salvelinus confluentus*). Bull trout are sensitive to sediment, which can cause abrasion or interference with gill function. Because parts of the project would occur within 200 feet of the Salmon River, we recommend the District implement Best Management Practices to avoid and minimize the introduction of sediment into the river. For example, we recommend the District use erosion control waddles, sediment drift fences, or other barriers to sediment traveling off the project area. If feasible, we recommend that the equipment staging areas or construction area for the two lift stations that are between the road and the river be slanted away from the river, towards the road, to minimize sediment delivery. Any other practices that would minimize the possibility of sedimentation should be incorporated as part of project plans, to avoid the possibility of adverse effects to bull trout.

This letter does not provide an exemption for take under the Act. If the Idaho Department of Environmental Quality determines that the project may affect a listed species, consultation with the Service, pursuant to the Act, would be required.

Thank you for the opportunity to comment on the proposed project. For further information or questions, please contact Nisa Marks of this office, at (208) 237-6375.

Sincerely,

David Kampwerth
Field Supervisor

From: Ester Ceja
Sent: Tuesday, April 01, 2014 11:31
To: Marks, Nisa
Cc: Ester Ceja
Subject: RE: Elk Bend sewer district project

Nisa,

Good morning. I was able to obtain responses to your questions. In addition, I asked for approximate distance between the river and the lift stations on the map.

1. Will the proposed rehabilitation of Elk Bend Sewer District Wastewater Treatment Plant result in any water withdrawl from the Salmon River or its tributaries?
   No, the proposed improvements will not result in any water withdrawal from the river or streams.

2. Will the rehab/replacement of the lift station result in any additional disturbance (i.e. outside of current disturbance area) within 100 feet of the river or removal of any riparian vegetation?
   The proposed improvements will not result in disturbance outside the current disturbance area within 100 feet of the river and will not result in the removal of riparian vegetation.

The approximate distance from the river for the three lift stations are:
Elk Bend #1 – Elk Horn Drive – 150 feet
Elk Bend #2 – Treatment Plant – 175 feet
Steelhead Bend – 60 feet

Please let me know if you have any questions.

Thanks,
Ester

From: Marks, Nisa [mailto:nisa_marks@fws.gov]
Sent: Monday, March 31, 2014 9:22 AM
To: Ester Ceja
Subject: Elk Bend sewer district project

Hi Ester,

Would the proposed rehabilitation of Elk Bend Sewer District Wastewater Treatment Plant result in any water withdrawl from the Salmon River or its tributaries? Also, would the rehabilitation/replacement of the lift station result in any additional disturbance (i.e. outside of current disturbance area) within 100' of the River, or removal of any riparian vegetation?

Thanks,

Nisa Marks, Biologist
US Fish and Wildlife Service
Eastern Idaho Field Office
4425 Burley Dr., Suite A
Chubbuck, ID 83202
208-237-6975 x121

From: Chad Fealko - NOAA Federal <chad.fealko@noaa.gov>
Sent: Thursday, March 27, 2014 10:10
To: Ester Ceja
Cc: Bill Lind
Subject: Elk Bend Sewage Treatment Proposal

Ms. Ceja,

This email is in response to your March 25, 2014, letter requesting National Marine Fisheries Service (NMFS) input on proposed modifications to the Elk Bend and Steelhead Bend sewage treatment facilities.

NMFS supports efforts to improve sewage treatment at these sites as it may help improve water quality. The adjacent Salmon River is occupied by Endangered Species Act (ESA) listed Snake River spring/summer Chinook salmon, Snake River sockeye salmon, and Snake River Basin steelhead. The Salmon river is also designated critical habitat for all three species; including the area within 300 feet of the ordinary high water mark for salmon. Improved water quality in the Salmon River may benefit migratory, and juvenile rearing conditions, with limited potential for improving Chinook and steelhead spawning habitat.

Although we support the intent of the proposed action in a general sense, the March 25, 2014, letter and attached map provided little information regarding how the project elements would be completed and thus limits our ability to identify specific potential impacts to anadromous resources. Please consider adopting the following project design features during your environmental review process:

-
- Where construction occurs within riparian conservation areas (RCAs), or in areas where water may concentrate during snowmelt periods, standard sediment and pollutant prevention and retention practices should be utilized (e.g., silt fence, wattles, etc.) and appropriately maintained.
- Equipment and material staging areas should be located in areas lying outside of RCAs, in areas requiring the least amount of new soil disturbance, and outside topographic lows where water may concentrate during snowmelt or storm events.
- Equipment should be cleaned of all dirt, mud, seeds, and vegetative matter prior to arriving on site to reduce risk of invasive species introduction. The same equipment should be cleaned again prior to leaving, if warranted.
-
- Materials resulting from demolition or site preparation should be removed to an appropriate disposal site.
- Fuel storage should occur only within identified staging areas, and equipment refueling should not occur within RCAs. Engine and hydraulic fluids should be monitored for leaks and repaired as needed.
- RCA vegetation should be protected to the extent possible, and disturbed areas promptly rehabilitated.
-
- Prior to beginning work, project sites should be surveyed for noxious weeds and appropriate measures taken to either avoid existing infestations or treat infestations to prevent a local expansion or off-site transport.
- To avoid inadvertent water contamination, ensure sewage is successfully delivered to established treatment areas where it may be properly treated throughout construction; establishment of temporary lift stations/delivery systems may be necessary.
- Consider establishing a water quality monitoring plan to assure sewage treatment successfully prevents contaminating the Salmon River for the life expectancy of the project.

Please contact me for further input or clarification if necessary. Thanks for including us in your scoping effort.

Chad Fealko

Fisheries Biologist
NOAA Fisheries West Coast Region
U.S. Department of Commerce
Office: 208.756.5105
chad.fealko@noaa.gov
www.westcoast.fisheries.noaa.gov

From: Mike May
Sent: Thursday, February 12, 2015 15:31
To: 'Kimberly Murphy - NOAA Federal'
Cc: Skyler Allen (Keller)
Subject: RE: Lemhi County/Elk Bend Sewer District Improvement Project
Attachments: Corps of Engineers Jurisdictional Determination - Elk Bend WWG - 22 May 2014.pdf

Thanks, Kim. To address your specific questions:

- I doubt if the NPDES permit in question is covered under an existing programmatic consultation with NMFS, because it is the Storm Water Construction General Permit (CGP) <yosemite.epa.gov/R10/WATER.NSF/NPDES+Permits/Region+10+CGP+resources>. Applicants sign on to this standard permit by filing a Notice of Intent <water.epa.gov/polwaste/npdes/stormwater/EPA-Construction-General-Permit.cfm>. However, in order to be eligible to obtain coverage under the CGP, applicants must meet one of several endangered species criteria listed in the permit. It appears to me that either Criterion C, D or E will be the one applicable to this project. To quote from the permit (emphasis added)<water.epa.gov/polwaste/npdes/stormwater/upload/cgp2012_appendixd.pdf>:

  Criterion C. Federally-listed threatened or endangered species or their designated critical habitat(s) are likely to occur in or "action area," and your site's discharges and discharge-related activities are **not likely to adversely affect listed endangered species or critical habitat**. This determination may include consideration of any stormwater contro management practices you will adopt to ensure that your discharges and discharge-related activities are not l affect listed species and critical habitat. To make this certification, you must include the following in your NOI: 1 listed species and/or designated habitat located in your "action area"; and 2) the distance between your site species or designated critical habitat (in miles). You must also include a copy of your site map with your NOI.

  Criterion D. **Coordination between you and the Services has been concluded**. The coordination must have addressed the e site's discharges and discharge-related activities on federally-listed threatened or endangered species and fec critical habitat, and must have resulted in a written concurrence from the relevant Service(s) that your site's dis discharge-related activities are not likely to adversely affect listed species or critical habitat. You must include c correspondence between yourself and the Services in your SWPPP and your NOI.

  Criterion E. **Consultation between a Federal Agency and the U.S. Fish and Wildlife Service and/or the National Marine Fishe section 7 of the ESA has been concluded**. The consultation must have addressed the effects of the constructior and discharge-related activities on federally-listed threatened or endangered species and federally-designate The result of this consultation must be either:

  i. a biological opinion that concludes that the action in question (taking into account the effects of your site's discharges an related activities) is not likely to jeopardize the continued existence of listed species, nor the destruction or adverse modifica habitat; or

  ii. written concurrence from the applicable Service(s) with a finding that the site's discharges and discharge-related activitie adversely affect federally-listed species or federally-designated habitat.

  You must include copies of the correspondence between yourself and the Services in your SWPPP and your NOI.

- The Corps of Engineers issued a Jurisdictional Determination (attached) indicating that there are no waters of the US, including wetlands, within the proposed project area
- Federal financing is proposed via the Idaho Clean Water State Revolving Fund
- No biological assessment has been undertaken. If we need one, we will have to address that.

Just so you know the players, Skyler Allen of Keller Associates is the engineer on the project. I am reviewing the Environmental information Document prepared by Keller, and am making this ESA/EFH enquiry as part of our NEPA-like process.

Mike May, Idaho DEQ

From: Kimberly Murphy - NOAA Federal [mailto:kimberly.murphy@noaa.gov]
Sent: Wednesday, February 11, 2015 16:08
To: Mike May
Subject: Re: Lemhi County/Elk Bend Sewer District Improvement Project

Hi Mike,

Based on the limited information that I have it appears that the project action area includes the Salmon River. The Salmon River is occupied by ESA listed Snake River sockeye salmon, Snake River spring/summer Chinook salmon, and Snake River Basin steelhead. The Salmon River is also designated critical habitat for all three species and includes Chinook salmon EFH. Therefore, it is likely that this action will require ESA Section 7 consultation. Because I have not had an opportunity to review a biological assessment for this action I am unable to determine whether the

project will require informal or formal consultation.

Before I can further assist you, I need to better understand what the Federal nexuses are for this action. I see that this project will require an EPA NPDES permit. Do you know whether the NPDES permit is covered under an existing programmatic consultation? Will this project also require a 404 Joint Application permit from the Corps of Engineers/IDWR? Is there Federal funds being used for this project? Is there any other Federal agencies that might be involved on this project? Has a draft biological assessment been written? Please let me know if you have any questions.

Thank you,

Kim

On Tue, Feb 10, 2015 at 3:19 PM, <Michael.May@deq.idaho.gov> wrote:

Thanks, Kimberly. I do still have questions regarding this project. As you can see from the attached map, this is a wastewater upgrade for the Elk Bend Sewer District, south of Salmon Idaho. The project is intended to improve wastewater treatment and limit the potential for uncontrolled release of wastewater to the Salmon River. The scope of the project includes:

- Rehabilitating lift stations at Elk Bend and Steelhead Bend;
- Installing a recirculating gravel filter wastewater treatment system;
- Installing a new large soil absorption system (LSAS)at Elk Bend; and
- Installing underground pipes to transport treated sewage to the land disposal units, *i.e.*, LSAS.

A significant portion of the proposed project activity lies within 300 feet of the river bank, and thus falls within the Chinook Salmon Essential Fish Habitat. Mitigation measures we plan to employ to protect the river and riparian habitat include:

8) Obtain temporary construction NPDES permit for storm water runoff.
9) Utilize Best Management Practices for storm water runoff to prevent oils or sediment from entering surface waters.
10) Construction within riparian conservation areas shall use standard sediment and pollutant prevention and retention practices and vegetation in riparian conservation areas protected to the extent possible and rehabilitated promptly.
11) Equipment staging areas or construction areas for the lift stations between the road and the river should be sloped away from the river to minimize sediment delivery.
12) Equipment and material staging areas, fuel storage, and equipment refueling locations to be outside of riparian conservation areas.
13) Equipment to be cleaned of all dirt, mud, seeds, and vegetative matter prior to arriving on site and (if warranted) cleaned prior to leaving site to protect against invasive species transport.
14) Equipment to be monitored for engine and hydraulic fluid leaks and repaired as needed.
16) Ensure sewage is successfully delivered to established treatment areas where it may be properly treated throughout construction. Temporary facilities may be necessary.
17) A water quality monitoring plan is recommended to assure sewage treatment successfully prevents contaminating the Salmon River for the life expectancy of the project.
18) Due to bald eagle nesting it is recommended that ground disturbing activity be accomplished between August 15 and January 15.

Based on the above information, we believe that the project is Not Likely to Adversely Affect either endangered species or Essential Fish Habitat. We have been in contact with USF&WS, but would also like input from NMFS.

Thank you.

Mike May
Sr. Water Quality Specialist
Idaho Department of Environmental Quality
1410 North Hilton
Boise, Idaho 83706
(208) 373-0406

From: Kimberly Murphy - NOAA Federal [mailto:kimberly.murphy@noaa.gov]
Sent: Monday, February 09, 2015 16:44
To: Mike May
Subject: Lemhi County/Elk Bend Sewer District Improvement Project

Hi Michael,

I have tried several times to reach you by phone regarding the Lemhi County/Elk Bend Sewer District Improvement Project. Unfortunately, we have been playing phone tag. I wanted to check in with you one last time, using e-mail, to see if you have any questions regarding this project. If you do have any questions please let me know.

Thank you,

Kim

--
Kimberly Murphy
Fisheries Biologist
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UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
West Coast Region
7600 Sand Point Way N.E., Bldg. 1
Seattle, WA 98115

Refer to NMFS No: 2015-3698

November 24, 2015

Bryan Fiedorczyk
U.S. Environmental Protection Agency, Region 10
Clean Water State Revolving Fund
1200 Sixth Avenue, Suite 900
Seattle, Washington 98101-3140

Mike May
Idaho Department of Environmental Quality
Senior Water Quality Specialist
1410 North Hilton
Boise, Idaho 83706

Re: Endangered Species Act Section 7(a)(2) Concurrence Letter and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Response for the Elk Bend Water & Sewer District Wastewater Improvement Project; Salmon River-Rattlesnake Creek (171602030301), Lemhi County, Idaho (One Project)

Dear Mr. Fiedorczyk and Mr. May:

On November 2, 2015, NOAA's National Marine Fisheries Service (NMFS) received your request for a written concurrence that the Elk Bend Water & Sewer District Wastewater Improvement Project is not likely to adversely affect (NLAA) species listed as threatened or endangered or critical habitats designated under the Endangered Species Act (ESA). This response to your request was prepared by NMFS pursuant to section 7(a)(2) of the ESA, implementing regulations at 50 CFR 402, and agency guidance for preparation of letters of concurrence.

NMFS also reviewed the proposed action for potential effects on essential fish habitat (EFH) designated under the Magnuson-Stevens Fishery and Conservation Management Act (MSA), including conservation measures and any determination that you made regarding the potential effects of the action. This review was pursuant to section 305(b) of the MSA, implementing regulations at 50 CFR 600.920, and agency guidance for use of the ESA consultation process to complete EFH consultation. In this case, NMFS concluded that the action would not adversely affect EFH. Thus, consultation under the MSA is not required for this action.

This letter underwent pre-dissemination review using standards for utility, integrity, and objectivity in compliance with applicable guidelines issued under the Data Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001, Public Law 106-554). The concurrence letter will be available through NMFS' Public Consultation Tracking System [https://pcts.nmfs.noaa.gov]. A complete record of this consultation is on file at the Snake Basin Area Office, Boise, Idaho.

Proposed Action and Action Area

The proposed project is expected to be financed by the Idaho Clean Water State Revolving Fund, which is funded through the U.S. Environmental Protection Agency (EPA) (Federal nexus and lead action agency). Additional financing is being provided by a Community Development Block Grant using Federal funds administered by the Idaho Department of Commerce and by funds from the U.S. Department of Agriculture Rural Utilities Service. The Idaho Department of Environmental Quality (IDEQ) is the Federal grant recipient. The project will upgrade the existing wastewater systems that serve two small residential areas in Elk Bend and Salmon Bend near the city of Elk Bend, Idaho. The current systems were constructed in the 1970s, and are in poor condition. At least one incident involving sewage overflow to the ground surface has occurred. The project is designed to improve water quality because no wastewater discharge to the Salmon River will occur. Construction is expected to be completed during the summer of 2016; however, a construction schedule has not been determined and could occur at a later time.

Activities associated with this project include: (1) Construction of a new recirculating gravel filter (RGF) wastewater treatment facility (WWTF) and pressure sewer line at Elk Bend; (2) replacement of the existing large soil absorption system (LSAS) with a new LSAS at Elk Bend; (3) rehabilitation of the existing WWTF at Steelhead Bend; and (4) rehabilitation of the Steelhead Bend Lift Station and Elk Bend Lift Station #1 with new pumps and electrical equipment; removal of worn equipment and piping, rehabilitating the wet well, installing new piping, new electrical and control equipment, and weather protection (Figure 1). The RGF system would be sized for the treatment of 26,000 gallons per day (gpd) average and 40,000 gpd peak. Elk Bend annual average flows are estimated to increase from 16,000 gpd currently, to 20,000 gpd in 20 years, and 24,000 gpd in 40 years. Steelhead Bend annual average flows are estimated to increase from 5,000 gpd currently, to 6,000 gpd in 20 years, and 7,500 gpd in 40 years.

The project does not involve any water withdrawal from or discharge to the Salmon River or any of its tributaries. No ground disturbance or riparian vegetation removal within 100 feet of the river or its tributaries is anticipated, with the exception of the Steelhead Bend lift station. Ground disturbance for rehabilitation of this lift station will extend to within 75 feet of the Salmon River. The U.S. Army Corps of Engineers (COE) issued an Approved Jurisdictional Determination on May 22, 2014, stating that all project work is in uplands not containing waters of the U.S., including wetlands. Therefore, no COE permit is required.

A nutrient-pathogen evaluation to estimate the effects of the new LSAS on groundwater and surface water quality was conducted in accordance with Idaho Individual Subsurface Sewage

Disposal rules and guidance. Modeling projected that the ground water nitrate/nitrite concentration at the riverbank would not exceed 1.3 mg N/L, and instream total phosphorus would be less than 0.4 µg P/L under annual low streamflow of 900 cubic feet per second and 20,000 gpd sanitary flow. Even allowing for larger wastewater flows of 25,550 gpd would not raise instream concentrations above 0.5 µg P/L and 0.1 µg N/L.

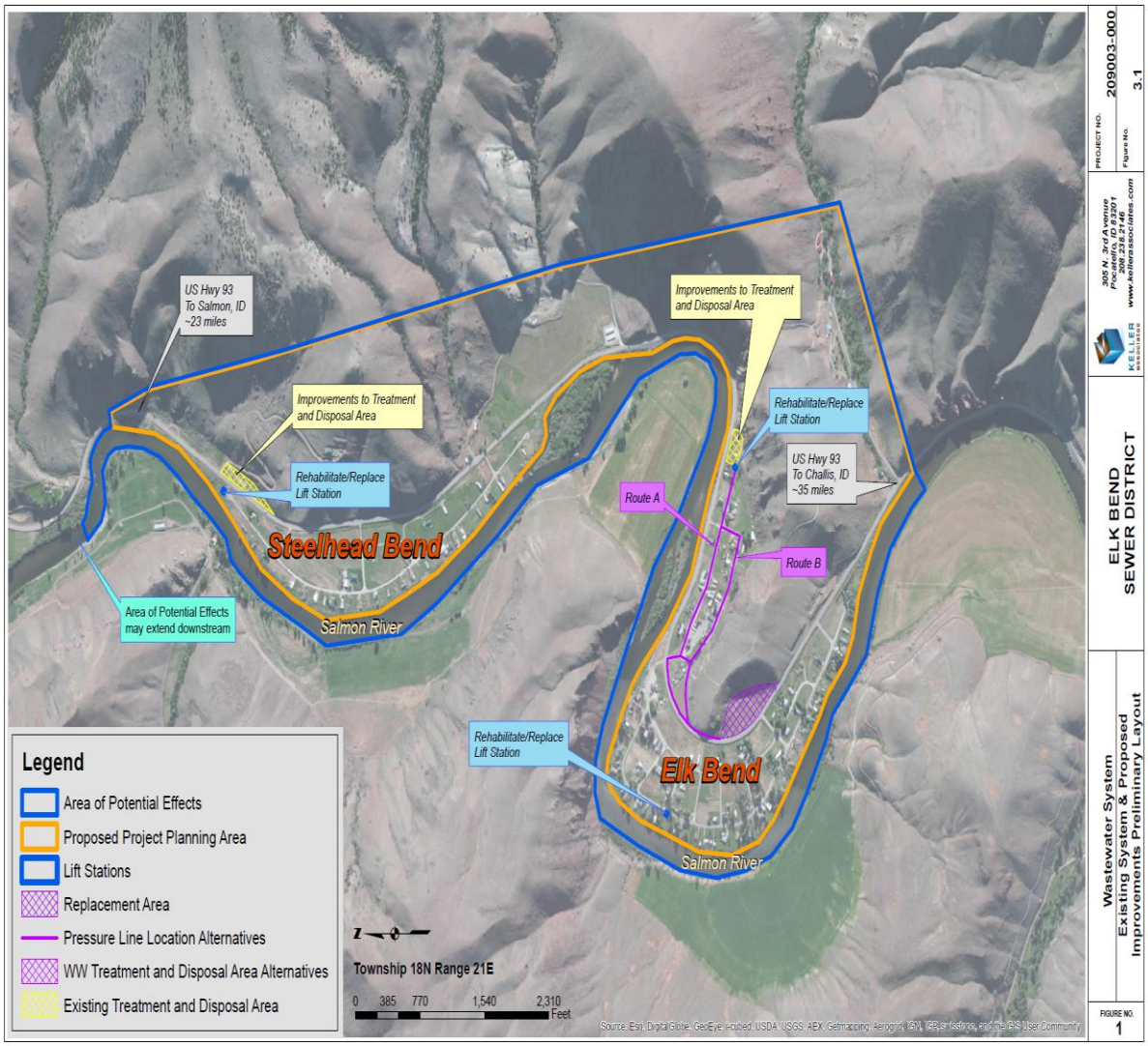

Figure 1. Elk Bend Water & Sewer District Wastewater Improvement Project.

The following notable project design criteria (PDC) are incorporated into the proposed action and will be employed to minimize and avoid the risk of adverse effects:

1. Prior to beginning work, project sites will be surveyed for noxious weeds and appropriate measures taken to either avoid existing infestations or treat infestations to prevent a local expansion or off-site transport.

2. Where construction activities occur within 75 feet of stream channels or standing water, or in areas where water may concentrate during snowmelt periods, standard sediment and pollutant prevention and retention practices will be utilized (e.g., silt fence, wattles) and appropriately maintained.

3. Fuel storage will occur only within staging areas, and refueling will not occur within 150 feet of streams. If fueling must occur at less than 150 feet, it will occur inside an impervious containment structure with a volumetric holding capacity equal to at least 110% of the fueling tank. Engine and hydraulic fluids will be monitored for leaks. Spill packs will also be on hand for minor leaks/spills.

4. Washing of tools and equipment will occur only within staging areas, or other areas approved by IDEQ, where there is no potential for rinsate to reach surface waters.

5. To minimize the potential for introducing hazardous material to the aquatic system, a spill prevention and control countermeasures plan will be prepared by the contractor and approved by IDEQ prior to project initiation.

6. No construction will occur within wetland or riparian conditions.

7. Equipment and material staging areas should be located in areas lying outside of resource conservation areas (RCAs), in areas requiring the least amount of new soil disturbance, and outside topographic lows where water may concentrate during snowmelt or storm events.

8. Equipment staging or construction areas for the two lift stations must be slanted away from the river, towards the road, to minimize sediment delivery to the Salmon River.

9. Equipment should be cleaned of all dirt, mud, seeds, and vegetative matter prior to arriving on site to reduce risk of invasive species introduction. The same equipment should be cleaned again prior to leaving, if warranted.

10. Materials resulting from demolition or site preparation should be removed to an appropriate disposal site.

11. RCA vegetation should be protected to the extent possible and disturbed areas promptly rehabilitated.

12. No trees will be removed.

13. To avoid inadvertent water contamination, sewage shall be successfully delivered to established treatment areas where it may be properly treated throughout construction; establishment of temporary lift stations/delivery systems may be necessary.

14. Establish groundwater quality monitoring requirements in the LSAS permit to ensure sewage treatment successfully prevents contaminating the Salmon River for the life expectancy of the project. NMFS will be provided a copy of the permit, and will be notified if results of water quality monitoring indicate any type of contamination to the Salmon River is occurring.

15. If poured-in-place concrete is used, measures shall be taken to prevent green concrete from entering the Salmon River or any other body of water.

16. Vibratory compaction will be used, but vibratory or impact hammers will not be used.

17. All surplus excavated material will be removed from the site to a designated upland site(s) away from any watercourses, rendering them unavailable to enter the stream channel as a result of storm runoff or a high water event.

Action Agency's Effects Determination

Snake River sockeye salmon, Snake River spring/summer Chinook salmon, and Snake River Basin steelhead are likely to occur within the action area. The action is within designated critical habitat for all three species (Table 1). This reach of river serves primarily as a migratory corridor for Chinook salmon and steelhead, and no spawning activities or redds are expected either in or downstream of the action area. Similarly, this river reach is only utilized by sockeye as they migrate to and from the Salmon River headwaters, near Stanley, Idaho. All sockeye reproduction and rearing occurs upstream of the proposed project area. No sockeye spawning activities or redds are expected either in or downstream of the action area. Juvenile steelhead, Chinook salmon, and sockeye salmon could be migrating past the project area during the proposed timing of the project.

The Federal grant recipient, IDEQ, made a NLAA effects determination for the project on Snake River sockeye salmon, Snake River spring/summer Chinook salmon, Snake River Basin steelhead, and designated critical habitat for each of the three species. They also made a no adverse effect determination for EFH. The IDEQ made this determination because the project will occur outside of the ordinary high water mark (OHWM), approximately 75 to 100 feet from the Salmon River, and has the potential for short term, temporary effects on water quality (i.e., temperature, sediment, chemical contaminants/nutrients).

Table 1. Federal Register notices for final rules that list threatened and endangered species, designated critical habitat, or apply protective regulations to listed species considered in this consultation.

Species	Listing Status	Critical Habitat	Protective Regulations
Chinook salmon (*Oncorhynchus tshawytscha*)			
Snake River spring/summer run	T 8/15/11; 76 FR 50448	12/28/93; 58 FR 68543 10/25/99; 64 FR 57399	6/28/05; 70 FR 37160
Sockeye salmon (*O. nerka*)			
Snake River	E 8/15/11 76 FR 50448	12/28/93; 58 FR 68543	ESA Section 9 applies
Steelhead (*O. mykiss*)			
Snake River Basin	T 8/15/11; 76 FR 50448	9/02/05; 70 FR 52630	6/28/05; 70 FR 37160

Note: Listing status: 'T' means listed as threatened under the ESA; 'E' means listed as endangered

Consultation History

The IDEQ submitted a request for consultation on this action in an email dated July 17, 2015. NMFS requested additional information in an e-mail dated July 21, 2015. NMFS and IDEQ corresponded on edits to the proposed action by e-mail. On November 2, 2015, NMFS received a revised request for a written concurrence that the proposed Elk Bend Water & Sewer District Wastewater Improvement Project is NLAA ESA-listed species or designated critical habitats. On November 13, 2015, IDEQ sent an email to NMFS confirming that groundwater quality monitoring requirements would be included in the LSAS permit.

ENDANGERED SPECIES ACT

Effects of the Action

Under the ESA, "effects of the action" means the direct and indirect effects of an action on the listed species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action (50 CFR 402.02). The applicable standard to find that a proposed action is NLAA listed species or critical habitat is that all of the effects of the action are expected to be discountable, insignificant, or completely beneficial. Beneficial effects are contemporaneous positive effects without any adverse effects to the species or critical habitat. Insignificant effects relate to the size of the impact and should never reach the scale where take occurs. Discountable effects are those extremely unlikely to occur. The IDEQ did not identify any interrelated and interdependent actions associated with this proposed action.

Species Determination

The proposed action has the potential to affect juvenile ESA-listed Snake River spring/summer Chinook salmon, Snake River sockeye salmon, and Snake River Basin steelhead. Adult steelhead are spring spawners, and may also still be within the action area when project work begins. Adult Chinook salmon and sockeye are fall spawners, and could

also be present during project implementation depending on when the project is completed. As previously stated, this reach of river serves primarily as a migratory corridor for all three ESA-listed fish species, and no spawning activities or redds are expected either in or downstream of the action area. There is limited rearing habitat for steelhead and Chinook salmon in the action area. The proposed action could potentially affect ESA-listed fish species through habitat-related effects to water quality (i.e., increased turbidity and/or introduction of toxic chemicals) or substrate composition.

The proposed action has the potential to affect water quality by generating minor amounts of turbidity due to project-associated soil disturbance. The timing, duration, and sediment concentrations that are likely to occur in the action area from project activities are not likely to cause harm or lethal effects to juvenile fish that may be present because of the low magnitude, infrequent, and discontinuous nature of the expected turbidity pulses. The risk that ESA-listed fish will be affected by turbidity is further minimized because all construction activities will occur 75 to 100 feet or more from the Salmon River within the existing access area footprint, no inwater work will occur, and silt fencing will be installed between the project area and the Salmon River as part of this action. Therefore, turbidity pulses will be small and localized, should they occur, and will not reach levels that will extend across the entire width of the Salmon River. If any pulses do occur, ESA-listed fish present will be readily able to move without harm to less turbid waters much as they would avoid any natural perturbation. Because PDC should effectively avoid and minimize sediment introductions from upland construction activities and the amount of sediment mobilized, effects from suspended sediment on ESA-listed fish present are expected to be insignificant.

The proposed action also has the potential to affect water quality through temporary toxic chemical contamination of the Salmon River from uncured concrete and/or petroleum-based fuels and lubricants. However, chemical contamination due to uncured concrete is extremely unlikely due to PDC that ensure concrete will be poured offsite or above the OHWM, and because sediment retention structures (in place between the pour sites and the river) will ensure that no uncured concrete reaches the river. The PDC will ensure that all equipment will be free from leaks and drips prior to arriving onsite; and will require refueling at least 150 feet from the river. In addition, due to the short duration of the project, it is unlikely that antifreeze, brake, or transmission fluid will be present onsite or spilled in volumes or concentrations large enough to harm salmonids in or downstream from the project site. Therefore, NMFS believes the potential for adverse effects from toxic chemical inputs to water quality and any ESA-listed fish present will be minimized to a discountable level with implementation of the proposed PDC.

The proposed action also has the potential to affect water quality through improved sewage and wastewater treatment, which reduces the potential for chemical contamination and nutrient releases to the Salmon River. The PDC will require that no direct discharge to the Salmon River occurs. In addition, routine groundwater quality monitoring will be conducted to ensure the sewage treatment facility prevents contamination of the Salmon River for the life expectancy of the project. NMFS will be notified if results of water quality monitoring indicate any type of contamination to the Salmon River is occurring. Therefore, NMFS believes the potential for adverse effects from chemical contamination and increased

nutrient inputs to water quality from sewage treatment and any ESA-listed fish present will be minimized to a discountable level with implementation of the proposed PDC.

Project-generated sediment also has the potential to affect ESA-listed fish by filling pools and increasing substrate fine sediment levels. However, with ground-disturbing activities taking place no closer than 75 feet to the Salmon River, combined with the anticipated effectiveness of proposed sediment control PDC, very little sediment is expected to be delivered to the river as a result of the project. Also, any sediment that is delivered to the river is not expected to remain in the substrate very long, likely remaining in place only until the next high flow event, when high flows are expected to flush out project-generated sediment. Therefore, project-generated sediment delivery is expected to be insignificant and not at a scale that is likely to affect fish use of the action area.

Critical Habitat Determination

The action as proposed has the potential to affect the following essential physical and biological features (Chinook and sockeye salmon) or primary constituent elements (PCEs) (steelhead) of designated critical habitat (hereinafter collectively referred to as PCEs): (1) Water quality; and (2) substrate/spawning gravel (Table 2). Any modification of these PCEs may affect freshwater rearing or migration in the action area. Proper function of these PCEs is necessary to support successful adult and juvenile migration, adult holding, rearing, and growth and development of juvenile fish. All remaining PCEs would not be affected by the proposed action.

The proposed action has the potential to affect water quality by generating minor amounts of turbidity due to project associated soil disturbance. However, as previously described in the species effects section, proposed PDC are expected to effectively limit sediment delivery to very low levels. Therefore, effects of the action on turbidity (water quality parameter) will be insignificant.

The proposed action also has the potential for temporary toxic chemical contamination of the Salmon River from uncured concrete and/or petroleum-based fuels and lubricants. However, as described in the species effects section, the risk of chemical contamination occurring is discountable considering implementation of the proposed PDC.

The proposed action also has the potential to affect water quality through improved sewage and wastewater treatment, which reduces the potential for chemical contamination and nutrient releases to the Salmon River. The PDC will ensure sewage treatment successfully prevents contaminating the Salmon River for the life expectancy of the project. Therefore, NMFS believes the potential for adverse effects from chemical contamination and nutrient inputs to water quality will be minimized to a discountable level with implementation of the new sewage treatment facility and proposed PDC.

As proposed, the action also has the potential to affect instream sediment levels, affecting substrate composition and spawning gravels. No ESA-listed fish spawn in this stream reach, meaning no spawning gravels will be affected. And, as described in the species effects

section, only small amounts of sediment are expected to be delivered to the river because of the anticipated effectiveness of the sediment control PDC. Because only minor amounts of sediment are expected to be delivered to the stream, effects to substrate/spawning gravel will be insignificant.

Table 2. Types of sites and essential physical and biological features designated as PCEs, and the species life stage each PCE supports.

Site	Essential Physical and Biological Features/PCEs	ESA-listed Species Life Stage
Snake River Basin Steelhead[a]		
Freshwater Spawning	Water quality, water quantity, and substrate.	Spawning, incubation, and larval development
Freshwater Rearing	Water quantity & floodplain connectivity to form and maintain physical habitat conditions	Juvenile growth and mobility
	Water quality and forage[b]	Juvenile development
	Natural cover[c]	Juvenile mobility and survival
Freshwater Migration	Free of artificial obstructions, water quality and quantity, and natural cover[c]	Juvenile and adult mobility and survival
Spring/summer Chinook Salmon		
Spawning and Juvenile Rearing	Spawning gravel, water quality and quantity, cover/shelter, food, riparian vegetation, and space	Juvenile and adult
Migration	Substrate, water quality and quantity, water temperature, water velocity, cover/shelter, food[d], riparian vegetation, space, safe passage	Juvenile and adult
Snake River Sockeye Salmon		
Spawning and Juvenile Rearing	Spawning gravel, water quality and quantity, water temperature, food, riparian vegetation, and access.	Juvenile and adult
Migration	Substrate, water quality and quantity, water temperature, water velocity, cover/shelter, food[d], riparian vegetation, space, safe passage	Juvenile and adult

[a]Additional PCEs pertaining to estuarine, nearshore, and offshore marine areas have also been described for Snake River Basin steelhead. These PCEs will not be affected by the proposed action and have therefore not been described in this letter of concurrence.
[b]Forage includes aquatic invertebrate and fish species that support growth and maturation.
[c]Natural cover includes shade, large wood, log jams, beaver dams, aquatic vegetation, large rocks and boulders, side channels, and undercut banks.
[d]Food applies to juvenile migration only.

Conclusion

Based on this analysis, NMFS concurs with EPA and the IDEQ that the proposed action is NLAA the subject listed species and designated critical habitats.

Reinitiation of Consultation

Reinitiation of consultation is required and shall be requested by EPA, IDEQ, or by NMFS, where discretionary Federal involvement or control over the action has been retained or is authorized by law, and: (1) New information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered; (2) the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this concurrence letter; or (3) if a new species is listed or critical habitat designated that may be affected by the identified action (50 CFR 402.16). This concludes the ESA portion of this consultation.

Section 7(a)(1) of the ESA directs Federal agencies to utilize their authorities to further the purposes of the ESA by carrying out conservation programs for the benefit of threatened and endangered species. The EPA and IDEQ also have the same responsibilities, and informal consultation offers action agencies an opportunity to address their conservation responsibilities under section 7(a)(1).

Please direct questions regarding this letter to Mrs. Kimberly Murphy (208) 756-5180 and Mr. Bill Lind (208) 378-5697.

Sincerely,

for William W. Stelle, Jr.
Regional Administrator

cc: R. Holder – USFWS
T. Curet – IDFG
N. LaRoque – USDA
D. Porter – IDOC

bcc: SBAO – File copy; Read file
SSBO – K. Murphy; B. Lind (*electronic*)

Murphy:Lind:ElkBendSewerImprovements:am:20151124:2015-3698

cc Addresses: (*electronic*)

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Noel LaRoque
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Dennis J. Porter
Idaho Department of Commerce
Dennis.Porter@commerce.idaho.gov

CULTURAL RESOURCE INVENTORY FOR THE ELK BEND SEWER PROJECT, LEMHI COUNTY, IDAHO

Report by
Benjamin L. Fowler and Kenneth P. Cannon

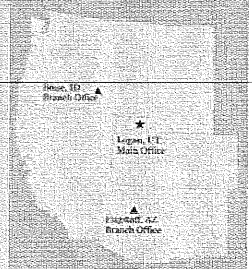
Prepared by
USU Archeological Services, Logan, Utah
Kenneth P. Cannon, PhD, RPA, Principal Investigator

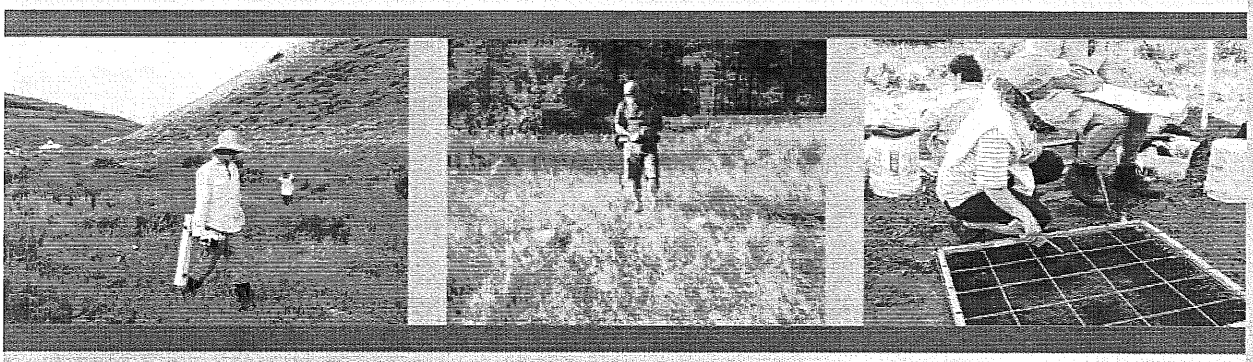
Prepared for Elk Bend Sewer District

Idaho Cultural Resources Project Number 14028
USUAS Technical Report Number 2013-014

November 2013

USU Archeological Services





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ARCHAEOLOGICAL AND HISTORICAL SURVEY REPORT
ARCHAEOLOGICAL SURVEY OF IDAHO
IDAHO STATE HISTORIC PRESEVATION OFFICE

All surveys completed for review under Section 106 of the National Historic Preservation Act must include textual or checked responses to each element below. A failure to include all elements and required attachments will result in a rejection of the report for review purposes until the missing data are supplied. Surveys not 106-related must include all elements except those specified for 106.

A. KEY INFORMATION

1. **Project name:** Cultural Resource Inventory for the Elk Bend Sewer Project, Lemhi County, Idaho.

2. **Report number or associated federal project number:**
   USU Archeological Services Technical Report USUAS-2013-014

3. **Agency name:**

4. **Report author** (and principal investigator if different):
   Benjamin L. Fowler and Kenneth P. Cannon (Principal Investigator)

5. **Date:** 22 November 2013

6. **County:** Lemhi County, Idaho

7. **Township, range, sections:** T. 18 N. R. 21 E. Section: 10

8. **Acres Surveyed:** This project intensively inventoried a total of 8.5 acres on the east side of the Salmon River including roads and parcels associated with Sewer infrastructure.

B. PROJECT DESCRIPTION:

1. Description of project and potential direct and indirect impacts to known or suspected historic properties:

This cultural resources inventory report is prepared for the Elk Bend Sewer District for upgrade and expansion of the current sewer facilities. Keller Associates, Inc. of Pocatello, Idaho is conducting the engineering portion of the project and contracted USU Archeological Services to conduct the cultural resources survey as mandated under Section 106 of the National Historic Preservation Act (NHPA). Benjamin L. Fowler, under the direct supervision of Dr. Kenneth Cannon, conducted the archaeological field work on 11 November 2013. Two known prehistoric sites were identified by background research. These sites are located toward the east and southeast within a one mile buffer of the APE, but will not be impacted by the project. Intensive pedestrian inventory of the entire 8.5 acre project area identified one isolated find of a wooden fence feature. Areas of the APE with existing access roads, buried utilities, and buildings are unlikely to yield historic properties as a result of prior disturbance. Non-disturbed portions of the APE still have potential to yield historic properties, especially since ground visibility was poor when surveyed. Therefore, ground disturbing activities associated with the facility upgrades have the potential to affect undetected and buried historic properties (provided they exist on the property).

2. Description of Area of Potential Effects (APE) with reference to attached map:

The area of potential effects (APE) is located at Elk Bend along the Salmon River in Lemhi County, Idaho. Two portions of the APE run along U.S. Hwy 93 as it bends from the northwest to the south-southeast. These areas are connected by White Tail Dr. and Elk Horn Rd., which are part of the APE, with a small parcel containing a sewer treatment facility. The cultural resource inventory covered the entire 8.5 acre APE (Figure 1).

3. Project acres: This project intensively inventoried a total of 8.5 acres.

4. Owner(s) of land in project area: (Key to map.): Elk Bend Sewer District

C. STATEMENT OF OBJECTIVES FOR SURVEY

(Describe area to be investigated. Note the amount and kinds of archival and field information to be gathered with reference to historic contexts and property types that are expected. Be specific.)

The objectives of this project are to identify and evaluate cultural properties within the project's area of potential effects (APE) to comply with Section 106 of the National Historic Preservation Act per Idaho SHPO letter dated 11 May 2012. Towards this objective, a Class I literature review/file search was conducted by the Idaho State Historic Preservation Office to identify known cultural resources within and adjacent to the project boundary on 4 November 2013 (SHPO File Search Number 14028). Additionally, an intensive pedestrian archaeological survey was conducted for the entire project APE with transects spaced no more than 15 meters apart. There are three main APE survey areas connected by two dirt roads, all of which were surveyed (Figures 2, 3, 4, and 5). Field work for this project was conducted on 11 November 2013 by USUAS archaeologist Benjamin L. Fowler under the direct supervision of Dr. Kenneth Cannon.

D. LOCATION AND GENERAL ENVIRONMENTAL SETTING

1. USGS topographic map(s):
USGS 7.5' Goldbug Ridge, Idaho (1966)

2. Setting: (Describe landforms, topography, elevation, water, flora, fauna, mineral resources, etc. as they relate to human use.)

This project is located northeast of Challis along US-93 in Lemhi County, Idaho. The community of Elk Bend is located at a bend along the Salmon River within the Lemhi Range of the Salmon River Mountains. The Salmon River Mountains cover the central portion of Idaho, north of the Snake River Plain. They are part of the Basin and Range province and sediments were deposited primarily during the Mesoproterozoic (Link and Janecke 1999). The survey approaches within 25 meters of the river at an elevation of 4,360 feet (1,329 meters). The survey parcels are located on nearly flat benches on the east and south portions of the Salmon River, wrapping around an east-to-west trending ridge rising just over 200 feet locally.

Climatic data are recorded at a series of local weather stations of which the Challis, Idaho weather station is closest (WRCC 2013). The average daily maximum temperature (based on records from 1895 to 1996), is 58.1°F (14.5°C), the average minimum temperature is 30.1°F (-1.05°C), and the average yearly precipitation is 7.38 in (18.74 cm; WRCC 2013). Soil data for the project area show that it lies on well-drained mixed alluvial sediments of the Bock-Bromaglin complex. The sediment is silty and sandy loam overlying gravelly loam at 60 cm (NRCS 2013). Sediment deposition and movement in the past was influenced by alluvial deposition, but primary impacts are now colluvial transportation.

The project area and surrounding areas includes sagebrush steppe, forested uplands and high elevation alpine and subalpine communities. Potential animal species in the area include mule deer (*Odocoileus hemionus)*, pronghorn (*Antilocapra americana)*, bison [extinct] (*Bison bison*), elk *(Cervus elaphus)*, bear,

rabbits (e.g., *Lepus californicus, Sylvilagus nuttalli,* and *S. idahoensis)*, squirrels, marmots, fox, and various birds and reptilian species. Native plant species in the region are dominated by sagebrush (e.g. *Artemisia tridentate* and *Artemisia tripartite*), various shrubs (e.g., *Purshia tridentata, Tetradymia canescens,* and *Chrysothamnus puberulus),* and grasses (e.g., *Agropyron spicatum, Koeleria cristata, Oryzopsis hymenoides*, and *Poa secunda* [Figures 2 and 3]).

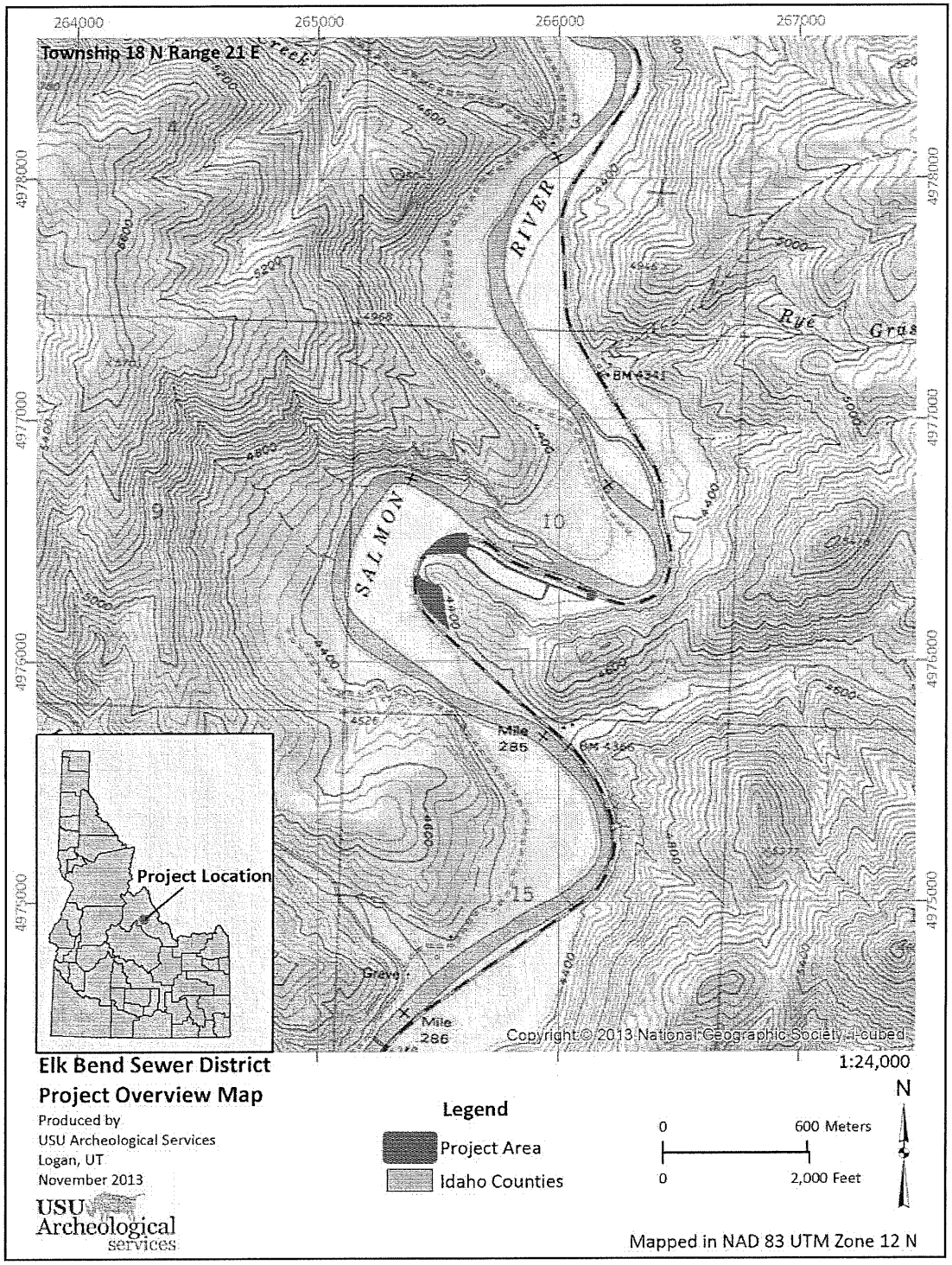

Figure 1. Cultural Resource Inventory project location map for the Elk Bend Sewer Project survey.

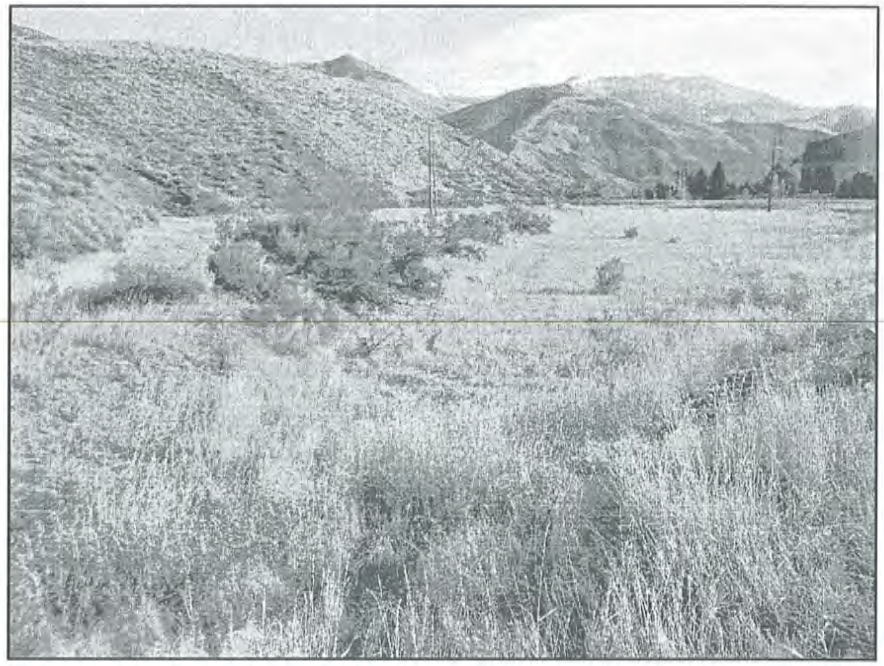

Figure 2. Southern survey area overview (view to the southeast). Photo taken by Benjamin L. Fowler on 11 November 2013.

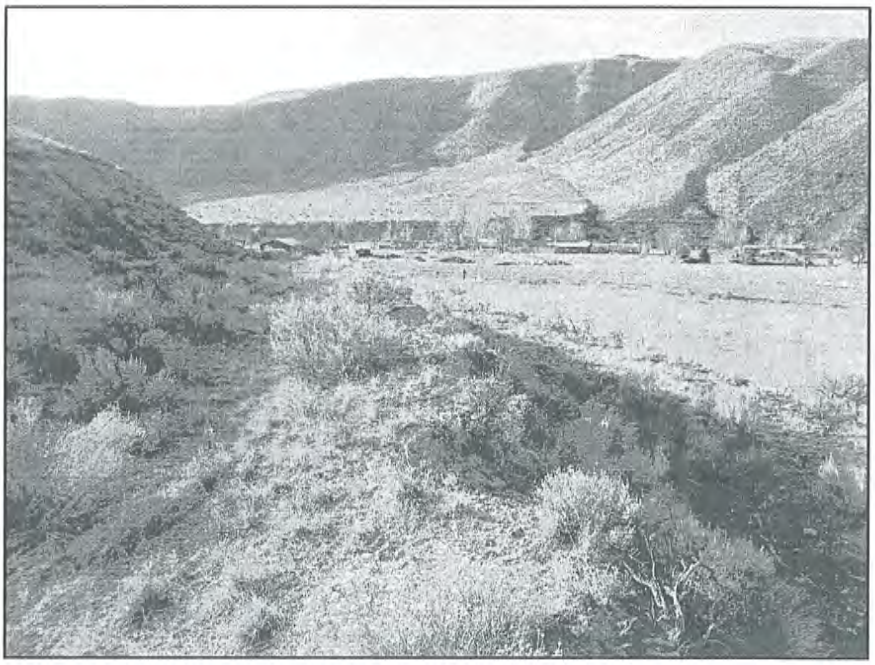

Figure 3. Northwestern survey area overview (view to the west). Photo taken by Benjamin L. Fowler on 11 November 2013.

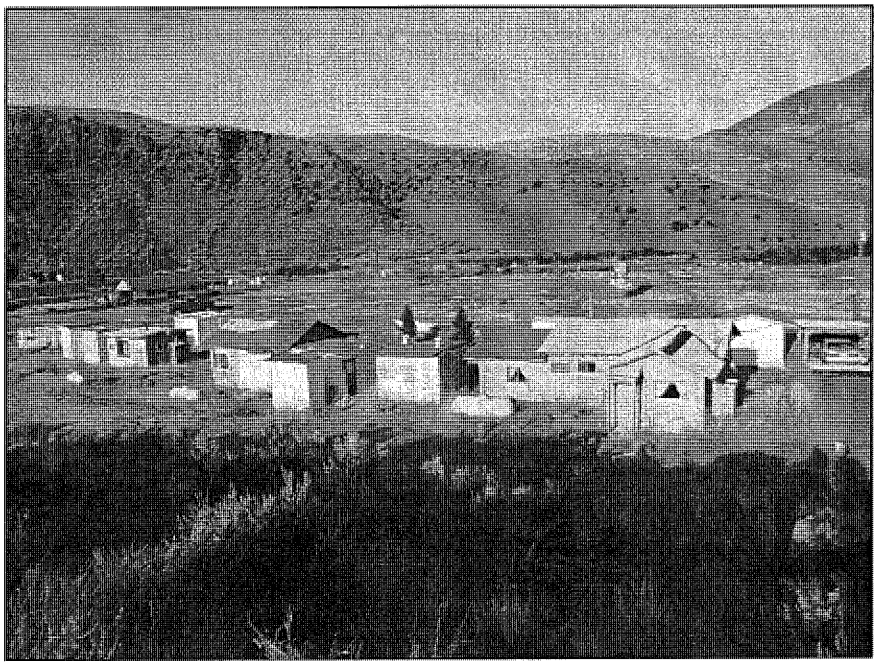

Figure 4. Northwestern survey area overview with buildings and storage (view to the north). Salmon River runs at base of ridge across Hwy 93. Photo taken by Benjamin L. Fowler on 11 November 2013.

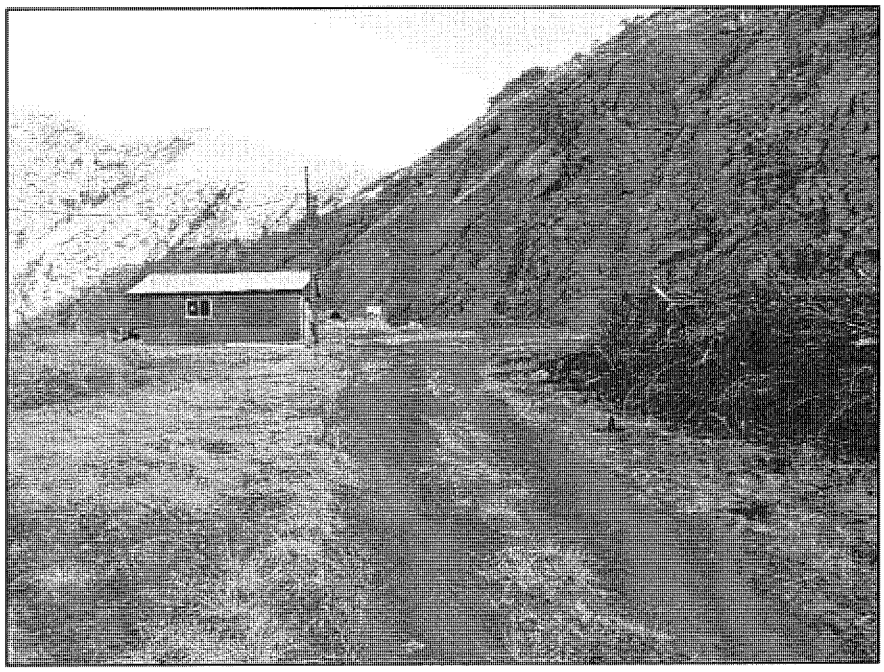

Figure 5. Eastern parcel survey area overview with sewer facilities adjacent to east to west trending ridge (view to east-southeast). Photo taken by Benjamin L. Fowler on 11 November 2013.

E. PRE-FIELD RESEARCH

SHPO Record Search Number (provided by SHPO at the time of record search): **14028**

1. Sources of information checked:

[ ] Overviews
[X] National Register
[X] Historical records/maps (list)
Land Surveys, GLOs, Centennial History of Lemhi County (1992)

[ ] Archaeological site records/maps
[ ] Architectural site records/maps
[X] Survey records
[ ] Ethnographic studies
[ ] Individuals/groups with special knowledge (list)
[ ] Other (list)

2. Summary of previous studies in the general area: (Include titles, authors, year, report numbers, and study results. Relate to contextual themes where appropriate.)

During the past five decades a number of archaeological investigations have been conducted within the Basin and Range portion of east-central Idaho. Early archaeological investigation, under the direction of Earl H. Swanson, Jr., in the Birch Creek Valley were begun in 1958 to survey and inventory resources in and around proposed reservoirs and drainages of the Snake and Salmon Rivers. This early attempt at appraising Idaho's archaeological resources led to excavations at Veratic and Bison Rockshelters (Swanson et al. 1959; Swanson and Bryan 1964). These studies contributed to understanding Northern Shoshoni migration into Idaho, the temporal depth of big game hunting subsistence focus, and provided a deep stratigraphic record to sequence cultural chronology (Swanson 1972).

In 1966 the Bureau of Land Management (BLM) and the Idaho State University Museum signed an agreement for the survey and inventory of BLM lands to document cultural sites. Salmon, Pahsimeroi, Lemhi, Little Lost River, and Big Lost River valleys were investigated and over 248 sites spanning the last 10,000 years were documented. On U.S. Forest Service land, the Shoup Rockshelters were tested, indicating a long sequence of stratified deposits, which could be compared against Birch Creek (Swanson and Sneed (1966).

The Challis Bison Kill (10CR196) at the foot of the Salmon River Mountains was excavated in 1970 by Idaho State University (Butler 1971). Two stratigraphic occupations date to the late Holocene; stratigraphy and artifacts suggest an accretional deposit. The site provides important information on the population dynamics of bison in the region and a broader view of subsistence patterns of prehistoric inhabitants. Reinvestigation of the site indicates a much earlier date for the site (Cannon and Cannon 2010).

Corn Creek (10LH124) is a large site on the Salmon River with at least 13 circular depressions. Idaho State University undertook excavations in 1984 to mitigate severe impacts (Holmer and Ross 1985). Five pit houses were excavated and four general periods of occupation were discerned between 7,000 and 1,200 yr B.P. with a possible proto-historic occupation (Holmer and Ross 1985). The data acquired from this campsite provide an important resource for understanding occupation of the upper Salmon River. Dagger Falls (10VY76) is another site that lies within alluvial terraces of the Salmon River. Excavations showed the site was used for fishing during the past 3,000-4,000 years (Holmer 1989; Torgler 1993).

In 1991, Heritage Research Associates (HRA) conducted Section 106 process fieldwork along the Salmon River Road in Lemhi County. As a result of this work, 75 cultural resource sites were documented, which includes 47 aboriginal and 38 Euroamerican components. Ten of the sites have both aboriginal and Euroamerican components (Greiser et al,. 1992). Limited testing for National Register evaluation was conducted at 23 sites, 10 of which were rockshelters. Over 95 percent of the test units produced cultural material, of which freshwater mussel shell was the most common (Greiser et al., 1992:158). Prehistoric sites spanned 8,000 years of occupation, while historic sites contributed to local agriculture, community

development, mining, and U.S. Forest Service improvements. In addition to assessing cultural resources, a general chronostratigraphic sequence for understanding the association of sites and landforms was developed. The sequence consists of "five general litho stratigraphic sedimentary units" based on field investigations of depositional unit descriptions, time sensitive artifacts, and radiocarbon dating. The five units include bedrock, slope colluvium, fan alluvium, river alluvium, and volcanic tephra. These units were then further subdivided into the seven chronostratigraphic strata denoted by Roman numerals indicating relative age (Greiser et al., 1992:172-179).

The Cove Creek site (10LH144) is located about 10 miles west of Shoup, Idaho along the Salmon River on a large long slope. The site contains both prehistoric and historic deposits. The prehistoric campsite component of the site was excavated by archaeologists from the National Park Service's Midwest Archeological Center during the fall of 1996 (Cannon et al., 1998). The project included a total of one 5-x-5 meter excavation block, two 1-x-2-meter units, and one 1-x-1-meter unit totaling 37.45 m^3 of excavations (Cannon et al., 1998). The oldest occupation at this site is represented by large side-notched proejctile points and a radiocarbon date of 6650 ± 80 B.P. from a shell deposit. Later occupations are represented by a McKean lanceolate projectile points and a small side-notched point. Radiocarbon ages were obtained from feature deposits indicating Late Holocene occupations dating 2610 ± 70 (shell deposit) and 990 ± 50 B.P. (fired rock hearth [Cannon et al., 1998]).

For the Elk Bend Sewer pre-field research, a file search was conducted by Shannon Vihlene of the Idaho SHPO on 4 November 2013 (File Search Number 14028). The file search identified 18 previously conducted cultural resource inventory-related project within the vicinity of the Elk Bend Sewer project area (Table 1). Two known archaeological sites (Table 2) are located within one mile buffer of the project area. Both archaeology sites are unevaluated lithic scatters.

Table 1. List of 18 previously conducted cultural resource projects within the vicinity of the Elk Bend Sewer project (SHPO Record Search #14028).

Legal	RPT#	Title	Author	Agency	Acres
18N 21E S14	1989/160	Baker Fence Extension.	N. Anderson	BLM, Salmon	4
18N 21E S2,3	1987/1949	Lime Creek Trail Right-of-Way.	B. Garechana	BLM, Salmon; Salmon NF	3
18N 21E S4	1989/255	Cultural Resource Reports, Pahsimeroi-Ellis Planning Units.	N. Anderson et al.	BLM, Salmon	0
18N 21E S4	1989/4445	CRCW, Ridge Top Spring Reconstruction #0653.	D. McGowan	BLM, Salmon	2
18N 21E S3	1989/4469	CRRN, Lime Creek Highway Fence.	D. McGowan	BLM, Salmon	12
18N 21E S14	1989/4472	CRRN, Baker Fence.	D. McGowan	BLM, Salmon	1
18N 21E S11	1991/373	Maline Ditch Right-of-Way.	R. Johnson	BLM, Salmon	1
18N 21E S2	1991/729	Lime Creek Trail Reconstruction.	B. Garechana	Salmon NF	5
18N 21E S10	1992/466	Archaeological Explorations in Central and South Idaho--1958. Occasional Papers of the Idaho State College Museum, No. 2, Pocatello.	Swanson, Earl and Donald Tuohy, and Alan Bryan	Idaho State University	0
18N 21E S9	1996/216	Birch Creek Land Exchange.	S. Wright	BLM, Salmon	5572

Legal	RPT#	Title	Author	Agency	Acres
18N 21E S3	1999/83	Idaho Power Transmission Line Upgrade - 1998.	S. Wright	BLM, Salmon	12
18N 21E S15,16,9, 10	2005/313	Clyde Phillips/Iron Creek Reconnection.	D. Vrem	NRCS	18
18N 21E S3,10,15	2005/921	Proposed Challis to 45th Parallel/May & Morgan Creek Telecommunications Cable Project.	J. Baxter, D. Gourley	BLM, Challis, BLM, Salmon	427
18N 21E S16	2009/513	Iron Creek Culvert Replacement.	J. Huang	Bureau of Reclamation	1
18N 21E S15	2012/76	Cultural Resource Survey Upper Salmon River Iron Cr/11 Mile Cr PIT Tag Arrays Lemhi County.	J. Shelton	Department of Energy	1
18N 21E S11	2013/143	Iron/Lime Creek Allotment Grazing Permit Renewal.	S. Wright	BLM, Salmon	33
18N 21E S15	2013/399	Poison Creek Pipeline Project.	J. Huang et al.	Bureau of Reclamation	0
18N 21E S15	2013/404	New Tower Project 12 North Iron Creek Road.	W. Jerrems	MISC	4

Table 2. List of two previously conducted cultural sites within the vicinity of the Elk Bend Sewer project (SHPO Record Search #14028).

State No.	Site Description	NRHP Eligibility
10LH05	Lithic scatter; flakes, blades, scrapers	Unevaluated
10LH1065	Lithic scatter; flakes, Large corner-notched projectile point	Unevaluated

3. Description and evaluation of projects in E.2 with regard to survey design, methods, personnel, and results:

Eighteen cultural resource survey projects were conducted in the vicinity of the current project area. A total of 6,096 acres have been intensively surveyed. Most of the surveys were less than 10 acres, while the Birch Creek Land Exchange and the Proposed Challis to 45th Parallel/May & Morgan Creek Telecommunications Cable Project account for 5,999 acres. Other projects related to trails, cattle grazing, pipelines, ditches, springs, and right-of-ways. Notably Swanson et al., (1959) initiated one of the earliest Idaho archaeological explorations.

F. EXPECTED HISTORIC AND PREHISTORIC LAND USE AND SITE SENSITIVITY

1. Are cultural properties known in this area? [ ] No [X] Yes (List site numbers and provide brief description of cultural theme represented by known cultural properties.)

Two previously recorded lithic scatters, 10LH05 and 10LH1065, were discovered within one mile of the current project. Site 10LH1065 contained a large corner-notch point, which broadly indicates an Archaic-age occupation of the area.

In addition to the file search, the National Register of Historic Places was consulted to determine if any properties are located within the current project area (Davis and Swanson 1997; ISHS 2013). No listed properties are located within a mile of the project area.

2. Are cultural properties expected? [X] Yes [ ] No (Why?)

The project area covers part of a terrace above the Salmon River with access to the Lemhi Range (Figure 4). Two known archaeological sites are located nearby and others are expected adjacent to a major river and the accompanying ecological resources. Alluvial sediment deposits underlying the APE may also contain historic properties.

3. What cultural themes/contexts are expected within the survey area? Check at least one theme in first two columns and at least one time period in the third column.

Theme		**Time Period**
[X] Prehistoric Archaeology	[ ] Military	[X] Prehistoric
[ ] Agriculture	[X] Mining Industry	[ ] Historic Native American
[ ] Architecture	[ ] Native Americans	[ ] Exploration: 1805-1860
[ ] Civilian Conservation Corp.	[ ] Politics/Government	[X] Settlement: 1855-1890
[ ] Commerce	[ ] Public Land Mngt/Conserv.	[X] Phase I Statehood: 1890-1904
[ ] Communication	[ ] Recreation/Tourism	[X] Phase II Statehood: 1904-1920
[ ] Culture and Society	[X] Settlement	[X] Interwar: 1920-1940
[ ] Ethnic Heritage	[ ] Timber Industry	[] Pre-Modern: 1940-1958
[ ] Exploration/Fur Trapping	[ ] Transportation	[X] Modern: 1958-present
[ ] Industry	[ ] Other (list)	

4. Brief description of where cultural properties associated with expected themes might be found with respect to landforms, water, vegetation, slope, fauna, and historical documentation:

Culture History

Ethnographically the project area is associated with Sahaptan-speaking Nez Perce and Numic-speaking Shoshone and their predecessors (Wildeson 1982). To the north and west, Sahaptan speakers occupied the region between the Cascades of Washington east across the Columbia Plateau to the Rocky Mountains. These groups include the Nez Perce, Cayuse, Walla Walla, Umatilla, Kutenai, and Sampoil-Nespelem. Numic groups, including the Paiute, Shoshone, Bannock, and Comanche, occupied the greater part of the desert west from the Oregon Cascades to the Rocky Mountains, and south to the Gulf of Mexico.

Even though human groups have occupied the valleys and uplands of central Idaho for the past 10,000 years or so, there is a paucity of evidence for the early portion of this time period. Until around the nineteenth century these groups existed as local hunter-gatherers before trade brought them in contact with a much larger world than pedestrian travel made feasible. By the nineteenth century, and perhaps earlier, significant change in their socioeconomic system had been brought about by contact with Euroamericans. The natural system of the region experienced unparalleled change with mid-nineteenth century Euroamerican settlement through the introduction of domestic stock, irrigation, and mining. The following is a brief overview of the area's aboriginal culture history.

Aboriginal Settlement

Earl Swanson (1972) argued for a cultural continuum of Shoshone and Shoshonean ancestors in the region beginning about 8,000 B.C. and continuing into historic times, based on his work at Birch Creek. Swanson applied the Bitterroot Culture to the local archeological record, arguing that it was "the archeological expression of the Northern Shoshoni" (Swanson 1972:187). Butler (1978) provided an update on Swanson's chronology for the Upper Snake and Salmon River drainages of central Idaho. In this paper he

describes three prehistoric periods (the Early Big-Game Hunting Tradition, the Archaic, and the Late Archaic) and one historic period (the Equestrian). Each of these periods is defined by distinct "material culture remains" (Butler 1978:74). While Butler (1978:74) recognizes some similarities in material culture between central Idaho and the Great Basin during the Archaic, which has been argued by some researchers as evidence for the northern expansion of Numic-speaking people, he rebuts this argument by noting that there is "so much continuity through time in the occupation of the region that such a recent immigration of these peoples seems unlikely." While generally agreeing with the ideas presented by Swanson, Butler believes more rigorous research is necessary for assessing this model of cultural continuity.

Butler (1986) updated his overview of the southern Idaho sequence and also some of his ideas also shifted. He argues that prior to the mid-fifteenth century cultural influences came directly from the northwestern Plains. This influence began early, as seen in the similarity between material remains and socioeconomic patterns, most specifically during the Terminal Pleistocene-Early Holocene. A shift in influence to the Great Basin is argued by the immigration of Shoshonean groups around A.D. 500 (Butler 1986). This is a break from his earlier idea of cultural continuity throughout the Holocene. Holmer (1986) agreed with Swanson about the antiquity of the Shoshoni in southern Idaho, but placed their arrival at around 5,000 B.P.

The following cultural history of the region will be presented within the context of Lohse and Sammons (1994) proposed sequence.

Paleoindian Period. Fluted terminal Pleistocene projectile points represent the earliest definitive evidence for occupation of the region. While a number of these point types have been reported from other areas of eastern Idaho, particularly the Snake River Plain (e.g., Butler 1970; Swanson 1961; Titmus and Woods 1991), only three fragmentary Folsom points have been reported in the study area (Butler 1972). Cultural deposits of terminal Pleistocene age have not been excavated in the region, and statements concerning socioeconomic patterns can only be inferred from adjacent regions. The specimens reported by Butler (1972) are all surface finds from private collections.

While extinct megafauna (e.g., Mammuthus and Camelops) may have been hunted (this has been suggested by Butler [1986]), the record is rather meager. The few sites that have provided evidence of terminal Pleistocene occupations (e.g., Owl Cave, Simon Cache, Jaguar Cave) are lacking in firm evidence of Paleoindian economies and social organization (Lohse and Sammons 1994:36). Druss (1983) describes two lanceolate points from the Doublespring site (10CR29) in the Pahsimeroi Valley. He tentatively identifies them as an unfluted Clovis or Folsom and a reworked Clovis. However, no additional information is available for interpreting socioeconomic patterns. The best evidence of the "classic" terminal Pleistocene economy comes from Owl Cave at the Wasden site on the eastern Snake River Plain. The Wasden site represents a series of closely-spaced rockshelters formed by the collapse of a lava tube system. Material remains include three fluted points, flaking debris, and flake tools in association with the bones of mammoth (*Mammuthus* cf. *M. columbi*), bison (*Bison bison antiquus*), camel (*Camelops* sp.), pronghorn (*Antilocarpa americana*), dire wolf (*Canis* cf. *C. dirus*) and fox (*Vulpes* sp.), as well as other vertebrate and invertebrate species (Miller 1989). Six radiocarbon ages have been obtained from bison and mammoth bone collagen. However, the ages are statistically different (T'=282.63, $\chi^2_{.7205}$=11.10 [Stuiver and Reimer 1993]) and may represent a number of discrete depositional episodes. Miller (1989:382) suggests several possible interpretations for the deposits: "1) a 'mixture' of mammoth and bison ... with a 'later' deposit of the Folsom projectile points and bison; 2) a relatively 'late' occurrence of mammoth on the Snake River Plain hunted by Folsom peoples, or, vice-versa 3) a relatively early occurrence of Folsom."

Later Paleoindian occupation is suggested by lanceolate projectile points recovered from the Doublespring site, as well as surface finds. Unfluted lanceolate projectile point styles, such as Agate Basin, Haskett/Hell Gap, and Alberta, appear on the Northwestern Plains generally in association with bison kill sites. However, contemporaneous in time are a number of lanceolate projectile point styles that are restricted to the foothill-mountain environments adjacent to the plains and which were found in association with archeological evidence. This suggests a more diverse and generalized economic strategy (Frison 1992). For

the Pahsimeroi Valley, Chatters (1982) labeled the time period from 8,000-6,000 B.P. as his Archeological Period 1 and defines land-use and settlement patterns as confined to the canyon mouth habitats. He also recognizes the general paucity of projectile points from this time period suggesting it may "indicate either a hunting technology differing from that observed for later periods and/or a low importance of hunting in the adaptation as a whole" (Chatters 1982:236-237).

Cultural remains previously used as hallmarks of mid-Holocene Archaic economic systems appear in earlier, perceived Paleoindian contexts. These include the use of hearths for the preparation of seeds and other plant resources by 8,800 B.P. at Barton Gulch (Aaberg 1993), as well as grinding slabs and handstones that may also have been used in processing plant remains (Davis et al., 1991). Ground-stone metates were also recovered from >8,000 B.P. contexts at several Bighorn Canyon sites (Husted 1969). Diverse faunal assemblages were also found in association with Paleoindian lanceolate projectile points at a number of sites, most notably Barton Gulch (Davis et al., 1989), Medicine Lodge Creek (Walker 1975), and Mummy Cave (Husted and Edgar 1968). Cannon (1996) has suggested that the diversity of resource exploitation may have been a response to the post-glacial thermal maximum and increased fire frequencies which created a landscape with a high degree of patchiness. Modern fire studies indicate post-burn environments are much richer in species diversity. Thus an increased frequency of fire would potentially create a more economically diverse environment for hunter-gatherer subsistence.

While the idea of an earlier occurrence of an Archaic economy is not new (e.g., Husted 1969, 1992), the current data seems to be suggesting that since the end of the Pleistocene groups in the intermontane west, particularly the Central and Northern Rocky Mountains, have been essentially generalized hunter-gatherers, thereby blurring the dichotomy between Paleoindian and Archaic socioeconomic systems. More specific questions, such as the origin of the mountain-adapted tradition, the relationship of the various projectile point styles, and the meaning of these changes (cf. Husted 1992) are issues that need to be resolved.

Archaic Period. As we have discussed above, the transition between the Paleoindian and Archaic periods is continually being pushed back in time and redefined. Traditionally, the Archaic has been characterized as occurring sometime after 8,000 B.P. when lanceolate and stemmed projectile points were replaced by side-notched types, argued as a technological response to a climatic shift from cool, moist conditions to warm, arid times (Mulloy 1958). However, this idea has been generally abandoned, based on recent paleoenvironmental studies which illustrate more complex, time-transgressive patterns of climatic shifts that invalidate earlier concepts, such as that of the Altithermal. Economically, Archaic groups are logistically oriented to "a generalizing hunting and gathering strategy predicated on the seasonal harvesting of locally abundant resources," and regardless of the projectile point style in favor "seem to have taken a consistent array of resources in a consistent range of environments" (Lohse and Sammons 1994:36).

Researchers in the region have further divided the Archaic Period into three subperiods (Early, Middle, and Late) based on shifts in popularity of projectile point styles, a possible reflection of responses to climatic shifts (Reed et al., 1986, as critiqued in Lohse and Sammons [1994]). However, Lohse and Sammons (1994:37) argue that the current archeological record does not support the thesis that significant shifts in socioeconomic organization occurred. This idea has also been presented for the Greater Yellowstone Area (Cannon and Schoen 1993). Speculation on the meaning of changes in projectile point styles is still ripe, and may more likely be a reflection of prey selection and hunting efficiency rather than group identity.

Chatters' (1982) Pahsimeroi Valley Archeological Periods 2-5 span the Archaic period, with divisions based on shifts in hunting patterns and site selection. Period 2/3 (2500-7000 B.P.) is characterized by low population density, with settlement concentrated in the canyon mouth and hunting oriented towards the open plains. During Period 4 (1300-2500 B.P.) there is a shift in settlement to below canyon mouths, with continued hunting on the open plains. In Period 5 (400-1800 B.P.) the domestic unit is still large, but a single small domestic unit occurs for the first time in the canyon habitat. Narrow-necked projectile points increase in popularity, but are confined to the canyon mouth and canyon bottom habitats. Evidence of later Archaic deposits have been documented by Chatters (1982) in the Spring Hill sites and by Druss (1983) at

the Doublesprings site in the Pahsimeroi Valley. Several radiocarbon-dated deposits have been recovered from these sites. Numerous surface finds of projectile points from this period have also been recovered.

Protohistoric-Historic Period. The Late or Historic period may be one of the best documented time periods in the regional record, probably representing Shoshonean occupation. Intermountain Ware, small corner-notched and side-notched arrow points, and the Wahmuza Lanceolate point have been presented as material hallmarks of these people (Holmer 1994; Lohse and Sammons 1994). At site 10CR525 the crushed remains of an Intermountain Ware pot was recovered within a meter of a hearth containing artiodactyl bone. A date of 225 ± 95 B.P. was obtained from the hearth deposit (Chatters 1982).

The Nez Perce who occupied the middle Snake and Clearwater Rivers and the lower Salmon River, to the west of the project area, have well-defined cultural patterns that likely overlap with Shoshonean subsistence and economic patterns (Walker 1978, 1998). Walker (1978,1998) describes the Nez Perce culture pattern as follows: they were adapted to a riverine environment, including the use of watercraft and elaborate fishing technology; approximately half of their food base came from fish and aquatic resources with the remainder being from large game and abundant tuberous root crops; social complexity was band and composite band political organization with intensive interaction between local groups based on kinship, trade, and political ties; emphasis was placed on democratic and peaceful interpersonal intergroup relations; bilateral kinship groups practiced polygamy with primarily patrilocal residence in communities rarely larger than 100 individuals; winter villages in major river valleys included groups of semisubterranean house; shaman-centered religion placed an emphasis on the individual vision quest for tutelary spirits.

In contrast, the Northern Shoshone groups shared cultural patterns with those of the Great Basin area. Much of our understanding of these groups is based upon Steward's (1938) ethnographic studies of the Sheepeater and Lemhi Shoshone of central Idaho. Additional ethnographic work by Lowie (1909), Murphy and Murphy (1960), Franzen (1978), Madsen (1980), and Walker (1998) have added to our understanding of these groups. Walker (1978) provided a description of characteristic features of their Great Basin cultural pattern: their subsistence focused on intensive exploitation of nuts, seeds, roots, cactus, insects, small game animals, birds, and occasional large game; their subsistence pattern involved frequent movement, though they are described as having limited interaction with other groups except immediate neighbors; they had band-level political organization, bilateral kinship, polygyny, and polyandry, with primarily patrilocal or bilocal residence; occasional infanticide or senilicide was practiced; local communities were rarely larger than 30 individuals and residences were near water resources in oases and at higher elevations.

Euroamerican Settlement

The historical record in the project area begins in 1805 with the Corps of Discovery lead by Merriweather and William Clark. Although their presence was largely ephemeral, they provide some early descriptions of the local Shoshone as they moved over the divide down the Salmon and Clearfork Rivers on their way to the Pacific Coast (Moulton 1988; Canaday 2012).

Between 1805 and 1850, trappers, traders, explorers, and at least one missionary group visited portions of central Idaho. Competing fur companies explored and trapped the region including the Hudson's Bay Company, North West Company, Northwest Fur Company, and the Rocky Mountain Fur Company. Individual mountain men that trapped in the region include Donald MacKenzie, Capt. Benjamin Bonneville, Jedediah Smith, Alexander Ross, Peter Skene Ogden, and others (Canaday 2012).

During the 1860s, Idaho rapidly changed as gold and silver discoveries drew a flood of miners into the region (Canaday 2012). Gold discovery (and to a lesser extent silver) stimulated exploration and settlement in the Salmon River Mountains. More towns were founded during the 1861-1870 decade in central Idaho than at any other time thereafter, and most were dependent on gold placer deposits (Canaday 2012).

Timber production in the Salmon National Forest changed over time along with local and national demand. During the settlement period from the nineteenth to the early twentieth centuries, timber was primarily cut with axes and saws and used for building homes, businesses, and mining operations. Timber was also used for firewood and charcoal. The location of nineteenth century saw mills is largely unknown, but it appears they were usually "established in one of two general locations: (1) either in the immediate vicinity of the use area, or (2) in the immediate vicinity of the cut area" (Rossillon 1982:70). During the twentieth century, lumber gained preference over logs for building construction, and saw mills were commonly used for commercial and private use. These sawmills were usually powered by water, steam, gasoline, or electricity (Rossillon 1982). After World War II, large saw mills were established to meet the growing demand for wood products. In addition, it became easier to transport timber to more distant markets since the national highway system was expanded and heavy trucks became easily accessible (Rossillon 1982).

While permanent ranching and farming did not begin in the Salmon area until the mining boom in the late 1860s, a group of Mormon colonists settled and established farms at Fort Lemhi as early as 1855 , but were pushed out when the local Native American groups became hostile (Rossillon 1982). Nonetheless, by 1866 the Lemhi River Valley was occupied seasonally by cattle herds (Rossillon 1982; Smith 1973). Permanent ranching and farming was not established until the miners at Leesburg demanded a more stable source of meat since local game was overhunted. Initially, cattle were driven in from Montana and southern Idaho, and slaughtered immediately. Later, ranches were established (Canaday 2012; Smith 1973). In addition to beef, Salmon ranchers provided milk and butter to mining communities. During the 1880s, cattle ranged widely without fences or stored feed. In the late 1880s, cattle became so great in number that the existing forage was not enough to feed them. Two severe winters with poor grass seasons in between left numerous cattle dead, and by 1890 cattlemen realized that stored feed would be necessary if they desired to range their cattle year around. Following the devastating loss of cattle in the late 1880s, sheep production grew and continued into the twentieth century. As mining declined in the early twentieth century, the ranching industry grew independent of mining activities and began transporting cattle to markets outside the Salmon mining area (Rossillon 1982). The twentieth century saw a shift from market and subsistence ranching to outfitting and dude ranching (Rossillon 1982).

Large gardens near Salmon provided produce to Salmon, Leesburg, and other mining camps (Smith 1973). Many ranchers also sold produce from the excess produced by their family gardens (Rossillon 1982). The demand for livestock feed was met when grain began to be raised in the area in the late 1870s. In addition, mills were opened and "primitive and ingenious" methods for harvesting the grain were applied in places where modern machinery was inaccessible (Smith 1973:41). Berries and fruit trees were introduced to the valley by various settlers and by 1907 over 8,000 apple trees were reported along the Salmon River (Smith 1973).

The Salmon River Forest Reserve was created in 1906 and modified to create the Salmon National Forest in 1908 (Canaday 2012). As soon as the Salmon River Forest Reserve was established, federally managed infrastructure (such as Ranger Stations, Guard Stations, line cabins, pack trails, roads, and bridges) was built to manage the vast tracks of forested lands now under their management. Timber harvesting, hunting, mining, and other economic activities began to be regulated and managed through forest service administration.

Much of the Salmon National Forest infrastructure was constructed as a result of the Civilian Conservation Corps (CCC) programs from 1933 to 1942. The CCC program, President Franklin D. Roosevelt's "New Deal", provided unemployed young men unskilled manual labor related to the conservation and development of natural resources owned by federal, state, and local governments. The CCC constructed numerous administration buildings, roads, lookouts, telephone lines, grazing infrastructure (corrals, fences, and others), trails, and campgrounds for the various National Forests in Idaho (Canaday 2012). Detailed historic contexts are available for the Salmon National Forest (e.g., Rossillon 1982; Smith 1973) and for the region (e.g., Canaday 2012; McKay and Cunningham 2012).

Summary

The regional archeological record contains evidence of human occupation from about the terminal Pleistocene into the historic period. Besides the occasional surface find of fluted points, the evidence of early occupation of the Salmon River region is limited.

To date, 32 radiocarbon dates have been obtained from 13 sites. Nearly three-quarters (71.86 percent) are from the last 3,000 years with a peak in dates between 1,500 and 1,000 B.P. While this may represent an increase in the utilization of the region through time, it may also be a factor of sampling and preservation. Examination of the dated deposits reveals that two of the radiocarbon assays are from non-cultural deposits and 13 ages represent general cultural layers. The dating of specific cultural features is limited to 19 (59.37 percent). While this sample may provide evidence of population trends, a much larger sample is necessary before any specific patterns of human utilization of the region can be explicated (Cannon et al., 1998). A number of issues need to be resolved to better understand the regional cultural chronology.

G. FIELD METHODS

(Be specific and complete.)

1. Areas examined and type of coverage: (Describe actual methods used including transect interval and transect routes as shown on attached map. Justify any non-intensive survey.)

An intensive pedestrian survey was conducted within the entire APE by USU Archeological Services' archaeologist Benjamin L. Fowler on 11 November 2013, under the direct supervision of Dr. Kenneth P. Cannon. A pedestrian survey was conducted of the entire project area (approximately 8.5 acres) with southeast-to-northwest oriented transects spaced no more than 15 meters (30 feet) apart. More intensive focus was given to road cuts, undisturbed areas, and rodent burrows. Field methods were not altered due to weather conditions or geography. The survey area was mapped using a handheld Trimble Juno GPS unit using Terrasync and Pathfinder Office software packages. Collected GPS data was post-processed and differentially corrected using Pathfinder Office software. Project maps were created on ArcGIS version 10.1 software.

2. Description of ground surface conditions: (Describe surface and subsurface visibility and factors such as vegetation or snow obscuring visibility. Specify percentage of surface that was visible.)

Vegetation coverage varied from bare ground to complete surface coverage. In the southern survey area mean visibility is 5 percent. Areas with roads, rodent activity, and hillslopes offered better visibility. Thick grasses and sagebrush covered ground completely in many areas. The northwestern survey area also averaged 5 percent visibility, where thick grass covered most areas. Other disturbances in this area were buildings and mounds of non-local dirt. The two east-to-west trending roads were dirt and gravel, which are modified to the extent that any original sediment is obscured. The eastern survey area has also been almost completely disturbed by sewer facility operations. Undisturbed portions in this area are greatly covered by sagebrush and grasses.

3. Areas not examined and reasons why: (Key to map.): [X] None

4. Names of personnel participating in the survey <u>in the field</u>: Benjamin L. Fowler

5. Dates of survey: 11 November 2013

6. Problems encountered: [X] None

H. RESULTS

1. Listing of all cultural properties (including previously recorded) in this area: (Fully describe each on attached site forms and indicate precise location on attached USGS map.) [X] None

Not Applicable

2. Summary of important characteristics of properties listed above: (Consider property type, integrity, age, cultural affinity of occupants, function, depth, and size.)

Not Applicable

3. Recommendations for National Register eligibility of each cultural property: (Specify both appropriate National Register criteria and contexts listed in F. Justify on attached site forms.)

Not Applicable

4. Recommendations for further investigations needed to evaluate cultural properties:

Not Applicable

5. Cultural properties noted but not formally recorded: [] None

Elk Bend Isolate 1 (Figure 6) was noted during survey of the Elk Bend Sewer survey, but was not formally recorded on the Archaeological Survey of Idaho Site Inventory Form. Isolate 1 is a wooden fence feature located in the southern survey area (Figure 7). The fence has largely collapsed, but was originally constructed by using two crossed post pieces in an "x" held together with large round nails; horizontal beams were suspended between the intermittent crossed posts (Figure 8). The fence ran along the base of the ridge and a shallow canal runs along its western edge for a short portion.

Land patent research showed that these parcels were patented by Adam Hellman in March 1877 (Patent #960947). Nearby parcels were patented in 1862 (Patent #552549) showing that Adam Hellman arrived in the area even earlier. The nearby Warm Springs Creek located just to the southeast has also been referred to as Hellman Creek since it ran through the Hellman Ranch (Lemhi County History Committee 1992).

The construction methods and materials for Isolate 1 are non-diagnostic. No chronological age has been determined for this fence, therefore it is impossible to know whether the fence is associated with the Hellman Ranch. Additionally, while Adam Hellman was integral in settling this area and fits into the broader pattern of westward expansion and homesteading, no linkage could be made to establish the man or his property to historical events that would render potential remains as eligible for the NRHP.

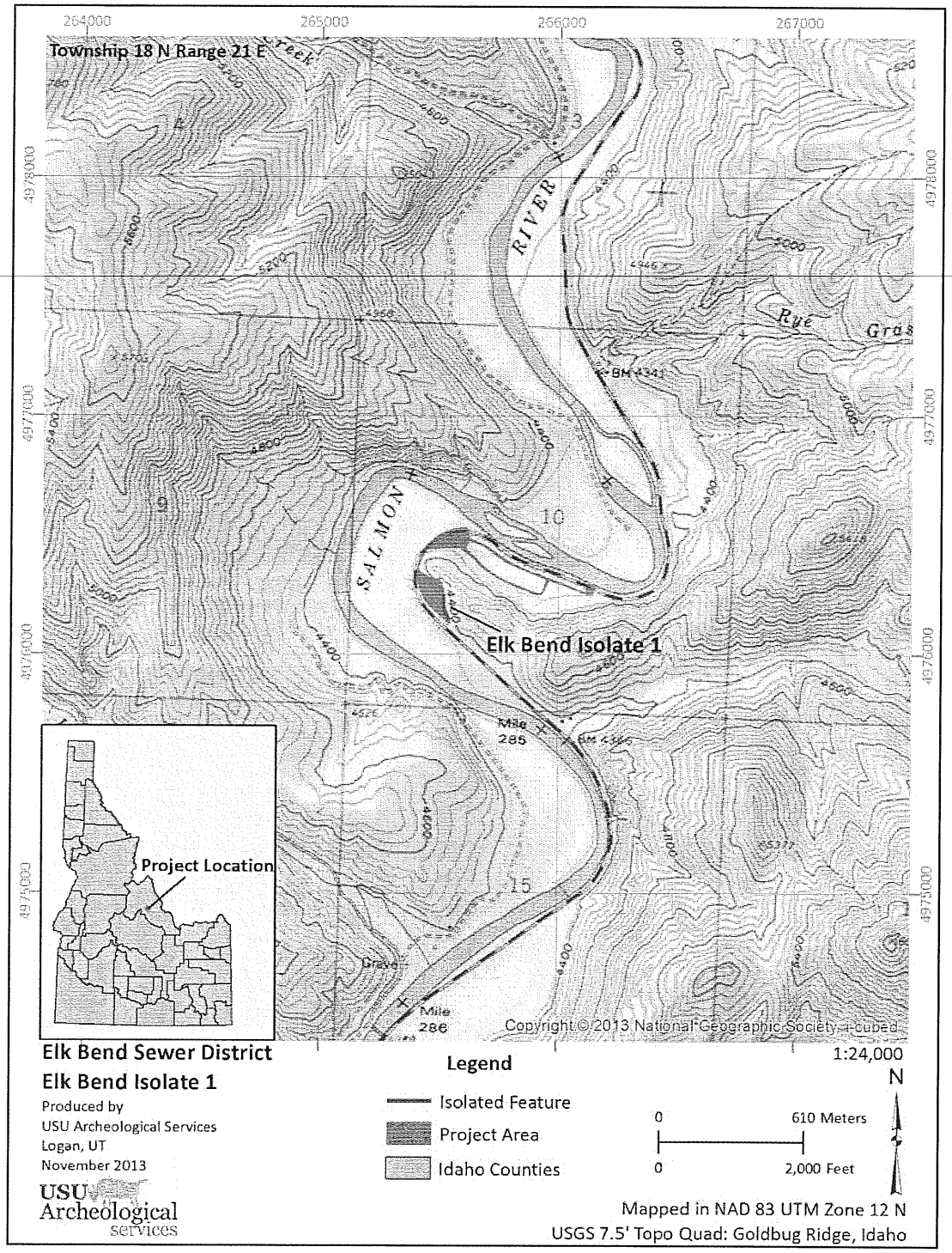

Figure 6. Cultural Resources Inventory project location map for Isolated Find in Elk Bend Sewer project area.

Figure 7. Close-up photograph of IF-01, a wooden fence feature.
Photo taken by Benjamin L. Fowler on 11 November 2013.

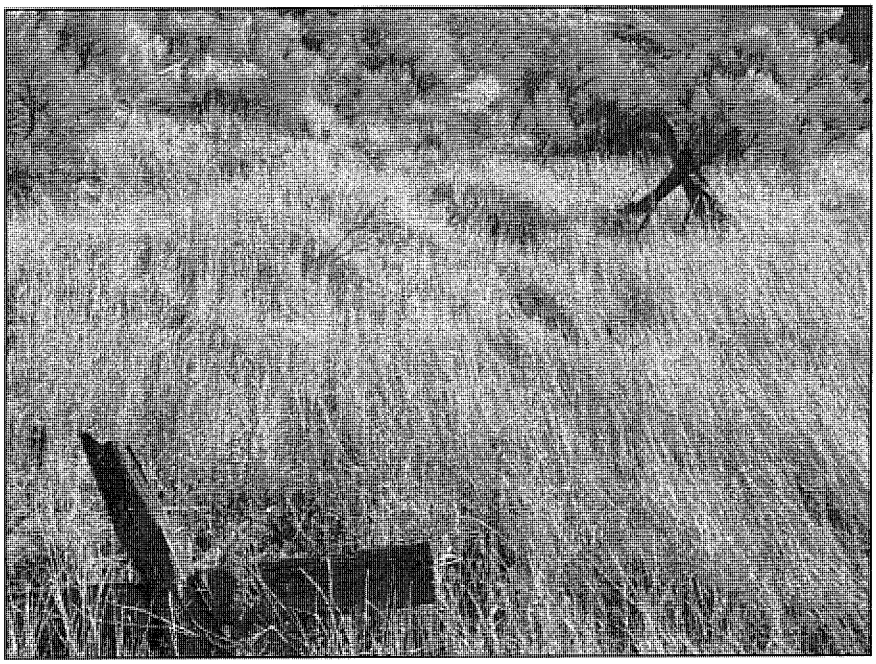

Figure 8. Close-up photograph of IF-01, a wooden fence feature. Note the "x" posts.
Photo taken by Benjamin L. Fowler on 11 November 2013.

I. CONCLUSIONS AND RECOMMENDATIONS

1. Brief summary of relevance of cultural properties to contexts listed under F, discussing potential contributions to these contexts:

Elk Bend Isolate 1 was the only cultural material located during the survey of the Elk Bend Sewer project area. The isolated find reveals historic farming or ranching use of this southern survey parcel, but we are currently unable to chronologically date the fence and its use.

No known significant cultural resources will be impacted by this proposed project. This investigation was conducted using techniques considered adequate and consistent with accepted standards for identifying historic properties through a pedestrian visual inspection of the APE.

2. Discussion of potential threats to the integrity of the cultural properties and recommendations for future investigations or protective actions:

Future operations and maintenance of the Elk Bend Sewer facilities will not impact any known significant cultural resources. No future protective actions are recommended. However, we recommend that if any cultural resources are identified during ground-disturbing activities that construction temporarily stop in the area of the discovery.

3. For 106-related surveys, discussion of relationship of each cultural property to direct and indirect project impacts. Specifically state project's effect (no effect, no adverse effect, or adverse effect) upon each cultural property: [X] No properties

Not Applicable

4. For 106-related surveys affecting cultural properties, discussion of avoidance or mitigation options for each property:

Not Applicable

5. For 106-related surveys, recommendations for additional information gathering or survey, avoidance measures, monitoring, mitigation, and future management: [X] None

We recommend no further archaeological research or field work prior to use, maintenance, or proposed development regarding the Elk Bend Sewer facilities and infrastructure. **However, we recommend that if any cultural resources are identified during ground-disturbing activities that construction temporarily stop in the area of the discovery.** The find should be immediately reported to the Idaho State Historic Preservation Office (ISHPO), 210 Main Street, Boise Idaho 83702-7264, office phone number (208) 334-2120. A representative from ISHPO will provide guidance in the case of an inadvertent discovery of cultural resources.

J. ATTACHMENTS

(The following is only a checklist. All survey reports must include maps of the survey area showing survey transects, precise locations of all cultural properties, and, if 106-related, area of potential effects. All survey reports must include attached completed site forms [IMACS or equivalent forms for archaeological sites and architectural forms for structures and buildings] for each cultural property.)

1. Appropriate forms attached for each site? [ ]Yes
2. Maps attached? [ ]Yes
3. Other attachments? (List) [ ]Yes

K. REPOSITORY

(Copies of all survey reports and site forms are located at the Idaho SHPO office. List where original survey records and attendant data will be located.)

All original files and data are located at the offices of USU Archeological Services, Logan, Utah. No artifacts were collected as a result of this project.

L. CERTIFICATION OF RESULTS

I certify that this investigation was conducted and documented according to Secretary of Interior's Standards and guidelines and that the report is complete and accurate to the best of my knowledge.

Kenneth Cannon

Digitally signed by Kenneth Cannon
DN: cn=Kenneth Cannon, o, ou=USUAS, email=kenneth.cannon@usu.edu, c=US
Date: 2013.11.27 11:51:30 -07'00'

Signature of Reporter

27 November 2013
Date

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Appendix H. Public Involvement

June 22, 2012

Annual Meeting for the Elk Bend Sewer District

The motion was made and seconded to accept the feasibility study on the sewer district as presented by Keller and Associates. The motion passed without dissent.

The Motion was made and seconded to apply for grant monies to provide a ground(s) study and report to go with study provided by Keller and Associates. The motion was carried

[illegible] Chm.
Eleanor Weiner Secretary

1-29-15

Memorandum from Elk Bend Sewer District
Re: Board Meeting June 22, 2012

The Elk Bend Sewer Board approved and passed the Alternative recommendation for the district's plant as follows:

1) Reconstruct plant in Unit 1
2) New drain field
3) rehabilitation of lift stations
4) minimum update of plant in Unit 2 (Steelhead Bend) as funds are available.

Chairman
Glen Ross

NOTICE OF BUDGET MEETING FOR THE ELK BEND SEWER DISTRICT

Notice is hereby given that a meeting of the Board of Directors a qualified vectors of the above named District will be held the 22nd day of June, 2012 at the hour of 10:00 a.m. at the QRU Building, Elk Bend, Lemhi County, Idaho. At this meeting there shall be a Public Hearing on the Maintenance and Operation Budget for the coming fiscal year.

The budget as presently determined by the Board of Directors is now available at the Elk Bend Fire Hall #1 Bulletin Board and will remain available until the hearing as provided by law.

The budget meeting is pursuant to Section 42-3229 Idaho Code.

Dated this 15th day of May 2012

Eleanor Wisner

Elk Bend Sewer District

Lemhi County, Idaho

Elk Bend Sewer District General Fund Budget 2012

REVENUES:

Estimated Elk Bend Sewer Levy	$21,848.00
Estimated Interest & Delinquent Taxes	$ 6,000.00
TOTAL	$27,848.00

EXPENDITURES:

PAYROLL	$10,625.00
PAYROLL TAXES	1,200.00
UTILITIES	2,900.00
CHEMICAL TESTS	5,708.00
INSURANCE	3,630.00
TRAVEL	827.00
REPAIR & MAINTENANCE	2,711.00
ADMINISTRATION & LEGAL	247.00
TOTAL	$27,848.00

6-7-2tc

required. 6-21-1tc

NOTICE INVITING PUBLIC COMMENT ELK BEND SEWER DISTRICT WASTEWATER PLANNING STUDY

The Elk Bend Sewer District is seeking public comments on the Wastewater Facility Planning Study and the alternatives for the wastewater treatment and collection system. An information meeting will be held on June 22, 2012 in conjunction with the Elk Bend Sewer District annual meeting at 10 a.m., Elk Bend QRU building. A draft of the study and list of alternatives considered can be viewed by contacting Eleanor Wisner (phone: (208) 894-2204). Comments and questions regarding the report and the alternatives considered should be directed to Keller Associates (email: sallen@kellerassociates.com, phone: (208) 238-2146). The public comment period will commence June 21 and conclude at noon on July 6. Comments will be considered by the District and incorporated into the planning documents.

6-21-1tc

Elk Bend Sewer District
Board Meeting & Public Information Meeting
June 30th, 2012

Marcia Ross
[illegible]
[illegible] Dolton
[illegible] Dolton
Roger [illegible]
Wayne White
Eleanor [illegible]

Elk Bend Sewer District
Public Notice

Wastewater Facilities Planning Study Review

The Elk Bend Sewer District contracted with Keller Associates, of Pocatello, Idaho, to prepare a Wastewater Facilities Planning Study. This study has been funded, in part, by a grant from the Idaho Department of Environmental Quality. The purpose of the study is to provide a comprehensive evaluation of the existing wastewater system, provide recommendations to meet future wastewater handling needs, serve as a baseline document for applying for available grants and loans, and to address regulatory deficiencies of the existing wastewater system. Contained in this flyer is a brief review of this study including cost implications. A comment form is located on the reverse side of this flyer for your convenience.

System Overview

The Elk Bend Sewer District provides wastewater collection, treatment and disposal for the Elk Bend and Steelhead Bend areas. The system contains approximately 26,000 feet of 8-inch and 4-inch collection pipeline which transports wastewater by gravity and the aid of three lift stations to the treatment facilities. Two wastewater treatment plants provide wastewater treatment prior to disposal in large soil absorption systems.

Regulatory Compliance Status

The Idaho Department of Environmental Quality responded to a complaint of sewage on the ground surface at the Elk Bend treatment plant in August of 2007. A Notice of Violation was issued on March 7, 2008 which included four violations of the Idaho Administrative Procedures Act (IDAPA) and outlined monetary penalties. Subsequently, the Elk Bend Sewer District entered into a Consent Order with the Idaho DEQ on June 2, 2008. The Consent Order includes provisions requiring action by the Elk Bend Sewer District, including the completion of this study.

System Evaluation

Issue

1. Lift stations are in poor condition
2. Electrical systems do not meet NEC code
3. Lift stations do not have backup power
4. Lift stations do not have redundant pumps
5. Elk Bend treatment plant has insufficient capacity

Issue

6. Treatment plants are not achieving necessary treatment
7. Insufficient number of drain field modules
8. Drain fields are not pressurized
9. District not in compliance with monitoring & reporting
10. No certified licensed operator
11. Sludge disposal does not comply with regulations

Alternative Evaluation

Alternative wastewater disposal methods were considered and found to be less favorable than continuing to dispose wastewater using drain fields. Five alternatives were evaluated: 1) do nothing; 2) rehabilitate existing facilities and disposal; 3) sequencing batch reactor and new drainfields; 4) recirculating media filters and new drainfields; and 5) STEP systems with cluster drain fields.

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Jim Mullen, P.E. | Skyler Allen, E.I.

Alternative Evaluation Continued

The alternatives were evaluated based on cost, footprint size, treatment level, complexity and other factors. It was determined that the recirculating gravel filter and new drain fields alternative was the most favorable. It was determined that establishing a connecting line from Elk Bend to Steelhead Bend would result in lower long term cost of installation, operation and maintenance for the total wastewater system by combining the treatment facilities and utilizing the better suited Steelhead Bend disposal area.

Preferred Alternative

The preferred alternative selected includes the replacement/rehabilitation of the lift stations at Elk Horn Drive and Steelhead Bend, installation of a gravity sewer line from Elk Bend to Steelhead Bend, construction of a recirculating media filter treatment system and additional drain field modules. The preliminary estimated cost of this alternative is $1,150,000.

User Costs

Funding for wastewater projects is available through grant and low interest loan programs. The project team will pursue available grants which if successfully received would reduce the cost to the users of the Elk Bend Sewer District. The Elk Bend Sewer District is currently funded as a special taxing district of Lemhi County. The current estimated cost per connection is $18 per month. The estimated user cost increase to support the completion of the recommended improvements is anticipated to be in the range of $24 to $43 per connection per month, for a total estimated monthly user cost of $42 to $61.

Need for Action

The Elk Bend Sewer District has a need for improvements to the wastewater infrastructure. For the continued safe collection and disposal of wastewater, it is crucial that the District implement improvements to the wastewater system. Failure to act and to comply with the Idaho Department of Environmental Quality Consent Order could result in monetary penalties and further legal action to enforce compliance by DEQ and/or EPA.

The Elk Bend Sewer District desires to implement the improvements necessary to safely provide wastewater collection and treatment services to the residents of Elk Bend and Steelhead Bend. Achieving this objective will protect our families, our community and the important natural resources which make Elk Bend a great place to live and to visit.

Public Information Meeting

A public information meeting will be held in conjunction with the Elk Bend Sewer District annual meeting on June 22, 2012, 10 am at the QRU building in Elk Bend. We invite you to attend to learn more about the Wastewater Facilities Planning Study and the recommended wastewater improvements. Comments and questions will be invited at this meeting. Additionally, comments and questions can be submitted by sending the attached form to Keller Associates or by contacting Keller Associates directly.

Comment Form

Name

Address

Mail Comments To:

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305 N. 3rd Ave, Suite A
Pocatello, ID 83201

E-mail Comments To:

sallen@kellerassociates.com

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Elk Bend Sewer District

Wastewater Facilities Planning Study

Public Information Meeting

June 22, 2012

Purpose

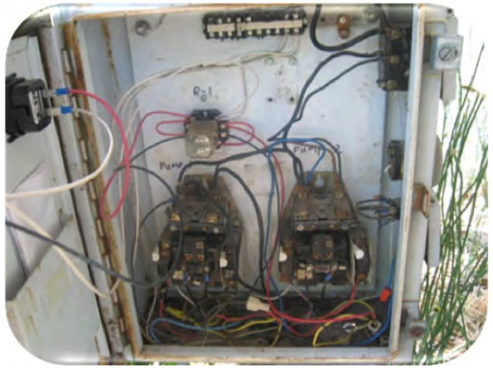
- Department of Environmental Quality
  - August 2007 – Complaint of sewage on the ground
  - November 2007 – Temporary Disposal Plan & Permit issued
  - March 2008 – Notice of Violation
    - Lists four violations of Idaho Code
    - Includes monetary fines
  - June 2008 – Consent Order
    - Requires actions by the Elk Bend Sewer District including:
      - Wastewater Facility Planning Study
      - Complete temporary drain field repairs
      - Implement regular monitoring and reporting
      - Employ or contract a licensed Responsible Charge Operator
    - DEQ agreed to waive the civil penalty assessed in the Notice of Violation
    - If the District does not fully comply with the Consent Order the penalty may be reimposed and further enforcement action taken
  - 2009 – DEQ offered District a planning grant to pay 50% of the facility plan cost – Keller Associates hired by the District
  - March 2010– Complaint of sewage on the ground
    - DEQ responded to complaint and issued a cautionary letter
- U.S. Environmental Protection Agency
  - March 2010 – Complaint of sewage on the ground
    - EPA investigated the incident
- Facilities Condition
  - Current facilities have significant problems and deficiencies
  - Not satisfying regulations
  - Failing to protect the health and safety of residents

KELLER associates

Wastewater System Overview

- Keller Associates has worked with the District board to better understand the wastewater system and the community
- Conducted a review of the wastewater system:
- District Includes Two Wastewater Systems
  - Elk Bend System
  - Steelhead Bend System
- Systems are comprised of:
  - Collection System
    - Gravity Collection Piping
    - Three Lift Stations
  - Treatment System
    - Extended Aeration Package Plants
  - Disposal System
    - Large Soil Absorption Systems
    - Elk Bend-Septic Tank (solids separation)
- Original Construction – 1973
- Handle an estimated average of 21,000 gallons per day

Collection Systems



- Collection Piping
  - Manholes & pipe appear to be in good condition
- Lift Stations
  - Poor condition
  - Insufficient equipment
  - Inadequate piping
  - CMU top sections shifting
  - Control valves rusted
  - Debris problems reported
  - Overflows reported
  - No secondary pumps
  - No backup power
  - Outdated electrical equipment
  - Insufficient freeze protection
  - Not in compliance with State Law
- To continue operating lift stations:
  - Structural rehabilitation needed
  - New pumps & piping needed
  - Electrical equipment needs replaced
  - Additional freeze protection needed
  - Backup power needed

KELLER associates

Treatment Systems

- Condition
  - Major corrosion and damage
  - Failed components
  - Backup equipment not operational
  - Equipment at or near end of expected life
  - Not achieving necessary treatment
  - Insufficient capacity for peak flow at Elk Bend
  - Sludge handling is deficient
- Action needed
  - Major rehabilitation of equipment

    OR
  - Replace with alternate treatment

Discharge Systems

- Large Soil Absorption System (LSAS)
  - Undersized for flow
  - No alternate drain fields
  - Non-uniform application of wastewater
  - Drain fields are not pressurized
  - Does not comply with monitoring and reporting requirements
  - No designated replacement areas
  - Elk Bend drain field failed in 2007
  - Elk Bend replacement drain field failed in 2010
- Action Needed
  - Construct additional drain fields to handle flow
  - Construct alternate drain field areas as required by regulations
  - Replace failed drain field area
  - Designate replacement areas
  - Install required monitoring systems

Alternative Consideration

- Alternatives Considered
  - No Action
  - Rehabilitate existing facilities
  - Sequencing Batch Reactor (SBR)
  - Recirculating Gravel Filters (RGF)
  - Septic Tank Effluent Pump (STEP) systems
- Other considerations
  - Lift station rehabilitation/replacement
  - Alternate wastewater disposal methods
  - Combining treatment systems
- Major Factors in Evaluation
  - Capital Cost
  - Operating & Maintenance Cost
  - Operator attention
  - Treatment requirements
  - Land requirements
  - Feasibility
  - General appearance

Improvement Recommendations

1. Conduct Nutrient Pathogen evaluation
2. Complete Preliminary Engineering Report
3. Rehabilitate/Replace Elk Horn Drive Lift Station
4. Rehabilitate/Replace Steelhead Bend Lift Station
5. Connector from Elk Bend to Steelhead Bend
6. Recirculating Gravel Filter at Steelhead Bend
7. Install new subsurface drain field modules at Steelhead Bend
8. Install pressurized discharge systems
9. Procure land for drain field replacement areas

Total estimated project cost: $1,150,000

(Preliminary estimate)

Funding the Project

- Potential Funding Sources
  - Idaho Department of Environmental Quality
    - State Revolving Fund – low interest loans
    - May qualify for funding assistance by reduced interest rates and/or principal forgiveness
  - Idaho Department of Commerce
    - Community Development Block Grant
    - Competitive grant up to $500,000
  - Other sources
    - USDA – Rural Development – loans and grants
    - Other grant programs

- How to pay for it:
  - Increase in per connection cost of $24 to $43 per month (preliminary estimate)
  - Funding specifics, construction prices, and other present unknowns will directly affect the cost
- Necessity of Action
  - Fines and other compliance enforcement measures will come if the District's wastewater deficiencies are not addressed.
  - The current systems are not protecting the health and safety of the Elk Bend and Steelhead Bend communities.

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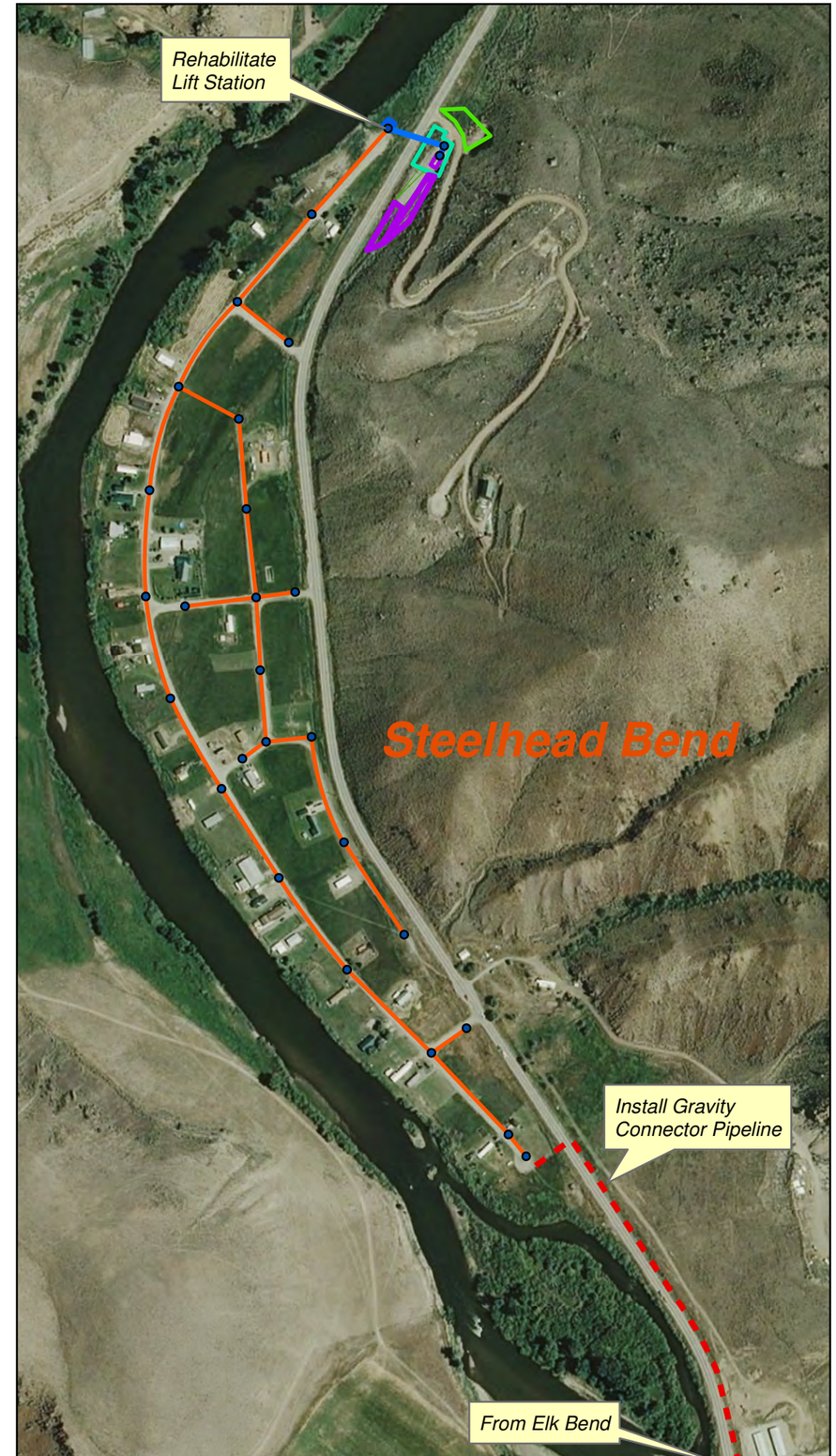
Legend

- Collection Piping
- Pressure Lines
- Manholes
- Lift Stations
- Gravity Connector Pipeline
- Existing LSAS (drainfields)
- Proposed LSAS Areas
- Existing Treatment Plants
- Preferred Treatment Site
- Alternate Treatment Site

N



PROJECT NO. 209003-000

FILENAME Fig 9.1

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KELLER ASSOCIATES

Elk Bend Sewer District

Wastewater Systems

Existing System and Proposed Improvements Preliminary Layout

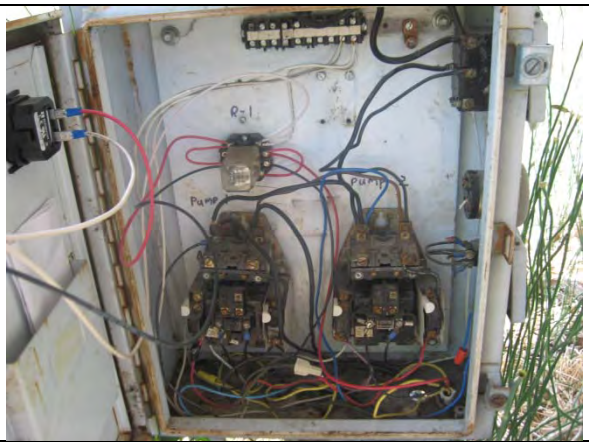
FIGURE NO. 9.1

Entering Elk Bend from the North

Elk Bend Boating Access

Elk Bend Horn Drive Lift Station

Interior of Horn Drive Lift Station Wet Well



Electrical Panel at Horn Drive Lift Station

Horn Drive Lift Station Dry Pit

Entering Elk Bend from the North	Elk Bend Treatment Plant Lift Station Interior
Hose from Pump to Dry Pit	Elk Bend Treatment Plant Lift Station
Elk Bend Wastewater Treatment Plant	Elk Bend Treatment Plant Site

Elk Bend Overflow Pond	Elk Bend Treatment Plant Inlet
Aeration Basin	RAS Piping (w/ packed sludge extruding)
Blower & Motor (nonfunctioning)	Blower & Motor (operational)

Clarifier Basin Scum Return Channel	Package Plant Outlet
Clarifier Weir Channel	Scum Return Channel
Secondary Septic Tank & Effluent Screen	Elk Bend LSAS Drainfield

Steelhead Bend Lift Station	Standby Generator
Steelhead Bend Lift Station Wet Well	Steelhead Bend Lift Station Dry Pit
Steelhead Bend Treatment Plant	Steelhead Bend Aeration Basin

Inlet Screen - Comminutor Removed	Steelhead Bend Overflow Pond
Steelhead Bend Package Plant	Steelhead Bend LSAS Drainfield
Elk Bend Wastewater Operations Building	Laboratory Bench