

Moore Water & Sewer Association Environmental Information Document



June 2012

MOORE, IDAHO

ENVIRONMENTAL INFORMATION DOCUMENT

MOORE WATER & SEWER ASSOCIATION



JUNE, 2012
PROJECT NO. 210050



PREPARED BY:

KELLER
associates

305 N 3rd Ave
Pocatello, Idaho 83201
(T) 208 238 2146
(F) 208 238 2162

PREPARED FOR:

**MOORE WATER & SEWER
ASSOCIATION**

3328 W 3175 N,
Moore, ID 83255
(T) 208 589 4182

Table of Contents

List of Tables	iii
List of Figures	iii
Authorization	iv
Chapter 1 – Project Identification	1
1.1 General Information.....	1
1.2 User Costs	1
1.3 Abstract.....	2
Chapter 2. Purpose and Need for Proposed Project	3
Chapter 3. Alternatives Including the Preferred Alternative.....	5
3.1 Preliminary Evaluation – Treatment Alternatives	6
3.1.1 No Action.....	6
3.1.2 Lagoon Treatment.....	6
3.1.3 Wetlands Treatment	6
3.1.4 Mechanical Treatment	7
3.2 Preliminary Evaluation – Disposal Alternatives.....	7
3.2.1 No Action.....	7
3.2.2 Total Containment Zero Discharge.....	7
3.2.3 River Discharge	8
3.2.4 Rapid Infiltration.....	8
3.2.5 Land Application	8
3.3 Preliminary Evaluation – Solution Paths	9
3.3.1 No Action.....	9
3.3.2 Lagoon Wetlands with Land Application	9
3.3.3 Advanced Lagoon Treatment with Rapid Infiltration.....	10
3.3.4 Lagoon Treatment with Land Application.....	10
3.3.5 Mechanical Treatment with River Discharge	10
3.3.6 Zero Discharge with No Treatment	10
3.4 Preliminary Evaluation – Collection Alternatives	10
3.4.1 No Action.....	10
3.4.2 Rehabilitate Lift Stations	11
3.4.3 Replace Lift Stations.....	11
3.4.4 Collection System Improvements.....	11
3.4.5 Cost Comparison of Collection Alternatives	11
3.5 Environmental Impacts of Alternatives	12
Chapter 4. Affected Environment.....	14
4.1 Project Features and Area of Potential Impacts	14
4.2 Major Proposed Project Features	14
4.3 Flow Projections	15
4.4 Physical Aspects: Topography, Geology, & Soils.....	15
4.5 Climate.....	17
4.6 Population	18
4.7 Economics and Social Profile	18
4.8 Land Use.....	19

4.9	Floodplain Development.....	19
4.10	Wetlands	20
4.11	Wild & Scenic Rivers	20
4.12	Cultural Resources	21
4.13	Flora & Fauna	22
4.14	Recreation & Open Space.....	22
4.15	Agricultural Lands	22
4.16	Air Quality	23
4.17	Water Quality, Quantity, and Sole Source Aquifers.....	23
4.17.1	Impervious Area.....	24
4.17.2	Stormwater	24
4.17.3	Underground Storage/Pilings.....	24
4.17.4	Waste.....	24
4.17.5	Excavation.....	24
4.17.6	Wellhead Protection.....	24
4.17.7	Hazardous Waste Sites.....	25
4.17.8	Benefits to Aquifer.....	25
4.18	Public Health.....	25
4.19	Solid Waste/Sludge Management	25
4.20	Energy	25
4.21	Reuse/land Application or Subsurface Disposal System	25
4.22	Regionalization	26
Chapter 5.	Environmental Impacts of Proposed Project	32
5.1	Direct and Indirect Impacts.....	32
5.1.1	Direct Impacts	32
5.1.2	Indirect Impacts	32
5.1.3	Cumulative Impacts	32
5.1.4	Unavoidable Adverse Impacts	32
Chapter 6.	Mitigation of Adverse Impacts.....	34
Chapter 7.	Public Participation	36
Chapter 8.	References	38
Chapter 9.	Agency Consultation	39
Chapter 10.	Mailing List	41
Appendix A.	Agency Consultation	43
Appendix B.	Agency Responses & Follow-up.....	47
Appendix C.	Public Participation.....	89
Appendix D.	Archaeological Survey.....	108
Appendix E.	WWFPS Figures.....	139

List of Tables

Table 3-1 – Opinion of Probable Cost: Treatment System Preferred Alternative	5
Table 3-2 – Opinion of Probable Cost: Collection System Preferred Alternatives	5
Table 3-3 – Cost Comparison of Collection Alternatives.....	12
Table 3-4– Environmental Screening Matrix	12
Table 4-1 – Future Flow Projections	15
Table 4-2 – Soils in the Planning Area	16
Table 4-3 – Specific Soil Suitability for Absorption Fields	16
Table 9-1 – Agencies Consulted.....	39
Table 10-1 – Mailing List	41

List of Figures

Figure 4-1 – Earthquake Hazard Map.....	17
Figure 4-2 – Flood Hazard Map.....	20
Figure 4-3 – Wild and Scenic Rivers in Idaho.....	21
Figure 4-4 – Project Improvements	27
Figure 4-5 – Lagoon Details	28
Figure 4-6 – Collection Line Details	29
Figure 4-7 – Study Area Topography	30
Figure 4-8 – Eastern Snake River Plain Aquifer	31

Authorization

In June 2010, the Moore Water and Sewer Association contracted with Keller Associates to prepare a Wastewater Facilities Planning Study for the Association to evaluate wastewater collection and treatment options. The study was funded in part by a planning grant (WWG-339-2011-5) from the Idaho Department of Environmental Quality.

Chapter 1 – Project Identification

1.1 General Information

Utility:	Moore Water and Sewer Association	
Contact:	Clyde Hymas Sewer Association – Board President 208-589-4182 cchymas@gmail.com P.O. Box 638 Moore, Idaho 83255	Mike Jaglowski, P.E. Consulting Engineer – Keller Associates 208-238-2146 mjaglowski@kellerassociates.com 305 North 3 rd Avenue, Suite A Pocatello, Idaho 83201
	Lin Pearson Sewer Association –Board Member 208-554-3412 pearsonhas@gmail.com P.O. Box 638 Moore, Idaho 83255	Colter Hollingshead, E.I. Consulting Engineer – Keller Associates Environmental Contact 208-238-2146 chollingshead@kellerassociates.com 305 North 3 rd Avenue, Suite A Pocatello, Idaho 83201

Keller Associates, Inc. Project No. 210050

Estimated Project Costs:

Primary Treatment	<i>\$0.893M</i>
Lift Station Rehabilitation	<i>\$0.232M</i>
Sewer System Rehabilitation	<i>\$0.5M</i>
Estimated Total Cost	<i>\$1.625M</i>

Funding:	DEQ Funding Share	\$0.625M
	USDA Funding Share	\$1.0M

1.2 User Costs

After conversations with the Association it is estimated that there will be no additional O&M costs associated with the improvements, because the system improvements will maintain the current collection and treatment processes. The values below are based on a 2.75% interest rate over a 40 year loan and a cost distribution to the 98 existing connections.

Phase 1 Improvements

A.	Current Average Monthly User Charge per EDU	\$	25.00
B.	Change in Operation & Maintenance Monthly Charge per EDU	\$	0.00
C.	Change in Debt Service Monthly Charge per EDU	\$	27.25
D.	Future Average Monthly User Charge per EDU (A+B+C)	\$	52.25

1.3 Abstract

This Environmental Information Document is an appended document associated with the Moore Water & Sewer Association Wastewater Facility Planning Study (WWFPS) completed by Keller Associates. The WWFPS evaluated wastewater collection and treatment options in an effort to continue the operation of a full containment lagoon system and make other improvements throughout the system. As a result, the preferred alternative in the planning area is to rehabilitate the two lift stations and to add additional storage to their total containment lagoon system. This document presents the considered alternatives and addresses environmental issues that may be associated with the preferred alternatives.

Chapter 2. Purpose and Need for Proposed Project

To provide a reliable wastewater solution for the residents of Moore, the Association has explored various alternatives to address current system deficiencies. The Association's intent is to find a solution that meets the needs of the community throughout the useful life of the project. Alternatives that included total containment lagoons, advanced treatment, mechanical treatment, land application, and no action were considered from the standpoint of effectiveness, cost, and environmental impacts.

The Project Improvements include:

- Rehabilitate the existing lagoons
- Construct a new total containment lagoon
- Rehabilitate the Main Street Lift Station
- Rehabilitate the Mulvill Street Lift Station
- Rehabilitate the pressure sewer transmission line
- Rehabilitate an identified gravity sewer collection line
- Video inspection of the gravity sewer system
- Rehabilitate identified collection system issues

The purpose of the proposed project is to rehabilitate the current wastewater collection and treatment systems to provide a reliable solution for the residents of Moore to maintain public and environmental health. The expansion and rehabilitation of the current total containment lagoons system is expected to provide a reliable solution for many years. Currently the Moore Water and Sewer Association operate the water and wastewater systems within the community. The wastewater system consists of a collection system and a total containment lagoon treatment facility. The collection system contains two lift stations, gravity, and pressure sewer lines. The lagoon treatment system consists of three lagoon cells. The original estimated volume of Cells 1, 2, and 3 are 2.17, 0.74, and 0.81 million gallons respectively. The total estimated lagoon volume is 3.7 million gallons.

Currently Cell 1 is no longer in service due to problems with the lagoon liner. An attempt to rehabilitate the liner was unsuccessful and the cell remains out of service while lagoon Cells 2 and 3 are currently being operated in series. A seepage study was performed in October of 2010 for cells 2 and 3 and it was determined that these cells have an average infiltration rate of 0.1102 in/day (Keller Associates, 2010). This rate of infiltration from Cells 2 and 3 is approximately 1.14 million gallons per year. This infiltration rate is within the allowable limit of 0.25 in/day (built before 2007), but the capacity of these lagoon cells are a serious concern. It has been reported that during winter months the ice buildup on the lagoons can exceed the height of the embankments resulting in spillover when the ice melts. Returning Cell 1 to service and expanding the total containment lagoon system is expected to relieve capacity concerns.

There are currently two lift stations within the collection system and both of them need to be rehabilitated or replaced to avoid lift station failures. Both of the lift stations were installed in 1972 and have only had minor repairs throughout the years. The lift stations show excessive rusting and corrosion of the metal components. The Main Street lift station is missing a spring

located near a check valve, possibly leading to malfunctioning of the device. The Mulvill Street lift station is missing one of the guiderails typically used during pump maintenance. In addition the Mulvill lift station has experienced backflow from the pressure lines after the pumps shut off, which is likely due to check valves not functioning properly within the lift station. Neither of the lift stations currently have grinders, which has lead to the operator spending many hours unclogging the lift station pumps. The electrical systems for both of the lift station needs to be replaced as the antiquated wiring is a safety and functionality concern.

It is anticipated that various lines within the collection system may be experiencing ex-filtration into the surrounding soils due to crack, holes, or breaks in pipeline walls as most of the system was installed over 40 years ago. A video inspection will be performed to identify areas within the collection system that need to be rehabilitated.

Chapter 3. Alternatives Including the Preferred Alternative

The Study investigated numerous solutions to current system deficiencies. Alternatives to improve the current lagoon system included: a continuation and expansion of the full containment lagoon system, advanced treatment, mechanical treatment, land application, and no action. Lift station alternatives that were considered for the collection system included rehabilitation and replacement of the lift stations. A Citizens Advisory Committee was established to represent the community during the evaluation of treatment and collection system alternatives. The treatment preferred alternative is to reintroduce Cell 1 back into service by relining its surface with a HDPE liner, and expanding the current total containment system due to decreased infiltration and future growth. Once Cell 1 is relined Cells 2 and 3 will also be relined to eliminate the possibility of a compromised liner that Cell 1 has experienced. A total containment lagoon system will continue the simple operation system that is currently in place. An opinion of probable cost is shown in Table 3-1.

The collection system preferred alternative is to rehabilitate both of the existing lift stations to reduce the likelihood of future maintenance problems or failures. An opinion of probable cost is shown in Table 3-2.

Table 3-1 – Opinion of Probable Cost: Treatment System Preferred Alternative

Item	Cost
Excavate and Reshaped Existing Lagoons	\$70,000
Line Existing Lagoons	\$160,000
Rehabilitate Lagoon Head-works	\$37,000
New Total Containment Lagoon/Liner	\$385,000
Construction Subtotal	\$652,000
Contingency	\$33,000
Construction Total	\$685,000
Engineering, Legal, Funding, etc.	\$209,000
Total Opinion of Probable Cost	\$894,000

Table 3-2 – Opinion of Probable Cost: Collection System Preferred Alternatives

Item	Cost
Pumps, Electrical, Appurtenances	\$160,000
Wet Well Lining	\$10,000
Pressure Line Rehabilitation	\$80,000
Gravity Collection System Rehabilitation	\$250,000
Gravity Sewer System Video Inspection	\$35,000
Construction Subtotal	\$535,000
Contingency	\$26,000
Construction Total	\$561,000
Engineering, Legal, Funding, etc.	\$170,000
Total Opinion of Probable Cost	\$731,000

Opinions of probable cost are based on Keller Associates' perception of current conditions and reflect our opinion of probable costs at this time. Opinions of probable cost are subject to change as the project design matures. Keller Associates has no control over the cost of labor, materials, equipment, services provided by others, contractor's methods of determining prices, competitive

bidding, market conditions, and/or bidding practices or strategies. Keller Associates cannot and does not warrant or guarantee that proposals, bids, or actual construction costs will not vary from the costs presented herein. Estimates include Davis Bacon Wages.

3.1 Preliminary Evaluation – Treatment Alternatives

3.1.1 No Action

Taking "No Action" with respect to wastewater treatment for the Moore Water and Sewer Association's wastewater system would result in continuing to operate the system as-is. Under this option no upgrades to the wastewater treatment system would be made. Currently the Association does not have to treat the wastewater because it is a total containment facility and surface water is not being discharged from the lagoons. If unauthorized discharging began due to overtopping of the lagoons, enforcement action by EPA could include the implementation of a consent order requiring the Association to adhere to an EPA plan for resolving the discharge violations.

3.1.2 Lagoon Treatment

Lagoon treatment systems are systems that generally have treatment components added to a traditional lagoon system. A traditional lagoon treatment process would include an aeration system being installed in a system similar to the existing ponds.

An advanced lagoon system treatment components may include filters, anaerobic cells, or attached growth media located in a lagoon cell. These systems increase and improve the treatment capability of the system. But, depending on the configuration of the system, they have some of the same drawbacks as traditional lagoon systems.

3.1.3 Wetlands Treatment

Constructed wetlands are used in wastewater treatment to provide additional wastewater "polishing." This treatment process is typically used in conjunction with a traditional or an advanced lagoon treatment system. Wetlands utilize additional biological treatment, settling, and vegetative uptake of waste constituents to provide wastewater treatment. Additionally, some wastewater will evaporate into the atmosphere. Depending on the system, wetland treated wastewater may be discharged to a receiving water body.

Constructed wetlands for wastewater treatment provide simple operation, potentially no mechanical equipment, creation of "green space" including wildlife habitat, and nutrient removal with adequate detention times. Disadvantages of constructed wetlands include: land requirement(s), accumulation of phosphorus and heavy metals, and providing habitat for mosquitoes and other vectors. Of particular concern in Idaho, is that the performance of wetlands in winter is drastically reduced.

3.1.4 Mechanical Treatment

Similarly to lagoon treatment systems, there are a variety of different mechanical treatment options available. Most modern mechanical treatment facilities utilize some form of activated sludge process. Activated sludge processes remove biological active material (microbes) from the wastewater downstream of a biological reactor, generally through clarification, and re-circulated it to incoming raw wastewater. This process increases the concentration of biologically active material available for treatment of incoming wastewater. Mechanical treatment processes are classified as suspended growth or attached growth. Suspended growth example processes are activated sludge and oxidation ditches. Examples of attached-growth treatment processes are trickling filters, rotating biological contactors (RBC), and sequencing batch reactors (SBR).

A properly designed and operated mechanical treatment facility can produce very high quality effluent utilizing a relatively small footprint. Though, the implementation of these systems is only necessary if the system needs to meet certain pollutant requirements to discharge effluent to surface water. Since this option includes discharging to surface water a NPDES permit would be required to move forward with the mechanical treatment alternative.

3.2 Preliminary Evaluation – Disposal Alternatives

3.2.1 No Action

Taking "No Action" with respect to wastewater treatment for the Moore Water and Sewer Association's wastewater system would result in continuing to operate the system as-is. Under this option no upgrades to the wastewater disposal system would be made. Cell 1 would continue to be out of operation due to infiltration issues and the lack of total containment storage would continue to increase. If unauthorized discharging began due to overtopping of the lagoons, enforcement action by EPA could include the implementation of a consent order requiring the Association to adhere to an EPA plan for resolving the discharge violations. In addition a prolonged period of lagoon overtopping could lead to structural stability issues with the dikes surrounding the lagoons.

3.2.2 Total Containment Zero Discharge

The most common method to eliminate liquid discharge from the treatment facility would be to continue operation of the total containment lagoon system. This alternative would not require a treatment alternative be implemented in conjunction with it, because there would be not be a need for any discharging or reuse permits. For this alternative to be functional the liner in Cell 1 would need to be replaced in order to have sufficient volume for the discharge. It is recommended that Cell 1 be replaced with a HDPE liner to meet the infiltration requirements when the cell is returned to use. This type of system requires construction of a lagoon large enough to allow evaporation of all influent into the facility. Currently Cells 2 and 3 can handle only a portion of the influent on a yearly basis, the restoration of Cell 1 and expansion of the system would provide sufficient volume. Based on historical pan evaporation data (Western Regional

Climate Center, n.d.) evaporation in nearby Mackay averages 40.55 inches per year. Precipitation averages 9.48 inches per year in nearby Arco. A total containment lagoon would need to be approximately 7.3 acres (water surface area) and 6 feet deep (8.0 feet with freeboard) to store approximately 11.4 million gallons of wastewater. Construction of a total containment system in Moore would require construction and lining of a new 4.8 acre lagoon as well as cleaning, reshaping, and lining the current lagoons.

3.2.3 River Discharge

The river discharge disposal alternative would likely be utilized if a mechanical treatment alternative were selected. Currently the Association does not have a discharge permit and would need to apply for one and be approved to discharge. The EPA controls surface water discharge permitting, therefore the Association would have to apply for a National Pollutant Discharge Elimination System (NPDES) permit. New permits are difficult to apply for since a new point source discharge would be adding pollution to surface water. Another issue for the Association is finding a place to discharge the water. The Big Lost River is located within 300 feet of the lagoon site, but it is a seasonal river at this location and typically only flows during the spring runoff season. Therefore, effluent water could only be released from the lagoons to the river during times of flow in the adjacent Big Lost River.

3.2.4 Rapid Infiltration

Rapid infiltration is a method of land applying treated wastewater through basins in which the wastewater primarily infiltrates into the ground (similar to a septic system adsorption/leach field). Land application by rapid infiltration requires that water meet minimal treatment requirements and a land application permit from Idaho DEQ [see IDAPA 58.01.17 (Idaho Department of Environmental Quality, 2009)]. This alternative would require pretreatment of the wastewater. The ability to utilize rapid infiltration is highly dependent on the soil, geology, and depth to groundwater at the infiltration site. The Natural Resource Conservation Service, as part of the Soil Survey, evaluates soils ability to support wastewater rapid infiltration. The NRCS evaluation indicates that most of the soils in the Moore area have a very limited ability to support septic system leach fields. This rating is based on the ground slope, hydraulic conductivity, and depth to groundwater (USDA Natural Resource Conservation Service, 2009).

Similar to septic systems, rapid infiltration systems contribute to increased groundwater nitrate concentrations. Continued application of treated wastewater for infiltration has the potential to increase groundwater nitrate concentrations to unhealthy levels.

3.2.5 Land Application

As with some of the other treatment technologies discussed above, there are numerous different wastewater reuse methods. Wastewater can be reused for irrigation (landscape and/or agricultural), groundwater recharge, making snow, etc. The level of wastewater treatment required is dependent on the method of

reuse. For example, water used to irrigate a public park must meet a higher treatment standard than water used for irrigation of alfalfa at a restricted site. Section 3.5 within the WWFPS contains a brief description of the different reuse classification and the associated treatment, disinfection, and application requirements.

The Association would need to take concentration samples of potential lagoon effluent before determining if it currently meets requirements for land application. If the samples do not currently meet Class C, D, E requirements then additional treatment would be necessary before being used for land application (see Section 3.5.3). Treated effluent from Moore could be used to irrigate edible crops (if the reuse water does not come into contact with the edible portion of the crop), roadside vegetation, fodder or seed crops, and/or forested sites. It appears that the most practical reuse alternative would be to apply treated effluent to locally grown crops such as alfalfa or grains. This would require; lining of current lagoons to provide sufficient storage, installation of pumping and piping facilities to deliver the reclaimed wastewater to the application site, purchasing or negotiating a long term lease for an adequately sized and usable application site, establishing site security measures, and developing a management plan which includes meeting IDEQ monitoring requirements for land application.

3.3 Preliminary Evaluation – Solution Paths

The previous two sections discussed alternatives for treatment and disposal of wastewater. This section discusses potential combinations of the treatment and disposal options to meet the Association's needs. The No Action alternative is also presented as a solution path.

3.3.1 No Action

This alternative would not involve any of the proposed treatment or disposal wastewater alternatives and the system would stay as is. Action from the EPA would be likely if the existing total containment lagoons were to overtop their banks as the population increases. This alternative does not meet the Association's needs and was therefore not considered further.

3.3.2 Lagoon Wetlands with Land Application

This alternative would include the rehabilitation of the existing lagoons including: excavation, reshaping, and lining of the lagoons with an HDPE liner. An aeration system and wetlands would be added to the lagoons to improve water quality before the wastewater were land applied. A pumping station and transmission line would be needed to transport the treated wastewater from the wetlands site to a land application site. Sprinkler lines would also be needed to land apply the treated wastewater. The land application site would have to be cultivated and planted prior to start up of the facility. The climate in Moore is cold during the winter months and the effectiveness of treatment with the wetlands would be greatly inhibited therefore this alternative was eliminated from consideration.

3.3.3 Advanced Lagoon Treatment with Rapid Infiltration

This alternative would include the rehabilitation of the existing lagoons including: excavation, reshaping, and lining of the lagoons with an HDPE liner. An advanced lagoon aeration system such as a SAGR would be added as a polisher to the end of the lagoon treatment system to improve water quality before the wastewater was rapidly infiltrated. Depending on the location of the infiltration basins the wastewater may need to be pumped from the lagoons which would require a pumping station and transmission line. Rapid infiltration basins would need to be constructed from specified media to properly treat the water before entering the groundwater. The operation and maintenance with this solution path would be quite high as the infiltration beds would need to be cleaned often to prevent blinding of the wastewater. The soils in the project planning area are not suitable for this alternative and would require large amounts of excavation, permitting, and importing of soils and therefore, this alternative was eliminated from consideration.

3.3.4 Lagoon Treatment with Land Application

This alternative would include the rehabilitation of the existing lagoons including: excavation, reshaping, and lining of the lagoons with an HDPE liner. An aeration system would be added to the lagoons to improve water quality before the wastewater is land applied. A pumping station and transmission line would be needed to transport the treated wastewater from the current lagoon site to a land application site. Sprinkler lines would also be needed to land apply the treated wastewater. The land application site would have to be cultivated and planted prior to start up of the facility. Budgetary cost estimates for this alternative would be approximately \$1,508,000.

3.3.5 Mechanical Treatment with River Discharge

This alternative would consist of a SBR plant with a headworks screen, and lift station. An NPDES permit would have to be applied for, because the Association does not currently have a discharging permit. The process for obtaining an NPDES permit for the Big Lost River near the project site location may be difficult because the river flows are intermittent during the irrigation season. Budgetary cost estimates for this alternative would be approximately \$1,914,000.

3.3.6 Zero Discharge with No Treatment

This alternative would include the rehabilitation of the existing lagoons including: excavation, reshaping, headworks, and lining of the lagoons with an HDPE liner. A new total containment lagoon would be constructed to accommodate for increased flows from population growth. No treatment would be necessary for this alternative because adequate surface area would be available for total evaporation. Budgetary cost estimates for this alternative would be approximately \$894,000. This alternative is the low cost alternative and the preferred solution path.

3.4 Preliminary Evaluation – Collection Alternatives

3.4.1 No Action

Taking "No Action" with respect to the wastewater collection system for the Moore Water and Sewer Association's wastewater system would result in

continuing to operate the system as-is. Under this option there would be no upgrades to the two lift stations and the collection system. The lift station pumps would continue to become routinely clogged without grinders on the pumps. In addition the deteriorated condition of lift station components could pose a potential health risk if pumps fail and sewer water backs up into homes. If no action were taken with respect to the collection system improvements the identified lines could potentially collapse causing backed up flow and excessive infiltration into the surrounding soils.

3.4.2 Rehabilitate Lift Stations

This alternative proposes; replacement of the lift station components within the wet well, the electrical components, and the cleaning/lining the wet well. Grinders would be added to reduce clogging of the pumps, which is currently a significant problem in the current lift stations. This would return the lift stations to an as “new” condition. The Association would still be required to maintain and operate the lift station, but it would be to a lesser extent than the current O&M required

3.4.3 Replace Lift Stations

This alternative proposes; replacement of the wet well, replacement of the lift station components within the wet well, the electrical components, and the removal of the current wet well. The primary difference between this alternative and the rehabilitation alternative is the wet well would be completely replaced rather than rehabilitated. Grinders would be added in this alternative to reduce clogging of the pumps, which is currently a significant problem in the current lift stations. This would return the lift stations to an as “new” condition. The Association would still be required to maintain and operate the lift station, but it would be to a lesser extent than the current O&M required.

3.4.4 Collection System Improvements

This alternative proposes; a video inspection of the entire collection system to identify potential structural issues, rehabilitation of the gravity collection line from 3100 North to 3120 North, rehabilitation of the pressure sewer line from 3120 North to the treatment lagoon discharge location. This alternative would help to analyze the collection system as a whole and identify any existing problems. The two lines identified in Figure 4-4 are already known to have existing problems and have been identified as replacement needs in the collection system.

3.4.5 Cost Comparison of Collection Alternatives

Table 3-3 shows the estimated total costs (including construction, contingency, and design fees) of the feasible collection improvement alternatives. It should be noted that the preferred alternative is to rehabilitate the lift stations and perform the recommended collection system improvements. The preferred alternative is also the low cost alternative.

Table 3-3 – Cost Comparison of Collection Alternatives

Alternative	Cost
3.3.2 – Rehabilitate Lift Stations	\$231,000
3.3.3 – Replace Lift Stations	\$278,000
3.3.4 – Collection System Improvements	\$500,000
Preferred Alternative (3.2.2 & 3.2.4)	\$731,000

3.5 Environmental Impacts of Alternatives

The matrix in Table 3-4 highlights the potential environmental impacts of the alternatives presented in this chapter:

Table 3-4 – Environmental Screening Matrix

Environmental Criteria	No Action Alternative	Total Containment	Lagoon Treatment	Mechanical Treatment	Rapid Infiltration
Climate/Physical Aspects (topography/geology/ and soils)	No adverse impact	No adverse impact	No adverse impact	No adverse impact	Can increase soil level contaminants
Population, Economic, and Social Profile	Hinders population increases and economic development	Increased user rate	Increased user rate	Increased user rate	Increased user rate
Land Use	No adverse impact	Additional land for lagoons	Additional land for lagoons	Additional land for lagoons	Wastewater Reuse Site
Floodplain Development	No adverse impact	No adverse impact	No adverse impact	No adverse impact	No adverse impact
Wetlands and Water Quality	Continue groundwater infiltration	Increases groundwater quality	Discharging to Big Lost River	Discharging to Big Lost River	May affect groundwater quality
Wild & Scenic Rivers	No adverse impact	No adverse impact	No adverse impact	No adverse impact	No adverse impact
Cultural Resources	No adverse impact	Archaeological Survey	Archaeological Survey	Archaeological Survey	Archaeological Survey
Flora and Fauna	No adverse impact	No adverse impact	No adverse impact	No adverse impact	No adverse impact
Recreation/Open Space	No adverse impact	No adverse impact	No adverse impact	No adverse impact	No adverse impact
Agricultural Lands	No adverse impact	No adverse impact	No adverse impact	No adverse impact	No adverse impact
Air Quality	No adverse impact	No adverse impact	No adverse impact	No adverse impact	No adverse impact
Energy	No adverse impact	No adverse impact	Applications may increase energy consumption	Applications may increase energy consumption	Pumping may increase energy consumption
Public Health	Potential for public health endangerment	No adverse impact	No adverse impact	No adverse impact	No adverse impact

Environmental Criteria	Wetlands	Land Application	Rehabilitate Lift Stations	Replace Lift Stations
Climate/Physical Aspects (topography/geology/ and soils)	Can increase soil level contaminants	Can increase soil level contaminants	No adverse impact	No adverse impact
Population, Economic, and Social Profile	Increased user rate	Increased user rate	Increased user rate	Increased user rate
Land Use	Wastewater Reuse Site	Wastewater Reuse Site	No adverse impact	No adverse impact
Floodplain Development	No adverse impact	No adverse impact	No adverse impact	No adverse impact
Wetlands and Water Quality	May affect groundwater quality	May affect groundwater quality	No adverse impact	No adverse impact
Wild & Scenic Rivers	No adverse impact	No adverse impact	No adverse impact	No adverse impact
Cultural Resources	Archaeological Survey	Archaeological Survey	No adverse impact	No adverse impact
Flora and Fauna	No adverse impact	No adverse impact	No adverse impact	No adverse impact
Recreation/Open Space	No adverse impact	No adverse impact	No adverse impact	No adverse impact
Agricultural Lands	No adverse impact	No adverse impact	No adverse impact	No adverse impact
Air Quality	No adverse impact	No adverse impact	No adverse impact	No adverse impact
Energy	Pumping may increase energy consumption	Pumping may increase energy consumption	No adverse impact	No adverse impact
Public Health	No adverse impact	No adverse impact	No adverse impact	No adverse impact

Chapter 4. Affected Environment

4.1 Project Features and Area of Potential Impacts

The planning area for this study consists of all areas within the Moore city limits, a strip of land on the northwest side of the city along 3200 North, an extension of 3200 West to the south of the city, and an extension of 3150 North to the west of the city. All of the areas within the planning area currently have residential connections. All known wastewater connections are within the PPPA shown throughout all of the figures. The planning area encompasses approximately 260 acres. The project impact area outlined in red as shown in Figure 4-4 corresponds to the proposed project planning area. The area of potential effect (APE) and the proposed planning area are the same for this project.

The total containment lagoons will be constructed in the same area as the current lagoon site. The Association owns approximately 18 acres of land near the wastewater lagoons and is currently using approximately 3.5 acres of this land for the lagoons. As shown in Figure 4.5 it is anticipated the new lagoons will use a majority of the Associations current land. With the current design it is expected the wastewater surface area will be near 7.3 acres, and the dikes will be 1.5-2.0 acres depending on the lagoons shaping during design. This will account for a total impact area of approximately 9.0 acres, which includes approximately 4.5 acres previously disturbed during the construction of the existing lagoons. The area that is anticipated to be impacted by the new lagoons is shown in Figure 4-5.

The rehabilitation of the lift stations will be confined to the existing right of way. There is not anticipated to be any construction activities outside of the existing lift station wet wells. The construction activities for the collection system improvements will be confined to the existing utility right of way. All of these improvements will take place in the existing public right of ways. The known improvements to the collection system can be seen in Figure 4-6.

Line segment 1 runs along 3350 West (Main Street) from the Main Street Lift Station to 3150 N. Line segment 2 extends approximately 800 feet to the northeast along 3150 N. from 3350 W. to an estimated point 120 feet south of G Street. Line segment 3 extends from the northeast end of line segment 2 to the east approximately 750 feet until reaching the lagoon inlet head works. Line segment 4 runs southeast an estimated 170 feet from the Mulvill Lift Station to the aforementioned segment 3. Segments 1 through 4 are all part of the pressurized sewer transmission line rehabilitation. Line segment 5 extends approximately 1300 feet south from the Main Street Lift Station to 3100 North. Line segment 5 is the identified gravity sewer collection pipeline that needs to be rehabilitated. These segments can be seen in Figure 4-6.

4.2 Major Proposed Project Features

The proposed project consists of; the rehabilitation of the existing lagoons, construction and lining of a new total containment lagoon, rehabilitation of both of the collection systems lift stations, the installation of 8 to 10-inch diameter PVC pipe to rehabilitate existing collection or transmission lines, and a video inspection of the gravity sewer

collection system. The pipelines will generally be installed via pipe bursting or open-cut trenching. Construction is expected to begin in the fall of 2012 or once funding is available and should be completed within the following year.

4.3 Flow Projections

Table 4-1 contains average and maximum¹ wastewater flow projections for the City of Moore. The wastewater treatment facility is not equipped with any flow monitoring devices; therefore current average flows were estimated using a per capita flow rate of 60 gallons per day. This rate is based on temporary flow meter data that was set up within the study area for 2 different 1 week periods. This rate is within the average wastewater flow rate in the United States of 40-130 gallons per day per person (Tchobanoglous, Burton, & Stensel, 2004). Moore’s current flow rates are 40% lower than a commonly assumed design average of 100 gallons per person per day (Reynolds & Richards, 1996). For design purposes in Moore it was assumed that the average daily flow per person was 80 gpcd.

Table 4-1 – Future Flow Projections

Estimated Year	Population	Average Flow (gpd*)	Max Flow (gpd)
2011	201	16,100	32,200
2016	203	16,200	32,400
2021	206	16,500	33,000
2026	208	16,600	33,200
2031	211	16,900	33,800
2051	222	17,800	35,600

4.4 Physical Aspects: Topography, Geology, & Soils

There are no physical conditions that might be adversely affected by or adversely affect construction of the facilities.

There are no unusual or unique geological features in the vicinity that might be affected by or that would affect the project. The USGS Topographic map shown in Figure 4-7 illustrates the monotonous topography of the area with elevations ranging from 5,463 to 5,485 feet above sea level. The highest elevations are on the north side of the City, with the elevations dropping towards the south side of the City.

The main soil units in and around the city of Moore include Mooretown-Borco complex and Darlington-Lesbut complex (USDA Natural Resource Conservation Service, 2009). These soils in the project area are typical for the Moore area and will require the same construction techniques typically used to effectively manage excavation, dewatering, steel corrosion, and sloughing issues that may arise. Table 4-2 summarizes the extent of various soils in the planning area, including the soils prime farmland classification.

¹ Maximum flow assumed a peaking factor of 2.0.

Figure 4.2 in the Wastewater Facility Planning Study shows the spatial extent of these soils (USDA Natural Resource Conservation Service, 2009).

Included in the Natural Resource Conservation Service soil survey is an evaluation of wastewater lagoon and wastewater land application suitability. Evaluation of wastewater lagoon suitability is based on the soils hydraulic conductivity (saturated), depth to groundwater, ponding, depth to bedrock (or a cemented pan), flooding, large stones, and organic content. Evaluation of the land application suitability is based on sodium adsorption ratio, depth to groundwater, ponding, soil water capacity, hydraulic conductivity (saturated), slope, flooding, depth to bedrock (or cemented pan), bulk density, salinity, and the cation exchange capacity. Table 4-3 summarizes the soils suitability in the planning area to support land application or wastewater lagoon applications (USDA Natural Resource Conservation Service, 2009).

The USGS reports a relatively low probability (12-15%) for a significant earthquake (magnitude greater than 6.0) in the next 50 years as shown in Figure 4-1 (US Geological Survey, 2009). The proposed project area is marked by a red star located southeast of the Mackay circle marker. Any necessary precautions arising from this probability will be addressed in the design phase of the project. The project is located 2.0 – 2.5 miles away from the Lost River fault to the east of the area, which is a late Quarternary fault (moved within the last 130,000 years) (US Geological Survey, 2011). There are no known active faults within the proposed project planning area (US Geological Survey, 2011).

The earthquake hazard for the project area is relatively low according to the US Geological Survey probability model as shown in Figure 4-1.

Table 4-2 – Soils in the Planning Area

Soil	Acres	Percent	Prime Farmland
Mooretown-Borco complex, 0-2% slopes	35.1	11.7%	If Irrigated and Drained
Darlington-Lesbut complex, 1-4% slopes	264.8	88.3%	If Irrigated

Table 4-3 – Specific Soil Suitability for Absorption Fields

Soil	Lagoon Suitability		Land Application Suitability	
	Rating	Reason	Rating	Reason
Mooretown-Borco complex, 0-2% slopes	Very Limited	Flooding & Seepage	Very Limited	Filtering Capacity, Flooding, Droughty, & Strongly Contrasting Textural Stratification
Darlington-Lesbut complex, 1-4% slopes	Very Limited	Seepage & Slope	Very Limited	Filtering Capacity, Droughty, & Strongly Contrasting Textural Stratification

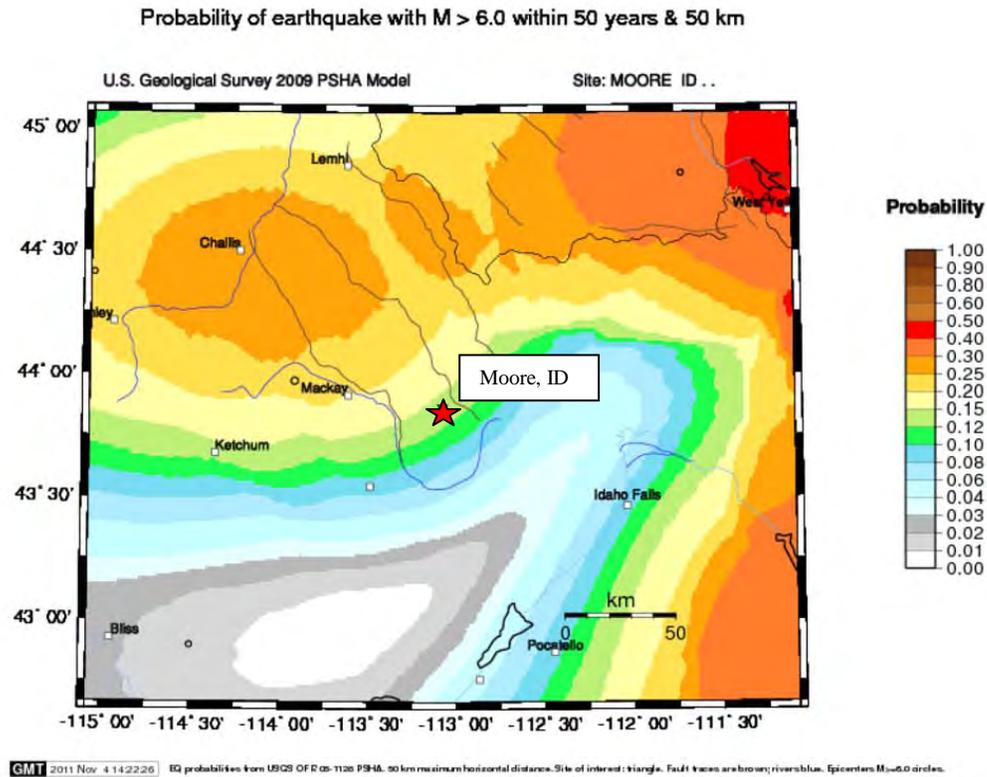


Figure 4-1 – Earthquake Hazard Map

4.5 Climate

There are no unusual or special meteorological constraints in the project area that might result in an air quality problem due to the project, or that affect the feasibility of the proposed alternative.

The climate summary (March 1914 through December 2010) for Arco (the closest station with similar weather) shows average minimum temperatures ranging from 3°F to 49°F and average maximum temperatures ranging from 29°F to 86°F. Over this same period, the total annual precipitation averaged 9.48 inches with a snowfall average of 30.5 inches. The coldest month is January, the wettest month is May; the hottest and driest month is July (Western Regional Climate Center, 2006).

Based on Western Regional Climate Center wind data (June 1996 to 2006 for Hailey, Idaho (about 50 miles west of Moore), the prevailing wind direction is north at an average wind speed of about 6 mph. Winds monthly average speeds are between 4 and 8 mph. Climate summaries prepared by the Western Regional Climate Center have been included in of WWFPS for reference.

The project will include underground wastewater lines, lift stations, and open lagoons which will not have air emissions that would require consideration with respect to unusual or special meteorological constraints. Odors from the lagoons will be kept to a

minimum, because it will be placed east of the City and routine O&M will help to alleviate the odors.

4.6 Population

For the purposes of this project, the steady growth scenario serves as the planning basis. Moore's population in 2010 as reported by the US Census Bureau was 189 (US Census Bureau, 2010). The steady growth scenario is based on historical population growth rates, assumes an annual population growth rate of 0.25%, and results in 2031 and 2051 populations of 211 and 222 people respectively. During the past 20 years the population in Moore has decreased by 0.1%. Populations for other years can be found in Table 4-1 of this document.

Population estimates for Moore are based on a steady 0.25% growth rate. The estimated population of 222 in the year 2051 represents an increase of nearly 21 people over the 40-year life of the project. According to 2010 census data for Moore, an average of 2.1 people per household was used (US Census Bureau, 2010), which equates to 10 additional EDUs.

The Idaho Division of Financial Management projects the population growth from 2010 to 2014 at a geometrically average rate of 1.7 % (Idaho Department of Financial Management, 2011). The project planning growth rate is less than the state growth rate by 85%.

4.7 Economics and Social Profile

The 2010 U.S. Census Bureau has not yet released economic information for Moore. Based on most recent available (2000) census data, about 53% of Moore's population 16 years old and over were employed (compared to 66% for the State overall) (US Census Bureau, 2010). The median household and family incomes in Moore have not been released by the US Census Bureau, but the 2006-2010 Butte County median household income was \$39,413. About 13.8 % of the families in the county were below the poverty level, which is higher than the Idaho overall average of 13.6%. Historical and projected populations are found in Section 4.3 of this report. Based on historical population growth rates, assuming an annual population growth rate of 0.25%, the estimated population for the year 2031 would be 211.

Specific landowners will not appreciably gain or lose more than other landowners due to the location of the proposed improvements. The rehabilitation of the lift stations, expansion of the lagoons, and collection system rehabilitation should be of minor inconvenience to landowners while construction is taking place. It is anticipated that these improvements will have little impact on the land values in the City of Moore. No poor or disadvantaged groups will be adversely impacted; conversely, all citizens would benefit equally by the improved ground water quality and improved reliability of the collection system.

Although impossible to determine without information on individual circumstances, the available data suggest that the local populace may be able to afford the estimated \$27.25

per month increase in wastewater rates to fund the selected alternative. The increase is approximately 1.7% of the monthly median income estimated over the 2005-2009 period.

4.8 Land Use

The implementation of the proposed alternatives that are primarily in public right of way will not affect the land use as the proposed collection system rehabilitations and lift station rehabilitation are in existing utility corridors. The only alternative that may affect land use is the expansion of the total containment lagoons. Currently the site exists on approximately 3.5 acres of the available 18.0 acre site owned by the Association. The proposed improvements will have no impact on the future land uses in the area as the same system that is currently in place will only be expanding. The land use designations and key topographic features of the study area are shown in Figure 4.6 of the Facility Planning Study. The residential areas shown in the land use designations illustrate the population allocation as well as the commercial areas. Existing populations are primarily confined to the city limits boundary, with approximately 6 houses connected to the system outside of city limits.

4.9 Floodplain Development

A small area on the eastern side of the planning area falls within the 100 year floodplain. Moore is not enrolled in the National Insurance Mapping, but FEMA maps indicate that approximately 2.5 acres of the 18 acres the association owns is currently within the floodplain. Ms. McGown with IDWR reported that Moore is not part of the National Flood Insurance Program and that if any construction were to occur within the Zone A, a floodplain development permit would need to be obtained from Butte, County. Construction is not anticipated to take place in any area within the Zone A floodplain. A map showing the extent of floodplains is shown in Figure 4-2 (Idaho Department of Water Resources, 2011). A more detailed flood plain boundary can be seen in Appendix E. Original agency comments for this and other topics can be found in Appendix B.



Figure 4-2 – Flood Hazard Map

4.10 Wetlands

A review of the Fish and Wildlife Service National Wetland Inventory indicate areas classified as wetlands in the planning area include areas along the Big Lost River, West and West Side Canals, and the wastewater lagoon site. Approximately 5.5 acres were classified as freshwater forested/shrub wetlands, 2.2 acres as freshwater emergent and 3.0 acres as freshwater ponds (US Fish and Wildlife Service, 2010). Figure 4.5 of the Facility Planning Study shows the extent of areas classified as wetlands in the planning area and can be seen in Appendix E. A letter was sent to the Army Corps of Engineers requesting comments regarding a further review and it was requested that there be a wetland determination. Ms. Howard, Mr. Joyner, and Mr. Phillips conducted a wetland determination at the site and found areas previously identified as wetlands within the planning area were not wetlands. Therefore, this project will have no adverse affects on any wetlands. It was advised that any canal crossing during the project would require the necessary permits to cross. The response letter from the Army Corps can be found in Appendix B.

4.11 Wild & Scenic Rivers

The planning area does not contain designated or proposed wild or scenic rivers according to the Idaho Department of Water Resources as shown in Figure 4-3 (Idaho Department of Water Resources, 2010). The nearest wild or scenic river to the proposed

project planning area is the Salmon River excluding Middle Fork, whose nearest drainage basin is located over 25 miles to the northwest of Moore.

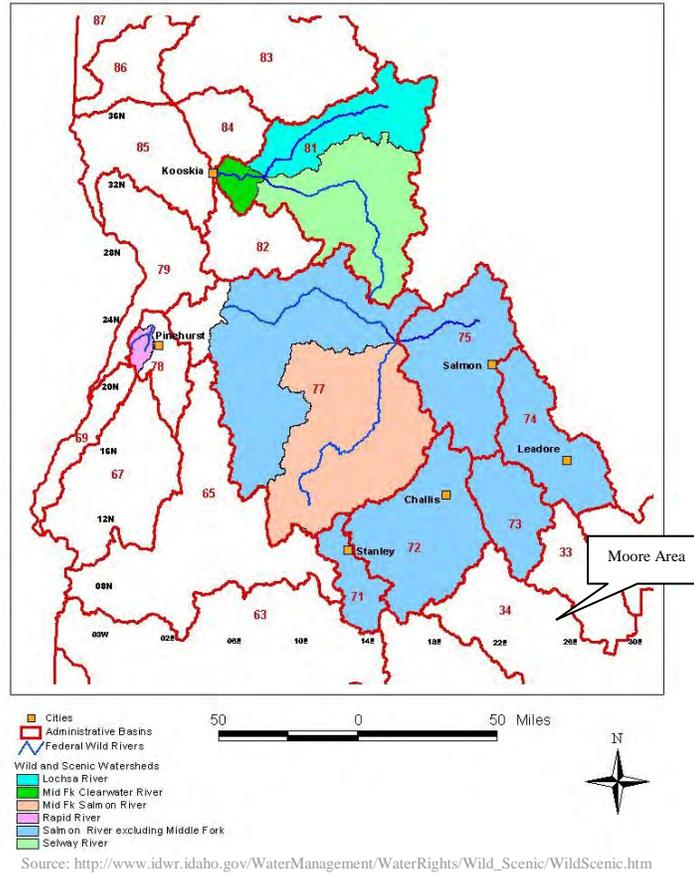


Figure 4-3 – Wild and Scenic Rivers in Idaho

4.12 Cultural Resources

There are no places in the planning area that are listed on the National Register of Historic Places (US Department of the Interior National Parks Service, 2009). The Idaho State Historic Preservation (SHPO) recommended that an archaeological survey be completed in areas that are previously undisturbed as there may be archaeological sites present. The only previously undisturbed areas in the project are areas impacted due to construction of the existing total containment lagoons. An archaeological survey was conducted by Stephanie Crockett with Cultural Resource Consulting and two new cultural properties were recorded as a result of the inventory. It was found that no national register (NRHP) eligible properties would be affected by this project. After reading Ms. Crockett’s report SHPO determined that no additional investigations were recommended and the project could proceed as planned, because there were no significant findings. A complete copy of the report is given in Appendix D.

The Shoshone-Bannock and Shoshone-Paiute Tribes were contacted for a comment requests. The Shoshone-Bannock Tribes did not respond to the request for comment.

The Shoshone-Paiute Tribe requested that they be contacted immediately if Native American Artifacts or human remains are encountered during construction. Mr. Howard with the Shoshone-Paiute Tribes stated that the likelihood of encountering a Native American Site was low and that if any Native American sites or burials are discovered that all work should be stopped. At that time both the Shoshone-Paiute office as well as SHPO should be contacted.

4.13 Flora & Fauna

David Kempworth with the US Fish and Wildlife office has reviewed the project and had no comments or recommended mitigation measures. Tom Bassista with the Idaho Department of Fish and Game also reviewed the project and commented that they do not anticipate any adverse impacts from the proposed project. Based on the departments' reviews, no designated threatened or endangered species or critical habitats are anticipated in the proposed project planning area. A copy of the most recent list of threatened and endangered species in Butte County is included in Appendix B (US Fish and Wildlife Service, 2011). No direct or indirect impacts to sensitive species, habitats, or routes are anticipated to result from the implementation of this project.

The list of threatened or endangered species in Butte County provided by the US Fish and Wildlife Service consists of:

- Threatened: Canada lynx, Bull Trout
- Endangered:
- Candidate: Greater Sage-Grouse, Wolverine, Whitebark Pine
- Experimental
Nonessential:

In the event that any of these species are encountered, it is recommended that the Idaho Department of Fish and Game be contacted.

4.14 Recreation & Open Space

The selected alternative improvements are located on previously existing utility corridors within the City. The total containment lagoons are located on a site already dedicated to wastewater facilities and the project will not eliminate or modify recreational open space, parks, or areas of recognized scenic or recreational value. The proposed project is such that it is not feasible to combine the project with parks, bicycle paths, hiking trails, waterway access, and other recreational uses. The proposed project does not affect or eliminate the above described recreational & open spaces of the area.

4.15 Agricultural Lands

Nearly 100 percent of the non-urban land in the Moore planning area is designated by the NRCS as prime farmland if irrigated and drained. (Of the primary soil units listed in 3.2.1, the, Darlington-Lesbut complex is considered prime farmland if irrigated; the Mooretown-Borco complex is prime farmland if it is irrigated and drained.)

The collection and lift station improvements are within utility right of ways and have been previously disturbed. No irrigated farmland will be involved in the expansion of the total containment lagoons.

Future development is expected to occur within the planning area, but may eventually involve development of irrigated farmlands located near Moore.

Steve Cote with the NRCS District in Arco also reviewed the project and commented that the NRCS did not have any concerns regarding the proposed project.

4.16 Air Quality

There will not be any direct air emissions from the project that will not meet federal and state emission standards contained in the air quality state implementation plan, nor will the project violate national ambient air quality standards in an attainment area. The proposed improvements will not cause odor or noise nuisance problems. Correspondence was sent to the regional DEQ office requesting further review which the response stated that control of fugitive dust was needed during all phases of the project, construction debris and other wastes must be properly disposed of in a landfill, and that odor be controlled during and after the completion of the final project. The project is not located in an area with an approved or conditionally approved state implementation plan (SIP) (Idaho Department of Environmental Quality, 2011).

4.17 Water Quality, Quantity, and Sole Source Aquifers

The proposed improvements will not adversely affect the quality or quantity of the ground water source. By significantly decreasing the current infiltration rate from the total containment lagoons, the amount of ground water contamination will be reduced significantly with the installation of an HDPE liner in the lagoons. The rehabilitation of collection system lines will also reduce the amount of ground water contamination, by rehabilitating areas where ex-filtration from broken pipes currently exists. The quantity of ground water will not be significantly affected because there are no proposed new ground water sources within this project. The only decrease in the current ground water quantity will be from less infiltration by the total containment lagoon.

As shown in Figure 4-8, Moore and the associated improvements are located over stream flow area Eastern Snake River Plain Aquifer, which is a sole source aquifer (EPA Region 10, 2008). After installation of the improvements, the wastewater pipelines, lift stations, and lagoons are not anticipated to interact with groundwater or surface water in the project's area of potential impact. Common and permit required practices to prevent water quality degradation during construction are outlined in Chapter 6 of this report.

Since the project will be located over the sole source aquifer, additional considerations must therefore be addressed regarding the proposed improvements. Susan Eastman from EPA Region 10 was consulted for this project and found there to be no adverse significant impacts regarding the Eastern Snake River Plain Aquifer. The considerations for the sole source aquifer are:

4.17.1 Impervious Area

The increase in impervious area for project improvements will be attributed to the HDPE liner for the total containment lagoons. It is estimated the impervious lined lagoon size will be 7.3 acres. The runoff from this impervious area will be contained within the total containment lagoons and evaporated over time. Other improvements should not increase the current amount of impervious surface area.

4.17.2 Stormwater

Stormwater is currently not managed in residential areas. Precipitation runs off of impervious areas and into the ground as there are no residential curb and gutter catch basin systems within Moore. At the total containment lagoon site, stormwater is stored within the lagoons until it is evaporated or infiltrated. During construction, a stormwater pollution prevention plan will be developed and implemented in compliance with local, state, and federal regulations. Following construction, the stormwater will be managed under the current conditions. With the addition of an HDPE liner at the total containment lagoons, storm water infiltration into the ground water will be dramatically decreased.

4.17.3 Underground Storage/Pilings

The only underground storage tanks present in the project are the two lift station wet wells. The wet wells are approximately 14 feet deep and each hold 600 gallons of wastewater before the pumps are activated. The wet wells will be kept in their current location and rehabilitated to prevent infiltration into the surrounding soil.

4.17.4 Waste

This project is being proposed to contain wastewater that contains solid waste. The wastewater will flow into the total containment lagoons where many of the solids will degrade and the liquids will evaporate. Any of the remaining solids will be cleaned out of the lagoons when the amount becomes significant and hauled to a suitable waste handling facility.

4.17.5 Excavation

Excavation will be a part of this project and depths are not anticipated to exceed 10 ft. No excavation of the lift station wet wells will be required.

4.17.6 Wellhead Protection

There are no new wells planned for this project. The closest known wells will be over 200 feet away from any of part of the proposed project. It is not anticipated that these wells will provide contaminate access to the aquifer.

4.17.7 Hazardous Waste Sites

Municipal wastewater is the only waste associated with this project and will be treated as previously described. There are no known hazardous waste sites within the project area.

4.17.8 Benefits to Aquifer

A possible benefit from the implementation of the project is reduction of ground water contamination from the current wastewater facilities. The proposed HDPE liner should significantly reduce current infiltration rates from the total containment lagoons. Rehabilitating broken collection pipes will also reduce contaminated ground water infiltration.

4.18 Public Health

Public health is an important concern when determining the impacts of a proposed project. Health can be impacted by water quality, air quality, disease risk, and noise impacts. Air quality impacts were discussed in Section 4.16, and following DEQ's recommendations for maintaining air quality before and after construction will minimize any negative effects. The implementation of a HDPE liner in the lagoons will decrease the potential for wastewater infiltration into the shallow aquifers and reduce the risk of disease for nearby well users. Noise impacts direct and indirect associated with this project are not anticipated being a problem.

4.19 Solid Waste/Sludge Management

Solid waste management has not been an issue at the current wastewater lagoon site. The current lagoons have been in place for 40 years and have reportedly not needed to be dredged during that time. As part of the design there will be a small 1 to 2 acre lagoon near the head works inlet that will be used to settle out most of the solid waste material. This will allow any future dredging of the solid waste to be limited to this small lagoon. When the solid waste is removed from facility it can be hauled to a waste handling facility to be dried and tested prior to disposal.

4.20 Energy

The project area is served by the Lost River Electric Cooperative Inc. for its electrical power. The wastewater collection system has two lift stations that require electricity when the pumps turn on to empty the lift station wet wells. There is not anticipated to be any need for electrical power at the treatment site. Power will continue to be used at each of the lift stations. It is anticipated that the power requirements at the lift stations will be similar if not slightly less than the current power demand. Energy efficient pumps will be utilized and broken return flow check valves will be replaced to potentially reduce energy costs.

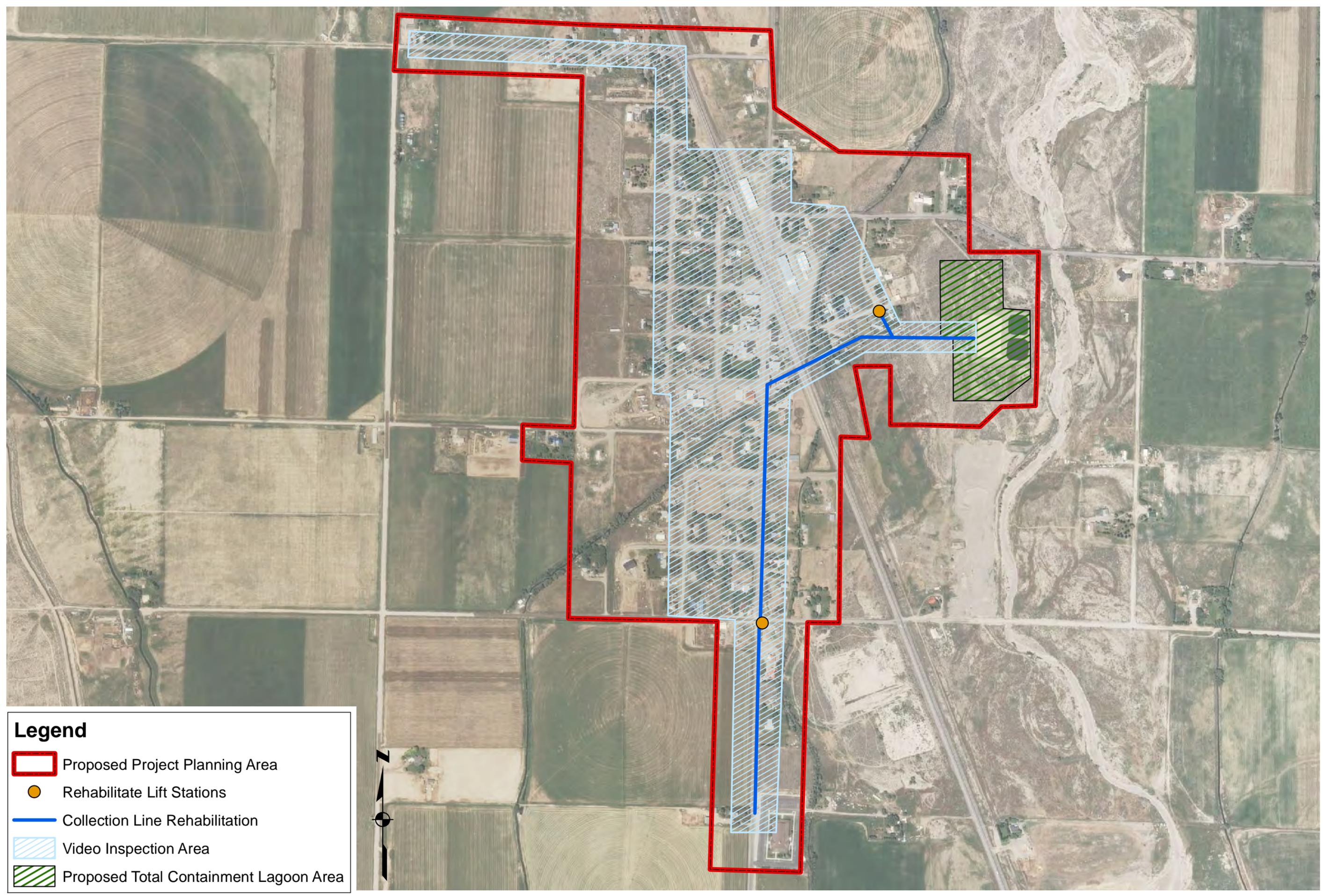
4.21 Reuse/land Application or Subsurface Disposal System

Land application was one of the treatment alternatives examined in Chapter 7 of the Wastewater Facilities Planning Study. Rapid infiltration and land application alternatives

were not chosen as the preferred alternative and will have no impact on the proposed project.

4.22 Regionalization

Regionalization is not likely due to the separation distances between Moore and the surrounding communities. The following are approximate distances to communities from Moore: Arco is 7 miles to the southeast, and Mackay is 18 miles to the northwest. Arco and Mackay already have their own sustainable wastewater systems making it unlikely for them to regionalize with Moore's wastewater system.



Legend

- Proposed Project Planning Area
- Rehabilitate Lift Stations
- Collection Line Rehabilitation
- Video Inspection Area
- Proposed Total Containment Lagoon Area

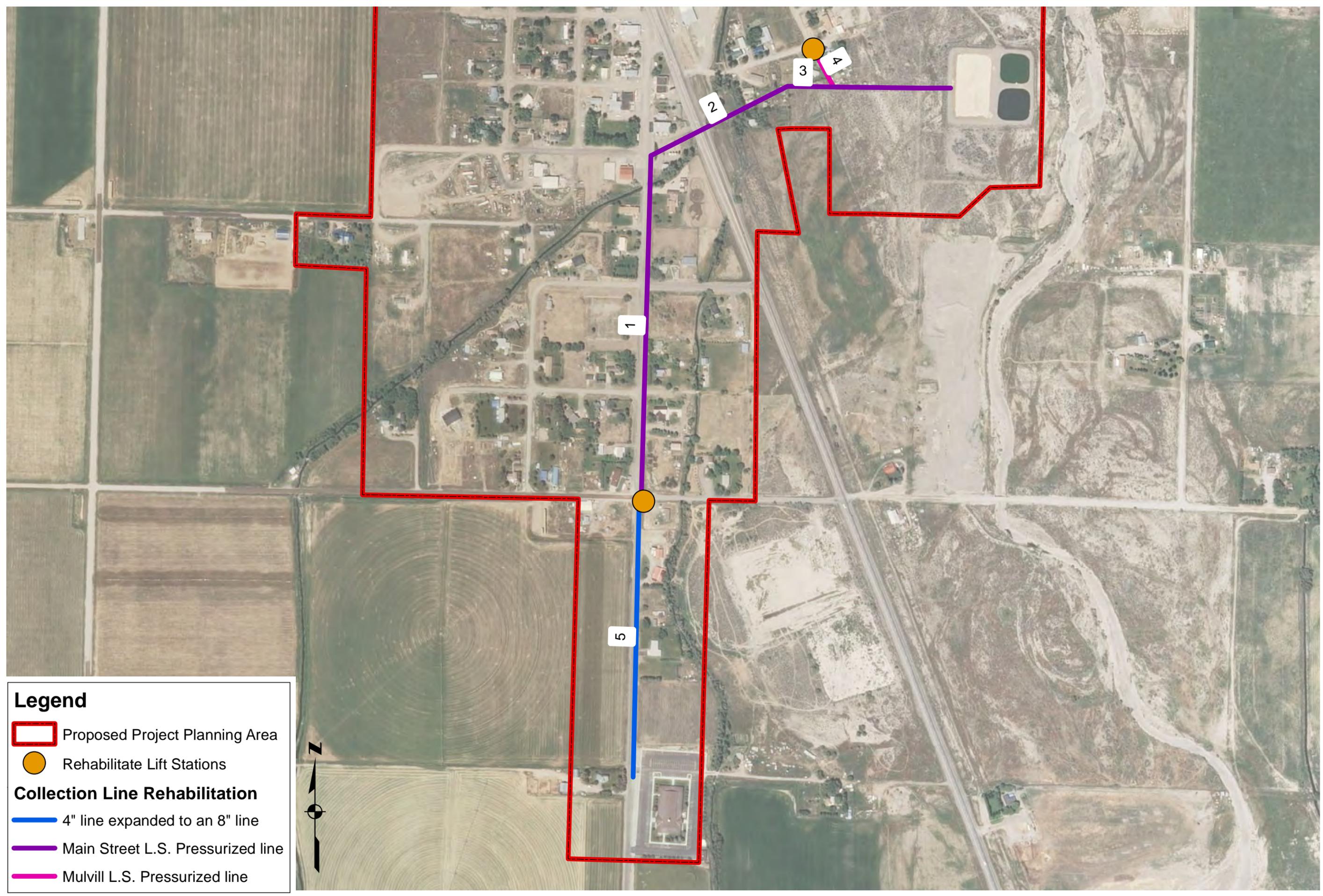


Legend

- Proposed Project Planning Area
- Proposed Total Containment Lagoon Area
- Moore Property



Environmental Information Document Lagoon Expansion Details	Moore Water & Sewer Association	 305 N. 3rd Avenue Pocatello, ID 83201 208.238.2146 www.kellerassociates.com
FIGURE NO. 4-5	PROJECT NO. 210050	FILENAME Fig 4-5



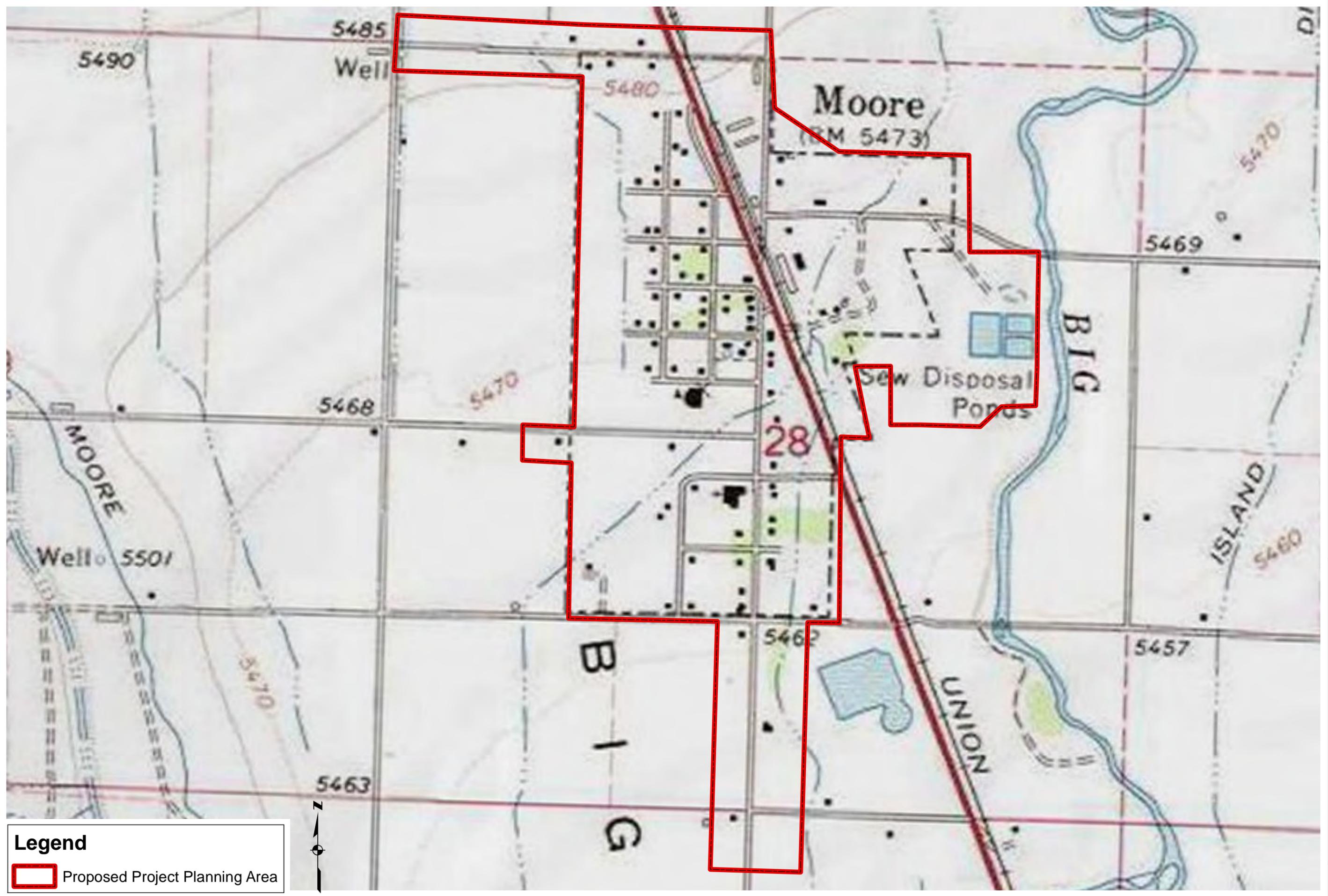
Legend

- Proposed Project Planning Area
- Rehabilitate Lift Stations

Collection Line Rehabilitation

- 4" line expanded to an 8" line
- Main Street L.S. Pressurized line
- Mulvill L.S. Pressurized line





Legend

Proposed Project Planning Area

PROJECT NO. 210050
 FILENAME Fig 4-7

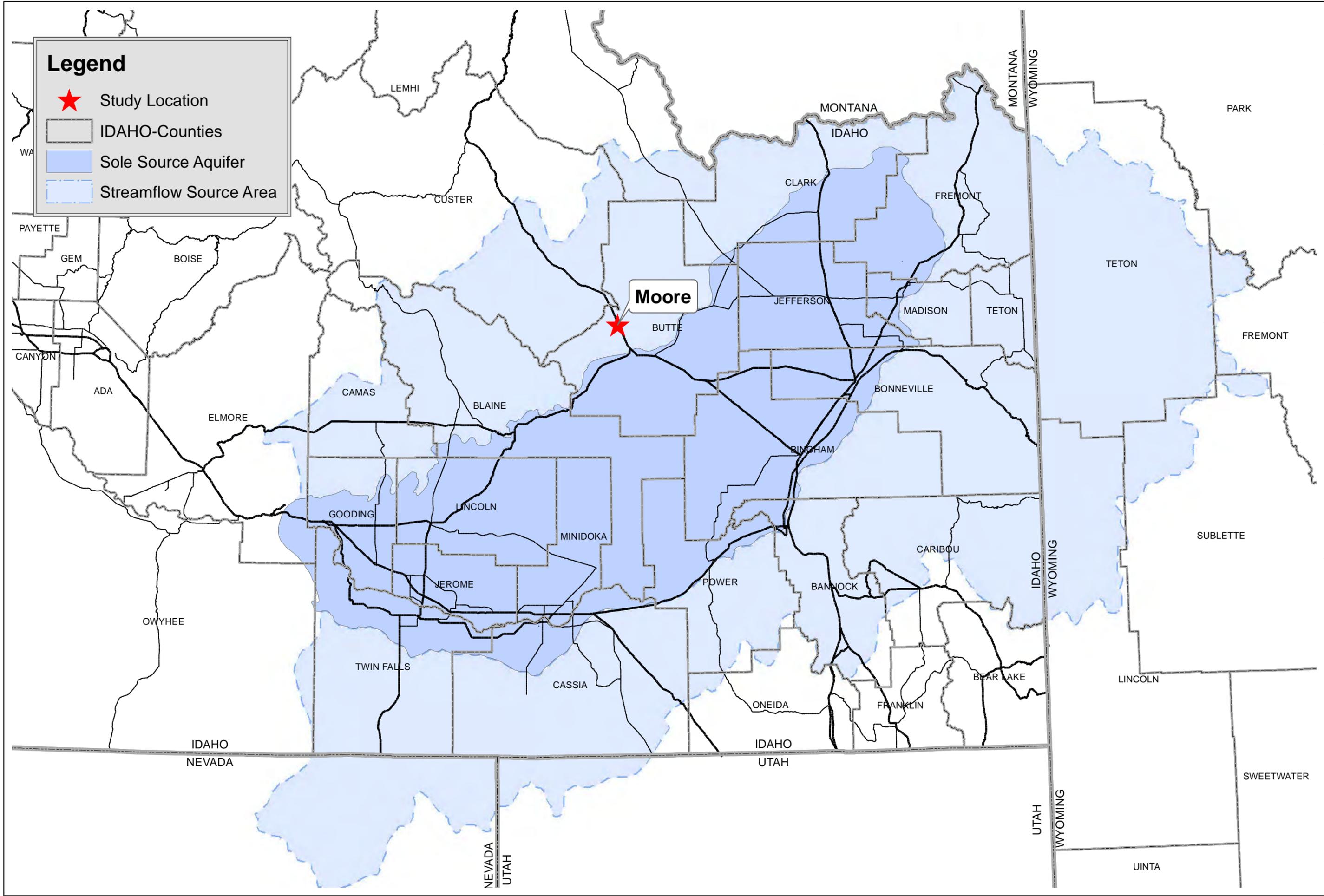
305 N. 3rd Avenue
 Pocatello, ID 83201
 208.238.2146
www.kellerassociates.com



Moore Water & Sewer Association

Environmental Information Document
 Study Area Topography

FIGURE NO. 4-7



Legend

- ★ Study Location
- IDAHO-Counties
- Sole Source Aquifer
- Streamflow Source Area

PROJECT NO. **210050**
 FILENAME **Aquifer & Source Area.mxd**

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


Moore Water & Sewer Association

Environmental Information Document
 Eastern Snake River Plain Aquifer

FIGURE NO.
Fig. 4-8

Chapter 5. Environmental Impacts of Proposed Project

5.1 Direct and Indirect Impacts

Impacts that may occur as a result of the project may be either beneficial or adverse to the human population and the surrounding environment. The following Sections discuss the direct, indirect, and cumulative impacts that will result from completion of the preferred alternative.

5.1.1 Direct Impacts

Direct impacts, whether adverse or beneficial, are caused by the actual construction of the preferred alternative and occur at the same time and place as construction.

During construction, there may be the potential for temporary noise and exhaust from construction equipment. There is also the possibility for exposed soils at the lagoon site and excavation trench shoulders to be carried in a storm water runoff if a rain event occurs during construction or generate fugitive dust from the construction site. There will be impacts to the community as the lift stations are being rehabilitated and as collection improvements are being performed. These impacts are not anticipated to be more than a few days each during construction or rehabilitation improvements. If during excavation archaeological artifacts are found the proper agencies will be contacted.

During the construction of the new storage lagoon, the vegetation in this area will be removed to facilitate the new lagoon.

5.1.2 Indirect Impacts

Indirect impacts are caused by the construction of the proposed project and occur at a later, foreseeable time.

Upon completion, there are no foreseeable indirect impacts caused by the proposed project.

5.1.3 Cumulative Impacts

Cumulative impacts are the sum of past, present, and reasonably foreseeable actions in the project area.

There are not anticipated to be any cumulative impacts from the proposed project, besides those listed above. The operation of the new lagoon system will be very similar to the current lagoon system. Agency mitigation impact measures have been provided in chapter 6.

5.1.4 Unavoidable Adverse Impacts

These impacts include only the temporary indirect impacts of the construction process.

There are no anticipated unavoidable adverse impacts related to this project.

Chapter 6. Mitigation of Adverse Impacts

Mitigation measures for direct, indirect, short-term, long-term and cumulative impacts identified by the consulting agencies have been included in this document.

If mitigation measures are required, a means of attaining mitigation measures (enforceable, authority to fulfill commitments, appropriate monitoring during implementation) will also be addressed.

Based on agency consultation and information presented previously, the following mitigation measures or precautions should take place during the construction process.

1. Contact the State Historical Preservation Office if any archeological artifacts are discovered during excavations. Contact the Shoshone-Paiute Tribe or Shoshone Bannock Tribe if any Native American artifacts are discovered in the project area in the process of constructing the selected alternative.
2. Contact Fish and Game if threatened or endangered species, listed above, are encountered during the construction process.
3. Mitigate fugitive dust and potential stormwater runoff during construction of the project.
4. Obtain the necessary construction permits in accordance with local, state, and federal management agencies. In addition compliance with the applicable permit regulations addressing fugitive dust, temporary construction equipment noise and exhaust. See IDAPA 58.01.01.651 and 58.01.01.201.

During and prior to construction of the proposed project, certain environmental safety precautions need to be taken as well as enforced if a problem should occur. These measures are as follows:

1. Proper steps need to be taken to contain all runoff during any type of construction. Examples would be silt fence, a mulch or vegetative cover, and temporary berms.
2. Access roads should be designed to provide adequate cut-slope grade.
3. Drains are needed to control surface runoff and keep soil losses to a minimum.
4. When reseeding the areas of disturbance, make sure the seeding plans are site specific to surrounding vegetation.
5. All reasonable precautions shall be taken to prevent the generation of fugitive dust. Consideration will be given to factors such as the proximity of dust emitting operations to human habitations and/or activities and atmospheric conditions which might affect the movement of particulate matter. Some of the reasonable precautions may include, but are not limited to, the following:

- a. Use of water or chemicals
- b. Application of dust suppressants
- c. Use of control equipment
- d. Covering of trucks
- e. Paving
- f. Removal of materials

Chapter 7. Public Participation

An advertisement of the 30-day public comment period and the corresponding open house at the conclusion of the 30-day public comment period was made available for public comment on September 20, 2011.

As part of this Wastewater Facilities Planning Study a Citizens Advisory Committee (CAC) was established consisting of members of the community, city staff, association board members, and elected city officials. The purpose of the committee was to provide and receive input regarding the wastewater system issues and the alternatives for improvements throughout the planning process.

In addition to the CAC meetings held on September 13, 2011, September 19, 2011 and October 5, 2011, general public open house meetings discussing needs, rate recommendations, and alternative approval were presented in two additional public meetings on October 17, 2011 and November 1, 2011.

The first CAC meeting wherein the Wastewater Facilities Planning Study's alternatives were presented was held on September 13, 2010. The mayor and association board members were present at this meeting to review and discuss the plan, the issues, and the potential alternative improvements. At the time of this presentation it was determined there were 3 reasonable treatment alternatives that were discussed as follows: Alternative 1: Obtain a discharge permit and discharge into the Big Lost River, Alternative 2: Use a land application process to use treated wastewater and, Alternative 3: Expand the total containment lagoons. The two primary alternatives discussed for the lift stations were as follows: Rehabilitate the lift station by leaving the wet well in place, or replacing the entire lift station including the wet well. The meeting members discussed the benefits and consequences of each the treatment alternatives.

The second CAC meeting was held on September 19th. The mayor, association board members, and community members were present the meeting to discuss the previously presented alternatives and the costs associated with each of them. The final CAC meeting was held on October 5th were association board member, the mayor, and community members were present. Benefits, disadvantages, and costs were discussed by member present at this meeting. Mr. Dean (a community member) asked about how people on fixed incomes within the community would be able to pay for higher wastewater bills. Mr. Hendricks with the Development Company responded that there was a possibility of the wastewater being metered for flow based billing. This would result in monthly wastewater bills being dependent upon how much wastewater was released from each individual home, with lower flow rates being equally proportional to lower billing rates. Mr. Miller explained that similar wastewater upgrades within similar communities of the state have wastewater utility bills typically in the same range. A USDA grant and loan package are anticipated to help with the potential associated project costs.

On September 21, 2011 a notice was published in the Arco Advertiser Newspaper for public comment regarding a Draft of the Wastewater Facilities Planning Study. A copy of the notice can be found in Appendix C. On November 1, 2011, a Public Hearing was held to provide the public a forum to express their opinions regarding the study. At the end of the public hearing the

Association accepted the CAC's conclusion and through a motion decided to proceed with total containment and rehabilitating both of the lift stations. It was determined that Alternative 3: Total Containment Lagoon treatment would be the preferred alternative along with rehabilitating the lift stations and collection lines.

Documentation for the public participation activities and sign in sheets can be found in Appendix C.

Chapter 8. References

The following references were used in preparation of the Environmental Information Document.

- EPA Region 10. (2008). Retrieved July 16, 2011, from Region 10 Sole Source Aquifer Map: <http://yosemite.epa.gov/r10/water.nsf/Sole+Source+Aquifers/ssamaps>
- Idaho Department of Environmental Quality. (2009). *58.01.17 - Rules for the reclamation and reuse for municipal and industrial wastewater*. Boise, ID: Author.
- Idaho Department of Environmental Quality. (2011). *Air Quality Planning: Idaho's State Implementation Plan*. Retrieved September 22, 2011, from http://www.deq.idaho.gov/air/data_reports/planning/sip.cfm#sip
- Idaho Department of Financial Management. (2011, October). Retrieved November 2011, from Idaho Economic Forecast, Forecast Detail Annual Tables p. 33: <http://dfm.idaho.gov/Publications/EAB/Forecast/2011/October/annualstable.pdf>
- Idaho Department of Water Resources. (2010). Retrieved September 21, 2011, from Designated Wild and Scenic Rivers: http://www.idwr.idaho.gov/WaterManagement/WaterRights/Wild_Scenic/WildScenic.ht
- Idaho Department of Water Resources. (2011). Retrieved August 18, 2011, from Flood Hazard mapping Tool: <http://maps.idwr.idaho.gov/floodhazard/Map>
- Keller Associates. (2010). *Seepage Study for the Moore Water and Sewer Association*. Pocatello.
- Reynolds, T. D., & Richards, P. A. (1996). *Unit Operation and Processes in Environmental Engineering*. Boston: PWS Publishing Company.
- Tchobanoglous, G., Burton, F. L., & Stensel, H. D. (2004). *Wastewater engineering: Treatment and reuse* (4th ed.). New York: McGraw Hill.
- US Census Bureau. (2010). *Population Finder*. Retrieved August 23, 2011, from U.S. Census Bureau: <http://www.census.gov/>
- US Department of the Interior National Parks Service. (2009). *National register of historic places*. Retrieved November 16, 2011, from <http://nrhp.focus.nps.gov>
- US Fish and Wildlife Service. (2010). *National Wetlands inventory*. Retrieved November 18, 2011, from <http://www.fws.gov/wetlands/>
- US Fish and Wildlife Service. (2011). *Species information by county*. Retrieved June 02, 2011, from <http://www.fws.gov/idaho/agencies/Countybycounty.htm>
- US Geological Survey. (2009). Retrieved August 15, 2011, from 2009 Earthquake Probability Mapping: <http://geohazards.usgs.gov/eqprob/2009/index.php>
- USDA Natural Resource Conservation Service. (2009). Retrieved October 15, 2011, from Web Soil Survey: <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>
- Western Regional Climate Center. (n.d.). *Evaporation stations*. Retrieved August 13, 2011, from <http://www.wrcc.dri.edu/htmlfiles/westevap.final.html>
- Western Regional Climate Center. (2006). *Idaho climatic summaries*. Retrieved November 15, 2011, from <http://www.wrcc.dri.edu/summary/Climsmsid.html>

Chapter 9. Agency Consultation

Various management agencies were consulted during preparation of this EID, and are listed in Table 9-1. A copy of the consultation letter can be found in Appendix A; a copy of the mailing list can be found in Table 10-1.

Of the agencies that were consulted, several provided responses to the request for consultation. Agency responses can be found in Appendix B.

Table 9-1 – Agencies Consulted

Agency Consulted	Responded?	Initial Letter Mailed	Subsequent Contacts
EPA Region 10, (Mike Lidgard)	Yes	25-Oct-2011	29-Nov-2011, 5-Dec-2011
Idaho Dept. of Environmental Quality – Idaho Falls Regional Office (Rensay Owen)	Yes	25-Oct-2011	25-Oct-2011
Idaho Dept. of Environmental Quality – Idaho Falls Regional Office (Willie Teuscher)	Yes	25-Oct-2011	26-Oct-2011
Idaho Dept. of Fish and Game, SE Region (Tom Bassista)	Yes	25-Oct-2011	26-Oct-2011
EPA Region 10, Office of Environmental Assessment (OEA-095) (Sue Eastman)	Yes	25-Oct-2011	27-Oct-2011, 14-Nov-2011, 29-Nov-2011, 13-Dec-2011, 23-Dec-2011
Idaho Dept. of Water Resources (Mary McGown)	Yes	25-Oct-2011	26-Oct-2011, 29-Nov-2011
Idaho Dept. of Water Resources Eastern Region (Dennis Dunn)	Yes	25-Oct-2011	25-Oct-2011
Idaho Dept. of Agriculture (Gary Bahr)	Yes	25-Oct-2011	16-Nov-2011
Idaho State Historical Society (Suzan Pengilly)	Yes	25-Oct-2011	4-Nov-2011, 22-Dec-2011
USDA-RD (Julie Neff)	Yes	25-Oct-2011	31-Oct-2011
Idaho Dept. of Commerce (Dennis Porter)	Yes	25-Oct-2011	28-Oct-2011
Shoshone-Bannock Tribes (Carolyn Smith)	No	3-Nov-2011	No Response
Shoshone-Paiute Tribe (Ted Howard)	Yes	3-Nov-2011	28-Nov-2011
US Army Corps of Engineers (James Joyner)	Yes	25-Oct-2011	22-Nov-2011, 26-Jan-2012, 15-Mar-2012, 26-Mar-2012
US EPA, Idaho Operations Office (James Wertz)	Yes	25-Oct-2011	23-Nov-2011
US Fish and Wildlife Service (David Kempworth)	Yes	25-Oct-2011	26-Oct-2011

District 7 Health Department (Kellye Eager)	Yes	25-Oct-2011	7-Nov-2011
NRCS District Conservationist (Steve Cote)	Yes	25-Oct-2011	29-Nov-2011, 13-Dec-2011, 6-Jan-2012
Bureau of Land Management (Jeff Foss)	Yes	25-Oct-2011	29-Nov-2011, 30-Nov-2011
The Development Company (Rick Miller)	Yes	25-Oct-2011	7-Nov-2011
Bureau of Land Management (Joe Kraayenbrink)	Yes	25-Oct-2011	29-Nov-2011, 1-Dec-2011

Chapter 10. Mailing List

The mailing addresses used to send the initial letter to the agencies as well as those who attended the city council meetings are listed in Table 10-1.

Table 10-1 – Mailing List

Agency Consulted	Mailing Address	City	State	Zip
Idaho Dept. of Environmental Quality, IFRO	900 N. Skyline Dr., Suite B	Idaho Falls	ID	83402
Idaho Dept. of Environmental Quality, IFRO	900 N. Skyline Dr., Suite B	Idaho Falls	ID	83402
Idaho Dept. of Fish and Game, SE Region	4279 Commerce Circle	Idaho Falls	ID	83402
EPA Region 10, Office of Environmental Assessment	1200 6 th Avenue, OWW 136	Seattle	WA	98101
EPA Region 10	1200 6 th Avenue, OWW 136	Seattle	WA	98101
Idaho Dept. of Water Resources	322 E. Front St.; PO Box 83720	Boise	ID	83720
Idaho Dept. of Water Resources Eastern Region	900 N. Skyline Dr., Suite A	Idaho Falls	ID	83402
Idaho State Historical Society	210 Main St.	Boise	ID	83702
Idaho Dept. of Agriculture	P.O. Box 790	Boise	ID	83701
Shoshone-Bannock Tribes	P.O. Box 306	Fort Hall	ID	83203
Shoshone-Paiute Tribe	P.O. Box 219	Owyhee	NV	89832
US Army Corps of Engineers	900 N. Skyline Dr., Suite A	Idaho Falls	ID	83402
US EPA, Idaho Operations Office	1435 N. Orchard	Boise	ID	83706
US Fish and Wildlife Service	4425 Burley Dr., Suite A	Chubbuck	ID	83202
District 7 Health Department	1250 Hollipark Drive	Idaho Falls	ID	83401
USDA NRCS District Conservationist	125 South Water Street	ARCO	ID	83213
Idaho Dept. of Commerce	700 West State St, PO Box 83720	Boise	ID	83720
USDA - RD	725 Jensen Grove Dr., Suite I	Blackfoot	ID	83221
Bureau of Land Management	1387 S. Vinnell Way	Boise	ID	83709

Bureau of Land Management	1405 Hollipark Dr.	Idaho Falls	ID	83401
The Development Company (Rick Miller and Ted Hendricks)	299 East 4 th North	Rexburg	ID	83440
Mayor of Moore/Board Member (Lin Pearson)	P.O. Box 925	Moore	ID	83255
Board President (Clyde Hymus)	P.O. Box 925	Moore	ID	83255
Board Member (Cleve Hymus)	P.O. Box 925	Moore	ID	83255
Board Member (Jim Beverly)	P.O. Box 925	Moore	ID	83255
Board Member (Hammond Brinton)	P.O. Box 925	Moore	ID	83255
Board Secretary (Arlene Pearson)	P.O. Box 925	Moore	ID	83255
Public – Leon & Phyllis Powell	3135 N. 3360 W.	Moore	ID	83255
Public – Bill & Terry LaBounty	P.O. Box 455	Moore	ID	83255
Public – Fred & Sandra Hays	3155 N. 3360 W.	Moore	ID	83255
Public – Alan Shaffer	3171 N. 3360 W. Apt 629	Moore	ID	83255
Public – Merlin Waddoups	3175 N. 3347 W.	Moore	ID	83255
Public – Gloria Loftus	3131 N. 3350 W.	Moore	ID	83255
Public – Marty MacNeilage	3155 N. 3350 W.	Moore	ID	83255
Public – Faye Kendrick	3156 N. 3170 W.	Moore	ID	83255
Public – Mike & Bonnie Flory	3175 N. 3323 W.	Moore	ID	83255
Public – Fred & Marcia Burt	3193 N. US Hwy 93	Moore	ID	83255
Public – Patricia King	3300 N. 3318 W.	Moore	ID	83255
Public – Gale Dean	3155 N. 3368 W.	Moore	ID	83255
Public – Jackie Beverly	3195 N. 3350 W.	Moore	ID	83255
Public – Tony & Annette Potter	3129 N. 3360 W.	Moore	ID	83255
Public – Bud & Norma Jones	3143 N. 3350 W.	Moore	ID	83255
Public – Leon Powell	3135 N. 3360 W.	Moore	ID	83255
Public – Shayne Loftus	3140 N. 3356 W.	Moore	ID	83255

APPENDIX A: AGENCY CONSULTATION

ENVIRONMENTAL INFORMATION DOCUMENT

MOORE WATER & SEWER ASSOCIATION

CONTENTS

- Agency consultation letter and figure



KELLER
associates

210050



October 25, 2011

Willie Teuscher
Idaho Falls Department of Environmental Quality
900 N. Skyline, Suite B
Idaho Falls, ID 83402

RE: Moore Water & Sewer Association Wastewater Improvements Project - Request for Comments for Preparation of an Environmental Information Document

Dear Sir or Madam,

The Moore Water & Sewer Association in Moore, Idaho is in the final planning phase of developing a wastewater system improvement project which could be in part or fully funded by the Department of Environmental Quality and/or USDA, Rural Development. The purpose of this letter is to request your review and response regarding any environmental impacts that your agency may identify for this proposed project pursuant to the Idaho Department of Environmental Quality's State Environmental Review Process (the State's National Environmental Policy Act like process).

The proposed project includes collection and treatment system improvements. The wastewater treatment improvements consist of rehabilitating the existing total containment lagoons and expanding the existing lagoons. The current lagoons will be cleaned, reshaped, and lined with HDPE liner. The total containment lagoons will be expanded to accommodate the decrease in seepage due to the installation of the liner and provide additional surface area and volume for future wastewater flows. Currently the Association owns 8.5 acres of land, and is programmed to purchase an additional 2-3 acres for the total containment lagoon expansion. The lagoon headworks and transfer piping will also be rehabilitated as part of this project. The wastewater collection improvements will include rehabilitation of the systems 2 lift stations, rehabilitation of the pressure sewer transmission lines, replacement of approximately 1,300 feet of system piping in poor structural condition, and rehabilitation of collection system issues identified by a video inspection.

The project is being proposed to achieve DEQ wastewater system standards, reduce wastewater infiltration into the groundwater supply, address current system deficiencies, and accommodate future wastewater flows. Enclosed with this letter is a map of the proposed project planning area that depicts the proposed project improvements and area of potential impact 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 Moore Water & Sewer Association 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 us at your convenience. Please forward any questions and your comments to:

Colter L Hollingshead
Keller Associates, Inc.
305 North 3rd Ave, Suite A
Pocatello, ID 83201

Email: chollingshead@kellerassociates.com
Phone: (208) 238-2146
Fax: (208) 238-2162

Your comments will be addressed in the final copy of the EID which will be submitted to DEQ for review and approval. Thank you for your time and consideration for these improvements.

Sincerely,
KELLER ASSOCIATES, INC.

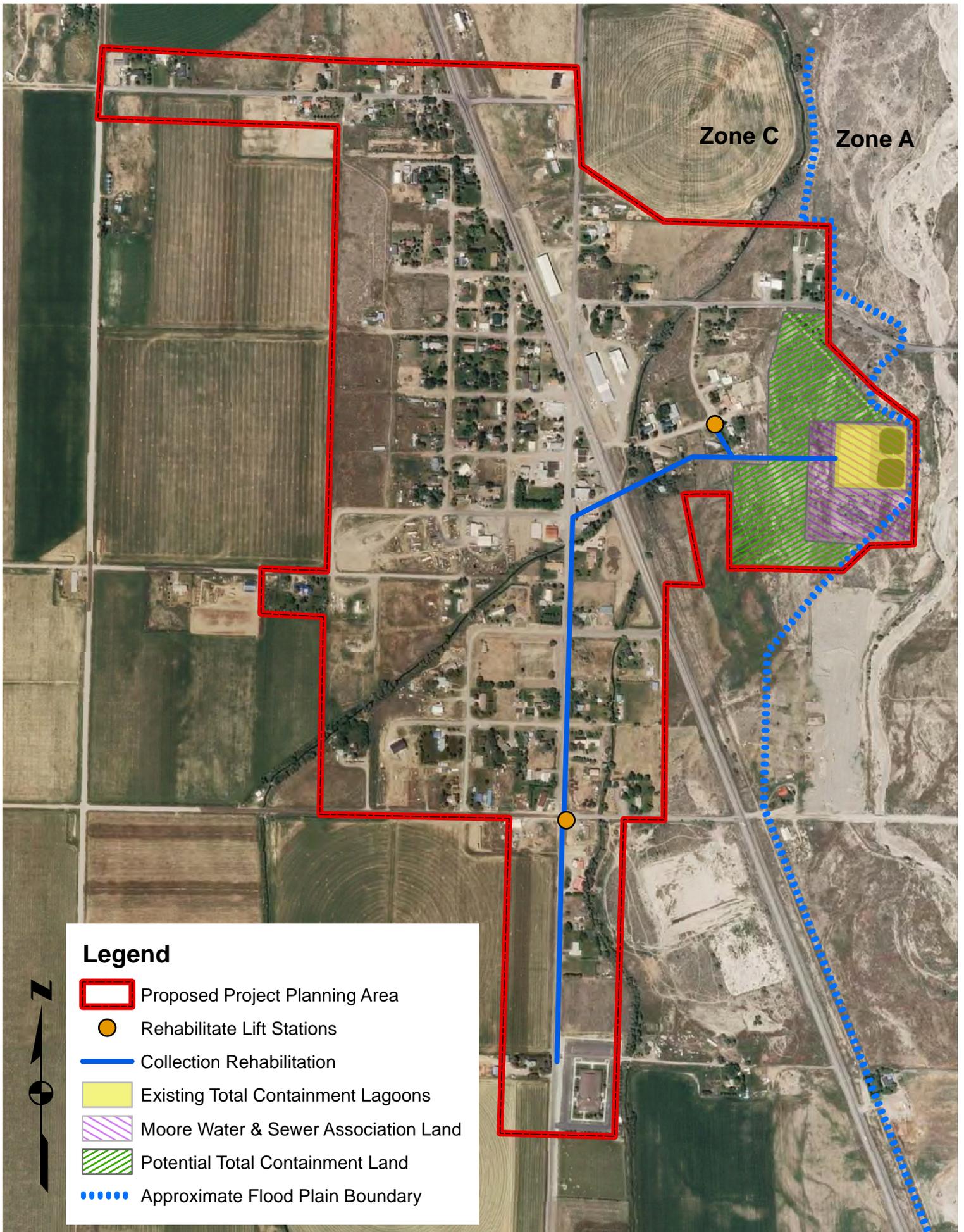


Michael R. Jaglowski, P.E., CPESC
Project Manager



Colter L. Hollingshead, E.I.
Project Engineer

Encl: Map



Moore EID Figure

APPENDIX B: AGENCY RESPONSES AND FOLLOW-UP

ENVIRONMENTAL INFORMATION DOCUMENT MOORE WATER & SEWER ASSOCIATION

CONTENTS

- Agency responses from all of the contacted agencies



KELLER
associates

210050

From: William.Teuscher@deg.idaho.gov
To: [Colter Hollingshead](#)
Subject: RE: Agency Consultation for Moore, Idaho Wastewater Project
Date: Wednesday, October 26, 2011 8:57:10 AM

Colter, After review of the proposed wastewater treatment and collection improvements DEQ has determined that there will be impact to the water quality of the state. The proposed project will be beneficial to minimize any exfiltration the sewer system may currently have to ground or surface water. Thank you for the opportunity to respond and comment.

William Teuscher PE
Water Quality Engineer
IDEQ-IFRO

From: Colter Hollingshead [mailto:chollingshead@kellerassociates.com]
Sent: Tuesday, October 25, 2011 10:37 AM
To: William Teuscher
Subject: Agency Consultation for Moore, Idaho Wastewater Project

Mr. Teuscher,

We are sending this email and the included attachment for your review and response regarding any environmental impacts that your agency may identify for a proposed project in Butte County, Idaho. The proposed project is located in Moore for a Wastewater Improvements Project. Please read through the attached pdf for the project details. We have also mailed a hard copy of the pdf to your office. Please send any questions and your comments to:

Email: chollingshead@kellerassociates.com

Thank you for your time and consideration for these improvements,

Colter Hollingshead, E.I.
Keller Associates, Inc.
305 North 3rd Ave, Suite A
Pocatello, ID 83201
Office (208) 238-2146



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

NOV 14 2011

900 North Skyline Drive, Suite B • Idaho Falls, Idaho 83402 • (208) 528-2650

C.L. "Butch" Otter, Governor
Toni Hardesty, Director

November 9, 2011

Colter L. Hollingshead
Keller Associates, Inc.
305 North 3rd Ave, Suite A
Pocatello, ID 83201

Dear Mr. Hollingshead,

The Idaho Department of Environmental Quality (DEQ) has reviewed the information submitted regarding the City of Moore's plan to make improvements to their existing wastewater system with respects to 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 at all phases of the project is required under Idaho law. Additionally, construction debris and other wastes are strictly prohibited from open burning and need to be properly disposed of in a certified landfill. Idaho law also requires that odor be controlled during the improvement process and after final completion of the project. These are aspects that typically 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,

A handwritten signature in black ink, appearing to read "Ed Jolly".

Ed Jolly
Air Quality Analyst
Idaho Falls Regional Office

c: Rensay Owen – Idaho Falls Regional Air Quality Manager
Source File

OCT 27 2011



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>



OCT 26 2011

Michael R. Jaglowski
Keller Associates
305 North 3rd Avenue, Suite A
Pocatello, Idaho 83201

Subject: Proposed Moore Water & Sewer Association Wastewater Improvement
Project in Butte County, Idaho. 14420-2011-TA-0023

Dear Mr. Jaglowski:

The U.S. Fish and Wildlife Service (Service) is writing in response to your request for information about the potential impacts to endangered, threatened, proposed, and/or candidate species from the proposed Moore Water & Sewer Association wastewater improvement project in Butte County, Idaho. The Service has not identified any issues that indicate that consultation under section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.; (Act)), is needed for this project. This finding is based on our understanding of the nature of the project, local conditions, and/or current information indicating that no listed species are present. If you determine otherwise or require further assistance, please contact Doug Laye of this office at (208)237-6975 ext 103 or Email at Doug_Laye@fws.gov.

Thank you for your interest in endangered species conservation.

Sincerely,

David Kampwerth
Field Supervisor

Grouping	Amphibian	Bird	
Common Name	Columbia spotted frog - Great Basin population	Greater Sage-Grouse	Yellow-billed cuckoo
Scientific Name	<i>Rana luteiventris</i>	<i>Centrocercus urophasianus</i>	<i>Coccyzus americanus</i>
Status	[C]	[C]	[C]
Ada		x	x
Adams		x	
Bannock		x	x
Bear Lake		x	
Benewah			
Bingham		x	x
Blaine		x	x
Boise			x
Bonner			
Bonneville		x	x
Boundary			
Butte		x	
Camas		x	
Canyon			x
Caribou		x	
Cassia		x	x
Clark		x	x
Clearwater			
Custer		x	x
Elmore		x	x
Franklin		x	
Fremont		x	x
Gem		x	
Gooding		x	
Idaho			x
Jefferson		x	x
Jerome		x	
Kootenai			x
Latah			x
Lemhi		x	x
Lewis			x
Lincoln		x	
Madison		x	x
Minidoka		x	x
Nez Perce			
Oneida		x	
Owyhee	x	x	x
Payette		x	
Power		x	
Shoshone			
Teton			
Twin Falls	x	x	x
Valley			
Washington		x	

[C] Candidate

[P] Proposed

[T] Threatened

[E] Endangered

[CH] Designated Critical Habitat

[PCH] Proposed Critical Habitat

Grouping	Mammal			
Common Name	Canada lynx	Grizzly bear	Northern Idaho ground squirrel	Selkirk Mountain caribou
Scientific Name	<i>Lynx canadensis</i>	<i>Ursus arctos horribilis</i>	<i>Spermophilus brunneus brunneus</i>	<i>Rangifer tarandus caribou</i>
Status	[T]	[CH]	[T]	[E]
Ada				
Adams	x		x	
Bannock				
Bear Lake	x			
Benewah	x			
Bingham				
Blaine	x			
Boise	x			
Bonner	x		x	x
Bonneville	x		x	
Boundary	x	x	x	x
Butte	x			
Camas	x			
Canyon				
Caribou	x			
Cassia				
Clark	x		x	
Clearwater	x			
Custer	x			
Elmore	x			
Franklin	x			
Fremont	x		x	
Gem				
Gooding				
Idaho	x			
Jefferson	x			
Jerome				
Kootenai	x			
Latah	x			
Lemhi	x			
Lewis				
Lincoln				
Madison	x			
Minidoka				
Nez Perce	x			
Oneida				
Owyhee				
Payette				
Power				
Shoshone	x			
Teton	x		x	
Twin Falls				
Valley	x		x	
Washington			x	

[C] Candidate

[P] Proposed

[T] Threatened

[E] Endangered

[CH] Designated Critical Habitat

[PCH] Proposed Critical Habitat

Grouping	Mammal	
Common Name	Southern Idaho ground squirrel	Wolverine
Scientific Name	<i>Spermophilus brunneus enemicus</i>	<i>Gulo gulo</i>
Status	[C]	[C]
Ada		X
Adams	X	X
Bannock		X
Bear Lake		X
Benewah		X
Bingham		X
Blaine		X
Boise		X
Bonner		X
Bonneville		X
Boundary		X
Butte		X
Camas		X
Canyon		X
Caribou		X
Cassia		
Clark		X
Clearwater		X
Custer		X
Elmore		X
Franklin		X
Fremont		X
Gem	X	X
Gooding		X
Idaho		X
Jefferson		X
Jerome		
Kootenai		X
Latah		X
Lemhi		X
Lewis		X
Lincoln		X
Madison		X
Minidoka		
Nez Perce		X
Oneida		
Owyhee		
Payette	X	
Power		
Shoshone		X
Teton		X
Twin Falls		X
Valley		X
Washington	X	X

[C] Candidate

[P] Proposed

[T] Threatened

[E] Endangered

[CH] Designated Critical Habitat

[PCH] Proposed Critical Habitat

Grouping	Fish				Mollusk			
	Common Name	Bull trout	Kootenai River white sturgeon	Banbury Springs lanx	Bliss Rapids snail	Bruneau hot springsnail	Snake River physa snail	
Scientific Name	<i>Salvelinus confluentus</i>	<i>Acipenser transmontanus</i>	<i>Lanx sp.</i>	<i>Talorconcha serpenticola</i>	<i>Pyrgolopsis bruneauensis</i>	<i>Haitia (Physa) natricinia</i>		
Status	[T]	[CH]	[E]	[CH]	[E]	[T]	[E]	[E]
Ada	x							x
Adams	x	x						
Bannock								
Bear Lake								
Benewah	x	x						
Bingham								
Blaine	x	x						
Boise	x	x						
Bonner	x	x						
Bonneville								
Boundary	x	x	x	x				
Butte	x	x						
Camas	x	x						
Canyon								x
Caribou								
Cassia								x
Clark								
Clearwater	x	x						
Custer	x	x						
Elmore	x	x				x		x
Franklin								
Fremont								
Gem	x	x						
Gooding					x	x		x
Idaho	x	x						
Jefferson								
Jerome						x		x
Kootenai	x	x						
Latah								
Lemhi	x	x						
Lewis	x	x						
Lincoln								
Madison								
Minidoka								x
Nez Perce	x	x						
Oneida								
Owyhee	x	x				x		x
Payette	x							x
Power								
Shoshone	x	x						
Teton								
Twin Falls					x	x		x
Valley	x	x						
Washington	x	x						x

[C] Candidate

[P] Proposed

[T] Threatened

[E] Endangered

[CH] Designated Critical Habitat

[PCH] Proposed Critical Habitat

Grouping	Plant					
	Common Name	Christ's paintbrush	Goose Creek milkvetch	Macfarlane's four-o'clock	Packard's Milkvetch	Slickspot peppergrass
Scientific Name	<i>Castilleja christii</i>	<i>Astragalus anserrinus</i>	<i>Mirabilis macfarlanei</i>	<i>Astragalus cusickii</i> var. <i>parkardiae</i>	<i>Lepidium papilliferum</i>	
Status	[C]	[C]	[T]	[C]	[T]	[PCH]
Ada					X	X
Adams						
Bannock						
Bear Lake						
Benewah						
Bingham						
Blaine						
Boise						
Bonner						
Bonneville						
Boundary						
Butte						
Camas						
Canyon					X	X
Caribou						
Cassia	X	X				
Clark						
Clearwater						
Custer						
Elmore					X	X
Franklin						
Fremont						
Gem					X	X
Gooding						
Idaho			X			
Jefferson						
Jerome						
Kootenai						
Latah						
Lemhi						
Lewis						
Lincoln						
Madison						
Minidoka						
Nez Perce						
Oneida						
Owyhee					X	X
Payette				X	X	X
Power						
Shoshone						
Teton						
Twin Falls						
Valley						
Washington						

[C] Candidate
[P] Proposed

[T] Threatened
[E] Endangered

[CH] Designated Critical Habitat
[PCH] Proposed Critical Habitat

Grouping	Plant			
	Spalding's catchfly	Ute ladies'-tresses	Water Howellia	Whitebark Pine
Common Name				
Scientific Name	<i>Silene spaldingii</i>	<i>Spiranthese diluvialis</i>	<i>Howellia aquatilis</i>	<i>Pinus albicaulis</i>
Status	[T]	[T]	[T]	[C]
Ada				
Adams				X
Bannock				
Bear Lake				X
Benewah	X		X	
Bingham		X		
Blaine				X
Boise				X
Bonner				X
Bonneville		X		X
Boundary				X
Butte				X
Camas				X
Canyon				
Caribou				X
Cassia				
Clark				X
Clearwater				X
Custer				X
Elmore				X
Franklin				
Fremont		X		X
Gem				X
Gooding				
Idaho	X			X
Jefferson		X		
Jerome				
Kootenai	X		X	
Latah	X		X	
Lemhi				
Lewis	X			
Lincoln				
Madison		X		
Minidoka				
Nez Perce	X			
Oneida				
Owyhee				
Payette				
Power				
Shoshone	X		X	X
Teton				X
Twin Falls				
Valley				X
Washington				X

[C] Candidate
 [P] Proposed

[T] Threatened
 [E] Endangered

[CH] Designated Critical Habitat
 [PCH] Proposed Critical Habitat

From: [Dunn, Dennis](#)
To: [Colter Hollingshead](#)
Subject: Moore Waste Water System
Date: Tuesday, October 25, 2011 2:06:34 PM

Good Afternoon,

The Idaho Department of Water Resources does not have any comments or questions.

Sincerely,
Dennis M. Dunn
Sr. Water Resource Agent, IDWR
(208) 525 7161

From: [Susan Eastman](#)
To: [Colter Hollingshead](#)
Subject: Re: Agency Consultation for Moore, Idaho Wastewater Project
Date: Friday, December 23, 2011 3:58:39 PM

Thank you for submitting your project for review. We have reviewed the information provided and find that the project will not have a significant adverse impact on the Eastern Snake River Plain Sole Source Aquifer and therefore the funding may proceed.

EPA reviews federally financially assisted projects that are proposed in federally designated Sole Source Aquifer review areas to determine if the projects have a potential to contaminate the aquifer through a recharge zone so as to create a significant hazard to public health. Such projects are submitted to EPA by federal, state, and local governments, and by the public.

This correspondence only addresses the Sole Source Aquifer Program, any other federal environmental requirements are your responsibility to ensure compliance. Please retain this email for your records.

Thank You,

Susan Eastman, Environmental Scientist
EPA Region 10
1200 Sixth Ave. Suite 900, OWW-136
Seattle, WA. 98101
SDWA Tribal & CWA Indian Set Aside Program, Sole Source Aquifer Program,
Source Water Protection and ID 106

206-553-6249
EASTMAN.SUSAN@EPA.GOV

From: Colter Hollingshead <chollingshead@Kellerassociates.com>
To: Susan Eastman/R10/USEPA/US@EPA
Date: 12/05/2011 06:39 AM
Subject: Agency Consultation for Moore, Idaho Wastewater Project

Ms. Eastman,

We are sending this email and the included attachment for your review and response regarding any environmental impacts that your agency may identify for a proposed project in Moore, Idaho. We have attached the Sole Source Aquifer Checklist along with the original pdf. Please send any questions and your comments to:

Email: chollingshead@kellerassociates.com

Thank you for your time and consideration for these improvements,

Colter Hollingshead, E.I.
Keller Associates, Inc.
305 North 3rd Ave, Suite A
Pocatello, ID 83201
Office (208) 238-2146

-----Original Message-----

From: Eastman.Susan@epamail.epa.gov [<mailto:Eastman.Susan@epamail.epa.gov>]
Sent: Thursday, October 27, 2011 10:35 AM
To: Colter Hollingshead
Subject: Re: Agency Consultation for Moore, Idaho Wastewater Project

If your project is BOTH... within the review area of a federally designated Sole Source Aquifer AND is receiving federal funding please fill out the attached check list and return to me attached to an email.

(See attached file: R10 Sole Source Aquifer Checklist.doc)

The web site below has map links that should show you whether or not your project is within the review area of a SSA. NOTE: The Source Area is also included in the "review area". Both the boundary and review area are delineated on the maps.

<http://yosemite.epa.gov/r10/water.nsf/Sole+Source+Aquifers/SSA>

Susan Eastman, Environmental Scientist
EPA Region 10
1200 Sixth Ave. Suite 900, OWW-136
Seattle, WA. 98101
SDWA Tribal & CWA Indian Set Aside Program, Sole Source Aquifer Program,
Source Water Protection and ID 106

206-553-6249
EASTMAN.SUSAN@EPA.GOV

From: Colter Hollingshead <chollingshead@Kellerassociates.com>
To: Susan Eastman/R10/USEPA/US@EPA
Date: 10/25/2011 09:56 AM
Subject: Agency Consultation for Moore, Idaho Wastewater Project

Ms. Eastman,

We are sending this email and the included attachment for your review and response regarding any environmental impacts that your agency may identify for a proposed project in Butte County, Idaho. The proposed project is located in Moore for a Wastewater Improvements Project. Please read through the attached pdf for the project details. We have also mailed a hard copy of the pdf to your office. Please send any questions and your comments to:

Email: chollingshead@kellerassociates.com

Thank you for your time and consideration for these improvements,

Colter Hollingshead, E.I.
Keller Associates, Inc.
305 North 3rd Ave, Suite A
Pocatello, ID 83201
Office (208) 238-2146

(See attached file: Agency Consultation Letter EPA-OEA.pdf)
[attachment "Agency Consultation Letter EPA-OEA.pdf" deleted by Susan
Eastman/R10/USEPA/US] [attachment "Sole Source Aquifer Checklist.pdf"
deleted by Susan Eastman/R10/USEPA/US]

From: Lidgard.Michael@epamail.epa.gov
To: [Colter Hollingshead](#)
Subject: Re: Agency Consultation for Moore, Idaho Wastewater Project
Date: Monday, December 05, 2011 9:34:09 AM

Hi Colter: Thank you for your follow up phone call and for forwarding this proposal for wastewater improvement in Moore ID. Our unit has no questions or comments at this time. thanks - Mike L

Mike Lidgard
Manager, NPDES Permits Unit
phone: (206) 553-1755
fax: (206) 553-0165
email: lidgard.michael@epa.gov

From: Colter Hollingshead <chollingshead@Kellerassociates.com>
To: Michael Lidgard/R10/USEPA/US@EPA
Date: 10/25/2011 09:53 AM
Subject: Agency Consultation for Moore, Idaho Wastewater Project

Mr. Lidgard,

We are sending this email and the included attachment for your review and response regarding any environmental impacts that your agency may identify for a proposed project in Butte County, Idaho. The proposed project is located in Moore for a Wastewater Improvements Project. Please read through the attached pdf for the project details. We have also mailed a hard copy of the pdf to your office. Please send any questions and your comments to:

Email: chollingshead@kellerassociates.com

Thank you for your time and consideration for these improvements,

Colter Hollingshead, E.I.
Keller Associates, Inc.
305 North 3rd Ave, Suite A
Pocatello, ID 83201
Office (208) 238-2146

[attachment "Agency Consultation Letter EPA-R10.pdf" deleted by Michael Lidgard/R10/USEPA/US]

From: Lopez.Maria@epamail.epa.gov
To: [Colter Hollingshead](#)
Cc: Wertz.James@epamail.epa.gov
Subject: Moore Water and Sewer Association Wastewater Improvements Project
Date: Wednesday, November 23, 2011 8:41:24 AM

Hi Colter,

Regarding the Moore Water & Sewer Association Wastewater Improvements Project - Request for Comments for Preparation of an Environmental Information Document, we do not have substantial comments regarding this project at this time.

However, the Moore Water & Sewer Association should evaluate their project for federal permitting requirements of construction activities that result in a total land disturbance of equal to or greater than one acre, where those discharges enter surface waters of the United States or a municipal separate storm sewer system (MS4) leading to surface waters of the United States.

Should you have any further questions on this matter, please contact me at the number provided below.

Maria Lopez
Environmental Scientist
Idaho Operations Office
Boise, ID 83706
(208) 378-5616

From: [McGown, Mary](#)
To: [Colter Hollingshead](#)
Subject: RE: Agency Consultation for Moore, Idaho Wastewater Project
Date: Wednesday, October 26, 2011 5:30:09 PM

Mr. Hollingshead,

I have reviewed the information you sent regarding the wastewater treatment plant improvements in Moore. I also looked at the Flood Insurance Rate Map panel for this area (1600330725A). A corner of the Moore Water and Sewer Association land extends into the Special Flood Hazard Area (SFHA) or A zone. Will construction occur on this part of the parcel or will construction be confined to the "Potential Total Containment" land shown on the Moore EID Figure?

Moore is not in the National Flood Insurance Program (NFIP) so is not subject to the minimum regulations of the NFIP. On the FIRM, the Moore City boundaries are not shown as encompassing the sewage treatment ponds. If the wastewater treatment plant is in Butte County and if some construction will occur in the A zone, then a floodplain development permit will need to be acquired from Butte County, which is in the NFIP. If the city has annexed the land, then it should consider enrolling in the National Flood Insurance Program as it now has a mapped flood hazard 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) 287-6700 fax

From: Colter Hollingshead [mailto:chollingshead@kellerassociates.com]
Sent: Tuesday, October 25, 2011 10:48 AM
To: McGown, Mary
Subject: Agency Consultation for Moore, Idaho Wastewater Project

Ms. McGown,

We are sending this email and the included attachment for your review and response regarding any environmental impacts that your agency may identify for a proposed project in Butte County, Idaho. The proposed project is located in Moore for a Wastewater Improvements Project. Please read through the attached pdf for the project details. We have also mailed a hard copy of the pdf to your office. Please send any questions and your comments to:

Email: chollingshead@kellerassociates.com

Thank you for your time and consideration for these improvements,

From: [Bassista, Tom](#)
To: [Colter Hollingshead](#)
Cc: [Schmidt, Steve](#)
Subject: RE: Agency Consultation for Moore, Idaho Wastewater Project
Date: Wednesday, October 26, 2011 2:29:51 PM

Colter:

The Idaho Department of Fish and Game only asks that you follow Idaho's Stream Protection Act and Section 404 of the Federal Clean Water Act when working in stream channel and/or wetlands.

We have no further comments concerning the proposed activity.

Tom P. Bassista
Environmental Staff Biologist

Idaho Department of Fish and Game
Upper Snake Region
4279 Commerce Circle
Idaho Falls, ID 83401
208.525.7290

From: Colter Hollingshead [mailto:chollingshead@kellerassociates.com]
Sent: Tuesday, October 25, 2011 10:50 AM
To: Bassista, Tom
Subject: Agency Consultation for Moore, Idaho Wastewater Project

Mr. Bassista,

We are sending this email and the included attachment for your review and response regarding any environmental impacts that your agency may identify for a proposed project in Butte County, Idaho. The proposed project is located in Moore for a Wastewater Improvements Project. Please read through the attached pdf for the project details. We have also mailed a hard copy of the pdf to your office. Please send any questions and your comments to:

Email: chollingshead@kellerassociates.com

Thank you for your time and consideration for these improvements,

Colter Hollingshead, E.I.
Keller Associates, Inc.
305 North 3rd Ave, Suite A
Pocatello, ID 83201



NOV 21 2011



STATE OF IDAHO

C. L. "BUTCH" OTTER
GOVERNOR
CELIA R. GOULD
DIRECTOR

November 16, 2011

Colter Hollingshead
Keller Associates, Inc.
305 North 3rd Ave, Suite A
Pocatello, ID 83201

Dear Mr. Hollingshead:

Thank you for inquiring with the Idaho State Department of Agriculture (ISDA) with regards to your work with the Moore Water & Sewer Association Wastewater System 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,

A handwritten signature in blue ink that reads "Gary Bahr".

Gary Bahr

Water Quality Programs

PC: Water Program File

From: [Ken Keller](#)
To: [Colter Hollingshead](#)
Subject: Moore water and sewer improvements
Date: Monday, November 07, 2011 10:34:05 AM

Dear Mr. Hollingshead,

Your request for comment regarding improvements to the City of Moore's water and sewer system improvements project were initially sent to Kellye Eager at Eastern Idaho Public Health District. This correspondence was forwarded to Southeastern District Health Department because Butte County is within the boundaries of this district.

This Department does not have any knowledge of any environmental issues that might affect the water and sewer system improvements proposed in the City of Moore, Idaho. If you have any other questions please feel free to contact me.

Sincerely,

Ken Keller

Ken Keller, Registered Environmental Health Specialist
1901 Alvin Ricken Dr., Pocatello, Idaho 83201
Phone: (208) 239-5276
Fax: (208) 234-7169

<http://www.sdhdidaho.org>

The information contained in this e-mail may be privileged, confidential or otherwise protected from disclosure. All persons are advised that they may face penalties under state and federal law for sharing this information with unauthorized individuals. If you received this e-mail in error, please reply to the sender that you have received this information in error. Also, please delete this e-mail after replying to the sender.



**United States Department of Agriculture
Rural Development
Eastern Idaho Area Office**

October 31, 2011

Michael R. Jaglowski P.E., CPESC
Colter L. Hollinghead, E.I.T.
305 North 3rd Avenue, Suite A
Pocatello, ID 83201

SUBJECT: USDA Rural Development comments on the Moore Water & Sewer Association proposed Wastewater Improvements Project

Dear Mike and Colter,

Per your request, with this letter USDA Rural Development provides to you, comments regarding environmental impacts that have the potential to result from construction of the Moore Water & Sewer Association proposed Wastewater Improvements Project.

Please take the following into consideration.

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/RUSmanuals.htm>.

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 Butte County, consultation on cultural and religious sites with the Shoshone Bannock Tribes, and the Shoshone-Paiute Tribes is necessary. Contact information is:

Shoshone-Bannock Tribes
Carolyn Boyer Smith
Cultural Resources Coordinator
PO Box 306, Pima Dr
Ft. Hall, ID 83203
Phone: 208-478-3707

Shoshone-Paiute Tribes
Ted Howard, Director
Cultural Resource Program
PO Box 21
Owyhee, NV 89832
Phone: 702-759-3199 ext. 243
howard.ted@duckvalley.org

725 Jensen Grove Drive, Suite 1, Blackfoot, Idaho 83221
Phone: (208) 785-5840 • Fax: (208) 785-6561 • Web: <http://www.rurdev.usda.gov/id>

Committed to the future of rural communities.

"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).

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.

Please also note that bonds must have a 40-year term for consideration of Rural Development water and waste grants.

We appreciate the opportunity to provide comment and will be happy to work with the Moore Water & Sewer Association to assist 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,

A handwritten signature in cursive script that reads "Julie Neff".

JULIE NEFF
Area Specialist – Community Programs

Enclosure: 1

From: [Sharon Deal](#)
To: [Colter Hollingshead](#)
Subject: Moore Water and Sewer Association Improvement Project.
Date: Friday, October 28, 2011 8:43:39 AM

Colter,

At this time the Department of Commerce as no comment in regards to the Moore Water and Sewer Association project.

Thank you

Sharon Deal
Community Development Specialist
Idaho Department of Commerce
208-334-2650 ext 2137
www.gemstateprospector.com



NOV 04 2011

November 3, 2011

C.L. "Butch" Otter
Governor of Idaho

Janet Gallimore
Executive Director

Administration
2205 Old Penitentiary Road
Boise, Idaho 83712-8250
Office: (208) 334-2682
Fax: (208) 334-2774

Membership and Fund Development
2205 Old Penitentiary Road
Boise, Idaho 83712-8250
Office: (208) 514-2310
Fax: (208) 334-2774

Historical Museum and Education Programs
610 North Julia Davis Drive
Boise, Idaho 83702-7695
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

Old Penitentiary
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

Colter L. Hollingshead
Keller Associates, Inc.
305 North 3rd Ave., Ste A
Pocatello, Idaho 83201

RE: Moore Water and Sewer Association Wastewater Improvements Project

Dear Ms. Hollingshead:

Thank you for requesting our views on the proposed improvements to the Moore wastewater system. The project is located north of Arco in Butte County, Idaho. Improvements include the expansion of the lagoons, rehabilitation of the two lift stations, and replacement of 1300 feet of collection piping.

Our records show that the project is located in an area where archaeological sites may exist, and no archaeological surveys have been conducted there in the past. We are therefore recommending an archaeological survey of the project components noted above, and any others that may result in new ground disturbance. While the archaeologist is present, the potential total containment land should also be surveyed, even though construction may not immediately be scheduled for the entire acreage. The survey should be conducted when ground visibility is good, and a report should be 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 and
Compliance Coordinator





C.L. "Butch" Otter
Governor of Idaho

Janet Gallimore
Executive Director

Administration
2205 Old Penitentiary Road
Boise, Idaho 83712-8250
Office: (208) 334-2682
Fax: (208) 334-2774

Membership and Fund
Development
2205 Old Penitentiary Road
Boise, Idaho 83712-8250
Office: (208) 514-2310
Fax: (208) 334-2774

Historical Museum and
Education Programs
610 North Julia Davis Drive
Boise, Idaho 83702-7695
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

Old Penitentiary
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



Historical Society is an
Equal Opportunity Employer.

DATE: December 21, 2011

TO: Colter L. Hollingshead, Keller Associations

FEDERAL AGENCY: EPA

PROJECT NAME: Moore Wastewater Improvement Project; Archaeological Survey by Stephanie Crockett, Cultural Resource Consulting, Victor, Idaho, dated 15 Dec 11

Section 106 Evaluation

- The field work and documentation presented in this report meet the Secretary of the Interior's Standards.
- No additional investigations are recommended. Project can proceed as planned.
Additional information is required to complete the project review. (See comments below.)
Additional investigations are recommended. (See comments below).

Identification of Historic Properties (36 CFR 900.4):

- No historic properties were identified within the project area.
- Properties are not eligible. Reason: Lack of integrity.
Property is eligible for listing in the National Register of Historic Places.
Criterion: _ A _ B _ C _ D Context for Evaluation:
- No historic properties* will be affected within the project area.

Assessment of Adverse Effects (36 CFR 800.5):

- Project will have *no adverse effect* on historic properties.
- Property will have an *adverse effect* on historic properties. Additional consultation is required.

Comments:

Your archaeological consultant should be notified immediately if archaeological remains are discovered during project construction.

**Susan Pengilly, Deputy SHPO
State Historic Preservation Office**

**December 21, 2011
Date**

From: Ester.Ceja@deq.idaho.gov
To: [Colter Hollingshead](#)
Subject: RE: Moore Water & Sewer Association Wastewater Improvement Project Update
Date: Monday, March 19, 2012 11:12:18 AM

Colter,

I received a response from Ted Howard of which I do believe was forwarded to you, if you could please double-check. The Shoshone Bannock Tribe has not responded to our request for comment. So please move forward with finalizing the document noting that the Shoshone Bannock Tribe did not provide comments and incorporating the Corps response.

Please email me 1 electronic copy. If the document is too large, I can download from the Keller FTP site if you can upload onto the site.

Thank you,
Ester Ceja

From: Colter Hollingshead [mailto:chollingshead@Kellerassociates.com]
Sent: Monday, March 19, 2012 11:06 AM
To: Ester Ceja
Subject: RE: Moore Water & Sewer Association Wastewater Improvement Project Update

Ester,

I met with the Corps onsite last week and should be receiving their determination letter within the next couple of days. We are planning on submitting the EID to you for your review later this week, once we have incorporated their comments into the EID. Did you hear back from the Shoshone Bannock Tribes? How many copies of the EID would you like?

Thank you,

Colter L. Hollingshead, E.I.
Project Engineer | Keller Associates, Inc.
P 208.238.2146 | C 307.679.6310

From: Ester.Ceja@deq.idaho.gov [mailto:Ester.Ceja@deq.idaho.gov]
Sent: Friday, January 06, 2012 10:44 AM
To: Colter Hollingshead
Cc: Michael Jaglowski
Subject: RE: Moore Water & Sewer Association Wastewater Improvement Project Update

Colter,

Good morning. I have not heard from the Tribes. I will follow up with them one last time today and see if we don't hear from them. If I don't hear from them by Monday at 5pm I will let you know. Other than that please submit an EID once you have received the Corps correspondence and have incorporated their correspondence in the EID.

From: Ester.Ceja@deg.idaho.gov
To: [Colter Hollingshead](#)
Subject: FW: Moore Water & Sewer Association Wastewater Improvement Project
Date: Monday, November 28, 2011 4:02:10 PM

Colter,

I received a response from the Shoshone Paiute Tribe. Please incorporate this into the EID you are developing.

Thank you,
Ester

From: Ted Howard [mailto:howard.ted@shopai.org]
Sent: Monday, November 28, 2011 3:54 PM
To: Ester Ceja
Subject: Moore Water & Sewer Association Wastewater Improvement Project

Dear Ms. Ceja

I have reviewed the information regarding this proposal. This entire project appears to be in a predisturbed area, and the chance of encountering a Native American site is very low. i am unaware of any sites in that area. If there are Native American sites or burials discovered, stop all work and please contact my office at the sametime that you notify the SHPOs office.

Sincerely,

Ted Howard

Director, Cultural Resources
Shoshone-Paiute Tribes
P.O. Box 219
Owyhee, Nevada 89832
Wk. (208) 759-3100 ext. 243
Fx. (208) 759-3202
Cell (208) 871-7064

IMPORTANT: This e-mail transmission and the attached files accompanying within may contain confidential formation belonging to the sender, which is protected. This information is intended only for the use of the individual named within this designated e-mail. If you are not the intended recipient, you are hereby notified that any disclosure, copying, distribution, or the taking of action in reliance on the contents of this information is strictly prohibited and may be unlawful. If you have received this e-mail transmission in error, please immediately notify us by replying to this message and then delete it from your system. Finally, the recipient should check this email and any attachments for the presence of viruses. The sender accepts no liability for any damage caused by any virus transmitted by this email. You should prudently carry out your own virus screening checks before opening any attachments. Thank you.

From: [Mayes, Eric V](#)
To: [Colter Hollingshead](#)
Subject: RE: Agency Consultation for Moore, Idaho Wastewater Improvements Project
Date: Wednesday, November 30, 2011 5:19:31 PM

Hello Colter,

Thanks for sending me this letter. I contacted the hydrologist in our Idaho Falls office who had already received a similar request for a response from your company, so he was familiar with Moore's wastewater improvement project. I also talked to some of the resource specialists here at our state office. After review, it appears that the project area does not involve public land managed by the Bureau of Land Management, so at this time, we have no comment regarding the project. If you have any further questions, or any information regarding the involvement of public lands, please feel free to contact me.

Thank you for including us when requesting input on projects like this.

Eric

Eric Mayes
NEPA Specialist
BLM Idaho State Office
208-373-4050
emayes@blm.gov

*****Confidentiality Notice-Privacy Act Information*****

This email may contain PRIVACY ACT or otherwise sensitive data which is intended for the addressee only. It may also contain information that is privileged, confidential, or otherwise protected from disclosure under applicable laws.

*****PLEASE HANDLE WITH DISCRETION*****

From: Colter Hollingshead [<mailto:chollingshead@Kellerassociates.com>]
Sent: Wednesday, November 30, 2011 9:19 AM
To: Mayes, Eric V
Subject: Agency Consultation for Moore, Idaho Wastewater Improvements Project

Mr. Mayes,

We are sending this email and the included attachment for your review and response regarding any environmental impacts that your agency may identify for a proposed project in Butte County, Idaho. The proposed project is located in Moore for a Wastewater Improvements Project. Please read through the attached pdf for the project details. Please send any questions and your comments to:

Email: chollingshead@kellerassociates.com

Thank you for your time and consideration for these improvements,

Colter Hollingshead, E.I.

From: [Casterson, Jeremy Q](#)
To: [Colter Hollingshead](#)
Subject: RE: Agency Consultation for Moore, Idaho
Date: Thursday, December 01, 2011 9:23:12 AM

Colter: The Idaho Falls District of the BLM has no comments on the project near Moore, ID at this time. Thanks for the opportunity to comment.

Jeremy Casterson
Field Manager
Upper Snake Field Office
(208) 524-7555

From: Colter Hollingshead [mailto:chollingshead@Kellerassociates.com]
Sent: Wednesday, November 30, 2011 4:25 PM
To: Casterson, Jeremy Q
Subject: Agency Consultation for Moore, Idaho

Jeremy,

I received your voicemails this afternoon, thank you for getting back to us so quickly.

Would you or the regional environmental specialist be willing to send us an email stating that your agency has no comments at this time, so that we can document it in the Environmental Information Document? I have attached a copy of the original letter sent.

Thank you for your time,

Colter

Colter Hollingshead, E.I.
Keller Associates, Inc.
305 North 3rd Ave, Suite A
Pocatello, ID 83201
Office (208) 238-2146

From: [Rick Miller](#)
To: [Colter Hollingshead](#); [Michael Jaglowski](#)
Subject: Moore Water & Sewer Association
Date: Monday, November 07, 2011 10:57:31 AM

Michael and Colter,

In regards to your letter dated October 25, 2011 requesting comments for the EID document for the Moore Water & Sewer Association wastewater treatment improvements, we seen no adverse environmental effects detailing the project. Furthermore we support the association in their efforts to complete and satisfactory project for the Moore residents.

Thank you,

Rick J. Miller

Project Manager

The Development Company

Mobile 📱 (208) 390-3238 | Phone 📞 (208)356-4524 x. 314 | Fax 📠 (208) 356-4544

Email ✉️ rick.miller@ecipda.net

From: Cote, Steve - NRCS, Arco, ID
To: [Colter Hollingshead](mailto:Colter.Hollingshead)
Subject: RE: Agency Consultation for Moore, Idaho Wastewater Project
Date: Friday, January 06, 2012 9:16:01 AM

Dear Keller Associates,

Having reviewed the project description and locations map you sent us on the Moore water and sewer project, NRCS does not have any concerns regarding resource impacts from the project, in fact the impacts should be quite positive regarding groundwater protection. We have not reviewed the project in terms of adequacy of design regarding engineering of pipes and liners and structures. Sincerely, Steve Cote , District Conservationist

From: Colter Hollingshead [<mailto:chollingshead@kellerassociates.com>]
Sent: Thursday, January 05, 2012 5:17 PM
To: Cote, Steve - NRCS, Arco, ID
Subject: FW: Agency Consultation for Moore, Idaho Wastewater Project

Mr. Cote,

After our phone call this afternoon, I thought I would resend you the project description. A short email stating your agencies concerns with the project will be sufficient.

Thank you for your time,

Colter Hollingshead, E.I.
Keller Associates, Inc.
305 North 3rd Ave, Suite A
Pocatello, ID 83201
Office (208) 238-2146

From: Colter Hollingshead
Sent: Tuesday, October 25, 2011 11:07 AM
To: 'Steve.Cote@id.usda.gov'
Subject: Agency Consultation for Moore, Idaho Wastewater Project

Mr. Cote,

We are sending this email and the included attachment for your review and response regarding any environmental impacts that your agency may identify for a proposed project in Butte County, Idaho. The proposed project is located in Moore for a Wastewater Improvements Project. Please read through the attached pdf for the project details. We have also mailed a hard copy of the pdf to your office. Please send any questions and your comments to:

Email: chollingshead@kellerassociates.com

Thank you for your time and consideration for these improvements,

JAN 26 2012



DEPARTMENT OF THE ARMY
WALLA WALLA DISTRICT, CORPS OF ENGINEERS
BOISE REGULATORY OFFICE
10095 W Emerald Street
Boise, ID 83704-9754

January 20, 2012

Regulatory Division

SUBJECT: NWW-2011-505, Moore Water & Sewer Improvement

Colter L. Hollingshead
Keller Associates, Inc.
305 North 3rd Ave., Suite A
Pocatello, ID 83201

Dear Mr. Hollingshead:

This letter is in response to your request, dated October 26, 2011, for the Department of the Army (DA), Corps of Engineers (Corps) to review and provide comment regarding the Moore Water & Sewer Association final planning phase to develop a wastewater system improvement project. The proposed project is located in Butte County; Moore, Idaho. Your request has been assigned file number **NWW-2011-505**, which should be referred to in all future correspondence with our office regarding the proposed project.

The Department of Army exerts regulatory jurisdiction over Waters of the United States, including wetlands, pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344) and Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).

Section 404 requires a DA permit be obtained prior to discharging dredged and/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. Section 10 requires that a DA permit be obtained prior to building structures or conducting work in or affecting navigable waters of the U.S. Section 10 waters are those navigable waters that have been specifically identified by the DA under the authority of the Rivers and Harbors Act.

Based on our review of the information you provided, it appears the replacement of the 1,700 feet of system piping may impact an unnamed irrigation canal at three locations. In addition, according to the U.S. Fish & Wildlife Service's National Wetlands Inventory, a small wetland may exist immediately north and one south of the existing lagoons within the proposed expansion area. Information you provided and in-house information is however, not enough for us to determine if these features are subject to our jurisdiction.

Therefore, we recommend you have the project site inspected by a professional wetland consultant and have these features investigated. The canal should be traced from its origin to where it discharges to another water, such as the Big Lost River or its terminus. The wetland(s) should be evaluated to see if they meet the parameters to be classified as a wetland and determine its proximity to the Big Lost River. The selected consultant should be knowledgeable in the identification of and Corps methodology for delineating wetlands and Waters of the United States.

If it is determined the proposed project site contains wetlands and/or waters that may be subject to Corps jurisdiction, a map showing the location of these areas should be submitted for our review and concurrence. The delineation sampling points and information must be recorded on the ***Arid West Wetland Determination Data Form***. An electronic version(s) of this form is located at www.nww.usace.army.mil/html/offices/op/rf/WetlandDataForm_AridWest.pdf.

Furthermore, if the project will involve the discharge of dredged and/or fill material into waters of the United States, including wetlands and/or any work in or affecting navigable Waters of the U.S., a DA permit will be required prior to the start of construction and you will need to complete and submit a permit application for processing and evaluation. Our Joint Application for Permit form, an instruction guide on proper completion of the form and a guide providing examples of the types of maps and drawings can be found on our website, located at http://www.nww.usace.army.mil/html/offices/op/rf/joint_app.asp.

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 our web site at www.nww.usace.army.mil/html/offices/op/rf/survey.asp and complete an electronic version of our Customer Service Survey form.

Please contact Ms. Jamie Howard telephone at (208) 345-2155, by mail at the address in the above letterhead, or via e-mail at jamie.n.howard@usace.army.mil if you have any questions regarding the information contained in this letter.

Sincerely,


Mr. Gregory J. Martinez
Regulatory Project Manager



U.S. Fish and Wildlife Service National Wetlands Inventory

NWW-2011-00505

Jan 19, 2012



- 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:
Moore Sewer & Waste Improvements (Scoping LTR)



DEPARTMENT OF THE ARMY
WALLA WALLA DISTRICT, CORPS OF ENGINEERS
BOISE REGULATORY OFFICE
10095 W Emerald Street
Boise, Idaho 83704-9754

March 26, 2012

Regulatory Division

SUBJECT: NWW-2011-00505, Moore Water and Sewer Association

Mr. Colter L. Hollingshead
305 N 3rd Avenue, Suite A
Pocatello, Idaho 83201

Dear Mr. Hollingshead:

This letter is in response to your February 22, 2012, request on behalf of Moore Water and Sewer Association for a Department of Army (DA) Approved Jurisdictional Determination (Approved JD) for waters of the United States, including wetlands, for your proposed project site. The project is located within Section 28, Township 5 North, Range 26 East, near latitude 43.7346^o N, longitude -116.3598^o W, in Butte County, City of Moore, Idaho.

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). This section requires a DA permit be obtained prior to discharging dredged and/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.

For regulatory purposes, the Corps of Engineers defines wetlands as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

Based on our review of the information you provided, additional information available to our office, and our March 15, 2012 site inspection, we have determined that the above-referenced property is upland that does not contain wetlands or waters of the United States, under the Corps regulatory jurisdiction. No indicators of wetland hydrology, hydric soils, and hydrophytic vegetation, or the presence of an ordinary high water mark were found to exist within the review area. Therefore, a DA permit is not required to develop the upland property.

This approved JD is valid for a period of five (5) years from the date of this letter, unless new information supporting a revision (as further specified by paragraph 1.a. of Regulatory Guidance Letter No.05-02 dated June 14, 2005), 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 United States, 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 JD. Should you disagree with certain terms and/or conditions of this DA Approved JD, the RFA outlines the steps to take to file your objection.

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria under 33 CFR Part 331.5, and that it has been received by the Division Office within 60 days from the date of the RFA. Should you decide to submit an RFA form, it must be received by the Northwest Division Office address below no later than Friday, May 25, 2012:

U.S. ARMY CORPS OF ENGINEERS
Northwest Division
ATTN: Appeal Review Officer
PO Box 2870
Portland, OR 97208-2870

It is not necessary to submit an RFA Form to the District or Division Offices if you do not object to the determination in this letter.

This delineation has been conducted to identify the limits of the Corps' Clean Water Act jurisdiction for the particular site identified in this request. This delineation may not be valid for the wetland conservation provisions of the Food Security Act of 1985, as amended. If you or your tenant are U. S. Department of Agriculture (USDA) program participants, or anticipate participation in the USDA programs, you should request a certified wetland determination from the local office of the Natural Resources Conservation Service prior to starting work.

This determination applies only to DA permitting jurisdiction and does not authorize any injury to property or excuse you from compliance with other Federal, State, or local statutes, ordinances, regulations, or requirements which may affect this property or work you may propose to conduct on the property.

We appreciate your cooperation with the Corps of Engineers' Regulatory Program. If you have any questions about this determination, please contact Ms. Jamie Howard by telephone at (208) 345-2155 or via e-mail at jamie.n.howard@usace.army.mil.

Sincerely,



Nicholle Braspennickx
Project Manager, Regulatory Division

Enclosure

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): March 15, 2012

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Walla Walla District; NWW-2011-00505, Moore Water & Sewer Association, Wastewater Improvement

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: IDAHO County/parish/borough: BUTTE City: MOORE
Center coordinates of site (lat/long in degree decimal format): 43.7346° Lat. -116.3598° Long.
Universal Transverse Mercator: Zone 11 Northing N, Easting E.

Name of nearest waterbody: BIG LOST RIVER

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows:

Name of watershed or Hydrologic Unit Code (HUC): HUC 17040218; PNW/Upper Snake/Big Lost, ID

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: March 22, 2012

Field Determination. Date(s): March 15, 2012

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 waters² (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: 0.0 linear feet: 0.0 width (ft) and/or 0.0 acres,

Wetlands: 0.0 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: NWI map (1981) indicates three separate wetlands (PEMC; PSSA; PUSKx) were present within proposed project site area (approx. 10+ acres around lagoons). Site visit and delineation found the NWI map to be inaccurate with current field conditions; entire project site to be located in uplands, with no OHW mark/line, hydrophytic vegetation, hydric soil or hydrology present; dominate vegetation is a sagebrush-steppe community.

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.

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Moore Water and Sewer Association	File Number: NWW-2012-00505	Date: 26 MAR 2012
Attached is:		<i>See Section Below</i>
<input type="checkbox"/>	INITIAL PROFFERED PERMIT (Standard Permit or Letter of Permission)	A
<input type="checkbox"/>	PROFFERED PERMIT (Standard Permit or Letter of Permission)	B
<input type="checkbox"/>	PERMIT DENIAL	C
<input checked="" type="checkbox"/>	APPROVED JURISDICTIONAL DETERMINATION	D
<input type="checkbox"/>	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 PERMIT

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: David B. Barrows
Regulatory Division Walla Walla District
201 North 3rd Avenue
Walla Walla, Washington 99362-1876
Telephone (509) 527-7150

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

U.S. Army Corps of Engineers
Northwestern Division
Attn: David Gesl, Appeal 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:



© 2012 Google

Image USDA Farm Service Agency

87

43°44'04.84" N 113°21'34.73" W elev 5469 ft



Legend

-  Proposed Project Planning Area
-  Proposed Total Containment Lagoon Area
-  Moore Property

PROJECT NO. 210050
 FILENAME

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

KELLER ASSOCIATES

Moore Water & Sewer Association

Environmental Information Document
 Lagoon Expansion Details

FIGURE NO.
4-5

APPENDIX C: PUBLIC PARTICIPATION

ENVIRONMENTAL INFORMATION DOCUMENT

MOORE WATER & SEWER ASSOCIATION

CONTENTS

- Legal Notice
- Presentations
- Meeting Minutes



KELLER
associates

210050

Legal Notices

Because the public must know

LEGAL NOTICE LEGAL NOTICE

Notice of 30 Day Public Comment Period and Public Open House for the Wastewater Facilities Planning Study

The Moore Water & Sewer Association in Moore, Idaho is currently in the process of developing a 40-year planning document to address the needs of the wastewater system. As part of this process, the public is invited to review a draft version of the study at 3328 W 3175 N, for a period of 30 days beginning September 20, 2011 and ending October 20, 2011.

At the conclusion of this 30-day comment period, the Association will hold an open house to discuss the study outcomes and the proposed improvements to the wastewater system. The open house will be held:

November 1st at 6:00 PM
Lost River Fire Protection District
3150 N 3350 W
Moore, Idaho

Citizens may also send written comments before the open house to any one of the following:

- Clyde Hymas – email – chymas@gmail.com
- Cleve Hymas – email – chymas@atcnet.net
- Lin Pearson – email – pearsonlhas@gmail.com
- Jim Beverly

Individuals with disabilities, who require special accommodations to attend the open house or otherwise participate in the public comment period, must make a request with the Association at least seven (7) business days before the meeting by contacting the Moore Water & Sewer Association at (208) 589-4182.
(Pub. Sept. 22, 2011)

MOORE WATER & SEWER
ASSOCIATION WASTEWATER
FACILITIES PLANNING STUDY

09/13/2011 Community Advisory Committee Meeting

Discussion Outline

- 1 Introductions (Please Sign In)
- 2 CAC's Role
- 3 Wastewater 101 (Separate Handout)
- 4 Background
 - Wastewater Facilities Planning Study
 - Wastewater System Overview
 - Summary of System Deficiencies
 - Summary of Regulatory Issues
- 5 Solutions
 - Collection System
 - Treatment System
 - Total Containment
 - Land Application

The CAC's Role

- CAC Works with Keller Associates to Make a Recommendation to the City
- Help Educate the Public
- Assignment – Consider the Following Questions
 - 1 What kind of solution is Moore interested in pursuing?
 - 2 Would expansion of the lagoon system be received in a positive or negative way?
 - 3 How is a land application alternative perceived?
 - 4 How is obtaining a discharge permit received?
 - 5 What is wastewater treatment worth to you?

Wastewater Facilities Planning Study

- Inventory Existing Wastewater System
- Evaluate Existing Systems Condition & Performance
- System Analysis
 - Assess Capacity
 - Identify Deficiencies
 - Evaluate Future Facility Needs
 - Anticipate Future Regulatory Requirements
- Develop Capital Improvement Plan
 - Evaluate Current & Future Needs
 - Identify the Preferred Alternative Solution
 - Assess the Financial Impacts of the Preferred Alternative

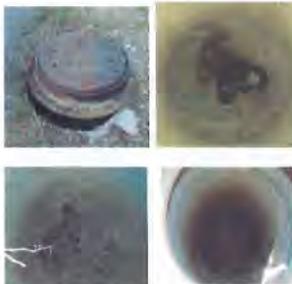
Wastewater System Overview

- System Consists of:
 - Collection System
 - Gravity Collection Piping
 - Two Lift Stations
 - Pressure Lines from Lift Stations
 - Treatment System
 - 3 Cell Lagoon System
 - Total Containment Lagoons
 - Cell 1 Has a Compromised Liner
- Original Construction – 1971



Collection System Issues

- Collection Piping
 - Unknown Manhole Locations
 - A Few Manholes Should Be Repaired/Replaced
 - Should be Cleaned/Video Inspected
- Lift Stations
 - Need to be Rehabilitated or Replaced



Treatment System Issues

- ❑ Cell 1 Out of Service
 - ❑ Previous Attempts to Rehabilitate the Liner Have Failed
 - ❑ Infiltration Rates of This Lagoon Cell Are Very High
 - ❑ Used in the Summer As Emergency Discharge Area
- ❑ Springtime Overflow
 - ❑ Since Cell 1 has Been Out of Service Cells 2 and 3 Have Flowed Over Their Banks in the Spring
 - ❑ Untreated Wastewater Being Discharged Could Lead to EPA Violations and Fines




Collection System Solution Paths

1. Rehabilitate Lift Station
 - ❑ Rehabilitate the Lift Stations While Leaving the Wet Wells in Place
2. Clean & Video Inspect Collection System
 - ❑ Locate & Open All Manholes
 - ❑ Procure Inspection & Cleaning Services
3. Rehabilitate/Replace Dilapidated Manholes
 - ❑ Do Nothing




Treatment System Solution Paths

1. Total Containment
 - ❑ Influent is Completely Contained in Evaporative Lagoons
 - ❑ No NPDES Permit Required
2. Beneficial WW Reuse
 - ❑ Treated Effluent can be Used for Irrigation
 - ❑ No NPDES Permit Required
 - ❑ Permitting Through Idaho DEQ




Treatment System Solution Paths

3. River Discharge
 - ❑ Treated Effluent Discharged into Big Lost River
 - ❑ Requires a NPDES Permit
 - ❑ Expansion of System is Dependant Upon Discharge Requirements
4. Do Nothing
 - ❑ Illicit Discharge - Fines
 - ❑ Compromise Public Health
 - ❑ Compromise Structural Integrity of Lagoons




Total Containment Lagoon Solution Path

- ❑ Likely Lagoon Upgrades
 - ❑ Expansion of Lagoon System
 - ❑ Line the Lagoons
- ❑ Possible Operation Upgrades
- ❑ New Facilities
 - ❑ Additional Land
 - ❑ Well




Beneficial Use Solution Path

- ❑ Likely Lagoon Upgrades
 - ❑ Possible Mechanical Upgrades
 - ❑ Increase Lagoon Storage
- ❑ Operation Upgrades
 - ❑ Minimize Biological Growth
- ❑ New Facilities
 - ❑ Additional Land
 - ❑ Pumping Station & Transmission Line
 - ❑ Irrigation Equipment




River Discharge Solution Path

- Discharge Limits are Based on Receiving Water
 - Would Need to File for a National Pollution Discharge Elimination System Permit (NPDES)
 - Permits Can be Difficult to Obtain
 - Could Only be Discharged When Water is Flowing in Big Lost River
 - Would Require an Advanced Treatment System
 - Future Treatment Requirements are Uncertain




Solution Evaluation – Advantages

Land Application	Total Containment Lagoons	NPDES
<ul style="list-style-type: none"> □ Beneficial Reuse □ Low Treatment Requirements □ Can be Used for Agricultural Use □ Future Treatment Uncertainty is Low □ Long Term Solution 	<ul style="list-style-type: none"> □ No Treatment Requirements □ No Additional Equipment Necessary □ Associated O&M are Relatively Low □ Long Term Solution 	<ul style="list-style-type: none"> □ Effluent Does Not Need to be Pumped □ Additional Storage may not be Needed □ Smaller Footprint



Solution Evaluation – Disadvantages

Land Application	Total Containment Lagoons	NPDES
<ul style="list-style-type: none"> □ Land Requirement □ Increased O&M Costs □ Potential Odor Depending on Application Site □ Treatment Requirements □ Additional Equipment Needed □ Additional Operator Certification 	<ul style="list-style-type: none"> □ Land Requirement □ Increased O&M Costs □ Requires Power and Well at Lagoon Site □ Fixed Amount of Storage Capacity 	<ul style="list-style-type: none"> □ Applying for NPDES Permit □ Increased O&M Costs □ Installation of Advanced System □ Uncertainty in Future Requirements



Questions



Michael Jaglowski PE, CPESC
 mjaglowski@kellerassociates.com

Colter Hollingshead EI
 chollingshead@kellerassociates.com

305 N. 3rd Ave. Suite A
 Pocatello, ID 83201
 208.238.2146



**MOORE WATER & SEWER
ASSOCIATION WASTEWATER
FACILITIES PLANNING STUDY**

09/19/2011 Community Advisory Committee Meeting

Discussion Outline

1. Introductions (Please Sign In)
2. Review of Previous Meeting
3. Alternative Treatment Solution Paths
 - Do Nothing
 - River Discharge
 - Land Application
 - Total Containment
4. Collection System Alternatives
 - Lift Stations
 - System Rehabilitation
 - Pressure Sewer Line Rehabilitation
5. Assignments

Treatment Alternatives

1. Do Nothing
 - Does not Bring About Compliance with Wastewater Regulations
 - Potential for Fines
2. River Discharge
 - Apply for NPDES Permit
 - Will Require Upgrades to Discharge
 - Requirements May Vary in the Future
3. Land Application
 - Additional Land Needed
 - Expand Current Lagoons
 - Develop Pumping to Application Site
 - Develop Land Application Site
 - Long Term Solution
4. Total Containment
 - Expand Current Lagoons
 - Use All of the Lagoons
 - Wellhead on Site
 - Long Term Solution




Treatment Alternative -River Discharge

1. Immediate Action
 - Estimated Project Cost ~ \$2.1 Million
 - Apply for NPDES Discharge Permit
 - Depending on Required Limits May Need a New System Before Discharging Can Begin
 - Construct New Discharge Piping to Big Lost River
 - River Discharge Requires Discharging Directly into the Big Lost River (Est. Cost ~\$100,000)
 - Operation Adjustments
 - Biosolids (Sludge) Removal (Est. Cost ~\$80,000)
 - Reshape and Line Current Lagoons (Est. Cost ~\$230,000)
2. Future Action
 - NPDES Discharge Permit Renewal
 - Renewal of Permit Will Likely Include More Stringent Treatment Limits
 - Mechanical Treatment (Est. Cost ~\$3 Million)
 - May be Necessary to Achieve Potential Future Permit Limits (i.e. Phosphorus, Reduction of BOD & TSS)



Treatment Alternative – Land Application

1. Immediate Action
 - Estimated Project Cost = \$1.9 Million
 - Winter Storage Lagoon
 - Additional Treatment Needed to Land Apply
 - Application Site
 - Approximately 5-10 Acres Needed
 - Pumping and Transmission
 - Construct a Pump Station
 - Transmission Line From Storage Lagoon to Land App Site
 - Irrigation Equipment (Pumps, Piping, Sprinkler Lines)
2. Future Action
 - Continued Operation of Land Application




Treatment Alternative – Total Containment

1. Immediate Action
 - Estimated Project Cost = \$1.63 Million
 - Construct New Total Containment Lagoon
 - Additional 3.5-4.0 Acres Needed
 - Determining Area to be Developed
 - Operation Adjustments
 - Biosolids (Sludge) Removal
 - Lining of Current Lagoons / New Lagoon
 - Apply for Well Permit at Lagoon Site
2. Future Action
 - Continued O&M of Total Containment Lagoons



Collection System Improvements

- Lift Station
 - Rehabilitate Both Lift Stations
 - Replace Pumps & Motors
 - Electrical Equipment
 - Estimated Cost - \$170,000
 - Replace Both Lift Stations
 - Replace Wet Wells
 - Replace Pumps & Motors
 - Electrical Equipment
 - Estimated Cost - \$200,000
- Collection System
 - Locate and Make All Manholes Accessible
 - Video Inspection (Est. Cost - \$35,000)
 - Pressure Sewer Rehab (Est. Cost - \$80,000)
 - Identified System Rehab
 - Estimated Cost - \$200,000




Cost Summary

- Do Nothing
 - Estimated Cost – Potentially Large \$\$\$\$\$
- River Discharge
 - Applying for NPDES Permit
 - Lagoon Improvements or Mechanical Plant
 - -\$1.5 to \$3.0 Million
- Land Application
 - Estimated Project Cost - \$1.9 to \$2.3 Million
- Total Containment
 - Estimated Project Cost - \$1.7 Million
- Cost to Users
 - Repayment is approximately \$3.60 per EDU per \$100,000 borrowed
 - (at 1.75% for 30 years)



Questions



Michael Jaglowski PE, CPESC
 mjaglowski@kellerassociates.com

Colter Hollingshead EI
 chollingshead@kellerassociates.com

305 N. 3rd Ave. Suite A
 Pocatello, ID 83201
 208.238.2146



MOORE WATER & SEWER ASSOCIATION WASTEWATER FACILITIES PLANNING STUDY

10/05/2011 Community Advisory Committee Meeting

Discussion Outline

- 1. Introductions (Please Sign In)
- 2. Review of Previous Meeting
 - System Deficiencies
 - Population
 - Solution Paths
- 3. Preferred Solution Path
- 4. Moving Forward
 - Funding
 - Next Steps



KELLER ASSOCIATES

Review Previous CAC Meetings (Sept-13-2011 and Sept-19-2011)

- System Needs
- Population: Growth vs. No Growth
- Treatment & Collection Solution Paths
 - Do Nothing
 - River Discharge
 - Land Application
 - Total Containment – Discovered Preferred Solution Path
 - Replace Both Lift Stations
 - Rehabilitate Both Lift Stations
- Collection System Rehab
 - Video Inspection, Cleaning/Manhole Accessibility
 - Gravity and Pressure Sewer Rehab

System Population Growth (%)	Current Population	40 Year Future Population
1.0	200	300
0.5	200	245
0.25	200	221
0	200	200



KELLER ASSOCIATES

Preferred Solution Path

- Total Containment
 - Expand Current Lagoons/Land
 - Reshaping Existing Lagoons
 - Line All of the Lagoons
 - Long Term Solution
- Lift Station Rehab/Collection Improvements
- Solution Budget – Attached
 - Existing Lagoon Improvements
 - New Lagoon/Land
 - Collection and Lift Station Improvements
 - Administration, Engineering, Geotechnical/Electrical
 - Surveying, Legal

System Population Growth (%)	Current Population	40 Year Future Population	Additional Land Required (acres)
1.0	200	300	6.8
0.5	200	245	5.5
0.25	200	221	5.0
0	200	200	4.5

KELLER ASSOCIATES

Solution Funding

- Development Company - Update
 - Ted Hendricks & Rick Miller

KELLER ASSOCIATES

Next Steps

- Locate and Purchase Land
 - System Maps – Attached
- Educate Public
 - Additional Public Informational Meetings
 - Possible Special Meetings
 - November 1st Open House




KELLER ASSOCIATES

Questions



KELLER
associates

Michael Jaglowski PE, CPESC
mjaglowski@kellerassociates.com

Colter Hollingshead EI
chollingshead@kellerassociates.com

305 N. 3rd Ave. Suite A
Pocatello, ID 83201
208.238.2146



**MOORE WATER & SEWER
ASSOCIATION WASTEWATER
FACILITIES PLANNING STUDY**

10/17/2011 Community Advisory Committee Meeting

Wastewater Solution

- Total Containment
 - Expand Current Lagoons/Land
 - Reshaping Existing Lagoons
 - Line All of the Lagoons
 - Long Term Solution
- Lift Station Rehab/Collection Improvements
- Solution Budget – Attached
 - Existing Lagoon Improvements
 - New Lagoon/Land
 - Collection and Lift Station Improvements
 - Administration, Engineering, Geotechnical/Electrical
 - Surveying, Legal




Solution Funding

- Development Company – Update
 - Ted Hendricks & Rick Miller
- Public Information Letter – Attached



Next Steps

- Purchase Land
- Educate Public
 - Informational Meetings
 - Possible Special Meetings
 - Scheduled November 1st Open House
- Funding Applications





Questions



Michael Jaglowski PE, CPESC
 m[aglowski@kellerassociates.com
Colter Hollingshead EI
 chollingshead@kellerassociates.com



Ted Hendricks
 ted.hendricks@ecipda.net
Rick Miller
 rick.miller@ecipda.net



MOORE WATER & SEWER
ASSOCIATION WASTEWATER
FACILITIES PLANNING STUDY

11/01/2011 Open House

Wastewater Solution

- Total Containment
 - Expand Current Lagoons/Land
 - Reshaping Existing Lagoons
 - Line All of the Lagoons
 - Long Term Solution
- Lift Station Rehabilitation and Collection Improvements
- Solution Budget – Attached
 - Existing Lagoon Improvements
 - New Lagoon/Land
 - Collection and Lift Station Improvements
 - Administration, Engineering, Geotechnical/Electrical
 - Surveying, Legal




Solution Funding

- Development Company – Update
 - Ted Hendricks & Rick Miller



Next Steps

- Purchase Land
- Educate Public
 - Informational Meetings
 - Possible Special Meetings
- Funding Applications
- Association Approval of the WWFPS Selected Alternatives





Questions



Michael Jaglowski PE, CPESC
mjaglowski@kellerassociates.com
 Colter Hollingshead EI
chollingshead@kellerassociates.com



Ted Hendricks
ted.hendricks@ecipda.net
 Rick Miller
rick.miller@ecipda.net



MOORE WATER AND SEWER ASSOCIATION MEETING

SEPTEMBER 19, 2011 6:00 p.m. Moore City Building

Community Advisory Committee Meeting

Board Members

in attendance: Lin & Arlene Pearson

Cleve Hymas

Clyde Hymas

Gloria Loftus

Merlin Waddoups

Julie Neff – Rural Development

Ted Hendricks & Rick Miller – The Development Company

Mike Jaglowski & Colter Hollingshead – Keller Associates

Clyde Hymas, Board President, called the meeting to order.

Mike Jaglowski and Colter Hollingshead presented a booklet with the agenda.

Rick Miller was given addresses for the customer survey. This survey will cost the Association \$1500.00. Questions on the survey will determine our eligibility for receiving grants. The survey will be confidential (no names) and include questions on how many in the household, and income above or below a certain number.

A discussion between the group determined that the City has not grown, but has decreased in the past 15 years and income has dropped in the last 10 years. That may be favorable in the eyes of the grant holders.

The Board members (Clyde, Cleve, and Lin) re-affirmed that a total containment system is the system we want to pursue as an Association.

Julie Neff led a discussion on getting a loan vs. a bond as a city.

The group decided to go for a loan for the Association. She suggested sending in applications even before the paperwork is completed and it will be in front of the people that need to see it. Rick Miller will draft a letter of intent.

A Rural Development Loan would probably be 2.5% interest. The block grant could be \$500,000 and will be due Nov. 1. A lot of work to do before then.

Cleve made a motion to start the process of doing an income survey. Lin seconded the motion and all agreed. (Cleve, Clyde, Lin)

Rick Miller will send an email with a letter to send out to the Water and Sewer Customers to tell them of the survey and to inform them about the need for the upgrades. The letters will go out Wed. Sept 22, and the survey will start shortly after that.

Ted Hendricks reminded us that Associations cannot pass bond elections.

Associations were created about 40 years ago, because it was easier to get loans for an association.

Rates for the Sewer will probably have to be raised to at least \$40.

The City of Moore must sponsor the Association to apply for the loan.

DEQ does loans of 20 to 30 years. Rural Development loans are longer term.

The Survey of the membership, and a vote by the membership once the study is done will make a big difference on whether or not we qualify.

If we should qualify, funding would not be available until next spring or summer(2012).

We need to publicly post our meetings, and will publish in the newspaper the Public Information Meeting we will have with the City Council, the Moore Water and Sewer Board, and invited consultants on Nov. 1.

We will have our final Community Advisory Committee Meeting on Oct. 5. This meeting will be open to the public, and we will ratify the motions made to remain an Association (proposed by Cleve, Lin seconded it, and all 3 were in favor), and approval of the Development contract of \$6500 pending the survey passing, (proposed by Cleve, seconded by Lin and approved by all three). We will pay ½ of the study costs from ecipda.

We will need 55 to 60 % of the voters to vote in favor of making the improvements we need to solve our problems in order to borrow the money.

We also need to separate the Water from the Sewer in our financial records to more accurately show the costs involved in both.

The City will change their October meeting to Oct. 5, to accommodate having both entities present. Keller will have flyers available to give to the public.

Arlene will send the information that Mike, and Colter and Rick need to prepare the survey. (phone numbers, and email addresses of Board members)

Keller Associates will look at the 0% growth factor.

Rick Miller will prepare the letter for the survey.

Ted Hendricks will check on the laws for elections for Associations, so that we may possibly put our advisory on the ballot for a membership vote in the November General election on Nov. 8th.

Meeting was adjourned at 8:45 P.M. after consuming Happy Birthday cupcakes for Lin.

JOINT MOORE WATER AND SEWER ASSOCIATION MEETING and
MOORE CITY COUNCIL MEETING

October 5, 2011

6:00 P.M. Moore City Building

Those present: Mayor Lin Pearson, Clerk Lucy Gamett, Councilman Bill Anderson, Shayne Loftus, Councilwoman Gloria Loftus.

Water and Sewer Board Members: Pres. Clyde Hymas, Jim Beverly, Lin Pearson, Secretary Arlene Pearson.

Keller Associates; Colter Hollinghead, Mike Jaglowski.

The Development Co; Rick Miller, Ted Hendricks

Gale Dean, Kim Davies, Hamm Brinton.

1. City Business; carried out by Mayor Pearson and Council members.

2. Mike Jaglowski announced that this is the third CAC (Community Advisory Committee) meeting. He reviewed some of the material covered in the first 2 meetings, and introduced Rick Miller, and Ted Hendricks.

They discussed the next steps needed to move forward on the funding for the Sewer Project.

Future population growth was projected at .25%.

They petitioned DEQ for .25% growth in place of the traditional 1% growth.

Shayne Loftus had a question about DEQ regulating the amount of growth projected. He was referred to the handout from Keller Assoc. that shows the population projections from DEQ.

They also discussed the Clean Water Act which was put into effect about 1980. This is one of the reasons we need lagoons, with a liner in, to eliminate any seepage. (See budget handout on building a new lagoon and reconstructing the old lagoon.

3. Gale Dean brought up the point of people on fixed incomes not being able to pay higher bills. Our monthly bills will raise to \$40 or \$50 dollars, for sewer.

The possibility of flow based bills was suggested, there is an agency that would fund meters etc. EPA and US Geological estimate each household used 80 to 100 gallons per day.

4. The advantages of doing our upgrades now, are loans are simple interest and construction costs are down.

We are looking at a 6 to 9 month time frame.

5. Mike J. went over the budget with the group, and Colter handed out maps on the lagoon locations.

6. The Board needs to verify additional land available up to 5 acres, right away. If we were to buy the land now, it would count as reserve money with Rural Development. We need to contact Julie Neff about the reserve money that is available.

Ted Hendricks: we need to identify property that the Association has and additional property is available. Lin will check at the court house for details.

7. We will have an additional public meeting on Monday October 17 at 6:30 P.M. Ted and Mike will make a flyer and send it to us, Arlene will make a few posters from the flyer to hang in the city.

Kim Davies suggests we announce the rate increase to be a minimum \$40 for the sewer, so that the city is informed and will come to the meeting to be better informed.

8. The Association books will need an audit by the end of 2011. Sherry Poulsen CPA from Rigby was suggested.

9. Jim B made a motion to approve – ratify the Development Co. contract, Lin seconded it, and all 3 board members were in favor.

10. The motion was made by Clyde to ratify the decision to maintain as an Association made in the last meeting. All were in favor.

11. We need to apply for a CCR to facilitate the construction of the Sewer System, and we need to open a separate account at the Credit Union as part of the regulations for this.

All 3 board members approved opening a new account at the East Idaho Credit Union for this purpose.

12. Clyde made a motion to appoint Hamm Brinton as a board member to fill the vacancy from Floyd Hainline, Lin seconded it and all three were in favor.

Meeting was adjourned at 8:15 P.M.

MOORE WATER AND SEWER PUBLIC INFORMATION

MEETING, October 17, 2011

Moore City Building 6:30 P.M.

Those present: Keller Associates; Colter Hollingshead, Mike Jaglowski
Development Company; Rick Miller, Ted Hendricks
Rural Development; Julie Neff
Moore Water and Sewer Board; Clyde Hymas, Cleve
Hymas, Hamm Brinton, Lin Pearson, Arlene Pearson (sec.)

Public:

Leon & Phyllis Powell, Bill & Terry LaBounty, Fred &
Sandra Hays, Alan Shaffer, Merlin Waddoups Gloria
Loftus, Marty MacNeilage, Kim Davies, Faye Kendrick,
Mike & Bonnie Flory, Fred & Marcia Burt, Patricia King,
Gale Dean, Jackie Beverly.

Board President Clyde Hymas welcomed those present and introduced the consultants from Keller, Development Co. and Rural Development.

Ted Hendricks gave a brief overview of the current situation with the lagoons and lift stations.

Kim Davies asked about the current financial situation of the water and sewer. It was explained that there are no outstanding bills, except for current utilities, and repairs and maintenance.

Mike and Colter described our situation and the plans to correct it (see handout dated Oct. 17.) They also distributed a handout on the budget.

Ted Hendricks explained that there has to be some growth designed in the new lagoon system. A lagoon containment system is the simplest and least expensive system we can make.

Ted explained that funding 40 years ago was mostly grants, which kept the bills relatively low. Now there are very few grants, an loans will pay for most of the costs.

We do qualify for USDA loans, and can apply for 1 million in loans.

We will still try to apply for grants to pay for ½ of that amount.

DEQ loans are available at a lower interest rate, but there are no grants.

USDA loans can cover 2/3 of the cost and a DEQ loan for the remaining 1/3

\$48 is a medium rate estimate for sewer service. Julie Neff passed out a funding project overview.

Because the survey that we did, did not bring the results we needed to apply for the block grant, our funding will probably be DEQ and USDA. Our bills have to be at \$48 for USDA to consider subsidizing us.

USDA suggests for every one dollar of debt, that we put away 10 percent for savings and reserve.

We will ask the community to do an advisory vote on the project, we will either arrange for a vote on election day on Nov. 8 or will take ballots door to door.

The next Public Information Meeting will be Nov. 1 at the city building.

It is imperative that we have community involvement and support to qualify for the loans.

The Development Company will provide flyers to talk to the patrons to educate them on the project.

Meeting adjourned at 7:45 P.M.

MOORE WATER AND SEWER ASSOCIATION MEETING MINUTES

Open House, November 1, 2011

6:30 P.M. at the Moore City Building

Those present: Board Members; Lin Pearson, Clyde Hymas, Cleve Hymas, Hamm Brinton, Jim Beverly, Arlene Pearson, secretary.

Mike Jaglowski, Keller Associates; Rick Miller, The Development Co.

Tony & Annette Potter, Bud & Norma Jones, Merlin Waddoups, Leon Powell, Gloria Loftus, Kim Davies, Shayne Loftus, Russell Flint.

Clyde Hymas opened the meeting and introduced Mike Jaglowski of Keller Associates. Mike presented the project details and distributed hand outs dated 11/01/11, labeled Open House.

Our Sewer system has passed its useful life.

The biggest issue we have is that lagoon #1 doesn't hold water. Winter is a problem because of the ice.

This winter we will transfer water to the other lagoons again.

Our pumps in the lift stations are old, worn out and in-efficient, and the pressure system needs evaluated and repaired.

Rick Miller (from the Development Co.) presented the funding solutions. They are working on finding the best possible funding for our situation.

The department of Commerce Grant has been eliminated because we did not pass the criteria during the survey that was taken.

USDA Rural Development has available loans, and possibly a grant.

USDA loans are for 40 years,

DEQ also has loans available. DEQ loans are for 30 years.

Kim Davies suggested that we have the land around and including the sewer lagoons surveyed before winter sets in.

Most everyone there agreed that was a good idea.

Mike Jaglowski will find a surveyor that will do the job.

At 8:00 P.M. most of the patrons left, and the Board continued the meeting with Mike Jaglowski.

They discussed the line going to the Church, because it is not an 8 inch line, and may not be at the right slope. The video inspection will determine if something needs to be done with that line.

Lin Pearson made a motion to approve the Waste Water Treatment and Disposal Alternatives and Evaluation in Chapter 7 and Waste Water Collection Alternatives and Evaluation in Chapter 8 of the Facilities Planning Study from Keller Associates. Jim Beverly seconded the motion, and all members were in favor.

Once the Board members have read and discussed the contract, and sign it Mike will arrange to get it and start work.

The different phases of the project will need to be approved and have written authorization by the board, and no work will start on those phases without it.

The Board authorized Mike to initiate the land boundary survey

As soon as the contract is signed, Mike will take it to the funders.

APPENDIX D: ARCHAEOLOGICAL SURVEY

ENVIRONMENTAL INFORMATION DOCUMENT

MOORE WATER & SEWER ASSOCIATION

CONTENTS

- Archaeological and Historic Sites Inventory Report



KELLER
associates

210050

ARCHAEOLOGICAL AND HISTORIC SITES INVENTORY REPORT

Moore Wastewater Project
Butte County, Idaho

December 15, 2011

Prepared for:
Keller Associates Inc.
305 N. 3rd Avenue
Pocatello, ID 83201

Prepared by:
Stephanie Crockett, Cultural Resource Consulting
P.O. Box 126
Victor, Idaho 83455

ARCHAEOLOGICAL AND HISTORIC SITES SURVEY REPORT IDAHO ARCHAEOLOGICAL SURVEY

A. Key Information

Project Name: Moore Wastewater Project
Report Numbers: 2011ID08
Associated Federal Agency: Department of Environmental Quality
Author: Stephanie Crockett
Date of Report: December 15, 2011
County: Butte
Legal Location: T5N R26E, Section 28
Acres Surveyed: ~22 (intensive)

B. Project Description:

The proposed undertaking is the **Moore Wastewater Project** in Butte County, Idaho. The Moore Water and Sewer Association wishes to create a new wastewater lagoon which will involve approximately 6 acres of land within a 22 acre area of private land which surrounds the existing lagoons near the town of Moore, Idaho. The area of potential effects (APE) consists of 22 acres of range land just east of the town of Moore and west of the Big Lost River. One previously recorded cultural property exists within the vicinity of the APE and two new cultural properties were recorded as a result of this inventory. No National Register (NRHP) eligible properties will be affected by this project.

C. Statement of Objectives

On December 7, 2011 an intensive pedestrian cultural resource inventory was conducted to identify, document and evaluate cultural properties within the APE in accordance with state and federal statutes and regulations, including Section 106 of the National Historic Preservation Act and its applicable guidelines (36 CFR 800). The APE consists of rolling range land near the mouth of the Big Lost River Valley on the eastern edge of the town of Moore, Idaho. Due to the proximity of the Big Lost River and the natural thoroughfare created by the valley, sites associated with hunter-gather populations were predicted. The predominance of agriculture and livestock grazing in the region suggests the possibility of historic properties or isolated artifacts associated with agriculture and homesteading.

D. Location and General Environmental Setting: (See Overview Map)

The APE lies within the Middle Rocky Mountain Physiographic Province, in southeastern Idaho. It lies at the mouth of a mountain valley flanked on the east by the Lost River Range and on the west by the White Knob Mountains and Appendicitis Hill. This 3.5 mile wide valley, known as Big Lost River Valley is characterized by flat range and farmland bisected by the Big Lost River and its numerous tributaries. The arid mountain ranges rise sharply to the east and west. More specifically, the APE consists of 22 acres of sagebrush steppe with gravels and overbank deposits from historic flooding of the Big Lost River. The APE can be found on the Arco North, ID USGS topographic map (1972). Soils in the APE consist of sandy silt with poorly sorted well worn cobbles, pebbles and gravels. The vegetation consists primarily of sagebrush, rabbit brush and prickly pear cactus with an understory of cheat grass, wheat grass and other sparse bunch grasses. Ground visibility ranged from 30% to

75% at the time of inventory. Rodent burrows allowed for additional subsurface visibility. The elevation of the APE is 5470 feet above sea level.

E. Pre-Field Research

1. Sources of information checked:

On December 6, 2011 a search of the Idaho State Historic Preservation Office records in Boise was conducted (#12078). The following sources of information were checked:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Cultural Overviews | <input checked="" type="checkbox"/> Ethnographic Studies |
| <input checked="" type="checkbox"/> National Register | <input checked="" type="checkbox"/> Historical Records |
| <input checked="" type="checkbox"/> Archaeological Site Records | <input type="checkbox"/> Individuals or Groups |
| <input checked="" type="checkbox"/> Maps | <input type="checkbox"/> GLO Plats |
| <input checked="" type="checkbox"/> Survey Records | <input type="checkbox"/> Mineral Maps |
| | <input type="checkbox"/> Forest Road & Trail Maps |

2. Summary of previous studies in this general area

Gaston, J

1985 Annual Report of Archaeological Investigations, 1985. Idaho Transportation Department. (0 acres).

Juell, K. and M. Parvey

2002 Proposed ATC Comm, Inc. Telecomm. Facilities Upgrade Project (Fiber Optic), Trail Creek Road to the Howe Exchange Boundary, Custer & Butte Co.s. Report Prepared by NWAA, Seattle WA for JBR Environmental Consultants, Inc. Sandy, Utah. BLM, Idaho Falls ID-074-2002-0066CE. (156 Intensive).

Other References Cited

GLORecords.blm.gov

Horn, Jonathon

2008 Historic Artifact Handbook. www.projectarchaeology.org Montrose, Colorado.

Hutchison, Daniel and Larry R. Jones

1993 Emigrant Trails of Southern Idaho. Bureau of Land Management, Idaho State Historical Society.

Yohe, Robert and James Woods

2002 The First Idahoans: A Paleoindian Context for Idaho. Boise Idaho. Idaho State Historic Preservation Office.

F. Expected Historic and Prehistoric Land Use and Site Sensitivity:

Evidence for Paleo-Indian occupation has been found in the Big Lost River Valley (Yohe & Woods 2002), while the Shoshone are the most recent indigenous occupants. Although no

previously recorded sites exist within the APE or its immediate vicinity, the presence of large game species, edible plants, and seasonal waterways in the broad valley and surrounding mountains would have been a draw for hunter-gatherer groups throughout prehistory. The valley is also a natural thoroughfare to the Snake River Plain from the higher Salmon River country. Explorers and trappers would have frequented the region in pursuit of fur bearing mammals, followed closely by Euro-American emigrants via Goodale's Cutoff of the Oregon Trail which lies just south of the nearby town of Arco, Idaho (Hutchison & Jones 1993). The late 1800s brought farmers and settlers to the Big Lost River Valley. Under the Desert Land Act of 1877 portions of the land within the APE were homesteaded by George Waters in 1900 and by Charles H. Black in 1913 (GLORecords.blm.gov). Aside from the small town of Moore, the valley remains predominantly range and farm land.

G. Field Methods

1. Areas examined and type of coverage:

On December 7, 2011 an intensive pedestrian inventory was conducted over the entire APE. This consisted of parallel pedestrian transects spaced no greater than 30 meters apart. Ground visibility was good at the time of inventory. Rodent burrows and the edges of previously excavated gravel sources were scrutinized for subsurface deposits. A Garmin 12 GPS unit (NAD 83 Datum) was used to mark the APE. Photographs were taken using a Canon Power Shot A1100IS digital camera and detailed notes were taken pertaining to soils, vegetation and weather.

2. Ground Surface Conditions:

Ground visibility was good at the time of inventory. The soils directly south of the existing sewer lagoon had been previously excavated presumably as a result of the lagoon construction. The remainder of the APE exhibited shallow gravelly soils that appeared to be disturbed by flooding or mechanical gravel extraction. No topsoil was noted over the entire APE. The APE was covered in sagebrush, rabbit brush, prickly pear and sparse low bunch grasses allowing for 30% to 75% ground visibility. The weather at the time of inventory was cold and clear.

3. Acres Surveyed:	Reconnaissance	0
	Intensive	~22

4. Areas not examined and reasons why: The acreage within the existing sewer lagoons was not inventoried.

5. Personnel conducting or assisting in the survey: S. Crockett

6. Dates of Survey: December 7, 2011.

7. Problems Encountered: None

H. Results

1. All cultural resources recorded for this area: (See Overview Map)

Field No.	Site No.	Type of Site	Artifacts/Features
	10BT1995	Arco-Mackay Railroad	None
Moore WW-1		Historic Dump	glass, ceramic, metal
Moore WW-2		Historic Dump	Shed, wagon, car, cans, wire

10BT1995 is the Arco-Mackay branch of the Oregon Shortline (Union Pacific) Railroad grade. The site was recorded in 1991 by R. Hill of the Bureau of Land Management. All of the rails and ties have been removed. The railroad was built by the Salmon River Railroad Company beginning in April of 1901 and completed 11 months later. The line was leased to and operated by the Oregon Short Line and abandoned in 1982. The site is **eligible** for the NRHP under criteria A and C for its association with early transportation and engineering.

Moore WW-1 is a small historic trash scatter located east of the town of Moore, Idaho in the historic floodplain of the Big Lost River. The artifact assemblage consists of approximately 14 whiteware ceramic fragments, 10 amethyst decorative glass vessel fragments, 50 amethyst glass bottle fragments including a molded finished lip wine/brandy style neck and finish, 25 dark brown glass bottle fragments, 15 clear glass bottle fragments, 100+ aqua window glass fragments, 50 milk glass jar fragments, 12 green gray crockery fragments with painted & glazed decoration of #3 and leaf pattern, miscellaneous rubber, metal and unidentifiable metal can fragments. No ceramic or glass maker's marks were encountered. Due to the presence of amethyst glass the site appears to date to the early 20th century (pre-WWI). The site appears to be part of a domestic dump and is situated on the edge of an active gravel pit where a larger portion of the dump might have existed. The site is located on the west bank of the Big Lost River, characterized by overbank deposits and seasonal erosion caused by spring run-off. Soils consist of sandy silt with 70% poorly sorted, well worn pebbles and gravels. The area is dominated by sagebrush, rabbit brush, prickly pear cactus, cheat grass and wheat grass. The site lies on the surface in an area that appears to be previously disturbed for gravel extraction and overbank flooding from the Big Lost River. No features or partially buried artifacts were noted. Due to the shallow nature of the soils, the site lacks the potential for intact subsurface deposits that could yield additional information important to the understanding of the history of the region. The site is deemed **not eligible** for the NRHP.

Moore WW-2 is a small historic trash scatter located east of the town of Moore, Idaho in the historic floodplain of the Big Lost River. The artifact assemblage consists of one 1930s era automobile, 30 sanitary cans (knife opened), five hole-in-top cans, three tobacco tins without a groove on the lip, six meat tins, one milk can with "punch here" embossed on either side of the top, one clear aspirin bottle, one "Owens Illinois" clear glass jug base, one heavy wagon, one collapsed wooden shed with a wood shingle roof, six rubber auto tires, rolls and piles of chicken wire and miscellaneous wooden planks. The artifact assemblage suggests that the dump was used throughout the early 20th century from pre 1920 – 1940s (Horn 2008). The site is a domestic dump probably associated with farming and ranching in the area. The site lies on the surface in an area that appears to be previously disturbed by overbank flooding from the Big Lost River and construction of the existing sewer lagoons. The area is dominated by sagebrush, rabbit brush, prickly pear cactus, cheat grass and wheat grass. Due to the shallow nature of the soils, the site lacks the potential for intact subsurface

deposits that could yield additional information important to the understanding of the history of the region. The site is deemed **not eligible** for the NRHP.

2. Cultural Resources noted but not formally recorded:

None

I. Conclusions and Recommendations:

<u>Field No.</u>	<u>Site No.</u>	<u>Type of Site</u>	<u>NRHP Eligibility</u>	<u>Effect</u>
	10BT1995	Arco-Mackay Railroad	E	NOE
Moore WW-1		Historic Dump	NE	NOE
Moore WW-2		Historic Dump	NE	NOE

* NE Not Eligible for the NRHP, E Eligible for the NRHP, L NRHP Listed Property. AE Adverse Effect, NOE No Effect.

As a result of this inventory one previously recorded historic railroad (10BT1995) was noted in the vicinity of the APE and two new historic properties were documented within the APE. **10BT1995**, the Arco-Mackay Railroad is a NRHP eligible property that lies near but outside of the APE for the proposed wastewater expansion project. The railroad is not visible from the APE and no artifacts or features associated with the railroad were encountered within the APE. The proposed project will create no visual or audible intrusions into the NRHP eligible railroad. As such, there will be **no effect to site 10BT1995** as a result of this project. **Moore WW-1** is a small historic trash scatter on the ground surface that consists primarily of glass and ceramic dating to the early 20th century. Because the artifacts are on a disturbed gravelly surface, intact buried deposits are unlikely and the site lacks the potential to yield additional information important in history and is deemed **not eligible** for the NRHP. As such there will be **no effect to site Moore WW-1** as a result of this project. **Moore WW-2** is a historic dump on the ground surface that consists of an automobile, collapsed shed, wagon, tin cans, glass and miscellaneous wire and wood dating to the 1930 and 1940s. Due to a lack of associated features and little soil deposition intact buried deposits are unlikely and the site lacks the potential to yield additional information important in history and is deemed **not eligible** for the NRHP. As such there will be **no effect to site Moore WW-2** as a result of this project.

Due to good ground visibility at the time of inventory and the disturbed nature of soils in the APE, the probability for undetected cultural materials is low. If intact buried cultural materials are encountered during the implementation of this project, it is recommended that all ground disturbing activities cease in that area until the project archaeologist can be notified and take appropriate action in consultation with the Idaho SHPO. **It is recommended that cultural resource clearance be given for this project.**

J. Attachments

- APE Map
- APE Photographs
- Archaeological Survey of Idaho Site Forms
 - 10BT1995
 - Moore WW-1
 - Moore WW-2

K. Repository:

Field records will be kept at the office of Stephanie Crockett, Cultural Resource Consulting, PO Box 126, Victor, Idaho 83455. Final copies are held at the State Historic Preservation Office, 210 Main Street, Boise, Idaho 83702.

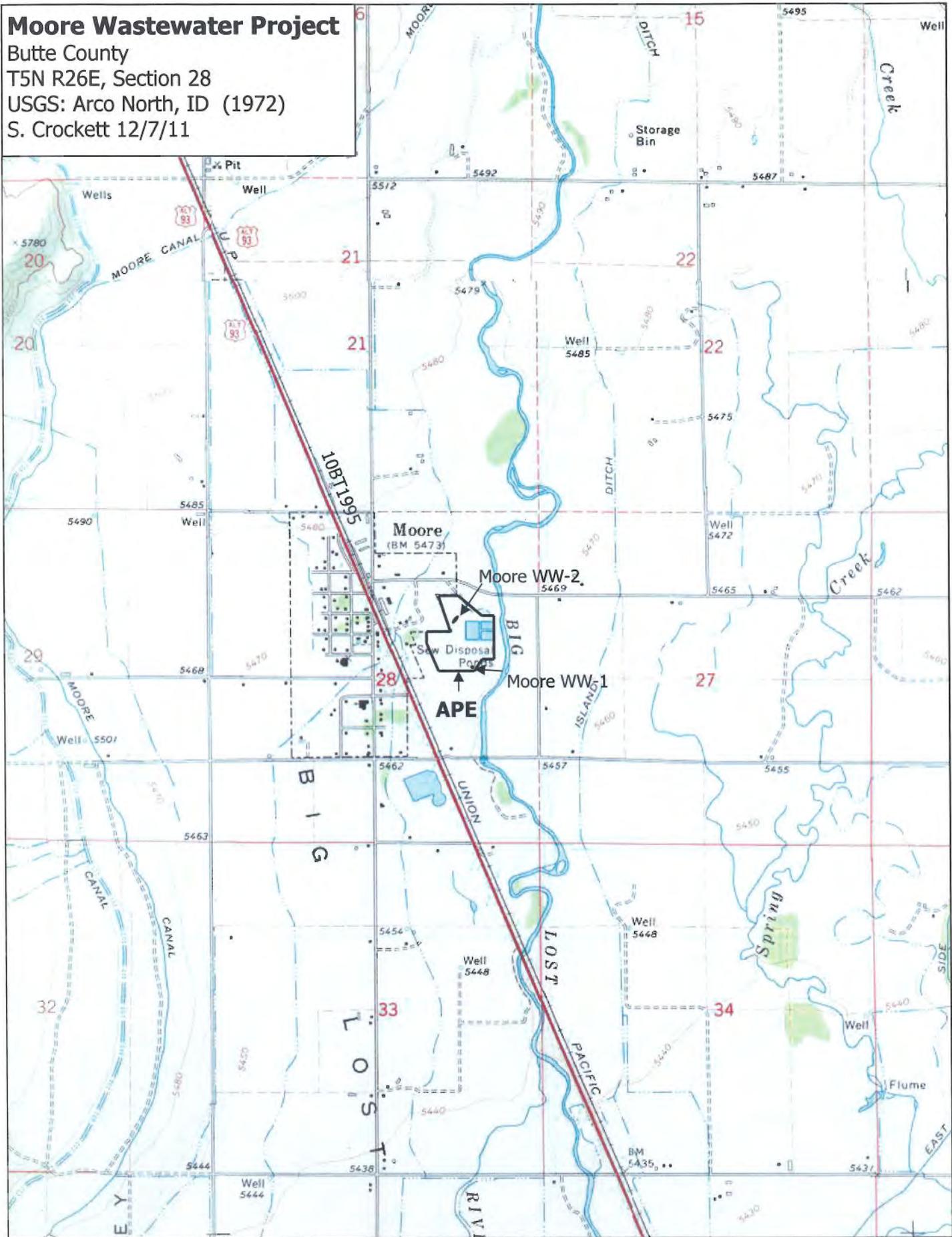
L. Certification of Results:

I certify that this investigation was conducted and documented according to the Secretary of the Interior's Standards and guidelines and that the report is complete and accurate to the best of my knowledge.

Stephanie Crockett
Signature of Reporter

12/15/11
Date

Moore Wastewater Project
 Butte County
 T5N R26E, Section 28
 USGS: Arco North, ID (1972)
 S. Crockett 12/7/11



Map created with TOPO!® ©2003 National Geographic (www.nationalgeographic.com/topo)

APE Overview Photographs



APE Overview, Facing South from Road 3175N. Access Rd. to Sewer Lagoons. Photo Log No. 1.



APE Overview, Facing Northwest from North Edge of Sewer Lagoons. Photo Log No. 2.

APE Overview Photographs



APE Overview of area South of Sewer Lagoon, Facing Northwest from Southeast Corner of APE.
Photo Log No. 4.



APE Overview, Facing North from South End. Photo Log No. 5.

IMACS SITE FORM

Part A - Administrative Data

INTERMOUNTAIN ANTIQUITIES COMPUTER SYSTEM

Form approved for use by

BLM - Utah, Idaho, Nevada, Wyoming

Division of State History - Utah, Wyoming

USFS - Intermountain Region

NPS - Utah, Wyoming

- 23 2274
- *1. State No.: 10BT1995
 - *2. Agency No.: -
 - *3. Temp No.: PURS-1
 - County:

- 4. State:
- 5. Project: Purser Ditch R/W IDI-27981
- *6. Report No.: I D3091041
- 7. Site Name/Property Name: ARCO-MACKAY RAILROAD
- 8. Class: Prehistoric Historic Paleontologic Ethnographic
- 9. Site Type: ABANDONED RAILROAD GRADE/ROADBED
- *10. Elevation: 5614 ft.
- *11. UTM Grid: Zone 12 306980 n E 4852120 n N
- *12. NE of NW of NW of NE of Section 6 T. 5.0N R. 26.0E
- *11. UTM Grid: Zone 12 306800 n E 4851940 n N
- *12. SW of NE of NW of NE of Section 6 T. 5.0N R. 26.0E
- *11. UTM Grid: Zone 12 306880 n E 4851760 n N
- *12. SE of SE of NW of NE of Section 6 T. 5.0N R. 26.0E
- *13. Meridian: Boise (Idaho)
- *14. Map References: DARLINGTON, ID 7.5
- 15. Aerial Photo:
- 16. Location and Access: THIS RAILROAD GRADE IS LOCATED IN THE BIG LOST RIVER VALLEY ABOUT 17 MILES NORTH OF ARCO, IDAHO. ACCESS IS HIGHWAY 26 FROM IDAHO FALLS TO ARCO, AND HIGHWAY 93 FROM ARCO. THE ABANDONED RAILROAD GRADE IS LOCATED ABOUT 100 FEET NORTHEAST (AND PARALLEL TO) THE HIGHWAY.
- *17. Land Owner: BLM
- *18. Federal Admin. Units: Idaho Falls Big Butte
- *19. Location of Curated Materials: Southeastern Idaho Regional Arch. Ctr.
- 20. Site Description: THE SITE IS A SECTION OF ABANDONED RAILROAD GRADE. IT IS A STANDARD SECTION OF THE ARCO-MACKAY BRANCH OF THE OREGON SHORT LINE (UNION PACIFIC RAILROAD). THE GRADE IS ABOUT 10 FEET WIDE (3.4 METERS) ACROSS THE TOP, ABOUT 24 FEET (7.4 METERS) ACROSS THE BASE, ABOUT 5 FEET (1.5 METERS) HIGH AND 1500 FEET (457 METERS) LONG. ALL RAILS AND TIES HAVE BEEN REMOVED.
- *21. Site Condition: Fair
- *22. Impact Agent(s): (1) Erosion (2) Structural Decay
(3) Vandalism
- *23. Nat. Register Status: National Reg Qlty (Professional Judgment)
Justify: THE ARCO-MACKAY BRANCH OF THE OREGON SHORT LINE CONTRIBUTED TO THE EARLY (1900-1917) EURO-AMERICAN SETTLEMENT AND DEVELOPMENT OF THE BIG LOST RIVER VALLEY. THIS SECTION OF ABANDONED RAILROAD GRADE IS POTENTIALLY ELIGIBLE UNDER CRITERIA A.
- 24. Photos: ATTACHED
- 25. Recorded by: RICHARD HILL
- *26. Survey Organizations: BLM *28. Survey Date: 5/ 1/91
- 27. Assisting Crew Members: BARBARA KLINGENBERG

- List of Attachments: Part B Part C Part E Topo Map Site Sketch Art/Feat Sketch Photos Continuation Sheets Other

IMACS SITE FORM

Part A - Administrative Data

INTERMOUNTAIN ANTIQUITIES COMPUTER SYSTEM

Form approved for use by

BLM - Utah, Idaho, Nevada, Wyoming
 Division of State History - Utah, Wyoming
 USFS - Intermountain Region
 NPS - Utah, Wyoming

*1. State No.: _____
 *2. Agency No.: _____
 3. Temp No.: PURS-2
 County: Blaine

4. State: _____
 5. Project: PURSER DITCH RIGHT-OF-WAY IDI-27981

*6. Report No.: D3091041

7. Site Name/Property Name: ARCO-MACKAY RAILROAD

8. Class: Prehistoric Historic Paleontologic Ethnographic

9. Site Type: ABANDONED RAILROAD GRADE

*10. Elevation: 5614 ft.

*11. UTM Grid: Zone 12 307120 m E 4851240 m N

*12. NW of NE of NE of SE of Section 6 T. 5.0N R. 26.0E

*11. UTM Grid: Zone 12 307200 m E 4851040 m N

*12. NW of SE of NE of SE of Section 6 T. 5.0N R. 26.0E

*11. UTM Grid: Zone 12 307260 m E 4850840 m N

*12. NE of NE of SE of SE of Section 6 T. 5.0N R. 26.0E

*13. Meridian: Boise (Idaho)

*14. Map Reference: DARLINGTON, ID 7.5

15. Aerial Photo: _____

16. Location and Access: _____

THE SITE IS LOCATED IN THE BIG LOST RIVER VALLEY, ABOUT 17 MILES NORTH OF ARCO, IDAHO. TAKE IS HIGHWAY 26 FROM IDAHO FALLS TO ARCO (ABOUT 66 MILES). STOP AT PICKLE'S PLACE FOR ROAD FOOD. CONTINUE NORTH 17 MILES ON HIGHWAY 93. STOP. THE OLD RAILROAD GRADE IS ABOUT 100 FEET (30 METERS) NORTHEAST OF THE HIGHWAY.

*17. Land Owner: BLM

*18. Federal Adm. Units: Idaho Falls Big Butte

*19. Location of Curated Materials: Southeastern Idaho Regional Arch. Ctr.

20. Site Description: _____

THE SITE IS A SECTION OF ABANDONED RAILROAD GRADE. IT WAS ONCE THE ARCO-MACKAY BRANCH OF THE OREGON SHORT LINE RAILROAD (UNION PACIFIC RAILROAD). THE GRADE IS CONSTRUCTED OF COMPACTED, CRUSHED GRAVEL AND OTHER MATERIALS ACCORDING TO ACCEPTED RAILROAD ROADBED STANDARDS AND PRACTICES. THE STRUCTURE IS 10 FEET WIDE (3.4 METERS) ACROSS THE TOP, 24 FEET (7.4 METERS) ACROSS THE BASE, 5 FEET (1.5 METERS) HIGH AND ABOUT 1300 FEET (396 METERS) LONG. ALL RAILS AND TIES HAVE BEEN REMOVED.

*21. Site Conditions: Fair

*22. Impact Agent(s): (1) Erosion (2) Structural Decay
 (3) Vandalism

*23. Nat. Register Status: National Reg Qlty (Professional Judgment)

Justify:
THE ARCO-MACKAY BRANCH OF THE OREGON SHORT LINE CONTRIBUTED TO THE EARLY (1900-1917) EURO-AMERICAN SETTLEMENT AND UTILIZATION OF THE BIG LOST RIVER VALLEY. IT IS POTENTIALLY ELIGIBLE UNDER CRITERIA A.

24. Photos: ATTACHED

25. Recorded by: RICHARD HILL

*26. Survey Organization: BLM *28. Survey Date: 5/7/91

27. Assisting Crew Members: BARBARA KLINGENBERG

List of Attachments: Part B Topo Map Photos
 Part C Site Sketch Continuation Sheets

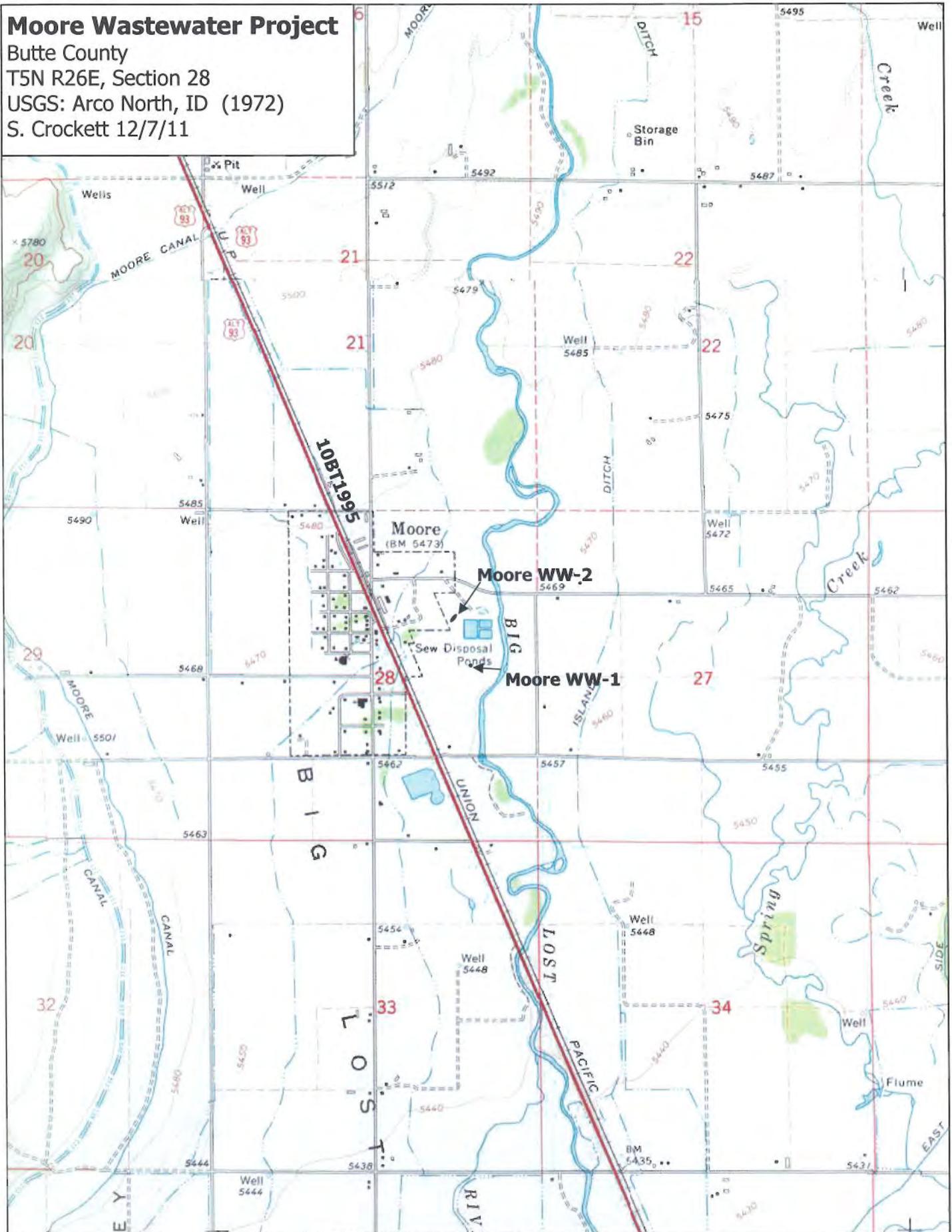
Moore Wastewater Project

Butte County

T5N R26E, Section 28

USGS: Arco North, ID (1972)

S. Crockett 12/7/11



Map created with TOPO!® ©2003 National Geographic (www.nationalgeographic.com/topo)

ARCHAEOLOGICAL SURVEY OF IDAHO
SITE INVENTORY FORM

Part A – Administrative Data

1. State No. _____

2. Agency No. _____

3. Temporary No. Moore WW-1

4. Site name(s) _____ 5. County Clark

6. Class: Prehistoric Historic Traditional Cultural Property Undetermined

7. Land owner Private 8. Federal admin. Unit _____

9. Project Moore Wastewater 10. Report No. _____

11. Recorder(s) S. Crockett

12. Organization Stephanie Crockett, Cultural Resource Consulting 13. Date 12/7/11

14. Attachments and associated records:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Topographic map (required) | <input type="checkbox"/> Stratigraphic profiles |
| <input checked="" type="checkbox"/> Site map (required) | <input type="checkbox"/> Rock art attachment |
| <input checked="" type="checkbox"/> Photos with labels/log (required) | <input type="checkbox"/> Historical records |
| <input type="checkbox"/> Artifact illustrations | <input type="checkbox"/> Assoc. IHSI forms _____ |
| <input type="checkbox"/> Feature drawings | <input type="checkbox"/> Other _____ |

15. Elevation (site datum) 5470 (ft)

16. Site dimensions: 30 m X 40 m Area 1200 m²

17. UTM at site datum: Zone 12 309923 m Easting 4844900 m Northing using NAD 1983.

18. UTM source:

- Corrected GPS/rectified survey (<5m error) Uncorrected GPS Map template Other explained under comments

19. Township 5N, Range 26E Section 28: SWSWSENE

Additional legals listed on an attachment.

20. USGS 7.5' map reference Arco North, ID (1972)

Additional maps listed on an attachment.

21. Access From the town of Moore, Idaho take County Rd 3350W for approximately .10 miles to County Rd 3175N. Turn right onto 3175N and travel east for .22 miles to the access road for the wastewater lagoons. Drive south to the wastewater lagoons and park here. Walk straight south of the lagoon to the northern edge of a gravel pit. The site is located here approximately .08 miles south of the lagoons.

22. Site description The site is a small historic trash scatter located east of the town of Moore, Idaho in the historic floodplain of the Big Lost River. The artifact assemblage consists of approximately 14 whiteware ceramic fragments, 10 amethyst decorative glass vessel fragments, 50 amethyst glass bottle fragments including a molded finished lip wine/brandy style neck and finish, 25 dark brown glass bottle fragments, 15 clear glass bottle fragments, 100+ aqua window glass fragments, 50 milk glass jar fragments, 12 green gray crockery fragments with painted & glazed decoration of #3 and leaf pattern, miscellaneous rubber, metal and unidentifiable metal can fragments. No ceramic or glass maker's marks were encountered. Due to the presence of amethyst glass the site appears to date to the early 20th century (pre-WWI). The site appears to be part of a domestic dump and is situated on the edge of an active gravel pit where a larger portion of the dump might have existed. The site is located on the west bank of the Big Lost River, characterized by overbank deposits and seasonal erosion caused by spring run-off. Soils consist of sandy silt with 70% poorly sorted, well worn pebbles and gravels. The area is dominated by sagebrush, rabbit brush, prickly pear cactus, cheat grass and wheat grass. The site lies on the surface in an area that appears to be previously disturbed for gravel extraction and overbank flooding from the Big Lost River. No features or partially buried artifacts were noted. Due to the shallow nature of the soils, the site lacks the

potential for intact subsurface deposits that could yield additional information important to the understanding of the history of the region. The site is deemed **not eligible** for the NRHP.

23. Site type:

- | | | | |
|--|---|---|--|
| <input type="checkbox"/> Historic building* | <input type="checkbox"/> Rockshelter/cave | <input type="checkbox"/> Mortuary | <input type="checkbox"/> Faunal |
| <input type="checkbox"/> Historic structure* | <input type="checkbox"/> Stacked/placed rocks | <input type="checkbox"/> Rock art | <input type="checkbox"/> Culturally modified trees |
| <input checked="" type="checkbox"/> Historic object* | <input type="checkbox"/> Quarry/lithic source | <input type="checkbox"/> Feature(s) | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Prehistoric residential | <input type="checkbox"/> Linear | <input checked="" type="checkbox"/> Artifact(s) | |

*Following definition for the National Register of Historic Places.

24. Specify themes and time periods:

- | Themes | | Time Periods | |
|--|---|---|--|
| <input type="checkbox"/> Prehistoric archaeology | <input type="checkbox"/> Military | <input type="checkbox"/> Prehistoric-general | <input type="checkbox"/> Settlement: 1855-1890 |
| <input type="checkbox"/> Agriculture | <input type="checkbox"/> Mining industry | <input type="checkbox"/> Paleoindian | <input type="checkbox"/> Phase 1 statehood: 1890-1904 |
| <input type="checkbox"/> Architecture | <input type="checkbox"/> Native Americans | <input type="checkbox"/> Archaic-general | <input checked="" type="checkbox"/> Phase 2 statehood: 1904-1920 |
| <input type="checkbox"/> Civilian Conservation Corps | <input type="checkbox"/> Politics/government | <input type="checkbox"/> Early Archaic | <input checked="" type="checkbox"/> Interwar: 1920-1940 |
| <input type="checkbox"/> Commerce | <input type="checkbox"/> Public land management | <input type="checkbox"/> Middle Archaic | <input checked="" type="checkbox"/> Premodern: 1940-1958 |
| <input type="checkbox"/> Communication | <input type="checkbox"/> Recreation/tourism | <input type="checkbox"/> Late Archaic | <input type="checkbox"/> Modern: 1958-present |
| <input type="checkbox"/> Culture and society | <input type="checkbox"/> Settlement | <input type="checkbox"/> Late Prehistoric-general | <input type="checkbox"/> Historic/Modern-general |
| <input type="checkbox"/> Ethnic heritage | <input type="checkbox"/> Timber industry | <input type="checkbox"/> Protohistoric/Contact | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Exploration/fur trapping | <input type="checkbox"/> Transportation | <input type="checkbox"/> Historic Native American | |
| <input type="checkbox"/> Industry | <input type="checkbox"/> Other _____ | <input type="checkbox"/> Exploration: 1805-1860 | |

25. National Register of Historic Places (NRHP) evaluation: *

- Individually eligible Contributing in a district Not eligible Insufficient information to evaluate

*Evaluation subject to review by SHPO.

26. NRHP criteria used:

- A: Event B: Person C: Design and construction D: Information potential

27. Comments on significance _____

28. If not eligible, explain why The site lies on the surface in an area that has appears to be previously disturbed for gravel extraction and overbank flooding from the Big Lost River. Due to a lack of soil deposition the site lacks the potential for intact subsurface deposits that could yield additional information important to the understanding of the history of the region.

29. Condition (prehistoric component):

- Excellent Good Fair Poor

Condition (historic component):

- Excellent Good Fair Poor

30. Impact agents:

- | | | | | |
|--|--|--|---|--------------------------------------|
| <input checked="" type="checkbox"/> Agricultural use | <input type="checkbox"/> Development project | <input type="checkbox"/> Mining/quarrying | <input type="checkbox"/> Road/highway | <input type="checkbox"/> Vandalism |
| <input type="checkbox"/> Building alteration | <input type="checkbox"/> Erosion | <input type="checkbox"/> No information | <input type="checkbox"/> Rodent damage | <input type="checkbox"/> Other _____ |
| <input checked="" type="checkbox"/> Deflation | <input type="checkbox"/> Grazing | <input checked="" type="checkbox"/> Recreation use | <input type="checkbox"/> Structural decay | |
| <input type="checkbox"/> Demolished | <input type="checkbox"/> Looting | <input type="checkbox"/> Research excavation | <input type="checkbox"/> Timber harvest | |

Comments on impact agents The area has been used for gravel extraction and exhibits deflation/erosion. Some artifacts appear to have been used for target practice.

31. Surface collection:

- None Previously collected Grab sample Designed sample Complete

32. Sediments:

- Absent 0-20 cm 21-100 cm >100 cm Suspected but not tested

Explain how this was determined pinflag probe and soil observation

33. Excavation status:

- | | | | |
|---|--------------------------------------|---|--|
| <input checked="" type="checkbox"/> Unexcavated | <input type="checkbox"/> Auger/probe | <input type="checkbox"/> Test unit | <input type="checkbox"/> Backhoe, etc. |
| <input type="checkbox"/> Surface scrape | <input type="checkbox"/> Shovel test | <input type="checkbox"/> Block excavation | |

Describe collection/testing/excavation _____

34. Excavation volume (indicate liters or cubic meters) _____

Screen mesh _____

35. Additional comments _____

Part B – Environmental Data

36. Distance to permanent water 130 m

37. Water source: Big Lost River

Spring, seep River/stream Lake Other _____

38. On-site vegetation (estimate percentage of total vegetation for each class and identify species):

Trees: 5 % Species: Cottonwood

Shrubs: 70 % Species: Sagebrush, rabbit brush, prickly pear cactus

Forbs: _____ % Species: _____

Grasses: 25 % Species: cheat grass, wheat grass, mixed bunch grasses

Lichens/mosses: _____ % Species: _____

Describe The area is dominated by sagebrush, rabbit brush and prickly pear cactus with an understory of cheat grass and wheat grass.

39. Visible surface area:

0% 1-25% 26-50% 51-75% 76-100%

40. Landform (Describe, including lithology, form, and soil, using locally or regionally appropriate terms, eg. arroyo, playa, moraine, etc.) The site is located on the west bank of the Big Lost River, characterized by overbank deposits and seasonal erosion caused by spring run-off. Soils consist of sandy silt with 70% poorly sorted, well worn pebbles and gravels.

Part D – Historic Sites

50. Cultural affiliation Euro-American

51. Oldest date 1917 Recent Date 1920s

52. How determined The presence of amethyst glass suggests pre-WWI date.

53. Maximum artifact density 25 m²

54. Individual artifacts:

Count	Category	Description
15	ceramic	Whiteware fragments
10	Amethyst glass	Decorative vessel fragments
50+	Amethyst glass	Bottle fragments
25	Brown glass	Bottle fragments
15	Clear glass	Bottle fragments
100 +	Aqua	Window glass fragments
50	Milk glass	Cosmetic jar fragments
2	Rubber	Miscellaneous machinery parts
12	Green gray ceramic	#3 crockery with leaf pattern

55. Additional description The site is a small scatter of primarily glass and ceramic. A few unidentifiable metal fragments and one distinct green gray crockery fragment were documented. Due to the presence of amethyst glass the site appears to date to the early 20th century (pre-WWI). The site appears to be part of a domestic dump and is situated on the edge of an active gravel pit where a larger portion of the dump might have existed. No glass or ceramic maker's marks were observed.

56. Features: None

Count	Category	Description

57. Additional description _____

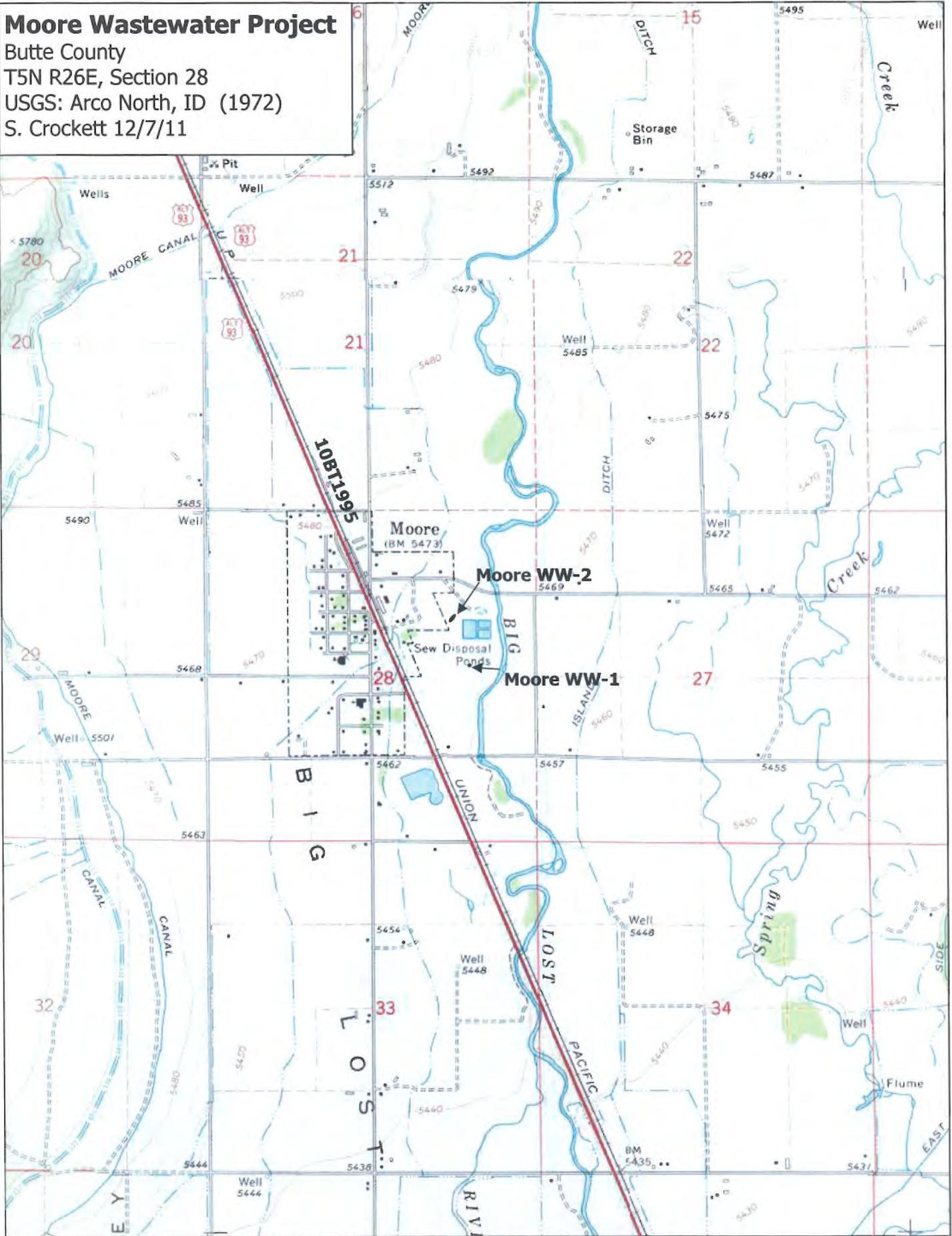
Moore Wastewater Project

Butte County

T5N R26E, Section 28

USGS: Arco North, ID (1972)

S. Crockett 12/7/11

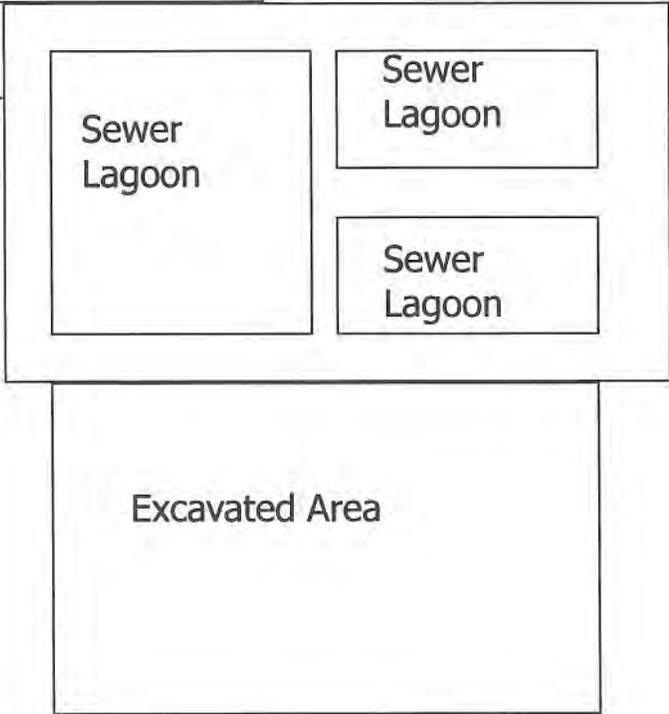


Map created with TOPOI® ©2003 National Geographic (www.nationalgeographic.com/topo)

Moore Wastewater Project
Moore WW-1 Site Sketch
Butte County
T5N R26E, Section 28
USGS: Arco North, ID (1972)
S. Crockett 12/7/11


NORTH
1 = 40M

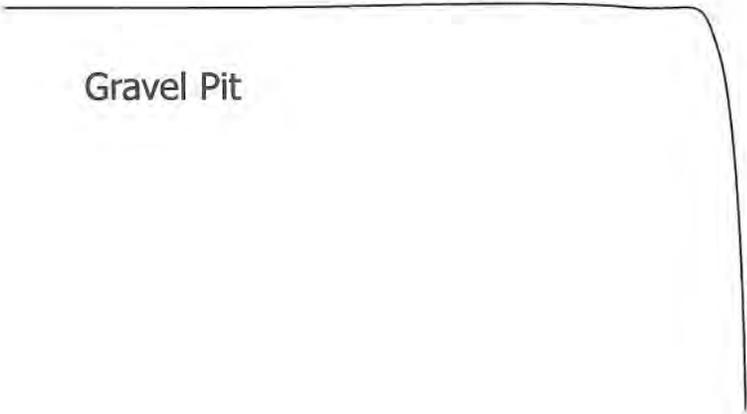
Fence



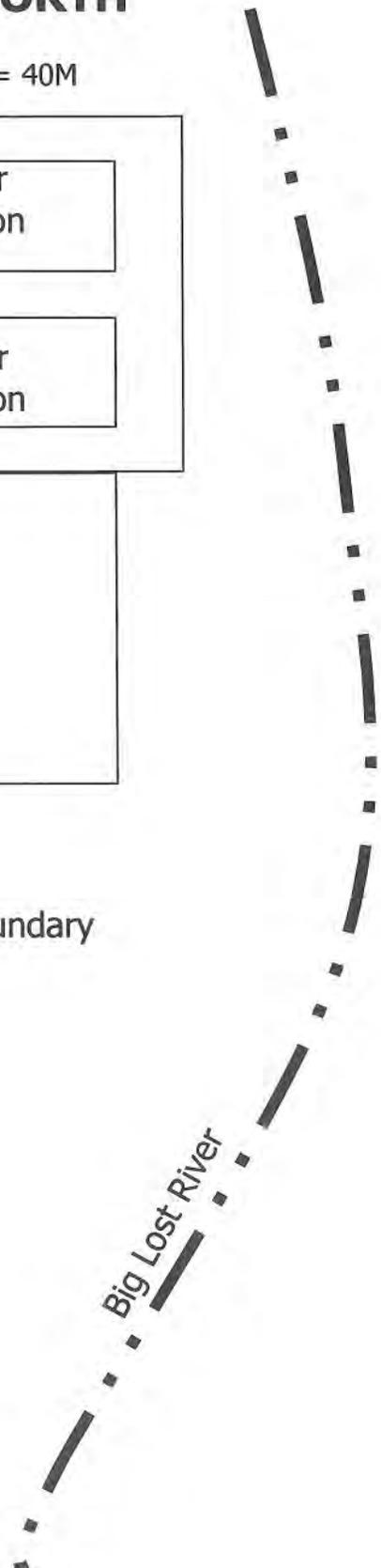
Site Boundary



Gravel Pit



Big Lost River



Moore WW-1 Photographs



Site Overview, Facing West. Photo Log No. 9.



Site Overview, Facing East. Photo Log No. 12.

Moore WW-1 Photographs



Amethyst Bottle Neck and #3 Crockery Fragment. Photo Log No. 9.



Amethyst Decorative Glass Fragments. Photo Log No. 11.

ARCHAEOLOGICAL SURVEY OF IDAHO
SITE INVENTORY FORM

Part A – Administrative Data

1. State No. _____
2. Agency No. _____
3. Temporary No. Moore WW-2

4. Site name(s) _____ 5. County Clark

6. Class: Prehistoric Historic Traditional Cultural Property Undetermined

7. Land owner Private 8. Federal admin. Unit _____

9. Project Moore Wastewater 10. Report No. _____

11. Recorder(s) S. Crockett.

12. Organization Stephanie Crockett, Cultural Resource Consulting 13. Date 12/7/11

14. Attachments and associated records:

- | | |
|---|---|
| <input checked="" type="checkbox"/> Topographic map (required) | <input type="checkbox"/> Stratigraphic profiles |
| <input checked="" type="checkbox"/> Site map (required) | <input type="checkbox"/> Rock art attachment |
| <input checked="" type="checkbox"/> Photos with labels/log (required) | <input type="checkbox"/> Historical records |
| <input type="checkbox"/> Artifact illustrations | <input type="checkbox"/> Assoc. IHSI forms |
| <input type="checkbox"/> Feature drawings | <input type="checkbox"/> Other _____ |

15. Elevation (site datum) 5470 (ft)

16. Site dimensions: 20 m X 30 m Area 600 m²

17. UTM at site datum: Zone 12 309857 m Easting 4845159 m Northing using **NAD 1983**.

18. UTM source:

- Corrected GPS/rectified survey (<5m error) Uncorrected GPS Map template Other explained under comments

19. Township 5N, Range 26E Section 28: NWNWSENE

Additional legals listed on an attachment.

20. USGS 7.5' map reference Arco North, ID (1972)

Additional maps listed on an attachment.

21. Access From the town of Moore, Idaho take County Rd 3350W for approximately .10 miles to Rd County Rd 3175N. Turn right onto 3175N and travel east for .22 miles to the access road for the wastewater lagoons. Drive south to the wastewater lagoons and park here. Walk straight west of the lagoon for approximately 65 meters. At the time of inventory, the site could be seen by the remains of an automobile and collapsed shed visible above the sagebrush.

22. Site description The site is a small historic trash scatter located east of the town of Moore, Idaho in the historic floodplain of the Big Lost River. The artifact assemblage consists of one 1930s era automobile, 30 sanitary cans (knife opened), five hole-in-top cans, three tobacco tins without a groove on the lip, six meat tins, one milk can with "punch here" embossed on either side of the top, one clear aspirin bottle, one "Owens Illinois" clear glass jug base, one heavy wagon, one collapsed wooden shed with a wood shingle roof, six rubber auto tires, rolls and piles of chicken wire and miscellaneous wooden planks. The artifact assemblage suggests that the dump was used throughout the early 20th century from pre 1920 – 1940s (Horn 2008). The site is a domestic dump probably associated with farming and ranching in the area. The site lies on the surface in an area that appears to be previously disturbed by overbank flooding from the Big Lost River and construction of the existing sewer lagoons. The area is dominated by sagebrush, rabbit brush, prickly pear cactus, cheat grass and wheat grass. Due to the shallow nature of the soils, the site lacks the potential for intact subsurface deposits that could yield additional information important to the understanding of the history of the region. The site is deemed **not eligible** for the NRHP.

23. Site type:

- | | | | |
|--|---|---|--|
| <input type="checkbox"/> Historic building* | <input type="checkbox"/> Rockshelter/cave | <input type="checkbox"/> Mortuary | <input type="checkbox"/> Faunal |
| <input type="checkbox"/> Historic structure* | <input type="checkbox"/> Stacked/placed rocks | <input type="checkbox"/> Rock art | <input type="checkbox"/> Culturally modified trees |
| <input checked="" type="checkbox"/> Historic object* | <input type="checkbox"/> Quarry/lithic source | <input type="checkbox"/> Feature(s) | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Prehistoric residential | <input type="checkbox"/> Linear | <input checked="" type="checkbox"/> Artifact(s) | |

*Following definition for the National Register of Historic Places.

24. Specify themes and time periods:

- | Themes | | Time Periods | |
|--|---|---|---|
| <input type="checkbox"/> Prehistoric archaeology | <input type="checkbox"/> Military | <input type="checkbox"/> Prehistoric-general | <input type="checkbox"/> Settlement; 1855-1890 |
| <input type="checkbox"/> Agriculture | <input type="checkbox"/> Mining industry | <input type="checkbox"/> Paleoindian | <input type="checkbox"/> Phase 1 statehood: 1890-1904 |
| <input type="checkbox"/> Architecture | <input type="checkbox"/> Native Americans | <input type="checkbox"/> Archaic-general | <input type="checkbox"/> Phase 2 statehood: 1904-1920 |
| <input type="checkbox"/> Civilian Conservation Corps | <input type="checkbox"/> Politics/government | <input type="checkbox"/> Early Archaic | <input checked="" type="checkbox"/> Interwar: 1920-1940 |
| <input type="checkbox"/> Commerce | <input type="checkbox"/> Public land management | <input type="checkbox"/> Middle Archaic | <input type="checkbox"/> Premodern: 1940-1958 |
| <input type="checkbox"/> Communication | <input type="checkbox"/> Recreation/tourism | <input type="checkbox"/> Late Archaic | <input type="checkbox"/> Modern: 1958-present |
| <input type="checkbox"/> Culture and society | <input type="checkbox"/> Settlement | <input type="checkbox"/> Late Prehistoric-general | <input type="checkbox"/> Historic/Modern-general |
| <input type="checkbox"/> Ethnic heritage | <input type="checkbox"/> Timber industry | <input type="checkbox"/> Protohistoric/Contact | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Exploration/fur trapping | <input type="checkbox"/> Transportation | <input type="checkbox"/> Historic Native American | |
| <input type="checkbox"/> Industry | <input type="checkbox"/> Other _____ | <input type="checkbox"/> Exploration; 1805-1860 | |

25. National Register of Historic Places (NRHP) evaluation: *

- Individually eligible Contributing in a district Not eligible Insufficient information to evaluate

*Evaluation subject to review by SHPO.

26. NRHP criteria used:

- A: Event B: Person C: Design and construction D: Information potential

27. Comments on significance _____

28. If not eligible, explain why The site lies on the surface in an area that has appears to be previously disturbed by overbank flooding from the Big Lost River and construction of the existing sewer lagoons. Due to a lack of soil deposition the site lacks the potential for intact subsurface deposits that could yield additional information important to the understanding of the history of the region.

29. Condition (prehistoric component):

- Excellent Good Fair Poor

Condition (historic component):

- Excellent Good Fair Poor

30. Impact agents:

- | | | | | |
|--|--|--|---|--------------------------------------|
| <input checked="" type="checkbox"/> Agricultural use | <input type="checkbox"/> Development project | <input type="checkbox"/> Mining/quarrying | <input type="checkbox"/> Road/highway | <input type="checkbox"/> Vandalism |
| <input type="checkbox"/> Building alteration | <input type="checkbox"/> Erosion | <input type="checkbox"/> No information | <input type="checkbox"/> Rodent damage | <input type="checkbox"/> Other _____ |
| <input checked="" type="checkbox"/> Deflation | <input type="checkbox"/> Grazing | <input checked="" type="checkbox"/> Recreation use | <input type="checkbox"/> Structural decay | |
| <input type="checkbox"/> Demolished | <input type="checkbox"/> Looting | <input type="checkbox"/> Research excavation | <input type="checkbox"/> Timber harvest | |

Comments on impact agents The area has been affected by flooding and possible excavation of soils for the construction of the existing sewer lagoons the area exhibits signs of deflation and erosion. Some artifacts appear to have been used for target practice.

31. Surface collection:

- None Previously collected Grab sample Designed sample Complete

32. Sediments:

- Absent 0-20 cm 21-100 cm >100 cm Suspected but not tested

Explain how this was determined pinflag probe and soil observation

33. Excavation status:

- | | | | |
|---|--------------------------------------|---|--|
| <input checked="" type="checkbox"/> Unexcavated | <input type="checkbox"/> Auger/probe | <input type="checkbox"/> Test unit | <input type="checkbox"/> Backhoe, etc. |
| <input type="checkbox"/> Surface scrape | <input type="checkbox"/> Shovel test | <input type="checkbox"/> Block excavation | |

Describe collection/testing/excavation _____

34. Excavation volume (indicate liters or cubic meters) _____ **Screen mesh** _____

35. Additional comments _____

Part B – Environmental Data36. Distance to permanent water 225 m37. Water source: Big Lost River Spring, seep River/stream Lake Other _____

38. On-site vegetation (estimate percentage of total vegetation for each class and identify species):

Trees: 5 % Species: CottonwoodShrubs: 70 % Species: Sagebrush, rabbit brush, prickly pear cactus

Forbs: _____ % Species: _____

Grasses: 25 % Species: cheat grass, wheat grass, mixed bunch grasses

Lichens/mosses: _____ % Species: _____

Describe The area is dominated by sagebrush, rabbit brush and prickly pear cactus with an understory of cheat grass and wheat grass.

39. Visible surface area:

 0% 1-25% 26-50% 51-75% 76-100%

40. Landform (Describe, including lithology, form, and soil, using locally or regionally appropriate terms, eg. arroyo, playa, moraine, etc.) The site is located on the west bank of the Big Lost River, characterized by overbank deposits and seasonal erosion caused by spring run-off. Soils consist of sandy silt with 70% poorly sorted, well worn pebbles and gravels.

Part D – Historic Sites50. Cultural affiliation Euro-American51. Oldest date 1916 Recent Date 1948

52. How determined The presence of "punch here" embossed milk cans place the site after 1935 and hinged tobacco tins without a grooved lip on the lid place it before 1948. A 1930s era automobile suggest that it was discarded sometime during the 1940s or later. One Owens Illinois clear jug base appears to be an earlier date around 1916 to 1929 (Toulouse 1971)

53. Maximum artifact density 30 m²

54. Individual artifacts:

Count	Category	Description
1	automobile	1930s era
30	Can	knife open sanitary cans
5	Can	Hole-in-top or match stick fill cans (solder dot)
3	Can	Tobacco tins, hinged lid without groove at lip (pre 1948)
6	Can	Mean tins, key open
1	Can	"punch here" embossed milk can
1	Clear glass	Clear glass aspirin bottle
1	Clear glass	Clear glass one gallon jug base "Owens Illinois" makers mark
1	Wagon	Heavy wagon
1	Shed	Collapsed wooden shed
6	tires	Rubber wagon or auto tires
3-4	Wire rolls & piles	Chicken wire
25+	wood	2 x 6 boards

55. Additional description The site is a small scatter of tin cans, glass, wood, tires, an automobile and collapsed wooden shed.

56. Features:

Count	Category	Description
1	Shed	Approximately 10' x 20' Collapsed wooden shed with wood shingle roofing and no foundation. The shed appears to have been moved to this location and lies next to a heavy wagon, and near a 1930s era automobile.

57. Additional description _____

References

Horn, Jonathon

2008 Historic Artifact Handbook. www.projectarchaeology.org Montrose, Colorado.

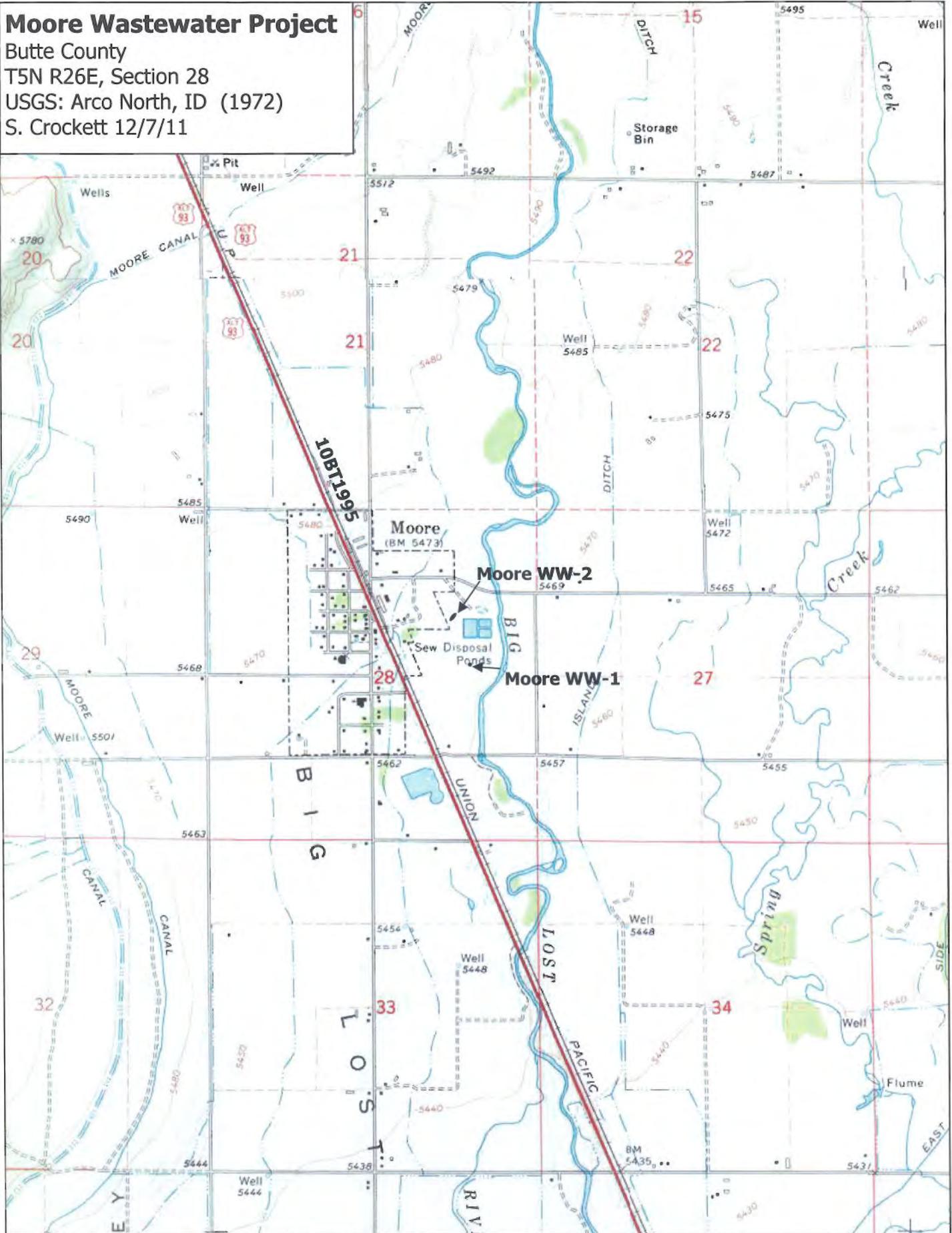
Moore Wastewater Project

Butte County

T5N R26E, Section 28

USGS: Arco North, ID (1972)

S. Crockett 12/7/11

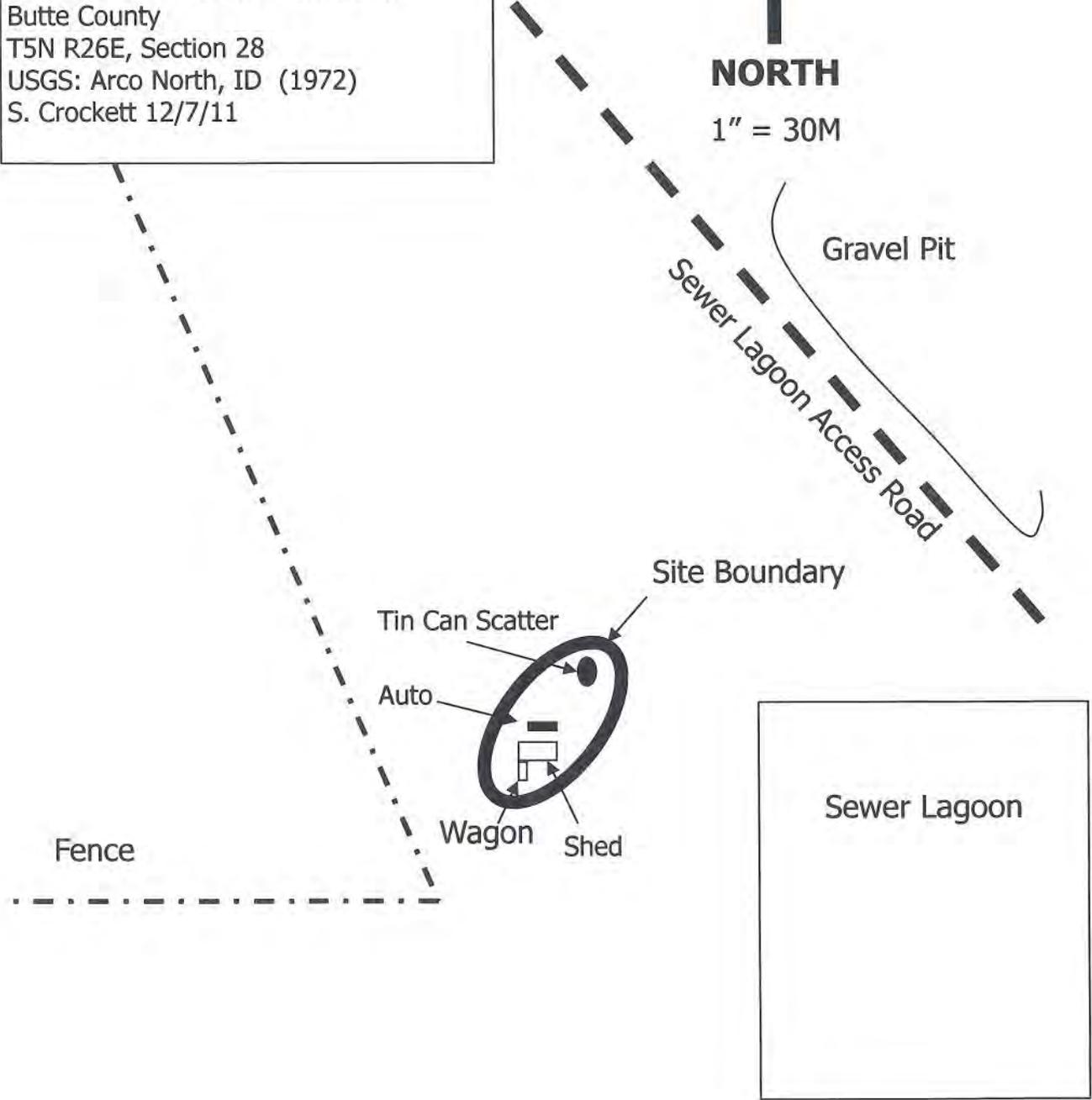


Map created with TOPO!® ©2003 National Geographic (www.nationalgeographic.com/topo)

**Moore Wastewater Project
Moore WW-2 Site Sketch**

Butte County
T5N R26E, Section 28
USGS: Arco North, ID (1972)
S. Crockett 12/7/11

NORTH
↑
1" = 30M



Moore WW-2 Photographs



Site Overview, Facing North. Photo Log No. 24.



Site Overview, Facing South. Photo Log No. 17.

Moore WW-2 Photographs



Tin Can Scatter, Facing Southwest. Photo Log No. 16.



Rear and Passenger Side of automobile, Facing Southwest. Photo Log No. 19.

Moore WW-2 Photographs



Front and Driver's Side of automobile, Facing Northwest. Photo Log No. 20.



Collapsed Shed, Facing East. Photo Log No. 21.

Moore WW-2 Photographs



Collapsed Shed and automobile, Facing Northeast. Photo Log No. 22.



Partial Wagon, Rail Car, Facing East. Photo Log No. 23.

Moore WW-2 Photographs



Sanitary Can "Punch Here" Embossed. Photo Log No. 25.

APPENDIX E: WWFPS CHAPTER 4 FIGURES

ENVIRONMENTAL INFORMATION DOCUMENT MOORE WATER & SEWER ASSOCIATION

CONTENTS

- WWFPS Figure 4.1
- WWFPS Figure 4.2
- WWFPS Figure 4.3
- WWFPS Figure 4.4
- WWFPS Figure 4.5



KELLER
associates

210050



Wastewater Facility Planning Study
Proposed Project Planning Area

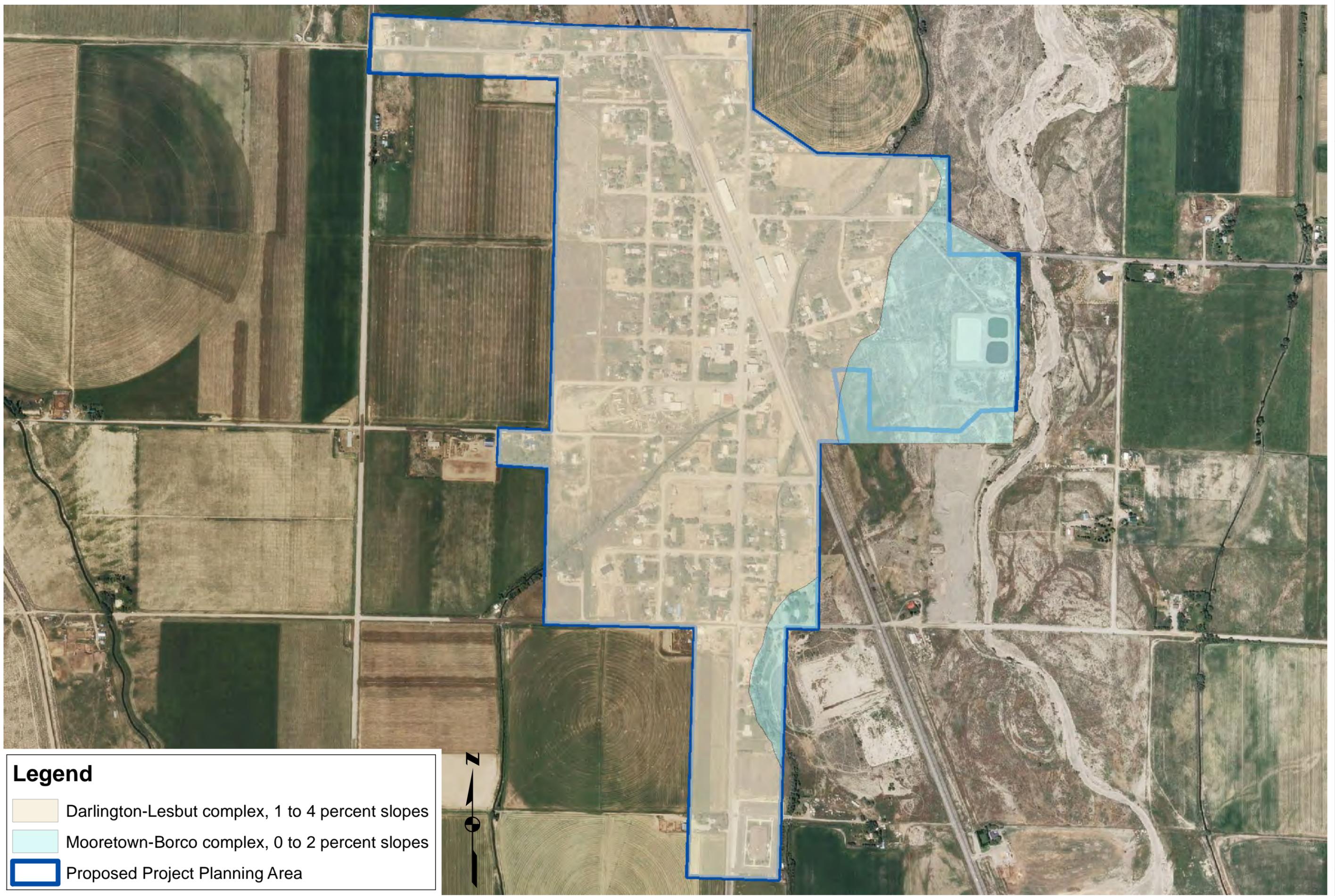
FIGURE NO.
4.1

**Moore Water & Sewer
Association**


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

PROJECT NO.
210050
FILENAME

Fig 4.1

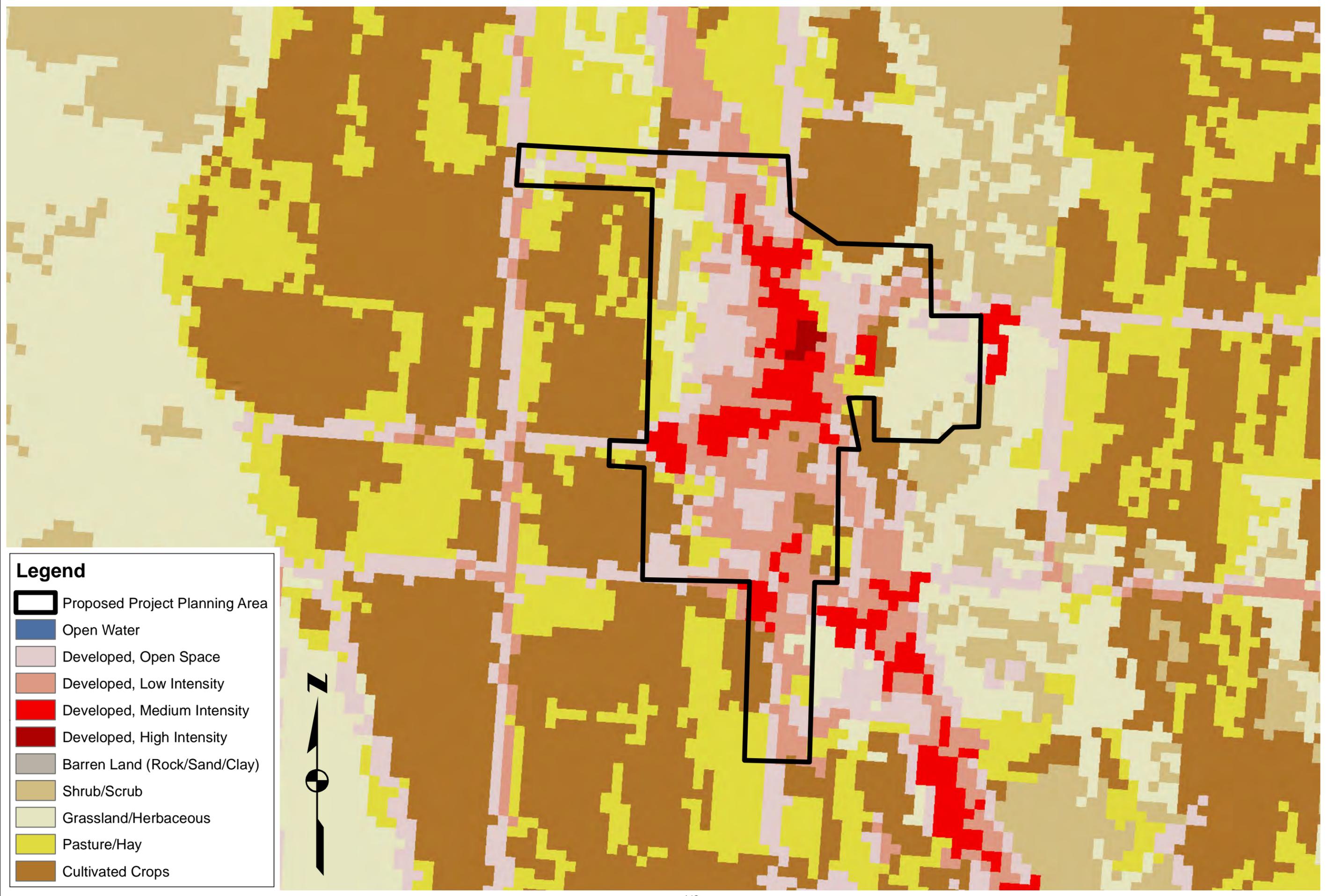


Legend

- Darlington-Lesbut complex, 1 to 4 percent slopes
- Mooretown-Borco complex, 0 to 2 percent slopes
- Proposed Project Planning Area



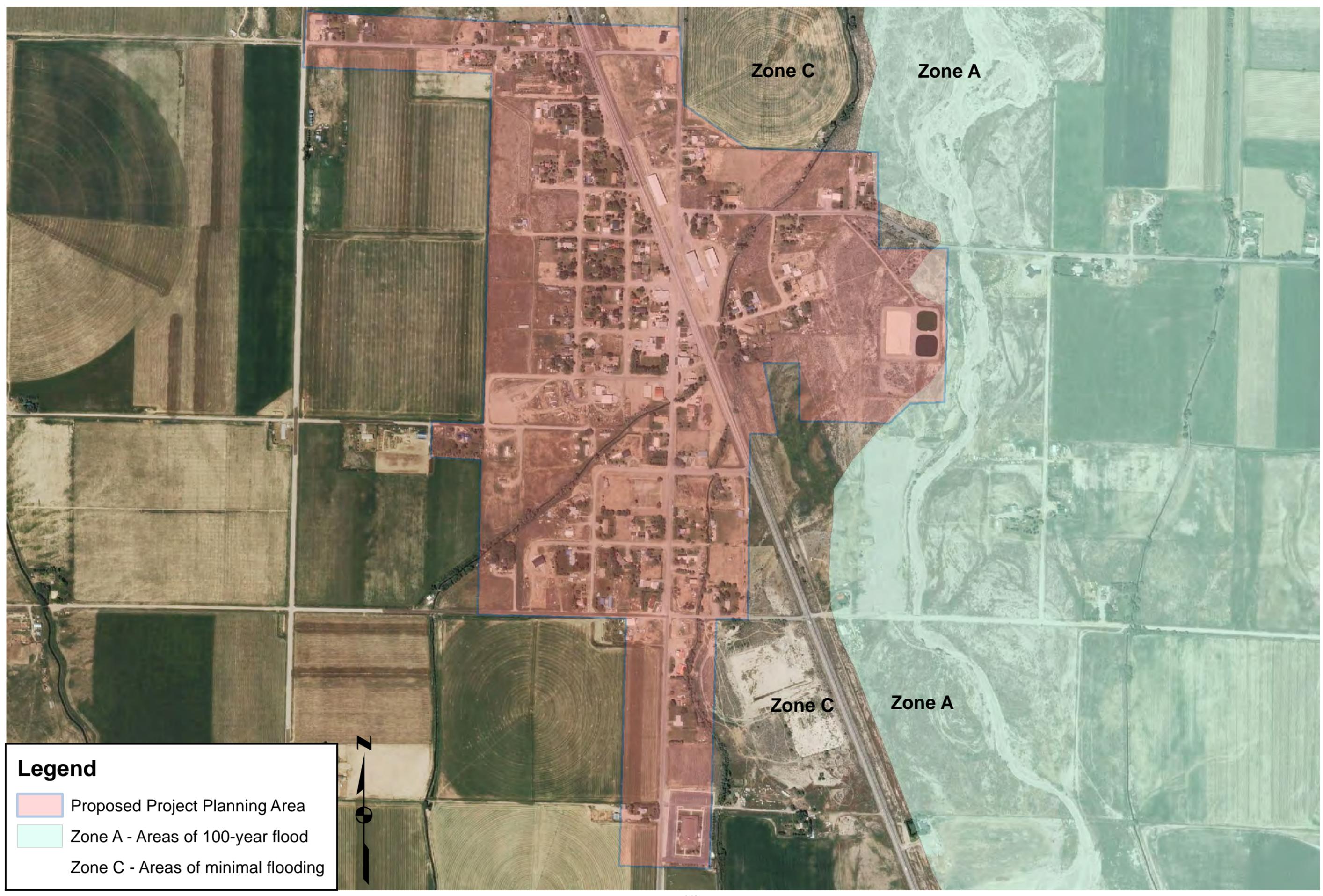
<p>Moore Water & Sewer Association</p>	<p>Wastewater Facility Planning Study</p> <p>NRCS Soil Survey</p>	<p>PROJECT NO. 210050</p> <p>FILENAME</p>
 <p>305 N. 3rd Avenue Pocatello, ID 83201 208.238.2146 www.kellerassociates.com</p>		<p>FIGURE NO. 4.2</p>



Legend

-  Proposed Project Planning Area
-  Open Water
-  Developed, Open Space
-  Developed, Low Intensity
-  Developed, Medium Intensity
-  Developed, High Intensity
-  Barren Land (Rock/Sand/Clay)
-  Shrub/Scrub
-  Grassland/Herbaceous
-  Pasture/Hay
-  Cultivated Crops

<p>Wastewater Facility Planning Study</p>	<p>Land Cover</p>
<p>Moore Water & Sewer Association</p>	 <p>305 N. 3rd Avenue Pocatello, ID 83201 208.238.2146 www.kellerassociates.com</p>
<p>FIGURE NO. 4.3</p>	<p>PROJECT NO. 210050 FILENAME Fig 4.3</p>



Legend

- Proposed Project Planning Area
- Zone A - Areas of 100-year flood
- Zone C - Areas of minimal flooding



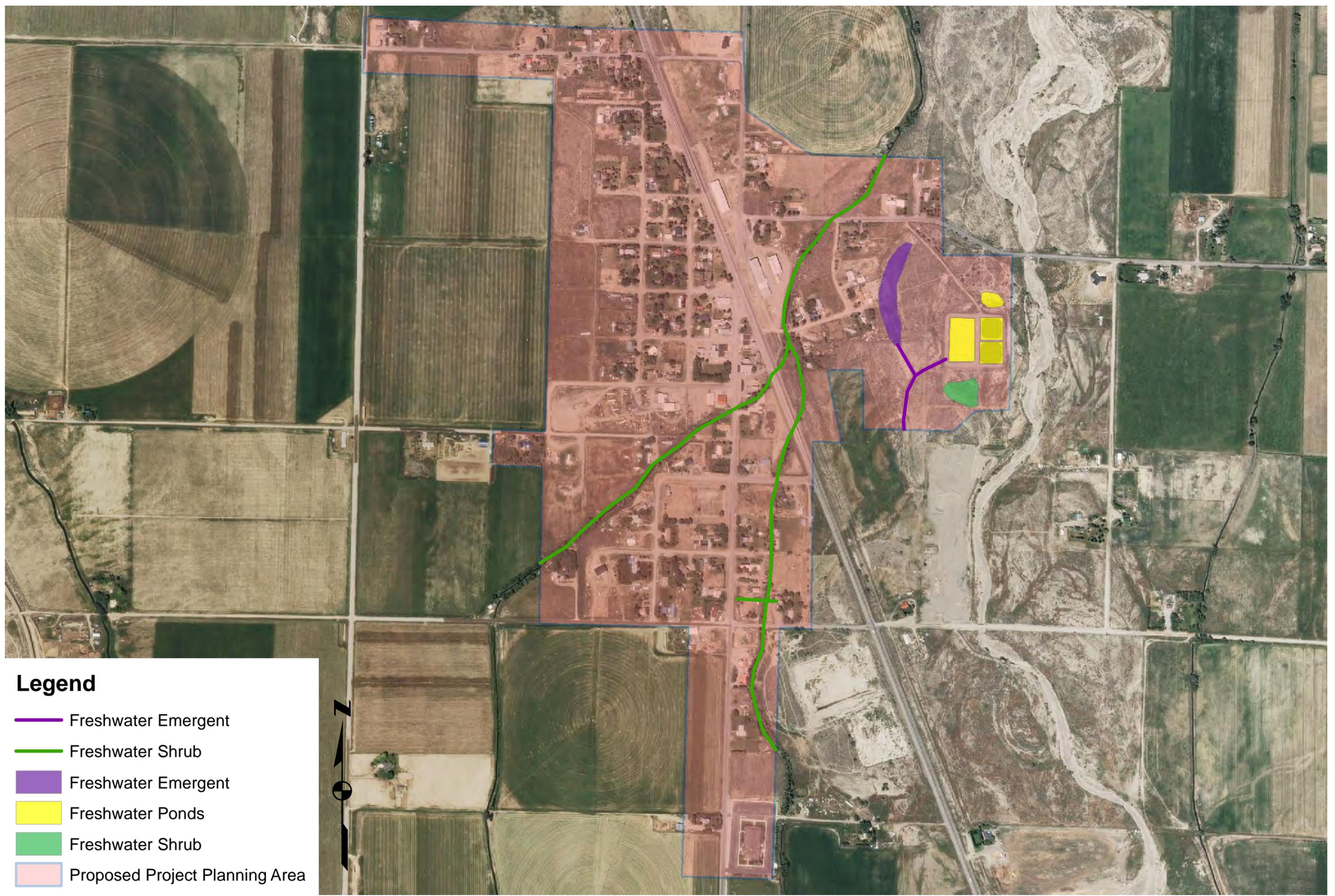
PROJECT NO. 210050
 FILENAME

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


Moore Water & Sewer Association

Wastewater Facility Planning Study
 Floodplains

FIGURE NO. 4.4



Legend

- Freshwater Emergent
- Freshwater Shrub
- Freshwater Emergent
- Freshwater Ponds
- Freshwater Shrub
- Proposed Project Planning Area



<p>Wastewater Facility Planning Study</p> <p style="text-align: center;">Wetlands</p>	<p>Moore Water & Sewer Association</p>	<p>PROJECT NO. 210050</p> <p>FILENAME</p>
<p>305 N. 3rd Avenue Pocatello, ID 83201 208.238.2146 www.kellerassociates.com</p> <p>KELLER ASSOCIATES</p>		<p>Fig 4.5</p>
<p>FIGURE NO. 4.5</p>		