Environmental Information Document

for

City of Blackfoot, Idaho

Wastewater Treatment Facility Improvements

June 2014

Prepared by

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Project Cost Information

The Wastewater Treatment Facility Plan (April 2014) for the City of Blackfoot, Idaho evaluates multiple improvements to the existing Wastewater Treatment Facility (WWTP). Each component of the proposed improvements for the preferred Alternative 4 is listed in the table below with the corresponding capital cost (in 2013 dollars) based on the Capital Improvement Plan and phasing proposed in the Facility Plan.

The cost opinions in the Facility Plan did not reflect compliance with Davis-Bacon wages, American Iron and Steel (AIS) provisions, or other funding-specific requirements. However, some funding sources, such as the DEQ State Revolving Loan Program, have recently begun requiring compliance with these provisions. If project funding is to be obtained from sources that require compliance with these provisions, then the construction cost portion of the cost opinions should generally be increased by a global factor of 12.5%. This factor has been estimated based on a cursory comparison of several bids for projects with and without Davis-Bacon Wage requirements, with a corresponding increase of approximately 7.5%. The impact for AIS compliance is currently not known; therefore, an additional increase of 5% for AIS compliance has been assumed. Additionally, market conditions are volatile and an updated cost opinion that includes adjustments for inflation should be prepared at the actual time of implementation.

Estimated Capital Costs for Proposed Improvements

Item	Description	Projects within 5 Years (Capital Cost in 2013 Dollars)	Projects in 5 to 10 Years (Capital Cost in 2013 Dollars)	Projects in 10 to 20 Years (Capital Cost in 2013 Dollars)
Septage Receiving Station	New package septage receiving station		$547,000	
Mechanical Screening and Grit Removal	New Headworks, including flow measurement, sampling, two 6 mm mechanical fine screens, washer/compactors, and grit removal		$3,024,000	
	Headworks odor control system		$464,000	
Primary Clarification	No improvements are recommended at this time	N/A	N/A	N/A
Primary Solids Pumping	Retrofit existing pumping system with pumps capable of a 5' lift at 3% solids; replace piping to the solids processing system			$653,000
Gravity Thickener	Miscellaneous rehabilitation; cover			$316,000
Intermediate Pump Station	Replacement or a major retrofit of the existing pump station	$559,000		
Bioselector	No improvements are recommended at	N/A	N/A	N/A

Item	Description	Projects within 5 Years (Capital Cost in 2013 Dollars)	Projects in 5 to 10 Years (Capital Cost in 2013 Dollars)	Projects in 10 to 20 Years (Capital Cost in 2013 Dollars)
	this time			
Aeration Basins, Blowers, and Diffused Aeration	Replace existing aeration distribution lines from the Blower Building to each aeration basin		$415,000	
	Chemical addition for phosphorus removal			$505,000
MLSS Distribution Box and Secondary Clarifier No. 3	New distribution box to accommodate four aeration basins and four secondary clarifiers. New 60'-diameter secondary clarifier	$1,816,000		
Secondary Clarifier No. 4	New 60'-diameter secondary clarifier			$1,569,000
RAS/WAS Control	Add RAS return to Intermediate Pump Station; replace existing, failed valves; incorporate new clarifier	$207,000		
	RAS/WAS pump station			$1,539,000
UV Disinfection System	Retrofit existing system with new low-pressure/high-output bulbs, ballasts, and controls		$767,000	
	New building; HVAC; gantry crane		$822,000	
Outfall	No improvements are recommended at this time	N/A	N/A	N/A
WAS Thickening	New thickening unit; piping modifications in the solids pumping room; new thickened solids pump; re-routing primary solids feed directly to the digester feed line	$998,000		
Solids Blend Tank	Inspection, concrete repair, and re-coating	$103,000		
Anaerobic Digesters	Add a transfer pump between the Thermophilic and Mesophilic Digesters	$87,000		
	Replace the Thermophilic Digester seal; add staircases and safety improvements to the Mesophilic Digesters; clean, re-coat, and replace mixing system and piping in Primary and Secondary Mesophilic Digesters	$12,000 (Thermophilic Digester seal)		$3,204,000

Item	Description	Projects within 5 Years (Capital Cost in 2013 Dollars)	Projects in 5 to 10 Years (Capital Cost in 2013 Dollars)	Projects in 10 to 20 Years (Capital Cost in 2013 Dollars)
Digester Gas	Install a hoist system to aid removal of the iron sponge lid and replacement of the media; add a bladder-style gas storage vessel to equalize production and consumption		$1,176,000	
Mechanical Dewatering	Add a second screw press and polymer make-up unit; integrate cake conveyor controls; replace solids feed pump		$799,000	
Liquid Solids Storage	Add a return line from the Liquid Solids Storage tanks to the dewatering equipment feed pump		$124,000	
Support Facilities	No improvements are recommended at this time	N/A	N/A	N/A
	SUB TOTAL	**$3,782,000**	**$8,138,000**	**$7,786,000**
				GRAND TOTAL = $19,706,000

In the near-term, the City is currently considering funding for Phase 1 improvements. The City is planning to obtain funding for these improvements from the IDEQ State Revolving Loan Fund (SRF) which will require compliance with Davis-Bacon Wages and AIS requirements. The engineer's opinion of probable cost for the Phase 1 improvements is summarized in the table below. These costs are in current 2014 dollars, have been adjusted for Davis-Bacon Wage and AIS compliance, and include engineering, administration, and legal costs:

Item	Description	Capital Cost in 2014 Dollars
MLSS Distribution Box and Secondary Clarifier No. 3	New distribution box to accommodate four aeration basins and four secondary clarifiers. New 60'-diameter secondary clarifier	$2,056,054
Intermediate Pump Station	Replacement or a major retrofit of the existing pump station	$632,889
RAS/WAS Control	Add RAS return to Intermediate Pump Station; replace existing, failed valves; incorporate new clarifier	$234,413
	TOTAL	$2,923,356

On December 18, 2013, the City received judicial confirmation to incur debt for up to $2,900,000 to fund the Phase 1 improvements. Any additional funds beyond this amount that may be required will come from the City's capital sewer budget or other sources of funding.

User Costs

Funding for the proposed WWTP improvements is anticipated to be a combination of loan and user rate increases. The City employs a wastewater rate system based on a flat rate for customers except industrial customers, who are charged proportionally based on a combination of a base rate, total suspended solids, biochemical oxygen demand, and flow.

According to the 2007 Wastewater Collection System Master Plan, Section 2-2, the average wastewater flow per person per day was estimated to be 70 gallons per capita per day (GPCD) for typical residential units. This value was based on flow monitoring results obtained in July 2006 and typical domestic water use patterns. Based on the 2010 Census data, Blackfoot has 2.70 persons per household. Therefore, the flow per equivalent dwelling unit (EDU) is approximately 189 gallons per day.

Projected rate impacts were based on the following: the opinion of probable cost for each alternative; an interest rate between 1.75 and 3.75 percent; a payback period of 20 years; the potential for grant participation as noted in the table; and the existing number of EDUs in the service area.

The following table shows estimated costs per EDU for the proposed improvements. The projected rate impacts for Phase 1 improvements only are also provided in the table:

Probable Added Monthly Cost per EDU

	Capital Cost (2013 Dollars)	Present Worth O&M Costs (2013 Dollars)	Total Present Worth (2013 Dollars)
Proposed Improvements (Alternative 4 – Upgrade All Components with Noted Deficiencies)	$19,706,000[(b)]	$4,644,000 (Above Existing Conditions)	$24,350,000
Monthly Cost per EDU (no grant funding) [(a)]	$12.77 to $15.32	$3.01 to $3.61	$15.78 to $18.93
Monthly Cost per EDU (including $315,000 Community Development Block Grant) [(a)]	$12.57 to $15.08	$3.01 to $3.61	$15.58 to $18.69
Proposed Improvements (Phase 1 Only)	$2,923,356[(c)]	$541,000 (Above Existing Conditions)	$3,464,356
Monthly Cost per EDU (no grant funding) [(a)]	$1.89 to $2.27	$0.35 to $0.42	$2.25 to $2.69
Monthly Cost per EDU (including $315,000 Community Development Block Grant) [(a)]	$1.69 to $2.03	$0.35 to $0.42	$2.04 to $2.45

(a) Based on the following number of connections reported by the City during development of the Facility Plan: residential connections – 5,201; church, business, and non-industrial connections – 939 equivalent dwelling units (EDUs); Significant Industrial Users – 1,485 EDUs. Assumes an interest rate between 1.75 and 3.75 percent, and a payback period of 20 years. Grant portion as noted.

(b) Recent changes in IDEQ SRF loans have necessitated Davis-Bacon prevailing wages and Buy-American clauses for steel and associated construction materials; these requirements arose during the development and completion of the Facility Plan, may change over time, may not be applicable depending on the actual source of project funding, and have therefore not been included in these estimates.

(c) Because the Phase 1 project is anticipated to use IDEQ SRF loan funding and have to comply with Davis-Bacon prevailing wages and American Iron and Steel provisions, these estimates have been increased accordingly (see earlier discussion in Project Cost Information section.) Also, these costs are in current 2014 dollars.

Note that the monthly user costs are in addition to the City's current based residential user rate of $30.04.

Abstract

The Wastewater Treatment Facility Plan (April 2014) for the City of Blackfoot, Idaho recommends multiple improvements to the existing Wastewater Treatment Facility (WWTP) to meet the National Pollutant Discharge Elimination System (NPDES) discharge limits for the Snake River and Idaho Department of Environmental Quality (IDEQ) rules. In addition to meeting NPDES discharge limits, several improvements discussed in the Facility Plan are recommended to improve operations and reduce operation and maintenance needs. The City is planning to obtain funding for some of the improvements from the IDEQ State Revolving Fund (SRF). This funding mechanism requires compliance with Idaho Rules for Administration of Water Pollution Control Loans as described in Idaho Administrative Procedures Act (IDAPA) Section 58.01.12. The project environmental review will meet IDEQ process requirements, which mirror the requirements of the National Environmental Policy Act (NEPA).

The proposed improvements consist of upgrading all components with operational or capacity deficiencies as well as addressing permit-driven requirements, such as effluent total suspended solids and total phosphorus, which are reasonably expected over the facility's 20-year planning period.

The Facility Plan identified four alternatives for the necessary improvements. This Environmental Information Document (EID) briefly reviews those alternatives and discusses the environmental impacts of each. The City selected a preferred alternative (Alternative 4) after receiving public input. This document provides a more thorough environmental review of the preferred alternative and includes mitigation measures identified after consultation with environmental agencies.

Currently, in the near-term, the City plans to use an SRF Loan to finance only the Phase 1 improvements to the secondary clarifier, intermediate pump station, RAS/WAS control upgrades, and associated piping and valving, although it is the City's intention to pursue funding for additional improvements in the future. Therefore, environmental impacts from all of the improvements identified in the preferred alternative are being reviewed as part of this EID.

After consulting with environmental agencies and reviewing the potential environmental impacts and necessary mitigation measures (see Sections 4 and 5 of this document), it is not anticipated that negative long-term environmental impacts will occur as a result of the proposed improvements for the Blackfoot WWTP. The improvements are expected to have positive long-term environmental impacts as a result of improved effluent quality, increased reliability, and additional capacity for community growth.

Section 1 - Background, Purpose, and Need

1.1 Background

The City of Blackfoot (City) is located in eastern Idaho, generally east of the Snake River and north of the Blackfoot River. The City's existing Wastewater Treatment Facility (WWTP) is located on the bank of the Snake River, southwest of the City on the west side of Interstate 15 off of Riverton Road. The City WWTP receives and treats wastewater from the City of Blackfoot and from the Groveland and Moreland Sewer Districts. The WWTP discharges effluent to the Snake River. **Figures 1-1 and 1-2** show the City Boundary for Blackfoot and Areas of City Impact (ACI) for Blackfoot, Groveland and Moreland as well as the Proposed Project Planning Area (PPPA) and Area of Potential Effect (APE) for this document. The PPPA and APE are discussed further in Section 4.

1.2 Historical Facility Planning

The Blackfoot WWTP currently discharges approximately 1.5 million gallons per day (mgd) into the Snake River. The last facility planning effort for the facility was completed in 1998. Since that time, the facility underwent upgrades for the following:

- Screening facilities,
- Septage receiving station,
- An additional aeration basin,
- Bioselector,
- UV disinfection,
- Solids blending and pumping prior to digestion,
- Thermophilic digestion,
- Digester gas utilization,
- Solids dewatering,
- Maintenance building, and
- Various site improvements.

These upgrades have allowed the facility to operate well, but multiple issues have surfaced related to reliability, capacity, and operation and maintenance. Additionally, the facility's previous National Pollutant Discharge Elimination System (NPDES) Permit issued by the US EPA has expired, and a new permit was issued in September 2013 that includes a limit for total phosphorus and has more stringent discharge limits for biochemical oxygen demand (BOD) and total suspended solids (TSS).

1.3 Purpose and Need for Proposed Improvements

The purpose and need of the proposed improvements is to address reliability, capacity, and operation and maintenance concerns, in addition to meeting the National Pollutant Discharge Elimination System (NPDES) discharge limits in the Snake River. The City received a new NPDES permit in September 2013 which included more stringent limits for nutrients and total suspended solids. In addition, both residential and industrial growth have occurred necessitating capacity improvements. Finally, some components of the WWTP are at or near the end of their useful life and need to be upgraded or replaced to maintain the required level of service.

In order to meet the permitting and treatment objectives as well as provide for continued growth to its member entities, the City of Blackfoot considered four general improvement alternatives for the 20-year planning period, which include:

- Alternative 1: No-action alternative,
- Alternative 2: Address critically overloaded components only,
- Alternative 3: Address critically overloaded components and probable permit violations, and
- Alternative 4: Upgrade all components with noted deficiencies.

Each of these alternatives is discussed in more detail in subsequent sections of this report, and additional information is contained in Technical Memorandum # 7 in the Facility Plan. Regarding Alternative 3, the term "probable permit violations" particularly refers to the potential for future violations of the new discharge limits for phosphorus which are included in the City's recently reissued discharge permit. These violations may eventually occur if the upgrades identified under Alternative 3 are not implemented. Alternative 4 includes the upgrades identified under Alternative 3.

Figure 1-1 – Proposed Project Planning Area (PPPA)

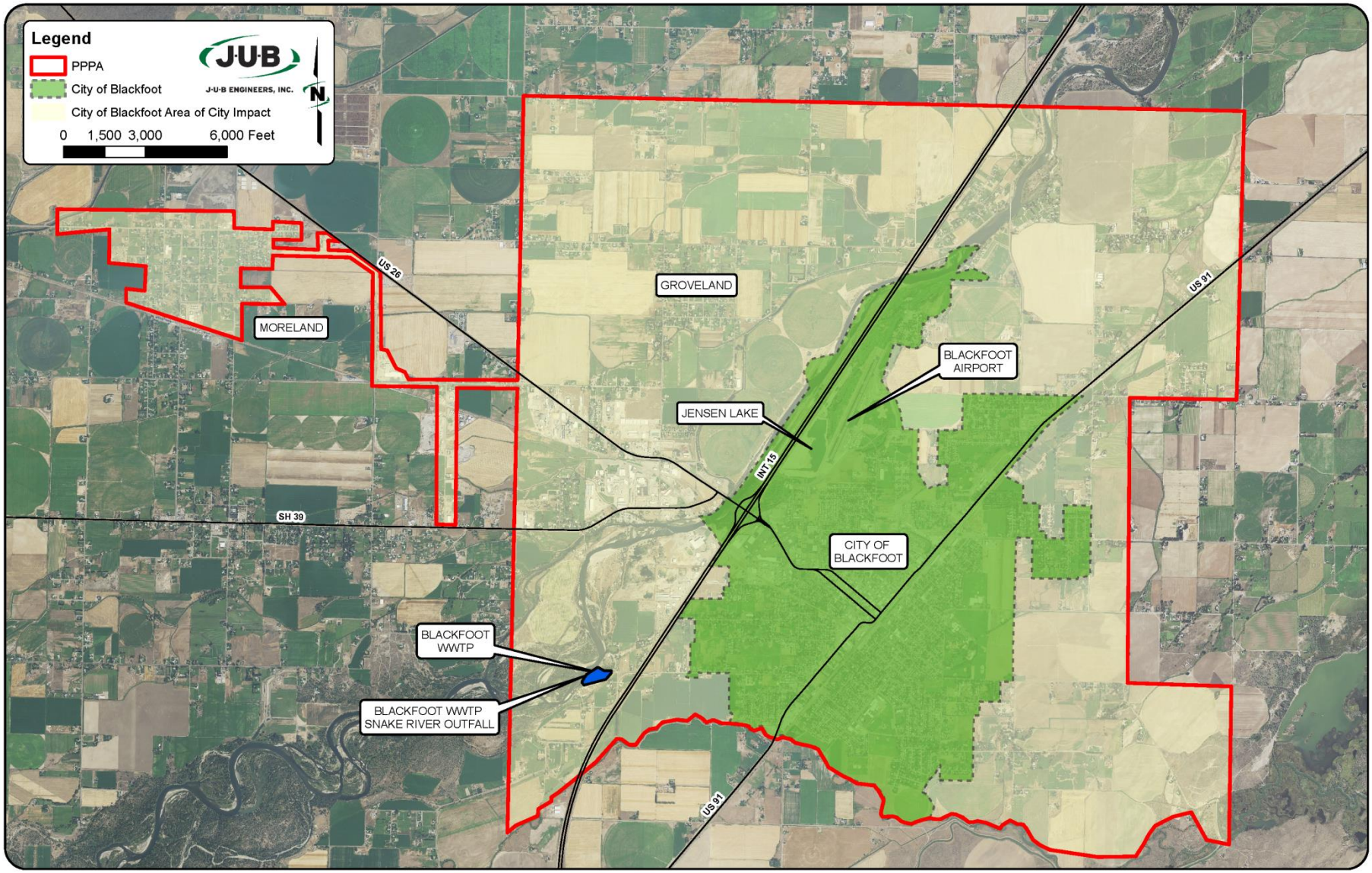
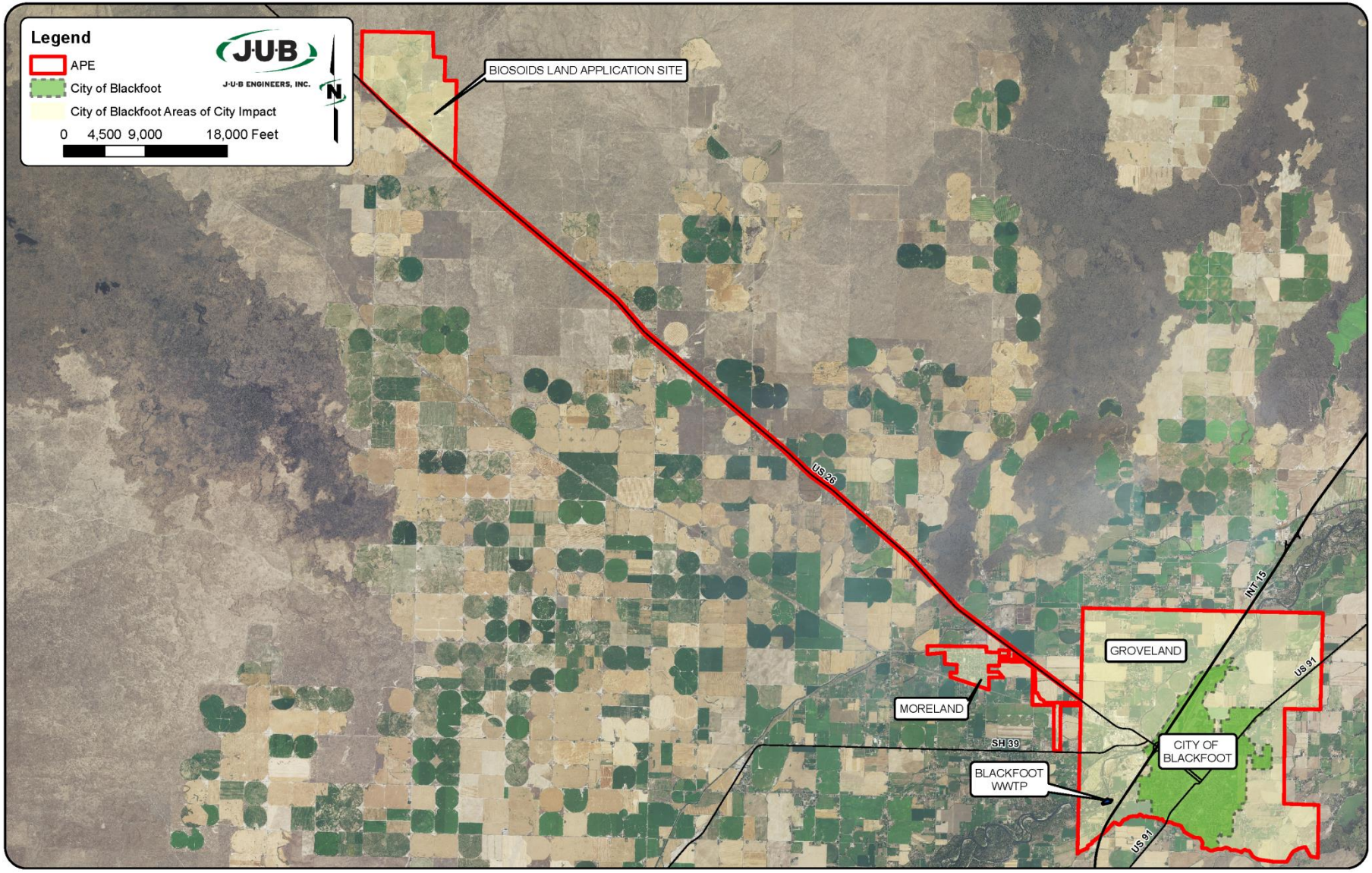


Figure 1-2 – Area of Potential Effect (APE)

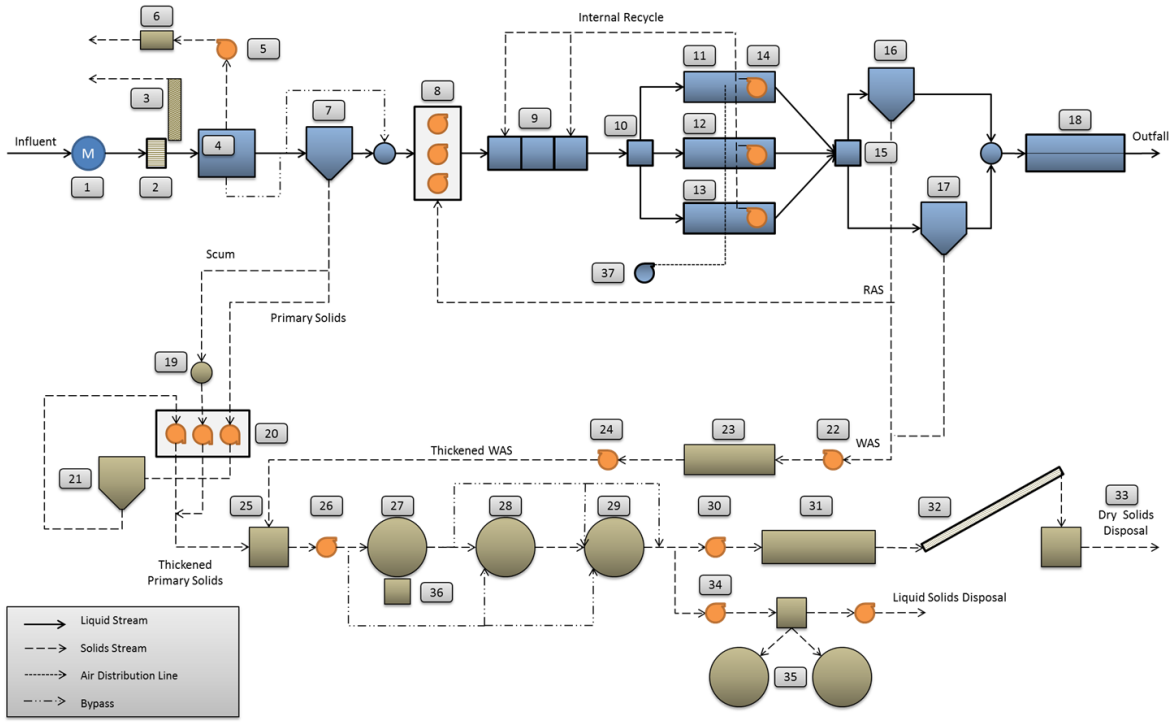


Section 2 - Proposed Alternatives

2.1 Existing Facilities

The Blackfoot WWTP provides biological treatment for incoming domestic, commercial, and industrial waste. Wastewater is screened, de-gritted, and sent to the single primary clarifier during preliminary treatment. Screened and clarified influent are pumped to the anaerobic and anoxic selectors, distributed into the aeration basins, and then sent to the two secondary clarifiers. Following secondary clarification and prior to discharge to the receiving waters, the treated effluent undergoes UV disinfection. Treated flow is currently discharged to the Snake River northwest of the facility at river mile 776.81. Settled solids, from the secondary clarifiers, to be wasted from the system, are thickened prior to anaerobic digestion. Primary and waste activated solids from the treatment facility undergo anaerobic digestion to stabilize the solids before they are dewatered and disposed of on the City of Blackfoot land application site. A diagram of the existing facility process is shown on **Figure 2-1**. Additional information can be found in Technical Memorandum # 4 in the Facility Plan.

Figure 2-1 – Existing Blackfoot WWTP Process Schematic



Item	Description	Total Volume (gal)	SWD (ft)	Area (sf)	Dia (ft)	Length (ft)	Width (ft)
1	Influent Flow Meter	N/A	-	-	-	-	-
2	Step Screen	N/A	-	-	-	-	-
3	Washer / Compactor	N/A	-	-	-	-	-
4	Aerated Grit Chamber	11,400	10.6	144	-	12	12
5	Grit Pump	N/A	-	-	-	-	-
6	Grit Classifier	N/A	-	-	-	-	-
7	Primary Clarifier	211,000	10	2,827	60	-	-
8	Screw Pump Station	N/A	-	-	-	-	-
9	Anaerobic / Anoxic Selectors	222,000	14	704	-	33.5	21
10	Distribution Box to Aeration Basins	N/A	-	-	-	-	-
11	Aeration Basin No. 1	648,000	14	6,188	-	154.7	40
12	Aeration Basin No. 2	518,000	14 (est)	5,940	-	110	54
13	Aeration Basin No. 3	518,000	14 (est)	5,940	-	110	54
14	Internal Recycle Pumps	N/A	-	-	-	-	-
15	Distribution Box to Secondary Clarifiers	N/A	-	-	-	-	-
16	Secondary Clarifier No. 1	254,000	12	2,827	60	-	-
17	Secondary Clarifier No. 2	254,000	12	2,827	60	-	-
18	UV Disinfection	N/A	-	-	-	-	-
19	Primary Clarifier Scum Pit	N/A	-	-	-	-	-
20	Primary Solids Pump Station	N/A	-	-	-	-	-
21	Gravity Thickener	14,500	9.67	201	16		
22	WAS Pumping	N/A	-	-	-	-	-
23	WAS Thickening	N/A	-	-	-	-	-
24	Thickened WAS Pumping	N/A	-	-	-	-	-
25	Solids Blend Tank	19,100	10	256	-	16	16
26	Digester Feed Pump	N/A	-		-	-	-
27	Thermophilic Digester	273,000	29	1,257	40	-	-
28	Primary Mesophilic Digester	254,000	27	1,257	40	-	-
29	Secondary Mesophilic Digester	235,000	25	1,257	40	-	-
30	Digested Solids Feed to Dewatering	N/A	-	-	-	-	-
31	Mechanical Dewatering	N/A	-	-	-	-	-
32	Solids Conveyor to Storage	N/A	-	-	-	-	-
33	Dry Solids Storage	-	-	10,800	-	Varies	Varies
34	Digested Solids Feed to Liquid Storage	N/A	-	-	-	-	-
35	Liquid Solids Storage	994,000	22	3,019	62	-	-
36	Digester Gas Flaring / Reuse	N/A					
37	Blower / Diffuser System	N/A					

2.1.1 Flow Projections

Flow projections were developed as part of the City of Blackfoot's WWTP Facility Plan, Technical Memorandum #3. The WWTP influent flow reports for years 2008 through 2012 were analyzed to characterize existing flows and loads to the facility. The daily average values were analyzed and used to estimate maximum month and peak daily values. Future domestic average daily values were projected based on an annual population growth rate of 2.0 percent, as selected by the City. Future industrial average daily values were projected assuming that the significant industrial users would discharge at the maximum extent allowed under their current discharge permits and that the compliance schedules included in their permits would be fully implemented. **Table 2-1** summarizes project influent flows for the Blackfoot WWTP.

2.2 Introduction to Alternatives

The following sections summarize the primary improvement alternatives considered for the City of Blackfoot WWTP. Various options for each component of the alternatives were evaluated for the Facility Plan by a team of wastewater process engineers considering specific permit and capacity requirements. **Table 2-2** contains a summary of the major improvement alternatives:

- Alternative 1: No-action alternative,
- Alternative 2: Address critically overloaded components only,
- Alternative 3: Address critically overloaded components and probable permit violations, and
- Alternative 4: Upgrade all components with noted deficiencies.

Each of these alternatives will be discussed in more detail below, including the potential environmental impacts, advantages, and disadvantages. Potential site layout for the necessary 20-year WWTP improvements is shown in **Figure 2-2**.

Table 2-1 – Projected Flow and Load Summary

	Existing			Projected for Year 2034		
	Domestic	Industrial	Total WWTP	Domestic	Industrial (with Compliance Schedule)	Total WWTP
Flow (mgd)						
Average Daily	1.33	0.12	1.45	2.06	0.64	2.70
Maximum Month	1.83	0.17	2.00	2.82	0.88	3.70
Peaking Factor	1.4	1.4	1.4	1.37	1.37	1.37
Peak Daily	3.13	0.29	3.42	4.84	1.51	6.35
Peaking Factor	2.4	2.4	2.4	2.35	2.35	2.35
Peak Hour [(a)]	Unknown	Unknown	Unknown	5.55	1.51	7.06
Peaking Factor				2.70	2.35	2.62

[(a)]Based on peak hour peaking factor of 2.7 using Figure 1 in 10 States Standards for the domestic contribution. No additional allowance is made for industrial peaks.

Table 2-2 – Summary of Improvements Evaluated in Facility Plan for Each Alternative

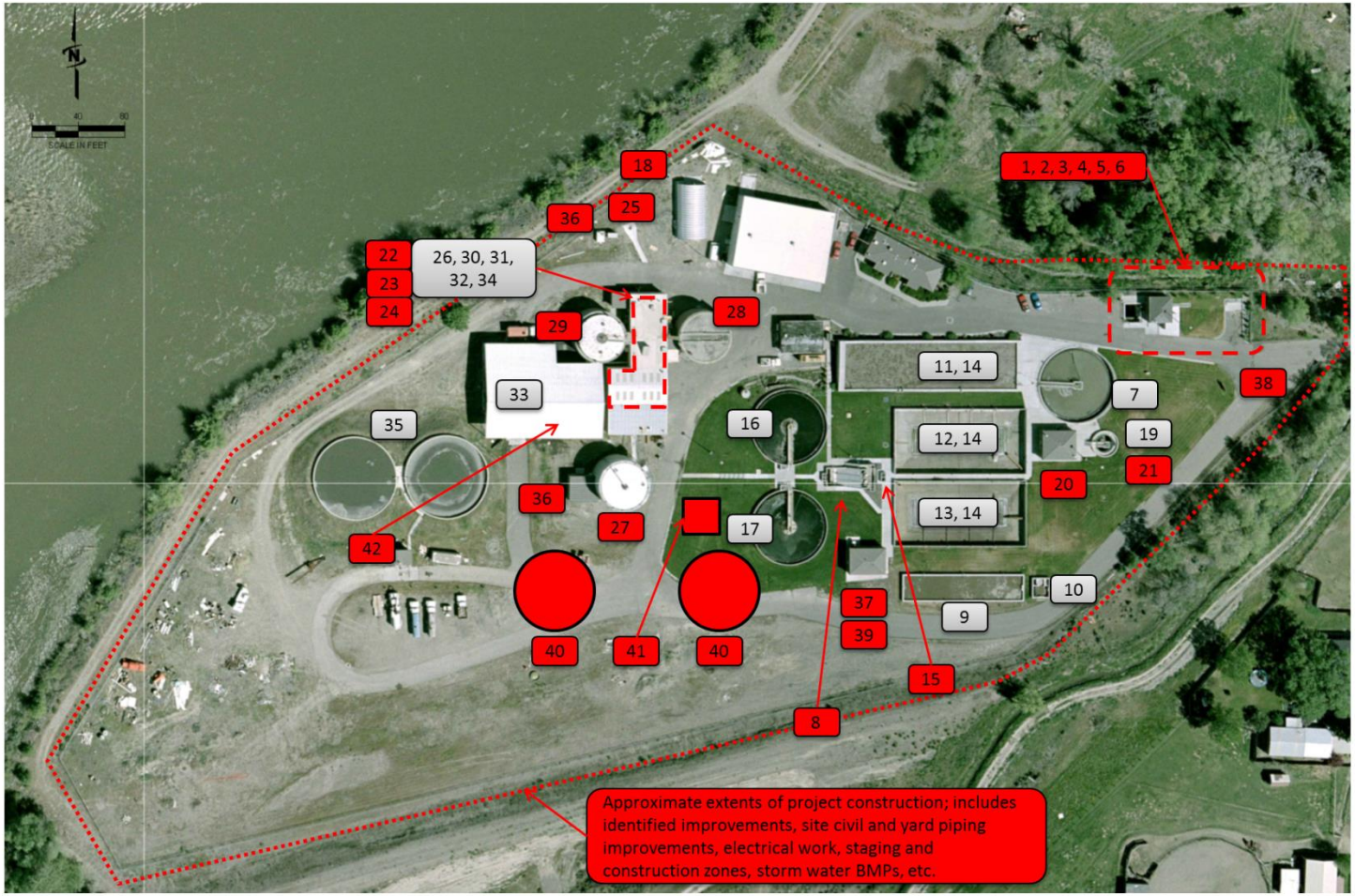
Item	Description	Capital Cost	O&M Cost (20-Yr Present Worth)	Total Present Worth Cost	Alternative 1 (Do Nothing)	Alternative 2 (Critically Overloaded)	Alternative 3 (Critically Overloaded and Probable Permit Violations)	Alternative 4 (Upgrade All Components with Deficiencies)
Septage Receiving Station	New package septage receiving station	$547,000	No significant change from existing	$547,000			x	x
Mechanical Screening and Grit Removal	New Headworks, including flow measurement, sampling, two 6 mm mechanical fine screens, washer/compactors, and grit removal	$3,024,000	No significant change from existing	$3,024,000		x	x	x
	Headworks odor control system	$464,000	$224,000	$688,000				x
Primary Clarification	No improvements are recommended at this time	N/A	N/A	N/A				
Primary Solids Pumping	Retrofit existing pumping system with pumps capable of a 5' lift at 3% solids; replace piping to the solids processing system	$653,000	No significant change from existing	$653,000				x
Gravity Thickener	Miscellaneous rehabilitation; cover	$316,000	No significant change from existing	$316,000				x
Intermediate Pump Station	Replacement or a major retrofit of the existing pump station	$559,000	No significant change from existing	$559,000		x	x	x
Bioselector	No improvements are recommended at this time	N/A	N/A	N/A				

Item	Description	Capital Cost	O&M Cost (20-Yr Present Worth)	Total Present Worth Cost	Alternative 1 (Do Nothing)	Alternative 2 (Critically Overloaded)	Alternative 3 (Critically Overloaded and Probable Permit Violations)	Alternative 4 (Upgrade All Components with Deficiencies)
Aeration Basins, Blowers, and Diffused Aeration	Replace existing aeration distribution lines from the Blower Building to each aeration basin	$415,000	No significant change from existing	$415,000		x	x	x
	Chemical addition for phosphorus removal	$505,000	$2,189,000	$2,694,000			x	x
MLSS Distribution Box and Secondary Clarifier No. 3	New distribution box to accommodate four aeration basins and four secondary clarifiers. New 60'-diameter secondary clarifier	$1,816,000	$541,000	$2,357,000		x	x	x
Secondary Clarifier No. 4	New 60'-diameter secondary clarifier	$1,569,000	$541,000	$2,110,000			x	x
RAS/WAS Control	Add RAS return to Intermediate Pump Station; replace existing, failed valves; incorporate new clarifier	$207,000	No significant change from existing	$207,000		x	x	x
	RAS/WAS pump station	$1,539,000	$981,000	$2,520,000				x
UV Disinfection System	Retrofit existing system with new low-pressure/high-output bulbs, ballasts, and controls	$767,000	No significant change from existing	$767,000		x	x	x
	New building; HVAC; gantry crane	$822,000	No significant change from existing	$822,000			x	x
Outfall	No improvements are recommended at this time	N/A	N/A	N/A				

Item	Description	Capital Cost	O&M Cost (20-Yr Present Worth)	Total Present Worth Cost	Alternative 1 (Do Nothing)	Alternative 2 (Critically Overloaded)	Alternative 3 (Critically Overloaded and Probable Permit Violations)	Alternative 4 (Upgrade All Components with Deficiencies)
WAS Thickening	New thickening unit; piping modifications in the solids pumping room; new thickened solids pump; re-routing primary solids feed directly to the digester feed line	$998,000	No significant change from existing	$998,000		x	x	x
Solids Blend Tank	Inspection, concrete repair, and re-coating	$103,000	No significant change from existing	$103,000		x	x	x
Anaerobic Digesters	Add a transfer pump between the Thermophilic and Mesophilic Digesters	$87,000	$166,000	$253,000			x	x
	Replace the Thermophilic Digester seal; add staircases and safety improvements to the Mesophilic Digesters; clean, re-coat, and replace mixing system and piping in Primary and Secondary Mesophilic Digesters	$3,216,000	No significant change from existing	$3,216,000			x	x
Digester Gas	Install a hoist system to aid removal of the iron sponge lid and replacement of the media; add a bladder-style gas storage vessel to equalize production and consumption	$1,176,000	$2,000	$1,178,000			x	x
Mechanical Dewatering	Add a second screw press and polymer make-up unit; integrate cake conveyor controls; replace solids feed pump	$799,000	No significant change from existing	$799,000				x
Liquid Solids Storage	Add a return line from the Liquid Solids Storage tanks to the dewatering equipment feed pump	$124,000	No significant change from existing	$124,000			x	x

Item	Description	Capital Cost	O&M Cost (20-Yr Present Worth)	Total Present Worth Cost	Alternative 1 (Do Nothing)	Alternative 2 (Critically Overloaded)	Alternative 3 (Critically Overloaded and Probable Permit Violations)	Alternative 4 (Upgrade All Components with Deficiencies)
Support Facilities	No improvements are recommended at this time	N/A	N/A	N/A				

Figure 2-2 – Potential Site Layout 20-Year WWTP Improvements



City of Blackfoot Wastewater Treatment Facility (WWTP)

Proposed Project Improvements

Item	Description
1	Influent Flow Meter
2	Step Screen
3	Washer / Compactor
4	Aerated Grit Chamber
5	Grit Pump
6	Grit Classifier
7	Primary Clarifier
8	Intermediate Pump Station
9	Anaerobic / Anoxic Selectors
10	Distribution Box to Aeration Basins
11	Aeration Basin No. 1
12	Aeration Basin No. 2
13	Aeration Basin No. 3
14	Internal Recycle Pumps
15	Distribution Box to Secondary Clarifiers
16	Secondary Clarifier No. 1
17	Secondary Clarifier No. 2
18	UV Disinfection
19	Primary Clarifier Scum Pit
20	Primary Solids Pump Station
21	Gravity Thickener with New Cover
22	WAS Pumping
23	WAS Thickening
24	Thickened WAS Pumping
25	Solids Blend Tank Recoating and PS re-route
26	Digester Feed Pump
27	Thermophilic Digester
28	Primary Mesophilic Digester and Mixing / Heating
29	Secondary Mesophilic Digester and Mixing / Heating
30	Digested Solids Feed to Dewatering
31	Mechanical Dewatering with Stand-by Unit
32	Solids Conveyor to Storage
33	Dry Solids Storage
34	Digested Solids Feed to Liquid Storage
35	Liquid Solids Storage
36	Digester Gas Flaring / Reuse
37	Blower / Diffuser System
38	Package Septage Receiving Station
39	Chemical Feed System for Phosphorus Removal
40	New Secondary Clarifiers
41	RAS / WAS Pump Station
42	Thermophilic Digested Solids Transfer Pump

2.3 Alternative 1: No Action Alternative

No improvements would be made at the wastewater treatment facilities through the planning period. As a result, the facility will likely experience permit violations, and operation and maintenance costs will increase as components continue aging and degrading. This alternative is not recommended for the following reasons:

- Preliminary Treatment:
  - The Headworks will not have sufficient capacity to treat peak day and hour flows.
  - The Primary Clarifier will be at the maximum recommended loading; however, this is not expected to have a significant impact on the overall performance of the facility.
- Biological Treatment:
  - The Blower/Diffused Aeration System does not have sufficient capacity for peak day or hour loads. Biological treatment could suffer and result in periodically violating the effluent ammonia permit limits.
  - Phosphorus removal has been sporadic. With the recently issued permit, violations of total effluent phosphorus are probable.
- Secondary Clarification:
  - The Secondary Clarifiers will be overloaded and will likely result in permit violations. If one of the clarifiers is removed from service or fails, permit violations similar to those observed in the winter of 2012 are highly probable.
- Disinfection:
  - The UV System does not have sufficient redundancy, and the components are generally degrading. Permit violations are probable. No improvement to maintenance activities is provided for the UV System; removal and replacement of bulbs will be manually, resulting in potentially unsafe situations.
- Solids Handling and Anaerobic Digestion:
  - The Primary Pumps are not capable of thickening solids above 2 percent, which increases the volumetric loading on the Anaerobic Digesters.
  - WAS thickening is constrained to 2 percent solids but should operate closer to 6 percent. This causes a significant increase in the volumetric loading to the Anaerobic Digesters.
  - The Solids Blend Tank interior should be evaluated and rehabilitated (as needed) to prevent significant corrosion to the basin, which will shorten the life of the structure and potentially result in a hazardous condition if the structure began collapsing.

- The Anaerobic Digestion System will operate at a low HRT, which will reduce the volatile solids destruction and potentially impact the City's ability to achieve Class B biosolids and dispose of the solids.
- Solids overflow from the Thermophilic Digesters will continue, resulting in potential health hazards and consumption of labor.
- Releasing digester gas results in significant odors and is a health hazard.

- Solids Dewatering:
  - The lack of redundancy for mechanical dewatering will likely result in continued use of the Liquid Storage Tanks. Without the ability to return the solids to the mechanical dewatering equipment, this results in increased solids disposal costs

2.3.1 Alternative 1 – Environmental Impacts

The primary environmental impacts are associated with the inability to maintain suitable operation of the facility and satisfy the NPDES effluent requirements. Thus, the anticipated potential environmental impacts associated with this alternative consist of the following:

- Impacts to Climate and Physical Aspects (Topography, Geology, and Soils): If the anaerobic digester performance is compromised, the facility may not be able to achieve Class B biosolids (short- and long-term impact).
- Impacts to Population, Economic, and Social Profile: No ability to expand the system or allow growth within the system (long-term impact).
- Impacts to Wetlands and Water Quality: Without upgrades, the facility will have difficulty meeting several of the NPDES Permit requirements (long-term impact).
- Impacts to Cultural Resources: None identified.
- Impacts to Flora and Fauna: None identified.
- Impacts to Air Quality: Continued release of gas generated in the Anaerobic Digesters represents a green-house emission and will contribute to odors (long-term impact).
- Impacts to Energy: Increased use of natural gas without beneficial reuse of gas generated in the Anaerobic Digesters (long-term impact).
- Impacts to Public Health: Water quality concerns with respect to inability to meet upcoming discharge requirements to river (long-term impact).

2.4 Alternative 2: Address Critically Overloaded Components Only

The components listed below will be overloaded on a hydraulic or solids basis within the planning period. This alternative includes the following:

- New influent fine screening and grit removal.

- Replacement or modification of the Intermediate Pump Station.
- Modifications to the Blower/Diffused Aeration System.
- Addition of Secondary Clarifier No. 3, including a new MLSS distribution box.
- RAS/WAS tie-in to existing process lines.
- New UV Disinfection System.
- New WAS thickening and process piping modifications.
- Solids Blend Tank rehabilitation and ability to route primary solids directly the Anaerobic Digesters.

2.4.1 Alternative 2 – Advantages

- Provides increased capacity for existing and future flows in preliminary Treatment
- Adds secondary clarifier redundancy for today's flows
- Lowest capital cost (except for No Action Alternative 1)

2.4.2 Alternative 2 – Disadvantages

- Limited redundancy for secondary clarification at future flows
- No redundancy for phosphorus compliance
- Does not address all noted deficiencies (e.g., operation or safety improvements)

2.4.3 Alternative 2 – Environmental Impacts

The primary environmental impacts are associated with the excavation and site disturbance for treatment facility upgrades. However, identified deficiencies that are not addressed will have a potential environmental impact. The anticipated potential environmental impacts associated with this alternative consist of the following:

- Impacts to Climate and Physical Aspects (Topography, Geology, and Soils): Excavation for treatment facilities (short-term impact).
- Impacts to Population, Economic, and Social Profile: Potential risk as the system grows and thus could be unable to meet river discharge requirements year-round (potential long-term impact).
- Impacts to Wetlands and Water Quality: Potential risk as the system grows and thus could be unable to consistently treat wastewater to meet water quality requirements and standards (potential long-term impact).
- Impacts to Cultural Resources: All work will be accomplished within the existing facility boundary, which has been previously disturbed; no impact expected.
- Impacts to Flora and Fauna: Temporary impacts associated with site disturbance, which can be mitigated through the use of BMPs (short-term impact).

- Impacts to Air Quality: Temporary impacts associated with construction emissions, which can be mitigated through the use of BMPs (short-term impact); continued release of gas generated in the Anaerobic Digesters represents a green-house emission and will contribute to odors (long-term impact).
- Impacts to Energy: Increased energy consumption with the upgrade of treatment facilities (long-term impact); increased use of natural gas without beneficial reuse of gas generated in the Anaerobic Digesters (long-term impact).
- Impacts to Public Health: *Positive*, improved ability to meet NPDES effluent requirements for discharge to the river (long-term impact).

2.5 Alternative 3: Address Overloaded Components and Probable Permit Violations

Components that are overloaded on a hydraulic or solids basis within the planning period are included, as well as improvements that would improve operations and the facility's ability to satisfy permit conditions. This alternative includes the following:

- New septage receiving station.
- New influent fine screening.
- Replacement or modification of the Intermediate Pump Station.
- Modifications to the Blower/Diffused Aeration System.
- Addition of a Chemical Feed System for phosphorus removal.
- Addition of Secondary Clarifier No. 3 and No. 4, including a new MLSS Distribution Box.
- RAS/WAS tie-in to existing process lines.
- New UV Disinfection System, including a building expansion, hoist, and related improvements.
- New WAS thickening and process piping modifications.
- Solids Blend Tank rehabilitation and ability to route primary solids directly the Anaerobic Digesters.
- Addition of a Solids Transfer Pump from the Thermophilic Digester to the Primary Mesophilic Digester.
- Miscellaneous Digester Upgrades: Repair seal on the Thermophilic Digester; repair and reinstall lid on Secondary Mesophilic Digester; construct new staircases and safety railing on the Mesophilic Digesters; clean, recoat, and replace mixing system and piping in Primary and Secondary Mesophilic Digesters.
- Updates to the existing Iron Sponge Scrubber to permit use of digester gas for heating purposes; installation of hoist to aid operations; additional gas storage.

- Add a solids return line from the Liquid Storage Tanks to the dewatering process.

2.5.1 Alternative 3 – Advantages

- Provides increased capacity for existing and future flows in Preliminary Treatment
- Adds secondary clarifier redundancy and improved operations through 20-year planning period
- Adds redundancy for phosphorus compliance, which reduces risk of permit violations

2.5.2 Alternative 3 – Disadvantages

- Does not address all noted deficiencies (E.G., operation or safety improvements)

2.5.3 Alternative 3 – Environmental Impacts

The primary environmental impacts are associated with the excavation and site disturbance for treatment facility upgrades. However, identified deficiencies that are not addressed will have a potential environmental impact. The anticipated potential environmental impacts associated with this alternative consist of the following:

- Impacts to Climate and Physical Aspects (Topography, Geology, and Soils): Excavation for treatment facilities (short-term impact).
- Impacts to Population, Economic, and Social Profile: Reduced risk as the system grows due to addition of process redundancy and improved operations (potential long-term impact).
- Impacts to Wetlands and Water Quality: Reduced risk as the system grows due to addition of process redundancy and improved operations (potential long-term impact).
- Impacts to Cultural Resources: All work will be accomplished within the existing facility boundary, which has been previously disturbed; no impact expected.
- Impacts to Flora and Fauna: Temporary impacts associated with site disturbance, which can be mitigated through the use of BMPs (short-term impact).
- Impacts to Air Quality: Temporary impacts associated with construction emissions, which can be mitigated through the use of BMPs (short-term impact); *positive* – gas generated in the Anaerobic Digesters can be beneficially reused for digester heating, which will reduce odors (long-term impact).
- Impacts to Energy: Increased energy consumption with the upgrade of treatment facilities (long-term impact); *positive* – reduced use of natural gas with beneficial reuse of gas generated in the Anaerobic Digesters (long-term impact).
- Impacts to Public Health: *Positive*, improved ability to meet NPDES effluent requirements for discharge to the river (long-term impact).

2.6 Alternative 4: Upgrade All Components with Noted Deficiencies

All components identified with operational or capacity deficiencies within the planning period are included. This alternative includes the following:

- New Septage Receiving Station.
- New Influent Fine Screening.
- Addition of odor control at the Headworks.
- Replace the existing Primary Solids Pumps and cover the Gravity Thickener.
- Replacement or modification of the Intermediate Pump Station.
- Modifications to the Blower/Diffused Aeration System.
- Addition of a Chemical Feed System for phosphorus removal.
- Addition of Secondary Clarifier No. 3 and No. 4, including a new MLSS Distribution Box.
- Addition of a RAS/WAS Pump Station.
- New UV Disinfection System, including a building expansion, hoist, and related improvements.
- New WAS thickening and process piping modifications.
- Solids Blend Tank rehabilitation and ability to route primary solids directly the Anaerobic Digesters.
- Addition of a Solids Transfer Pump from the Thermophilic Digester to the Primary Mesophilic Digester.
- Miscellaneous Digester Upgrades: Repair seal on the Thermophilic Digester; repair and reinstall lid on Secondary Mesophilic Digester; construct new staircases and safety railing on the Mesophilic Digesters; clean, recoat, and replace mixing system and piping in Primary and Secondary Mesophilic Digesters.
- Updates to the existing Iron Sponge Scrubber to permit use of digester gas for heating purposes; installation of hoist to aid operations; additional gas storage.
- Addition of a redundant Screw Press and a return drain line from the Liquid Storage Tanks.

2.6.1 Alternative 4 – Advantages

- Provides increased capacity for existing and future flows in Preliminary Treatment
- Adds secondary clarifier redundancy and improved operations through 20-year planning period
- Adds redundancy for phosphorus compliance, which reduces risk of permit violations
- Addresses other noted deficiencies throughout the plant

2.6.2 Alternative 4 – Disadvantages

- Highest capital cost.

2.6.3 Alternative 4 – Environmental Impacts

The primary environmental impacts are associated with the excavation and site disturbance for treatment facility upgrades. The anticipated potential environmental impacts associated with this alternative consist of the following:

- Impacts to Climate and Physical Aspects (Topography, Geology, and Soils): Excavation for treatment facilities (short-term impact).
- Impacts to Population, Economic, and Social Profile: Reduced risk as the system grows due to addition of process redundancy and improved operations (potential long-term impact).
- Impacts to Wetlands and Water Quality: Reduced risk as the system grows due to addition of process redundancy and improved operations (potential long-term impact).
- Impacts to Cultural Resources: All work will be accomplished within the existing facility boundary, which has been previously disturbed; no impact expected.
- Impacts to Flora and Fauna: Temporary impacts associated with site disturbance, which can be mitigated through the use of BMPs (short-term impact).
- Impacts to Air Quality: Temporary impacts associated with construction emissions, which can be mitigated through the use of BMPs (short-term impact); *positive* – gas generated in the Anaerobic Digesters can be beneficially reused for digester heating, which will reduce odors (long-term impact).
- Impacts to Energy: Increased energy consumption with the upgrade of treatment facilities (long-term impact); *positive* – reduced use of natural gas with beneficial reuse of gas generated in the Anaerobic Digesters (long-term impact).
- Impacts to Public Health: *Positive*, improved ability to meet NPDES effluent requirements for discharge to the river (long-term impact).

2.7 Summary of Environmental Review and Comparison of Alternatives

Table 2-3 summarizes the environmental concerns for the four alternatives presented in the previous sections.

Table 2-3 – Summary of Environmental Concerns for Four Proposed Alternatives [(a)]

Environmental Criteria	(Alternative 1) No Action	(Alternative 2) Address Critically Overloaded Components Only	(Alternative 3) Critically Overloaded and Probable Permit Violations	(Alternative 4) Upgrade All Components with Deficiencies
Climate and Physical Aspects (Topography, Geology, and Soils)	Short- and long- term (biosolids)	Short-term impact (construction)	Short-term impact (construction)	Short-term impact (construction)
Population, Economic, and Social Profile	Long-term impact (limited growth)	Short-term improvement (limited growth potential)	Long-term improvement (growth potential)	Long-term improvement (growth potential)
Land Use	None identified	None identified	None identified	None identified
Floodplain Development	None identified	None identified	None identified	None identified
Surface Water Quality	Short- and long- term (effluent quality)	Short-term improvement, long-term concern	Long-term improvement (effluent quality)	Long-term improvement (effluent quality)
Wetlands	None identified	None identified	None identified	None identified
Wild and Scenic Rivers	None identified	None identified	None identified	None identified
Cultural Resources	None identified	None identified	None identified	None identified
Flora and Fauna	None identified	Short-term impact (construction)	Short-term impact (construction)	Short-term impact (construction)
Recreation and Open Space	None identified	None identified	None identified	None identified
Agricultural Lands	None identified	None identified	None identified	None identified
Air Quality	Long-term impact (gas emissions)	Short-term impact (construction) Long-term impact (gas emissions)	Short-term impact (construction) Long-term improvement (reduced gas emissions)	Short-term impact (construction) Long-term improvement (reduced gas emissions)
Energy	Long-term impact	Long-term impact	Long-term impact (beneficial gas reuse)	Long-term impact (beneficial gas reuse)
Public Health	Long-term impact	Short-term improvement, long-term concern	Long-term improvement (water quality)	Long-term improvement (water quality)
Alternative Preliminary Cost Opinion (Total 2013 Present Worth Capital + O&M)	**---**	**$8,430,000**	**$19,374,000**	**$24,350,000**

(a) *The environmental analysis in the EID is for the improvements at the existing reuse site. Work at the river outfall and reuse sites was not considered.*

2.8 Comparison of Alternative Costs

Table 2-4 provides a summary of the potential costs for each of the proposed alternatives. Detailed cost information can be found in the Facility Plan, Technical Memorandum #7.

Table 2-4 – Comparison of Alternative Costs

Alternative	Capital Cost (2013 Dollars)	Present Worth O&M Costs (2013 Dollars)	Total Present Worth (2013 Dollars)
Alternative 1 – No-Action Alternative	$-	No Change from Existing	$-
Alternative 2 – Address Critically Overloaded Components Only	$7,889,000	$541,000 (Above Existing Conditions)	$8,430,000
Monthly Cost per EDU (no grant funding) [(a)]	$5.11 to $6.13	$0.35 to $0.42	$5.46 to $6.55
Monthly Cost per EDU (including $315,000 Community Development Block Grant) [(a)]	$4.91 to $5.89	$0.35 to $0.42	$5.26 to $6.31
Alternative 3 – Address Overloaded Components and Probable Permit Violations	$15,935,000	$3,439,000 (Above Existing Conditions)	$19,374,000
Monthly Cost per EDU (no grant funding) [(a)]	$10.33 to $12.39	$2.23 to $2.67	$12.56 to $15.06
Monthly Cost per EDU (including $315,000 Community Development Block Grant) [(a)]	$10.12 to $12.15	$2.23 to $2.67	$12.35 to $14.82
Alternative 4 – Upgrade All Components with Noted Deficiencies	$19,706,000	$4,644,000 (Above Existing Conditions)	$24,350,000
Monthly Cost per EDU (no grant funding) [(a)]	$12.77 to $15.32	$3.01 to $3.61	$15.78 to $18.93
Monthly Cost per EDU (including $315,000 Community Development Block Grant) [(a)]	$12.57 to $15.08	$3.01 to $3.61	$15.58 to $18.69

[(a)] *Based on the following number of connections reported by the City: residential connections – 5,201; church, business, and non-industrial connections – 939 equivalent dwelling units (EDUs); Significant Industrial Users – 1,485 EDUs. Assumes an interest rate between 1.75 and 3.75 percent, and a payback period of 20 years. Grant portion as noted. Recent changes in IDEQ SRF loans have necessitated Davis-Bacon prevailing wages and Buy-American clauses for steel and associated construction materials; these requirements arose during the development and completion of the Facility Plan, may change over time, may not be applicable depending on the actual funding source, and have therefore not been included in these estimates.*

Alternative 1 – No-Action aside, Alternative 2 is the low-cost alternative with a cost of $8,430,000; Alternative 4 is the high-cost alternative at $24,350,000; Alternative 3 falls between the two at $19,374,000.

Section 3 - Preferred/Selected Alternative

3.1 Preferred Alternative

Alternative 4 – Upgrade All Components with Noted Deficiencies is the preferred alternative selected for implementation. Input was considered from the public, J-U-B, and City staff; regulatory considerations; development of treatment alternatives; cost considerations; and environmental impacts and concerns. Alternative 4 is preferred, because it meets the need to maintain the facilities at an acceptable level of service and addresses the increasingly stringent permit requirements. In addition, Alternative 4 provides a plan with the flexibility necessary to implement specific projects as needed over the next 20 years.

3.2 Selected Alternative

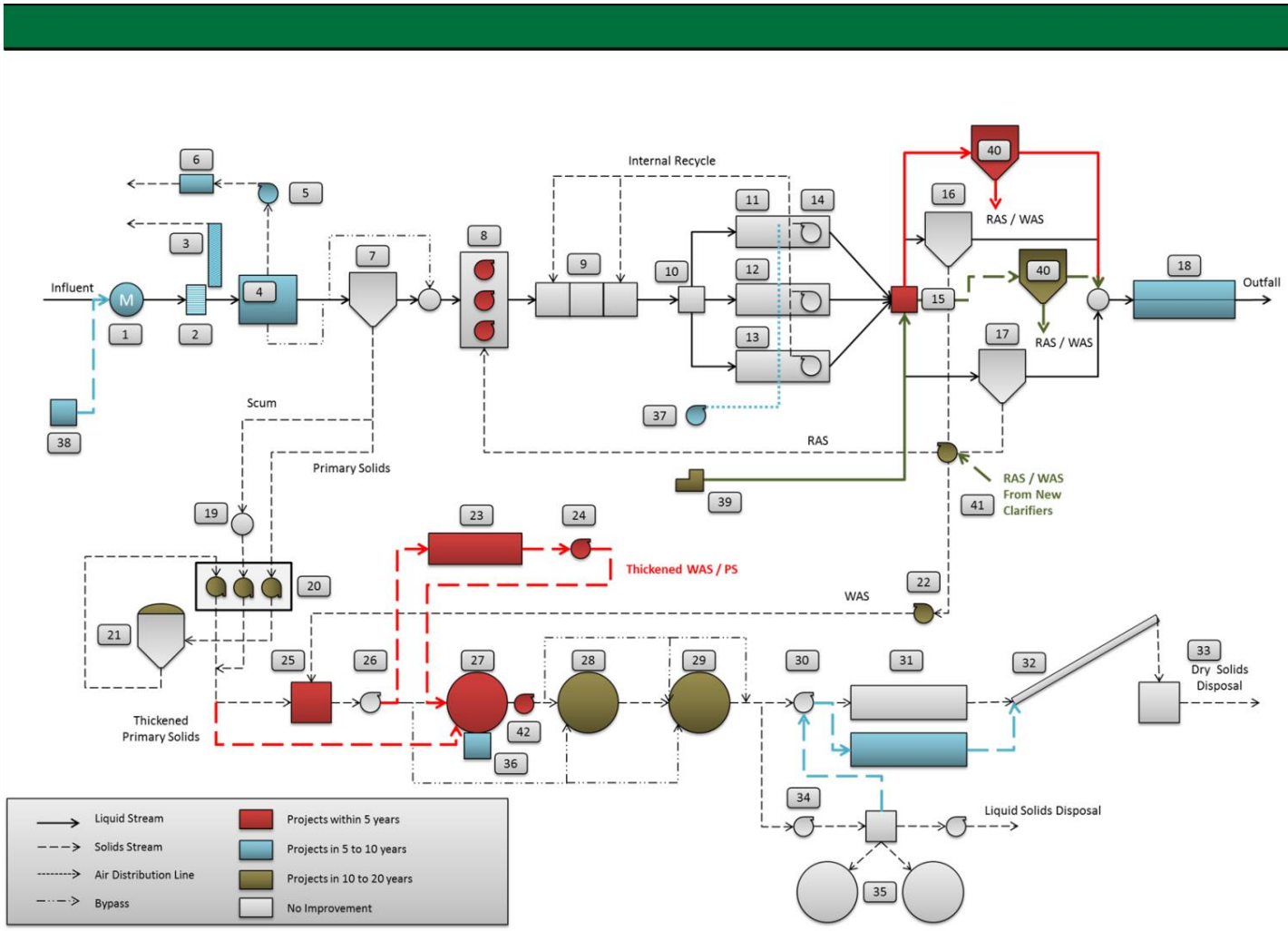
After considering input from J-U-B and City staff in addition to public input regarding the recommended alternative, the Blackfoot City Council approved Alternative 4 as the selected alternative at their March 4, 2014 Council Meeting. Additional information on public involvement can be found in Section 6 of this document.

3.3 Phasing and Capital Improvement Plan (CIP)

The timing of the improvements listed in Alternative 4 depends on current loading, potential increases in flows and loads during the planning period, and maintaining compliance with the City's NPDES permit requirements. A Proposed CIP is shown on **Figure 3-1**, and the components with corresponding capital costs (in 2013 dollars) are listed in **Table 3-1**. The timing of the improvements, however, may be adjusted as warranted through the planning period. Additionally, the project costs should be revisited regularly and adjustments made as appropriate to reflect inflation, regulatory changes, available funding sources and funding requirements, changes in scope, etc.

It is recognized that the environmental determination resulting from this EID is valid for only 5 years if the project scope does not change. If the 5 year limitation is expired, a reaffirmation of the environmental determination will be required. If the scope changes, an addendum or revised EID will need to be prepared and submitted.

Figure 3-1 – Proposed CIP



Item	Description
1	Influent Flow Meter
2	Step Screen
3	Washer / Compactor
4	Aerated Grit Chamber
5	Grit Pump
6	Grit Classifier
7	Primary Clarifier
8	Intermediate Pump Station
9	Anaerobic / Anoxic Selectors
10	Distribution Box to Aeration Basins
11	Aeration Basin No. 1
12	Aeration Basin No. 2
13	Aeration Basin No. 3
14	Internal Recycle Pumps
15	Distribution Box to Secondary Clarifiers
16	Secondary Clarifier No. 1
17	Secondary Clarifier No. 2
18	UV Disinfection
19	Primary Clarifier Scum Pit
20	Primary Solids Pump Station
21	Gravity Thickener with New Cover
22	WAS Pumping
23	WAS Thickening
24	Thickened WAS Pumping
25	Solids Blend Tank Recoating and PS re-route
26	Digester Feed Pump
27	Thermophilic Digester
28	Primary Mesophilic Digester
29	Secondary Mesophilic Digester
30	Digested Solids Feed to Dewatering
31	Mechanical Dewatering with Stand-by Unit
32	Solids Conveyor to Storage
33	Dry Solids Storage
34	Digested Solids Feed to Liquid Storage
35	Liquid Solids Storage
36	Digester Gas Flaring / Reuse
37	Blower / Diffuser System
38	Package Septage Receiving Station
39	Chemical Feed System for Phosphorus Removal
40	New Secondary Clarifier No. 3 and 4
41	RAS / WAS Pump Station
42	Thermophilic Digested Solids Transfer Pump

Table 3-1 – Proposed CIP and Capital Costs

Item	Description	Projects within 5 Years (Capital Cost in 2013 Dollars)	Projects in 5 to 10 Years (Capital Cost in 2013 Dollars)	Projects in 10 to 20 Years (Capital Cost in 2013 Dollars)
Septage Receiving Station	New package septage receiving station		$547,000	
Mechanical Screening and Grit Removal	New Headworks, including flow measurement, sampling, two 6 mm mechanical fine screens, washer/compactors, and grit removal		$3,024,000	
	Headworks odor control system		$464,000	
Primary Clarification	No improvements are recommended at this time	N/A	N/A	N/A
Primary Solids Pumping	Retrofit existing pumping system with pumps capable of a 5' lift at 3% solids; replace piping to the solids processing system			$653,000
Gravity Thickener	Miscellaneous rehabilitation; cover			$316,000
Intermediate Pump Station	Replacement or a major retrofit of the existing pump station	$559,000		
Bioselector	No improvements are recommended at this time	N/A	N/A	N/A
Aeration Basins, Blowers, and Diffused Aeration	Replace existing aeration distribution lines from the Blower Building to each aeration basin		$415,000	
	Chemical addition for phosphorus removal			$505,000
MLSS Distribution Box and Secondary Clarifier No. 3	New distribution box to accommodate four aeration basins and four secondary clarifiers. New 60'-diameter secondary clarifier	$1,816,000		
Secondary Clarifier No. 4	New 60'-diameter secondary clarifier			$1,569,000
RAS/WAS Control	Add RAS return to Intermediate Pump Station; replace existing, failed valves; incorporate new clarifier	$207,000		
	RAS/WAS pump station			$1,539,000
UV Disinfection System	Retrofit existing system with new low-pressure/high-output bulbs, ballasts, and controls		$767,000	

Item	Description	Projects within 5 Years (Capital Cost in 2013 Dollars)	Projects in 5 to 10 Years (Capital Cost in 2013 Dollars)	Projects in 10 to 20 Years (Capital Cost in 2013 Dollars)
	New building; HVAC; gantry crane		$822,000	
Outfall	No improvements are recommended at this time	N/A	N/A	N/A
WAS Thickening	New thickening unit; piping modifications in the solids pumping room; new thickened solids pump; re-routing primary solids feed directly to the digester feed line	$998,000		
Solids Blend Tank	Inspection, concrete repair, and re-coating	$103,000		
Anaerobic Digesters	Add a transfer pump between the Thermophilic and Mesophilic Digesters	$87,000		
	Replace the Thermophilic Digester seal; add staircases and safety improvements to the Mesophilic Digesters; clean, re-coat, and replace mixing system and piping in Primary and Secondary Mesophilic Digesters	$12,000 (Thermophilic Digester seal)		$3,204,000
Digester Gas	Install a hoist system to aid removal of the iron sponge lid and replacement of the media; add a bladder-style gas storage vessel to equalize production and consumption		$1,176,000	
Mechanical Dewatering	Add a second screw press and polymer make-up unit; integrate cake conveyor controls; replace solids feed pump		$799,000	
Liquid Solids Storage	Add a return line from the Liquid Solids Storage tanks to the dewatering equipment feed pump		$124,000	
Support Facilities	No improvements are recommended at this time	N/A	N/A	N/A
	TOTAL	**$3,782,000**	**$8,138,000**	**$7,786,000**

Section 4 - Affected Environment and Anticipated Impacts

4.1 Area of Potential Effect/Proposed Project Planning Area

4.1.1 Area of Potential Effect/Proposed Project Planning Area

The Area of Potential Effect (APE) and Proposed Project Planning Area (PPPA) are the same for the proposed improvements, except the APE also includes the biosolids land application site and route to the WWTP as shown in **Figures 1-1 and 1-2**. Both the APE and the PPPA include current service areas and Areas of City Impact for the Cities of Blackfoot, Moreland, and Groveland. The proposed improvements will take place only in a small area within the APE/PPPA at the existing WWTP property. The proposed improvements are anticipated to have positive effects on the Snake River due to the reduced solids loading and increased reliability; therefore the APE was not extended further downstream.

The Blackfoot WWTP, located southwest of the City of Blackfoot on the west side of Interstate 15 and on the bank of the Snake River (Township 3 South, Range 35 East, Sections 5 and 8, Boise Meridian). All improvements will occur within the existing WWTP boundary on City-owned property. This area will be the focus of the "Affected Environment" and "Environmental Impacts" discussions in subsequent sections.

4.1.2 Major Features of Proposed Project

As discussed previously, the City plans to use an SRF Loan to finance only the Phase 1 improvements to add a third secondary clarifier and upgrade the intermediate pump station and associated piping and valving, although it is the City's intention to pursue funding for additional improvements in the future. Therefore, environmental impacts from all of the improvements identified in the selected alternative are being reviewed as part of this EID. The proposed improvements at the existing WWTP are shown in **Table 4-1**:

Table 4-1 – Summary of Proposed Improvements

Item	Description
Septage Receiving Station	New package septage receiving station
Mechanical Screening and Grit Removal	New Headworks, including flow measurement, sampling, two 6 mm mechanical fine screens, washer/compactors, and grit removal
	Headworks odor control system
Primary Clarification	No improvements are recommended at this time
Primary Solids Pumping	Retrofit existing pumping system; replace piping to the solids processing system
Gravity Thickener	Miscellaneous rehabilitation; cover gravity thickener

Item	Description
Intermediate Pump Station	Replacement or a major retrofit of the existing pump station
Bioselector	No improvements are recommended at this time
Aeration Basins, Blowers, and Diffused Aeration	Replace existing aeration distribution lines from the Blower Building to each aeration basin
	Add chemical addition for phosphorus removal
MLSS Distribution Box and Secondary Clarifier No. 3	New distribution box to accommodate four aeration basins and four secondary clarifiers. New 60'-diameter secondary clarifier (Secondary Clarifier No. 3).
Secondary Clarifier No. 4	New 60'-diameter secondary clarifier (Secondary Clarifier No. 4)
RAS/WAS Control	Add RAS return to Intermediate Pump Station; replace existing, failed valves; incorporate new clarifier(s)
	New RAS/WAS pump station
UV Disinfection System	Retrofit existing system with new low-pressure/high-output bulbs, ballasts, and controls
	New building, including HVAC, gantry crane, and related elements
Outfall	No improvements are recommended at this time
WAS Thickening	New thickening unit; piping modifications in the solids pumping room; new thickened solids pump; re-routing primary solids feed directly to the digester feed line
Solids Blend Tank	Inspection, concrete repair, and re-coating
Anaerobic Digesters	Add a transfer pump between the Thermophilic and Mesophilic Digesters
	Replace the Thermophilic Digester seal; add staircases and safety improvements to the Mesophilic Digesters; clean, re-coat, and replace mixing system and piping in Primary and Secondary Mesophilic Digesters
Digester Gas	Install a hoist system to aid removal of the iron sponge lid and replacement of the media; add a bladder-style gas storage vessel to equalize production and consumption
Mechanical Dewatering	Add a second screw press and polymer make-up unit; integrate cake conveyor controls; replace solids feed pump
Liquid Solids Storage	Add a return line from the Liquid Solids Storage tanks to the dewatering equipment feed pump

4.1.3 Flow Projections and Sources

A discussion of flow projections and sources for the existing and Year 2034 scenarios is provided in Section 2.1.1 of this document.

4.1.4 Agency Consultation

Relevant state and federal agencies and environmental groups were contacted to provide input on potential environmental impacts of the proposed improvements. The list of consulted agencies is

included in Section 7 of this document. Agency consultation requests and responses regarding the proposed improvements are included in **Appendix A**.

4.2 Physical Aspects (Topography, Geology, and Soils)

4.2.1 Affected Environment

The topography of the Blackfoot area is depicted on the U.S. Geologic Survey (USGS) topographic map in **Appendix B.** As shown on the map, the topography of the Blackfoot area lies within the Snake River Plain, which is mostly flat prairie land to the north, south, and west, with some foothill highlands to the east. Elevations range from 4,460 feet above mean sea level (AMSL) in the southwest to 4,505 feet AMSL in the east. The majority of the area is situated on relatively flat land at an average elevation of 4,495 feet AMSL. Elevation typically decreases from east to west and north to south.

The soils in the Blackfoot area are predominantly loams deposited over volcanic rock and basalt. The subsurface is composed mainly of Cenozoic volcanic rock deposits that have extended southwest from Yellowstone to southwestern Idaho. The Eastern Snake River Plain contains substantial deposits of windblown sandy silt, which make up much of the rich soils that base Idaho's agricultural economy.

The soils of the Blackfoot area consist of well-drained silt loam. These soils are found at 0 to 2 percent slopes and have developed in loess and volcanic ash mixed with erosion products of the rocky mountain range material. Typically, this soil is found on volcanic calderas and high mountain plains at an elevation ranging from 2,700 to 6,000 feet AMSL. The majority of the region's agricultural area consists of this type of soil.

The rooting depth of well-drained silt loam can range from 4 to more than 40 inches. The water capacity is low and the permeability is moderate. Runoff is slow and the hazard of erosion is minimal. While such droughty soil conditions limit crop production, proper irrigation management can increase plant growth. Overall, silt loam is mainly used for agriculture, potato, hay, small grain, and grass seed.

A Natural Resource Conservation Service (NRCS) Web Soil Survey Map of the Blackfoot area is included in **Appendix B.**

4.2.2 Environmental Impacts

Proposed improvements are located within the existing WWTP boundaries. Physical aspects of the site are not anticipated to significantly affect construction, development, operation or feasibility of

the proposed WWTP improvements. Depending on the depth of underground structures that are constructed and the time of year of construction, some temporary dewatering may be required during construction due to high groundwater levels. No impacts are expected regarding topography and geology such as significant rock excavation. Direct, short-term impacts on soils will consist of ground disturbance during construction. Best Management Practices (BMPs) will be utilized during construction to minimize the potential for erosion of excavated and stockpiled soils. Disturbed areas outside the improvement footprint will be returned approximately to their pre-construction condition upon project completion.

4.3 Climate

4.3.1 Affected Environment

Climatic data for the area are recorded by the Blackfoot 2 SSW, Idaho (100915) Weather Station in Blackfoot, Idaho. A summary of this data is provided in **Table 4-1**. According to the Western Regional Climate Center (WRCC) at the Pocatello Idaho Airport, prevailing winds are predominantly from the south/southwest October through April and from the west May through September (1996-2006 data). The climate is generally temperate with approximately 10.6 inches of annual precipitation.

4.3.2 Environmental Impacts

No climate impacts are anticipated as a result of the proposed improvements. The observed climate of the area does not present any unusual issues or meteorological constraints that would affect the construction, development, operation or feasibility of the proposed WWTP improvements. If concrete construction occurs during freezing weather, protection and/or heating measures may be required.

Table 4-2 – Historical Climatic Summary

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Average	Annual Total
Average Max. Temperature (F)	31.0	36.8	47.4	59.4	68.8	77.9	87.2	85.5	75.0	61.7	47.1	33.1	59.1	N/A
Average Min. Temperature (F)	13.3	17.4	24.9	31.9	39.6	46.1	52.3	50.0	41.6	32.7	23.8	15.7	32.4	N/A
Average Total Precipitation (in)	0.95	0.80	0.90	1.00	1.31	1.03	0.56	0.56	0.74	0.92	0.88	0.93	N/A	10.60
Average Total Snowfall (in)	8.0	5.4	3.1	1.6	0.1	0.0	0.0	0.0	0.0	0.9	2.6	6.5	N/A	28.1
Average Snow Depth (in)	2.0	1.0	0.	0	0	0	0	0	0	0	0	1.0	N/A	4.0
Average Wind Speed (mph)	9.6	9.0	10.9	11.2	11.0	10.3	8.7	8.8	8.5	9.4	9.2	9.6	9.7	N/A

Source: Western Regional Climate Center, www.wrcc.dri.edu, for Blackfoot 2 SSW, Idaho (100915)

Period of Record: November 1, 1895 to September 30, 2012 (1996-2006 for wind speed)

4.4 Population, Economic, and Social Profile

4.4.1 Affected Environment

Potato processing, agriculture, and manufacturing support the local economy, with a number of the residents that commute to the Idaho National Lab (INL) west of Blackfoot in the Arco Desert. The population of Blackfoot in 2010 was 11,899 with 49.6 percent male and 50.4 percent female. Blackfoot consists of the following racial categories: 77 percent White, 17.5 percent Hispanic, 1.5 percent American Indian, 1.7 percent Asian, and 2.3 percent Other. The median resident age is 30.8 years. Socio-economic data for the cities in the WWTP service area are provided in the table below.

Table 4-3 – Socio-Economic Data

City	Approx. Population 2010 U.S. Census Data	Projected Population for 2034	Median Household Income	Percent of Population Below Poverty Level
Blackfoot	11,899	19,139	$38,233	15.9%
Moreland	1,278	1899	$48,563	8.5%
Groveland	877	1303	Not available	Not available
Total	14,054	22,341	-	-

4.4.2 Environmental Impacts

Positive impacts (short- and long-term) are that residents in the Blackfoot, Moreland, and Groveland service areas will benefit from the proposed improvements by receiving service from a reliable wastewater treatment system. The improvements also allow for potential growth in those communities. The historical annual growth rates for the period 2000 through 2010 are as follows:

- City of Blackfoot: 1.34% (cumulative 30.5% for a 20 year period)
- Bingham County: 0.89% (cumulative 19.4% for a 20 year period)

The population growth rates are not excessive for State Environmental Review Process (SERP) purposes, because they do not exceed the cumulative statewide 20-year growth rate expectation, which is 36.4% over the 20 years from 2014 to 2034 (IHS Global Insight 2012).

The negative impact from the proposed improvements is increased user costs, which will be applied equally and fairly to system users. Although increased costs are usually not desirable, the additional fees should be affordable for all users.

Proposed improvements are not expected to affect land values, and no benefits are expected for certain landowners, as the improvements will occur on the existing WWTP site. No low income or minority groups are expected to be adversely affected by the proposed WWTP improvements.

4.5 Land Use

4.5.1 Affected Environment

The City of Blackfoot service area includes a mix of housing, recreational, industrial, and commercial land-use areas. The proposed WWTP improvements are occurring within the existing WWTP boundary. Land at the site is currently used for wastewater treatment operations.

4.5.2 Environmental Impacts

The land use at the WWTP is not expected to change as a result of the proposed improvements, and is consistent with the City's local land use plan. Inhabited areas will not be adversely impacted by the project site, and the improvements are not expected to contribute to changes in land use associated with recreation, mining, or large industrial developments. The proposed improvements increase capacity for existing and future flows and reduce risk of permit violations. Even as the community grows, it is not likely that there will be an overall significant impact on land use in the area.

4.6 Floodplains and Wetlands

4.6.1 Affected Environment

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) for the Blackfoot area, included in **Appendix B**, the majority of the area is determined to be outside the 0.2 percent annual chance flood plain. The Snake River and Blackfoot River are classified as Zone A and Zone AE under the Special Flood Hazard Areas (SFHAs) subject to inundation by the 1.0 percent annual chance flood. Zone A areas are those for which no base flood elevation has been determined. Zone AE areas are those for which a base flood elevation has been determined.

Wetland information is included in **Appendix B**. Wetland areas in the Blackfoot area are associated with Snake River and Jensen Lake. Types of wetland areas include Freshwater Emergent and Freshwater Forested/Shrub. These classifications are generally described as follows:

1. **Freshwater Emergent**: Herbaceous marsh, fen, swale, and wet meadow
2. **Freshwater Forested/Shrub**: Forested swamp or wetland shrub bog or wetland

4.6.2 Environmental Impacts

The Idaho State Floodplain Coordinator with the Idaho Department of Water Resources (IDWR) was consulted regarding the proposed improvements to the WWTP. The consultation correspondence has been included in **Appendix A** and a segment of the response received from IDWR is shown below:

> *A portion of the property including the Blackfoot WWTP is located within the Special Flood Hazard Area (SFHA) and a Base Flood Elevation (BFE) has been established varying from 4,469 ft - 4,467 ft. Development within the identified SFHA or 1% annual chance of flooding area will require a floodplain development permit from the community.*

The improvements will be designed to be protected from flood damage and to minimize or eliminate infiltration of flood waters and discharges from the systems into flood waters. The improvements will also meet the community's specific ordinance and requirements regulating development in the SFHA. No impacts are expected to any floodplains.

During flood events, such as the 100 year flood, the existing WWTP is generally protected from the river flooding by a dike. However, the high water level in the river does impact the hydraulic capacity of the ultraviolet disinfection and secondary clarification systems due to uneven or flooded weirs. The Facilities Plan discusses these impacts in Section 4.4. This condition would likely continue with the implementation of the proposed improvements. However, the City WWTP Operations staff does have measures in place such as bypass pumping that can be implemented if necessary to maintain operations during a flood event

The proposed improvements will occur within the fence of the existing WWTP where no wetlands are known to exist. A wetlands map from the National Wetlands Inventory has been included in **Appendix B**. The National Wetlands Inventory does not guarantee accuracy of the map and intends for the map to be used in accordance with the layer metadata on the Wetlands Mapper website.

The US Army Corps of Engineers (USACE) was consulted regarding the proposed improvements to the WWTP. The consultation correspondence has been included in **Appendix A**. According to the USACE, the proposed project area is land that does not contain waters of the U.S., including wetlands, under the Corps' regulatory jurisdiction. Therefore, a DA authorization as described in Section 404 of the Clean Water Act (33 U.S.C. 1344) is not required.

BMPs will be implemented to reduce risk of impacting nearby wetlands. No impacts are expected to any wetlands.

4.7 Wild and Scenic Rivers

4.7.1 Affected Environment

The Snake River, which flows through the Blackfoot service area, contains segments included in the National Wild and Scenic Rivers System. However, the segment of the Snake River running through the Blackfoot APE is not a part of the National Wild and Scenic Rivers System. According to the National Wild and Scenic Rivers System, the headwaters of the Snake River, in Wyoming, contain over 350 miles of river designated as "Wild", "Scenic", and/or "Recreational". Further downstream, in northern Idaho and near the Oregon border, the Snake River is designated "Wild" for 31.5 miles from Hells Canyon Dam to Upper Pittsburg Landing and "Scenic" for 36 miles below Pittsburg. The portion of the Snake River included in the APE/PPPA is not designated as "Wild" or "Scenic". It is a major river flowing through a wide flood plain displaying large meanders, numerous sloughs, channels, and backwaters.

4.7.2 Environmental Impacts

Effluent flows from the WWTP are discharged to the Snake River northwest of the facility at river mile 776.81. The improved effluent quality is expected to have a positive long term impact. No negative impacts are expected to Wild and Scenic Rivers.

4.8 Cultural and Historic Resources

4.8.1 Affected Environment

Blackfoot is the county seat for Bingham County. It is located 27 miles south of Idaho Falls and approximately 25 miles north of Pocatello. Blackfoot is approximately 170 miles from Yellowstone, Sun Valley, and Salt Lake City in either direction. With the residents in such close proximity to recreational areas, they are able to enjoy year-round outdoor activities such as alpine, cross-country, and water skiing; hunting; hiking; fishing; camping; and snowmobiling.

Blackfoot is the hub of three highways and an interstate, which makes the City easily accessible by cars, trucks, and buses. Interstate 15 runs parallel to the western boundaries of the City and provides highway access to the north and south. Highway 91 runs through the heart of the City, Idaho 26 leads to Arco and beyond, and Idaho 39 leads to the Aberdeen area. The Union Pacific Railroad runs through the center of town but transports freight traffic only.

In 1860, a town was laid out in anticipation of the railroad's arrival, and was named Grove City due to the large number of trees in the area. At that time, the town was little more than a switching station that accommodated the transfer of merchandise from rail to freight wagons bound for mines in the central portion of the state. With the decline of mining and the bulk of freight being transported through the community, the economy soon turned to the land.

By 1880, when the steel bridge was created, Grove City became known as Blackfoot. The steel bridge was built across the Snake River, which allowed the town to become more accessible to farmers and ranchers west of Blackfoot. In addition, a courthouse and the mental health hospital were constructed, which served as a basis for long-range growth of the community.

In 1885, Bingham County was created from the large Oneida County. Blackfoot and Eagle Rock, now known as Idaho Falls, were in competition for the opportunity to be known as the county seat of the region. After Blackfoot became the county seat, the town was offered the opportunity to house the state mental institution, creating more jobs and new development. The state hospital became one of the largest employers in the region. Soon afterward, in 1902, the Eastern Idaho State Fair Grounds were located in Blackfoot, giving the area economy a substantial boost.

Blackfoot was on its way to becoming one of the main towns in the area, with construction of the state hospital, Eastern Idaho State Fair Grounds, and Idaho National Engineering Laboratory (INEL). Scientists, researchers, technicians, and other support people moved to the area to work at the nuclear energy site. With such a diverse economy and resulting growth, Blackfoot and Bingham County flourished.

The National Register of Historic Places maintained by the Idaho State Historic Preservation Office (SHPO) is included in **Appendix B.** The following eleven places in the Blackfoot area are listed on the register:

1. Blackfoot I.O.O.F. Hall
2. Blackfoot LDS Tabernacle
3. Blackfoot Railway Depot
4. Idaho Republican Building
5. Jones, J.W. Building
6. North Shilling Historic District
7. Nuart Theater
8. Shilling Avenue Historic District
9. St. Paul's Episcopal Church
10. Standard Bank
11. US Post Office – Blackfoot Main

The Native American tribes with historic ties to the Blackfoot area include the Shoshone Tribe and the Bannock Tribe.

4.8.2 Environmental Impacts

All proposed improvements will occur at the existing WWTP site. On behalf of the City of Blackfoot, the DEQ contacted the Cultural Resources Coordinator for the Shoshone-Bannock Tribes and the Cultural Resource Officer for the Shoshone-Paiute Tribes. The Idaho State Historic Preservation Officer (SHPO) was also consulted to determine if there are any current or potential cultural

resources at the WWTP site. The SHPO determined that no historic properties were identified within the area of potential effect, and no historic properties will be adversely affected within the project area. No comments were received from the Shoshone-Bannock Tribes and the Shoshone-Paiute Tribes. The agency consultation details are included in **Appendix A**.

In the event that archeological artifacts (such as beads, arrowheads, pottery, fabric, glass, metal fragments, or other human-made objects that appear to predate 1960) or human remains are inadvertently discovered during project construction, work will cease and State Historical Preservation Officer (SHPO), the Shoshone Bannock Tribes, and the Shoshone-Paiute Tribe will be notified. Mitigation measures will be conducted as the SHPO and tribe(s) direct. Work will not resume at the discovery site without consent of the SHPO and tribe(s).

4.9 Flora and Fauna

4.9.1 Affected Environment

Vegetation is an integral part of larger environmental systems. Predominate native tree species in the Blackfoot area include Rocky Mountain Juniper, Quaking Aspen, Cottonwood, White Fir, and Limber Pine. Understory plants that are native to the area include Serviceberry, Tall Three Tip Sagebrush, and Mountain Big Sagebrush. There are a variety of plants and animals in the Blackfoot area that contribute to the quality of life within the community. Important animal habitat areas include the riparian vegetation adjacent to the Snake River and the Idaho desert which support various fish species, white tail deer, elk, songbirds, ducks, geese, and small mammals.

The U.S. Fish and Wildlife (USFWS) list of threatened and endangered species indicated the following species within Bingham County: the Greater Sage-Grouse, the North American Wolverine, the Ute Ladies' Tresses, and the Yellow-Billed Cuckoo.

4.9.2 Environmental Impacts

The DEQ consulted the USFWS State Supervisor on behalf of the City to determine if the WWTP improvements would have potential impacts to endangered, threatened, proposed, and/or candidate species. The USFWS indicated that the WWTP is not located within Essential Fish habitat (EFH) for Salmon, and no significant impacts to fish or wildlife are anticipated as a result of the proposed improvement. The agency consultation as well as an email containing an update to the Idaho Species List dated October 23, 2013 are included in **Appendix A**.

Direct, short-term impacts will consist of ground disturbance during construction and elevated noise levels. Temporary impacts associated with site disturbance will be mitigated through the

development and implementation of BMPs. No long-term impacts to flora or fauna are expected due to the proposed improvements.

4.10 Recreation and Open Space

4.10.1 Affected Environment

The APE/PPPA contains much beautiful scenery and a plethora of options for recreational use, including City parks, public reservoir beaches, boat launches, the Snake River, and bicycle trails.

4.10.2 Environmental Impacts

The proposed improvements are located at the existing WWTP site. The project will not eliminate or modify recreational or open space, and it does not seem feasible to combine the project with recreational uses. No impacts are expected to recreational or open space as a result of the proposed projects.

4.11 Agricultural Lands

4.11.1 Affected Environment

A United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) map showing prime farmlands classification in the vicinity of the WWTP is included in **Appendix B**. The majority of soils in the Blackfoot area consist of well-drained silt loam and are mainly used for agriculture, potatoes, hay, sugar beets, small grains, and grass seed.

Idaho DEQ submitted Form AD-1006 to the USDA NRCS on behalf of the City of Blackfoot. The NRCS stated, “there are no soils in the project area that are classified as prime farmland, unique farmland or farmland of statewide importance and therefore the Farmland Protection Policy Act (FPPA), Public Law 97-98, 7 U.S.C. 4201 will not apply to this project.” The complete correspondence is included in **Appendix A**.

4.11.2 Environmental Impacts

No impacts to prime farmland are expected to result from the proposed improvements, as the work will occur at the existing WWTP site.

4.12 Air Quality and Noise

4.12.1 Affected Environment

The Blackfoot area is not located in a non-attainment area and generally enjoys good air quality. According to the IDEQ "2009 Air Quality Monitoring Data Summary" released in January 2012 and included in **Appendix B**, the nearest air quality monitoring stations are located in Pocatello, Idaho and measure sulfur dioxide and other particulate matter ($PM_{10} \leq 10$ micrometers (µm), $PM_{2.5} \leq 2.5$ µm in diameter). According to the 2009 report, the sulfur dioxide readings were all in the "Good" category (0-0.059 ppm), and $PM_{2.5}$ were mostly in the "Good" category (0-15.4 µg/m^3) with only a few spikes into the "Moderate" category (15.5-35.4 µg/m^3) and two spikes into the Unhealthy for Sensitive Groups(35.4-65.4 µg/m^3).

Noise in the Blackfoot area is relatively low and is generally limited to normal traffic and commercial activities.

4.12.2 Environmental Impacts

Short-term impacts are anticipated in association with construction emissions and noise which will be mitigated through the use of BMPs. Reasonable controls will be implemented during construction and maintenance to prevent the generation of fugitive dust during all phases of the project.

Because of varying conditions and odor-generating compounds present at individual unit processes within the WWTP, the odor control treatment systems specific to each process area will be addressed during the design phase.

Noise levels higher than normal may be caused short-term, during construction. Long-term noise levels are anticipated to be nearly equivalent to the existing noise levels.

4.13 Water Quality, Quantity, and Sole Source Aquifers

4.13.1 Affected Environment

The Eastern Snake River Plain Aquifer (ESRPA) is designated as a "Sole Source Aquifer" by EPA. The ESRPA underlies approximately 10,800 square miles of land running in a southwesterly direction from Ashton to Twin Falls and King Hill. It spans beneath most of Jefferson, Jerome, and Lincoln counties; the southern parts of Clark, Butte, Blaine, Fremont, and Gooding Counties; and the northern parts of Minidoka, Power, Bannock, Bingham, Bonneville, and Madison counties. The ESRPA is the sole source of drinking water for about 200,000 people in southern Idaho. The aquifer is made of basalt from erupted lava and sediments from rivers, lakes, and wind-blown dust. The ESRPA is estimated to be over 5,000 feet thick, though the upper 300 to 500 feet is the most productive. The upper 500 feet of the aquifer is estimated to hold 200 to 300 million acre-feet of

ground water. Excess irrigation water, ground water from tributary valleys, precipitation, and water infiltration from rivers and canals are primary sources of recharge for the ESRPA.

4.13.2 Environmental Impacts

The proposed improvements at the WWTP are not anticipated to affect water rights, the available quantity, or the quality of groundwater. Since the project will improve the existing WWTP system and thereby improve the quality of the wastewater effluent, the groundwater quality will be further protected from future pollution by uncontrolled, untreated discharges and enhanced through higher quality WWTP effluent. BMPs will be developed and implemented during construction to protect the aquifer.

Susan Eastman, Sole Source Aquifer Manager for EPA Region 10, was consulted as part of this environmental review. Her response to the request for agency comments, included in **Appendix A**, is also shown below.

> *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.*

Positive short-term, long-term, direct, and indirect impacts to water quality and groundwater are anticipated due to improvements of existing system to decrease likelihood of unmonitored, untreated discharges from entering the groundwater system and from enhanced quality effluent. Short-term impacts may occur due to ground disturbance but will be mitigated through the use of BMPs. Cumulative adverse impacts are not anticipated.

To complete all of the proposed improvements, more than one acre of land will eventually be disturbed at the existing WWTP site, although the improvements to be completed as part of Phase 1 will likely disturb less than one acre. The amount of land disturbed by future phases of work will depend on available funding and the scope of each phase. A Stormwater Pollution Prevention Plan (SWPPP) will be required for phases of work where the amount of land area disturbed is anticipated to be more than 1 acre.

4.14 Public Health

4.14.1 Affected Environment

Public health is improved by the collection and treatment of wastewater. Though the existing WWTP needs improvement, it currently produces a quality effluent. In Southeast Idaho, the vectors of most concern are mosquitos, ticks, flies, and mice. The WWTP currently meets vector attraction reduction requirements as specified in EPA's Section 503 Biosolids Rule.

4.14.2 Environmental Impacts

Proposed improvements will take place at the existing WWTP and are not expected to generate or contribute to vector problems. Noise levels may be higher than normal during construction and may increase over time if the community grows. Adverse impacts from increased noise levels are not anticipated. Positive long-term impacts are expected from the improved ability to meet NPDES effluent requirements for discharge to the river.

Tom Hepworth, Engineering Regional Manager for IDEQ, was consulted as part of this environmental review. His response to the request for agency comments is included in **Appendix A**, part of which is shown below:

> *The Idaho Department of Environmental Quality (IDEQ) has reviewed information you provided in preparation of an Environmental Information Document (EID) required to describe potential environmental impacts associated with the subject project. In general, DEQ occurs that the project will be beneficial to improving the quality of the environment and in protecting public health.*

The Southeast District Health Department was also consulted as part of this review and stated, "This Department does not foresee any negative environment impacts related to this project."

4.15 Solid Waste/Sludge Management/Land Application

4.15.1 Affected Environment

Based on plant records and a planning level mass balance, approximately 26,000 gallons of digested solids at 2 percent solids are wasted from the facility daily. The solids are either mechanically dewatered or stored in liquid storage tanks until disposed. Dewatered solids are conveyed to a covered storage area west of the Solids Building. Additionally, the solids can be stored in an uncovered area that extends towards the liquid storage tanks. Once the weather and land application site(s) are suitable, dewatered solids are hauled and disposed. The City currently owns

160 acres of land and is permitted for 1,600 acres. The land application site is approximately 25 miles from the treatment facility.

4.15.2 Environmental Impacts

The proposed improvements will improve the efficiency and capacity of solids removal at the existing WWTP site. The selected technology is not expected to be controversial, and no special problems are expected that would make disposal difficult. No environmental impacts are expected, as sludge will continue to meet the EPA Part 503 Rule regarding municipal sludge.

The City does not currently land apply or reuse the WWTP effluent. If reuse is implemented in the future, the proposed improvements will contribute toward this ability.

4.16 Energy

4.16.1 Affected Environment

The WWTP uses energy, mainly in the form of electricity and natural gas, to operate. The backup generators at the facility run on diesel fuel.

4.16.2 Environmental Impacts

The proposed improvements may increase energy consumption by increasing the overall capacity of the WWTP. However, energy efficient components, such as variable frequency drive (VFD) pumps, energy-efficient motors meeting NEMA Premium specification, and a supervisory control and data acquisition (SCADA) system, will be examined and utilized where possible to minimize the impact to energy consumption.

A long-term positive impact will be a reduced use of natural gas with the improved beneficial reuse of gas generated in the anaerobic digesters.

4.17 Regionalization

The proposed improvements to the WWTP have not been cause for jurisdictional disputes or for considerable controversy. Intermunicipal agreements are already in place with the Groveland and Moreland Sewer Districts which currently discharge to Blackfoot City's WWTP. No new agreements are anticipated as a result of the WWTP improvements. There are no other nearby municipalities where regionalization of wastewater systems would be feasible.

Section 5 - Environmental Impact Mitigation

5.1 Environmental Impact Mitigation

Table 5-1 lists environmental impact mitigation measures identified by consulted agencies for the proposed improvements.

Table 5-1 – Environmental Impact Mitigation

Affected Environment Section	Regulatory Agency Consulted	Mitigation Measure(s)
4.6 – Floodplains and Wetlands	Idaho State Floodplain Coordinator, Idaho Department of Water Resources	• Development within the identified SFHA or 1% annual chance of flooding area will require a floodplain development permit from the community. • On-site waste disposal systems should be located to ensure they will not release contamination in a flood and can be used after flood waters recede.
4.8 – Cultural and Historic Resources	Idaho State Historical Society, Shoshone-Bannock Tribes, Shoshone-Paiute Tribe	• If archeological artifacts or human remains are inadvertently discovered during project construction, work will cease and State Historical Preservation Officer (SHPO), the Shoshone Bannock Tribe, and the Shoshone-Paiute Tribe will be notified. Mitigation measures will be conducted as the SHPO and tribe(s) direct, and work will not resume at the discovery site without their consent.
4.12 – Air Quality	IDEQ, Pocatello Regional Office	• All reasonable precautions must be taken to prevent the generation of fugitive dust. • Take all reasonable precautions to prevent particulate matter (dust) from becoming airborne. (i.e. use of water or chemicals, application of dust suppressants, use of control equipment, covering of trucks, paving, removal of earth or stored materials)
4.13 – Water Quality, Quantity, and Sole Source Aquifers	IDEQ, Pocatello Regional Office	• Development of a SWPPP is required if the area disturbed for the proposed phase is greater than 1 acre. • Implementation of Best Management Practices (BMPs) and/or Best Available Technology (BAT) for storm water management is recommended. • The Idaho Release , Reporting, and Coorective Action Regulations (IDAPA 58.01 .02 .851 and .852), require notification within 24 hours of any spill of petroleum product greater than 25 gallons and notification for the release of lesser amounts if they cannot be cleaned up within 24 hours.

Affected Environment Section	Regulatory Agency Consulted	Mitigation Measure(s)
	U.S. EPA, Idaho Operations Office	• Apply for permit coverage under EPA's Construction General Permit (CGP) for storm water discharges if area disturbed for the proposed phase is greater than 1 acre.

Section 6 - Public Participation

6.1 Public Participation

Public input was sought from citizens of Blackfoot and other communities within the APE/PPPA as part of the facility planning and alternative selection process. The public comment period for the Facility Plan ran from February 10, 2014 to February 26, 2014. Additional information regarding public involvement and participation is included in **Appendix C**.

6.1.1 Public Notices

Public notices were distributed as follows:

1. Public Notice printed in The Morning News, the City of Blackfoot's newspaper
   a. February 11, 2014
   b. February 18, 2014
2. City of Blackfoot website, www.cityofblackfoot.org
3. Blackfoot City Hall
4. Blackfoot City Library

A copy of the printed public notice is included in **Appendix C**.

6.1.2 Locations of Facility Plan for Review

Hard copies of the Facility Plan were available for review, and comment forms were available at the following locations:

1. J-U-B ENGINEERS, Inc.; Pocatello office
   a. 275 S. 5th Avenue, STE 220; Pocatello, ID 83201
2. Blackfoot City Hall
   a. 157 N. Broadway; Blackfoot, ID 83221
3. Blackfoot City Library
   a. 129 N. Broadway; Blackfoot, ID 83221
4. Blackfoot City website (digital copy)
   a. www.cityofblackfoot.org

6.1.3 Public Meeting

Public comments received during the comment period were reviewed, and in-person comments were received at the March 4, 2014 Blackfoot City Council Meeting after a presentation on the

WWTP Facilities Plan by Rex Moffat, the WWTP Superintendent, and Alan Giesbrecht of J-U-B ENGINEERS, Inc. Only one comment was officially received as follows:

1. In-person comment from Blackfoot citizen Audrey Stanfield at the March 4, 2014 City Council Meeting concerning approval of Alternative 4.
    a. Response from the City was provided at the March 4, 2014 City Council Meeting. A copy of Ms. Stanfield's comments and the response are in the March 4 meeting minutes, included in **Appendix C**.

The City Council approved proceeding with Alternative 4 after reviewing the presentation information and considering public input, as indicated in the March 4, 2013 City Council Meeting Minutes, included in **Appendix C**.

There were approximately 20 people in attendance at the March 4, 2014 Blackfoot City Council Meeting. An attendance sign-in sheet was made available but was not signed by any of the attendees.

6.1.4 Other Opportunities for Public Comment

Additional opportunities were available for public input outside the official public comment period.

1. The October 1, 2013 City of Blackfoot City Council Meeting at which a summary of the findings of the draft Facility Plan regarding Phase 1 Improvements (the 3rd clarifier, intermediate pump station, and associated piping) was presented to the Council by Alan Giesbrecht (J-U-B).
2. The March 4, 2014 City of Blackfoot City Council Meeting at which the WWTP Facility Plan Alternatives were presented by Alan Giesbrecht (J-U-B) and discussed by the attending citizens of the community and City Council members.

6.1.5 Additional Press

Additional press for the Facility Plan included articles in the Blackfoot Morning News before and after the March 4, 2014 City of Blackfoot City Council Meeting reporting on the special meeting.

Section 7 - Agency Consultation

7.1 Agencies Consulted

Table 7-1 lists the agencies consulted during the preparation of the EID, and includes dates consultation was attempted and dates agency responses were received. Copies of agency consultation letters and responses received are included in **Appendix A**.

Table 7-1 – Agency Consultation List

Agency	Contact	Address	Date Consulted	Response Received
U.S. Army Corps of Engineers	James Joyner	900 N. Skyline Dr., Suite. A Idaho Falls, ID 83402-1718	03-27-2014	05-09-2014
Department of Environmental Quality, Pocatello Regional Office	Tom Hepworth	444 Hospital Way #300 Pocatello, ID 83201	03-27-2014	04-30-2014
Idaho State Historical Society	Ethan Morton, SHPO	210 Main Street Boise, ID 83702	03-27-2014	03-31-2014
EPA Region 10, Office of Environmental Assessment (OEA-095)	Susan Eastman Hydrogeologist	1200 6th Avenue, OWW 136 Seattle, WA 98101	03-28-2014	04-30-2014
U.S. EPA, Idaho Operations Office	James Werntz/ Maria Lopez	950 W. Bannock Street, Ste. 900 Boise, ID 83702	03-27-2014	05-05-2014
Idaho Department of Water Resources	Keri Sigman, State NFIP Contact	P.O. Box 83720 Boise, ID 83702-0098	03-27-2014	04-23-2014
Southeast District Health Department	Steve Pew, EHD/ Ken Keller, EHS	1901 Alvin Ricken Drive Pocatello, ID 83201	03-27-2014	04-21-2014
U. S. Department of Agriculture, NRCS	Hal Swenson, State Soil Scientist	Consultation conducted through the IDEQ Boise office		
U.S. Fish and Wildlife Service, Eastern Idaho Field Office	Nisa Marks	Consultation conducted through the IDEQ Boise office		
Shoshone-Bannock Tribes	Carolyn Boyner Smith, Cultural Resources Coordinator	Consultation conducted through the IDEQ Boise office		
Shoshone-Paiute Tribe	Ted Howard, Cultural Resources Program	Consultation conducted through the IDEQ Boise office		

Section 8 - Mailing List

8.1 Mailing List

The mailing list for this project includes the agencies listed in Section 7 as well as those who submitted comments during the public comment period. **Table 8-1** lists contact information for this individual.

Table 8-1 – Additions to Mailing List

Name	Address	Phone Number
Audrey Stanfield	98 N. Broadway Blackfoot, ID 83221	(208)785-5800

The most efficient way to contact Blackfoot residents regarding the Facility Plan and environmental determination is through the local newspaper, The Morning News.

Section 9 - References Consulted

9.1 References Consulted

1. Blackfoot, Idaho, City data. Period of Record from 2009 to 2011< http://www.city-data.com/city/Blackfoot-Idaho.html > Retrieved February 25, 2013.

2. City of Blackfoot, Idaho Wastewater Treatment Facility Plan. Prepared by J-U-B Engineers, Inc. April 2014.

3. Federal Emergency Management Agency. Map Service Center – Kootenai County, Idaho Floodplain Map 16055C0250E. <http://www.fema.gov/>. Retrieved February 26, 2013.

4. Idaho Department of Environmental Quality. Aquifers. <http://www.deq.idaho.gov/water-quality/ground-water/aquifers.aspx>. Retrieved March 27, 2014.

5. Idaho Department of Environmental Quality. *2009 Air Quality Monitoring Data Summary*. Published January 2012. <http://www.deq.idaho.gov/media/791846-2009-aq-monitoring-data-report.pdf>. Retrieved February 25, 2013.

6. Idaho Department of Water Resources. General Mapping Tool. <http://maps.idwr.idaho.gov/mapall/>. Panel 160018 0430C in February, 2013.

7. *IHS Global Insight*, Idaho Population Projection 1961-1942, dated October 15, 2012.

8. MyTopo, a Trimble Company. Topographic Map. <http://www.mytopo.com/maps/index.cfm>. Retrieved February 26, 2013.

9. Native American Tribes of Idaho. <http://www.native-languages.org/idaho.htm>. Retrieved February 26, 2013.

10. United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) Web Soil Survey. <http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>. Retrieved February 26, 2013 and May 5, 2014.

11. U.S. Fish and Wildlife Service. National Wetlands Inventory. <http://www.fws.gov/wetlands/Data/Mapper.html>. Retrieved February 25, 2013.

12. Western Regional Climate Center. Climate Summary for Blackfoot, Idaho. Period of Record November 1, 1895 to September 30, 2012. <http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?id0915>. Retrieved February 25, 2013.

13. Western Regional Climate Center. Prevailing Wind Directions for the State of Idaho. < http://www.wrcc.dri.edu/climatedata/climtables/westwinddir/#IDAHO >. Retrieved February 25, 2013.

14. Western Regional Climate Center. Prevailing Wind Speeds for the State of Idaho. <http://www.wrcc.dri.edu/htmlfiles/westwind.final.html#IDAHO>. Retrieved February 25, 2013.

15. Wild and Scenic Rivers. National Wild and Scenic Rivers System. <http://www.rivers.gov>. Retrieved May 2, 2014.

16. The National Register of Historic Places in Idaho. Idaho State Preservation Office (SHPO). <http://www.history.idaho.gov/sites/default/files/uploads/National_Register_Properties_Idaho.pdf>. Retrieved February 26, 2013.

Appendices

Appendix A – Agency Consultation Information
Appendix B – Affected Environment Figures
Appendix C – Public Participation Information

Appendix A

Agency Consultation Information

U.S. Army Corps of Engineers

J-U-B COMPANIES THE LANGDON GROUP GATEWAY MAPPING INC.

J-U-B ENGINEERS, INC.

March 27, 2014

James Joyner
U.S. Army Corps of Engineers
900 N. Skyline Dr., Suite A
Idaho Falls, ID 83402-1718

RE: City of Blackfoot, Idaho Wastewater Treatment Facility Improvement Project – Request for Comments for Preparation of an Environmental Information Document

Dear Mr. James Joyner,

The City of Blackfoot, Idaho (City) is preparing a facility planning document to identify and make necessary improvements to their wastewater treatment facility (WWTP) that are cost effective and environmentally sound. The facility plan for this project is being partially funded by the Department of Environmental Quality (DEQ) State Revolving Loan Fund (SRF) which requires compliance with the Idaho Rules for Administration of Water Pollution Control Loans (IDAPA 58.01.12). The City anticipates utilizing federal funds for construction.

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, which mirrors the National Environmental Policy Act.

The proposed improvements consist of upgrading all components with operational or capacity deficiencies as well as addressing permit-driven requirements, such as effluent total suspended solids and total phosphorus, which are reasonably expected over the facility's 20-year planning period. The facility's previous National Pollutant Discharge System (NPDES) Permit issued by the US EPA has expired, and a new permit was issued in September 2013 that has more stringent discharge limits. A summary of the work is included in Table 1 and in the enclosed Figure 2.

Table 1 – Summary of Proposed Improvements

Item	Description
Septage Receiving Station	New package septage receiving station
Mechanical Screening and Grit Removal	New Headworks, including flow measurement, sampling, two 6 mm mechanical fine screens, washer/compactors, and grit removal
	Headworks odor control system
Primary Clarification	No improvements are recommended at this time
Primary Solids Pumping	Retrofit existing pumping system; replace piping to the solids processing system
Gravity Thickener	Miscellaneous rehabilitation; cover gravity thickener
Intermediate Pump Station	Replacement or a major retrofit of the existing pump station
Bioselector	No improvements are recommended at this time
Aeration Basins, Blowers, and Diffused Aeration	Replace existing aeration distribution lines from the Blower Building to each aeration basin
	Add chemical addition for phosphorus removal
MLSS Distribution Box and Secondary Clarifier No. 3	New distribution box to accommodate four aeration basins and four secondary clarifiers. New 60'-diameter secondary clarifier (Secondary Clarifier No. 3).

Item	Description
Secondary Clarifier No. 4	New 60'-diameter secondary clarifier (Secondary Clarifier No. 4)
RAS/WAS Control	Add RAS return to Intermediate Pump Station; replace existing, failed valves; incorporate new clarifier(s)
	New RAS/WAS pump station
UV Disinfection System	Retrofit existing system with new low-pressure/high-output bulbs, ballasts, and controls
	New building, including HVAC, gantry crane, and related elements
Outfall	No improvements are recommended at this time
WAS Thickening	New thickening unit; piping modifications in the solids pumping room; new thickened solids pump; re-routing primary solids feed directly to the digester feed line
Solids Blend Tank	Inspection, concrete repair, and re-coating
Anaerobic Digesters	Add a transfer pump between the Thermophilic and Mesophilic Digesters
	Replace the Thermophilic Digester seal; add staircases and safety improvements to the Mesophilic Digesters; clean, re-coat, and replace mixing system and piping in Primary and Secondary Mesophilic Digesters
Digester Gas	Install a hoist system to aid removal of the iron sponge lid and replacement of the media; add a bladder-style gas storage vessel to equalize production and consumption
Mechanical Dewatering	Add a second screw press and polymer make-up unit; integrate cake conveyor controls; replace solids feed pump
Liquid Solids Storage	Add a return line from the Liquid Solids Storage tanks to the dewatering equipment feed pump

The project is being proposed to upgrade the wastewater system to allow continued service for the City of Blackfoot, Idaho and surrounding communities by addressing identified deficiencies, by increasing the capacity for existing and future flows, and by reducing the risk of permit violations. Enclosed is a map of the proposed project planning area (PPPA) that depicts the proposed project improvements and area of potential effect (APE) for all construction activities.

Please submit any comments that you may have regarding this proposed improvements within 30 days of receipt of this letter, so the City of Blackfoot, Idaho can proceed with the completion of the Environmental Information Document. If no comments are received within 30 days, it will be assumed that none are forthcoming.

If you have any questions concerning this proposed project or if you need any further information, please feel free to contact Alan Giesbrecht, P.E. with J-U-B ENGINEERS, Inc. via email at asg@jub.com or via phone at (208) 232-1313 at your convenience.

Sincerely,

J-U-B ENGINEERS, Inc.

Kassidie Lampe

Kassidie Lampe, E.I.

Enclosure:

Figure 1. Blackfoot WWTP Location, PPPA, and APE
Figure 2. Proposed Project Improvements

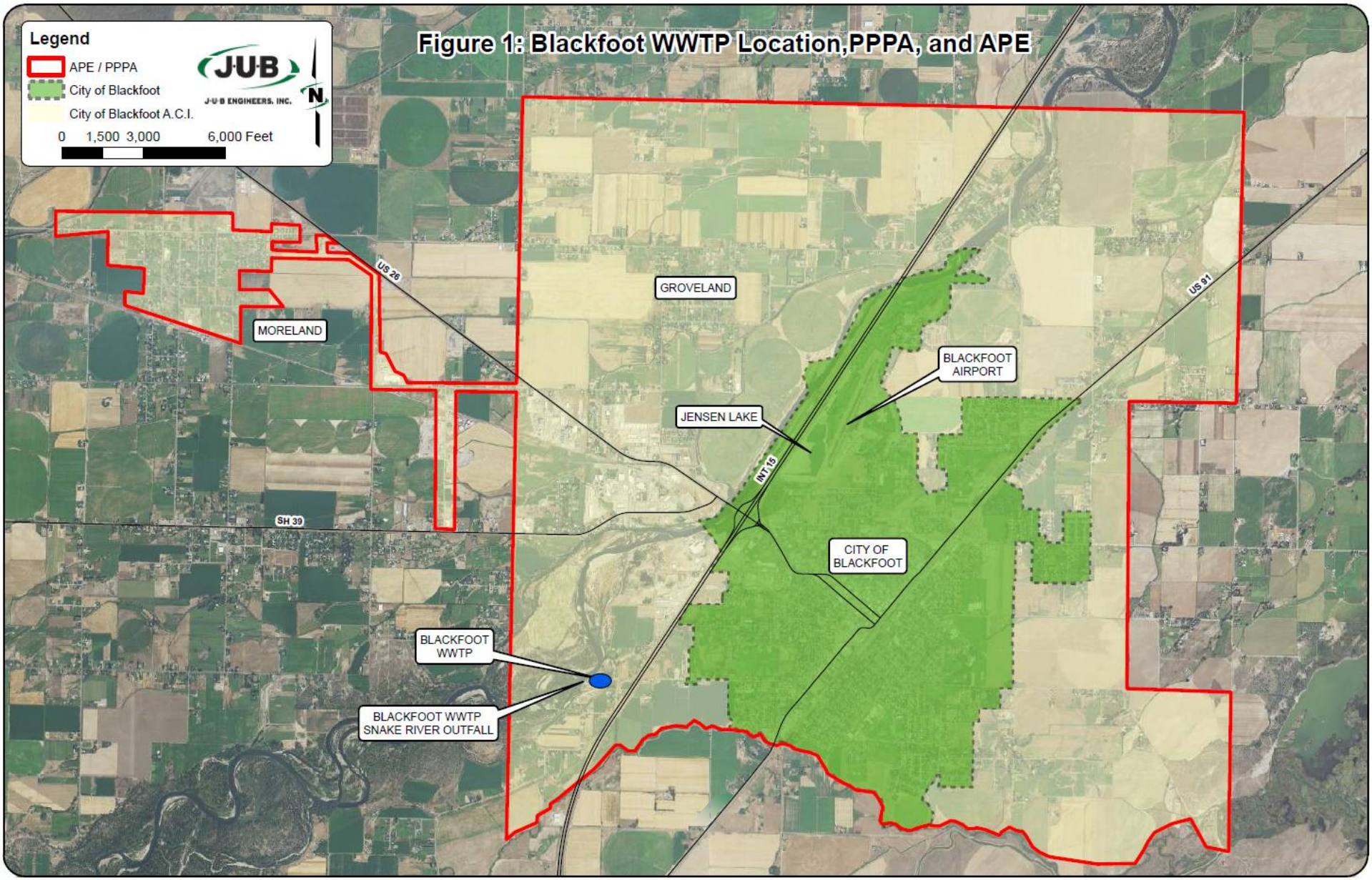
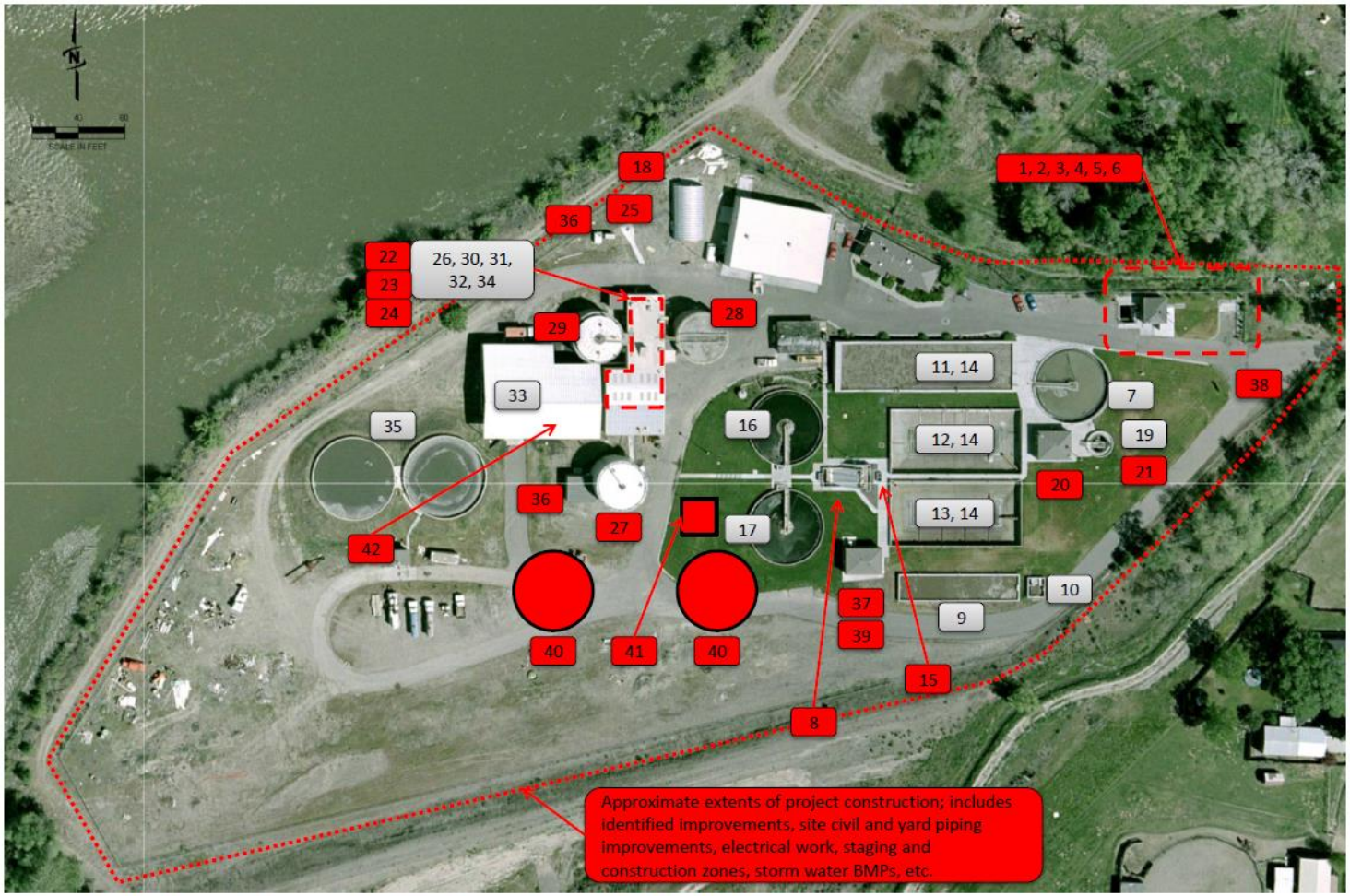


Figure 1: Blackfoot WWTP Location,PPPA, and APE
Legend
APE / PPPA
City of Blackfoot
City of Blackfoot A.C.I.
0 1,500 3,000 6,000 Feet
J-U-B ENGINEERS, INC.
N
US 26
MORELAND
GROVELAND
US 91
BLACKFOOT AIRPORT
JENSEN LAKE
INT 15
SH 39
CITY OF BLACKFOOT
BLACKFOOT WWTP
BLACKFOOT WWTP SNAKE RIVER OUTFALL

Figure 2 : Proposed Project Improvements



City of Blackfoot Wastewater Treatment Facility (WWTP)

Item	Description
1	Influent Flow Meter
2	Step Screen
3	Washer / Compactor
4	Aerated Grit Chamber
5	Grit Pump
6	Grit Classifier
7	Primary Clarifier
8	Intermediate Pump Station
9	Anaerobic / Anoxic Selectors
10	Distribution Box to Aeration Basins
11	Aeration Basin No. 1
12	Aeration Basin No. 2
13	Aeration Basin No. 3
14	Internal Recycle Pumps
15	Distribution Box to Secondary Clarifiers
16	Secondary Clarifier No. 1
17	Secondary Clarifier No. 2
18	UV Disinfection
19	Primary Clarifier Scum Pit
20	Primary Solids Pump Station
21	Gravity Thickener with New Cover
22	WAS Pumping
23	WAS Thickening
24	Thickened WAS Pumping
25	Solids Blend Tank Recoating and PS re-route
26	Digester Feed Pump
27	Thermophilic Digester
28	Primary Mesophilic Digester and Mixing / Heating
29	Secondary Mesophilic Digester and Mixing / Heating
30	Digested Solids Feed to Dewatering
31	Mechanical Dewatering with Stand-by Unit
32	Solids Conveyor to Storage
33	Dry Solids Storage
34	Digested Solids Feed to Liquid Storage
35	Liquid Solids Storage
36	Digester Gas Flaring / Reuse
37	Blower / Diffuser System
38	Package Septage Receiving Station
39	Chemical Feed System for Phosphorus Removal
40	New Secondary Clarifiers
41	RAS / WAS Pump Station
42	Thermophilic Digested Solids Transfer Pump

Kassidie Lampe

From: Joyner, James M NWW <James.M.Joyner@usace.army.mil>
Sent: Friday, May 09, 2014 3:50 PM
To: Kassidie Lampe
Subject: RE: Agency Consultation for the EID Process - City of Blackfoot, ID (UNCLASSIFIED)
Attachments: AJD Ltr.pdf; Appeals Form.docx; NWW-2014-175 AJD Form.docx

Classification: UNCLASSIFIED
Caveats: NONE

Kassidie,

Attached is our response letter, approved jurisdictional determination, and notification of appeals procedures. Basically, since the work would occur at the existing facility in upland we have no jurisdiction. Thanks.

James M. Joyner
Sr. Regualtory Project Manager

US Army Corps of Engineers
Walla Walla District
Idaho Falls Regulatory Office
900 N Skyline Drive, Suite A
Idaho Falls, Idaho 83402
208-522-1676 (Office)
208-522-2994 (Fax)
james.m.joyner@usace.army.mil

-----Original Message-----
From: Kassidie Lampe [mailto:kllampe@jub.com]
Sent: Wednesday, April 30, 2014 9:59 AM
To: Joyner, James M NWW
Subject: [EXTERNAL] RE: Agency Consultation for the EID Process - City of Blackfoot, ID (UNCLASSIFIED)

Hi James,

We've started to incorporating comments for this project into the EID.
Is there a date by which we can expect your response?
Please let me know.
Thank you,

Kassidie

-----Original Message-----
From: Joyner, James M NWW [mailto:James.M.Joyner@usace.army.mil]
Sent: Friday, March 28, 2014 7:44 AM
To: Kassidie Lampe
Subject: RE: Agency Consultation for the EID Process - City of Blackfoot, ID (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Kassidie,

We will get it logged into our system. Thanks.

James M. Joyner
Sr. Regulatory Project Manager

US Army Corps of Engineers
Walla Walla District
Idaho Falls Regulatory Office
900 N Skyline Drive, Suite A
Idaho Falls, Idaho 83402
208-522-1676 (Office)
208-522-2994 (Fax)
james.m.joyner@usace.army.mil

-----Original Message-----
From: Kassidie Lampe [mailto:kllampe@jub.com]
Sent: Thursday, March 27, 2014 5:25 PM
To: Joyner, James M NWW
Subject: [EXTERNAL] Agency Consultation for the EID Process - City of Blackfoot, ID

Mr. James Joyner,

My name is Kassidie Lampe, I work with J-U-B Engineers, Inc.

We're in the process of helping the City of Blackfoot improve their wastewater treatment facility.

Please see the attached letter.

We look forward to your response.

Thank you,

Kassidie Lampe, E.I.

J-U-B ENGINEERS, Inc.

677 S. Woodruff, Idaho Falls, ID 83401

p | 208 932 4486 c | 208 251 2674 e | kllampel@jub.com <mailto:kllampel@jub.com>

THE J-U-B FAMILY OF COMPANIES:
www.jub.com <http://www.jub.com/>
www.gatewaymapping.com <http://www.gatewaymapping.com/> www.langdongroupinc.com
<http://www.langdongroupinc.com/>

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Classification: UNCLASSIFIED
Caveats: NONE

DEPARTMENT OF THE ARMY
WALLA WALLA DISTRICT, CORPS OF ENGINEERS
IDAHO FALLS REGULATORY OFFICE
900 NORTH SKYLINE DRIVE, SUITE A
IDAHO FALLS, IDAHO 83402-1700

REPLY TO ATTENTION OF

9 May 2014

Regulatory Division

SUBJECT: NWW-2014-175

Ms. Kassidie Lampe
J-U-B Engineers, Inc.
677 S. Woodruff
Idaho Falls, Idaho 83401

Dear Ms. Lampe:

Enclosed is our Department of Army (DA) Approved Jurisdictional Determination (AJD) that there are no waters of the United States, including wetlands, within the City of Blackfoot's existing Wastewater Treatment Facility. This is also the location of the City's proposed improvements. Therefore, no DA authorization is required. This decision is based upon our review of the information you provided and additional information available to our office. Your project site is located within Section 8 of Township 3 South, Range 35 East , near latitude 43.1818º N and longitude -112.38408º W, in Bingham County, in Blackfoot, Idaho. Your request has been assigned file number NWW-2014-00175, which should be referred to in future correspondence with our office regarding this site.

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

The proposed project area, as shown on "Figure 2: Proposed Project Improvements," is land that does not contain waters of the U.S., including wetlands, under the Corps' regulatory jurisdiction. Therefore, a DA authorization is not required.

This approved JD is valid for a period of 5-years from the date of this letter, unless new information supporting a revision is provided to this office before the expiration date. Also enclosed, you will find the Approved Jurisdictional Determination Form addressing wetlands and waters of the U.S. located within the JD review area, and a *Notification of Administrative*

Appeals Options and Process and Request for Appeal Form (RFA) regarding this DA Approved Jurisdictional Determination. Should you disagree with certain terms and/or conditions this Approved JD, the Notification of Administrative Appeal Options form outlines the steps to take to file your objection. Please note, the RFA form must be received by the Northwest Division Office no later than **6 July 2014**.

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

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

If you have any questions about this determination, please contact me by telephone at (208) 522-1676, by mail at the address in the above letterhead, or via email at james.m.joyner@usace.army.mil. We appreciate your cooperation with the Corps of Engineers' Regulatory Program.

Sincerely,

James M. Joyner

James M. Joyner
Sr. Project Manager, Regulatory Division

Enclosures:
Approved JD Form
Notification of Administrative Appeal Options and Request for Appeal Form

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): 9 May 2014

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Walla Walla District; NWW-2014-00175, City of Blackfoot Wastewater Treatment Facility Improvement Project

C. PROJECT LOCATION AND BACKGROUND INFORMATION: .
State: Idaho County/parish/borough: Bingham City: Blackfoot
Center coordinates of site (lat/long in degree decimal format): 43.1818° Lat. -112.38408° Long.
Universal Transverse Mercator: Zone 11 Northing 4781930.64741878 **N**, Easting 387507.517629638 **E**.
Name of nearest waterbody: Snake River
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: N/A
Name of watershed or Hydrologic Unit Code (HUC): American Falls, Idaho.
☒ 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: 9 May 2014
☐ Field Determination. Date(s):

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "*navigable waters of the U.S.*" within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]
☐ Waters subject to the ebb and flow of the tide.
☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

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

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

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

   c. **Limits (boundaries) of jurisdiction** based on: **Not Applicable.**
      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: **.**

.

[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.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

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

1. TNW
Identify TNW: .

Summarize rationale supporting determination: .

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Primary tributary substrate composition (check all that apply):

☐ Silts	☐ Sands	☐ Concrete
☐ Cobbles	☐ Gravel	☐ Muck
☐ Bedrock	☐ Vegetation. Type/% cover:	
☐ Other. Explain: .		

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

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

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

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

Tributary has (check all that apply):
☐ Bed and banks
☐ OHWM[6] (check all indicators that apply):

☐ clear, natural line impressed on the bank	☐ the presence of litter and debris
☐ changes in the character of soil	☐ destruction of terrestrial vegetation
☐ shelving	☐ the presence of wrack line
☐ vegetation matted down, bent, or absent	☐ sediment sorting
☐ leaf litter disturbed or washed away	☐ scour
☐ sediment deposition	☐ multiple observed or predicted flow events
☐ water staining	☐ abrupt change in plant community
☐ other (list):	

☐ Discontinuous OHWM.[7] Explain: .

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

☐ High Tide Line indicated by:	☐ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects	☐ survey to available datum;
☐ fine shell or debris deposits (foreshore)	☐ physical markings;
☐ physical markings/characteristics	☐ vegetation lines/changes in vegetation types.
☐ tidal gauges	
☐ other (list):	

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

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

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

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

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

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland size: acres

Wetland type. Explain: .

Wetland quality. Explain: .

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

(b) General Flow Relationship with Non-TNW:

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

Surface flow is**: Pick List**

Characteristics: .

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

- ☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

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

(d) Proximity (Relationship) to TNW

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

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

Flow is from: **Pick List.**

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

(ii) Chemical Characteristics:

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

Identify specific pollutants, if known: .

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

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

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

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

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

For each wetland, specify the following:

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

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

C. SIGNIFICANT NEXUS DETERMINATION

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Identify water body and summarize rationale supporting determination: .

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

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

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

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

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

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):
☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Figure 2. Proposed Project Improvements.
☐ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
☐ Office concurs with data sheets/delineation report.
☐ Office does not concur with data sheets/delineation report.
☐ Data sheets prepared by the Corps: .
☐ Corps navigable waters' study: .
☐ U.S. Geological Survey Hydrologic Atlas: .
☐ USGS NHD data.
☐ USGS 8 and 12 digit HUC maps.
☒ U.S. Geological Survey map(s). Cite scale & quad name:1:24K (Moreland).
☐ USDA Natural Resources Conservation Service Soil Survey. Citation: .
☐ National wetlands inventory map(s). Cite name: .
☐ State/Local wetland inventory map(s): .
☐ FEMA/FIRM maps: .
☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
☒ Photographs: ☒ Aerial (Name & Date):ORM Database and Google Earth Aerial.
or ☐ Other (Name & Date): .
☐ Previous determination(s). File no. and date of response letter: .
☐ Applicable/supporting case law: .
☐ Applicable/supporting scientific literature: .
☐ Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD: Project improvements will occur in the area previously filled and impacted by the existing wastewater treatment facility.

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: **City of Blackfoot**	File Number: **NWW-2014-00175**	Date: **9 May 2014**
Attached is:		See Section Below
	INITIAL PROFFERED PERMIT (Standard Permit or Letter of Permission)	A
	PROFFERED PERMIT (Standard Permit or Letter of Permission)	B
	PERMIT DENIAL	C
X	**APPROVED JURISDICTIONAL DETERMINATION**	**D**
	PRELIMINARY JURISDICTIONAL DETERMINATION	E

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

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

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

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

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

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

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

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

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

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

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

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

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

REASONS FOR APPEAL OR OBJECTIONS:

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

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

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact: District Engineer ATTN: Ms. Kelly J. Urbanek Regulatory Division Walla Walla District 201 North 3rd Avenue Walla Walla, Washington 99362-1876 Telephone (208) 376-1832	If you only have questions regarding the appeal process you may also contact: U.S. Army Corps of Engineers Northwestern Division Attn: Mary Hoffman, Appeals Review Officer P.O. Box 2870 Portland, Oregon 97208-2870 Telephone (503) 808-3825

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

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

Department of Environmental Quality,

Pocatello Regional Office

J-U-B COMPANIES THE LANGDON GROUP GATEWAY MAPPING INC.

J-U-B ENGINEERS, INC.

March 27, 2014

Tom Hepworth
Department of Environmental Quality, Pocatello Regional Office
444 Hospital Way, #300
Pocatello, ID 83201

RE: City of Blackfoot, Idaho Wastewater Treatment Facility Improvement Project – Request for Comments for Preparation of an Environmental Information Document

Dear Mr. Tom Hepworth:

The City of Blackfoot, Idaho (City) is preparing a facility planning document to identify and make necessary improvements to their wastewater treatment facility (WWTP) that are cost effective and environmentally sound. The facility plan for this project is being partially funded by the Department of Environmental Quality (DEQ) State Revolving Loan Fund (SRF) which requires compliance with the Idaho Rules for Administration of Water Pollution Control Loans (IDAPA 58.01.12). The City anticipates utilizing federal funds for construction.

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, which mirrors the National Environmental Policy Act.

The proposed improvements consist of upgrading all components with operational or capacity deficiencies as well as addressing permit-driven requirements, such as effluent total suspended solids and total phosphorus, which are reasonably expected over the facility's 20-year planning period. The facility's previous National Pollutant Discharge System (NPDES) Permit issued by the US EPA has expired, and a new permit was issued in September 2013 that has more stringent discharge limits. A summary of the work is included in Table 1 and in the enclosed Figure 2.

Table 1 – Summary of Proposed Improvements

Item	Description
Septage Receiving Station	New package septage receiving station
Mechanical Screening and Grit Removal	New Headworks, including flow measurement, sampling, two 6 mm mechanical fine screens, washer/compactors, and grit removal
	Headworks odor control system
Primary Clarification	No improvements are recommended at this time
Primary Solids Pumping	Retrofit existing pumping system; replace piping to the solids processing system
Gravity Thickener	Miscellaneous rehabilitation; cover gravity thickener
Intermediate Pump Station	Replacement or a major retrofit of the existing pump station
Bioselector	No improvements are recommended at this time
Aeration Basins, Blowers, and Diffused Aeration	Replace existing aeration distribution lines from the Blower Building to each aeration basin
	Add chemical addition for phosphorus removal
MLSS Distribution Box and Secondary Clarifier No. 3	New distribution box to accommodate four aeration basins and four secondary clarifiers. New 60'-diameter secondary clarifier (Secondary Clarifier No. 3).

Item	Description
Secondary Clarifier No. 4	New 60'-diameter secondary clarifier (Secondary Clarifier No. 4)
RAS/WAS Control	Add RAS return to Intermediate Pump Station; replace existing, failed valves; incorporate new clarifier(s)
	New RAS/WAS pump station
UV Disinfection System	Retrofit existing system with new low-pressure/high-output bulbs, ballasts, and controls
	New building, including HVAC, gantry crane, and related elements
Outfall	No improvements are recommended at this time
WAS Thickening	New thickening unit; piping modifications in the solids pumping room; new thickened solids pump; re-routing primary solids feed directly to the digester feed line
Solids Blend Tank	Inspection, concrete repair, and re-coating
Anaerobic Digesters	Add a transfer pump between the Thermophilic and Mesophilic Digesters
	Replace the Thermophilic Digester seal; add staircases and safety improvements to the Mesophilic Digesters; clean, re-coat, and replace mixing system and piping in Primary and Secondary Mesophilic Digesters
Digester Gas	Install a hoist system to aid removal of the iron sponge lid and replacement of the media; add a bladder-style gas storage vessel to equalize production and consumption
Mechanical Dewatering	Add a second screw press and polymer make-up unit; integrate cake conveyor controls; replace solids feed pump
Liquid Solids Storage	Add a return line from the Liquid Solids Storage tanks to the dewatering equipment feed pump

The project is being proposed to upgrade the wastewater system to allow continued service for the City of Blackfoot, Idaho and surrounding communities by addressing identified deficiencies, by increasing the capacity for existing and future flows, and by reducing the risk of permit violations. Enclosed is a map of the proposed project planning area (PPPA) that depicts the proposed project improvements and area of potential effect (APE) for all construction activities.

Please submit any comments that you may have regarding this proposed improvements within 30 days of receipt of this letter, so the City of Blackfoot, Idaho can proceed with the completion of the Environmental Information Document. If no comments are received within 30 days, it will be assumed that none are forthcoming.

If you have any questions concerning this proposed project or if you need any further information, please feel free to contact Alan Giesbrecht, P.E. with J-U-B ENGINEERS, Inc. via email at asg@jub.com or via phone at (208) 232-1313 at your convenience.

Sincerely,

J-U-B ENGINEERS, Inc.

Kassidie Lampe

Kassidie Lampe, E.I.

Enclosure:

Figure 1. Blackfoot WWTP Location, PPPA, and APE
Figure 2. Proposed Project Improvements

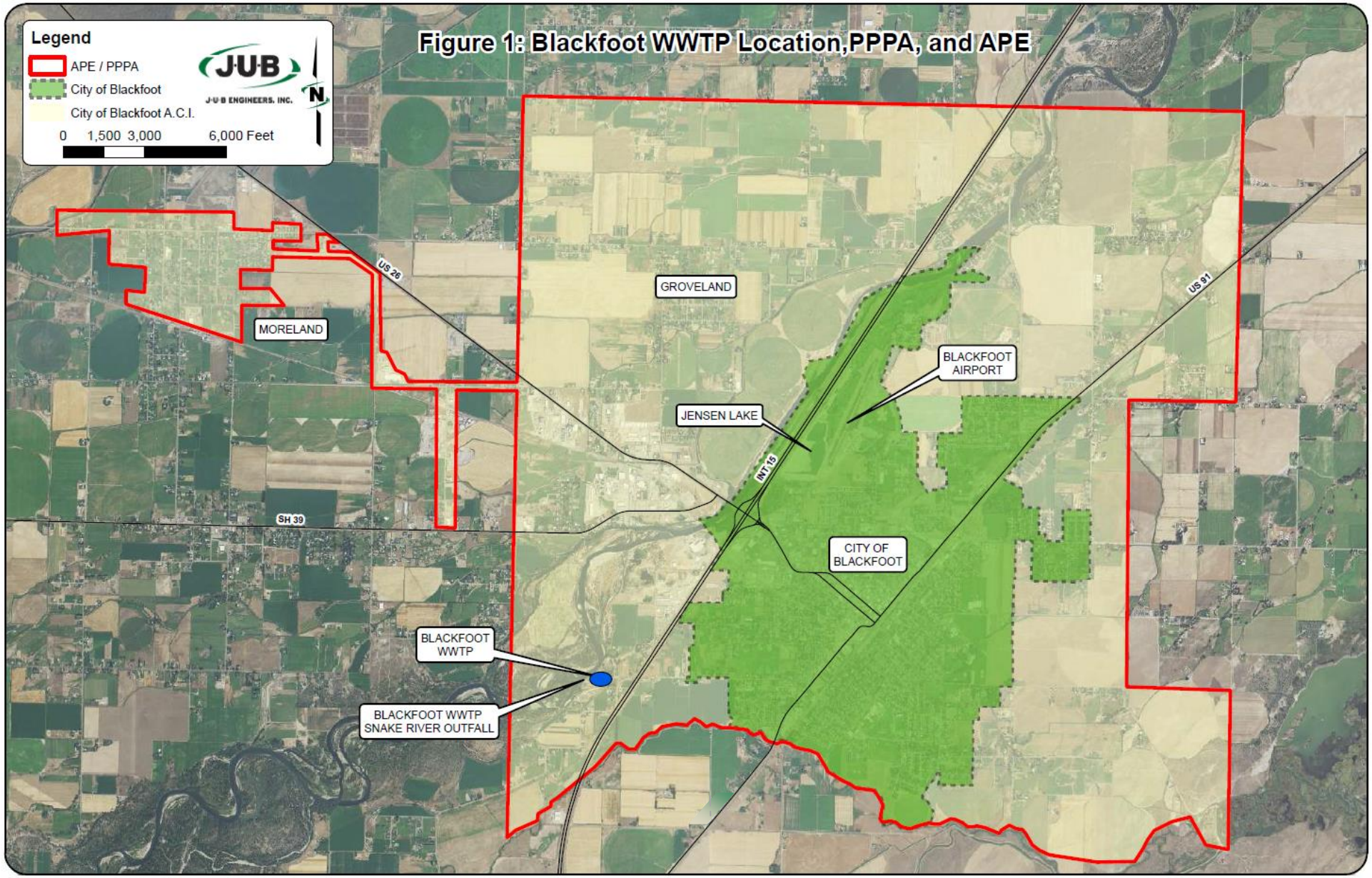
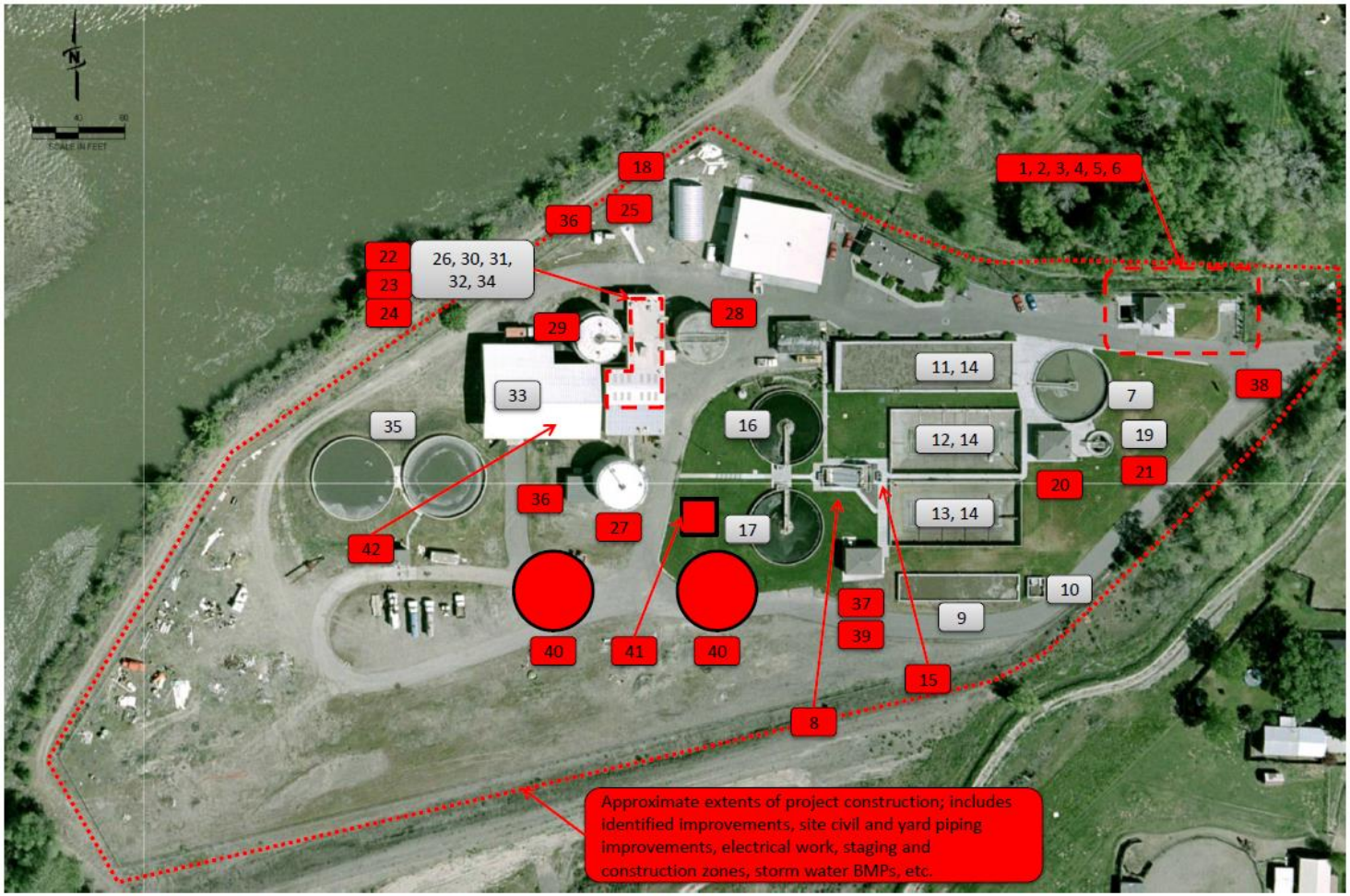


Figure 1: Blackfoot WWTP Location,PPPA, and APE
Legend
APE / PPPA
City of Blackfoot
City of Blackfoot A.C.I.
0 1,500 3,000 6,000 Feet
J-U-B ENGINEERS, INC.
N
US 26
US 91
INT 15
SH 39
MORELAND
GROVELAND
BLACKFOOT AIRPORT
JENSEN LAKE
CITY OF BLACKFOOT
BLACKFOOT WWTP
BLACKFOOT WWTP SNAKE RIVER OUTFALL

Figure 2 : Proposed Project Improvements



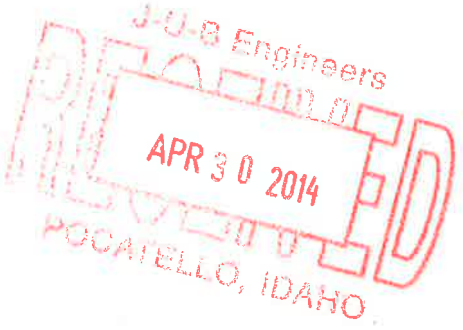
City of Blackfoot Wastewater Treatment Facility (WWTP)

Item	Description
1	Influent Flow Meter
2	Step Screen
3	Washer / Compactor
4	Aerated Grit Chamber
5	Grit Pump
6	Grit Classifier
7	Primary Clarifier
8	Intermediate Pump Station
9	Anaerobic / Anoxic Selectors
10	Distribution Box to Aeration Basins
11	Aeration Basin No. 1
12	Aeration Basin No. 2
13	Aeration Basin No. 3
14	Internal Recycle Pumps
15	Distribution Box to Secondary Clarifiers
16	Secondary Clarifier No. 1
17	Secondary Clarifier No. 2
18	UV Disinfection
19	Primary Clarifier Scum Pit
20	Primary Solids Pump Station
21	Gravity Thickener with New Cover
22	WAS Pumping
23	WAS Thickening
24	Thickened WAS Pumping
25	Solids Blend Tank Recoating and PS re-route
26	Digester Feed Pump
27	Thermophilic Digester
28	Primary Mesophilic Digester and Mixing / Heating
29	Secondary Mesophilic Digester and Mixing / Heating
30	Digested Solids Feed to Dewatering
31	Mechanical Dewatering with Stand-by Unit
32	Solids Conveyor to Storage
33	Dry Solids Storage
34	Digested Solids Feed to Liquid Storage
35	Liquid Solids Storage
36	Digester Gas Flaring / Reuse
37	Blower / Diffuser System
38	Package Septage Receiving Station
39	Chemical Feed System for Phosphorus Removal
40	New Secondary Clarifiers
41	RAS / WAS Pump Station
42	Thermophilic Digested Solids Transfer Pump

STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

444 Hospital Way, #300 • Pocatello, Idaho 83201 • (208) 236-6160
www.deq.idaho.gov

C.L. "Butch" Otter, Governor
Curt Fransen, Director



Wednesday, April 23, 2014

Kassidie Lampe, E.I.
J-U-B Engineers,
275 South 5th Avenue, Suite 220
Pocatello, ID 83201-6079

RE: Environmental Information Document (EID) Review, Environmental Impacts for the City of Blackfoot, Wastewater Treatment Facility Project

Kassidie Lampe:

The Idaho Department of Environmental Quality (IDEQ) has reviewed information you provided in preparation of an Environmental Information Document (EID) required to describe potential environmental impacts associated with the subject project. In general, DEQ concurs that the project will be beneficial to improving the quality of the environment and in protecting public health. Our comments follow.

Storm Water Management

Land disturbance activities associated with development (i.e. road building, stream crossings, land clearing) have the potential to impact water quality and riparian habitats through the generation and transport of sediment laden run-off and related contaminants. The Department recommends the development of a Storm-Water Pollution Prevention Plan (SWPPP) in accordance with federal requirements.

The Department strongly recommends that the city incorporate Best Management Practices (BMPs) and/or Best Available Technology (BAT) for storm water management. BMPs and/or BAT should be implemented as an integral part of any construction or modification associated with this project.

Air Quality

Land development projects are generally required to follow applicable regulations outlined in the Rules for the control of Air Pollution in Idaho. Of particular concern is IDAPA 58 .01.01.650 and 651 Rules for Control of Fugitive Dust.

Section 650 states, "The purpose of sections 650 through 651 is to require that all reasonable precautions be taken to prevent the generation of fugitive dust." Section 651 states "All reasonable precautions shall be taken to prevent particulate matter from becoming airborne. In determining what is reasonable, 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:

1. Use of Water or Chemicals. Use, where practical, of water or chemicals for control of dust in the demolition of existing building or structures, construction operations, the grading of roads, or the clearing of land.
2. Application of Dust Suppressants. Application, where practical of asphalt, oil, water or suitable chemicals to, or covering of dirt roads, materials stockpiles, and other surfaces which can create dust.
3. Use of Control Equipment. Installation and use, where practical, of hoods, fans and fabric filters or equivalent systems to enclose and vent the handling of dusty materials. Adequate containment methods should be employed during sandblasting or other operations.
4. Covering of Trucks. Covering, when practical, open bodied trucks transporting materials likely to give rise to airborne dusts.
5. Paving. Paving of roadways and their maintenance in a clean condition, where practical.
6. Removal of Materials. Prompt removal of earth or other stored materials from streets, where practical."

Hazardous Waste

Accidental surface spills of petroleum hydrocarbon products (i.e. fuel, oil, and similar products) are most commonly associated with the transportation and delivery of fuel to work sites or facilities. The Idaho Release, Reporting, and Corrective Action Regulations (IDAPA 58.01 .02 .851 and .852), require notification within 24 hours of any spill of petroleum product greater than 25 gallons and notification for the release of lesser amounts if they cannot be cleaned up within twenty-four (24) hours. The cleanup requirements are also contained in those regulations. Both federal and Idaho regulations require the cleanup of any spill or release of used oil. [IDAPA 58.01.05.015; [40 CFR 279.22(d)(3)].

Engineering Review

.In accordance with Idaho Code 39-118, construction plans & specifications prepared by a professional engineer are required for DEQ review and approval prior to construction if the proposed system upgrade is to serve a public water or wastewater system.

Thanks for the opportunity to provide comments on this important project for the City of Blackfoot. If you have questions or comments, please contact me at 236-6160 or via email at tom.hepworth@deq.idaho.gov.

Sincerely,

Tom Hepworth
Engineering Regional Manager

CC. Bruce Olenick, Regional Administrator, Pocatello Regional Office, Idaho DEQ (email)

File: TRIM Reference: 2014ALP289

EPA Region 10, Office of Environmental Assessment (OEA-095)

J-U-B COMPANIES THE LANGDON GROUP GATEWAY MAPPING INC.

J-U-B ENGINEERS, INC.

March 28, 2014

Susan Eastman
EPA Region 10, Office of Environmental Assessment
1200 6th Avenue, OWW 136
Seattle, WA 98101

RE: City of Blackfoot, Idaho Wastewater Treatment Facility Improvement Project – Request for Comments for Preparation of an Environmental Information Document

Dear Ms. Susan Eastman,

The City of Blackfoot, Idaho (City) is preparing a facility planning document to identify and make necessary improvements to their wastewater treatment facility (WWTP) that are cost effective and environmentally sound. The facility plan for this project is being partially funded by the Department of Environmental Quality (DEQ) State Revolving Loan Fund (SRF) which requires compliance with the Idaho Rules for Administration of Water Pollution Control Loans (IDAPA 58.01.12). The City anticipates utilizing federal funds for construction.

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, which mirrors the National Environmental Policy Act.

The proposed improvements consist of upgrading all components with operational or capacity deficiencies as well as addressing permit-driven requirements, such as effluent total suspended solids and total phosphorus, which are reasonably expected over the facility's 20-year planning period. The facility's previous National Pollutant Discharge System (NPDES) Permit issued by the US EPA has expired, and a new permit was issued in September 2013 that has more stringent discharge limits. A summary of the work is included in Table 1 and in the enclosed Figure 2.

Table 1 – Summary of Proposed Improvements

Item	Description
Septage Receiving Station	New package septage receiving station
Mechanical Screening and Grit Removal	New Headworks, including flow measurement, sampling, two 6 mm mechanical fine screens, washer/compactors, and grit removal
	Headworks odor control system
Primary Clarification	No improvements are recommended at this time
Primary Solids Pumping	Retrofit existing pumping system; replace piping to the solids processing system
Gravity Thickener	Miscellaneous rehabilitation; cover gravity thickener
Intermediate Pump Station	Replacement or a major retrofit of the existing pump station
Bioselector	No improvements are recommended at this time
Aeration Basins, Blowers, and Diffused Aeration	Replace existing aeration distribution lines from the Blower Building to each aeration basin
	Add chemical addition for phosphorus removal
MLSS Distribution Box and Secondary Clarifier No. 3	New distribution box to accommodate four aeration basins and four secondary clarifiers. New 60'-diameter secondary clarifier (Secondary Clarifier No. 3).

Item	Description
Secondary Clarifier No. 4	New 60'-diameter secondary clarifier (Secondary Clarifier No. 4)
RAS/WAS Control	Add RAS return to Intermediate Pump Station; replace existing, failed valves; incorporate new clarifier(s)
	New RAS/WAS pump station
UV Disinfection System	Retrofit existing system with new low-pressure/high-output bulbs, ballasts, and controls
	New building, including HVAC, gantry crane, and related elements
Outfall	No improvements are recommended at this time
WAS Thickening	New thickening unit; piping modifications in the solids pumping room; new thickened solids pump; re-routing primary solids feed directly to the digester feed line
Solids Blend Tank	Inspection, concrete repair, and re-coating
Anaerobic Digesters	Add a transfer pump between the Thermophilic and Mesophilic Digesters
	Replace the Thermophilic Digester seal; add staircases and safety improvements to the Mesophilic Digesters; clean, re-coat, and replace mixing system and piping in Primary and Secondary Mesophilic Digesters
Digester Gas	Install a hoist system to aid removal of the iron sponge lid and replacement of the media; add a bladder-style gas storage vessel to equalize production and consumption
Mechanical Dewatering	Add a second screw press and polymer make-up unit; integrate cake conveyor controls; replace solids feed pump
Liquid Solids Storage	Add a return line from the Liquid Solids Storage tanks to the dewatering equipment feed pump

The project is being proposed to upgrade the wastewater system to allow continued service for the City of Blackfoot, Idaho and surrounding communities by addressing identified deficiencies, by increasing the capacity for existing and future flows, and by reducing the risk of permit violations. Enclosed is a map of the proposed project planning area (PPPA) that depicts the proposed project improvements and area of potential effect (APE) for all construction activities.

Please submit any comments that you may have regarding this proposed improvements within 30 days of receipt of this letter, so the City of Blackfoot, Idaho can proceed with the completion of the Environmental Information Document. If no comments are received within 30 days, it will be assumed that none are forthcoming.

If you have any questions concerning this proposed project or if you need any further information, please feel free to contact Alan Giesbrecht, P.E. with J-U-B ENGINEERS, Inc. via email at asg@jub.com or via phone at (208) 232-1313 at your convenience.

Sincerely,

J-U-B ENGINEERS, Inc.

Kassidie Lampe

Kassidie Lampe, E.I.

Enclosures:

Figure 1. Blackfoot WWTP Location, PPPA, and APE; Figure 2. Proposed Project Improvements; Sole Source Aquifer Checklist

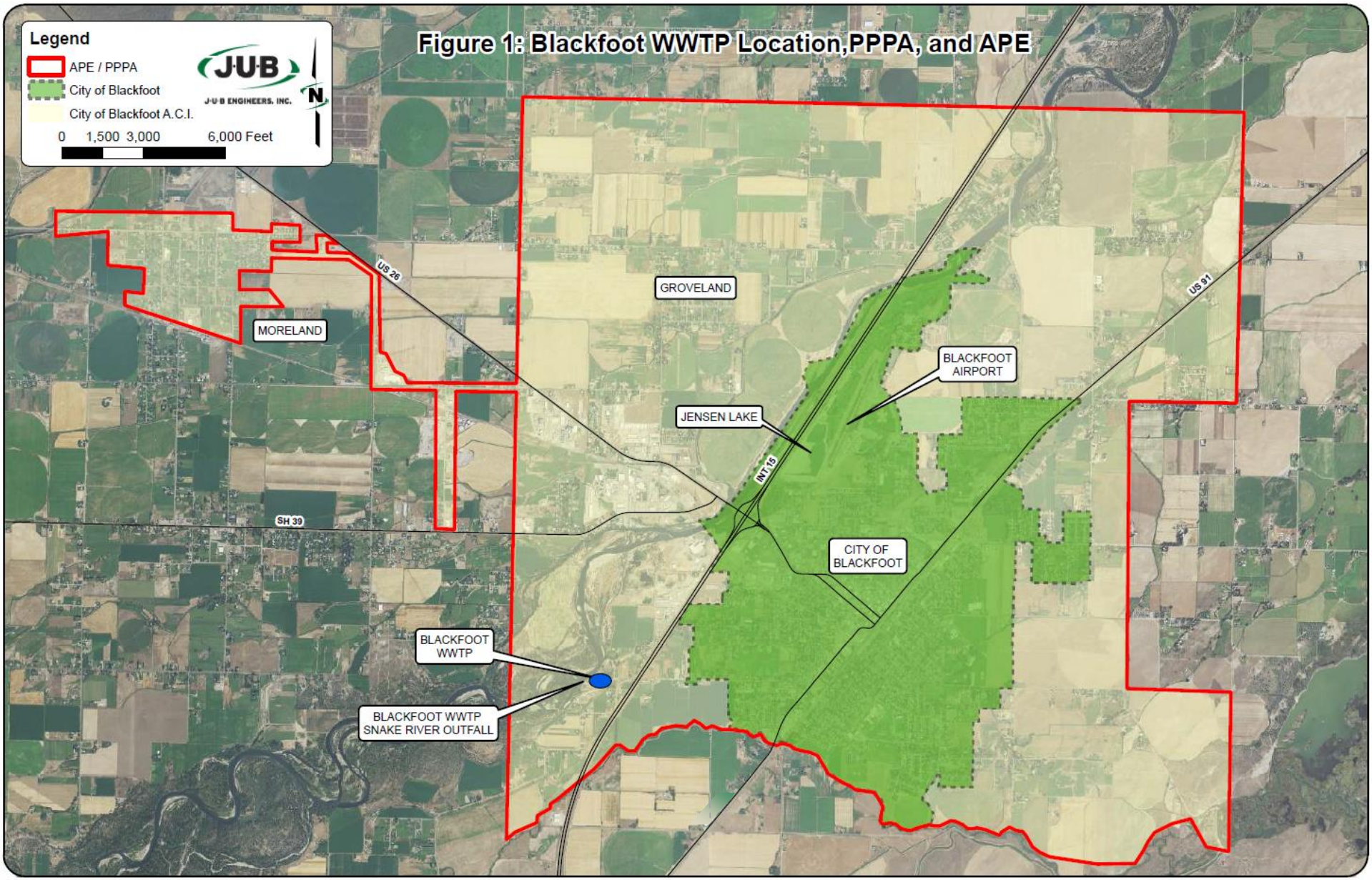


Figure 1: Blackfoot WWTP Location,PPPA, and APE
Legend
APE / PPPA
City of Blackfoot
City of Blackfoot A.C.I.
0 1,500 3,000 6,000 Feet
J-U-B ENGINEERS, INC.
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MORELAND
GROVELAND
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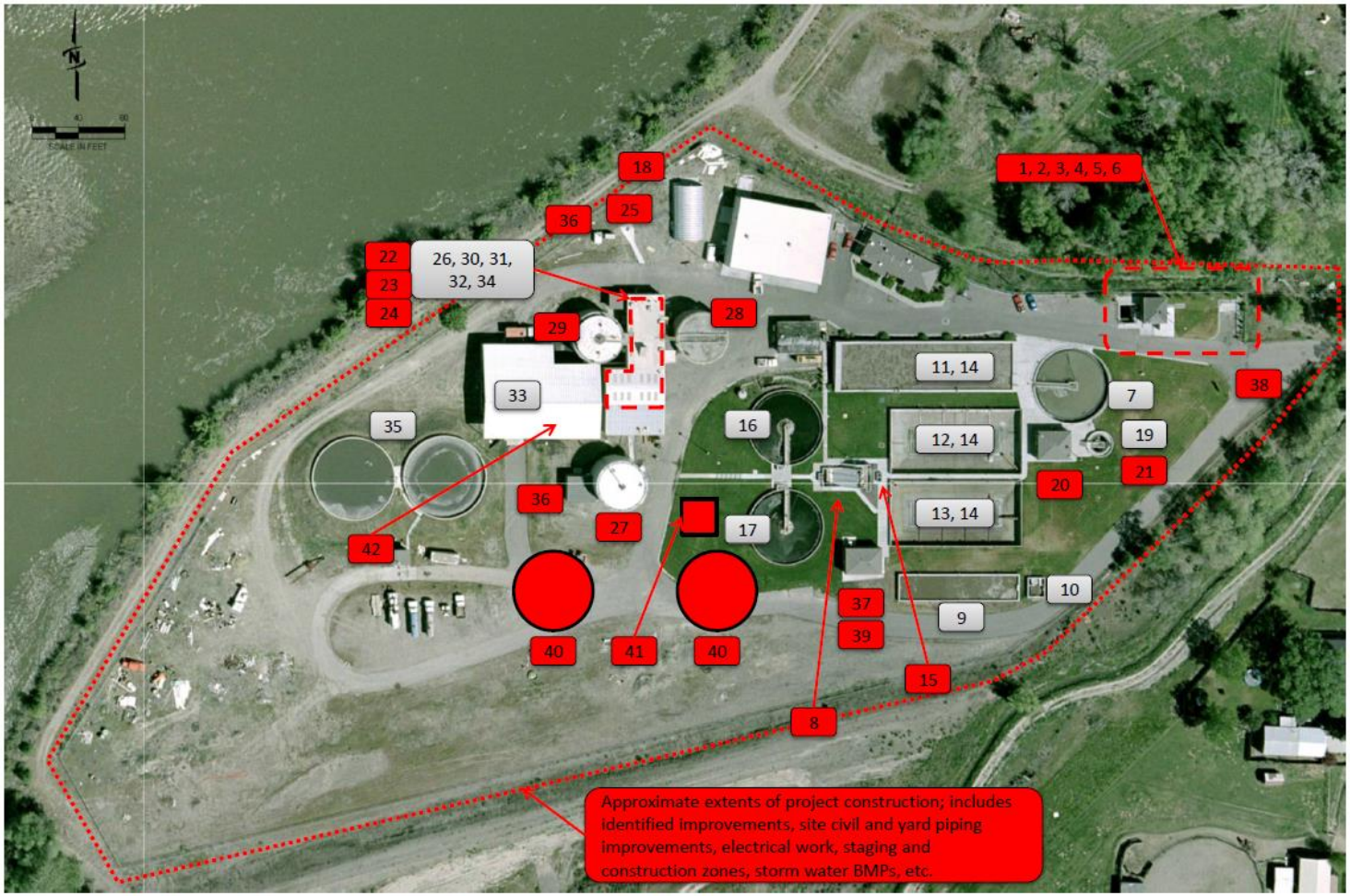
BLACKFOOT AIRPORT
JENSEN LAKE
INT 15
SH 39
CITY OF BLACKFOOT
BLACKFOOT WWTP
BLACKFOOT WWTP SNAKE RIVER OUTFALL

Figure 2 : Proposed Project Improvements



City of Blackfoot Wastewater Treatment Facility (WWTP)

Item	Description
1	Influent Flow Meter
2	Step Screen
3	Washer / Compactor
4	Aerated Grit Chamber
5	Grit Pump
6	Grit Classifier
7	Primary Clarifier
8	Intermediate Pump Station
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26	Digester Feed Pump
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28	Primary Mesophilic Digester and Mixing / Heating
29	Secondary Mesophilic Digester and Mixing / Heating
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33	Dry Solids Storage
34	Digested Solids Feed to Liquid Storage
35	Liquid Solids Storage
36	Digester Gas Flaring / Reuse
37	Blower / Diffuser System
38	Package Septage Receiving Station
39	Chemical Feed System for Phosphorus Removal
40	New Secondary Clarifiers
41	RAS / WAS Pump Station
42	Thermophilic Digested Solids Transfer Pump

Sole Source Aquifer Checklist

1. Location and name of Sole Source Aquifer or Source Area.

Aquifer Name: Eastern Snake River Plain Aquifer (ESRPA)

Aquifer Location and Source Area: ESRPA underlies approximately 10,800 square miles of land running in a southwesterly direction from Ashton to Twin Falls and King Hill. It spans beneath most of Jefferson, Jerome, and Lincoln counties; the southern parts of Clark, Butte, Blaine, Fremont, and Gooding Counties; and the northern parts of Minidoka, Power, Bannock, Bingham, Bonneville, and Madison counties.

2. Project description.

The proposed improvements at the existing City of Blackfoot (City) Waste Water Treatment Facility (WWTP) are summarized in the following table:

Item	Description
Septage Receiving Station	New package septage receiving station
Mechanical Screening and Grit Removal	New Headworks, including flow measurement, sampling, two 6 mm mechanical fine screens, washer/compactors, and grit removal
	Headworks odor control system
Primary Solids Pumping	Retrofit existing pumping system; replace piping to the solids processing system
Gravity Thickener	Miscellaneous rehabilitation; cover gravity thickener
Intermediate Pump Station	Replacement or a major retrofit of the existing pump station
Aeration Basins, Blowers, and Diffused Aeration	Replace existing aeration distribution lines from the Blower Building to each aeration basin
	Add chemical addition for phosphorus removal
MLSS Distribution Box and Secondary Clarifier No. 3	New distribution box to accommodate four aeration basins and four secondary clarifiers. New 60'-diameter secondary clarifier (Secondary Clarifier No. 3).
Secondary Clarifier No. 4	New 60'-diameter secondary clarifier (Secondary Clarifier No. 4)
RAS/WAS Control	Add RAS return to Intermediate Pump Station; replace existing, failed valves; incorporate new clarifier(s)
	New RAS/WAS pump station
UV Disinfection System	Retrofit existing system with new low-pressure/high-output bulbs, ballasts, and controls
	New building, including HVAC, gantry crane, and related elements
Outfall	No improvements are recommended at this time
WAS Thickening	New thickening unit; piping modifications in the solids pumping room; new thickened solids pump; re-routing primary solids feed directly to the digester feed line
Solids Blend Tank	Inspection, concrete repair, and re-coating
Anaerobic Digesters	Add a transfer pump between the Thermophilic and Mesophilic Digesters
	Replace the Thermophilic Digester seal; add staircases and safety improvements to the Mesophilic Digesters; clean, re-coat, and replace mixing system and piping in Primary and Secondary Mesophilic Digesters
Digester Gas	Install a hoist system to aid removal of the iron sponge lid and replacement of the media; add a bladder-style gas storage vessel to equalize production and consumption

Item	Description
Mechanical Dewatering	Add a second screw press and polymer make-up unit; integrate cake conveyor controls; replace solids feed pump
Liquid Solids Storage	Add a return line from the Liquid Solids Storage tanks to the dewatering equipment feed pump

3. Is there any increase of impervious surface? If so, what is the area?

Yes. Additional area is anticipated to be minimal (less than 0.5 acres) limited to widening or relocating access or parking areas within the treatment plant boundary.
Final areas and extents will be determined during the design phase for each project. Storm water will be handled in accordance with local, state, and federal requirements.

4. Describe how storm water is currently treated on the site?

- Infiltration in grassy areas.
- For impermeable surfaces, storm water is collected in the WWTP drain system and pumped to the WWTP headworks for treatment with the municipal wastewater.

5. How will storm water be treated on this site during construction and after the project is complete?

During construction, Best Management Practices (BMPs) in accordance with State requirements will be implemented to contain storm water on the project site. After project completion, storm water will be handled as it is currently (see #4 above).

6. Are there any underground storage tanks present or to be installed? Include details of such tanks.

Plant staff are only aware of two existing underground storage tanks, a scum pit and a blend tank (See the table below). Both are concrete tanks used for containment of wastewater as part of the overall treatment process.

Tank	Dimensions	Recommended Improvements
Bland Tank	18' x 18' x 12' with sloped bottom	Inspection, concrete repair, re-coat interior
Scum Pit	48' dia. x 14' deep with sloped bottom	None recommended at this time

7. Will there be any liquid or solid waste generated? If so how will it be disposed of?

Liquid and solid waste generation is limited to WWTP effluent and biosolids. The effluent and biosolids are either discharged to the Snake River or land applied at the City's reuse site. The proposed improvements at the WWTP will improve treatment of both waste streams, and disposal methods will remain in place.

8. What is the depth of excavation?

Excavation depths will vary for the different WWTP improvements. Maximum excavation depth is not expected to exceed 20 feet below existing ground surface, although borings may be undertaken with proper permitting during geotechnical explorations for design.

9. Are there any wells in the area that may provide direct routes for contaminates to access the aquifer and how close are they to the project?

See the attached figure for the location of wells near the project area. BMPs will be used during construction to protect aquifer water quality.

10. Are there any hazardous waste sites in the project area....especially if the waste site has an underground plume with monitoring wells that may be disturbed? Include details.

No.

11. Are there any deep pilings that may provide access to the aquifer?

No.

12. Are Best Management Practices planned to address any possible risks or concerns?

Yes.

13. Is there any other information that could be helpful in determining if this project may have an affect on the aquifer?

No.

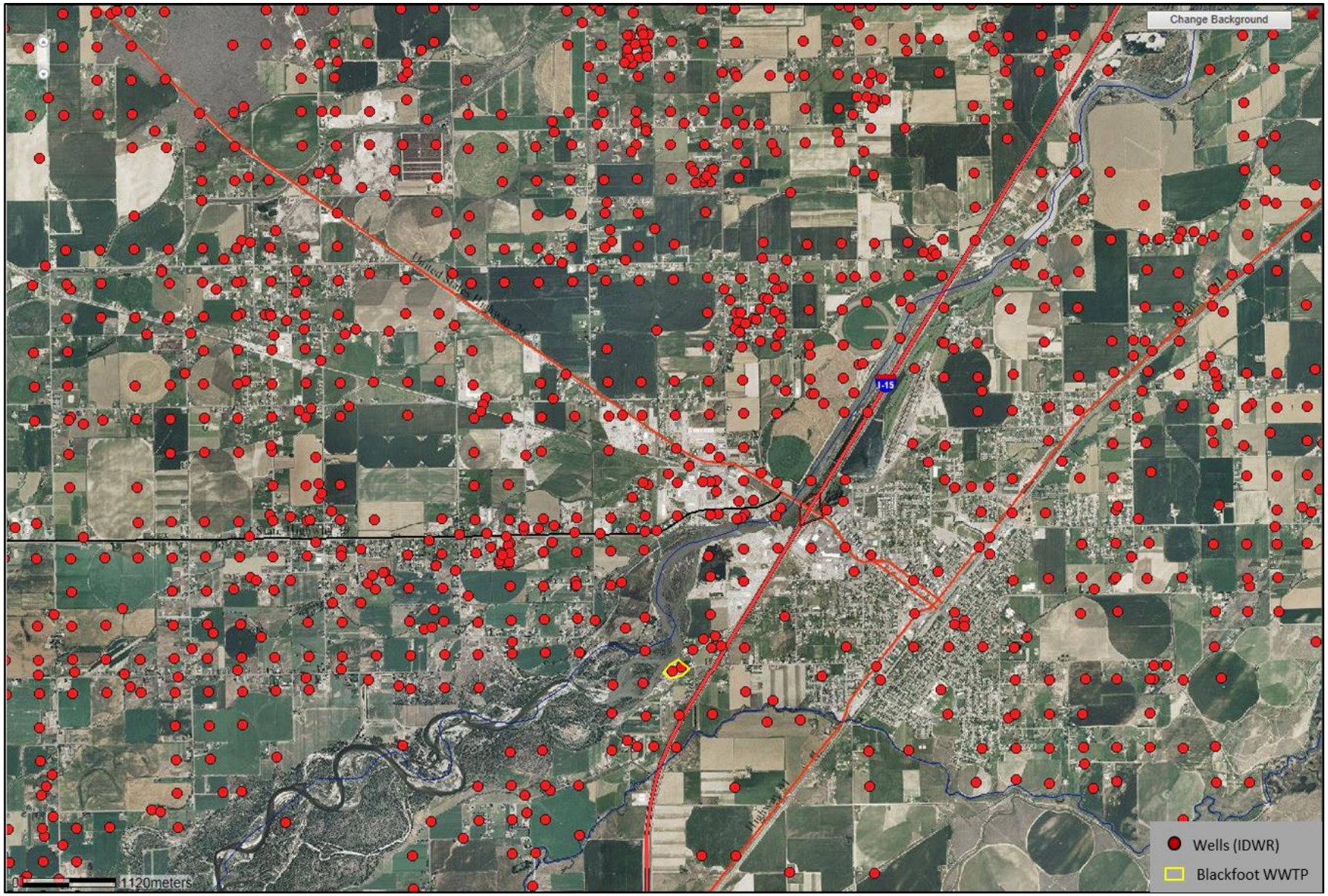
14. Does this Project include any improvements that may be beneficial to the aquifer, such as improvements to the wastewater treatment plan?

All improvements are upgrades or additions to the existing WWTP which will improve effluent quality and allow the City to meet discharge requirements for their National Pollution Discharge System (NPDES) Permit.

The EPA Sole Source Aquifer Program may request additional information if impacts to the aquifer are questionable after this information is submitted for review.

Submit copy to:
Susan Eastman,(Eastman.Susan@epa.gov)
Sole Source Aquifer
Region 10 EPA, 1200 Sixth Ave, Suite 900, OWW-136
Seattle, WA 98101

Sole Source Aquifer Well Locations Map



Retrieved March 27, 2014 from the Idaho Department of Water Resources, General Mapping Tool at http://maps.idwr.idaho.gov/mapall/

Kassidie Lampe

Subject: EID Process: Agency Consultation Follow-Up, City of Blackfoot

From: Eastman, Susan [mailto:Eastman.Susan@epa.gov]
Sent: Wednesday, April 30, 2014 11:18 AM
To: Kassidie Lampe
Subject: RE: EID Process: Agency Consultation Follow-Up, City of Blackfoot

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.

U.S. EPA, Idaho Operations Office

J-U-B COMPANIES THE LANGDON GROUP GATEWAY MAPPING INC.

J-U-B ENGINEERS, INC.

March 27, 2014

James Werntz
U.S. EPA, Idaho Operations Office
950 W. Bannock Street, Ste. 900
Boise, ID 83702

RE: City of Blackfoot, Idaho Wastewater Treatment Facility Improvement Project – Request for Comments for Preparation of an Environmental Information Document

Dear Mr. James Werntz,

The City of Blackfoot, Idaho (City) is preparing a facility planning document to identify and make necessary improvements to their wastewater treatment facility (WWTP) that are cost effective and environmentally sound. The facility plan for this project is being partially funded by the Department of Environmental Quality (DEQ) State Revolving Loan Fund (SRF) which requires compliance with the Idaho Rules for Administration of Water Pollution Control Loans (IDAPA 58.01.12). The City anticipates utilizing federal funds for construction.

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If you have any questions concerning this proposed project or if you need any further information, please feel free to contact Alan Giesbrecht, P.E. with J-U-B ENGINEERS, Inc. via email at asg@jub.com or via phone at (208) 232-1313 at your convenience.

Sincerely,

J-U-B ENGINEERS, Inc.

Kassidie Lampe

Kassidie Lampe, E.I.

Enclosure:

Figure 1. Blackfoot WWTP Location, PPPA, and APE
Figure 2. Proposed Project Improvements

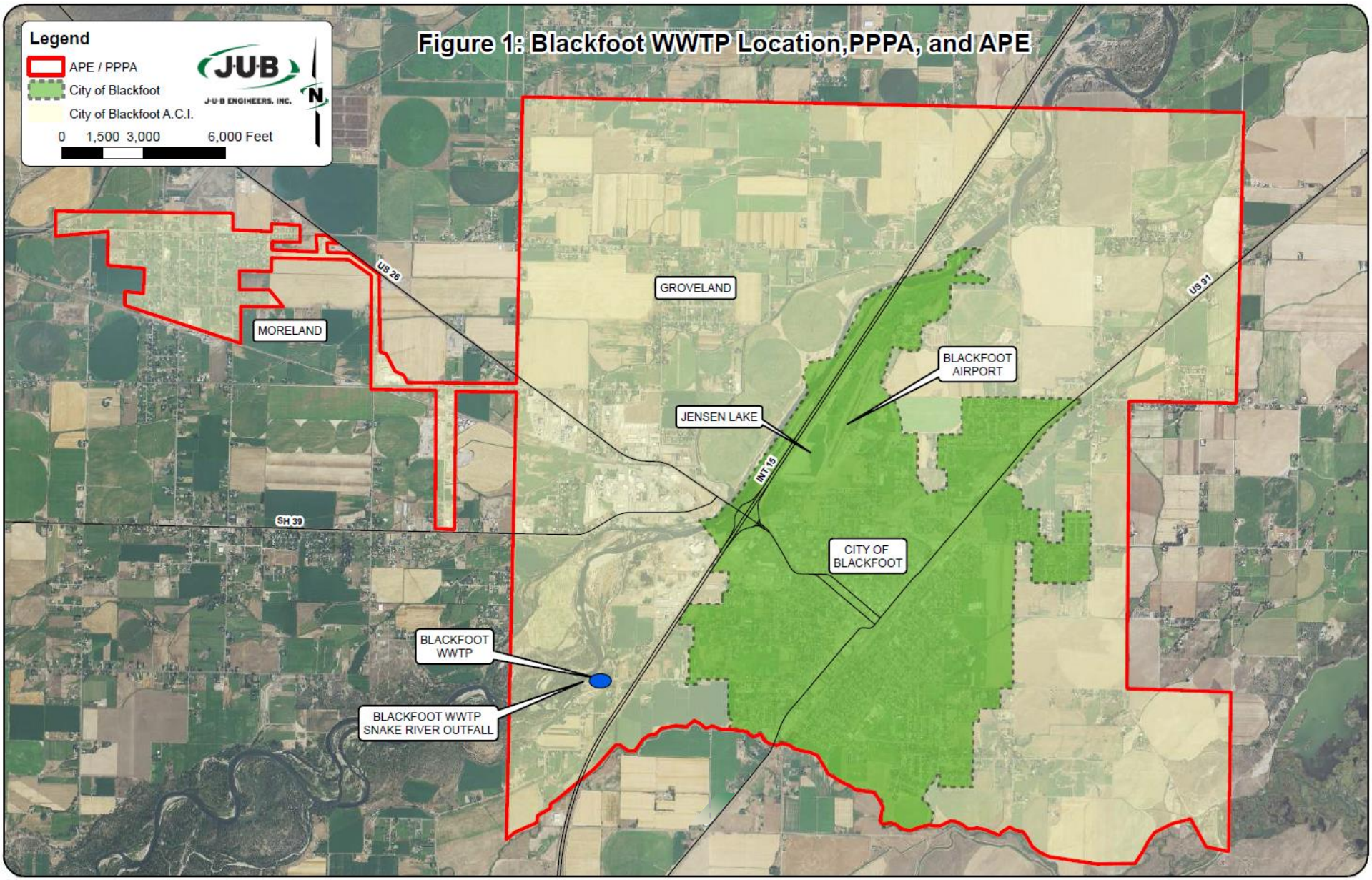
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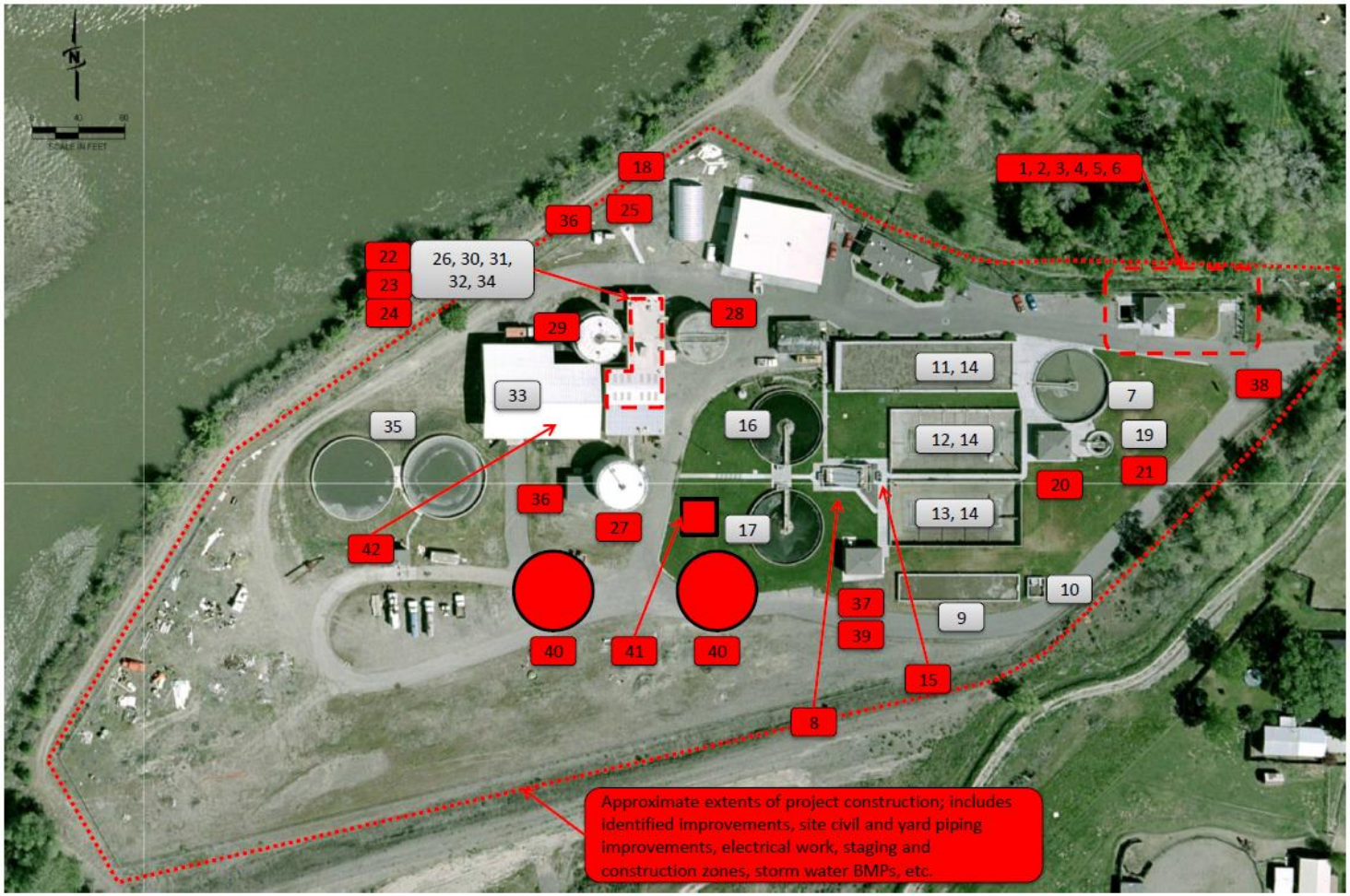
Figure 2 : Proposed Project Improvements



City of Blackfoot Wastewater Treatment Facility (WWTP)

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40	New Secondary Clarifiers
41	RAS / WAS Pump Station
42	Thermophilic Digested Solids Transfer Pump

Kassidie Lampe

From: Lopez, Maria <Lopez.Maria@epa.gov>
Sent: Monday, May 05, 2014 3:54 PM
To: Kassidie Lampe
Subject: RE: City of Blackfoot EID Improvement Project - Request for Comments

Hi Kassidie,

Sorry about the previous confusion on the wastewater improvement project. Thank-you for the opportunity to provide comments on the City of Blackfoot's EID improvement project. We do not have substantial comments at this time.

One thing you might consider for this project, is the need to apply for permit coverage under EPA's Construction General Permit (CGP) for stomwater discharges. For more information on the CGP, please refer to the following link, http://cfpub.epa.gov/npdes/stormwater/cgp.cfm

If you need further assistance, feel free to contact me at the phone number listed below.

Thank-you,

Maria Lopez
Environmental Scientist
950 W. Bannock Street
Suite 900
Boise, ID 83702
Telephone: (208) 378-5616
Fax: (208) 378-5744

From: Kassidie Lampe [mailto:kllampe@jub.com]
Sent: Friday, May 02, 2014 9:34 AM
To: Lopez, Maria
Subject: RE: Bruneau Water and Sewer District EID Improvement Project - Request for Comments

O I bet!
We're in the agency consultation part of the EID process. Here is a pdf of the letter we sent to Jim Werntz.

Thanks,
Kassidie

From: Lopez, Maria [mailto:Lopez.Maria@epa.gov]
Sent: Friday, May 02, 2014 9:27 AM
To: Kassidie Lampe
Subject: RE: Bruneau Water and Sewer District EID Improvement Project - Request for Comments

Oh sorry about that. I get so many of these. It is hard to keep track of them. Can you send me the Blackfoot project EID, I don't think I have it.

Thanks

Maria Lopez
Environmental Scientist
950 W. Bannock Street
Suite 900
Boise, ID 83702
Telephone: (208) 378-5616
Fax: (208) 378-5744

From: Kassidie Lampe [mailto:kllampe@jub.com]
Sent: Friday, May 02, 2014 9:23 AM
To: Lopez, Maria
Subject: RE: Bruneau Water and Sewer District EID Improvement Project - Request for Comments

Hi Maria,

So I noticed that the Subject says the comments were for the Bruneau Water and Sewer District.
The EID we're working on is for the City of Blackfoot Wastewater Treatment Facility Improvements Project.
Do you happen to have a response for the proposed Blackfoot project?
Thanks,

Kassidie

From: Kassidie Lampe
Sent: Wednesday, April 30, 2014 1:15 PM
To: Lopez, Maria
Subject: RE: Bruneau Water and Sewer District EID Improvement Project - Request for Comments

Thank you, Maria.
We appreciate your response.
If we have more questions as we're incorporating these, we'll be sure to contact you.

Kassidie

From: Lopez, Maria [mailto:Lopez.Maria@epa.gov]
Sent: Wednesday, April 30, 2014 12:55 PM
To: Kassidie Lampe
Cc: Werntz, James; Kenknight, Jeff
Subject: Bruneau Water and Sewer District EID Improvement Project - Request for Comments

Hello Kassidie,

Thank-you for providing the Environmental Protection Agency (EPA) the opportunity to comment on the proposed improvement project for Bruneau Water and Sewer District. We do not have substantial comments on the proposed project at this time. I have shared the EID with colleagues in my office. Below are our collective comments that may require further consideration.

It was not clear in your Request for Comments letter if the North lagoon reconstruction would be lined to prevent infiltration to groundwater given the close proximity to the Bruneau River and C.J. Strike Reservoir. Nutrient enrichment of these waters would have negative consequences on their beneficial uses.

The construction activities for the proposed project should be evaluated to determine if there is a need to apply for permit coverage under EPA's Construction General Permit (CGP) for stormwater discharges associated with the proposed project. For more information regarding the CGP, please refer to the following link, http://cfpub.epa.gov/npdes/stormwater/cgp.cfm

Stormwater discharges from construction activities (such as clearing, grading, excavating, and stockpiling) that disturb one or more acres, or smaller sites that are part of a larger common plan of development or sale, are regulated under the National Pollutant Discharge Elimination System (NPDES) stormwater program. Prior to discharging stormwater, construction operators must obtain coverage under an NPDES permit. If you have additional questions, feel free to contact me at the phone number listed below.

Maria Lopez
Environmental Scientist
950 W. Bannock Street
Suite 900
Boise, ID 83702
Telephone: (208) 378-5616
Fax: (208) 378-5744

This e-mail and any attachments transmitted with it may contain information that is confidential or otherwise protected from disclosure. The information it contains is intended solely for the use of the one to whom it is addressed, and any other recipient is directed to immediately destroy all copies. If this electronic transmittal contains Professional Design Information, Recommendations, Maps, or GIS Database, those are "draft" documents unless explicitly stated otherwise in the email text.

Idaho Department of Water Resources

J-U-B COMPANIES THE LANGDON GROUP GATEWAY MAPPING INC.

J-U-B ENGINEERS, INC.

March 27, 2014

Keri Sigman, State NFIP Contact
Idaho Dept. of Water Resources
322 East Front Street, PO Box 83720
Boise, ID 83720-0098

RE: City of Blackfoot, Idaho Wastewater Treatment Facility Improvement Project – Request for Comments for Preparation of an Environmental Information Document

Dear Keri Sigman,

The City of Blackfoot, Idaho (City) is preparing a facility planning document to identify and make necessary improvements to their wastewater treatment facility (WWTP) that are cost effective and environmentally sound. The facility plan for this project is being partially funded by the Department of Environmental Quality (DEQ) State Revolving Loan Fund (SRF) which requires compliance with the Idaho Rules for Administration of Water Pollution Control Loans (IDAPA 58.01.12). The City anticipates utilizing federal funds for construction.

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, which mirrors the National Environmental Policy Act.

The proposed improvements consist of upgrading all components with operational or capacity deficiencies as well as addressing permit-driven requirements, such as effluent total suspended solids and total phosphorus, which are reasonably expected over the facility's 20-year planning period. The facility's previous National Pollutant Discharge System (NPDES) Permit issued by the US EPA has expired, and a new permit was issued in September 2013 that has more stringent discharge limits. A summary of the work is included in Table 1 and in the enclosed Figure 2.

Table 1 – Summary of Proposed Improvements

Item	Description
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Gravity Thickener	Miscellaneous rehabilitation; cover gravity thickener
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Bioselector	No improvements are recommended at this time
Aeration Basins, Blowers, and Diffused Aeration	Replace existing aeration distribution lines from the Blower Building to each aeration basin
	Add chemical addition for phosphorus removal
MLSS Distribution Box and Secondary Clarifier No. 3	New distribution box to accommodate four aeration basins and four secondary clarifiers. New 60'-diameter secondary clarifier (Secondary Clarifier No. 3).

Item	Description
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UV Disinfection System	Retrofit existing system with new low-pressure/high-output bulbs, ballasts, and controls
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Outfall	No improvements are recommended at this time
WAS Thickening	New thickening unit; piping modifications in the solids pumping room; new thickened solids pump; re-routing primary solids feed directly to the digester feed line
Solids Blend Tank	Inspection, concrete repair, and re-coating
Anaerobic Digesters	Add a transfer pump between the Thermophilic and Mesophilic Digesters
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The project is being proposed to upgrade the wastewater system to allow continued service for the City of Blackfoot, Idaho and surrounding communities by addressing identified deficiencies, by increasing the capacity for existing and future flows, and by reducing the risk of permit violations. Enclosed is a map of the proposed project planning area (PPPA) that depicts the proposed project improvements and area of potential effect (APE) for all construction activities.

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If you have any questions concerning this proposed project or if you need any further information, please feel free to contact Alan Giesbrecht, P.E. with J-U-B ENGINEERS, Inc. via email at asg@jub.com or via phone at (208) 232-1313 at your convenience.

Sincerely,

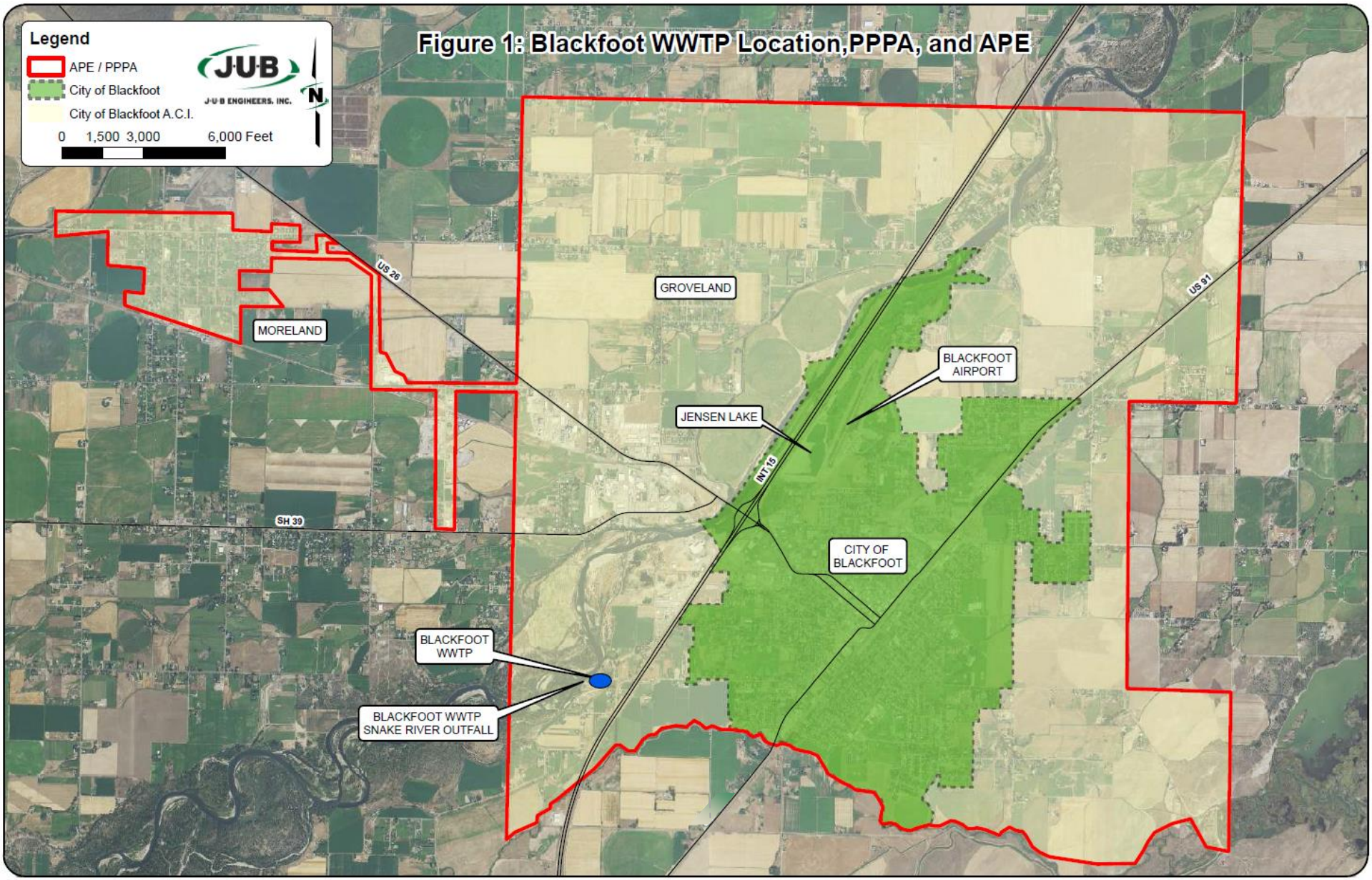
J-U-B ENGINEERS, Inc.

Kassidie Lampe

Kassidie Lampe, E.I.

Enclosure:

Figure 1. Blackfoot WWTP Location, PPPA, and APE
Figure 2. Proposed Project Improvements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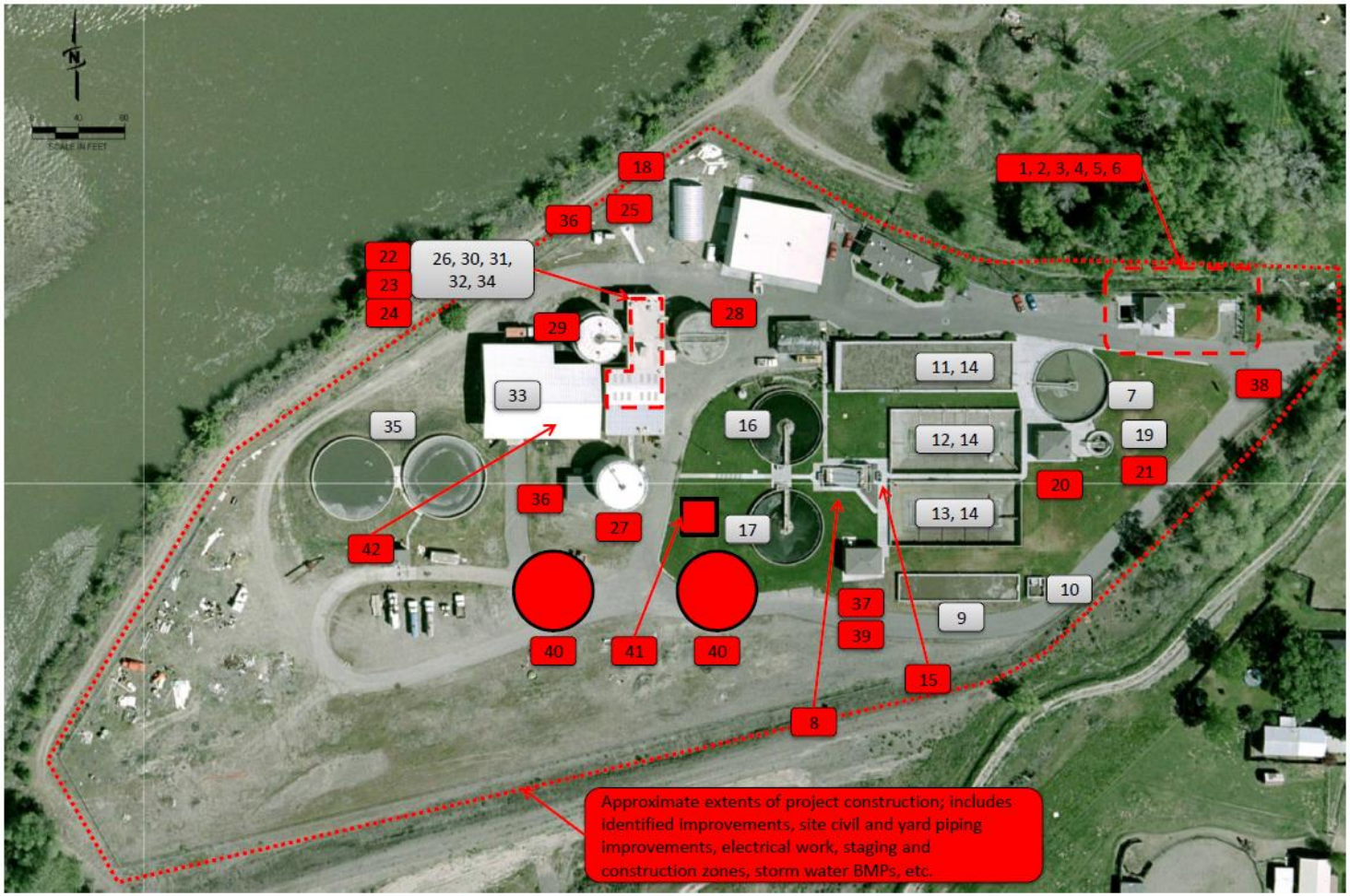
Legend
APE / PPPA
City of Blackfoot
City of Blackfoot A.C.I.
0 1,500 3,000 6,000 Feet
J-U-B ENGINEERS, INC.
N
US 26
MORELAND
GROVELAND
US 91
BLACKFOOT AIRPORT
JENSEN LAKE
INT 15
SH 39
CITY OF BLACKFOOT
BLACKFOOT WWTP
BLACKFOOT WWTP SNAKE RIVER OUTFALL

Figure 2 : Proposed Project Improvements



City of Blackfoot Wastewater Treatment Facility (WWTP)

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39	Chemical Feed System for Phosphorus Removal
40	New Secondary Clarifiers
41	RAS / WAS Pump Station
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State of Idaho
DEPARTMENT OF WATER RESOURCES
322 East Front Street • P.O. Box 83720 • Boise, Idaho 83720-0098
Phone: (208) 287-4800 • Fax: (208) 287-6700 • Website: www.idwr.idaho.gov

C.L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Director

Alan Giesbrecht, P.E.
J.U.B. Engineers, Inc.
677 S. Woodruff
Idaho Falls, ID 83401

April 16, 2014

Re: City of Blackfoot, Idaho Wastewater Treatment Facility Improvement Project

Mr. Giesbrecht,

This is a letter in response to the development review that was received by IDWR on March 31, 2014. The subject area in which development will occur regarding the Wastewater Treatment Facility for the City of Blackfoot identified in "Figure 1" appears to be located outside the Special Flood Hazard Area (SFHA) as shown on the attached FIRM for Bingham County, Panel Number 1600180430C. However, a portion of the property including the Blackfoot WWTP is located within the SFHA and a Base Flood Elevation (BFE) has been established varying from 4,469 ft – 4,467 ft. Development within the identified SFHA or 1% annual chance of flooding area will require a floodplain development permit from the community. The local floodplain administrator is Allen Jensen of Bingham County. Mr. Jensen can be reached at (208) 782-3179 or ajensen@co.bingham.id.us to verify permitting requirements.

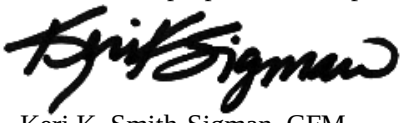
Each community has an ordinance that regulates development in the SFHA; please contact the community for their specific development requirements. I have included the minimum standards that are applicable and that a community must enforce to ensure compliance with the National Flood Insurance Program as found in the Code of Federal Regulations § 60.3(a):

> *(5) Require within flood-prone areas new and replacement water supply systems to be designed to minimize or eliminate infiltration of flood waters into the systems; and*
>
> *(6) Require within flood-prone areas (i) new and replacement sanitary sewage systems to be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters and (ii) onsite waste disposal systems to be located to avoid impairment to them or contamination from them during flooding.*

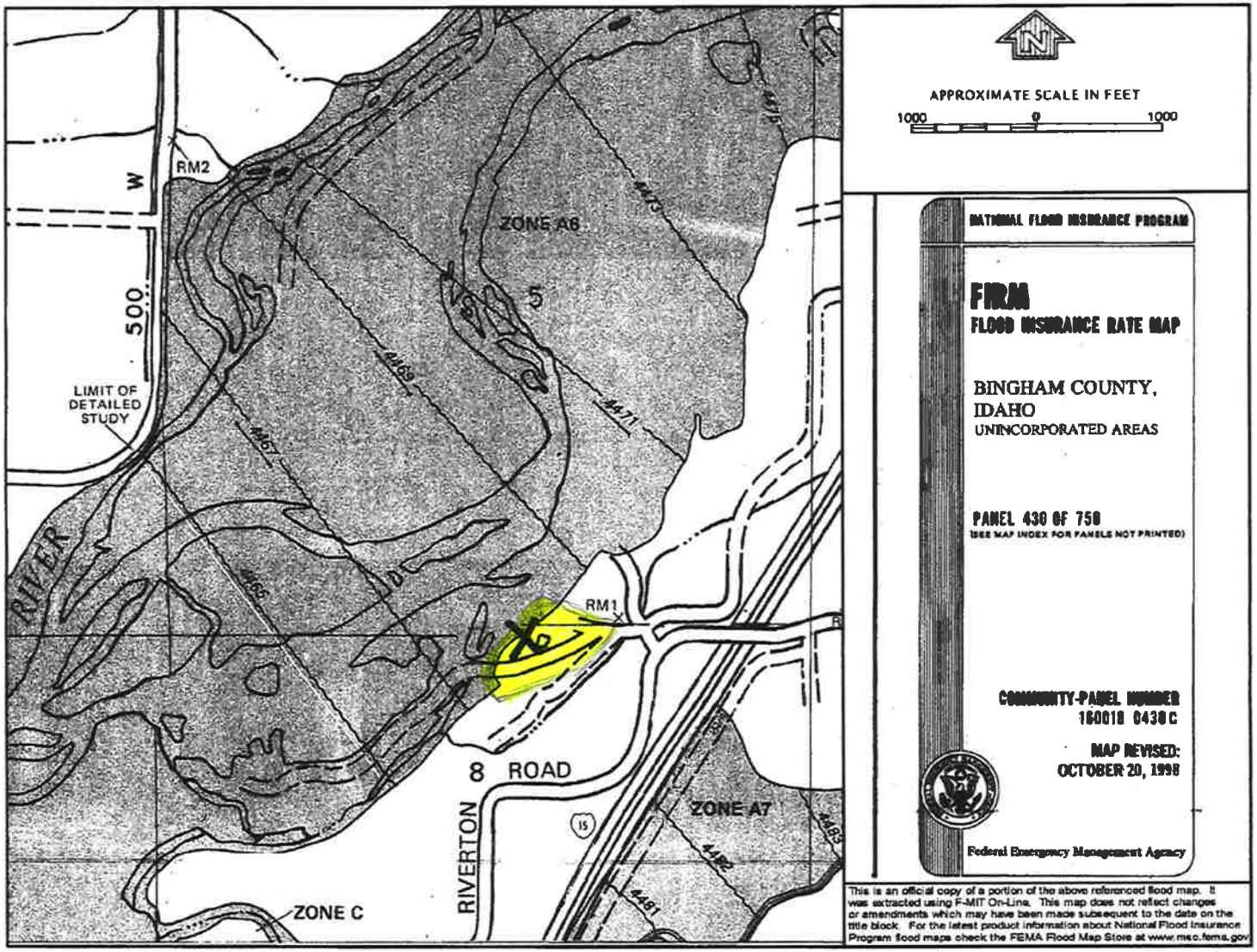
The objective of these requirements are to ensure that development, including public services, are protected from flood damage and can still be used after the flood recedes. In most instances, these criteria can be met through careful system design. A couple of examples for compliance would be manholes should floodproofed (equipped with seals to prevent leakage) and pumping stations should have electrical panels elevated above the BFE.

On-site waste disposal systems should be located to ensure they will not release contamination in a flood and can be used after flood waters recede. The first objective should be to locate the system outside the flood hazard area, if that is feasible. At a minimum, an automatic backflow valve should be installed to prevent sewage from backing up into the building during flooding.

Please let me know if you have any additional questions. Thank you for the opportunity to comment and for giving notice of the proposed development.



Keri K. Smith-Sigman, CFM
Idaho State Floodplain Coordinator
208-287-4928
keri.sigman@idwr.idaho.gov


RM2
W
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ZONE A6
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LIMIT OF DETAILED STUDY
4469
4471
4467
RIVER
RM1
8 ROAD
RIVERTON
15
ZONE A7
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4481
ZONE C
APPROXIMATE SCALE IN FEET
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NATIONAL FLOOD INSURANCE PROGRAM
FIRM
FLOOD INSURANCE RATE MAP
BINGHAM COUNTY, IDAHO
UNINCORPORATED AREAS
PANEL 430 OF 750
(SEE MAP INDEX FOR PANELS NOT PRINTED)
COMMUNITY-PANEL NUMBER
160018 0430 C
MAP REVISED:
OCTOBER 20, 1998
Federal Emergency Management Agency
This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

Idaho State Historical Society

J-U-B COMPANIES THE LANGDON GROUP GATEWAY MAPPING INC.

J-U-B ENGINEERS, INC.

March 27, 2014

Ethan Morton, SHPO
Idaho State Historical Society
210 Main Street
Boise, ID 83702

RE: City of Blackfoot, Idaho Wastewater Treatment Facility Improvement Project – Request for Comments for Preparation of an Environmental Information Document

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Kassidie Lampe

Kassidie Lampe, E.I.

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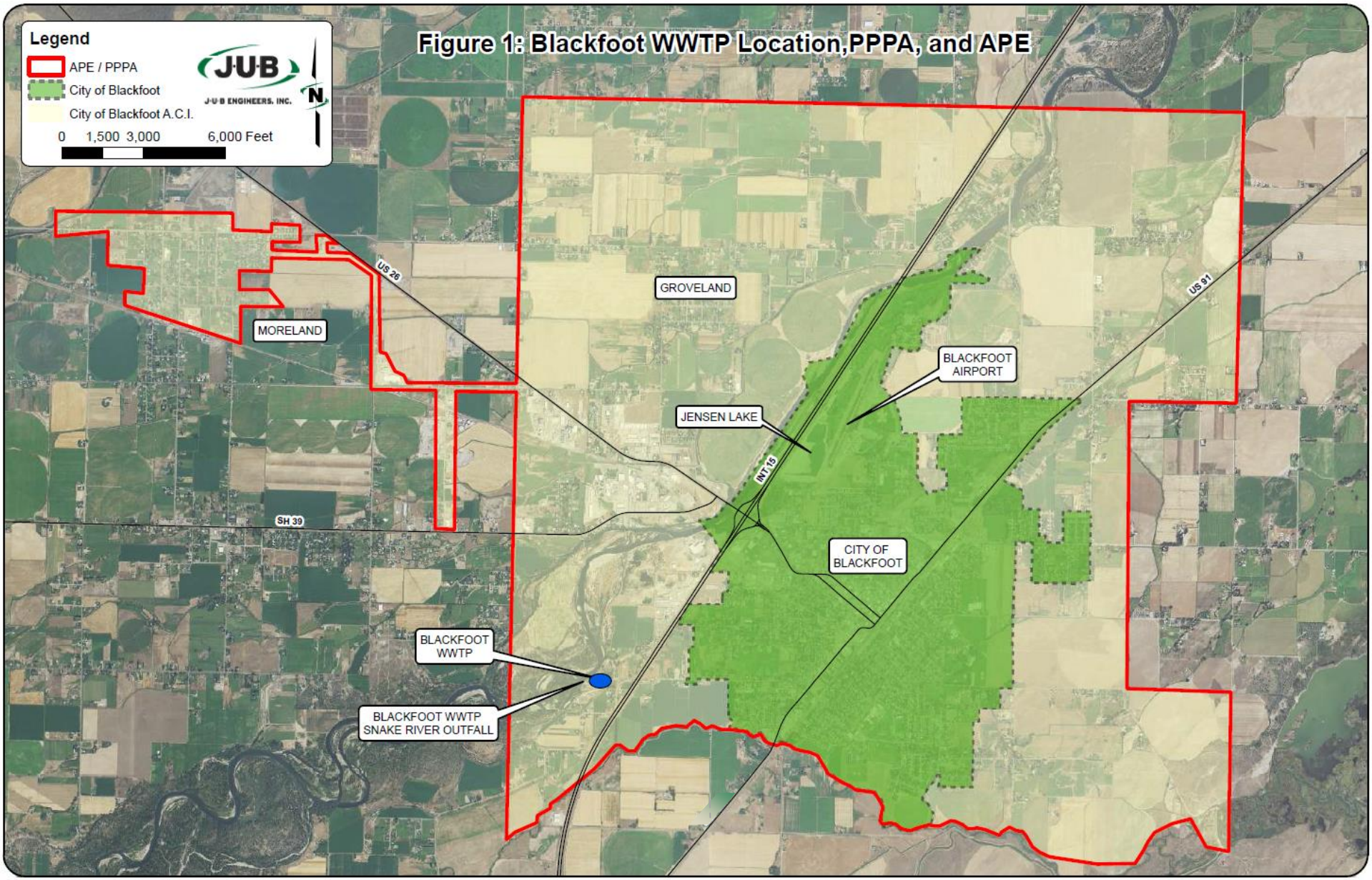
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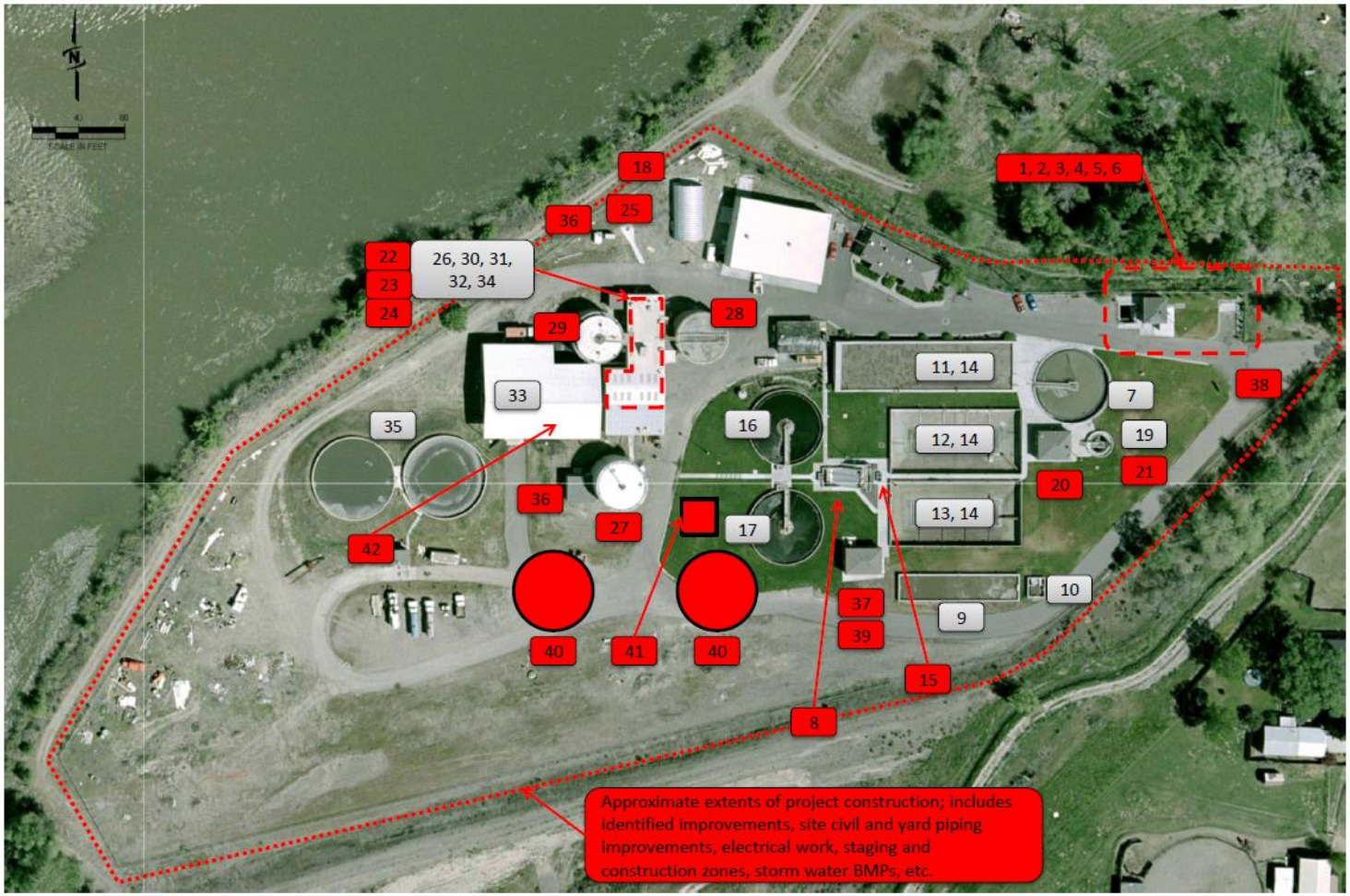

City of Blackfoot Wastewater Treatment Facility (WWTP)

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www.history.idaho.gov

Idaho • State Historical SOCIETY

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

TO: Kassidie Lampe, J-U-B Engineers, Inc.
DATE: 3/31/2014
IDAHO SHPO REV#: 2014-586
PROJECT NAME: City of Blackfoot, Idaho Wastewater Treatment Facility Improvement Project
PROJECT NUMBER: NA
PROJECT LOCATION: Township 3S, Range 35E, Sections 5 and 8, Boise Meridian, Blackfoot, Bingham County, Idaho

Step 1: Initiate the Section 106 Process (36 CFR 800.3)

☒		Establish Undertaking
☒		Notify Idaho SHPO (30 days to respond)
☒		Identify tribes and other consulting parties Include certified local governments if appropriate:
☒		Involve the Public
☐		No undertaking/potential to cause effects. (**Section 106 concluded**).
		Justification:
☒		Undertaking may affect *historic properties* (proceed to Step 2)
	☒	Idaho SHPO internal review
	☐	Recommend independent study by a qualified consultant: http://www.preservationidaho.org/resources/cultural-resources-consultants

Step 2: Identify Historic Properties (36 CFR 800.4)

☒		Determine Areas of Potential Effect (direct, indirect, and cumulative)
☒		Identify *historic properties* (archival research, reconnaissance, inventory)
	☐	
☒		Consult with Idaho SHPO
☒		No *historic properties* present/affected (**Section 106 concluded**).
		Justification: there are no known historic properties in the area of potential effect, undertaking is entirely within disturbed areas and does not have the potential to adversely affect any unknown *historic properties*.
☐		Potential Adverse Effects to *historic properties* (proceed to Step 3)

Step 3: Assess Adverse Effects (36 CFR 800.5)

☐	Apply Criteria of Adverse Effect (effects to historic properties)
☐	Consult with Idaho SHPO
☐	No *historic properties* adversely affected (**Section 106 concluded**)
	Justification:
☐	Adverse Effects to *historic properties* (proceed to Step 4)

Step 4: Resolve Adverse Effects (36 CFR 800.6)

☐	Notify Advisory Council on Historic Preservation
☐	Avoid, minimize, or mitigate adverse effects
☐	Consult with Idaho SHPO
☐	Final Memorandum of Agreement or Programmatic Agreement (**Section 106 concluded**)

Additional information on the Section 106 process can be found here: http://www.achp.gov/flowexplain.html

Thank You,

Ethan Morton, Archaeologist, Idaho State Historic Preservation Office

Southeast District Health Department

J-U-B COMPANIES THE LANGDON GROUP GATEWAY MAPPING INC.

J-U-B ENGINEERS, INC.

March 27, 2014

Steve Pew, Environmental Health Director
Southeast District Health Department
1901 Alvin Ricken Drive
Pocatello, ID 83201

RE: City of Blackfoot, Idaho Wastewater Treatment Facility Improvement Project – Request for Comments for Preparation of an Environmental Information Document

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Liquid Solids Storage	Add a return line from the Liquid Solids Storage tanks to the dewatering equipment feed pump

The project is being proposed to upgrade the wastewater system to allow continued service for the City of Blackfoot, Idaho and surrounding communities by addressing identified deficiencies, by increasing the capacity for existing and future flows, and by reducing the risk of permit violations. Enclosed is a map of the proposed project planning area (PPPA) that depicts the proposed project improvements and area of potential effect (APE) for all construction activities.

Please submit any comments that you may have regarding this proposed improvements within 30 days of receipt of this letter, so the City of Blackfoot, Idaho can proceed with the completion of the Environmental Information Document. If no comments are received within 30 days, it will be assumed that none are forthcoming.

If you have any questions concerning this proposed project or if you need any further information, please feel free to contact Alan Giesbrecht, P.E. with J-U-B ENGINEERS, Inc. via email at asg@jub.com or via phone at (208) 232-1313 at your convenience.

Sincerely,

J-U-B ENGINEERS, Inc.

Kassidie Lampe

Kassidie Lampe, E.I.

Enclosure:

Figure 1. Blackfoot WWTP Location, PPPA, and APE
Figure 2. Proposed Project Improvements

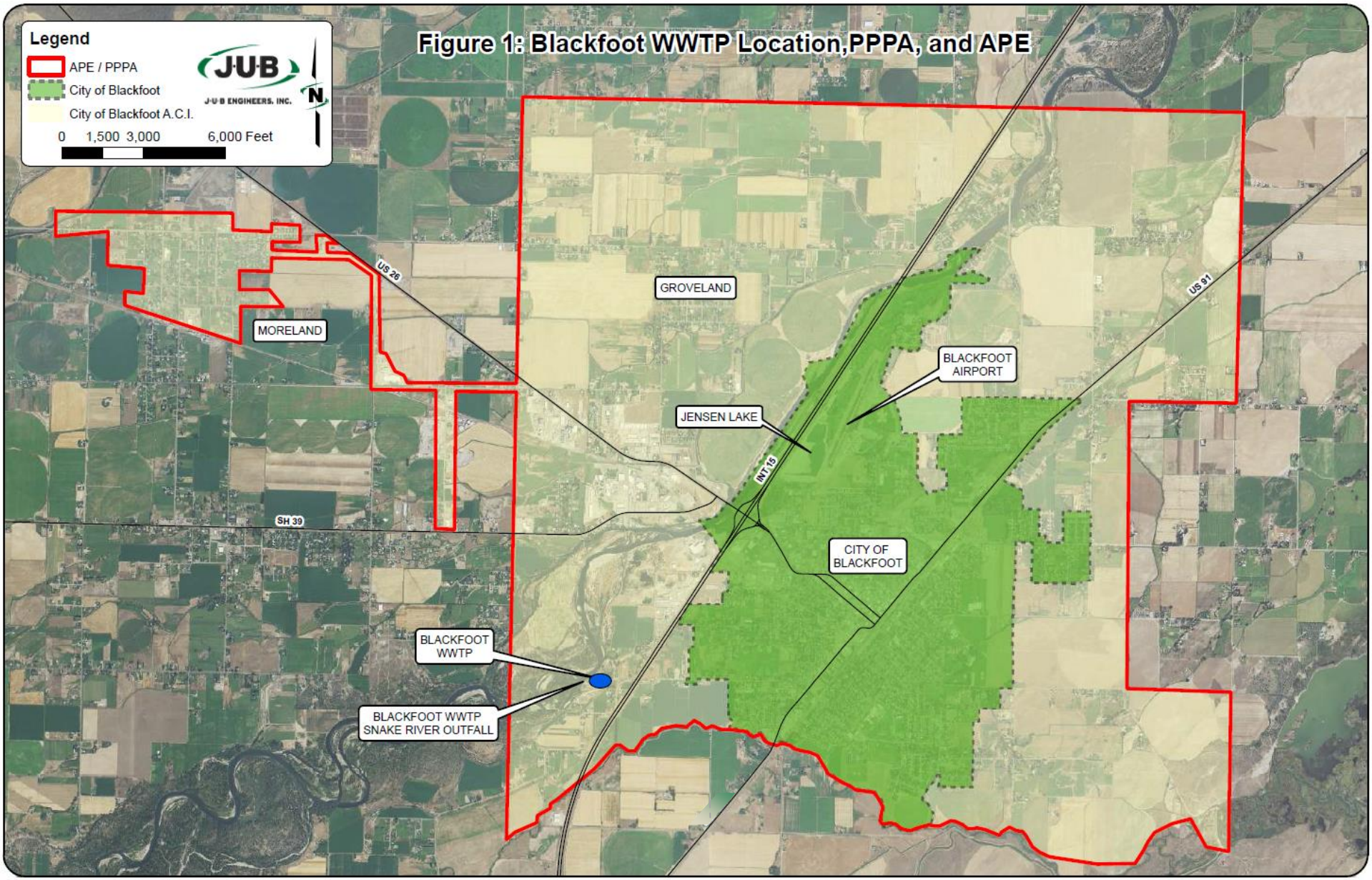
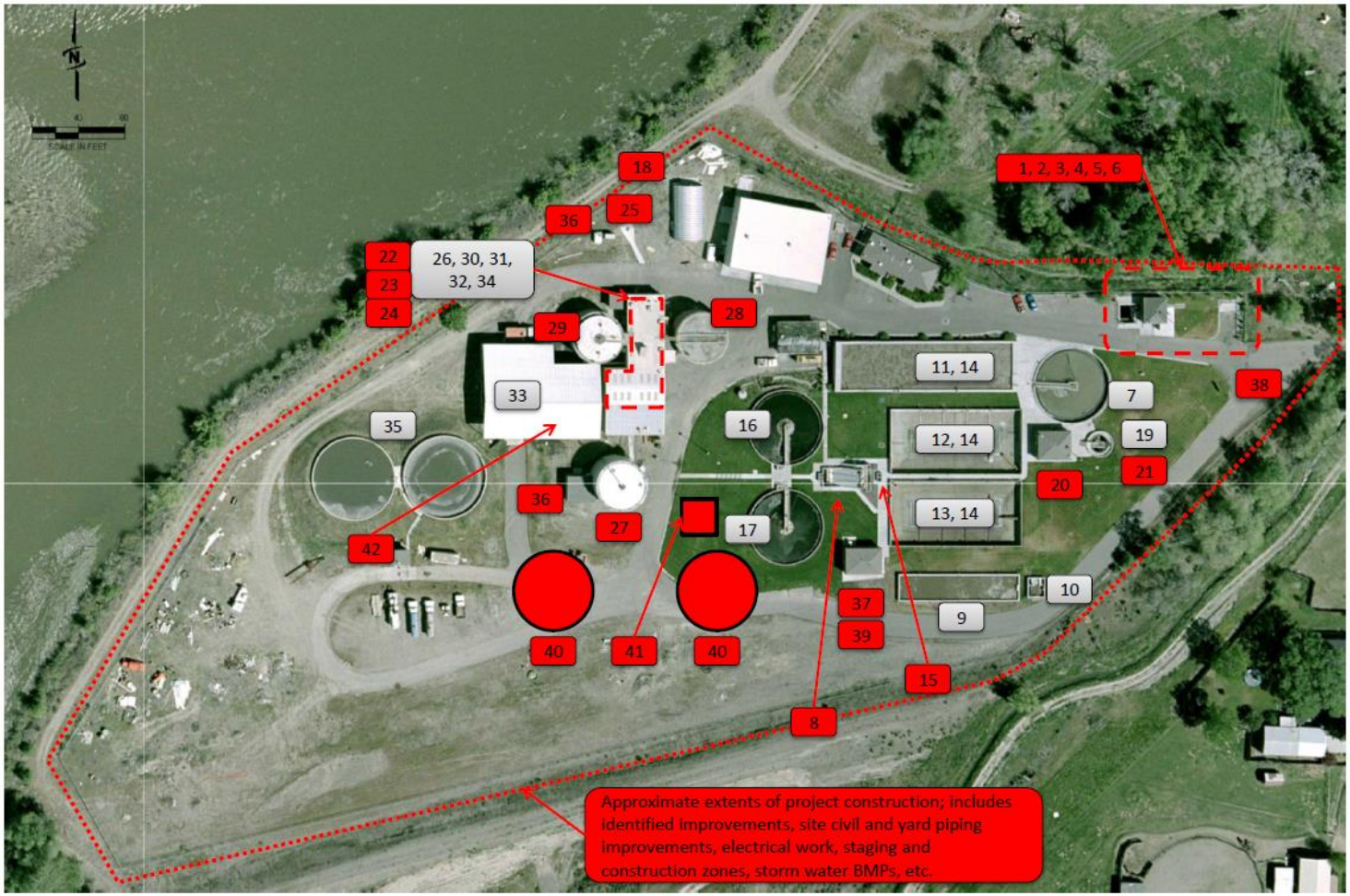


Figure 1: Blackfoot WWTP Location,PPPA, and APE
Legend
APE / PPPA
City of Blackfoot
City of Blackfoot A.C.I.
0 1,500 3,000 6,000 Feet
J-U-B ENGINEERS, INC.
N
US 26
MORELAND
GROVELAND
US 91
BLACKFOOT AIRPORT
JENSEN LAKE
INT 15
SH 39
CITY OF BLACKFOOT
BLACKFOOT WWTP
BLACKFOOT WWTP SNAKE RIVER OUTFALL

Figure 2 : Proposed Project Improvements



City of Blackfoot Wastewater Treatment Facility (WWTP)

Item	Description
1	Influent Flow Meter
2	Step Screen
3	Washer / Compactor
4	Aerated Grit Chamber
5	Grit Pump
6	Grit Classifier
7	Primary Clarifier
8	Intermediate Pump Station
9	Anaerobic / Anoxic Selectors
10	Distribution Box to Aeration Basins
11	Aeration Basin No. 1
12	Aeration Basin No. 2
13	Aeration Basin No. 3
14	Internal Recycle Pumps
15	Distribution Box to Secondary Clarifiers
16	Secondary Clarifier No. 1
17	Secondary Clarifier No. 2
18	UV Disinfection
19	Primary Clarifier Scum Pit
20	Primary Solids Pump Station
21	Gravity Thickener with New Cover
22	WAS Pumping
23	WAS Thickening
24	Thickened WAS Pumping
25	Solids Blend Tank Recoating and PS re-route
26	Digester Feed Pump
27	Thermophilic Digester
28	Primary Mesophilic Digester and Mixing / Heating
29	Secondary Mesophilic Digester and Mixing / Heating
30	Digested Solids Feed to Dewatering
31	Mechanical Dewatering with Stand-by Unit
32	Solids Conveyor to Storage
33	Dry Solids Storage
34	Digested Solids Feed to Liquid Storage
35	Liquid Solids Storage
36	Digester Gas Flaring / Reuse
37	Blower / Diffuser System
38	Package Septage Receiving Station
39	Chemical Feed System for Phosphorus Removal
40	New Secondary Clarifiers
41	RAS / WAS Pump Station
42	Thermophilic Digested Solids Transfer Pump

Kassidie Lampe

From: Alan Giesbrecht
Sent: Monday, April 21, 2014 8:42 AM
To: Ken Keller
Cc: Kassidie Lampe
Subject: RE: Request for Comments

Thanks Ken

Alan S. Giesbrecht, P.E.
Area Manager, Project Manager

J-U-B ENGINEERS, Inc.
p | 208 232 1313 c | 208 221 6764

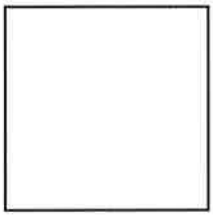
From: Ken Keller [mailto:KKeller@siph.idaho.gov]
Sent: Monday, April 21, 2014 8:39 AM
To: Alan Giesbrecht
Subject: Request for Comments

Dear Allen:

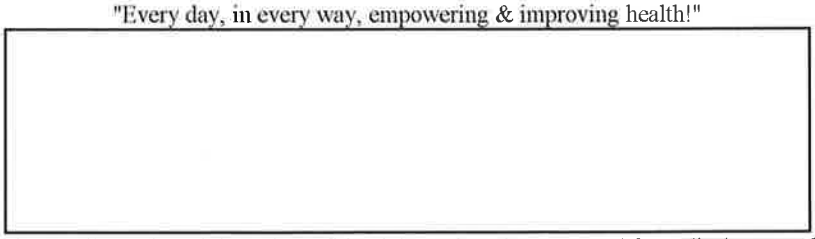
Southeastern Idaho Public Health has reviewed the document submitted by your office regarding the City of Blackfoot Wastewater Treatment Facility Improvement Project. This Department does not foresee any negative environment impacts related to this project.

Sincerely,

Ken Keller, EHS



"Every day, in every way, empowering & improving health!"



United State Department of Agriculture (USDA)

Natural Resources Conservation Service (NRCS)

From: Mike May
Sent: Wednesday, June 25, 2014 10:04
To: Hal Swenson (NRCS)
Subject: Form AD-1006 and FPPA Consultation Request - Blackfoot wastewater
Attachments: AD1006 - Blackfoot WWG - 25 June 2014.pdf; Location and Service Area Map - Blackfoot WWTP - 22 May 2014.pdf; Soil Survey - Blackfoot land application site - WWG - 18 June 2014.pdf; Soil Survey - Blackfoot service area - WWG - 18 June 2014.pdf

I am writing to request consultation under the Farmland Protection Policy Act for a project receiving federal funding via the Idaho Clean Water State Revolving Fund. The project involves upgrades to the wastewater treatment plant (WWTP) for the City of Blackfoot, which also serves the Moreland and Groveland sewer districts across the river. The full service area and the location of the WWTP are identified on the attached map. A soil survey for the service area is attached. The soil survey for the wastewater land application site is presented separately, since its distance from the WWTP would cause the scale of a combined map to be unsuitable. However, treated wastewater will continue to be land applied at the site, so it will remain in agricultural use.

The project will not result in direct conversion of any farmlands to other use, since it will be constructed entirely within the boundaries of the existing WWTP. However, because it would provide a means for farm parcels within the service area to be developed for residential, commercial or industrial uses, it is likely that it will indirectly contribute to conversion of an unknown acreage of farmland as a reasonably foreseeable long-term consequence of the proposed action under the National Environmental Policy Act.

Please review the attached Form AD-1006, project map and soil survey information, and advise me of the project implications under the FPPA. If you need any additional information, please contact me. Thank you.

Mike May
Sr. Water Quality Analyst
Idaho Department of Environmental Quality
1410 North Hilton
Boise, Idaho 83706
(208) 373-0406
Michael.May@deq.idaho.gov

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	Date Of Land Evaluation Request 25 June 2014
Name of Project City of Blackfoot Wastewater Improveme	Federal Agency Involved EPA (via Idaho DEQ SRF)
Proposed Land Use upgrades to WW Treatment Plant	County and State Bingham, Bannock, Power & Caribou, Idaho
PART II *(To be completed by NRCS)*	Date Request Received By NRCS / Person Completing Form:

Does the site contain Prime, Unique, Statewide or Local Important Farmland? *(If no, the FPPA does not apply - do not complete additional parts of this form)* YES ☐ NO ☐		Acres Irrigated	Average Farm Size
Major Crop(s)	Farmable Land In Govt. Jurisdiction Acres: %	Amount of Farmland As Defined in FPPA Acres: %	
Name of Land Evaluation System Used	Name of State or Local Site Assessment System	Date Land Evaluation Returned by NRCS	

PART III *(To be completed by Federal Agency)*	Alternative Site Rating			
	Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly none; all work will be within existing WWTP	0			
B. Total Acres To Be Converted Indirectly farmland within service area potentially subject to conversion	12830			
C. Total Acres In Site	15252			
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland				
B. Total Acres Statewide Important or Local Important Farmland				
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted				
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value				
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)				

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)*	**Maximum Points**	Site A	Site B	Site C	Site D
1. Area In Non-urban Use	(15)				
2. Perimeter In Non-urban Use	(10)				
3. Percent Of Site Being Farmed	(20)				
4. Protection Provided By State and Local Government	(20)				
5. Distance From Urban Built-up Area	(15)				
6. Distance To Urban Support Services	(15)				
7. Size Of Present Farm Unit Compared To Average	(10)				
8. Creation Of Non-farmable Farmland	(10)				
9. Availability Of Farm Support Services	(5)				
10. On-Farm Investments	(20)				
11. Effects Of Conversion On Farm Support Services	(10)				
12. Compatibility With Existing Agricultural Use	(10)				
TOTAL SITE ASSESSMENT POINTS	160	0	0	0	0
PART VII ***(To be completed by Federal Agency)***					
Relative Value Of Farmland *(From Part V)*	100	0	0	0	0
Total Site Assessment *(From Part VI above or local site assessment)*	160	0	0	0	0
TOTAL POINTS ***(Total of above 2 lines)***	260	0	0	0	0

Site Selected:	Date Of Selection	Was A Local Site Assessment Used? YES ☐ NO ☐

Reason For Selection:

Name of Federal agency representative completing this form:	Date:

(See Instructions on reverse side) **Form AD-1006 (03-02)**

STEPS IN THE PROCESSING THE FARMLAND AND CONVERSION IMPACT RATING FORM

Step 1 - Federal agencies (or Federally funded projects) involved in proposed projects that may convert farmland, as defined in the Farmland Protection Policy Act (FPPA) to nonagricultural uses, will initially complete Parts I and III of the form. For Corridor type projects, the Federal agency shall use form NRCS-CPA-106 in place of form AD-1006. The Land Evaluation and Site Assessment (LESA) process may also be accessed by visiting the FPPA website, http://fppa.nrcs.usda.gov/lesa/.

Step 2 - Originator (Federal Agency) will send one original copy of the form together with appropriate scaled maps indicating location(s)of project site(s), to the Natural Resources Conservation Service (NRCS) local Field Office or USDA Service Center and retain a copy for their files. (NRCS has offices in most counties in the U.S. The USDA Office Information Locator may be found at http://offices.usda.gov/scripts/ndISAPI.dll/oip_public/USA_map**,** or the offices can usually be found in the Phone Book under U.S. Government, Department of Agriculture. A list of field offices is available from the NRCS State Conservationist and State Office in each State.)

Step 3 - NRCS will, within 10 working days after receipt of the completed form, make a determination as to whether the site(s) of the proposed project contains prime, unique, statewide or local important farmland. (When a site visit or land evaluation system design is needed, NRCS will respond within 30 working days.

Step 4 - For sites where farmland covered by the FPPA will be converted by the proposed project, NRCS will complete Parts II, IV and V of the form.

Step 5 - NRCS will return the original copy of the form to the Federal agency involved in the project, and retain a file copy for NRCS records.

Step 6 - The Federal agency involved in the proposed project will complete Parts VI and VII of the form and return the form with the final selected site to the servicing NRCS office.

Step 7 - The Federal agency providing financial or technical assistance to the proposed project will make a determination as to whether the proposed conversion is consistent with the FPPA.

INSTRUCTIONS FOR COMPLETING THE FARMLAND CONVERSION IMPACT RATING FORM

(For Federal Agency)

Part I: When completing the "County and State" questions, list all the local governments that are responsible for local land use controls where site(s) are to be evaluated.

Part III: When completing item B (Total Acres To Be Converted Indirectly), include the following:

1. Acres not being directly converted but that would no longer be capable of being farmed after the conversion, because the conversion would restrict access to them or other major change in the ability to use the land for agriculture.
2. Acres planned to receive services from an infrastructure project as indicated in the project justification (e.g. highways, utilities planned build out capacity) that will cause a direct conversion.

Part VI: Do not complete Part VI using the standard format if a State or Local site assessment is used. With local and NRCS assistance, use the local Land Evaluation and Site Assessment (LESA).

1. Assign the maximum points for each site assessment criterion as shown in § 658.5(b) of CFR. In cases of corridor-type project such as transportation, power line and flood control, criteria #5 and #6 will not apply and will, be weighted zero, however, criterion #8 will be weighed a maximum of 25 points and criterion #11 a maximum of 25 points.

2. Federal agencies may assign relative weights among the 12 site assessment criteria other than those shown on the FPPA rule after submitting individual agency FPPA policy for review and comment to NRCS. In all cases where other weights are assigned, relative adjustments must be made to maintain the maximum total points at 160. For project sites where the total points equal or exceed 160, consider alternative actions, as appropriate, that could reduce adverse impacts (e.g. Alternative Sites, Modifications or Mitigation).

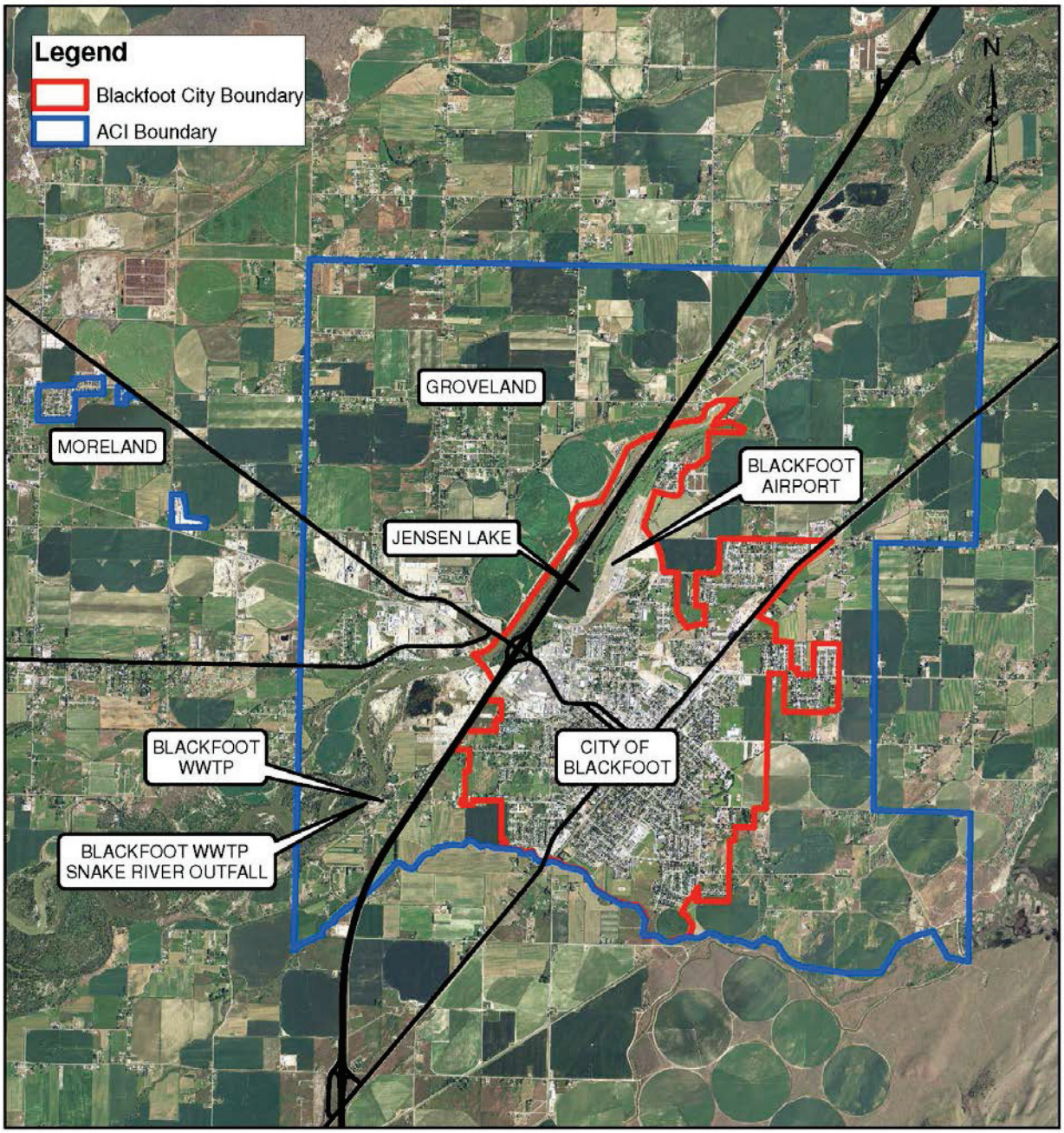
Part VII: In computing the "Total Site Assessment Points" where a State or local site assessment is used and the total maximum number of points is other than 160, convert the site assessment points to a base of 160.
Example: if the Site Assessment maximum is 200 points, and the alternative Site "A" is rated 180 points:

$$\frac{\text{Total points assigned Site A}}{\text{Maximum points possible}} = \frac{180}{200} \text{ X } 160 = 144 \text{ points for Site A}$$

For assistance in completing this form or FPPA process, contact the local NRCS Field Office or USDA Service Center.

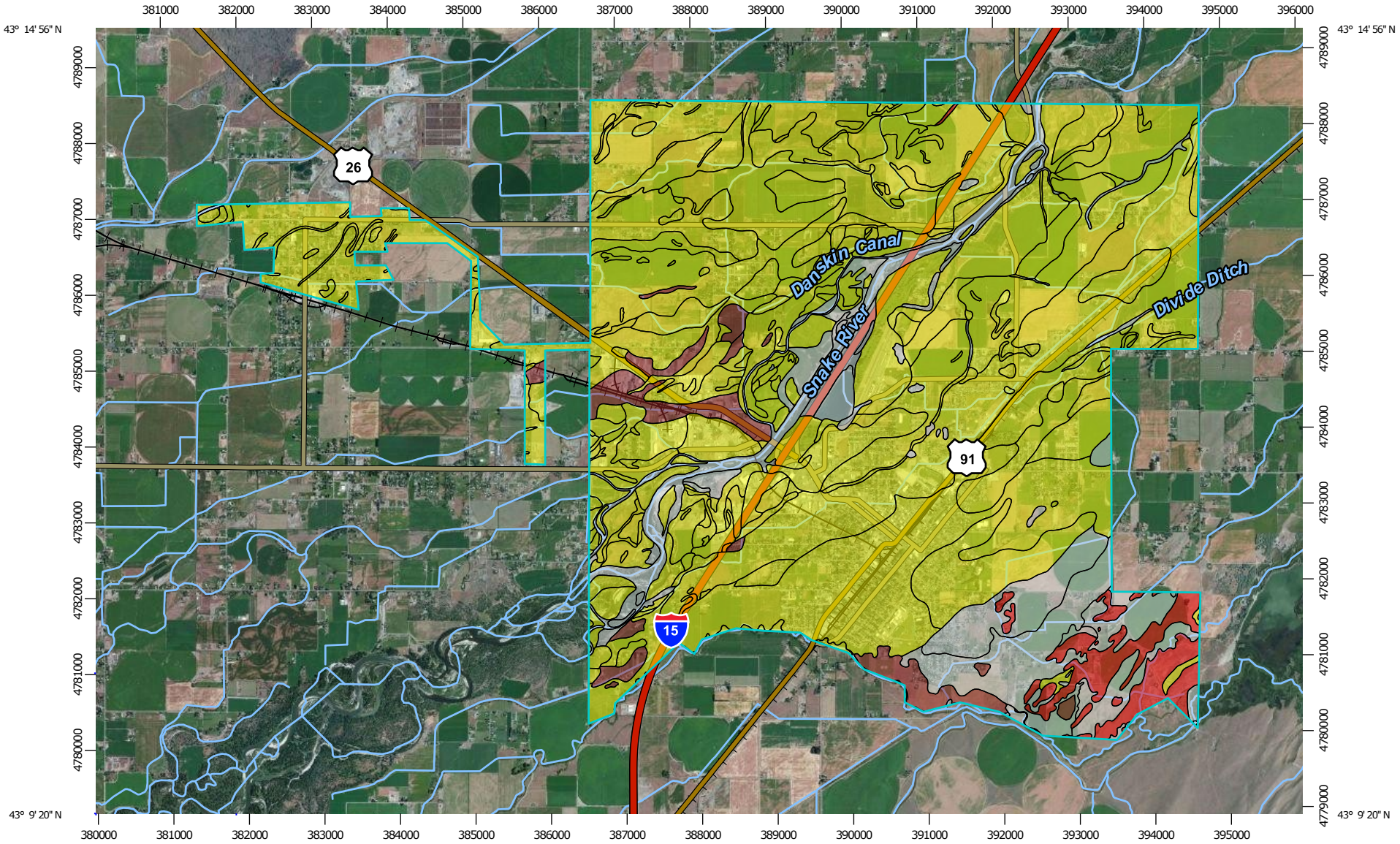
NRCS employees, consult the FPPA Manual and/or policy for additional instructions to complete the AD-1006 form.

Figure 1 – Blackfoot WWTP Location and Approximate Service Area



Farmland Classification—Bingham Area, Idaho; and Fort Hall Area, Idaho, Parts of Bannock, Bingham, Caribou, and Power Counties

This is the service area for the Blackfoot WWTP, including the Moreland and Groveland sewer districts



Map Scale: 1:73,000 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 1000 2000 4000 6000

Feet
0 3500 7000 14000 21000

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

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of local importance
- Farmland of unique importance
- Not rated or not available

Soil Rating Lines

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
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Soil Rating Points

- Not prime farmland
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- Prime farmland if irrigated
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- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of local importance
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- Not rated or not available

Water Features

MAP INFORMATION

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

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

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

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

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

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

Soil Survey Area: Bingham Area, Idaho
Survey Area Data: Version 11, Dec 10, 2013

Soil Survey Area: Fort Hall Area, Idaho, Parts of Bannock, Bingham, Caribou, and Power Counties
Survey Area Data: Version 8, Dec 10, 2013

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

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

Date(s) aerial images were photographed: Jul 16, 2010—Sep 30, 2011

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

Farmland Classification

Farmland Classification— Summary by Map Unit — Bingham Area, Idaho (ID770)				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
BaA	Bannock loam, 0 to 2 percent slopes	Prime farmland if irrigated	1,451.0	9.5%
BaB	Bannock loam, 2 to 4 percent slopes	Prime farmland if irrigated	28.4	0.2%
BaC	Bannock loam, 4 to 8 percent slopes	Prime farmland if irrigated	27.5	0.2%
Bc	Blackfoot loam	Prime farmland if irrigated and drained	492.4	3.2%
Bd	Blackfoot loam, drained	Prime farmland if irrigated	1,627.1	10.7%
Bk	Blackfoot silty clay loam	Prime farmland if irrigated and drained	13.9	0.1%
BoA	Bock loam, 0 to 2 percnt slopes	Prime farmland if irrigated	2,464.7	16.2%
BoB	Bock loam, 2 to 4 percent slopes	Prime farmland if irrigated	11.0	0.1%
DcA	Declo fine sandy loam, 0 to 2 percent slopes	Prime farmland if irrigated	49.6	0.3%
DcB	Declo fine sandy loam, 2 to 4 percent slopes	Prime farmland if irrigated	10.8	0.1%
DcC	Declo fine sandy loam, 4 to 8 percent slopes	Prime farmland if irrigated	4.8	0.0%
DeA	Declo loam, 0 to 2 percent slopes	Prime farmland if irrigated	1,668.2	10.9%
DeB	Declo loam, 2 to 4 percent slopes	Prime farmland if irrigated	75.2	0.5%
DeC	Declo loam, 4 to 8 percent slopes	Prime farmland if irrigated	118.6	0.8%
DeD	Declo loam, 8 to 12 percent slopes	Farmland of statewide importance, if irrigated	21.9	0.1%
Fs	Firth sandy loam, drained	Farmland of statewide importance, if irrigated	493.7	3.2%
Gp	Gravel pit		55.3	0.4%
HaA	Hayeston sandy loam, 0 to 2 percent slopes	Prime farmland if irrigated	398.4	2.6%
HaB	Hayeston sandy loam, 2 to 4 percent slopes	Prime farmland if irrigated	20.1	0.1%
HeA	Hayeston loam, 0 to 2 percent slopes	Prime farmland if irrigated	593.7	3.9%
HsA	Heiseton sandy loam, 0 to 2 percent slopes	Prime farmland if irrigated	633.3	4.2%

Farmland Classification— Summary by Map Unit — Bingham Area, Idaho (ID770)				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
HsB	Heiseton sandy loam, 2 to 4 percent slopes	Prime farmland if irrigated	12.3	0.1%
HtA	Heiseton loam, 0 to 2 percent slopes	Prime farmland if irrigated	986.8	6.5%
MnB	Matheson fine sandy loam, 2 to 4 percent slopes	Prime farmland if irrigated	14.7	0.1%
PaA	Packham gravelly loam, 0 to 2 percent slopes	Prime farmland if irrigated	863.8	5.7%
PaB	Packham grvelly loam, 2 to 4 percent slopes	Prime farmland if irrigated	68.9	0.5%
PhD	Pancheri silt loam, 8 to 12 percent slopes	Not prime farmland	3.9	0.0%
Pw	Presto loamy sand	Farmland of statewide importance, if irrigated	568.3	3.7%
Rv	Riverwash		270.5	1.8%
SaA	Sasser fine sandy loam, 0 to 2 percent slopes	Prime farmland if irrigated	43.2	0.3%
StA	Stan fine sandy loam, 0 to 2 percent slopes	Prime farmland if irrigated	162.8	1.1%
TM	Terrace escarpments		51.9	0.3%
W	Water		526.6	3.5%
WaA	Wapello fine sandy loam, 0 to 2 percent slopes	Prime farmland if irrigated	365.7	2.4%
Wb	Wardboro soils	Prime farmland if irrigated	567.6	3.7%
We	Weeding loamy sand	Farmland of statewide importance, if irrigated and drained	12.3	0.1%
WOF	Wolverine sand, rolling	Not prime farmland	442.2	2.9%
Subtotals for Soil Survey Area			**15,221.1**	**99.8%**
Totals for Area of Interest			**15,251.8**	**100.0%**

Farmland Classification— Summary by Map Unit — Fort Hall Area, Idaho, Parts of Bannock, Bingham, Caribou, and Power Counties (ID710)				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
FeB	Feltham loamy sand, 4 to 8 percent slopes	Farmland of statewide importance, if irrigated	10.3	0.1%
FLF	Feltham loamy sand, undulating	Farmland of statewide importance, if irrigated	0.0	0.0%
QnC	Quincy sand, 4 to 8 percent slopes	Not prime farmland	0.3	0.0%
TdA	Tickason loam, 0 to 2 percent slopes	Prime farmland if irrigated	19.3	0.1%
W	Water		0.7	0.0%

Farmland Classification— Summary by Map Unit — Fort Hall Area, Idaho, Parts of Bannock, Bingham, Caribou, and Power Counties (ID710)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Subtotals for Soil Survey Area			**30.7**	**0.2%**
Totals for Area of Interest			**15,251.8**	**100.0%**

Description

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

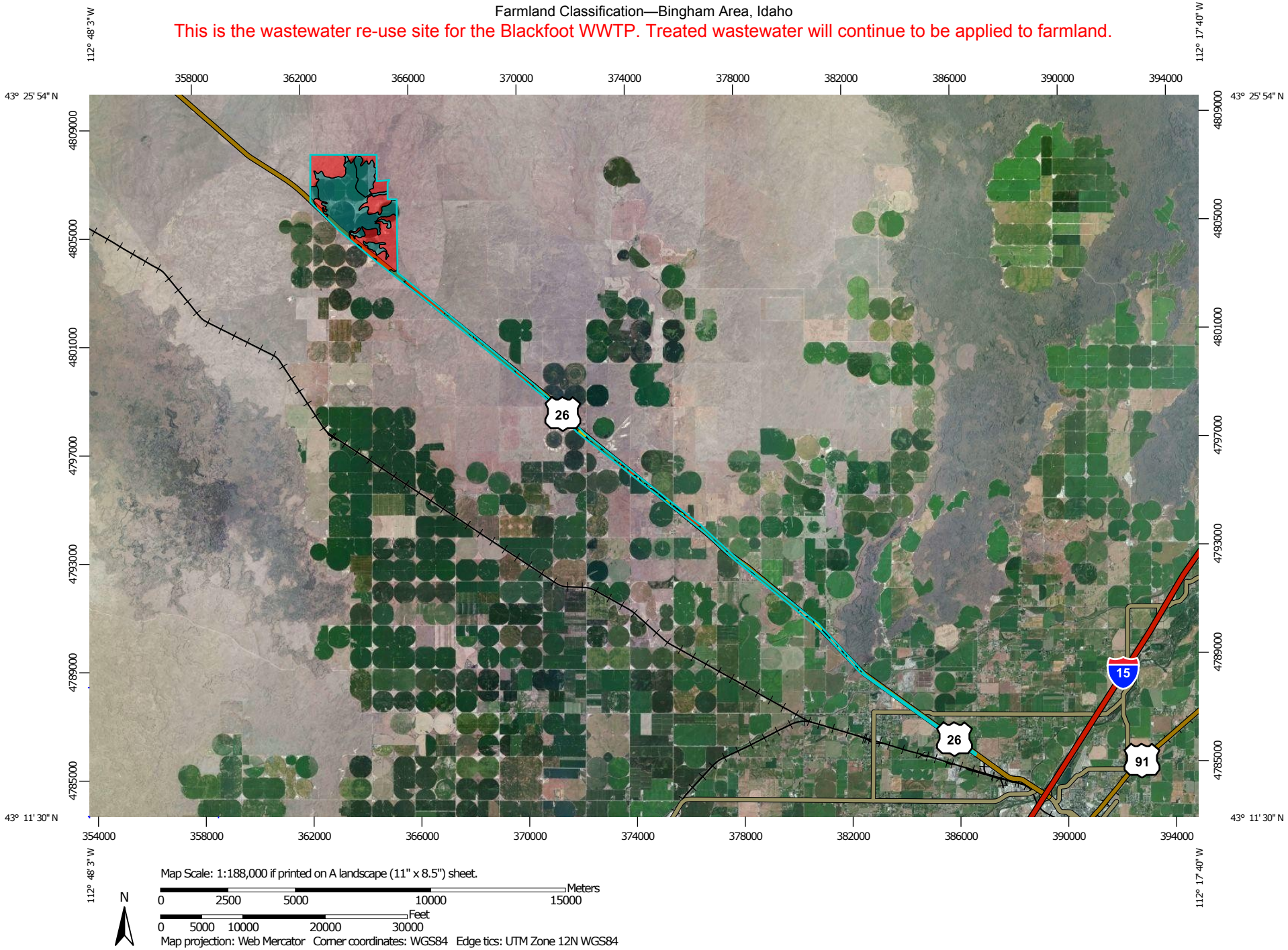
Rating Options

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower

Farmland Classification—Bingham Area, Idaho

This is the wastewater re-use site for the Blackfoot WWTP. Treated wastewater will continue to be applied to farmland.



MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of local importance
- Farmland of unique importance
- Not rated or not available

Soil Rating Lines

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
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Soil Rating Points

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of local importance
- Farmland of unique importance
- Not rated or not available

Water Features

MAP INFORMATION

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

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

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

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

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

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

Soil Survey Area: Bingham Area, Idaho
Survey Area Data: Version 11, Dec 10, 2013

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

Date(s) aerial images were photographed: Jul 16, 2010—Sep 30, 2011

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

Farmland Classification

Farmland Classification— Summary by Map Unit — Bingham Area, Idaho (ID770)				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
BaA	Bannock loam, 0 to 2 percent slopes	Prime farmland if irrigated	6.0	0.2%
Bd	Blackfoot loam, drained	Prime farmland if irrigated	0.2	0.0%
BoA	Bock loam, 0 to 2 percnt slopes	Prime farmland if irrigated	18.5	0.6%
DeA	Declo loam, 0 to 2 percent slopes	Prime farmland if irrigated	2.3	0.1%
Gp	Gravel pit		0.3	0.0%
Km	Kimama silt loam	Prime farmland if irrigated	13.5	0.4%
LS	Lava flows		32.3	1.0%
LT	Lava rock land		25.8	0.8%
PaA	Packham gravelly loam, 0 to 2 percent slopes	Prime farmland if irrigated	58.9	1.9%
PaB	Packham grvelly loam, 2 to 4 percent slopes	Prime farmland if irrigated	5.0	0.2%
PCD	Polatis-Tenno complex, undulating	Not prime farmland	1,136.0	36.7%
PhA	Pancheri silt loam, 0 to 2 percent slopes	Prime farmland if irrigated and reclaimed of excess salts and sodium	1,053.7	34.0%
PhB	Pancheri silt loam, 2 to 4 percent slopes	Prime farmland if irrigated and reclaimed of excess salts and sodium	640.4	20.7%
PhC	Pancheri silt loam, 4 to 8 percent slopes	Farmland of statewide importance, if irrigated	6.6	0.2%
PoA	Polatis silt loam, 0 to 2 percent slopes	Prime farmland if irrigated	0.1	0.0%
PoB	Polatis silt loam, 2 to 4 percent slopes	Prime farmland if irrigated	63.9	2.1%
PoC	Polatis silt loam, 4 to 8 percent slopes	Farmland of statewide importance, if irrigated	3.8	0.1%
PrB	Polatis silt loam, 2 to 4 percent slopes, stony	Not prime farmland	4.5	0.1%
TdB	Tenno loam 0 to 4 percent slopes, stony	Not prime farmland	0.0	0.0%
TdC	Tenno loam, 4 to 8 percent slopes, stony	Not prime farmland	0.8	0.0%
TED	Tenno loam, undulating, extremely stony	Not prime farmland	24.8	0.8%

Farmland Classification— Summary by Map Unit — Bingham Area, Idaho (ID770)				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
W	Water		0.8	0.0%
Totals for Area of Interest			**3,098.2**	**100.0%**

Description

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

Rating Options

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower

From: Swenson, Hal - NRCS, Boise, ID <Hal.Swenson@id.usda.gov>
Sent: Thursday, June 26, 2014 08:40
To: Mike May
Subject: RE: Form AD-1006 and FPPA Consultation Request - Blackfoot wastewater
Attachments: Scanned Cover Letter and AD-1006.pdf

Mike,

Attached is the Farmland Conversion Impact Rating Form (AD-1006) for the Blackfoot WWTP.

Thanks

Hal K. Swenson
State Soil Scientist
Snow Survey Program Manager
9173 W. Barnes Dr. Suite C
Boise, ID 83709
208-378-5728 Office
208-860-5685 Cell
hal.swenson@id.usda.gov

From: Michael.May@deq.idaho.gov [mailto:Michael.May@deq.idaho.gov]
Sent: Wednesday, June 25, 2014 10:04 AM
To: Swenson, Hal - NRCS, Boise, ID
Subject: Form AD-1006 and FPPA Consultation Request - Blackfoot wastewater

I am writing to request consultation under the Farmland Protection Policy Act for a project receiving federal funding via the Idaho Clean Water State Revolving Fund. The project involves upgrades to the wastewater treatment plant (WWTP) for the City of Blackfoot, which also serves the Moreland and Groveland sewer districts across the river. The full service area and the location of the WWTP are identified on the attached map. A soil survey for the service area is attached. The soil survey for the wastewater land application site is presented separately, since its distance from the WWTP would cause the scale of a combined map to be unsuitable. However, treated wastewater will continue to be land applied at the site, so it will remain in agricultural use.

The project will not result in direct conversion of any farmlands to other use, since it will be constructed entirely within the boundaries of the existing WWTP. However, because it would provide a means for farm parcels within the service area to be developed for residential, commercial or industrial uses, it is likely that it will indirectly contribute to conversion of an unknown acreage of farmland as a reasonably foreseeable long-term consequence of the proposed action under the National Environmental Policy Act.

Please review the attached Form AD-1006, project map and soil survey information, and advise me of the project implications under the FPPA. If you need any additional information, please contact me. Thank you.

Mike May
Sr. Water Quality Analyst
Idaho Department of Environmental Quality
1410 North Hilton
Boise, Idaho 83706
(208) 373-0406
Michael.May@deq.idaho.gov

USDA

United States Department of Agriculture

Mike May
Sr. Water Quality Analyst
Idaho Department of Environmental Quality
1410 North Hilton
Boise, ID 83706

RE: Blackfoot Waste Water Treatment Plant

Dear Mr. May:

There are no soils in the project area that are classified as prime farmland, unique farmland or farmland of statewide importance and therefore the Farmland Protection Policy Act (FPPA), Public Law 97-98, 7 U.S.C. 4201 will not apply to this project.

The areas that may be converted to urban land uses in the future are not subject to the FPPA at this time. They may become subject to the act at the time of conversion if federal funds are utilized for the development

We appreciate the opportunity to assist you in planning this project. If you have questions or need further assistance, please contact me at 208-378-5728.

Sincerely,

Hal K Swenson

Hal K. Swenson
State Soil Scientist

Enclosures
cc: w/o enclosures
Dean Smith, District Conservationist, NRCS, Blackfoot, ID
David Schmidt, Assistant State Conservationist – Field Operations, NRCS, Pocatello, ID

w/enclosures
Carrie Jansen-Smith, Area Resource Conservationist, NRCS, Pocatello, ID (for file)

Natural Resources Conservation Service
9173 W. Barnes Dr., Suite C, Boise, ID 83709
Voice: (208) 378-5700 Fax: (208) 378-5735

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	Date Of Land Evaluation Request 25 June 2014
Name of Project City of Blackfoot Wastewater Improveme	Federal Agency Involved EPA (via Idaho DEQ SRF)
Proposed Land Use upgrades to WW Treatment Plant	County and State Bingham, Bannock, Power & Caribou, Idaho
PART II *(To be completed by NRCS)*	Date Request Received By NRCS 6/25/2014 / Person Completing Form: Hal Swenson

Does the site contain Prime, Unique, Statewide or Local Important Farmland? *(If no, the FPPA does not apply - do not complete additional parts of this form)*	YES	NO	Acres Irrigated	Average Farm Size
	☐	☑		

Major Crop(s)	Farmable Land In Govt. Jurisdiction Acres: %	Amount of Farmland As Defined in FPPA Acres: %
Name of Land Evaluation System Used	Name of State or Local Site Assessment System	Date Land Evaluation Returned by NRCS

PART III *(To be completed by Federal Agency)*	Alternative Site Rating Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly none; all work will be within existing WWTP	0			
B. Total Acres To Be Converted Indirectly farmland within service area potentially subject to conversion	12830			
C. Total Acres In Site	15252			
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland				
B. Total Acres Statewide Important or Local Important Farmland				
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted				
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value				
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)				

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)*	Maximum Points	Site A	Site B	Site C	Site D
1. Area In Non-urban Use	(15)				
2. Perimeter In Non-urban Use	(10)				
3. Percent Of Site Being Farmed	(20)				
4. Protection Provided By State and Local Government	(20)				
5. Distance From Urban Built-up Area	(15)				
6. Distance To Urban Support Services	(15)				
7. Size Of Present Farm Unit Compared To Average	(10)				
8. Creation Of Non-farmable Farmland	(10)				
9. Availability Of Farm Support Services	(5)				
10. On-Farm Investments	(20)				
11. Effects Of Conversion On Farm Support Services	(10)				
12. Compatibility With Existing Agricultural Use	(10)				
TOTAL SITE ASSESSMENT POINTS	160	0	0	0	0
PART VII ***(To be completed by Federal Agency)***					
Relative Value Of Farmland *(From Part V)*	100	0	0	0	0
Total Site Assessment *(From Part VI above or local site assessment)*	160	0	0	0	0
TOTAL POINTS ***(Total of above 2 lines)***	260	0	0	0	0

Site Selected:	Date Of Selection	Was A Local Site Assessment Used? YES ☐ NO ☐

Reason For Selection:

Name of Federal agency representative completing this form:	Date:

(See Instructions on reverse side)

Form AD-1006 (03-02)

U.S. Fish and Wildlife Service

STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1410 North Hilton • Boise, Idaho 83706 • (208) 373-0502

C.L. "Butch" Otter, Governor
Curt Fransen, Director

March 27, 2014

Certified Mail No: 7010 3090 0002 3443 9676

Ms. Nisa Marks
Eastern Idaho Field Office
U.S. Fish and Wildlife Service
4425 Burley Dr., Suite A
Chubbuck, Idaho 83202

RE: City of Blackfoot Wastewater Treatment Improvement Project - Request for Comments for Preparation of an Environmental Information Document

Dear Ms. Marks:

The City of Blackfoot is in the final planning phase of developing a wastewater improvement project which could be in full or partially funded by the Idaho Clean Water State Revolving Loan Fund. The purpose of this letter is to request your review and response regarding any environmental impacts that the U.S. Fish and Wildlife Services may identify for this proposed project pursuant to the Idaho Department of Environmental Quality's State Environmental Review Process, which mirrors the National Environmental Policy Act.

The proposed project is located in Bingham County and consists of the following improvements within the existing wastewater treatment facility:

Table 1 – Summary of Proposed Improvements

Item	Description
Septage Receiving Station	New package septage receiving station
Mechanical Screening and Grit Removal	New Headworks, including flow measurement, sampling, two 6 mm mechanical fine screens, washer/compactors, and grit removal
	Headworks odor control system
Primary Clarification	No improvements are recommended at this time
Primary Solids Pumping	Retrofit existing pumping system; replace piping to the solids processing system
Gravity Thickener	Miscellaneous rehabilitation; cover gravity thickener
Intermediate Pump Station	Replacement or a major retrofit of the existing pump station
Bioselector	No improvements are recommended at this time
Aeration Basins, Blowers, and Diffused Aeration	Replace existing aeration distribution lines from the Blower Building to each aeration basin
	Add chemical addition for phosphorus removal
MLSS Distribution Box and Secondary Clarifier No. 3	New distribution box to accommodate four aeration basins and four secondary clarifiers. New 60'-diameter secondary clarifier (Secondary Clarifier No. 3).
Secondary Clarifier No. 4	New 60'-diameter secondary clarifier (Secondary Clarifier No. 4)
RAS/WAS Control	Add RAS return to Intermediate Pump Station; replace existing, failed valves; incorporate new clarifier(s)

Item	Description
	New RAS/WAS pump station
UV Disinfection System	Retrofit existing system with new low-pressure/high-output bulbs, ballasts, and controls
	New building, including HVAC, gantry crane, and related elements
Outfall	No improvements are recommended at this time
WAS Thickening	New thickening unit; piping modifications in the solids pumping room; new thickened solids pump; re-routing primary solids feed directly to the digester feed line
Solids Blend Tank	Inspection, concrete repair, and re-coating
Anaerobic Digesters	Add a transfer pump between the Thermophilic and Mesophilic Digesters
	Replace the Thermophilic Digester seal; add staircases and safety improvements to the Mesophilic Digesters; clean, re-coat, and replace mixing system and piping in Primary and Secondary Mesophilic Digesters
Digester Gas	Install a hoist system to aid removal of the iron sponge lid and replacement of the media; add a bladder-style gas storage vessel to equalize production and consumption
Mechanical Dewatering	Add a second screw press and polymer make-up unit; integrate cake conveyor controls; replace solids feed pump
Liquid Solids Storage	Add a return line from the Liquid Solids Storage tanks to the dewatering equipment feed pump

The proposed improvements will allow the city of Blackfoot to meet their National Pollutant Discharge System (NPDES) permit discharge limits and increase capacity for existing and future flows. Enclosed is a map of the proposed project planning area/area of potential effect (Figure 1) and a map of proposed project improvements (Figure 2) identifying the location of all construction activities.

We request that you advise us of any comments that you may have regarding this project within 30 days, so the City of Blackfoot can proceed with the completion of the Environmental Information Document.

If you have any questions concerning this proposed project or if you need any further information, please feel free to contact Ester Ceja, 208-373-0585, or via email at Ester.Ceja@deq.idaho.gov at your convenience.

Sincerely,

Ester Ceja
Sr. Water Quality Analyst

EC:ls

Encl: PPPA/APE map, project map, USFWS Species List

c: Kassidie Lampe, J-U-B Engineers, (klampe@jub.com)

Kassidie Lampe

From: Ester.Ceja@deq.idaho.gov
Sent: Thursday, May 01, 2014 10:22 AM
To: Kassidie Lampe
Subject: Blackfoot WW Project - Tribal and USFWS Information
Attachments: SWATER SCAN14050108320.pdf

Kassidie,

Good morning. The agency consultation 30-day comment period ended on Monday, April 28, 2014. No comments were received from the Shoshone-Bannock Tribes and the Shoshone-Paiute Tribes. I have attached a copy of the DEQ Endangered Species and Essential Fish Habitat Memo.

As you develop the EID for the City of Blackfoot, please include a copy of the tribal consultation letters, a copy of this email, and a copy of the attached memo. You will want to include language in the cultural resources section of the main body of the EID about no comments being received by the Shoshone-Paiute and the Shoshone Bannock Tribes. In addition, you will want to include information from the attached memo in the flora and fauna/listed species section of the EID.

Let me know if you have any questions.

Thanks,
Ester Ceja

MEMO

TO:	ALAN GIESBRECHT, JUB ENGINEERS
FROM:	ESTER CEJA – DEQ GRANT AND LOAN PROGRAM
SUBJECT:	CITY OF BLACKFOOT – WASTEWATER TREATMENT IMPROVEMENT PROJECT - THREATENED/ENDANGERED SPECIES AND ESSENTIAL FISH HABITAT
DATE:	APRIL 30, 2014

The City of Blackfoot wastewater treatment improvement project includes primary, secondary and advanced wastewater treatment improvements at the existing treatment facility location.

The U.S. Fish and Wildlife (USFWS) threatened and endangered species list revised date of 10/22/2013 was used for determining endangered, threatened, and proposed species within Bingham County. The USFWS was consulted and their March 31, 2014 response is attached. The following species are listed within Bingham County:

1. **Greater Sage-Grouse** (candidate) - Grouse reside in Sagebrush Steppe environments. The proposed project improvements are not located in priority habitat for Sage Grouse. The improvements will take place at the existing wastewater treatment facility which has been previously disturbed and is primarily surrounded by farmland and the Snake River on the western edge. The proposed project will have "NO EFFECT" on sage grouse.

2. **North American Wolverine** (candidate) - The North American Wolverine is a proposed species which does not exist in the proposed project planning area which is located at an elevation of 4476 feet, absent of deep persistent Spring snow. Wolverines distribution is restricted to high elevation, deep persistent, and reliable spring snow cover (April 15 to May 14) is the best overall predictor of wolverine occurrence in the contiguous U.S. (http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=A0FA). The proposed improvement location is not located within wolverine habitat, therefore the proposed project will have a "NO EFFECT" on the wolverine species.

3. **Ute Ladies' Tresses** (threatened) - The species is found in moist to wet conditions, where competition for light, space, water, and other resources is normally kept low by periodic or recent disturbance events. The project improvements will take place on dry, previously disturbed land. The proposed project will have "NO EFFECT" on the Ute Ladies' Tresses.

4. **Yellow-Billed Cuckoo** (proposed) - Western cuckoos breed in large blocks of riparian habitats, particularly woodlands with cottonwoods and willows. Generally local and uncommon in scattered drainages of the arid and semiarid portions of western Colorado, western Wyoming, Idaho, Nevada and Utah. In southwestern Idaho, the yellow-billed cuckoo has been considered a rare, sometimes erratic, visitor

and breeder in the Snake River Valley. While there are cottonwoods and other shrubbery along the Snake River, the actual improvements will solely take place within the existing wastewater treatment property which has no trees and riparian areas. The proposed project will have "NO EFFECT" to the Cuckoo.

Essential Fish Habitat

The City of Blackfoot wastewater treatment improvement project is not located within Essential Fish Habitat (EFH) for Salmon as identified in the attached EFH map and will have "NO EFFECT."

Ester Ceja

From: Marks, Nisa <nisa_marks@fws.gov>
Sent: Monday, March 31, 2014 10:48 AM
To: Ester Ceja
Subject: Blackfoot Wastewater treatment improvement project

In reply please refer to: 2014-TA-0304

Dear Ms. Ceja:

In response to your March 27, 2014, letter requesting information about the potential impacts to endangered, threatened, proposed, and/or candidate species from the wastewater treatment improvement project in Blackfoot, Idaho, we have 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.), 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 me by email or the number below.

Thank you for your interest in endangered species conservation.

Best,

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

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

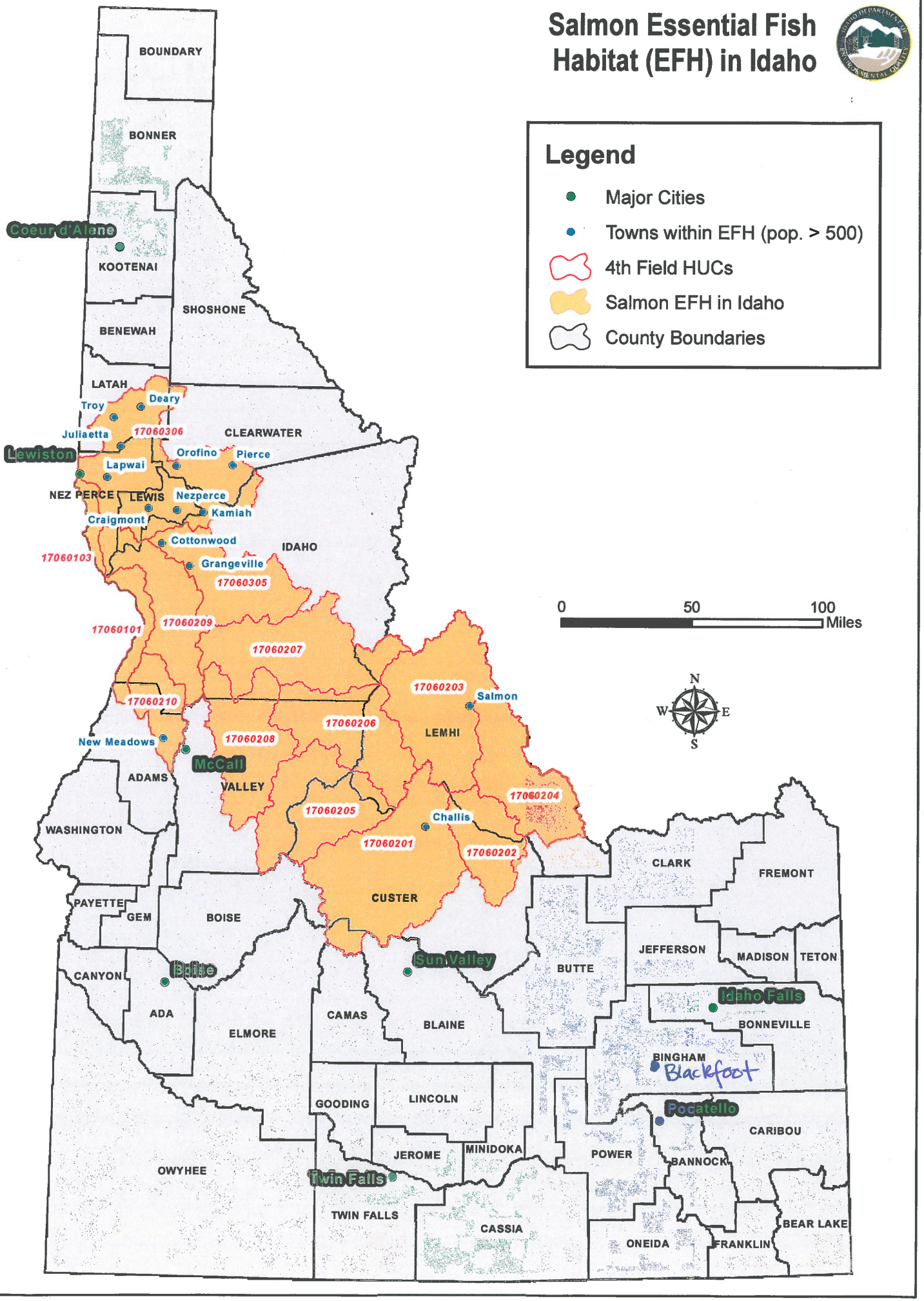
U.S. Fish and Wildlife Service • Idaho Fish and Wildlife Office

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

	Herps	Birds		Mammals						Fish		Mollusks				Plants							
Common Name	Columbia Spotted Frog (Great Basin Population)	Greater Sage-Grouse	Yellow-Billed Cuckoo	Canada Lynx	Grizzly Bear	Northern Idaho Ground Squirrel	Selkirk Mountains Woodland Caribou	Southern Idaho Ground Squirrel	North American Wolverine	Bull Trout	Kootenai River White Sturgeon	Banbury Springs Lanx	Bliss Rapids Snail	Bruneau Hot Springsnail	Snake River Physa	Goose Creek Milkvetch	MacFarlane's Four-O'Clock	Packard's Milkvetch	Slickspot Peppergrass	Spalding's Catchfly	Ute Ladies'-Tresses	Water Howellia	Whitebark Pine
Scientific Name	*Rana luteiventris*	*Centrocercus urophasianus*	*Coccyzus americanus*	*Lynx canadensis*	*Ursus arctos horribilis*	*Spermophilus brunneus brunneus*	*Rangifer tarandus caribou*	*Spermophilus brunneus endemicus*	*Gulo gulo luscus*	*Salvelinus confluentus*	*Acipenser transmontanus*	*Lanx* sp.	*Taylorconcha serpenticola*	*Pyrgulopsis bruneauensis*	*Haitia (Physa) natricina*	*Astragalus anserinus*	*Mirabilis macfarlanei*	*Astragalus cusickii var. parkardiae*	*Lepidium papilliferum*	*Silene spaldingii*	*Spiranthes diluvialis*	*Howellia aquatilis*	*Pinus albicaulis*
Ada		C	P							T					E				P-PCH				
Adams		C		T		T		C	P	T-DCH													C
Bannock		C	P						P														
Bear Lake		C		T					P														
Benewah				T					P	T-DCH										T		T	
Bingham		C	P						P												T		
Blaine		C	P	T					P	T-DCH													
Boise			P	T					P	T-DCH													C
Bonner				T	T		E		P	T-DCH													C
Bonneville		C	P	T	T				P														C
Boundary				T-DCH	T		E-DCH		P	T-DCH	E-DCH										T		C
Butte		C		T					P	T-DCH													C
Camas		C	P	T					P	T-DCH													C
Canyon															E				P-PCH				
Caribou		C		T					P														
Cassia		C	P												E	C							
Clark		C	P	T	T				P														C
Clearwater				T					P	T-DCH													C
Custer		C	P	T					P	T-DCH													C
Elmore		C	P	T					P	T-DCH			T		E				P-PCH				C
Franklin		C		T					P														C
Fremont		C	P	T	T				P												T		C
Gem		C						C	P	T-DCH									P-PCH				C

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

Salmon Essential Fish Habitat (EFH) in Idaho



Shoshone-Bannock Tribes

STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1410 North Hilton • Boise, Idaho 83706 • (208) 373-0502

March 27, 2014

C.L. "Butch" Otter, Governor
Curt Fransen, Director

Certified Mail No: 7012 3050 0001 2126 5203

Carolyn Boyer-Smith
Cultural Resources Program
Shoshone-Bannock Tribes
P.O. Box 306
Fort Hall, Idaho 83203

RE: City of Blackfoot Wastewater Treatment Improvement Project - Request for Comments for Preparation of an Environmental Information Document

Dear Ms. Boyer-Smith:

The City of Blackfoot is in the final planning phase of developing a wastewater improvement project which could be in full or partially funded by the Idaho Clean Water State Revolving Loan Fund. The purpose of this letter is to request your review and response regarding any historic and cultural resource impacts that the Shoshone-Bannock Tribes may identify for this proposed project pursuant to the Idaho Department of Environmental Quality's State Environmental Review Process, which mirrors the National Environmental Policy Act.

The proposed project is located in Bingham County and consists of the following improvements within the existing wastewater treatment facility:

Table 1 – Summary of Proposed Improvements

Item	Description
Septage Receiving Station	New package septage receiving station
Mechanical Screening and Grit Removal	New Headworks, including flow measurement, sampling, two 6 mm mechanical fine screens, washer/compactors, and grit removal
	Headworks odor control system
Primary Clarification	No improvements are recommended at this time
Primary Solids Pumping	Retrofit existing pumping system; replace piping to the solids processing system
Gravity Thickener	Miscellaneous rehabilitation; cover gravity thickener
Intermediate Pump Station	Replacement or a major retrofit of the existing pump station
Bioselector	No improvements are recommended at this time
Aeration Basins, Blowers, and Diffused Aeration	Replace existing aeration distribution lines from the Blower Building to each aeration basin
	Add chemical addition for phosphorus removal
MLSS Distribution Box and Secondary Clarifier No. 3	New distribution box to accommodate four aeration basins and four secondary clarifiers. New 60'-diameter secondary clarifier (Secondary Clarifier No. 3).
Secondary Clarifier No. 4	New 60'-diameter secondary clarifier (Secondary Clarifier No. 4)
RAS/WAS Control	Add RAS return to Intermediate Pump Station; replace existing, failed valves; incorporate new clarifier(s)

Item	Description
	New RAS/WAS pump station
UV Disinfection System	Retrofit existing system with new low-pressure/high-output bulbs, ballasts, and controls
	New building, including HVAC, gantry crane, and related elements
Outfall	No improvements are recommended at this time
WAS Thickening	New thickening unit; piping modifications in the solids pumping room; new thickened solids pump; re-routing primary solids feed directly to the digester feed line
Solids Blend Tank	Inspection, concrete repair, and re-coating
Anaerobic Digesters	Add a transfer pump between the Thermophilic and Mesophilic Digesters
	Replace the Thermophilic Digester seal; add staircases and safety improvements to the Mesophilic Digesters; clean, re-coat, and replace mixing system and piping in Primary and Secondary Mesophilic Digesters
Digester Gas	Install a hoist system to aid removal of the iron sponge lid and replacement of the media; add a bladder-style gas storage vessel to equalize production and consumption
Mechanical Dewatering	Add a second screw press and polymer make-up unit; integrate cake conveyor controls; replace solids feed pump
Liquid Solids Storage	Add a return line from the Liquid Solids Storage tanks to the dewatering equipment feed pump

The proposed improvements will allow the city of Blackfoot to meet their National Pollutant Discharge System (NPDES) permit discharge limits and increase capacity for existing and future flows. Enclosed is a map of the proposed project planning area/area of potential effect (Figure 1) and a map of proposed project improvements (Figure 2) identifying the location of all construction activities.

We request that you advise us of any comments that you may have regarding this project within 30 days, so the City of Blackfoot can proceed with the completion of the Environmental Information Document.

If you have any questions concerning this proposed project or if you need any further information, please feel free to contact Ester Ceja, 208-373-0585, or via email at Ester.Ceja@deq.idaho.gov at your convenience.

Sincerely,

Ester Ceja
Sr. Water Quality Analyst

EC:ls

Encl: PPPA/APE map, project map

c: Kassidie Lampe, J-U-B Engineers, (klampe@jub.com)

Kassidie Lampe

From: Ester.Ceja@deq.idaho.gov
Sent: Thursday, May 01, 2014 10:22 AM
To: Kassidie Lampe
Subject: Blackfoot WW Project - Tribal and USFWS Information
Attachments: SWATER SCAN14050108320.pdf

Kassidie,

Good morning. The agency consultation 30-day comment period ended on Monday, April 28, 2014. No comments were received from the Shoshone-Bannock Tribes and the Shoshone-Paiute Tribes. I have attached a copy of the DEQ Endangered Species and Essential Fish Habitat Memo.

As you develop the EID for the City of Blackfoot, please include a copy of the tribal consultation letters, a copy of this email, and a copy of the attached memo. You will want to include language in the cultural resources section of the main body of the EID about no comments being received by the Shoshone-Paiute and the Shoshone Bannock Tribes. In addition, you will want to include information from the attached memo in the flora and fauna/listed species section of the EID.

Let me know if you have any questions.

Thanks,
Ester Ceja

Shoshone-Paiute Tribes

STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1410 North Hilton • Boise, Idaho 83706 • (208) 373-0502

C.L. "Butch" Otter, Governor
Curt Fransen, Director

March 27, 2014

Certified Mail No: 7010 3090 0002 3443 9683

Mr. Ted Howard, Director
Cultural Resources Program
Shoshone Paiute Tribe
P.O. Box 219
Owyhee, Nevada 89832

RE: City of Blackfoot Wastewater Treatment Improvement Project - Request for Comments for Preparation of an Environmental Information Document

Dear Mr. Howard:

The City of Blackfoot is in the final planning phase of developing a wastewater improvement project which could be in full or partially funded by the Idaho Clean Water State Revolving Loan Fund. The purpose of this letter is to request your review and response regarding any historic and cultural resource impacts that the Shoshone Paiute Tribe may identify for this proposed project pursuant to the Idaho Department of Environmental Quality's State Environmental Review Process, which mirrors the National Environmental Policy Act.

The proposed project is located in Bingham County and consists of the following improvements within the existing wastewater treatment facility:

Table 1 – Summary of Proposed Improvements

Item	Description
Septage Receiving Station	New package septage receiving station
Mechanical Screening and Grit Removal	New Headworks, including flow measurement, sampling, two 6 mm mechanical fine screens, washer/compactors, and grit removal
	Headworks odor control system
Primary Clarification	No improvements are recommended at this time
Primary Solids Pumping	Retrofit existing pumping system; replace piping to the solids processing system
Gravity Thickener	Miscellaneous rehabilitation; cover gravity thickener
Intermediate Pump Station	Replacement or a major retrofit of the existing pump station
Bioselector	No improvements are recommended at this time
Aeration Basins, Blowers, and Diffused Aeration	Replace existing aeration distribution lines from the Blower Building to each aeration basin
	Add chemical addition for phosphorus removal
MLSS Distribution Box and Secondary Clarifier No. 3	New distribution box to accommodate four aeration basins and four secondary clarifiers. New 60'-diameter secondary clarifier (Secondary Clarifier No. 3).
Secondary Clarifier No. 4	New 60'-diameter secondary clarifier (Secondary Clarifier No. 4)
RAS/WAS Control	Add RAS return to Intermediate Pump Station; replace existing, failed valves; incorporate new clarifier(s)

Item	Description
	New RAS/WAS pump station
UV Disinfection System	Retrofit existing system with new low-pressure/high-output bulbs, ballasts, and controls
	New building, including HVAC, gantry crane, and related elements
Outfall	No improvements are recommended at this time
WAS Thickening	New thickening unit; piping modifications in the solids pumping room; new thickened solids pump; re-routing primary solids feed directly to the digester feed line
Solids Blend Tank	Inspection, concrete repair, and re-coating
Anaerobic Digesters	Add a transfer pump between the Thermophilic and Mesophilic Digesters
	Replace the Thermophilic Digester seal; add staircases and safety improvements to the Mesophilic Digesters; clean, re-coat, and replace mixing system and piping in Primary and Secondary Mesophilic Digesters
Digester Gas	Install a hoist system to aid removal of the iron sponge lid and replacement of the media; add a bladder-style gas storage vessel to equalize production and consumption
Mechanical Dewatering	Add a second screw press and polymer make-up unit; integrate cake conveyor controls; replace solids feed pump
Liquid Solids Storage	Add a return line from the Liquid Solids Storage tanks to the dewatering equipment feed pump

The proposed improvements will allow the city of Blackfoot to meet their National Pollutant Discharge System (NPDES) permit discharge limits and increase capacity for existing and future flows. Enclosed is a map of the proposed project planning area/area of potential effect (Figure 1) and a map of proposed project improvements (Figure 2) identifying the location of all construction activities.

We request that you advise us of any comments that you may have regarding this project within 30 days, so the City of Blackfoot can proceed with the completion of the Environmental Information Document.

If you have any questions concerning this proposed project or if you need any further information, please feel free to contact Ester Ceja, 208-373-0585, or via email at Ester.Ceja@deq.idaho.gov at your convenience.

Sincerely,

Ester Ceja
Sr. Water Quality Analyst

EC:ls

Encl: PPPA/APE map

c: Kassidie Lampe, J-U-B Engineers, (klampe@jub.com)

Kassidie Lampe

From: Ester.Ceja@deq.idaho.gov
Sent: Thursday, May 01, 2014 10:22 AM
To: Kassidie Lampe
Subject: Blackfoot WW Project - Tribal and USFWS Information
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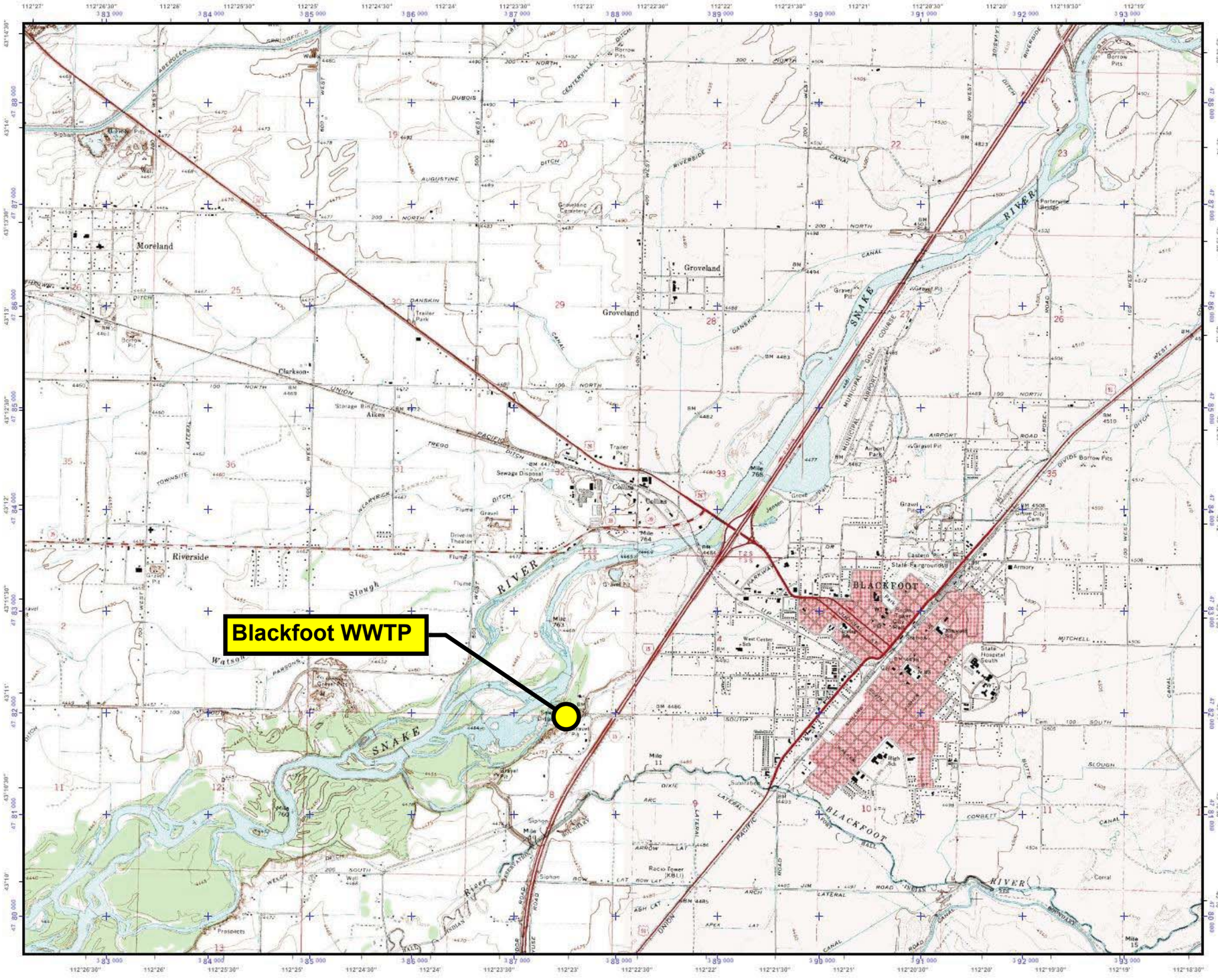
Let me know if you have any questions.

Thanks,
Ester Ceja

Appendix B

Affected Environment Figures

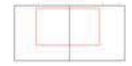
Topographic Map



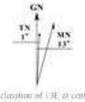
mytopo
A TRIMBLE COMPANY

Vicinity Map

Index Map



Date	Quad Name	(Contour Int)
1971	Blackfoot	20 FT
1991	Moreland	5 FT



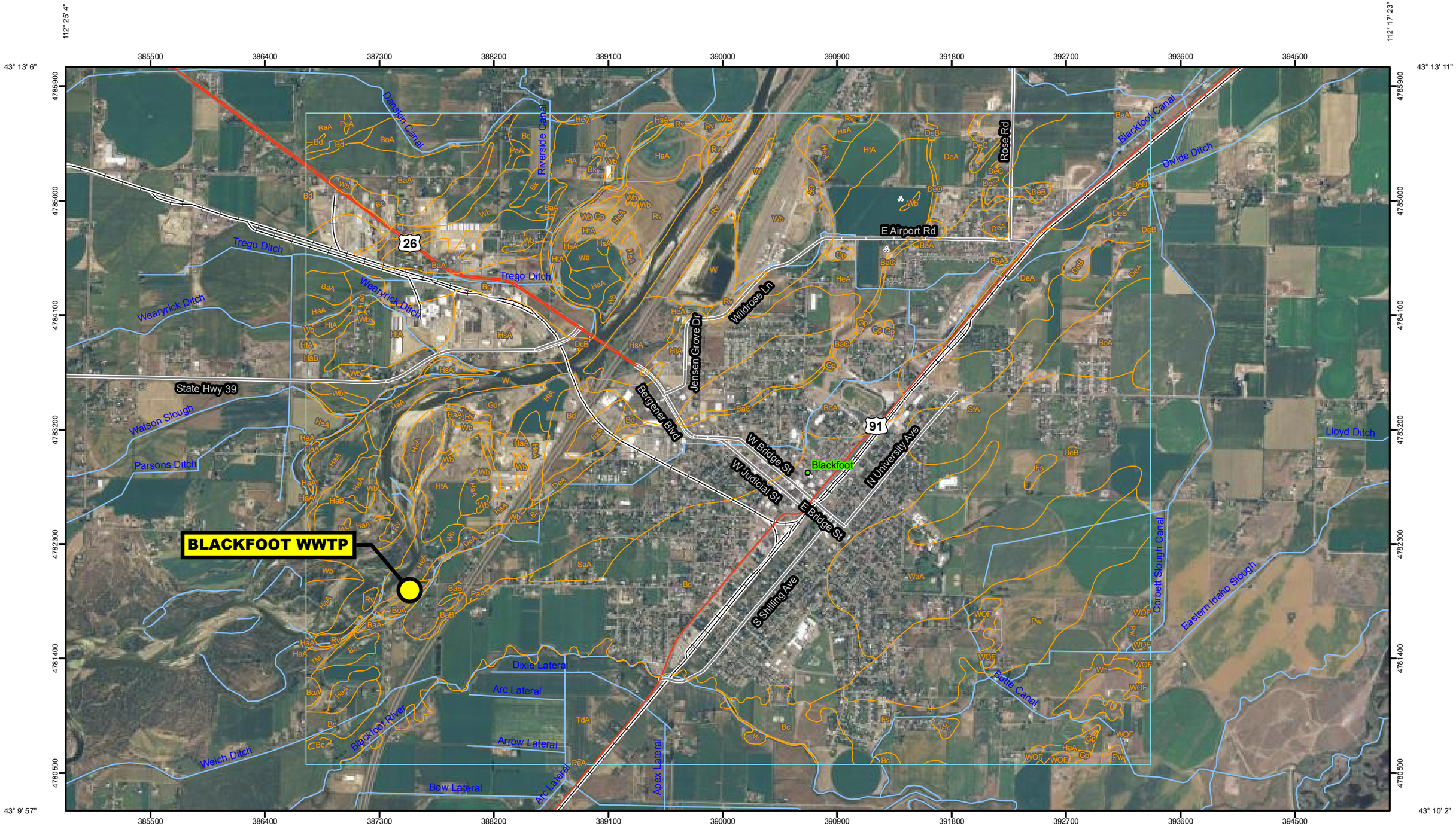
Magnetic declination of 13E at center of map on March 17, 2011

1:24000 scale

Universal Transverse Mercator (UTM) Projection Zone 12
North American Datum of 1983
1000 meter UTM / USNG / MGRS
Grid Zone Designation: 12T
100,000-m Square: UN

Soils Map

Soil Map—Bingham Area, Idaho; and Fort Hall Area, Idaho, Parts of Bannock, Bingham, Caribou, and Power Counties
(Blackfoot Area Soils Map)



Map Scale: 1:28,800 if printed on B size (11" x 17") sheet.

N

Meters	0	450	900	1,800	2,700
Feet	0	1,500	3,000	6,000	9,000

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Units

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

Special Line Features
- Gully
- Short Steep Slope
- Other

Political Features
- Cities

Water Features
- Streams and Canals

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

MAP INFORMATION

Map Scale: 1:28,800 if printed on B size (11" × 17") sheet.

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

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

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: UTM Zone 12N NAD83

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

Soil Survey Area: Bingham Area, Idaho
Survey Area Data: Version 10, Aug 21, 2012

Soil Survey Area: Fort Hall Area, Idaho, Parts of Bannock, Bingham, Caribou, and Power Counties
Survey Area Data: Version 7, Aug 14, 2012

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Date(s) aerial images were photographed: 7/12/2004

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

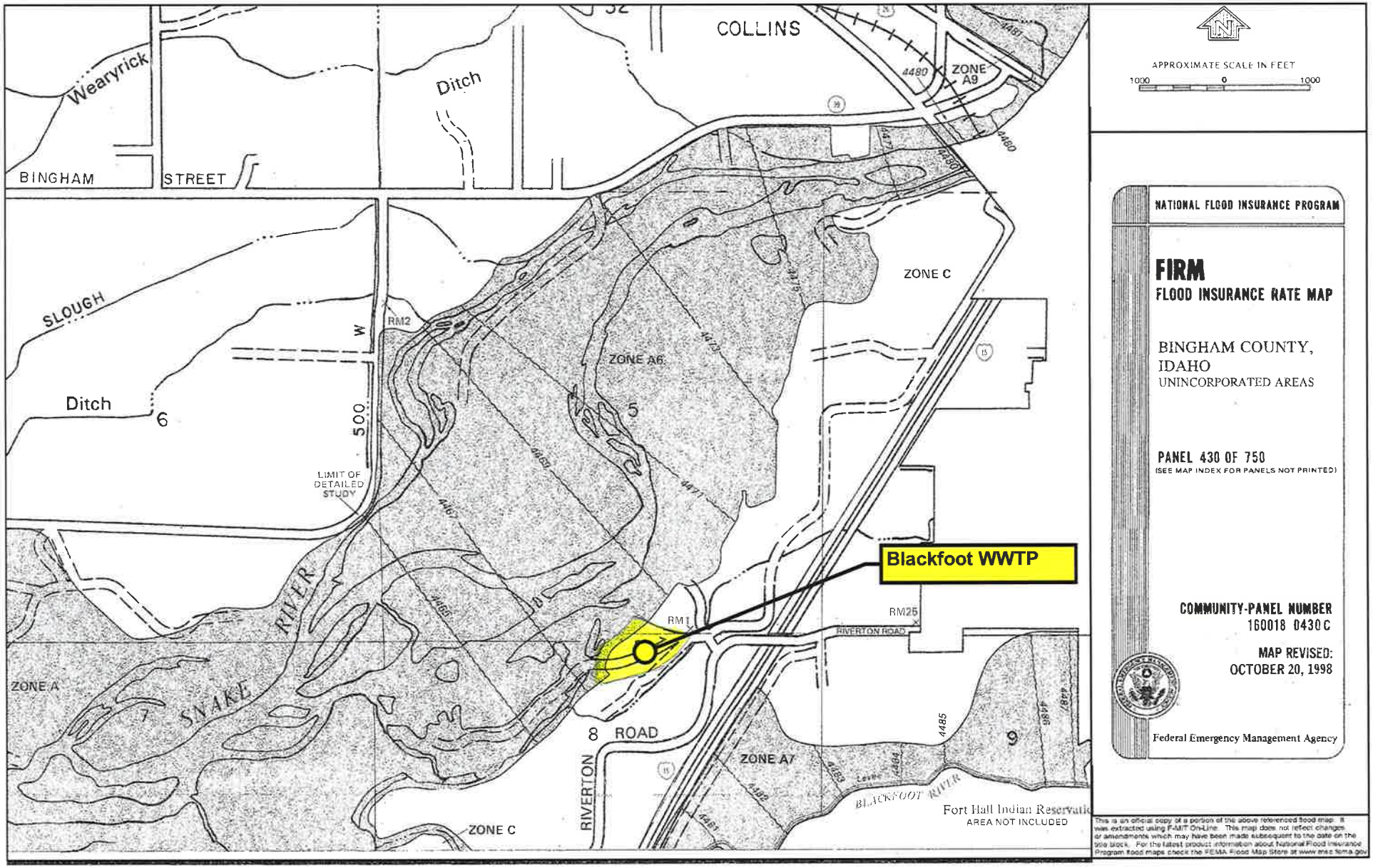
Map Unit Legend

Bingham Area, Idaho (ID770)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
BaA	Bannock loam, 0 to 2 percent slopes	340.8	4.1%
BaB	Bannock loam, 2 to 4 percent slopes	8.7	0.1%
BaC	Bannock loam, 4 to 8 percent slopes	22.7	0.3%
Bc	Blackfoot loam	379.6	4.5%
Bd	Blackfoot loam, drained	1,578.7	18.8%
Bk	Blackfoot silty clay loam	13.9	0.2%
BoA	Bock loam, 0 to 2 percnt slopes	1,113.8	13.3%
DcB	Declo fine sandy loam, 2 to 4 percent slopes	2.0	0.0%
DeA	Declo loam, 0 to 2 percent slopes	342.7	4.1%
DeB	Declo loam, 2 to 4 percent slopes	25.4	0.3%
DeC	Declo loam, 4 to 8 percent slopes	14.4	0.2%
DeD	Declo loam, 8 to 12 percent slopes	6.4	0.1%
Fs	Firth sandy loam, drained	381.0	4.5%
Gp	Gravel pit	55.0	0.7%
HaA	Hayeston sandy loam, 0 to 2 percent slopes	296.0	3.5%
HaB	Hayeston sandy loam, 2 to 4 percent slopes	15.7	0.2%
HeA	Hayeston loam, 0 to 2 percent slopes	485.1	5.8%
HsA	Heiseton sandy loam, 0 to 2 percent slopes	292.9	3.5%
HtA	Heiseton loam, 0 to 2 percent slopes	556.3	6.6%
PaA	Packham gravelly loam, 0 to 2 percent slopes	8.3	0.1%
Pw	Presto loamy sand	335.3	4.0%
Rv	Riverwash	196.0	2.3%
SaA	Sasser fine sandy loam, 0 to 2 percent slopes	37.3	0.4%
StA	Stan fine sandy loam, 0 to 2 percent slopes	161.6	1.9%
TM	Terrace escarpments	16.8	0.2%
W	Water	354.7	4.2%
WaA	Wapello fine sandy loam, 0 to 2 percent slopes	365.7	4.4%
Wb	Wardboro soils	348.8	4.2%
We	Weeding loamy sand	11.4	0.1%
WOF	Wolverine sand, rolling	103.1	1.2%
Subtotals for Soil Survey Area		**7,870.0**	**93.8%**
Totals for Area of Interest		**8,394.6**	**100.0%**

Fort Hall Area, Idaho, Parts of Bannock, Bingham, Caribou, and Power Counties (ID710)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
PeA	Paniogue loam, 0 to 2 percent slopes	0.7	0.0%

Fort Hall Area, Idaho, Parts of Bannock, Bingham, Caribou, and Power Counties (ID710)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
TdA	Tickason loam, 0 to 2 percent slopes	523.7	6.2%
Subtotals for Soil Survey Area		**524.5**	**6.2%**
Totals for Area of Interest		**8,394.6**	**100.0%**

Flood Map


COLLINS
Wearyrick
Ditch
BINGHAM
STREET
SLOUGH
Ditch
6
500
W
RM2
ZONE A6
ZONE C
5
LIMIT OF DETAILED STUDY
Blackfoot WWTP
RM1
RM25
RIVERTON ROAD
RIVER
SNAKE
ZONE A
8 ROAD
RIVERTON
ZONE A7
9
BLACKFOOT RIVER
Fort Hall Indian Reservation
AREA NOT INCLUDED
ZONE C
ZONE A9
4480
4481
4460
4467
4469
4471
4473
4475
4483
4484
4485
4486
4487
4492
APPROXIMATE SCALE IN FEET
1000
0
1000
NATIONAL FLOOD INSURANCE PROGRAM
FIRM
FLOOD INSURANCE RATE MAP
BINGHAM COUNTY, IDAHO
UNINCORPORATED AREAS
PANEL 430 OF 750
(SEE MAP INDEX FOR PANELS NOT PRINTED)
COMMUNITY-PANEL NUMBER
160018 0430 C
MAP REVISED:
OCTOBER 20, 1998
Federal Emergency Management Agency
This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps, check the FEMA Flood Map Store at www.msc.fema.gov

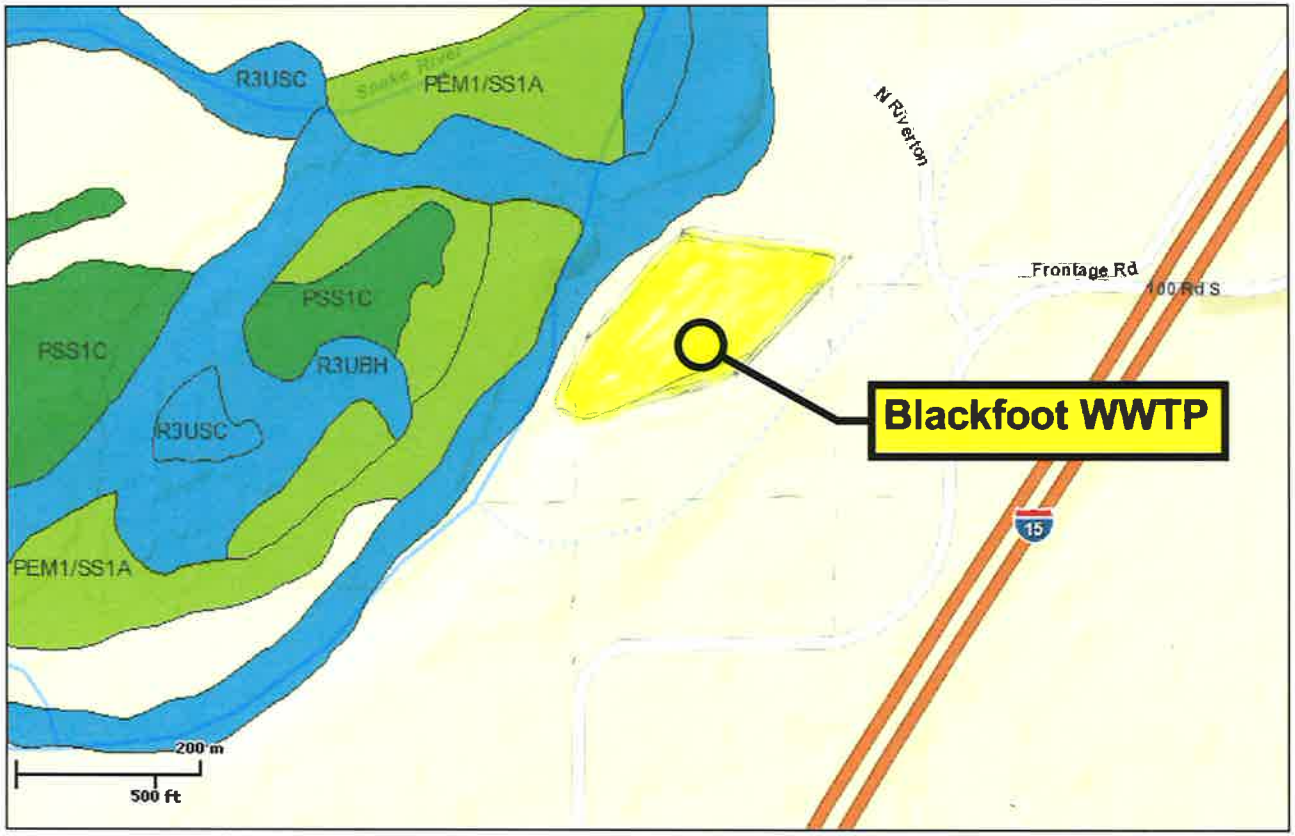
Wetlands Map

U.S. Fish and Wildlife Service

National Wetlands Inventory

BLACKFOOT WWTP AREA WETLANDS

Feb 28, 2013



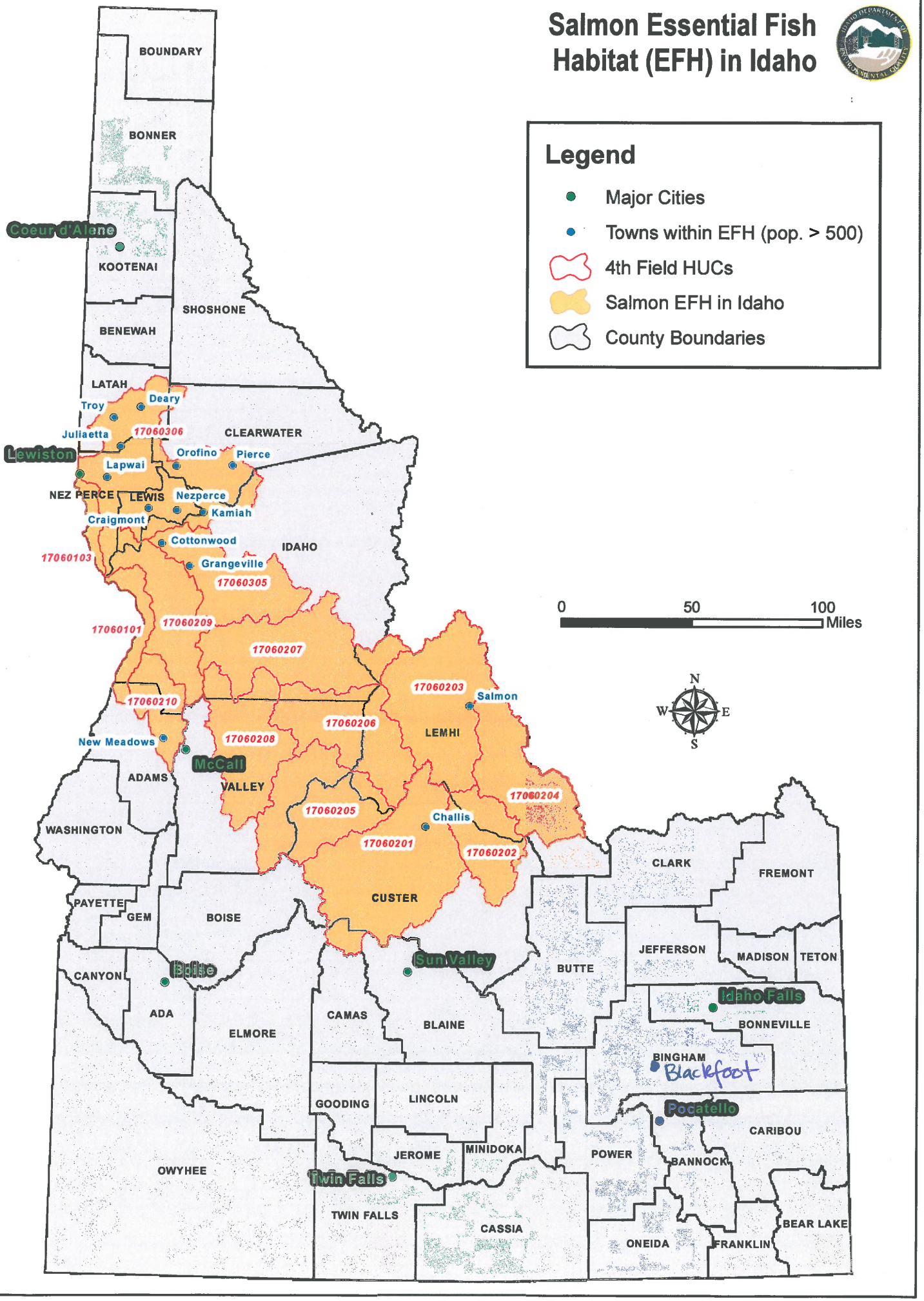
Wetlands

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

User Remarks:

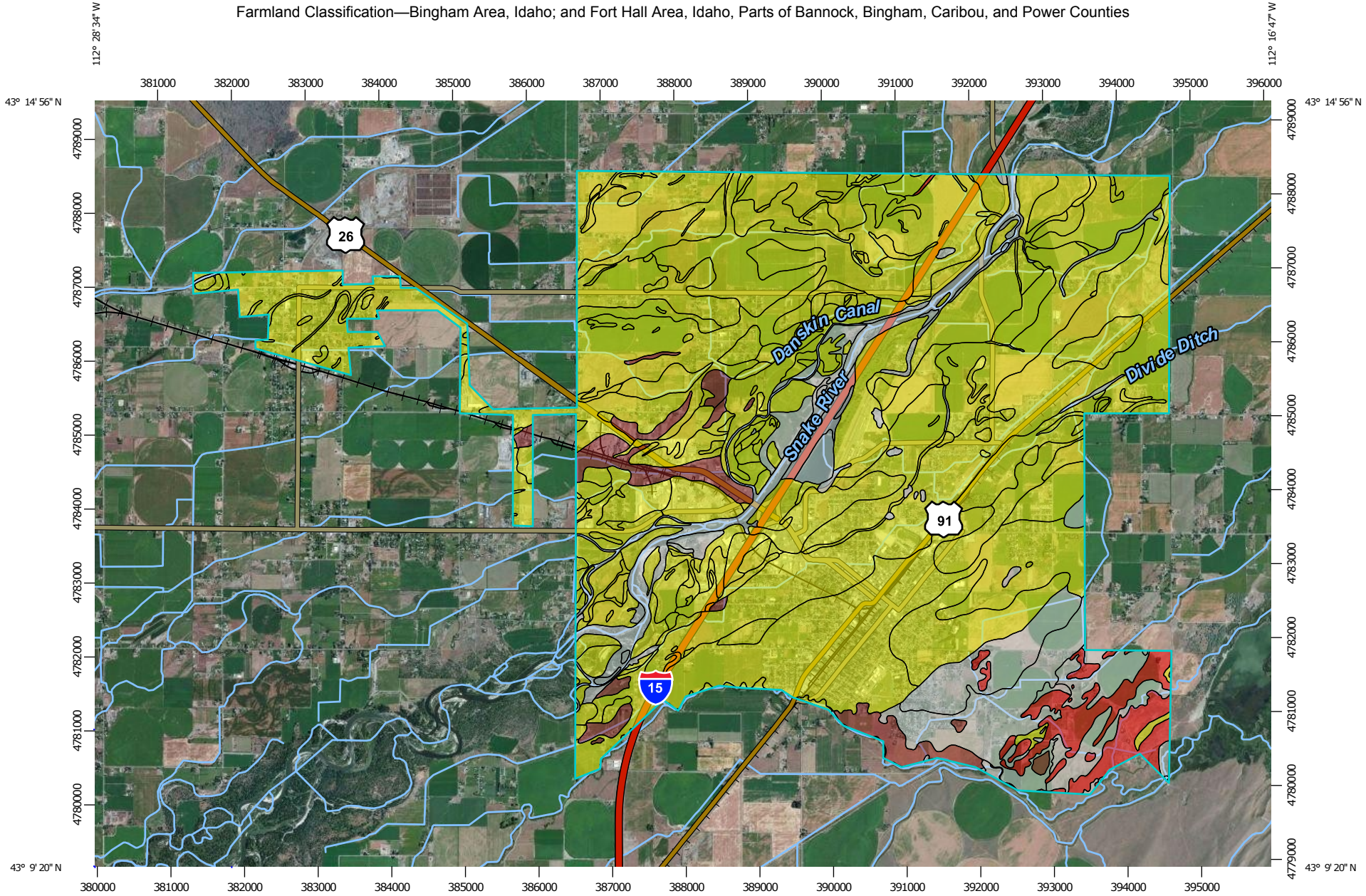
Essential Fish Habitat for Salmon Map

Salmon Essential Fish Habitat (EFH) in Idaho



Farmland Map

Farmland Classification—Bingham Area, Idaho; and Fort Hall Area, Idaho, Parts of Bannock, Bingham, Caribou, and Power Counties



MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of local importance
- Farmland of unique importance
- Not rated or not available

Soil Rating Lines

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of local importance
- Farmland of unique importance
- Not rated or not available

Soil Rating Points

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of local importance
- Farmland of unique importance
- Not rated or not available

Water Features

MAP INFORMATION

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

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

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

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

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

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

Soil Survey Area: Bingham Area, Idaho
Survey Area Data: Version 11, Dec 10, 2013

Soil Survey Area: Fort Hall Area, Idaho, Parts of Bannock, Bingham, Caribou, and Power Counties
Survey Area Data: Version 8, Dec 10, 2013

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

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

Date(s) aerial images were photographed: Jul 16, 2010—Sep 30, 2011

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

Farmland Classification

Farmland Classification— Summary by Map Unit — Bingham Area, Idaho (ID770)				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
BaA	Bannock loam, 0 to 2 percent slopes	Prime farmland if irrigated	1,451.0	9.5%
BaB	Bannock loam, 2 to 4 percent slopes	Prime farmland if irrigated	28.4	0.2%
BaC	Bannock loam, 4 to 8 percent slopes	Prime farmland if irrigated	27.5	0.2%
Bc	Blackfoot loam	Prime farmland if irrigated and drained	492.4	3.2%
Bd	Blackfoot loam, drained	Prime farmland if irrigated	1,627.1	10.7%
Bk	Blackfoot silty clay loam	Prime farmland if irrigated and drained	13.9	0.1%
BoA	Bock loam, 0 to 2 percnt slopes	Prime farmland if irrigated	2,464.7	16.2%
BoB	Bock loam, 2 to 4 percent slopes	Prime farmland if irrigated	11.0	0.1%
DcA	Declo fine sandy loam, 0 to 2 percent slopes	Prime farmland if irrigated	49.6	0.3%
DcB	Declo fine sandy loam, 2 to 4 percent slopes	Prime farmland if irrigated	10.8	0.1%
DcC	Declo fine sandy loam, 4 to 8 percent slopes	Prime farmland if irrigated	4.8	0.0%
DeA	Declo loam, 0 to 2 percent slopes	Prime farmland if irrigated	1,668.2	10.9%
DeB	Declo loam, 2 to 4 percent slopes	Prime farmland if irrigated	75.2	0.5%
DeC	Declo loam, 4 to 8 percent slopes	Prime farmland if irrigated	118.6	0.8%
DeD	Declo loam, 8 to 12 percent slopes	Farmland of statewide importance, if irrigated	21.9	0.1%
Fs	Firth sandy loam, drained	Farmland of statewide importance, if irrigated	493.7	3.2%
Gp	Gravel pit		55.3	0.4%
HaA	Hayeston sandy loam, 0 to 2 percent slopes	Prime farmland if irrigated	398.4	2.6%
HaB	Hayeston sandy loam, 2 to 4 percent slopes	Prime farmland if irrigated	20.1	0.1%
HeA	Hayeston loam, 0 to 2 percent slopes	Prime farmland if irrigated	593.7	3.9%
HsA	Heiseton sandy loam, 0 to 2 percent slopes	Prime farmland if irrigated	633.3	4.2%

Farmland Classification— Summary by Map Unit — Bingham Area, Idaho (ID770)				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
HsB	Heiseton sandy loam, 2 to 4 percent slopes	Prime farmland if irrigated	12.3	0.1%
HtA	Heiseton loam, 0 to 2 percent slopes	Prime farmland if irrigated	986.8	6.5%
MnB	Matheson fine sandy loam, 2 to 4 percent slopes	Prime farmland if irrigated	14.7	0.1%
PaA	Packham gravelly loam, 0 to 2 percent slopes	Prime farmland if irrigated	863.8	5.7%
PaB	Packham grvelly loam, 2 to 4 percent slopes	Prime farmland if irrigated	68.9	0.5%
PhD	Pancheri silt loam, 8 to 12 percent slopes	Not prime farmland	3.9	0.0%
Pw	Presto loamy sand	Farmland of statewide importance, if irrigated	568.3	3.7%
Rv	Riverwash		270.5	1.8%
SaA	Sasser fine sandy loam, 0 to 2 percent slopes	Prime farmland if irrigated	43.2	0.3%
StA	Stan fine sandy loam, 0 to 2 percent slopes	Prime farmland if irrigated	162.8	1.1%
TM	Terrace escarpments		51.9	0.3%
W	Water		526.6	3.5%
WaA	Wapello fine sandy loam, 0 to 2 percent slopes	Prime farmland if irrigated	365.7	2.4%
Wb	Wardboro soils	Prime farmland if irrigated	567.6	3.7%
We	Weeding loamy sand	Farmland of statewide importance, if irrigated and drained	12.3	0.1%
WOF	Wolverine sand, rolling	Not prime farmland	442.2	2.9%
Subtotals for Soil Survey Area			**15,221.1**	**99.8%**
Totals for Area of Interest			**15,251.8**	**100.0%**

Farmland Classification— Summary by Map Unit — Fort Hall Area, Idaho, Parts of Bannock, Bingham, Caribou, and Power Counties (ID710)				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
FeB	Feltham loamy sand, 4 to 8 percent slopes	Farmland of statewide importance, if irrigated	10.3	0.1%
FLF	Feltham loamy sand, undulating	Farmland of statewide importance, if irrigated	0.0	0.0%
QnC	Quincy sand, 4 to 8 percent slopes	Not prime farmland	0.3	0.0%
TdA	Tickason loam, 0 to 2 percent slopes	Prime farmland if irrigated	19.3	0.1%
W	Water		0.7	0.0%

Farmland Classification— Summary by Map Unit — Fort Hall Area, Idaho, Parts of Bannock, Bingham, Caribou, and Power Counties (ID710)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Subtotals for Soil Survey Area			**30.7**	**0.2%**
Totals for Area of Interest			**15,251.8**	**100.0%**

Description

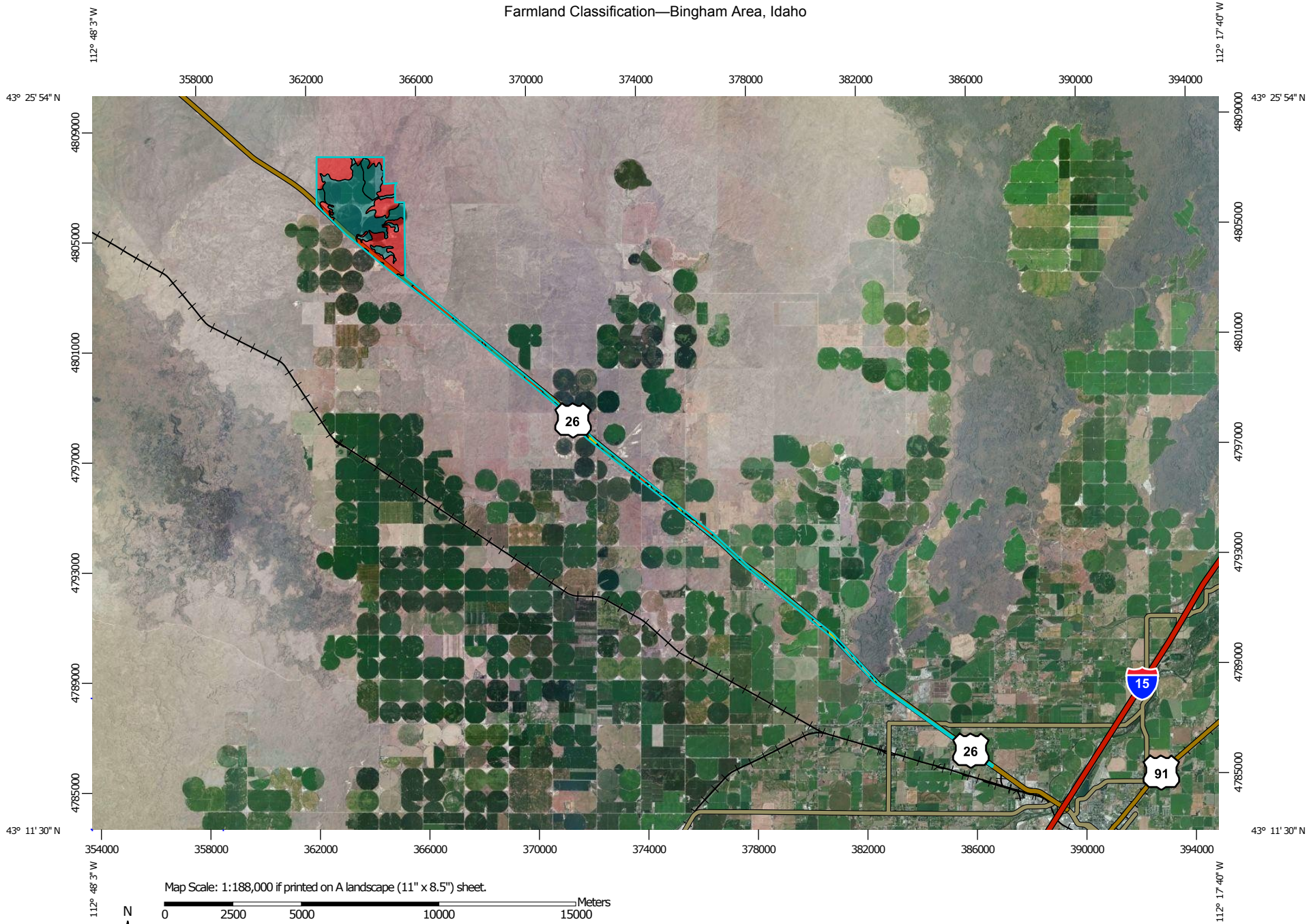
Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

Rating Options

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower

Farmland Classification—Bingham Area, Idaho



MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of local importance
- Farmland of unique importance
- Not rated or not available

Soil Rating Lines

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of local importance
- Farmland of unique importance
- Not rated or not available

Soil Rating Points

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of local importance
- Farmland of unique importance
- Not rated or not available

Water Features

MAP INFORMATION

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

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

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

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

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

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

Soil Survey Area: Bingham Area, Idaho
Survey Area Data: Version 11, Dec 10, 2013

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

Date(s) aerial images were photographed: Jul 16, 2010—Sep 30, 2011

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

Farmland Classification

Farmland Classification— Summary by Map Unit — Bingham Area, Idaho (ID770)				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
BaA	Bannock loam, 0 to 2 percent slopes	Prime farmland if irrigated	6.0	0.2%
Bd	Blackfoot loam, drained	Prime farmland if irrigated	0.2	0.0%
BoA	Bock loam, 0 to 2 percnt slopes	Prime farmland if irrigated	18.5	0.6%
DeA	Declo loam, 0 to 2 percent slopes	Prime farmland if irrigated	2.3	0.1%
Gp	Gravel pit		0.3	0.0%
Km	Kimama silt loam	Prime farmland if irrigated	13.5	0.4%
LS	Lava flows		32.3	1.0%
LT	Lava rock land		25.8	0.8%
PaA	Packham gravelly loam, 0 to 2 percent slopes	Prime farmland if irrigated	58.9	1.9%
PaB	Packham grvelly loam, 2 to 4 percent slopes	Prime farmland if irrigated	5.0	0.2%
PCD	Polatis-Tenno complex, undulating	Not prime farmland	1,136.0	36.7%
PhA	Pancheri silt loam, 0 to 2 percent slopes	Prime farmland if irrigated and reclaimed of excess salts and sodium	1,053.7	34.0%
PhB	Pancheri silt loam, 2 to 4 percent slopes	Prime farmland if irrigated and reclaimed of excess salts and sodium	640.4	20.7%
PhC	Pancheri silt loam, 4 to 8 percent slopes	Farmland of statewide importance, if irrigated	6.6	0.2%
PoA	Polatis silt loam, 0 to 2 percent slopes	Prime farmland if irrigated	0.1	0.0%
PoB	Polatis silt loam, 2 to 4 percent slopes	Prime farmland if irrigated	63.9	2.1%
PoC	Polatis silt loam, 4 to 8 percent slopes	Farmland of statewide importance, if irrigated	3.8	0.1%
PrB	Polatis silt loam, 2 to 4 percent slopes, stony	Not prime farmland	4.5	0.1%
TdB	Tenno loam 0 to 4 percent slopes, stony	Not prime farmland	0.0	0.0%
TdC	Tenno loam, 4 to 8 percent slopes, stony	Not prime farmland	0.8	0.0%
TED	Tenno loam, undulating, extremely stony	Not prime farmland	24.8	0.8%

Farmland Classification— Summary by Map Unit — Bingham Area, Idaho (ID770)				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
W	Water		0.8	0.0%
Totals for Area of Interest			**3,098.2**	**100.0%**

Description

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

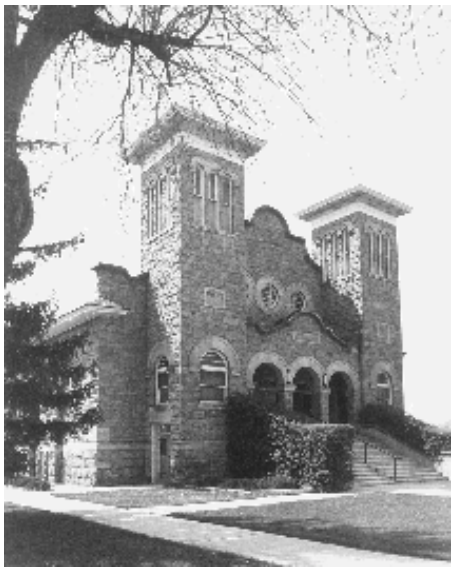
Rating Options

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower

National Register of Historic Places & Addendum to Listings

The National Register of Historic Places in Idaho



Compiled by Belinda Davis and Ann Swanson

Idaho State Historical Society

Mission statement

To educate through the identification, preservation, and interpretation of Idaho's cultural heritage.

Vision statement of purpose

The Idaho State Historical Society (ISHS) acts on behalf of the citizens of the state to facilitate and assure the protection of Idaho's cultural heritage. The ISHS maintains access to documents, artifacts, and sites that can be used by the public for their benefit and appreciation. The ISHS identifies, documents, collects, conserves, interprets, and maintains historic and prehistoric resources. Access to these resources is provided through public outreach, publications, technical assistance, exhibits, and the encouragement of local, state and regional efforts to preserve history. The ISHS undertakes and promotes these activities through its goals and policies in accordance with the powers and duties assigned to it.

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The Idaho State Historic Preservation Office (SHPO) was established under the auspices of the National Historic Preservation Act of 1966. A division of the Idaho State Historical Society, the SHPO is the lead historic preservation agency in Idaho and undertakes identification, evaluation, recognition, and protection of Idaho's historic resources.

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This booklet has been financed, in part, with federal funds from the National Park Service, U.S. Department of the Interior, administered by the Idaho State Historical Society. However, the contents and opinions do not necessarily reflect the views or policies of the Department of the Interior.

Introduction

The purpose of this booklet is to define briefly the National Register of Historic Places program and to provide a guide to Idaho properties listed in the Register. It is hoped this publication will stimulate the user's curiosity to seek more information about these and other important sites in Idaho's history. More detailed information regarding each property can be obtained by contacting the Idaho State Historical Society, State Historic Preservation Office (SHPO).

The information in this booklet is complete as of September 1, 1997. Updates are available from the National Register coordinator, Idaho SHPO, phone: (208)334-3861 or FAX: (208)334-2775.

Remember, most of the properties listed are privately owned and are not open to the public. Please respect the occupant's right to privacy when viewing historic properties.

The National Register of Historic Places

The National Register of Historic Places is the official list of the nation's cultural resources deemed worthy of preservation. Authorized under the National Historic Preservation Act of 1966, the National Register is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect our historic resources. The National Register is maintained by the National Park Service under the Secretary of the Interior. In Idaho, it is administered by the SHPO.

Properties listed in the National Register include districts (Chinese Sites in the Warren Mining District), sites (Pierre's Hole 1832 Battle Area Site), buildings (Josiah Scott House), structures (Diversion Dam and Deer Flat Embankments), and objects (Treaty Rock) that are significant in American history, architecture, archaeology, engineering, and culture. These resources contribute to an understanding of the historical and cultural foundation of the nation.

Listing in the National Register has the following results which assist in preserving historic properties:

- Recognition that a property is of significance to the nation, the state, or the community.
- Consideration in the planning for federal or federally assisted projects.
- Eligibility for federal tax benefits.
- Consideration in the decision to issue a surface coal mining permit.
- Qualification for federal assistance for historic preservation, when funds are available.

Listing in the National Register does not restrict the rights of private property owners to alter, manage, or dispose of property.

"In every community, every county, there are certain buildings, certain neighborhoods, open spaces, which traditionally have had special meaning for local residents and which proclaim to all comers the unique character and heritage of that particular place."

—from Mavis Bryant, *Zoning for Community Preservation*

"...the historical and cultural foundations of the Nation should be preserved as a living part of our community life and development in order to give a sense of orientation to the American people;"

—The National Historic Preservation Act as amended

How to use this booklet

This booklet is organized alphabetically, first by county, then by city or town in or near which the property is located, and finally by property name. Listed below the property name is the National Register Information System (NRIS) reference number followed by the street address or other locational information. In the case of districts, boundary descriptions are provided. Properties located within districts are not listed individually. Due to their sensitive nature, specific locations of archaeological sites are omitted. The date of listing in the National Register is indicated next by year, month, and day. In many cases, a property is included as part of a larger group nomination of related significant properties. These property listings are followed by the name of the corresponding multiple property nomination.

Multiple Property Listings

MPS—Multiple Property Submission
- Chinese Sites in the Warren Mining District MPS
- County Courthouses in Idaho MPS
- New Sweden and Riverview Farmsteads and Institutional Buildings MPS
- Public School Buildings in Idaho MPS
- U.S. Post Offices in Idaho 1900-1941 MPS
- Pegram Truss Railroad Bridges of Idaho MPS

TR—Thematic Resource (This format has been replaced by the MPS.)
- Boise Public Schools TR
- Buhl Dairy Barns TR
- Early Churches of Emmett TR
- Kootenai County Rural Schools TR
- Lava Rock Structures in South Central Idaho TR
- Long Valley Finnish Structures TR
- North Idaho 1910 Fire Sites TR
- Tourtellotte and Hummel Architecture TR

MRA—Multiple Resource Area (This format has been replaced by the MPS.)
- Challis MRA
- Idaho Falls Downtown MRA
- Paris MRA
- Potlatch MRA

NPNHP—Nez Perce National Historical Park
- Camas Meadows Camp and Battle Sites [Clark County]
- Pierce Courthouse [Clearwater County]
- Lolo Trail [Clearwater County]
- Weippe Prairie [Clearwater County]
- White Bird Battlefield [Idaho County]
- St. Joseph's Mission [Lewis County]
- Lenore Site [Nez Perce County]
- Hasotino [Nez Perce County]

National Historic Landmarks (NHL)
National Historic Landmark properties have significance at the national level and are designated as such by the Secretary of the Interior. In Idaho, there are eleven National Historic Landmarks.

- U.S. Assay Office [Ada County]
- Fort Hall [Bannock County]
- Wasden Site (Owl Cave) [Bonneville County]
- Experimental Breeder Reactor No. 1 [Butte County]
- City of Rocks [Cassia County]
- Camas Meadows Camp and Battle Sites [Clark County]
- Lolo Trail [Clearwater County]
- Weippe Prairie [Clearwater County]
- Bear River Battleground [Franklin County]
- Cataldo Mission [Kootenai County]
- Lemhi Pass [Lemhi County]

National Register criteria

Properties nominated to the Register are generally 50 years old or older and are significant in relation to one or more of the following criteria. Criteria is defined as the quality of significance in American history, architecture, archaeology, engineering, and culture present in properties that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

A. That are associated with events that have made a significant contribution to the broad patterns of our history; or
B. That are associated with the lives of persons significant in our past; or
C. That embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
D. That have yielded, or may be likely to yield, information important in prehistory or history.

Ordinarily cemeteries, birthplaces, or graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered eligible for the National Register. However, such properties will qualify if they are integral parts of districts that do meet the criteria or if they fall within the following categories:

A. A religious property deriving primary significance from architecture or artistic distinction or historic importance; or
B. A building or structure removed from its original location but which is significant primarily for architectural value, or which is the surviving structure most importantly associated with a historic person or event; or
C. A birthplace or grave of a historical figure of outstanding importance if there is no other appropriate site or building directly associated with his or her productive life; or

"A knowledge of our heritage provides continuity and context for communities and orients them in their decision making."

—from Kathleen A. Hunter, *Past Meets Future*

D. A cemetery which derives its primary significance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events; or
E. A reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived; or
F. A property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own historical significance; or
G. A property achieving significance within the past 50 years if it is of exceptional importance.

"These special places reveal every aspect of our country's origins and development—our land, houses, workplaces, parks, roadways, waterways, places of worship, and objects of art."

—from *A Heritage So Rich*

Historic integrity

Historic integrity is the authenticity of a property's historic identity, evidenced by the survival of physical characteristics that existed during the property's period of significance.

Historic integrity is the composite of seven qualities: location, design, setting, materials, workmanship, feeling, association.

Historic integrity enables a property to illustrate significant aspects of its past. For this reason, it is an important qualification for National Register listing. A property not only must retain its historic appearance but also must possess its physical materials, design features, and aspects of construction dating from the period when it attained significance. The integrity of archaeological resources is generally based on the degree to which remaining evidence can provide important information. All seven qualities do not need to be present for eligibility as long as the overall sense of past time and place is evident.

The National Register nomination process

The SHPO administers the National Register of Historic Places program in Idaho and processes nominations to the National Register of Historic Places. Properties nominated to the Register are reviewed by the Idaho Historic Sites Review Board which meets periodically throughout the year. The Review Board is a volunteer group of Idaho residents who have demonstrated a competence, interest, or knowledge in historic preservation. Their recommendations are reviewed by the SHPO. Finally, nominations are forwarded to the Keeper of the Register (National Park Service) for official listing.

Anyone may prepare a nomination for listing a property in the Register. Generally, nominations are prepared by private property owners, other interested individuals, local organizations or governments, and state or federal agencies at all levels. Instructions for completing a nomination are available from the SHPO.

Listings

ADA COUNTY

BOISE

Abbs, Walter, House
82000175
915 Fort St., Boise
821117
Tourtellotte and Hummel Architecture TR

Ada Odd Fellows Temple
82000176
109-115 1/2 N. 9th St., Boise
821117
Tourtellotte and Hummel Architecture TR

Ada (Egyptian) Theater
74000724
700 Main St., Boise
741121

Alexander House
72000431
304 State St., Boise
720807

Alexanders
78001029
9th and Main Sts., Boise
781120

Allsup, Marion, House
82000178
1601 N. 10th, Boise
821117
Tourtellotte and Hummel Architecture TR

Artesian Water Co. Pumphouse and Wells
79000763
Off ID 21, Boise
790726

Assay Office
66000305
210 Main St., Boise
661015 (NHL)

Barber Dam and Lumber Mill
78001037
E of Boise, Boise
781121

Beck, Albert, House
82000179
1101 Fort St., Boise
821117
Tourtellotte and Hummel Architecture TR

Boise Capitol Area District
76000663
Roughly bounded by 6th and Bannock, N. 8th, State, 5th and Jefferson Sts., Boise
760512

Boise City National Bank
78001030
8th and Idaho Sts., Boise
781128

Boise High School Campus
82000180
Washington St. between 9th and 11th Sts., Boise
821117
Tourtellotte and Hummel Architecture TR

Boise Historic District
77000448
5th and 6th Sts., both sides of Idaho and Main Sts., Boise
771109

Boise Junior College Administration Building
82000181
Boise State University campus, Boise
821117
Tourtellotte and Hummel Architecture TR

Boise (North) Junior High School
82000186
1105 N. 13th St., Boise
821117
Tourtellotte and Hummel Architecture TR

Bown, Joseph, House
79000768
2020 E. Victory Rd., Boise
790618

Brunzell House
82000182
916 Franklin St., Boise
821117
Tourtellotte and Hummel Architecture TR

*In 1863 the U.S. Army established **Fort Boise** (Ada County) in response to Indian hostility towards Oregon Trail emigrants. Some of Idaho's oldest buildings remain at the mililtary post (now a U.S. Veterans Administration Hospital) including this 1864 officers' dwelling. (1994; ISHS 1997.21.1.)*

Bryant, H. H., Garage
82000184
11th and Front Sts., Boise
821117
Tourtellotte and Hummel Architecture TR

Burnett, H. C., House
82000183
124 W. Bannock St., Boise
821117
Tourtellotte and Hummel Architecture TR

Capitol Boulevard Memorial Bridge
90001717
Capitol Blvd. over the Boise R., Boise
901105

Carnegie Public Library
74000725
815 Washington St., Boise
741121

Cavanah, C. C., House
82000185
107 E. Idaho St., Boise
821117
Tourtellotte and Hummel Architecture TR

Chinese Odd Fellows Building
82000187
610-612 Front St., Boise
821117
Tourtellotte and Hummel Architecture TR

Christ Chapel
74000726
Broadway at Campus Dr., Boise
740717

Christian Church
78001031
9th and Franklin Sts., Boise
780217

Coffin, Henry, House
82000188
1403 Franklin St., Boise
821117
Tourtellotte and Hummel Architecture TR

Cole School and Gymnasium
82000189
7145 Fairview Ave., Boise
821108
Boise Public Schools TR

Collister School
82000190
4426 Catalpa Dr., Boise
821108
Boise Public Schools TR

Congregation Beth Israel Synagogue
72000432
1102 State St., Boise
721103

Daly, John, House
82000191
1015 W. Hays St., Boise
821117
Tourtellotte and Hummel Architecture TR

Davies, Dr. James, House
82000192
1107 W. Washington St., Boise
821117
Tourtellotte and Hummel Architecture TR

Davis, R. K., House
82000193
1016 Franklin St., Boise
821117
Tourtellotte and Hummel Architecture TR

Diversion Dam and Deer Flat Embankments
76000666
SE of Boise on Boise River, Boise
760315

Dry Creek Rockshelter
91001719
Address Restricted, Boise
911122

Dunbar, William, House
82000195
1500 W. Hays St., Boise
821117
Tourtellotte and Hummel Architecture TR

Dunton, Minnie Priest, House
82000194
906 Hays St., Boise
821117
Tourtellotte and Hummel Architecture TR

Echevarria, Pedro, House
82000196
5605 State St., Boise
821117
Tourtellotte and Hummel Architecture TR

Eichelberger Apartments
82000197
612-24 N. 9th St., Boise
821117
Tourtellotte and Hummel Architecture TR

Elks Temple
78001032
310 Jefferson St., Boise
780217

Fleharty, Alva, House
82000198
907 Hays St., Boise
821117
Tourtellotte and Hummel Architecture TR

Fort Boise
72000433
About 1.5 mi. NE of State Capitol, Boise
721109

Fort Street Historic District
82000199
Roughly bounded by Fort, State, 6th, and 16th Sts., Boise
821112

Franklin School
82000200
5007 Franklin Rd., Boise
821108
Boise Public Schools TR

Friedline Apartments
82000201
1312-1326 State St., Boise
821029

Fritchman, H. K., House
82000202
1207 W. Hays St., Boise
821117
Tourtellotte and Hummel Architecture TR

Funsten, Bishop, House
83000256
2420 Old Penitentiary Rd., Boise
830103
Tourtellotte and Hummel Architecture TR

GAR Hall
74000727
714 W. State St., Boise
740121

Gakey, J. H., House
82000203
1402 Franklin St., Boise
821117
Tourtellotte and Hummel Architecture TR

Garfield School
82000204
1914 Broadway Ave., Boise
821108
Boise Public Schools TR

Goreczky, Anton, House
86000438
1601 N. 7th St., Boise
860320

Green, John, Mausoleum
82000205
Morris Hill Cemetery, Boise
821117
Tourtellotte and Hummel Architecture TR

Guernsey Dairy Milk Depot
82000206
2419 State St., Boise
821117
Tourtellotte and Hummel Architecture TR

Haines, John, House
82000207
919 W. Hays St., Boise
821117
Tourtellotte and Hummel Architecture TR

Harrison Boulevard Historic District
80001286
An irregular pattern along Harrison Blvd., Boise
800229

Hays, Samuel, House
82000208
612 Franklin St., Boise
821117
Tourtellotte and Hummel Architecture TR

Hopffgarten House
79000764
1115 W. Boise Ave., Boise
790830

Hottes, Fred, House
82000209
509 W. Hays St., Boise
821117
Tourtellotte and Hummel Architecture TR

Hyde Park Historic District
82000211
Both sides of N. 13th St. between Alturas and Brumback Sts., Boise
821029

Idaho Building
78001033
Bannock and 8th Sts., Boise
781208

Idaho State Forester's Building
96001591
801 S. Capitol Blvd., Boise
970116

Idanha Hotel
74000728
10th and Main Sts., Boise
740709

Immanuel Evangelical Lutheran Church
76000664
707 W. Fort St., Boise
760617

Immanuel Methodist Episcopal Church
82000212
1406 Eastman, Boise
821117
Tourtellotte and Hummel Architecture TR

*The **Hells Canyon Archaeological District** (Adams County) is situated in the seventy-mile long Hells Canyon National Recreation Area. This dramatic vertical landscape is the location of over 7,000 years of occupation. (1976; ISHS 1997.21.2.)*

Jacobs, Cyrus, House
72000434
607 Grove St., Boise
721127

Jefferson, W. E., House
82000214
1117 N. 8th St., Boise
821117
Tourtellotte and Hummel Architecture TR

Johnson, J. M., House
82000215
1002 Franklin, Boise
821117
Tourtellotte and Hummel Architecture TR

Jones, T. J., Apartments
82000216
10th St. and Fort, Boise
821117
Tourtellotte and Hummel Architecture TR

Kieldson Double House
82000217
413-415 Jefferson St., Boise
821117
Tourtellotte and Hummel Architecture TR

Kinney, Joseph, Mausoleum
82000218
Morris Hill Cemetery, Boise
821117
Tourtellotte and Hummel Architecture TR

Logan, Thomas E., House
71000289
602 N. Julia Davis Dr., Boise
710922

Longfellow School
82000219
1511 N. 9th St., Boise
821108
Boise Public Schools TR

Lowell School
82000220
1507 N. 22nd St., Boise
821108
Boise Public Schools TR

Lower Main Street Commercial Historic District
80001290
Main St. between 10th and 12th Sts., Boise
801128

MacMillan Chapel
84000989
W of Boise, Boise
840907

Marks, M. J., House
82000221
1001 Hays St., Boise
821117
Tourtellotte and Hummel Architecture TR

McCarthy, Judge Charles P., House
79000765
1415 Fort St., Boise
790830

McElroy, H. E., House
82000222
924 W. Fort St., Boise
821117
Tourtellotte and Hummel Architecture TR

Mickle, Willis, House
82000224
1415 N. 8th St., Boise
821117
Tourtellotte and Hummel Architecture TR

Mitchell Hotel
82000225
10th and Front Sts., Boise
821117
Tourtellotte and Hummel Architecture TR

Moore-Cunningham House
77000449
1109 Warm Springs Ave., Boise
770429

Morris Hill Cemetery Mausoleum
82000226
Morris Hill Cemetery, Boise
821117
Tourtellotte and Hummel Architecture TR

Murphy, Daniel F., House
82002504
1608 N. 9th St., Boise
820517

Neal, W. Scott, House
82000228
215 E. Jefferson, Boise
821117
Tourtellotte and Hummel Architecture TR

Neitzel, H. R., House
82000229
705 N. 9th St., Boise
821117
Tourtellotte and Hummel Architecture TR

Nixon, Axel, House
82000230
815 N. Hays St., Boise
821117
Tourtellotte and Hummel Architecture TR

O'Farrell, John A., House
79000766
420 W. Franklin St, Boise
790904

Old Idaho State Penitentiary
74000729
2200 Warm Springs Ave., Boise
740717

Oregon Trail
72000435
2 mi. SE of Boise and continuing SE for 8 mi., Boise
721018

Parker, John, House
82000231
713 Franklin St., Boise
821117
Tourtellotte and Hummel Architecture TR

Paynton, Charles, House
82000232
1213 N. 8th St., Boise
821117
Tourtellotte and Hummel Architecture TR

Pierce Park School
82000233
5015 Pierce Park Lane, Boise
821108
Boise Public Schools TR

Regan, John, American Legion Hall
82000234
401 W. Idaho St., Boise
821117
Tourtellotte and Hummel Architecture TR

Reiger, Fred, Houses
82000235
214 and 216-18 E. Jefferson St., Boise
821117
Tourtellotte and Hummel Architecture TR

Roosevelt School
82000236
908 E. Jefferson St., Boise
821108
Boise Public Schools TR

Rosedale Odd Fellows Temple
82000237
1755 Broadway, Boise
821117
Tourtellotte and Hummel Architecture TR

Rossi, Mrs. A. F., House
82000238
1711 Boise Ave., Boise
821117
Tourtellotte and Hummel Architecture TR

Schmelzel, H. A., House
82000239
615 W. Hays St., Boise
821117
Tourtellotte and Hummel Architecture TR

Schreiber, Adolph, House
82000240
524 W. Franklin St., Boise
821117
Tourtellotte and Hummel Architecture TR

Sensenig, Emerson and Lucretia, House
96001590
1519 W. Jefferson St., Boise
970116

Sidenfaden, William, House
82000241
906 Franklin St., Boise
821117
Tourtellotte and Hummel Architecture TR

Simpson, W. A., House
82000242
1004 N. 10th St., Boise
821117
Tourtellotte and Hummel Architecture TR

Smith, Nathan, House
83000258
Broadway and Targhee, Boise
830103
Tourtellotte and Hummel Architecture TR

South Boise Fire Station
82000243
1011 Williams St., Boise
821117
Tourtellotte and Hummel Architecture TR

South Eighth Street Historic District
77000450
Roughly bounded by 8th, 9th, Miller, and Broad Sts., Boise
771212

Spaulding, Almon W. and Dr. Mary E., Ranch
94001363
3805 N. Cole Road, Boise
941125

St. Paul Missionary Baptist Church
82000247
124 Broadway Ave., Boise
821029

Rebuilt in 1938-39 in the Art Deco style, Pocatello High School was funded as a Public Works Administration project. Notable Idaho architect Frank H. Paradice remodeled and expanded the original 1900 sandstone structure which had been partially damaged in a fire. The property is included in the ***Pocatello Historic District*** *(Bannock County). (1977; ISHS 77-5.134/b.)*

St. Alphonsus' Hospital Nurses' Home and Heating Plant/Laundry
82000244
N. 4th St. between Washington and State Sts., Boise
821117
Tourtellotte and Hummel Architecture TR

St. John's Cathedral
78001035
8th and Hays Sts., Boise
780524
Tourtellotte and Hummel Architecture TR (AD)

St. John's Cathedral Block
82000245
8th and Hays, 9th and Fort Sts., Boise
821117
Tourtellotte and Hummel Architecture TR

St. Mary's Catholic Church
82000246
State and 26th Sts., Boise
821117
Tourtellotte and Hummel Architecture TR

State Street Historic District
78001036
Jefferson, 2nd and 3rd Sts., Boise
781215

Stephan, Louis, House
82000248
1709 N. 18th St., Boise
821117
Tourtellotte and Hummel Architecture TR

Tourtellotte, John, Building
82000249
210-222 N. 10th St., Boise
821117
Tourtellotte and Hummel Architecture TR

Tuttle, Bishop Daniel S., House
80001291
512 N. 8th St., Boise
801204

Union Block and Montandon Buildings
79000767
8th and Idaho Sts., Boise
790307

Union Pacific Mainline Depot
74000730
1701 Eastover Ter., Boise
740807

Ustick School
82000250
2971 Mumbarto St., Boise
821029

*The **Dr. George Ashley, Jr. House** is one of nearly ninety properties included in the **Historic Resources of Paris Multiple Resource Area** (Bear Lake County). Established in 1863, Paris is one of Idaho's earliest communities utilizing the Mormon-village plan. (1979; ISHS 84-5.13.)*

Wallace, J. N., House
82000251
1202 Franklin St., Boise
821117
Tourtellotte and Hummel Architecture TR

Warm Springs Avenue Historic District
80001287
Warm Springs Ave., Boise
800922

Waymire, C. H., Building
82000252
1521 N. 13th St., Boise
821117
Tourtellotte and Hummel Architecture TR

Welch, Edward, House
82000253
1321 E. Jefferson St., Boise
821117
Tourtellotte and Hummel Architecture TR

Wellman Apartments
82000254
5th and Franklin Sts., Boise
821117
Tourtellotte and Hummel Architecture TR

West Warm Springs Historic District
77000451
Warm Springs Ave., Main, 1st, 2nd, and Idaho Sts., Boise
771212

Whitney School
82000255
1609 S. Owyhee St., Boise
821108
Boise Public Schools TR

Wolters Double Houses
82000256
712-16, 720-22 N. 8th St., Boise
821117
Tourtellotte and Hummel Architecture TR

Zurcher Apartments
82000257
102 S. 17th St., Boise
821117
Tourtellotte and Hummel Architecture TR

EAGLE

Aiken's Hotel
82000177
99 E. State St., Eagle
821029

Eagle Adventist Schoolhouse
80001288
NW of Eagle, Eagle
800818

Jackson, Orville, House
82000213
127 S. Eagle Rd., Eagle
821117
Tourtellotte and Hummel Architecture TR

Short, O. F., House
80001289
W of Eagle on ID 44, Eagle
800523

Villeneuve, Charles and Martha, House
90001731
7575 Moon Valley Rd., Eagle
901113

GARDEN CITY

Pierce-Borah House
83000257
W of Garden City off US 26, Garden City
830103
Tourtellotte and Hummel Architecture TR

GRANDVIEW

Guffey Butte—Black Butte Archeological District
78001038
Address Restricted, Grandview
781010

MERIDIAN

Hunt, E. F., House
82000210
49 E. State, Meridian
821117
Tourtellotte and Hummel Architecture TR

Meridian Exchange Bank
82000223
109 E. 2nd St., Meridian
821117
Tourtellotte and Hummel Architecture TR

Neal, Halbert F. and Grace, House
82000227
101 W. Pine St., Meridian
821019

Tolleth House
96001506
134 E. State Ave., Meridian
961220

MURPHY

Swan Falls Dam and Power Plant
76000667
E of Murphy at Snake River, Murphy
760706

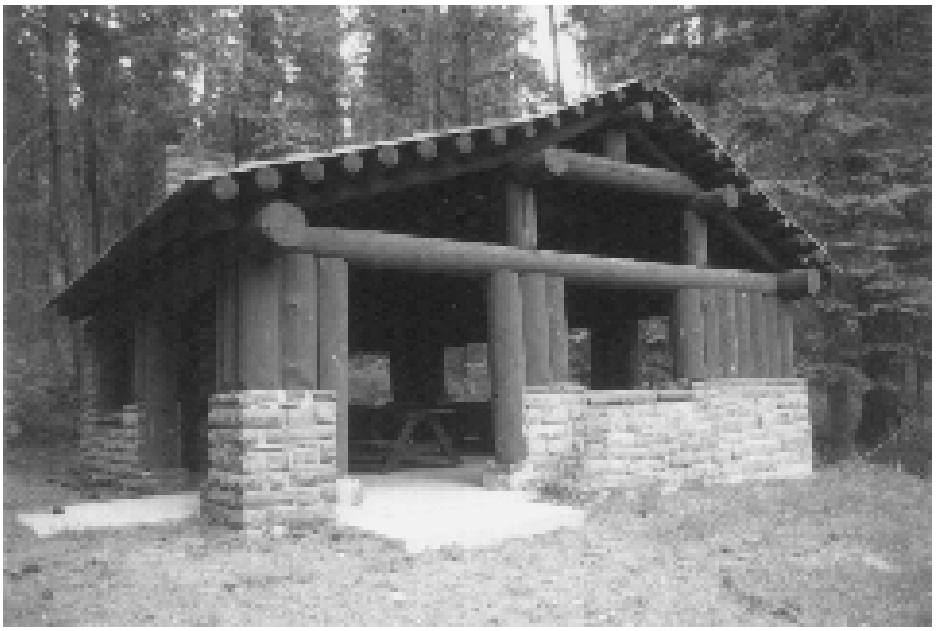
[redacted]

COUNCIL

Adams County Courthouse
87001599
Michigan St., Council
870922
County Courthouses in Idaho MPS

Council Ranger Station
92000689
Jct. of US 95 and Whiteley Ave., Council
921119

*This picnic shelter located within the **Chatcolet CCC Picnic and Camping Area** (Benewah County) is typical of the numerous park structures constructed by the Civilian Conservation Corps (CCC) throughout Heyburn State Park. The Chatcolet Picnic Area is one of three distinct areas within the Park listed in the National Register. Unlike surrounding CCC projects, these Heyburn structures employed the National Park Service's "rustic" architecture philosophy incorporating natural materials that created a partnership between the built environment and nature. (1993; ISHS 1997.21.3.)*



CUPRUM

Hells Canyon Archeological District
84000984
Address Restricted, Cuprum
840810

Huntley, A. O., Barn
78001040
W of Cuprum, Cuprum
781114

NEW MEADOWS

Heigho, Col. E. M., House
78001041
ID 55, New Meadows
780522

Meadows Schoolhouse
79000769
ID 55, New Meadows
791030

Pacific and Idaho Northern Railroad Depot
78001042
U.S. 95, New Meadows
780419

BANNOCK COUNTY

FORT HALL

Fort Hall
66000306
11 mi. W of Fort Hall, Fort Hall Indian Reservation, Fort Hall
661015 (NHL)

LAVA HOT SPRINGS

Lava High School Gymnasium
97000764
202 W. Fife, Lava Hot Springs
970709

Riverside Inn
79000770
112 Portneuf Ave., Lava Hot Springs
790829

*Moving away from stage productions and looking forward to the new technology of the "talkies," movie houses like the **Nuart Theatre** (1929) in Blackfoot (Bingham County) employed the Moderne-style of architecture to announce the transition to the new art form. (1978; ISHS 79-5.31/a.)*

Whitestone Hotel
80001292
2nd Ave. and Main St., Lava Hot Springs
800407

McCAMMON

Harkness, H. O., Stable Building
80001293
111 S. Railroad St., McCammon
800201

McCammon State Bank Building
79000771
Center and 3rd Sts., McCammon
790709

POCATELLO

A. F. R. Building
90001737
501 N. Main St., Pocatello
901115

Brady Memorial Chapel
79000772
Mountain View Cemetery, Pocatello
790501

Church of the Assumption
79000773
528 N. 5th Ave., Pocatello
790501

East Side Downtown Historic District
94001361
Roughly including the 200 and 300 blocks E. Center St., 100 block N. 2nd Ave. and 100 block S. 2nd Ave., Pocatello
941125

Hood, John, House
78001043
554 S. 7th Ave., Pocatello
781214

Hyde, William A., House
83000259
429 N. 7th St., Pocatello
830623

Idaho State University Administration Building
93000994
919 S. 8th St., Bldg. #10, Idaho State Univ., Pocatello
930923

Idaho State University Neighborhood Historic District
84001008
Roughly bounded by 6th, 9th, Carter, and Center Sts., Pocatello
840907

Pocatello Carnegie Library
73000679
105 S. Garfield Ave., Pocatello
730702

Pocatello Federal Building
77000452
Arthur Ave. and Lewis St., Pocatello
771005

Pocatello Historic District
82002505
Roughly bounded by RR tracks, W. Fremont, W. Bonneville and Garfield Sts., Pocatello
820603

Pocatello Warehouse Historic District
96000946
Roughly bounded by S. 2nd Ave., E. Halliday, E. Sutter, and OSL RR tracks, Pocatello
960903

Quinn Apartments
85000057
580 W. Clark St., Pocatello
850111

Rice-Packard House
85002159
454 N. Hayes Ave., Pocatello
850912

St. Joseph's Catholic Church
78001044
455 N. Hayes, Pocatello
780829

Standrod House
73000680
648 N. Garfield Ave., Pocatello
730118

Sullivan-Kinney House
77000453
441 S. Garfield, Pocatello
771109

Trinity Episcopal Church
78001045
248 N. Arthur St., Pocatello
780217

Woolley Apartments
85003425
303 N. Hayes Ave., Pocatello
851031

BEAR LAKE COUNTY

DINGLE

Ream, William and Nora, House
91000460
Dingle Rd. S of Ream Crockett Canal, Dingle
910426

MONTPELIER

Bagley, John A., House
78001046
155 N. 5th St., Montpelier
780120

Montpelier Historic District
78001047
Washington Ave. and 6th St., Montpelier
781116

Montpelier Odd Fellows Hall
78001048
843 Washington St., Montpelier
780415

PARIS

Allred, Ezra, Bungalow
82000258
93 Center St., Paris
821118
Paris MRA

Allred, Ezra, Cottage
82000259
159 Main St., Paris
821118
Paris MRA

Ashley, Dr. George, House
82000261
40 W. 2nd North, Paris
821118
Paris MRA

Ashley, George, Sr., House
82000260
W. 2nd North, Paris
821118
Paris MRA

Athay, Sam, House
82004939
20 W. 2nd North, Paris
821118
Paris MRA

Bear Lake County Courthouse
77000454
U.S. 89, Paris
771007

Bear Lake Market
82000262
N. Main St., Paris
821118
Paris MRA

Bear Lake Stake Tabernacle
72000436
Main St., Paris
721208

Beck Barns and Automobile Storage
82000263
Center St., Paris
821118
Paris MRA

Bishop West Barn
82000264
W. 2nd St., Paris
821118
Paris MRA

Browning Block
82000265
Main and Center Sts., Paris
821118
Paris MRA

Budge Cottage
82000266
Center St., Paris
821118
Paris MRA

Budge, Alfred, House
82000267
N. 1st West at W. 1st North, Paris
821118
Paris MRA

Budge, Julia, House
82000268
57 W. 1st North, Paris
821118
Paris MRA

Budge, Taft, Bungalow
83000260
86 Center St., Paris
830413
Paris MRA

Clayton, Russell, Bungalow
83000261
147 E. Center St., Paris
830413
Paris MRA

Cole House
82000269
SW of Paris, Paris
821118
Paris MRA

Collings, James, Jr., House
82001888
S of Paris on US 89, Paris
821118
Paris MRA

Cook, Joseph, House
82000270
63 W. 2nd South, Paris
821118
Paris MRA

Davis, E. F., House
82000271
10 W. 2nd North, Paris
821118
Paris MRA

Grimmett, John, Jr., House and Outbuildings
83000262
135 W. 2nd North, Paris
830413
Paris MRA

Grimmett, Orson, Bungalow
83000263
28 W. 2nd North, Paris
830413
Paris MRA

Grunder Cabin and Outbuildings
82000272
E. 1st North, Paris
821118
Paris MRA

Hoffman Barn
82000273
N. 2nd East, Paris
821118
Paris MRA

Hoge, Walter, House
82000274
Center and N. 1st East, Paris
821118
Paris MRA

Hotel Paris
82000275
7 Main St., Paris
821118
Paris MRA

Hulme, Amos, Barn
82000276
N. 1st East, Paris
821118
Paris MRA

Innes, Kate, House
83000264
100 E. 2nd South, Paris
830413
Paris MRA

Innes, Thomas, House
82000277
42 W. 1st South, Paris
821118
Paris MRA

Jaussi Bungalow
82000278
170 E. 2nd North, Paris
821118
Paris MRA

Keller House and Derrick
82001889
E. 1st North, Paris
821118
Paris MRA

Kelsey, Robert, Bungalow
83000265
24 E. 2nd South, Paris
830413
Paris MRA

LDS Seminary
82000279
Tabernacle Block, Paris
821118
Paris MRA

LDS Stake Office Building
82000280
S. Main St., Paris
821118
Paris MRA

Latham Bungalow
83000266
152 S. 1st East, Paris
830413
Paris MRA

Law, Oren, House and Outbuildings
82000281
592 Main St., Paris
821118
Paris MRA

Lewis Barn
82000282
W. 2nd North, Paris
821118
Paris MRA

Lewis Bungalow
83000267
W. 2nd North, Paris
830413
Paris MRA

Lewis, Fred, Cottage
83000268
W. 2nd North, Paris
830413
Paris MRA

Linvall, J. L., House and Outbuilding
82000283
E. 2nd South, Paris
821118
Paris MRA

Linvall, Robb, House
82000284
Paris Canyon Rd., Paris
821118
Paris MRA

Low, Morris, Bungalow
82000285
48 W. Center St., Paris
821118
Paris MRA

Nye, James, House
83000269
E. 1st South, Paris
830413
Paris MRA

Old LDS Tithing Office/Paris Post Building
82000286
Main St., Paris
821118
Paris MRA

Paris Cemetery
82000287
Off US 89, Paris
821118
Paris MRA

Paris Lumber Company Building
82000288
Main St., Paris
821118
Paris MRA

Paris Photo Studio
82000289
W. Center St., Paris
821118
Paris MRA

Paris Public School
82000290
Main St. and E. 1st North, Paris
821118
Paris MRA

Pendrey Drug Store Building
82000291
Main and Center Sts., Paris
821118
Paris MRA

Pendrey, Arthur, Cottage
82004938
193 Main St., Paris
821118
Paris MRA

Pendrey, Joe and Zina, Bungalow
83000270
N. Main St., Paris
830413
Paris MRA

Poulson, Jim, House
82000292
146 E. 1st North, Paris
821118
Paris MRA

Preston Bungalow
83000271
W. Center St., Paris
830413
Paris MRA

Rich, William L., House
82000298
34 W. 2nd South, Paris
821118
Paris MRA

Rich-Grandy Cabin
82000296
E. 2nd South, Paris
821118
Paris MRA

Rogers, Franklin, Bungalow
82000299
55 E. Center St., Paris
821118
Paris MRA

Rogers, Frederick, House
82000300
W. 2nd North, Paris
821118
Paris MRA

Sheidigger, John, House and Outbuildings
82000303
S of Paris on US 89, Paris
821118

*The **Gimlet Pegram Truss Railroad Bridge** (1894/1917) (Blaine County) is one of seven included in the **Pegram Truss Railroad Bridges of Idaho Multiple Property Submission**. A rare resource, this type of bridge truss was devised by civil engineer George Pegram, who later designed and oversaw the expansion of much of New York City's mass transit system in the first decades of the 20th Century. (1990; ISHS 1997.21.4.)*

Paris MRA

Shepherd Bungalow
83000274
55 W. 1st North, Paris
830413
Paris MRA

Shepherd Hardware
82000304
Main St., Paris
821118
Paris MRA

Shepherd, Earl, Bungalow
82000301
104 Center St., Paris
821118
Paris MRA

Shepherd, J. R., House
82000305
58 W. Center St., Paris
821118
Paris MRA

Shepherd, Les and Hazel, Bungalow
82000306
185 Main St., Paris
821118
Paris MRA

Shepherd, Ted, Cottage
82000302
N. 1st West, Paris
821118
Paris MRA

Sleight, Thomas, Cabin
82000307
Main St., Paris
821118
Paris MRA

Smedley, Thomas, House
82000308
E. 1st North, Paris
821118
Paris MRA

Spencer, George, House
82000309
Center St. and N. 1st East, Paris
821118
Paris MRA

Stoker, Henry, House and Outbuildings
82000310
192 S. 2nd East, Paris
821118
Paris MRA

Stucki, J. U., House and Outbuildings
83000275
S. 1st West, Paris
830413
Paris MRA

Sutton, John, House
82000311
140 Main St., Paris
821118
Paris MRA

Taylor's Candy Factory
83000276
Main St., Paris
830413
Paris MRA

Taylor, Arthur, House
82000312
W. 2nd North, Paris
821118
Paris MRA

Telephone Company Bungalow
82000313
Center St., Paris
821118
Paris MRA

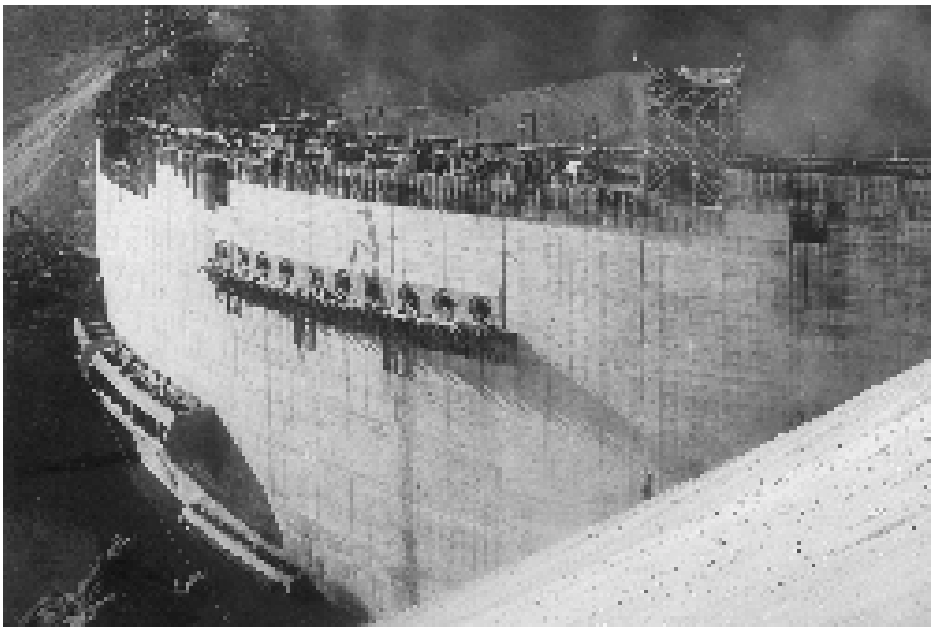
Tueller, Jacob, Jr., House
82000314
75 S. 1st East, Paris
821118
Paris MRA

Tueller, Jacob, Sr., House
82000315
165 E. 1st South, Paris
821118
Paris MRA

Wallentine Farmstead
82000316
NW of Paris, Paris
821118
Paris MRA

Weilermann, Gus, House
82000317
SW of Paris, Paris
821118

*The U.S. Reclamation Service constructed **Arrowrock Dam** (Boise County) to provide water storage for irrigation of the Boise Project. At the time of completion in 1915 the structure was the highest concrete dam in the world. (1914; ISHS 61-164223.)*



Paris MRA
Wives of Charles C. Rich Historic District
82000318
S. 1st West, Paris
821118
Paris MRA

ST. CHARLES

Nelson, Wilhelmina, House and Cabins
76000668
U.S. 89, St. Charles
760503

[redacted]

CHATCOLET

Chatcolet CCC Picnic and Camping Area
94000632
ID 5, Heyburn State Park, Chatcolet
950201

Plummer Point CCC Picnic and Hiking Area
94001587
ID 5, Heyburn State Park, Chatcolet
950201

Rocky Point CCC Properties
94001588
ID 5, Heyburn State Park, Chatcolet
950201

DESMET

Coeur d'Alene Mission of the Sacred Heart
75000623
Off U.S. 95, Desmet
750421

ST. MARIES

Benewah County Courthouse
87001580
College Ave. and 7th St.,
St. Maries
870922

County Courthouses in Idaho MPS
Kootenai Inn
79000774
130 N. 9th St., St. Maries
791116

St. Maries 1910 Fire Memorial
84001010
St. Maries Cemetery, St. Maries
840920
North Idaho 1910 Fire Sites TR

[redacted]

BLACKFOOT

Blackfoot I.O.O.F. Hall
79000775
57 Bridge St., Blackfoot
790515

Blackfoot LDS Tabernacle
77000456
120 S. Shilling St., Blackfoot
770919

Blackfoot Railway Depot
74000731
N.W. Main St., Blackfoot
741120
Idaho Republican Building
79000776
167 W. Bridge St., Blackfoot
791016

Jones, J. W., Building
82000319
104 N.E. Main St., Blackfoot
821117
Tourtellotte and Hummel Architecture TR

North Shilling Historic District
79000777
N. Shilling Ave., Blackfoot
790829

Nuart Theater
78001049
195 N. Broadway, Blackfoot
781019

Shilling Avenue Historic District
83000278
Shilling Ave. between E. Idaho and Bingham Sts. and Bridge and Judicial Sts. to Stout Ave., Blackfoot
830818

*The **Sandpoint Historic District** (Bonner County) is comprised of fifteen commercial buildings built between 1904 and 1936. Similar in scale, style, and material, the district contains Sandpoint's largest, relatively intact concentration of early-1900 commerical buildings. A visitor can easily imagine the character of downtown Sandpoint some sixty years ago. (1989; ISHS 1997.21.5.)*

St. Paul's Episcopal Church
79000778
72 N. Shilling Ave., Blackfoot
790515

Standrod Bank
79000779
59 and 75 N.W. Main St., Blackfoot
790830

US Post Office—Blackfoot Main
89000128
165 W. Pacific, Blackfoot
890316
US Post Offices in Idaho 1900-1941 MPS

FORT HALL

Fort Hall Site
74000732
16 mi. N of Fort Hall, Fort Hall
741121

Ross Fork Episcopal Church
83000277
Mission Rd., Fort Hall
830103
Tourtellotte and Hummel Architecture TR

Ross Fork Oregon Short Line Railroad Depot
84001019
Agency Rd., Fort Hall
840907

[redacted]

BELLEVUE

Bellevue Historic District
82002506
Roughly bounded by U.S. 93, Cedar, 4th, and Oak Sts., Bellevue
820616

Miller, Henry, House
75000624
S of Bellevue off U.S. 93, Bellevue
750530

CAREY

Fish Creek Dam
78003437
NE of Carey, Carey

*The **Wasden Site (Owl Cave)** (Bonneville County) consists of three rockshelters formed from collapsed lava tubes. The caves provide an invaluable resource for the study of at least 10,000 years of cultural and environmental change on the Snake River Plain. This variety of information makes the site eligible as one of Idaho's eleven National Historic Landmarks. (1991; ISHS 1997.21.6.)*

781229

HAILEY

Blaine County Courthouse
78001050
1st and Croy Sts., Hailey
780217

Emmanuel Episcopal Church
77000457
101 2nd Ave. S., Hailey
771005

Fox, J. C., Building
83000279
S. Main St., Hailey
830331

Pound, Homer, House
78001051
314 2nd Ave. S., Hailey
781228

St. Charles of the Valley Catholic Church and Rectory
82000321
Pine and S. 1st Sts., Hailey
821117
Tourtellotte and Hummel Architecture TR

Watt, W. H., Building
83000281
120 N. Main St., Hailey
830331

Werthheimer Building
85002160
101 S. Main St., Hailey
850912

KETCHUM

Bald Mountain Hot Springs
82000320
Main and 1st Sts., Ketchum
821117
Tourtellotte and Hummel Architecture TR

Cold Springs Pegram Truss Railroad Bridge
97000762
Over the Big Wood R., 0.5 mi. S of jct. of US 93 and ID 267, Ketchum
970725
Pegram Truss Railroad Bridges of Idaho MPS

Gimlet Pegram Truss Railroad Bridge
97000757
Over the Big Wood R., 0.5 mi. S of jct. of US 93 and E. Fork Wood River Rd., Ketchum
970725
Pegram Truss Railroad Bridges of Idaho MPS

Greenhow and Rumsey Store Building
83000280
Main Ave., Ketchum
830818

SUN VALLEY

Proctor Mountain Ski Lift
80001294
Trail Creek, Sun Valley
800120

Sawtooth City
75000625
Address Restricted, Sun Valley
750404

[redacted]

IDAHO CITY

Arrowrock Dam
72000437
About 10 mi. E of Boise on U.S. Forest Service Roads, Boise
721109

Idaho City
75000626
Bounded by city limits, Idaho City
750627

PLACERVILLE

Placerville Historic District
84001029
Roughly bounded by townsite limits, Placerville
840907

[redacted]

BAYVIEW

Lake Pend Oreille Lime and Cement Industry Historic District
94001450
Roughly, discontiguous sites around Bayview and Lakeview, Bayview
970327

COOLIN

Vinther and Nelson Cabin
82002507
Eight Mile Island, Coolin
820721

DOVER

Dover Church
86002153
Washington between 3rd and 4th, Dover
890808

PRIEST RIVER

Hotel Charbonneau
91001718
207 Wisconsin St., Priest River
911119

Priest River Commercial Core Historic District
95001057
Roughly bounded by Wisconsin, Montgomery, and Cedar Sts. and Albeni Rd., Priest River
950831

Priest River High School
95001402
1020 W. Albeni Hwy., Priest River
951207
Public School Buildings in Idaho

*This stone structure (c. 1905) is one of three bread ovens associated with the **Spokane and International Railroad Construction Camp** near Eastport (Boundary County). All that remains of the temporary railroad camp are building depressions, log wall remnants, dumping areas, and these ovens, believed to be erected by Italian construction laborers. (c. 1990; ISHS 1997.21.7.)*

MPS
SANDPOINT

Bernd, W. A., Building
83000282
307-311 N. 1st. Ave., Sandpoint
830818

Nesbitt, Amanda, House
82002508
602 N. 4th Ave., Sandpoint
820715

Priest River Experimental Forest
94000661
Idaho Panhandle National Forest, Sandpoint
940701

Sandpoint Burlington Northern Railway Station
73000682
Cedar St. at Sand Creek, Sandpoint
730705

Sandpoint Community Hall
86002148
204 S. 1st Ave., Sandpoint
860911

Sandpoint Historic District
84001100
Roughly 1st and 2nd Aves., Main and Cedar Sts., Sandpoint
840907

BONNEVILLE COUNTY

IDAHO FALLS

Beckman, Andrew and Johanna M., Farm
92001414
US 20 0.5 mi. W of jct. with New Sweden Rd., Idaho Falls
921106
New Sweden and Riverview Farmsteads and Institutional Buildings MPS

*When it was commissioned in 1951, the **Experimental Breeder Reactor No. 1** (Butte County) demonstrated that a nuclear reactor is capable of breeding (creating more fuel than its operation consumes) and of achieving economically competitive nuclear power. Because of its major impact on the nation's desire for cheap, efficient power, EBR #1 was deemed a National Historic Landmark in 1966— only two years after it was decommissioned. (1996; ISHS 1997.21.8.)*

Beckman, Oscar and Christina, Farmstead
91001713
SW corner of jct. of New Sweden—Shelley Rd. and US 20, Idaho Falls
911119
New Sweden and Riverview Farmsteads and Institutional Buildings MPS

Bonneville County Courthouse
79000781
Capital Ave. and C St., Idaho Falls
790710

Bonneville Hotel
84001032
400 Blk W. C St., Idaho Falls
840830
Idaho Falls Downtown MRA

Douglas-Farr Building
84001035
493 N. B Ave., Idaho Falls
840830
Idaho Falls Downtown MRA

Eagle Rock Ferry
74000734
N of Idaho Falls on Snake River, Idaho Falls
740607

Eleventh Street Historic District
97000863
Roughly bounded by S. Boulevard, 13th, 10th, and 9th Sts., S. Emerson and S. Lee Aves., Idaho Falls
970808

Farmers and Merchants Bank Building
84001037
383 W. A St., Idaho Falls
840830
Idaho Falls Downtown MRA

First Presbyterian Church
78001052
325 Elm St., Idaho Falls
780329

Hasbrouck Building
84001039
362 Park Ave., Idaho Falls
840830
Idaho Falls Downtown MRA

Hotel Idaho
84001042
482 W. C St., Idaho Falls
840830
Idaho Falls Downtown MRA

I.O.O.F. Building
84001090
393 N. Park Ave., Idaho Falls
840830
Idaho Falls Downtown MRA

Idaho Falls City Building
84001092
308 W. C St., Idaho Falls
840830
Idaho Falls Downtown MRA

Idaho Falls Public Library
84001093
Elm and Eastern Sts., Idaho Falls
840830
Idaho Falls Downtown MRA

Kress Building
84001095
451 N. Park Ave., Idaho Falls
840830
Idaho Falls Downtown MRA

Montgomery Ward Building
84001096
504 Shoup Ave., Idaho Falls
840830
Idaho Falls Downtown MRA

New Sweden School
91001714
SW corner of jct. of New Sweden School Rd. and Mill Rd., Idaho Falls
911119
New Sweden and Riverview Farmsteads and Institutional Buildings MPS

Rocky Mountain Bell Telephone Company Building
84001099
246 W. Broadway Ave., Idaho Falls
840830
Idaho Falls Downtown MRA

Sealander, Carl S. and Lizzie, Farmstead
92000414
W end St. John Rd., Idaho Falls
920505
New Sweden and Riverview Farmsteads and Institutional Buildings MPS

Shane Building
84001101
381 N. Shoup Ave., Idaho Falls
840830
Idaho Falls Downtown MRA

Trinity Methodist Church
77000458
237 N. Water Ave., Idaho Falls
771216

U.S. Post Office—Idaho Falls
79000782
581 Park Ave., Idaho Falls
790531

Underwood Hotel
84001102
343-349 W. C Street, Idaho Falls
840830
Idaho Falls Downtown MRA

Wasden Site (Owl Cave)
76000669
Address Restricted, Idaho Falls
760524 (NHL)

IONA

Iona Meetinghouse
73000681
In Iona, Iona
730507

RIRIE

Shelton L.D.S. Ward Chapel
79000783
SW of Ririe on Shelton Rd., Ririe
790830

*Influenced by the architecture of Old Faithful Inn in Yellowstone National Park, the rustic **John Skillern House** (Camas County) served as the summer headquarters for Skillern's Seven H-L Sheep Company. It was one of the largest sheep operations in Idaho when the house was built in 1921-22. (1997; ISHS 1997.21.9.)*

WAYAN

Salt River Hydroelectric Powerplant Historic District (Canal)
93000889
On Idaho-Wyoming border, Wayan
931202

BOUNDARY COUNTY

BONNERS FERRY

Boundary County Courthouse
87001581
Kootenai St., Bonners Ferry
870927
County Courthouses in Idaho MPS

Fry's Trading Post
84001104
Off US 95, Bonners Ferry
840907

Harvey Mountain Quarry
78001053
Address Restricted, Bonners Ferry
780623

North Side School
92000417
218 W. Commanche, Bonners Ferry
920505
Public School Buildings in Idaho MPS

*The four areas comprising the **Map Rock Petroglyphs Historic District** (Canyon County) consist of 20 etched volcanic boulders which display a full range of prehistoric designs typical in southwest Idaho. It is suggested the petroglyphs reproduce a map of the Snake River and its tributaries located nearby. (c. 1956; ISHS 61-100.71.)*

US Post Office—Bonners Ferry Main
89000129
215 1st, Bonners Ferry
890316
US Post Offices in Idaho 1900-1941 MPS

EASTPORT

Snyder Guard Station Historic District
83000283
S of Eastport on Forest Service Rd. 211, Eastport
830819

Spokane & International Railroad Construction Camp
94000630
E of US 95 along the Spokane & International RR tracks, 2 mi. S. of the U.S-Canadian border, Eastport
940623

BUTTE COUNTY

ARCO

Experimental Breeder Reactor No. 1
66000307
National Reactor Testing Station, Arco
661015 (NHL)

Goodale's Cutoff
74000735
S of Arco off U.S. 20, Arco
740501

CAMAS COUNTY

FAIRFIELD

Skillern, John, House
84001111
NW of Fairfield, Fairfield
840514

CANYON COUNTY

CALDWELL

Beale, F. F., House
93000386
1802 Cleveland Blvd., Caldwell
930514

Blatchley Hall
78001055
College of Idaho campus, Caldwell
780308

Caldwell Carnegie Library
79000784
1101 Cleveland Blvd., Caldwell
790618

Caldwell Historic District
82002509
Roughly bounded by Railroad and Arthur Sts., 7th and 9th Aves., Caldwell
820719

Caldwell Odd Fellows Home for the Aged
82000322
N. 14th Ave., Caldwell
821117
Tourtellotte and Hummel Architecture TR

Little, Thomas K., House
80001295
703 E. Belmont St., Caldwell
800818

North Caldwell Historic District
79000785
9th, Albany and Belmont Sts., Caldwell
790905

Rice, John C., House
80001296
1520 Cleveland Blvd., Caldwell
800527

St. Mary's Catholic Church
82000332
616 Dearborn, Caldwell
821117
Tourtellotte and Hummel Architecture TR

Sterry Hall
78001056
College of Idaho campus, Caldwell
780308

Steunenberg, A. K., House
82000335
409 N. Kimball, Caldwell
821117
Tourtellotte and Hummel Architecture TR

Strahorn, Carrie Adell, Memorial Library
82002510
College of Idaho, Caldwell
820415

US Post Office—Caldwell Main
89000131
823 Arthur St., Caldwell
890316
US Post Offices in Idaho 1900-1941 MPS

GIVENS HOT SPRINGS

Map Rock Petroglyphs Historic District
82000325
Address Restricted, Givens Hot Springs
821115

MIDDLETON

Middleton Substation
73000683
SR 44, Middleton
730507

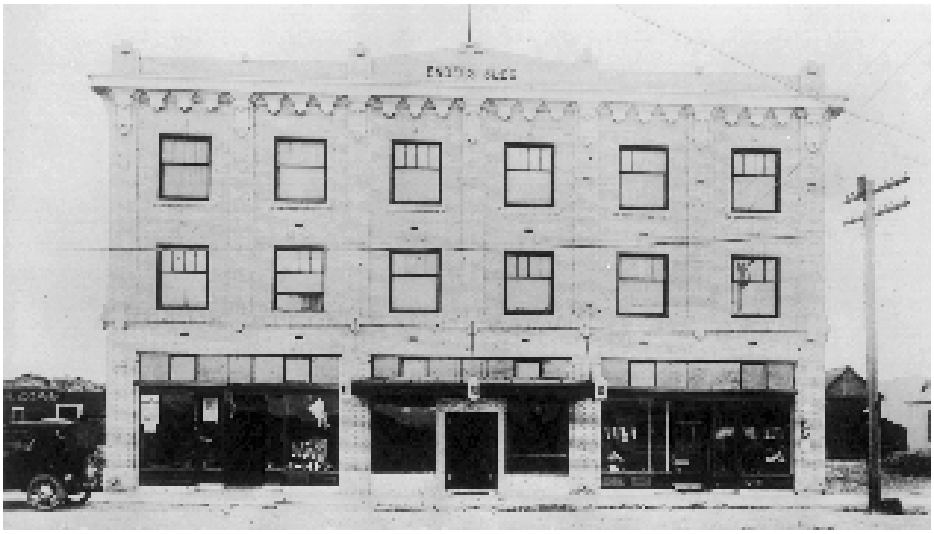
NAMPA

Dewey, E. H., Stores
82000323
1013-15 1st. St. S., Nampa
821117
Tourtellotte and Hummel Architecture TR

Farmers and Merchants Bank
76000670
101 11th Ave. S., Nampa
760513

Horse Barn
78001057
NE of Nampa at Idaho State School and Hospital, Nampa
781011

*The **Enders Hotel** (Caribou County) is the only remaining historic hotel associated with the crossroads community of Soda Springs where transcontinental trails, railroads and highway met. The hotel retains many original features, including furnishings and woodwork. (c. 1920; ISHS 77-139.3.)*



Idaho State Sanitarium Administration Building
82000324
NE of Nampa on 11th Ave. N., Nampa
821117
Tourtellotte and Hummel Architecture TR

Nampa American Legion Chateau
82000326
1508 2nd St. S., Nampa
821117
Tourtellotte and Hummel Architecture TR

Nampa City Hall
85000967
203 12th Ave. S., Nampa
850509

Nampa Department Store
82000327
1st St. S. and 13th Ave., Nampa
821117
Tourtellotte and Hummel Architecture TR

Nampa Depot
72000438
12th Ave. and Front St., Nampa
721103

Nampa First Methodist Episcopal Church
82000328
12th Ave. S. and 4th St., Nampa
821117
Tourtellotte and Hummel Architecture TR

Nampa Historic District
83000284
1200 and 1300 blocks 1st St. S., Nampa
830818

*One of the great natural landmarks on the California Trail, **The City of Rocks**' (Cassia County) imposing granite formations (such as the Twin Sisters shown here) resemble a city skyline that impressed tens of thousands of emigrants. The first practicable route north of the Great Salt Lake to the California goldfields passed directly through the City of Rocks valley. This vast expanse of formations and trails was designated a National Historic Landmark in 1966. (date unknown; ISHS 73-221.406.)*

Nampa Presbyterian Church
82000330
2nd St. and 15th Ave. S., Nampa
821117
Tourtellotte and Hummel Architecture TR

Nampa and Meridian Irrigation District Office
82000329
1503 1st St. S., Nampa
821117
Tourtellotte and Hummel Architecture TR

St. Paul's Rectory and Sisters' House
82000333
810 15th Ave. S., Nampa
821117
Tourtellotte and Hummel Architecture TR

US Post Office—Nampa Main
89000132
123 11th Ave. S., Nampa
890316
US Post Offices in Idaho 1900-1941 MPS

Wiley, H. Orton, House
86002163
524 E. Dewey, Nampa
860911

PARMA

Fort Boise and Riverside Ferry Sites
74000736
NW of Parma on Snake River, Parma
741224

Sacred Hearts of Jesus and Mary Church
82000334
608 7th St., Parma
821117
Tourtellotte and Hummel Architecture TR

Stewart, A. H., House
79000786
3rd St. and Bates Ave., Parma

791025

ROSWELL

Roswell Grade School
82000331
ID 18 and Stephan Lane, Roswell
821117
Tourtellotte and Hummel Architecture TR

WILDER

Houlder, Ellen, Farm
94000631
Rt. 2, Arena Valley Rd., Wilder
940623

Peckham Barn
82000389
N of Wilder on US 95, Wilder
821007

[redacted]

CHESTERFIELD

Chesterfield Historic District
80001297
Town of Chesterfield, Chesterfield
801204

GRACE

Grace Pegram Truss Railroad Bridge
97000758
Over the Bear R., 0.5 mi. NNW of jct. of ID 34 and Turner Rd., Grace
970725
Pegram Truss Railroad Bridges of Idaho MPS

SODA SPRINGS

Caribou County Courthouse
87001582
159 S. Main, Soda Springs
870922
County Courthouses in Idaho MPS

Enders Hotel
93000384
76 S. Main St., Soda Springs
930514

Hopkins, William, House
79000787
E. Hooper Ave., Soda Springs
790108

Lander Road
75000627
NE of Soda Springs in Caribou National Forest S of ID 34, Soda Springs
750424

Largilliere, Edgar Walter Sr., House
91001870
30 West 2nd S. St., Soda Springs
911223

Soda Springs City Hall
93000385
109 S. Main St., Soda Springs
930514

[redacted]

CASSIA COUNTY

ALBION

Albion Methodist Church
86002161
102 North St., Albion
860904

Albion Normal School Campus
80001298

Camas Meadows Camp and Battle Sites *(Clark County) is set against the backdrop of the Nez Perce War (1877 Campaign). The Nez Perce succeeded in capturing livestock crippling the military's ability for long-range pursuit. This rifle pit, one of about 25 erected, offered protection to soldiers during the ensuing skirmish. (1986; ISHS 1997.21.10.)*

Off ID 77, Albion
801128

Swanger Hall
78001058
Albion State Normal School campus, Albion
780920

ALMO

City of Rocks
66000308
City of Rocks State Park, Almo
661015 (NHL)

BURLEY

Cassia County Courthouse
87001583
15th St. and Overland Ave., Burley

Traversing roughly 100 miles of the rugged Bitterroot Mountains between Lolo Pass and Weippe, ***Lolo Trail*** *National Historic Landmark (Clearwater County) encompasses the Nez Perce National Historic Trail as well as the Lewis and Clark National Historic Trail. The entire Lolo corridor contains many significant ethnographic, archaeological, and historic resources such as this rock cairn, known as Indian Post Office. (1996; ISHS 1997.21.11.)*

870927
County Courthouses in Idaho MPS

Granite Pass
72000439
SW of Burley, less than 0.5 mi. N of Idaho-Utah border, Burley
720628

OAKLEY

Oakley Historic District
80001299
Main St. and Wilson Ave., Oakley
801128

CLARK COUNTY

BLUE DOME

Birch Creek Rockshelters
74000737
Address Restricted, Blue Dome
741202

DUBOIS

St. James' Episcopal Mission Church
93000387
Reynolds St. / Old Hwy. 91 (county rd.), Dubois
930514

SPENCER

Spencer Rock House
89001991
Off US 91 at Huntley Canyon, Spencer
891130

KILGORE

Camas Meadows Camp and Battle Sites
89001081
E of Kilgore, Kilgore
890411 (NHL) (NPNHP)

CLEARWATER COUNTY

LOLO HOT SPRINGS

Lolo Trail
66000309
Parallel to U.S. 12 on ridges of Bitterroot Mountains, from Lolo Pass to Weippe, Lolo Hot Springs
661015 (NHL) (NPNHP)

OROFINO

Orofino Historic District
82000384
2nd, Dewey, Main, Johnson, and 6th Sts., Orofino
821029

US Post Office—Orofino Main
89000133
320 Michigan Ave., Orofino
890316
US Post Offices in Idaho 1900-1941 MPS

PIERCE

Moore Gulch Chinese Mining Site (10-CW-159)
83000285
Address Restricted, Pierce
830127

Pierce Courthouse
72000100
ID 11, Pierce
721103 (NPNHP)

SPALDING

Nez Perce National Historical Park
66000310
Area 90 mi. S and 150 mi. E of Spalding, Spalding
661015

WEIPPE

Brown's Creek CCC Camp Barracks
84001114
105 1st St. E., Weippe
840705

Weippe Prairie
66000311
S of Weippe and ID 11, Weippe
661015 (NHL) (NPNHP)

CUSTER COUNTY

CHALLIS

Bayhorse
76000671
S of Challis off U.S. 93, Challis
760315

Board-and-Batten Commercial Building
80001300
Main Ave., Challis
801203
Challis MRA

Building at 247 Pleasant Avenue
80001301
247 Pleasant Ave., Challis
801203
Challis MRA

Buster Meat Market
80004551
Main Ave., Challis
801203
Challis MRA

Bux's Place
80001302
321 Main Ave., Challis
801203
Challis MRA

Challis Archeological Spring District
81000206
Address Restricted, Challis
810212

Challis Bison Jump Site
75000628
Address Restricted, Challis
750905

Challis Brewery Historic District
80001303
Challis Creek Rd., Challis
800205

Challis Cold Storage
80001304
Main Ave., Challis
801203
Challis MRA

Challis High School
80001305
Main Ave., Challis
801203
Challis MRA

Chivers, Bill, House
80001306
3rd St., Challis
801203
Challis MRA

Chivers, Thomas, Cellar
80001307
Challis Creek Rd., Challis
801203
Challis MRA

Chivers, Thomas, House
80001308
Challis Creek Rd., Challis
801203
Challis MRA

Custer County Jail
80001309
Main Ave., Challis
801203
Challis MRA

False-Front Commercial Building
80001310
Main Ave., Challis
801203
Challis MRA

Hosford, Emmett, House
80001311
3rd St., Challis
801203
Challis MRA

I.O.O.F. Hall
80001312
Main Ave., Challis
801203
Challis MRA

McKendrick House
80001313
4th St., Challis
801203
Challis MRA

*Originally established as a guest ranch in 1929, the buildings and landscape at the **Idaho Rocky Mountain Club** (Custer County) include a lodge, guest cabins, a hydroelectric plant, private fish pond, and a natural hot-water swimming pool. One of the first resorts built, the complex represents early development of the recreation industry in Idaho. (1994; ISHS 1997.21.12.)*

Old Challis Historic District
80001314
Bounded by Valley and Pleasant Aves., 2nd and 3rd Sts., Challis
801203
Challis MRA

Peck, Bill, House
80001315
16 Main Ave., Challis
801203
Challis MRA

Penwell House
80001316
North Ave., Challis
801203
Challis MRA

Rowles, Donaldson, House
80001317
North Ave., Challis
801203
Challis MRA

Smith, Henry, House
80001318
5th St., Challis
801203
Challis MRA

Stone Building
80001319
3rd St., Challis
801203
Challis MRA

Stone and Log Building
80001320
Pleasant Ave., Challis
801203
Challis MRA

Twin Peaks Sports
80001321
Main Ave., Challis
801203
Challis MRA

Wilkinson, Clyde, House
80001322
9th St., Challis
801203
Challis MRA

CLAYTON

East Fork Lookout
76000672
Address Restricted, Clayton
760927

*On May 7, 1863, a gold-bearing quartz prospect was discovered above Rocky Bar on Bear Creek within the **South Boise Historic Mining District** (Elmore County). This ten square mile area eventually produced about six million dollars in gold. (c. 1972; ISHS 74-5.23/6.)*

CUSTER

Custer Historic District
81000207
Along Yankee Fk. of the Salmon River, Custer
810203

MACKAY

Mackay Episcopal Church
82000336
Park Ave. and College, Mackay
821117
Tourtellotte and Hummel Architecture TR

Mackay Methodist Episcopal Church
84001118
Custer St. and Park Ave., Mackay
840907

STANLEY

Day, Ivan W., House
86000754
N of Stanley, Stanley
860409

Idaho Rocky Mountain Club
94001451
ID 75 S. of Stanley, Stanley
941209

Niece Brothers' Store
95000667
Ace of Diamonds St., Stanley
950612

Redfish Archeological District
83003574
Address Restricted, Stanley
831229

Stanley Ranger Station
82001885
S of Stanley on US 93, Stanley
821215

ELMORE COUNTY

ATLANTA

Atlanta Dam and Power Plant
77000459
W of Atlanta on Boise River, Atlanta
771005

Atlanta Historic District
78001059
Quartz Creek, Pine and Main Sts., Atlanta
780406

GLENNS FERRY

Amstutz Apartments
82002511
320 S. Ada St., Glenns Ferry
820923

Glenns Ferry School
84001122
Cleveland St., Glenns Ferry
840907

Gorby Opera Theater
82000339
Idaho St., Glenns Ferry
821117
Tourtellotte and Hummel Architecture TR

McGinnis, J. S., Building
82000340
1st and Commercial Sts., Glenns Ferry
821117
Tourtellotte and Hummel Architecture TR

O'Neill Brothers Building
82000342
Idaho St., Glenns Ferry
821117
Tourtellotte and Hummel Architecture TR

Our Lady of Limerick Catholic Church
82000343
113 W. Arthur, Glenns Ferry
821117
Tourtellotte and Hummel Architecture TR

MOUNTAIN HOME

Ake, F. P., Building
82000337
106-72 Main St., Mountain Home
821117
Tourtellotte and Hummel Architecture TR

Anchustegui, Pedro, Pelota Court
78001060
W. 2nd North, Mountain Home
780130

Elmore County Courthouse
87001584
150 S. 4th East, Mountain Home
870922
County Courthouses in Idaho MPS

Father Lobell House
82000338
125 4th St. East, Mountain Home
821117
Tourtellotte and Hummel Architecture TR

Mountain Home Baptist Church
82000341
265 N. 4th East, Mountain Home
821117
Tourtellotte and Hummel Architecture TR

Mountain Home Carnegie Library
78001061
180 S. 3rd St. East, Mountain Home
780724

Mountain Home High School
91000988
550 E. Jackson, Mountain Home
910808
Public School Buildings in Idaho MPS

Mountain Home Hotel
82000385
195 N. 2nd West, Mountain Home
821029

St. James Episcopal Church
77000460
305 N. 3rd East, Mountain Home
771005

Turner Hotel
84001124
140-170 E. Jackson St., Mountain Home

*Local sandstone was used in the construction of the **Matthias Cowley House** in Preston (Franklin County). Cowley, a local Mormon leader, constructed the building in 1895 during a period of Mormon expansion into Idaho. (1972; ISHS 72-100.17.)*

840907

ROCKY BAR

South Boise Historic Mining District
75000629

FRANKLIN COUNTY

FRANKLIN

Franklin City Hall
91001716
128 E. Main St., Franklin
911119

Bishop Mountain Lookout *(Fremont County) is the only lookout remaining on the Targhee National Forest and may be one of the last examples of a metal tower lookout in southeast Idaho. The property, located on the summit of Bishop Mountain, includes a log cabin, a garage, and a frame pit toilet, all constructed by members of the Civilian Conservation Corps between 1936 and 1938. (date unknown; Targhee National Forest.)*

Franklin Co-operative Mercantile Institution
91001717
113 E. Main St., Franklin
911119

Hatch, L. H., House
73000684
East Main, Franklin
730507

PRESTON

Bear River Battleground
73000685
NW of Preston off U.S. 91, Preston
730314 (NHL)

Cowley, Matthias, House
76000673
110 S. 1st St. E., Preston
760719

Franklin County Courthouse
87001585
39 W. Oneida, Preston
870927
County Courthouses in Idaho MPS

Oneida Stake Academy
75000630
NW corner of 2nd S. and 2nd E. Sts., Preston
750521

US Post Office—Preston Main
89000135
55 E. Oneida St., Preston
890316
US Post Offices in Idaho 1900-1941 MPS

WESTON

Weston Canyon Rockshelter
74000738
Address Restricted, Weston
740725

FREMONT COUNTY

ASHTON

Independent Order of Odd Fellows Hall
97000763
Jct. of 6th Ave. and Main St., Ashton
970709

BIG SPRINGS

Sack, Johnny, Cabin
79000788
Island Park, Big Springs
790419

GRAINVILLE

Conant Creek Pegram Truss Railroad Bridge
97000756
Over Conant Cr., 1 mi. S of jct. of Squirrel Rd. and Old Ashton-Victor RR spur tracks, Grainville
970725
Pegram Truss Railroad Bridges of Idaho MPS

ISLAND PARK

Bishop Mountain Lookout
86001184
Forest Rd. 80120, Island Park
860523

Island Park Land and Cattle Company Home Ranch
96001508
U.S. 20, roughly 1 mi. SW of Island Park at Harriman State Park, Island Park
961220

Sherwood, Joseph, House and Store
94001452
ID 87 W of jct. with U.S. 20, Island Park
941209

ST. ANTHONY

Fremont County Courthouse
79000789
151 W. 1st St. N., St. Anthony
790108

Idaho State Industrial School Women's Dormitory
82000344
W of St. Anthony on N. Parker Hwy., St. Anthony
821117
Tourtellotte and Hummel Architecture TR

St. Anthony Pegram Truss Railroad Bridge
97000761
Over the Henry's Fk. of the Snake R., 0.5 mi. S of jct. of S. Parker Rd. and West Belt Branch RR tracks, St. Anthony
970725
Pegram Truss Railroad Bridges of Idaho MPS

US Post Office—St. Anthony Main
89000136
48 W. 1st North, St. Anthony
890316
US Post Offices in Idaho 1900-1941 MPS

GEM COUNTY

EMMETT

Bliss, F. T., House
82000345
E. 2nd and McKinley Sts., Emmett
821117
Tourtellotte and Hummel Architecture TR

Catholic Church of the Sacred Heart
80001323
1st St., Emmett
801203
Early Churches of Emmett TR

Emmett Presbyterian Church
80001324
2nd St., Emmett
801203
Early Churches of Emmett TR

First Baptist Church of Emmett
80001325
1st St., Emmett
801203
Early Churches of Emmett TR

Gem County Courthouse
82000347
Main St. and McKinley Ave., Emmett
821117
Tourtellotte and Hummel Architecture TR

Methodist Episcopal Church
80001326
1st St. and Washington Ave., Emmett
801203
Early Churches of Emmett TR

Oregon Short Line Railway Depot
95000506
119 N. Commercial Ave., Emmett
950427

St. Mary's Episcopal Church
80001327
1st St., Emmett
801203
Early Churches of Emmett TR

OLA

Ola School
92000415
5 Ola School Rd., Ola
920505
Public School Buildings in Idaho MPS

SWEET

Sweet Methodist Episcopal Church
97000766
7200 Sweet-Ola Hwy., Sweet
970709

GOODING COUNTY

BLISS

Teater, Archie, Studio
84001132
SE of Bliss, Bliss
840913

*Properties owned by religious institutions or used for religious purposes are typically not considered eligible for listing in the National Register unless they are significant for architectural or artistic distinction or for historical importance. The **Early Churches of Emmett Thematic Resource** (Gem County) includes five churches significant for architectural styles. Pictured here is the **Emmett Presbyterian (Emmett First Southern Baptist) Church** (1909). (1973; ISHS 73-5.58a.)*

GOODING

Citizens State Bank
80001328
3rd Ave. and Main St., Gooding
800507

Gooding College Campus
83000286
ID 26, Gooding
830318
Tourtellotte and Hummel Architecture TR

Kelly's Hotel
85002155
112 Main, Gooding
850912

Thompson Mortuary Chapel
82000348
737 Main St., Gooding
821117
Tourtellotte and Hummel Architecture TR

Trinity Episcopal Church
82000349
7th and Idaho Sts., Gooding
821117
Tourtellotte and Hummel Architecture TR

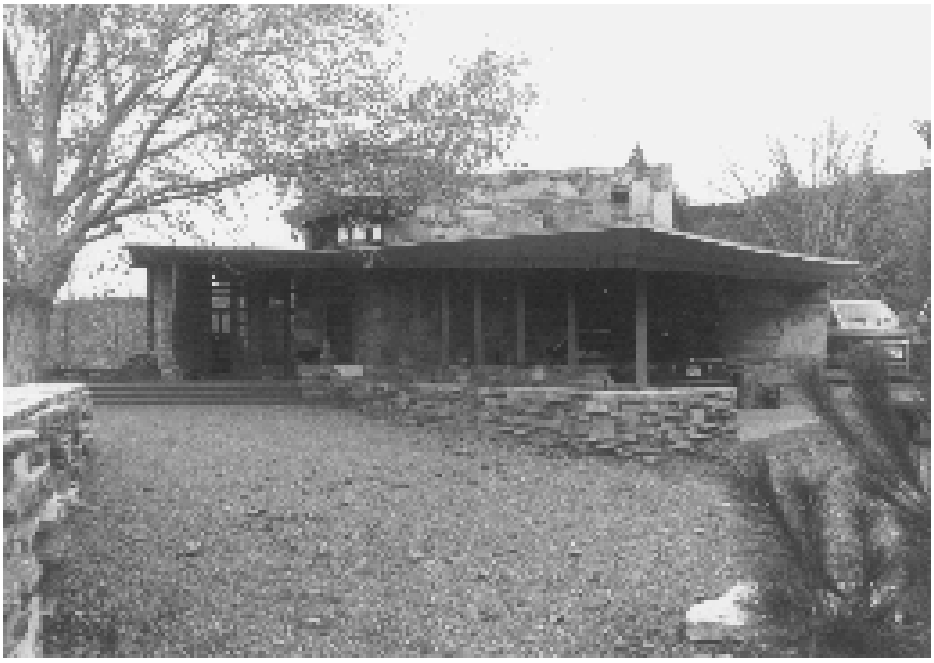
HAGERMAN

Hagerman State Bank, Limited
89001000
100 S. State St., Hagerman
890811

Priestly's Hydraulic Ram
75000631
6 mi. S of Hagerman at Thousand Springs, Hagerman
750213

Roberts, Morris, Store
78001062
Off U.S. 30, Hagerman
780717

*The only Frank Lloyd Wright-designed building in Idaho, the **Archie Teater Studio** (Gooding County) commands a spectacular view of the Snake River. Included in the original plans, the studio (built 1953-56) boasts built-in furnishings designed by Wright. Although less than fifty years old at the time of its listing, this property was added to the National Register based on its exceptional importance. (c. 1983; ISHS 85-5.33.)*



WENDELL

Mays, James Henry and Ida Owen, House
92001412
Along N bank of Snake R. S of Wendell, Wendell
930309

West Point Grade School
82000350
Off I-86, Wendell
821117
Tourtellotte and Hummel Architecture TR

IDAHO COUNTY

BURGDORF

Carey Dome Fire Lookout
94000268
Payette National Forest; 9 mi. N of USFS Burgdorf Guard Station, Burgdorf
940325

COTTONWOOD

Lower Salmon River Archeological District
86002170
Address Restricted, Cottonwood
860904

St. Gertrude's Convent and Chapel
79000790
W of Cottonwood, Cottonwood
790618

DIXIE

Moore, Jim, Place
78001063
Salmon River Canyon, Dixie
780329

ELK CITY

Meinert Ranch Cabin
87001561
1.8 mi. SW of Red River Hot Springs on Red River-Beargrass Rd. No. 234, Elk City
870923

GRANGEVILLE

Moose Creek Administrative Site
90000932
E side of Moose Cr. S of Whistling Pig Cr., Nez Perce NF, Grangeville
900625

KAMIAH

First Presbyterian Church
76000674
SE of Kamiah on U.S. 12, Kamiah
760513

McBeth, Sue, Cabin
76000675
SE of Kamiah on U.S. 12, Kamiah
760603

KOOSKIA

Fenn Ranger Station
90000931
Selway Rd. 223 near Johnson Cr., Nez Perce NF, Kooskia
900618

Lochsa Historical Ranger Station
78001065
Address Restricted, Kooskia
780609

State Bank of Kooskia
78001067
1 S. Main St., Kooskia
780522

MCCALL

Arctic Point Fire Lookout
94001019
10 mi. NE of USFS Chamberlain Guard Station, Payette NF, McCall
940829

Cold Meadows Guard Station
94001017
Payette National Forest, NE of McCall, Frank Church-River of No Return Wilderness, McCall
940819

RIGGINS

Aitken Barn
82002512
SW of Riggins on US 95, Riggins
820809

Bemis, Polly, House
87002152
Accessible on Salmon River via boat, Riggins
880304

SHOUP

Foster, Blacky, House
92000307
Along Salmon R. W of Shoup, Bitterroot NF, Shoup
920410

WARREN

Ah Toy Garden
90000893
Along China Cr. near jct. with S. Fork Salmon R., Payette NF, Warren
900627
Chinese Sites in the Warren Mining District MPS

Burgdorf
72000441
About 15 mi. W of Warrens, Warrens
720414

Celadon Slope Garden
90000891
Along China Cr. near jct. with S. Fork Salmon R., Payette NF, Warren
900627
Chinese Sites in the Warren Mining District MPS

Chi-Sandra Garden
90000892
Along China Cr. near jct. with S. Fork Salmon R., Payette NF, Warren
900627
Chinese Sites in the Warren Mining District MPS

Chinese Cemetery
94000270
Payette National Forest; 0.5 mi. NW of Warren Wagon Rd. at Bemis Crk., Warren
940329
Chinese Sites in the Warren Mining District MPS

*The **Sue McBeth Cabin** (Idaho County) is a significant reminder of the missionary enterprise among the Nez Perce Indians of Kamiah. McBeth took over the Kamiah mission and school in 1873 following Henry Spalding's death. The cabin was erected in 1880 as a residence and schoolhouse. (c. 1890; ISHS 63-221.6.)*

Old China Trail
90000894
Along China Cr. near jct. with S. Fork Salmon R., Payette NF, Warren
900627
Chinese Sites in the Warren Mining District MPS

Warren Guard Station, Building 1206
94000271
Payette National Forest; SW side, Warren Wagon Rd., Forest Highway 21, Warren
940407

WHITE BIRD

White Bird Battlefield
74000332
N of White Bird off U.S. 95, White Bird
740718 (NPNHP)

White Bird Grade
74000740
NE of White Bird, White Bird
740730

JEFFERSON COUNTY

ANNIS

Scott, Josiah, House
82000387
SW of Annis, Annis
821108

RIGBY

Jefferson County Courthouse
87001586
134 N. Clark, Rigby
870927
County Courthouses in Idaho MPS

RIRIE

Ririe A Pegram Truss Railroad Bridge
97000759
Over the Snake R., 1 mi. NNE of jct. of Heise Rd. and East Belt Branch RR tracks, Ririe
970725
Pegram Truss Railroad Bridges of Idaho MPS

*The **County Courthouses in Idaho Multiple Property Submission** (MPS) documents county government and courthouse architecture from 1864 to 1945. The **Jefferson County Courthouse** in Rigby (Jefferson County) is a Works Progress Administration project and highlights the Art Deco style popular at the time of its construction in 1938. It is the best-preserved of three nearly identical courthouses designed by Sundburg and Sundburg of Idaho Falls. Thirteen other courthouses are documented in the MPS. (1987; ISHS 1997.21.13.)*

Ririe B Pegram Truss Railroad Bridge
97000760
Over the Snake R. flood channel, 0.5 mi. NNE of jct. of Heise Rd. and East Belt Branch RR tracks, Ririe
970725
Pegram Truss Railroad Bridges of Idaho MPS

ROBERTS

Hotel Patrie
78001068
U.S. 91, Roberts
781107

JEROME COUNTY

EDEN

Vinyard, Charles C., House
83002313
SW of Eden, Eden
830908
Lava Rock Structures in South Central Idaho TR

HAZELTON

Havens, Bert and Fay, House
83002346
N of Hazelton, Hazelton
830908
Lava Rock Structures in South Central Idaho TR

Hazelton Presbyterian Church
91000459
310 Park Ave., Hazelton
910426

Kelley, Marion and Julia, House
83002343
450 4th St. E., Hazelton
830908
Lava Rock Structures in South Central Idaho TR

Shepard, L. Fay, House
83002300
S of Hazelton, Hazelton
830908
Lava Rock Structures in South Central Idaho TR

HUNT

Minidoka Relocation Center
79000791
Hunt Rd., Hunt
790710

Wilson Butte Cave
74000741
Address Restricted, Hunt
741121

JEROME

Allton Building
83002299
160 E. Main St., Jerome
830908
Lava Rock Structures in South Central Idaho TR

Barnes, Tom, Barn
83002317
E of Jerome, Jerome
830908
Lava Rock Structures in South Central Idaho TR

Bethune-Ayres House
83002318
E of Jerome, Jerome
830908
Lava Rock Structures in South Central Idaho TR

Blessing, Carl, Outbuildings
83002319
NW of Jerome, Jerome
830908
Lava Rock Structures in South Central Idaho TR

Bothwell, James, Water Tank House
83002320
N of Jerome, Jerome
830908
Lava Rock Structures in South Central Idaho TR

Bower, Charles, House
83002321
N of Jerome, Jerome
830908
Lava Rock Structures in South Central Idaho TR

Brick, Frank J., House
83002322
300 N. Fillmore St., Jerome
830908
Lava Rock Structures in South Central Idaho TR

Callen, Dick, House
83002323
S of Jerome, Jerome
830908
Lava Rock Structures in South Central Idaho TR

Canyonside School
83003579
S of Jerome, Jerome
831014
Lava Rock Structures in South Central Idaho TR

Cook, William H., Water Tank House
83004211
SE of Jerome, Jerome
830908
Lava Rock Structures in South Central Idaho TR

Cooke, E. V., House
83002324
NE of Jerome, Jerome
830908
Lava Rock Structures in South Central Idaho TR

Daniels, O. J., House
83002325
S of Jerome, Jerome
830908
Lava Rock Structures in South Central Idaho TR

Doughty, George V., House and Garage
83002326
NE of Jerome, Jerome
830915
Lava Rock Structures in South Central Idaho TR

Epperson, George, House
83002354
SE of Jerome, Jerome
830908
Lava Rock Structures in South Central Idaho TR

*The **Jacob B. Van Wagener Barn** (Jerome County) is one of a hundred basalt masonry structures included in the **Lava Rock Structures of South Central Idaho Thematic Resource**. Once a demonstration farm, the barn represents not only the history of lava rock construction technology (between 1875 and 1941) but also the history of settlement of Jerome and Lincoln counties and the development of agriculture on the Northside Irrigation Tract. (1916; ISHS 73-221.817/d.)*

Erdman, G. H., House
83002353
W of Jerome, Jerome
830908
Lava Rock Structures in South Central Idaho TR

Falls City School House
83002352
SE of Jerome, Jerome
830908
Lava Rock Structures in South Central Idaho TR

Fry, Merrit, Farm
83002351
W of Jerome, Jerome
830908
Lava Rock Structures in South Central Idaho TR

Gleason, E. C. House
83002350
209 E. Ave. A, Jerome
830908
Lava Rock Structures in South Central Idaho TR

Goff, Hugh and Susie, House
83002349
NE of Jerome, Jerome
830908
Lava Rock Structures in South Central Idaho TR

Graves, Lulu, Farm
83002348
NW of Jerome, Jerome
830908
Lava Rock Structures in South Central Idaho TR

Gregg, Edward M., Farm
83002347
SE of Jerome, Jerome
830908
Lava Rock Structures in South Central Idaho TR

Huer Well House/Water Tank
83002345
NE of Jerome, Jerome
830908
Lava Rock Structures in South Central Idaho TR

Jerome City Pump House
83002344
600 Block of E. B St., Jerome
830908
Lava Rock Structures in South Central Idaho TR

Jerome Cooperative Creamery
83002338
313 S. Birch St., Jerome
830908
Lava Rock Structures in South Central Idaho TR

Jerome County Courthouse
87001600
N. Lincoln, Jerome
870928
County Courthouses in Idaho MPS

Jerome First Baptist Church
83002339
1st Ave. E., Jerome
830908
Lava Rock Structures in South Central Idaho TR

Jerome National Bank
78001069
100 E. Main St., Jerome
780109

Johnson, Edgar, House
83002340
S of Jerome, Jerome
830908
Lava Rock Structures in South Central Idaho TR

Keating, Clarence, House
83002341
NE of Jerome, Jerome
830908
Lava Rock Structures in South Central Idaho TR

Kehrer, Thomas J., House
83002342
N of Jerome, Jerome
830908
Lava Rock Structures in South Central Idaho TR

Laughlin, Ben, Water Tank House-Garage
83002337
E of Jerome, Jerome
830908
Lava Rock Structures in South Central Idaho TR

Lawshe, George, Well House
83002336
SE of Jerome, Jerome
830908
Lava Rock Structures in South Central Idaho TR

Lee, J. O., House
83002335
324 5th Ave. E., Jerome
830908
Lava Rock Structures in South Central Idaho TR

Lee, J. O., Honey House
83002334
322 5th Ave. E., Jerome
830908
Lava Rock Structures in South Central Idaho TR

Mandl, Joseph, House
83002333
800 N. Fillmore St., Jerome
830908
Lava Rock Structures in South Central Idaho TR

Newman, J. W. and Rachel, House and Bunkhouse
83002332
E of Jerome, Jerome
830908
Lava Rock Structures in South Central Idaho TR

North Side Canal Company Slaughter House
83002331
NE of Jerome, Jerome
830908
Lava Rock Structures in South Central Idaho TR

Osborne, Jessie, House
83002329
W of Jerome, Jerome
830908
Lava Rock Structures in South Central Idaho TR

Quay, Greer and Jennie, House
83002330
NE of Jerome, Jerome
830908
Lava Rock Structures in South Central Idaho TR

Ricketts, Julian T., House
83002328
SE of Jerome, Jerome
830908
Lava Rock Structures in South Central Idaho TR

Schmerschall, John F., House
83002327
248 E. Ave. A, Jerome
830908
Lava Rock Structures in South Central Idaho TR

Shoshone Falls Power Plant Caretaker's House
83002301
SE of Jerome, Jerome
830908
Lava Rock Structures in South Central Idaho TR

Silbaugh, W. H., House
83002302
W of Jerome, Jerome
830908
Lava Rock Structures in South Central Idaho TR

Spencer, Edward S., House and Garage and the Fred Nelson Barn
83002303
N of Jerome, Jerome
830908
Lava Rock Structures in South Central Idaho TR

Stevens, Arnold, House
83002304
W of Jerome, Jerome
830908
Lava Rock Structures in South Central Idaho TR

Stickel, John, House
83002305
W of Jerome, Jerome
830908
Lava Rock Structures in South Central Idaho TR

Sugarloaf School
83002306
E of Jerome, Jerome
830908
Lava Rock Structures in South Central Idaho TR

Thomason, Rice, Barn
83002307
E of Jerome, Jerome
830908
Lava Rock Structures in South Central Idaho TR

Tooley, Don, House
83002308
NE of Jerome, Jerome
830908
Lava Rock Structures in South Central Idaho TR

Van Hook, Jay, Potato Cellar
83002309
S of Jerome, Jerome
830908
Lava Rock Structures in South Central Idaho TR

Van Wagener, Jacob B., Barn
83002310
SE of Jerome, Jerome
830908
Lava Rock Structures in South Central Idaho TR

Van Wagener, Jacob B., Caretaker's House
83002311
SE of Jerome, Jerome
830908
Lava Rock Structures in South Central Idaho TR

*Situated in Coeur d'Alene (Kootenai County), the **John P. and Stella Gray House** (c. 1913) is significant as an example of the Tudor Revival architecture of noted Pacific Northwest architect Kirtland K. Cutter. John Gray, who commissioned the house, was a prominent north Idaho lawyer widely known for his work in the field of mining law. (c. 1984; ISHS 1997.21.14.)*

Veazie, William T. and Clara H., House
83002312
SW of Jerome, Jerome
830908
Lava Rock Structures in South Central Idaho TR

Vipham, Thomas, House
83002314
313 E. Ave. D, Jerome
830908
Lava Rock Structures in South Central Idaho TR

Webster, Archie, House
83002316
West Ave. and W. Ave. B, Jerome
830908
Lava Rock Structures in South Central Idaho TR

Weigle, William, House and Water Tank
83002315
NW of Jerome, Jerome
830908
Lava Rock Structures in South Central Idaho TR

MURTAUGH

Caldron Linn
72000442
2 mi. E of Murtaugh, Murtaugh
720627

KOOTENAI COUNTY

ATHOL

Cedar Mountain School
85002093
Parks and Lewellyn Creek Rds., Athol
850912
Kootenai County Rural Schools TR

BAYVIEW

Bayview School II
85002090
Careywood Rd., Bayview
850912
Kootenai County Rural Schools TR

CAMP MIVODEN

East Hayden Lake School II
85002095
Hayden Lake Rd., Camp Mivoden
850912
Kootenai County Rural Schools TR

CATALDO

Cataldo Mission
66000312
Off U.S. 10, Cataldo
661015 (NHL)

CLARKSVILLE

Clark House
78001070
On Hayden Lake, Clarksville
781212

COEUR D'ALENE

Coeur d'Alene City Hall
79000792
5th and Sherman Sts., Coeur d'Alene
790803

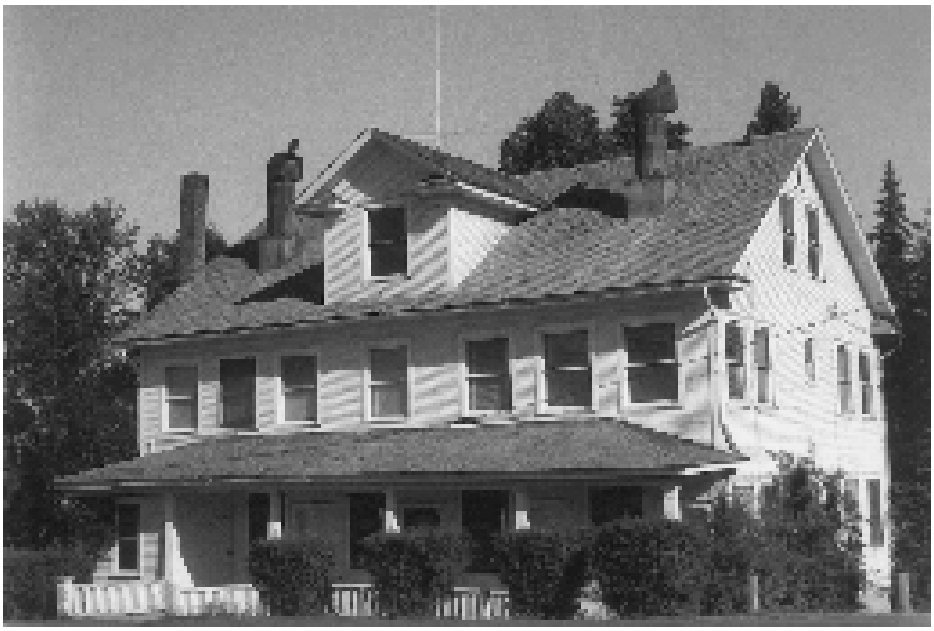
Coeur d'Alene Federal Building
77000461
4th and Lakeside, Coeur d'Alene
771216

Coeur d'Alene Masonic Temple
78001071
524 Sherman Ave., Coeur d'Alene
780522

Davey, Harvey M., House
85001126
315 Wallace Ave., Coeur d'Alene
850523

First United Methodist Church
79000793
618 Wallace Ave., Coeur d'Alene
790618

*Potlatch was originally established as a company town by the Potlatch Lumber Company in the first decade of the 20th Century. Included in the **Commercial Historic District**, the company's main administrative office (shown here) was built in 1917. It later became the city hall when the company sold the town and the city incorporated in the mid-1950s. The **Historic Resources of Potlatch Multiple Resource Area** (Latah County) includes 45 residential, commercial, public, and religious buildings illustrating the elements of a company town. (1986; ISHS 1997.21.15.)*



Fort Sherman Buildings
79000794
North Idaho College campus, Coeur d'Alene
791025

Gray, John P. and Stella, House
88000272
521 S. 13th St., Coeur d'Alene
880331

Inland Empire Electric Railway Substation
75000633
Mullan Rd. and Northwest Blvd., Coeur d'Alene
750627

Kootenai County Courthouse
77000462
501 Government Way, Coeur d'Alene
771223

Mullan Road
90000548
3 segments: 1)between Alder Creek and Cedar Creek; 2)Fourth of July Pass between I-80 and Old U.S. 10; 3)Heyburn State Park, Coeur d'Alene
900405

Prairie School II
85002100
Prairie Ave., Coeur d'Alene
850912
Kootenai County Rural Schools TR

Roosevelt School
76000676
1st and Wallace Sts., Coeur d'Alene
760730

Sherman Park Addition
92000418
Bounded by Garden Ave., Hubbard St., Lakeshore Dr. and Park Dr., Coeur d'Alene
920427

St. Thomas Catholic Church
77000463
919 Indiana Ave., Coeur d'Alene
771005

HARRISON

Harrison Commercial Historic District
96001505
Roughly bounded by N. Lake Ave., W. Harrison St., N. Coeur d'Alene Ave., and Pine St., Harrison
961220

HAYDEN LAKE

Finch, John A., Caretaker's House
87001562
2160 Finch Rd., Hayden Lake
870914

Thunborg, Jacob and Cristina, House
85002156
Chicken Point, Hayden Lake
850912

LANE

Lane School II
85002097
Lanz Rd., Lane
850912
Kootenai County Rural Schools TR

MCGUIRE

McGuires School
85002098
Corbin Rd. and Old Hwy. 10, McGuire
850912
Kootenai County Rural Schools TR

MEDIMONT

Cave Lake School
85002092
ID 3, Medimont
850912
Kootenai County Rural Schools TR

Indian Springs School II
85002096
ID 3, Medimont
850912
Kootenai County Rural Schools TR

PLEASANT VIEW

Pleasant View School II
85002099
Pleasant View Rd., Pleasant View
850912

*A fuel source was not readily available to process the lead-silver ore mined in the upper Birch Creek area in the 1880s. The **Birch Creek Charcoal Kilns** (Lemhi County) were constructed to manufacture charcoal for the smelting process. Four of the original sixteen kilns remain. (1994; ISHS 1997.21.16.)*

Kootenai County Rural Schools TR

POST FALLS

Cougar Gulch School III
85002094
Cougar Gulch Rd., Post Falls
850912
Kootenai County Rural Schools TR

Post Falls Community United Presbyterian Church
84003851
4th and William Sts., Post Falls
840907

Treaty Rock
92000420
N of I-90, NE of Spokane R. falls, Post Falls
920430

Washington Water Power Bridges
96001507
0.5 mi. W of intersection of Spokane and 4th Sts., Post Falls
961220

Young, Samuel and Ann, House
97000765
120 4th Ave., Post Falls
970709

RATHDRUM

Rathdrum State Bank
74000742
1st and Mills Sts., Rathdrum
741108

St. Stanislaus Kostka Mission
77000464
McCartney and 3rd Sts., Rathdrum
771117

ROCKFORD BAY

Bellgrove School II
85002091
Hamaker Rd., Rockford Bay
850912
Kootenai County Rural Schools TR

ROSE LAKE

Rose Lake School II
85002101
Queen St. and ID 3, Rose Lake
850912
Kootenai County Rural Schools TR

SILVER SANDS BEACH

Upper Twin Lakes School
85002102
Twin Lakes Rd., Silver Sands Beach
850912
Kootenai County Rural Schools TR

SPIRIT LAKE

Spirit Lake Historic District
79000795
Maine St., Spirit Lake
790208

To aid the spread of Roman Catholicism on the Indian reservations, ***St. Joseph's Mission*** *was built in 1874 by Father Joseph Cataldo at Slickpoo (Lewis County). However, the mission was met with resistance by the anti-Catholic missionary, Henry Harmon Spalding. The church and mission cemetery are the only visible remains of the former community and are currently part of the Nez Perce National Historical Park. (date unknown; ISHS 63-111.2.)*

LATAH COUNTY

BOVILL

Hotel Bovill
94000629
602 Park St., Hwy 3, Bovill
940623

St. Joseph's Catholic Church
82000351
1st and Cedar, Bovill
821117
Tourtellotte and Hummel Architecture TR

GENESEE

Genesee Exchange Bank
79000796
Walnut St., Genesee
790108

Vollmer Building
79000797
Walnut St., Genesee
790108

KENDRICK

Bethany Memorial Chapel
79000798
Kendrick-Deary Hwy., Kendrick
791206

MOSCOW

Administration Building, University of Idaho
78001072
University of Idaho campus, Moscow
780214

Cordelia Lutheran Church
95001058
.25 mi. S of jct. of Genesee-Troy and Danielson Rds., Moscow
950831

Cornwall, Mason, House
77000465
308 S. Hayes St., Moscow
771202

Davids' Building
79000799
3rd and Main Sts., Moscow
791211

First Methodist Church
78001073
322 E. 3rd St., Moscow
781005

Fort Russell Neighborhood Historic District
80001329
Roughly bounded by Jefferson, Monroe, 2nd and D Sts., Moscow
801126

Hotel Moscow
78001074
4th and Main Sts., Moscow
781130

Kappa Sigma Fraternity, Gamma Theta Chapter
96000945
918 Blake St., Moscow
960903

Lieuallen, Almon Asbury, House
78001075
101 S. Almon St., Moscow
780103

McConnell, W. J., House
74000743
110 S. Adams St., Moscow
741121

McConnell-McGuire Building
78001076
Main and 1st Sts., Moscow
780207

Memorial Gymnasium
77000466
University of Idaho campus, Moscow
771005

Moscow Carnegie Library
79000800
110 S. Jefferson St., Moscow
790618

Moscow High School
92000416
410 3rd E., Moscow
920505
Public School Buildings in Idaho MPS

Moscow Post Office and Courthouse
73000686
Washington and 3rd Sts., Moscow
730703

Ridenbaugh Hall
77000467
University of Idaho campus, Moscow
770914

Sigma Alpha Epsilon Fraternity House
93001335
920 Deakin St., Moscow
931202

Skattaboe Block
78001077
Main and 4th Sts., Moscow
780522

University of Idaho Gymnasium and Armory
83000287
University of Idaho campus, Moscow
830103
Tourtellotte and Hummel Architecture TR

*The Union Pacific Depot represents the growth of Shoshone (Lincoln County) as a rail, farming and ranching community. This Mission-styled depot was built in 1929 and is included in the **Shoshone Historic District**. (1972; ISHS 72-100.5/b.)*

POTLATCH

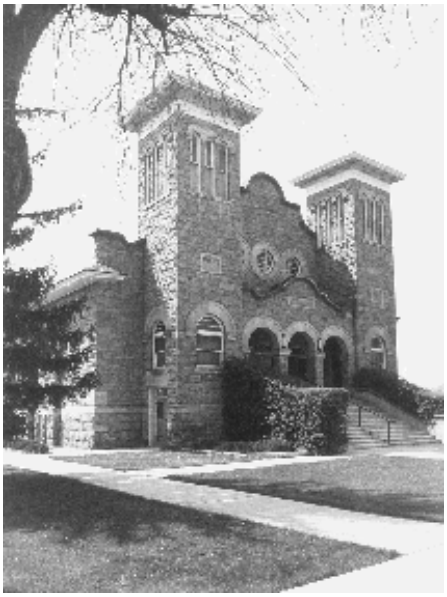
American Legion Cabin
86002197
US Alt. 95, Potlatch
860911
Potlatch MRA

Boarding House
86002199
850 Pine St., Potlatch
860911
Potlatch MRA

Commercial Historic District
86002201
Roughly Pine St. between 7th and 5th Sts., Potlatch
860911
Potlatch MRA

Four-Room House
86002204
1015 Pine St., Potlatch
860911
Potlatch MRA

Originally known as the Fremont Stake Tabernacle, the 1911 ***Rexburg Stake Tabernacle*** *(Madison County) is constructed of local stone. The property's Italianate-influenced style is rare in Idaho. It is also important in its association with Mormon settlement in southeastern Idaho. (date unknown; ISHS 74-5.57.)*



Freeze Community Church
90000679
1 mi. W of US 95, Potlatch
900503

Nob Hill Historic District
86002206
Roughly bounded by 4th, Spruce, 3rd, and Cedar Sts., Potlatch
860911
Potlatch MRA

Terteling, Joseph A., House
86002208
1015 Fir St., Potlatch
860911
Potlatch MRA

Three-Room House
86002210
940 Cedar St., Potlatch
860911
Potlatch MRA

Workers' Neighborhood Historic District
86002211
Roughly Spruce St. between 8th and 5th Sts., Potlatch
860911
Potlatch MRA

LEMHI COUNTY

COBALT

Shoup Rockshelters
74000744
Address Restricted, Cobalt
741108

LEADORE

Birch Creek Charcoal Kilns
72001577
Off SR 28, Leadore
720223

SALMON

Episcopal Church of the Redeemer
79000801
1st St. N. at Fulton St., Salmon
790112

Fort Lemhi
72000443
18 mi. SE of Salmon, Salmon
720223

Geertson, Lars, House
80001330
SE of Salmon, Salmon
800403

Leesburg
75000634
W of Salmon at Napias Creek in Salmon National Forest, Salmon
750404

Lemhi County Courthouse
78001078
1st St. N. and Broadway, Salmon
780207

Myers, Socrates A., House
77000468
300 Hall St., Salmon
771202

Odd Fellows Hall
78001079
516 Main St., Salmon
780207

Salmon City Hall and Library
82000352
200 Main St., Salmon
821117
Tourtellotte and Hummel Architecture TR

Salmon Odd Fellows Hall
78001080
510-514 Main St., Salmon
780825

Shoup Building
78001081
Center and Main Sts., Salmon
780331

TENDOY

First Flag Unfurling Site, Lewis and Clark Trail
75000635
5 mi. N of Tendoy in Bitterroot Mountains, Tendoy
750822

Lemhi Pass
66000313
12 mi. E of Tendoy off ID 28 in Beaverhead and Salmon National Forests, Tendoy
661015 (NHL)

LEWIS COUNTY

CULDESAC

St. Joseph's Mission
76000677
S of Culdesac off U.S. 95, Culdesac
760624 (NPNHP)

KAMIAH

Bridwell, James F., House
88001446
107 5th St., Kamiah
890406

State Bank of Kamiah
78001082
ID 64, Kamiah
780829

LINCOLN COUNTY

DIETRICH

Bate, S. A., Barn and Chicken House
83002358
SE of Dietrich, Dietrich
830908
Lava Rock Structures in South Central Idaho TR

Berriochoa, Ignacio, Farm
83002360
NW of Dietrich, Dietrich
830908
Lava Rock Structures in South Central Idaho TR

Hunt, Daniel A., House
83002371
SW of Dietrich, Dietrich
830908
Lava Rock Structures in South Central Idaho TR

Paul, Denton J., Water Tank
83002384
E of Dietrich, Dietrich
830908
Lava Rock Structures in South Central Idaho TR

RICHFIELD

Boussuet, Birdie, Farm
83002361
W of Richfield, Richfield
830908
Lava Rock Structures in South Central Idaho TR

Eskelton, Alvin, Barn
83002367
NW of Richfield, Richfield
830908
Lava Rock Structures in South Central Idaho TR

Johnson, Louis, Barn
83002373
SW of Richfield, Richfield
830908
Lava Rock Structures in South Central Idaho TR

Johnson, Louis, Water Tank House
83002374
W of Richfield, Richfield
830908
Lava Rock Structures in South Central Idaho TR

Johnson, Quet, Farm
83002375
NW of Richfield, Richfield
830908
Lava Rock Structures in South Central Idaho TR

Kohl, W. S., Barn
83002376
NE of Richfield, Richfield
830908
Lava Rock Structures in South Central Idaho TR

Lane, James H., Barn
83002377
S of Richfield, Richfield
830908
Lava Rock Structures in South Central Idaho TR

*The **Minidoka Dam** (Minidoka County), constructed in 1904-06, resulted in a significant irrigation canal system for the Minidoka reclamation project authorized by Congress in 1902. The associated Power Plant followed in 1913 and was the earliest federal hydroelectric plant in the Pacific Northwest. Large reclamation projects such as this were vital influences on the agricultural development of the arid lands of southern Idaho. (1910; ISHS 77-127.2/c.)*

Central Idaho TR

SHOSHONE

American Legion Hall
83002355
107 W. A St., Shoshone
830908
Lava Rock Structures in South Central Idaho TR

Anasola, Jose and Gertrude, House
83002356
120 N. Alta St., Shoshone
830908
Lava Rock Structures in South Central Idaho TR

Arambarri, Galo, Boarding House
83002357
109 N. Greenwood St., Shoshone
830908
Lava Rock Structures in South Central Idaho TR

Baugh, W. H., House
83002359
E of Shoshone, Shoshone
830908
Lava Rock Structures in South Central Idaho TR

Byrne, Tom, House
83002362
NE of Shoshone, Shoshone
830908
Lava Rock Structures in South Central Idaho TR

Custer Slaughter House
83002363
W of Shoshone, Shoshone
830908
Lava Rock Structures in South Central Idaho TR

Darrah House and Water Tank House
83002365
NE of Shoshone, Shoshone
830908
Lava Rock Structures in South Central Idaho TR

Darrah, Ben, Water Tank and Well House
83002364
N of Shoshone, Shoshone
830908
Lava Rock Structures in South Central Idaho TR

Dill, Charles W., House
83002366
E of Shoshone, Shoshone
830908
Lava Rock Structures in South Central Idaho TR

Gaches, George H., Cellar and Ice House
83002368
NW of Shoshone, Shoshone
830908
Lava Rock Structures in South Central Idaho TR

Gooding, Thomas, Water Tank House
83002369
NW of Shoshone, Shoshone
830908
Lava Rock Structures in South Central Idaho TR

Gottfried, Gehrig, Cabin
83002370
NW of Shoshone, Shoshone
830908
Lava Rock Structures in South Central Idaho TR

J. C. Penney Company Building
83002372
104 S. Rail St., Shoshone
830908
Lava Rock Structures in South Central Idaho TR

Murphy, W. H., House
83002379
607 S. Greenwood St., Shoshone
830908
Lava Rock Structures in South Central Idaho TR

Myers School
83002380
W of Shoshone, Shoshone
830908
Lava Rock Structures in South Central Idaho TR

*The Dutch Colonial Revival-styled **Gaylord Thompson House**—designed by prominent architect James Nave—was built in 1904 as one of the nine original houses of the Blanchard Heights development in Lewiston (Nez Perce County). Initially, all houses constructed in Blanchard Heights were required to cost at least $1,500, ensuring an exclusive neighborhood. (1978; ISHS 78-5.271.)*

Newman, A. G., House
83002381
309 E. C St., Shoshone
830908
Lava Rock Structures in South Central Idaho TR

Olley, Thomas, House
83002382
522 N. Apple St., Shoshone
830908
Lava Rock Structures in South Central Idaho TR

Oughton, Jack, House
83002383
123 N. Beverly St., Shoshone
830908
Lava Rock Structures in South Central Idaho TR

Purdum Livery Stable
83002393
113 N. Rail St. E., Shoshone
830915
Lava Rock Structures in South Central Idaho TR

Ritter, William M., House
83002387
NE of Shoshone, Shoshone
830908
Lava Rock Structures in South Central Idaho TR

Shoshone Historic District
75000636
Irregular pattern, includes N bank of Little Wood River and W. D St., Shoshone
750627

Silva, Arthur D., Flume
83002388
NW of Shoshone, Shoshone
830908
Lava Rock Structures in South Central Idaho TR

Silva, Arthur D., Ranch
83002389
NW of Shoshone, Shoshone
830908
Lava Rock Structures in South Central Idaho TR

Lemmon Hardware Store
83002378
Main St. and Nez Perce Ave., Richfield
830908
Lava Rock Structures in South Central Idaho TR

Phelps, Kenneth G., Barn
83002385
W of Richfield, Richfield
830908
Lava Rock Structures in South Central Idaho TR

Richfield Pump House
83002386
SE of Richfield, Richfield
830908
Lava Rock Structures in South Central Idaho TR

Turner, John G., House
83002392
W of Richfield, Richfield
830908
Lava Rock Structures in South Central Idaho TR

Silva, Arthur D., Water Tank
83002390
NW of Shoshone, Shoshone
830908
Lava Rock Structures in South Central Idaho TR

Silva, Manuel, Barn
83002391
E of Shoshone, Shoshone
830908
Lava Rock Structures in South Central Idaho TR

MADISON COUNTY

REXBURG

Madison County Courthouse
87001587
E. Main St., Rexburg
870922
County Courthouses in Idaho MPS

*Erected in two phases at the turn of the century, the **Co-op Block and J.N. Ireland Bank** building in Malad (Oneida County) is one of Idaho's few surviving structures directly resulting from the Mormon United Order Cooperative Movement of 1874. (1978; ISHS 78-5.417/a.)*

Rexburg Stake Tabernacle
74000745
25 N. Center St., Rexburg
740503

Spori, Jacob, Building
89000329
100 E. 2nd South, Rexburg
890420

MINIDOKA COUNTY

MINIDOKA

Minidoka Dam and Power Plant
74000746
S of Minidoka, Minidoka
741029

NEZ PERCE COUNTY

LAPWAI

First Lapwai Bank
80001331
302 W. 1st St., Lapwai
800312

First Presbyterian Church
80001332
Locust and 1st St. E., Lapwai
800312

LENORE

Lenore Site
74000284
Address Restricted, Lenore
74112 (NPNHP)

LEWISTON

Aspoas, James, House
94001366
1610 15th Ave., Lewiston
941125

Booth, Frank, House
94001367
1608 17th Ave., Lewiston
941125

Breier Building
86001261
631-633 Main St., Lewiston
860613

Mining was one of the major stimuli for western expansion and is the theme of the ***Silver City Historic District*** *(Owyhee County). These commercial buildings in Silver City are representative of the many resouces identified within the sixteen square mile district. Ruby City, Boonsville, Dewey, and Fairview along with major silver mines on War Eagle and Florida mountains are also included. The buildings were built around 1865. (1994; ISHS 1997.21.21.)*

First Christian Church
78001083
7th Ave. and 7th St., Lewiston
780831

Garfield School
82002513
2912 5th Ave., Lewiston
820415

Hasotino
76000678
Address Restricted, Lewiston
760402 (NPNHP)

Hatwai Village Site
82000353
Address Restricted, Lewiston
821108

Hester, Patrick J. and Lydia, House
94001365
1622 15th Ave., Lewiston
941125

Idaho Grocery Warehouse and Annex
82000354
1209 Main St., Lewiston
821117
Tourtellotte and Hummel Architecture TR

***JEAN* (steamboat)**
89001001
3620 A Snake River Ave. in Hells Gate State Park, Lewiston
890808

Kettenbach, Henry C., House
78001084
1026 9th Ave., Lewiston
780207

Lewiston City Hall
82000355
207 3rd St., Lewiston
821117
Tourtellotte and Hummel Architecture TR

Lewiston Depot
73000687
13th and Main Sts., Lewiston
730507

Lewiston Historic District
75000637
Irregular pattern between 1st and 5th Sts. and B St. and the Snake River, Lewiston
750605

Lewiston Historic District (Boundary Increase)
84003852
Roughly bounded by 1st, B, 6th, and F Sts., Lewiston
840907

Lewiston Methodist Church
79000802
805 6th Ave., Lewiston
790920

Lewiston Vineyards Gates
83000288
18th Ave. and 10th, Lewiston
830414
Tourtellotte and Hummel Architecture TR

McLaren, William and Elizabeth, House
92001413
1602 15th Ave., Lewiston
921106

Nave Apartments
78001085
600 block of 8th St., Lewiston
780803

Nez Perce Snake River Archeological District
78001086
Address Restricted, Lewiston
781222

St. Stanislaus Catholic Church
78001087
633 5th Ave., Lewiston
780207

Tamblyn, Agnes M., House
94001364
1506 17th Ave., Lewiston
941125

Thompson, Gaylord, House
92000419
1824 17th Ave., Lewiston
920504

Twenty-One Ranch House
78001088
S of Lewiston at 7570 Waha Rd., Lewiston
781218

Wyatt, W. R. and Louisa E., House
94001362
1524 18th Ave., Lewiston
941125

PECK

American Woman's League Chapter House
86002158
217 N. Main St., Peck
860904

ONEIDA COUNTY

MALAD CITY

Co-Op Block and J. N. Ireland Bank
79000804
Main and Bannock Sts., Malad City
790418

Evans, D. L., Sr., Bungalow
79000805
203 N. Main St., Malad City
790830

Jones, Jedd, House
79000806
242 N. Main St., Malad City
790501

Malad Second Ward Tabernacle
79000803
20 S. 100 W. St., Malad City
790727

Oneida County Courthouse
87001588
Court St., Malad City
871127
County Courthouses in Idaho MPS

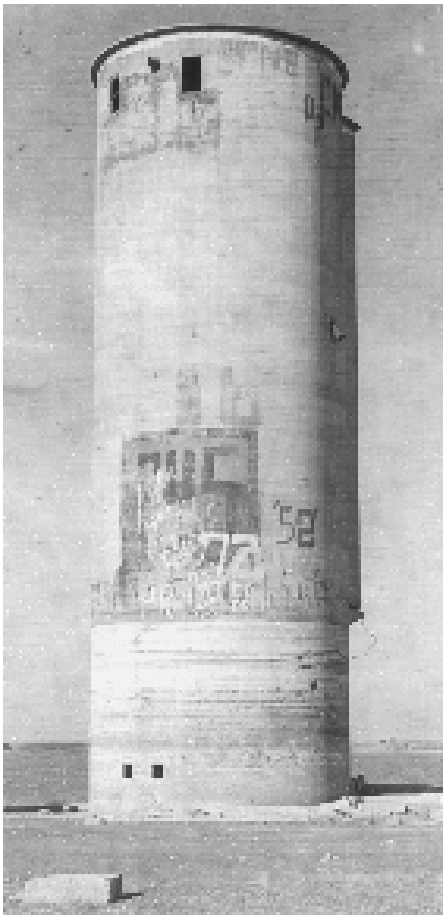
*One of Payette's more outstanding structures, the Neo-Classical Revival-styled **Payette City Hall and Courthouse** (Payette County) was used by the county and city governments until the early 1970s when it was sold. (1978; ISHS 78-5.68.)*

United Presbyterian Church
79000807
7 S. Main St., Malad City
791016

SAMARIA

Samaria Historic District
79003740
Roughly bounded by Main and 3rd Sts., 1st Ave. N. and S end of 2nd St., Samaria
790611

*Located in American Falls Reservoir, the **Oneida Milling and Elevator Company Grain Elevator** (1912) serves as the only visible reminder of the original American Falls townsite and its association with grain production in Power County. The town and most of its structures were moved in 1925 when the reservoir inundated the old townsite. (date unknown; ISHS 1997.21.17.)*



OWYHEE COUNTY

BRUNEAU

Bruneau Episcopal Church
82000356
Off ID 51, Bruneau
821117
Tourtellotte and Hummel Architecture TR

HOMEDALE

Poison Creek Stage Station
78001089
S of Homedale off Jump Creek Rd., Homedale
780522

MURPHY

Bernard's Ferry
78001090
N of Murphy off ID 78, Murphy
780522

Noble Horse Barn
91000989
Reynolds Cr. 12 mi. SW of Murphy, Murphy
910807

Owyhee County Courthouse
82000357
ID 45, Murphy
821117
Tourtellotte and Hummel Architecture TR

OREANA

Our Lady, Queen of Heaven Church
80001333
Roughly 1 mi. S of Oreana, Oreana
801128

REYNOLDS

Camp Lyon Site
72000444
1 mi. E of U.S. 95, Reynolds
721227

SILVER CITY

Camp Three Forks
72000445
S of Silver City, Silver City
721215

Delamar Historic District
76000679
6 mi. W of Silver City, Silver City
760513

Silver City Historic District
72000446
Silver City and its environs, Silver City
720519

WAGON BOX BASIN

Camas and Pole Creeks Archeological District
86001203
Address Restricted, Wagon Box Basin
860528

WICKAHONEY

Wickahoney Post Office and Stage Station
82002514
Wickahoney Creek, Wickahoney
820527

PAYETTE COUNTY

NEW PLYMOUTH

New Plymouth Congregational Church
82000359
Southwest Ave. between West Park and Plymouth, New Plymouth
821117
Tourtellotte and Hummel Architecture TR

PAYETTE

Chase, David C., House
78001091
307 9th St. N., Payette
780207

Coughanour Apartment Block
78001092
700-718 1st Ave. N., Payette
780523

Jacobsen, N. A., Building
82000358
N. 8th St. and 1st Ave., Payette
821117
Tourtellotte and Hummel Architecture TR

Methodist Episcopal Church of Payette
77000469
1st Ave. S. and 9th St., Payette
771005

Moss, A. B., Building
78001093
137 N. 8th St., Payette
780208

Palumbo, J. C., Fruit Company Packing Warehouse Building
82000360
2nd Ave. and 6th St., Payette
821117
Tourtellotte and Hummel Architecture TR

Payette City Hall and Courthouse
79000808
3rd Ave. and 8th St., Payette
790514

St. James Episcopal Church
78001094
1st Ave. N. and 10th St., Payette
780420

US Post Office—Payette Main
89000134
915 Center Ave., Payette
890316
US Post Offices in Idaho 1900-1941 MPS

Whitney, Grant, House
78001095
1015 7th Ave. N., Payette
780223

Woodward Building
78001096
23 8th St., Payette
780426

POWER COUNTY

AMERICAN FALLS

American Falls East Shore Power Plants
76000680
ID 39, American Falls
761029

Bethany Deaconess Hospital
95000507
500 Pocatello Highway Ave., American Falls
950427

Oneida Milling and Elevator Company Grain Elevator
93000380
Offshore in American Falls Reservoir, American Falls
930716

Oregon Trail Historic District
73000688
SW of American Falls along U.S. 30N, American Falls
730320

Oregon Trail Historic District (Boundary Increase)
74002296
W of American Falls, American Falls
740607

Power County Courthouse
87001601
Bannock Ave., American Falls
870922
County Courthouses in Idaho MPS

*The population boom of the Coeur d'Alene mining region of north Idaho supported the formation of the Ancient and Accepted Order of Freemasons in Murray (Shoshone County). In 1884-86, this fraternal order constructed one of Idaho's few Italianate-styled buildings, the **Murray Masonic Hall**. (1979; ISHS 79-5.357/a.)*

Register Rock
78001097
W of American Falls on U.S. 30, American Falls
780724

SHOSHONE COUNTY

AVERY

Avery Depot
84001142
Chicago, Milwaukee, St. Paul, and Pacific RR track, Avery
840920
North Idaho 1910 Fire Sites TR

Avery Ranger Station
74000748
Near St. Joseph National Forest, Avery
740627

Bullion Tunnel
84001160
E of Avery, Avery
840920
North Idaho 1910 Fire Sites TR

Cedar Snags
84001174
N of Avery, Avery
840920
North Idaho 1910 Fire Sites TR

Grand Forks
84001175
E of Avery, Avery
840920
North Idaho 1910 Fire Sites TR

Mallard Peak Lookout
84001178
SE of Avery, Avery
840412

Red Ives Ranger Station
86002151
SE of Avery on Forest Service Rd. 218, Avery
860913

KELLOGG

US Post Office—Kellogg Main
89002118
302 S. Division, Kellogg
900530
US Post Offices in Idaho, 1900-1941 MPS

A typical combination station, the 1913 ***Victor Railroad Depot*** *became a vital part of the economy of Victor (Teton County) by providing freight and passenger service to the Teton Valley. As a project under the federal historic preservation tax incentives program, the depot was rehabilitated and converted into apartment units in 1993. (1993; ISHS 1997.21.18.)*

MURRAY

Feehan, John C., House
80001334
Main St., Murray
800827

Murray Courthouse
78001098
Main St., Murray
781114

Murray Masonic Hall
87000774
Main St. between 2nd and 3rd, Murray
870519

PINEHURST

Pine Creek Baptist Church
82000361
Main and S. 3rd Sts., Pinehurst
821117
Tourtellotte and Hummel Architecture TR

PRITCHARD

Magee Ranger Station
81000208
W of Pritchard, Pritchard
810218

RED IVES

Halm Creek, Bean Creek Fire
84001177
S of Red Ives, Red Ives
840920
North Idaho 1910 Fire Sites TR

WALLACE

Northern Pacific Railway Depot
76000681
219 6th St., Wallace
760402

Pulaski, Edward, Tunnel and Placer Creek Escape Route
84001179
SW of Wallace, Wallace
840920
North Idaho 1910 Fire Sites TR

US Post Office—Wallace Main
89000137
403 Cedar St., Wallace
890316
US Post Offices in Idaho 1900-1941 MPS

Wallace 1910 Fire Memorial
84001180
N of Wallace, Wallace
840920
North Idaho 1910 Fire Sites TR

Wallace Carnegie Library
81000209
City Park, Wallace
810203

Wallace Historic District
79000809
Roughly bounded by Pine, Bank, 5th and 7th Sts., Wallace
790810

Wallace Historic District (Boundary Increase)
83000289
Roughly bounded by Oak, Silver, C, Mullan, Canyon, Fir, and 1st Sts., Wallace
830901

TETON COUNTY

DRIGGS

Pierre's Hole 1832 Battle Area Site
84001197
S of Driggs, Driggs
840907

Teton County Courthouse
87001589
Main St., Driggs
870922
County Courthouses in Idaho MPS

VICTOR

Victor Railroad Depot
95000508
70 Depot St., Victor
950427

TWIN FALLS COUNTY

BUHL

Bowlby, T. P., Barn
83000293
NE of Buhl, Buhl
830907
Buhl Dairy Barns TR

Buhl City Hall
78001099
Broadway and Elm St., Buhl
780208

Buhl IOOF Building
84000482
1014-16 Main St., Buhl
841227

Cedar Draw School
91000986
4300 N. Rd. between 1900 and 2000 E., Buhl
910808
Public School Buildings in Idaho MPS

Dau-Weubbenhorst Barn
83000295
SE of Buhl, Buhl
830907
Buhl Dairy Barns TR

Hotel Buhl
85002158
1004 Main St., Buhl
850912

Kunze, Gustave, Barn
83000294
SE of Buhl, Buhl
830907
Buhl Dairy Barns TR

Kunze, Rudolph, Barn
83000292
NE of Buhl, Buhl
830907
Buhl Dairy Barns TR

Maxwell, Art and Frieda, Barn
83000291
SE of Buhl, Buhl
830907
Buhl Dairy Barns TR

Ramona Theater
76000682
113 Broadway, Buhl
761222

Schick, Henry, Barn
83000290
SE of Buhl, Buhl
830907
Buhl Dairy Barns TR

*The **Lincoln Street Electric Streetlights** in Twin Falls (Twin Falls County) demonstrate the city's early efforts to provide civic amenities to residents during a period of rapid development of this urban center. The ten cast-iron streetlights were erected prior to 1920 in the Blue Lakes Addition, Twin Falls' first subdivision. (1991; ISHS 1997.21.19.)*

US Post Office—Buhl Main
89000130
830 Main, Buhl
890316
US Post Offices in Idaho 1900-1941 MPS

FILER

Duquesne, Achille, House
93000990
710 W. Midway, Filer
930923

HOLLISTER

Hollister School
91000984
2464 Salmon Ave., Hollister
910808
Public School Buildings in Idaho MPS

KIMBERLY

Kimberly High School
90001229
141 Center St. W., Kimberly
900817

Pleasant Valley School
91000985
3501 E. 3100 N., Kimberly
910808
Public School Buildings in Idaho MPS

MURTAUGH

Milner Dam and the Twin Falls Main Canal
86001720
Twin Falls Main Canal between Murtaugh and Milner Lakes, Murtaugh
860710

Southern Idaho Timber Protective Association (SITPA) is a cooperative organization that protects Idaho's timbered lands from fire and insect disease. In order to respond instantly to emergencies, the fifteen-building complex at Smiths Ferry (Valley County) was constructed in 1927 and consists of sheds, garages, outbuildings and the residence pictured below. The ***SITPA Buildings*** *were constructed in the popular rustic style and are associated with the CCC and the Finnish log construction method once prevalent in the Long Valley vicinity. (1989; ISHS 1997.21.20.)*

TWIN FALLS

Alvis, James, House
80001335
1311 Pole Line Rd., Twin Falls
800523

Bickel School
90001233
607 2nd Ave. E., Twin Falls
900817

Idaho Power Substation
78001100
Van Buren St. and Filer Ave., Twin Falls
780623

Lincoln School
90001218
238 7th St., Twin Falls
900817

Lincoln Street Electric Streetlights
92000413
105, 120, 147, 174, 189, 210, 217, 242, 275 and 290 Lincoln St., Twin Falls
920427

McCollum, Robert, House
82000386
708 Shoshone St. E., Twin Falls
821104

Morse, Burton, House
93000992
136 10th Ave. N., Twin Falls
930923

Peck, D. H., House
93000993
207 8th Ave. E., Twin Falls
930923

Pleasant View School
91000987
2500 E. 3600 N., Twin Falls
910808
Public School Buildings in Idaho MPS

Priebe, Walter, House
93000991
155 7th Ave. E., Twin Falls
930923

Smith, C. Harvey, House
78001101
255 4th Ave. E., Twin Falls
780403

Stricker Store and Homesite
79000810
N of Rock Creek, Twin Falls
790830

Twin Falls Bank and Trust Company Building
86002155
102 Main Ave. S., Twin Falls
860904

Twin Falls Canal Company Building
96000944
162 2nd St. W., Twin Falls
960830

Twin Falls City Park Historic District
78001102
2nd N., 2nd E., and Shoshone Sts., 4th and 6th Aves., Twin Falls
780330

Twin Falls Milling and Elevator Company Warehouse
95001059
516 2nd St. S., Twin Falls
950831

Twin Falls Warehouse Historic District
96001592
Roughly bounded by 2nd Ave. S., 4th St. S., Minidoka Ave., and 4th St. W., Twin Falls
970115

VALLEY COUNTY

BLACK BUTTE

Cabin Creek Ranch
90000890
Cabin Cr. at jct. with Big Cr., Payette NF, Black Butte
900627

DONNELLY

Korvola, John, Homestead
82000366
Roseberry Rd. and Farm to Market Rd., Donnelly
821117
Long Valley Finnish Structures TR

Mahala, Jacob and Herman, Homestead
82000369
N of Donnelly, Donnelly
821117
Long Valley Finnish Structures TR

Maki, Jacob, Homestead
82001053
Off ID 55, Donnelly
821117
Long Valley Finnish Structures TR

LAKE FORK

Jarvi, Thomas, Homestead
82000363
E of Lake Fork on Finn Rd., Lake Fork
821117
Long Valley Finnish Structures TR

Johnson, John G., (Rintakangas) Homestead
82000364
NE of Lake Fork off Pearson Rd., Lake Fork
821117
Long Valley Finnish Structures TR

Johnson, John S., (Sampila) Homestead
82000365
NE of Lake Fork off Pearson Rd., Lake Fork
821117
Long Valley Finnish Structures TR

Laituri, Gust, Homestead
82000368
NE of Lake Fork off Pearson Rd., Lake Fork
821117
Long Valley Finnish Structures TR

Long Valley Finnish Church
80001336
SE of Lake Fork, Lake Fork
800527

Ojala, Herman, Homestead
82000370
NE of Lake Fork off Pearson Rd., Lake Fork
821117
Long Valley Finnish Structures TR

Ruatsala, Matt, Homestead
82000371
N of Kantola Lane, Lake Fork
821117
Long Valley Finnish Structures TR

McCALL

Elo School
82002515
SE of ID 55 on Farm to Market Rd., McCall
820726
Long Valley Finnish Structures TR

Hill, Matt N., Homestead Barn
82000362
SE of McCall, McCall
821117
Long Valley Finnish Structures TR

Koski, Charles, Homestead
82000367
SE of McCall, McCall
821117
Long Valley Finnish Structures TR

McCall District Administrative Site
91001892
Jct. of W. Lake and Mission Sts., McCall
911230

Rice Meeting House
80001337
NE of McCall, McCall
800409

Southern Idaho Timber Protective Association (SITPA) Buildings
90000680
1001 State St., McCall

900502
Wargelin, Nickolai, Homestead
82000372
SE of McCall, McCall
821117
Long Valley Finnish Structures TR

SMITHS FERRY

Southern Idaho Timber Protective Association (SITPA) Buildings
90000681
SR 55, Smiths Ferry
900502

THUNDER CITY

Braddock Gold Mining and Milling Company Log Building and Forge Ruins
85002157
Off pack trail near Suicide Rock, Thunder City
850912

YELLOW PINE

Krassel Ranger Station
92000688
Along S. Fork Salmon R., 11 mi. W of Yellow Pine, Payette NF, Yellow Pine
921119
Stibnite Historic District
87001186
US Forest Rd. 412, Yellow Pine
870719

WASHINGTON COUNTY

CAMBRIDGE

Cambridge News Office
89002128
155 N. Superior St., Cambridge
891228

Jewell Building
89002263
15 N. Superior, Cambridge
900118

Salubria Lodge No. 31
90000368
85 W. Central St., Cambridge
900309

*Constructed in 1909, the **B. S. Varian House** in Weiser (Washington County) is a large-scale, elaborate example of the modest "California bungalow" which began to emerge in popularity during this time. The property is one of 139 structures comprising the **Tourtellotte and Hummel Architecture in Idaho Thematic Resource** nomination. (1978; ISHS 78-5.110.)*

WEISER

Anderson-Elwell House
82000373
547 W. 1st St., Weiser
821117
Tourtellotte and Hummel Architecture TR

Baptist Church
77000470
E. Main and 8th Sts., Weiser
771007

Butterfield Livestock Company House
82000374
N of Weiser on Jenkins Creek Rd., Weiser
821117
Tourtellotte and Hummel Architecture TR

Drake, Col. C. F., House
78001104
516 E. Main St., Weiser
780120

Fisher, James M., House
86002146
598 Pioneer Rd., Weiser
860904

Galloway, Thomas C., House
78001105
1120 E. 2nd St., Weiser
780126

Haas, Bernard, House
78001106
377 E. Main St., Weiser
780522

Haas, Herman, House
82000375
253 W. Idaho St., Weiser
821117
Tourtellotte and Hummel Architecture TR

Intermountain Institute
79000811
Paddock Ave., Weiser
791101

Knights of Pythias Lodge Hall
76000683
30 E. Idaho St., Weiser
760513

Kurtz-Van Sicklin House
82000376
295 W. Main St., Weiser
821117
Tourtellotte and Hummel Architecture TR

Larsen, Archie, House
82000377
S of Weiser on Larsen Rd., Weiser
821117
Tourtellotte and Hummel Architecture TR

Nesbit, G. V., House
82000378
308 W. Liberty, Weiser
821117
Tourtellotte and Hummel Architecture TR

Numbers, Dr. J. R., House
82000379
240 W. Main St., Weiser
821117
Tourtellotte and Hummel Architecture TR

Sommer, Morris, House
82000380
548 W. 2nd St., Weiser
821117
Tourtellotte and Hummel Architecture TR

Sommercamp, Mary Elizabeth, House
82000381
411 W. 3rd St., Weiser
821117
Tourtellotte and Hummel Architecture TR

St. Agnes Catholic Church
78001107
204 E. Liberty St., Weiser
780724

St. Luke's Episcopal Church
78001108
E. 1st and Liberty Sts., Weiser
780724

Varian, B. S., House
82000382
241 Main St., Weiser
821117
Tourtellotte and Hummel Architecture TR

Washington County Courthouse
87001602
E. Court St., Weiser
870928
County Courthouses in Idaho MPS

Watlington, Benjamin, House
91000458
206 W. Court St., Weiser
910426

Weiser Post Office
82000383
Main and W. 1st Sts., Weiser
821117
Tourtellotte and Hummel Architecture TR

Suggested reading

Arrington, Leonard. *History of Idaho.* Moscow: University of Idaho Press, 1994.

Attebery, Jennifer Eastman. *Building Idaho, An Architectural History*. Moscow: University of Idaho Press, 1991.

Attebery, Louie W., ed. *Idaho Folklife: Homesteads to Headstones.* Salt Lake City: University of Utah Press, 1985.

Beal, Merrill D., and Merle W. Wells. *History of Idaho*. New York: Lewis Historical Publishing, 1959.

Boone, Lalia. *Idaho Place Names: A Geographical Dictionary*. Moscow: University of Idaho Press, 1988.

Butler, B. Robert. *A Guide to Understanding Idaho Archaeology* (Third Edition): The Upper Snake and Salmon River Country. Boise: Idaho State Historic Preservation Office, 1978.

Conley, Cort. *Idaho for the Curious: A Guide*. Cambridge: Backeddy Books, 1982.

Gottfried, Herbert, and Jan Jennings. *American Vernacular Design 1870 to 1940*. New York: Van Nostrand Reinhold Co. Inc., 1985; reprint, Ames: Iowa State University Press, 1988.

Hawley, James H. *History of Idaho: Gem of the Mountains*. Chicago: S.J. Clarke, 1920.

Idaho State Historical Society. *Reference Series*. Boise: Idaho State Historical Society. Several hundred one- or two-page typed essays on Idaho topics.

Idaho State Historical Society. *Idaho Yesterdays: A Journal of Idaho and Northwest History*. Boise: Idaho State Historical Society, published quarterly since 1957.

McAlester, Virginia and Lee. *A Field Guide to American Houses.* New York: Alfred Knopf, 1984.

Phillips, Steven J. *Old House Dictionary: An Illustrated Guide to American Domestic Architecture, 1600 to 1940*. Lakewood: American Source Books, 1989.

Rifkind, Carole. *A Field Guide to American Architecture*. Markham, Ontario: Penguin Books Canada Limited, 1980.

Schwantes, Carlos. *In Mountain Shadows: A History of Idaho.* Lincoln: University of Nebraska Press, 1991.

U.S. Department of the Interior, National Park Service. *National Register Bulletin 16A: How to Complete the National Register Registration Form*. 1991.

Walker, Deward E., Jr. *Indians of Idaho.* Moscow: University of Idaho Press, 1978.

Wells, Merle W., and Arthur Hart. *Idaho: Gem of the Mountains.* Northridge: Windsor Publications, Inc., 1985.

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NATIONAL REGISTER OF HISTORIC PLACES IN IDAHO

ADDENDUM TO LISTINGS
SEPTEMBER 1, 1997 THROUGH DECEMBER 12, 2011

(✓ Indicates Most Recent Listings)

ADA COUNTY

BOISE

Anduiza Hotel
619 Grove St., Boise
02-25-03
03000064 *(A, C)*

Boulevard Mo-tel
1121 S. Capitol Blvd., Boise
01-07-98
97001609 *(A, C)*

Chitwood, Joseph, House
1321 Denver St., Boise
08-23-06
06000709 *(A)*

Idaho National Guard Armory
801 Reserve St., Boise
02-26-99
Tourtellotte & Hummel Architecture in Idaho TR
99000253 *(A, C)*

Ninth Street Bridge
E of new 9th St. bridge, over Boise River, Boise
09-14-01
Metal Truss Highway Bridges of Idaho MPS
01000980 *(C)*

O'Farrell, John A., Cabin
N side of W. Fort St. between N. 4th and N. 5th sts., Boise
12-03-99
99001415 *(A, f)*

Reclamation Service Boise Project Office
214 Broadway Ave., Boise
08-12-10
10000546 *(A, C)*

Schick/Ostolasa Farmstead
5213 Dry Creek Rd., Boise
08-23-06
06000710 *(A)*

EAGLE

✓**Bushnell – Fisher House**
349 W. State St., Eagle
11-02-11
11000777 *(A)*

KUNA

Boise City - Silver City Road: Fick Property Segment
3232 W. Kuna-Mora Rd., Kuna vicinity
07-15-99
99000852 *(A)*

Lilyquist-Christianson Building
459 W. 3rd, Kuna
04-01-99
99000415 *(A)*

MERIDIAN

Bell, R. H. and Jessie, House
137 E. Pine St., Meridian
02-01-06
05001599 *(C)*

Hill, Clara, House
1123 N. Main St.., Meridian
02-01-06
05001600 *(C)*

Mittleider Farmstead Historic District
575 Rumpel Ln., Meridian vicinity
03-20-03
Historic Rural Properties of Ada County, Idaho MPS
03000122 *(A, C)*

Mountain States Telephone and Telegraph Company Building
815 N. Main St., Meridian
09-17-08
08000905 *(A)*

STAR

Star Camp
N. Star Rd. and W. 3rd St., Star
04-27-05
05000344 *(A, a)*

BANNOCK COUNTY

LAVA HOT SPRINGS

L.D.S. Ward Building
187 S. 2nd Ave. W., Lava Hot Springs
12-09-99
99001474 *(C, a)*

POCATELLO

Lincoln-Johnson Avenues Residential Historic District
Roughly bounded by W. Hayden St., the Portneuf River, W. Benton St., and the West Bench, Pocatello
03-15-06
06000126 *(A, C)*

Old Town Residential Historic District
Roughly bounded by W. Benton St., S. Garfield St., W. Lewis St., and the Portneuf River, Pocatello
04-02-08
08000249 *(A, C)*

Pocatello Westside Residential Historic District
Roughly bounded by N. Arthur Ave., W. Fremont St., N. Grant Ave., and W. Young St., Pocatello
03-17-03
03000102 *(A, C)*

BEAR LAKE COUNTY

FISH HAVEN

Scofield, Anna Nielsen, House
2788 US 89, Fish Haven
04-01-99
99000417 *(C)*

GEORGETOWN

Georgetown Relief Society Hall
161 3rd NW St., Georgetown
09-18-98
98001171 *(A)*

BENEWAH COUNTY

ST. MARIES

✓**St. Maries Masonic Temple #63**
208 S. 8th St., St. Maries
09-23-11
11000699 *(A, C)*

BINGHAM COUNTY

BLACKFOOT

Eastern Idaho District Fair Historic District
97 Park Dr., Blackfoot
08-10-01
01000864 *(A, g)*

Lincoln Creek Day School
Rich Ln., 8.0 mi. SE of SH 91, Fort Hall vicinity
04-09-10
10000174 *(A)*

BLAINE COUNTY

HAILEY

Chase, Eben S. and Elizabeth S., House
203 E. Bullion St., Hailey
05-05-09
09000292 *(A)*

✓**Fox-Worswick House**
119 E. Bullion St., Hailey
08-31-11
11000613 *(A)*

Hailey Masonic Lodge
100 S. 2nd Ave., Hailey
09-12-08
08000869 *(A)*

Rialto Hotel, The
201 S. Main St., Hailey
12-30-09
09001162 *(A)*

KETCHUM

Ketchum Ranger District Administrative Site
131/171 River St., Ketchum
02-09-07
07000005 *(A, C)*

BOISE COUNTY

SWEET

Upper Brownlee School
On Dry Buck Rd., 0.1 mi. NE of jct. with Timber Butte Rd., Sweet vicinity
03-31-98
Public School Buildings in Idaho MPS
98000264 *(A, C)*

BONNER COUNTY

PRIEST RIVER

Lamb Creek School
28769 N. Hwy. 57, Priest River vicinity
11-30-99
Public School Buildings in Idaho MPS
99001418 *(A)*

Settlement School
Settlement Rd., 0.5 mi. E of jct. with East Side Rd., Priest River
04-01-99
Public School Buildings in Idaho MPS
99000418 *(A, C)*

SANDPOINT

Olson, Charles A. and Mary, House
401 Church St., Sandpoint
05-30-01
01000566 *(C)*

Sandpoint Federal Building
419 N. 2nd Ave., Sandpoint
08-08-01
01000836 *(C)*

Sandpoint High School
102 S. Euclid Ave., Sandpoint
10-28-99
Public School Buildings in Idaho MPS
99001277 *(A, C)*

BONNEVILLE COUNTY

IDAHO FALLS

Art Troutner Houses Historic District
3950, 4032, 4012 S. 5th W., Idaho Falls
09-10-08
08000868 *(C)*

Holy Rosary Church
228 E. 9th St., Idaho Falls
07-17-02
02000802 *(C, a)*

Idaho Falls Airport Historic District
2381 Foote Dr., Idaho Falls
09-10-97
97001126 *(A)*

BOUNDARY COUNTY

BONNERS FERRY

Soderling, Russell and Pearl, House
217 W. Madison St., Bonners Ferry
01-15-98
97001650 *(C)*

BUTTE COUNTY

ARCO

Arco Baptist Community Church
402 W. Grand Ave., Arco
11-29-01
01001303 *(C)*

Aviator's Cave
Address Restricted, Arco vicinity
07-22-10
09001224 *(D)*

CANYON COUNTY

CALDWELL

Boise River and Canal Bridge
Plymouth St. (Old Hwy. 30), Caldwell
02-07-07
Metal Truss Highway Bridges of Idaho MPS
07000003 *(C)*

Caldwell Residential Historic District
Roughly bounded by Cleveland Blvd., Everett St., S. 12th Ave., and S. 20th Ave., Caldwell
09-23-02
02001064 *(A, C, a)*

Dorman, Henry W. and Ida Frost, House
114 Logan St., Caldwell
07-05-00
00000756 *(A, C)*

NAMPA

Lockman, Jacob P., House
23 9th Ave. N., Nampa
07-27-05
05000735 *(C)*

Old Nampa Neighborhood Historic District
Roughly bounded by 4th Ave. S., 4th St. S., 11th Ave. S., and 9th St. S.
03-21-07
07000164 *(A, C)*

WILDER

Obendorf, George, Gothic Arch Truss Barn
24047 Batt Corner Rd., Wilder vicinity
10-28-99
99001278 (C)

CUSTER COUNTY

CLAYTON

Idaho Mining and Smelter Company Store
One Ford St., Clayton
02-01-06
05001601 (A)

ELMORE COUNTY

ATLANTA

Atlanta Ranger Station Historic District
At end of Middle Fork Rd., Boise NF, Atlanta
01-23-03
02001726 (A, C)

MOUNTAIN HOME

KwikCurb Diner
850 S. 3rd W., Mountain Home
07-26-10
10000502 (C)

FRANKLIN COUNTY

FRANKLIN

Relic Hall
111 E. Main St., Franklin
10-11-01
00001627 (C)

FREMONT COUNTY

ISLAND PARK

Crabtree, Glen and Addie, Cabin
3939 Cowan Rd., Island Park
06-29-00
00000742 (C)

Big Falls Inn
Targhee National Forest, Forest Hwy. #295, W bank of Henrys Fk. at Upper Mesa Falls, Island Park vicinity
05-31-02
94000131 (C)

Buffalo Lake Snowshoe Cabin (Fort Yellowstone Historic District NHL)
Yellowstone National Park, W shore of Buffalo Lake in SW corner of Park, Island Park vicinity
07-31-03
03001032 (A)

GOODING COUNTY

GOODING

Schubert Theatre
402 Main St., Gooding
01-06-04
Motion Picture Theater Buildings in Idaho, 1897-1949 MPS
03001367 (A)

HAGERMAN

Owsley Bridge
Approx. 200 yds. N of jct. of Old US 30 and Bell Rapids Rd., Hagerman vicinity
09-18-98
98001172 (A, C)

IDAHO COUNTY

COTTONWOOD

Baker, James V. and Sophia, House
204 Broadway St., Cottonwood
01-06-04
03001366 (A, C)

ELK CITY

Elk City Wagon Road – Vicory Gulch/Smith Grade Segment
Nez Perce National Forest, Elk City vicinity
05-21-01
Historic Resources of the Elk City Wagon Road MPS
01000536 (A)

Gold Point Mill
8.0 mi. SE of Elk City on Forest Service Rd. 222, Elk City vicinity
07-14-00
00000792 (A, C)

GRANGEVILLE

Blue Fox Theatre
116 W. Main St., Grangeville
11-30-99
Motion Picture Theater Buildings in Idaho, 1897-1949 MPS
99001412 (A)

✓**Tolo Lake**
W of Grangeville on Tolo Lake Rd., Grangeville vicinity
02-07-11
Nez Perce National Historical Park
10001200 (A)

LUCILE

Elfers, Jurden Henry, Barn and Field
John Day Creek, Lucile vicinity
06-07-07
07000544 (A)

MCCALL

Chamberlain Ranger Station Historic District
NE of McCall, Frank Church-River of No Return Wilderness, Payette National Forest, McCall vicinity
01-14-04
03001388 (A, b)

RIGGINS

Campbell's Ferry
SE bank of Salmon River at Mile 148, Frank Church River of No Return Wilderness, Riggins vicinity
02-02-07
07000037 (A, B)

Riggins Motel
615 S. ID 95, Riggins
09-14-01
01000979 (C)

WARREN

Chinese Store/Chinese Camp
Payette National Forest, 1.0 mi. NW of Warren Guard Station, Warren vicinity
09-04-94
Chinese Sites in the Warren Mining District MPS
94001018 (D)

WHITE BIRD

Foskett, Dr. Wilson, Home and Drugstore
West side of River Rd., White Bird
04-26-05
05000337 (A, B, b)

KOOTENAI COUNTY

COEUR D'ALENE

Mooney-Dahlberg Farmstead
5803 Riverview Dr., Coeur d'Alene vicinity
12-30-09
09001163 (A)

HARRISON

Crane, Silas W. and Elizabeth, House
201 S. Coeur d'Alene Ave., Harrison
12-09-99
99001476 *(A)*

POST FALLS

Spokane Valley Land and Water Company Canal
Diverts in Falls Park, 4th St., Post Falls
03-20-03
03000124 *(A)*

RATHDRUM

Kootenai County Jail
802 2nd St., Rathdrum
08-10-01
01000834 *(A)*

LATAH COUNTY

BOVILL

Bovill Opera House
412 2nd Ave., Bovill
01-27-10
Motion Picture Theater Buildings in Idaho, 1897-1949 MPS
09001280 *(A)*

DEARY

✓**Lawrence, Russell, Farmstead**
5471 ID 8, Deary vicinity
11-30-11
Historic Agricultural Properties of Latah County, Idaho, 1855-1955 MPS
11000862 *(A)*

GENESEE

Nordby Farmstead
1301 Old Highway 95, Genesee
05-15-09
Historic Agricultural Properties of Latah County, Idaho, 1855-1955 MPS
09000293 *(A)*

White Spring Ranch
1004 Lorang Rd., Genesee vicinity
01-06-04
03001368 *(A)*

JULIAETTA

Bank of Juliaetta
301 Main St., Juliaetta
01-15-98
98001649 *(A, C)*

KENDRICK

Cox Barn
1290 American Ridge Rd., Kendrick vicinity
02-01-10
Historic Agricultural Properties of Latah County, Idaho, 1855-1955 MPS
09001281 *(A)*

Kirby, Thomas, House
102 N. 9th St., Kendrick
04-01-99
99000414 *(B, C)*

MOSCOW

Deesten Farmstead
3611 US 95 South, Moscow
04-02-08
Historic Agricultural Properties of Latah County, Idaho, 1855-1955 MPS
08000250 *(A, f)*

Kenworthy Theatre
508 S. Main St., Moscow
11-29-01
Motion Picture Theater Buildings in Idaho, 1897-1949 MPS
01001305 *(A)*

Moscow Downtown Historic District
Generally bounded by 1st St., 6th St., Washington St., and the alley between Main and Jackson, Moscow
07-22-05
05000710 *(C)*

Nu-Art Theatre
516 S. Main St., Moscow
11-29-01
Motion Picture Theater Buildings in Idaho, 1897-1949 MPS
01001304 *(A, a)*

Snow, Arthur, House
2949 Clyde Rd., Moscow,
05-05-09
09000294 *(C)*

POTLATCH

Soncarty, Edward and Ida, Barn
1671 Deep Creek Rd., Potlatch
04-02-08
Historic Agricultural Properties of Latah County, Idaho, 1855-1955 MPS
08000251 *(A, C)*

TROY

✓**Bohman, Axel, House**
116 N. Main St., Troy
08-10-11
11000523 *(C)*

Hotel Rietmann
525 and 529 S. Main St., Troy
11-29-01
01001302 *(A)*

Troy Downtown Historic District
339 S. Main St. through 527 S. Main St., Troy
03-11-10
10000073 *(A)*

✓**Troy Hospital**
604 S. Main St., Troy
08-10-11
11000524 *(A)*

LEMHI COUNTY

LEMHI

Lemhi Boarding School Girls' Dormitory
Hayden Creek Rd., 1/8 mi. SE of jct. with US 93, Lemhi vicinity
11-12-98
98001350 *(A)*

LINCOLN COUNTY

SHOSHONE

Shoshone Historic District (Boundary Increase)
115 N. Greenwood St., Shoshone
09-18-98
98001173 *(A)*

Wood River Center Grange No. 87
375 W. 4 Mile Rd., Shoshone vicinity
07-03-03
03000586 *(A)*

MINIDOKA COUNTY

RUPERT

Empire School
300 S. 50 N., Rupert
05-30-01
Public School Buildings in Idaho MPS
01000568 *(A)*

Rupert Town Square Historic District
Roughly bounded by 7th St., E St., 5th St., and F St., Rupert
01-17-01
00001626 *(A, g)*

Rupert Town Square Historic District (Boundary Increase)
702 E St. and 405 6th St., Rupert
03-17-10
10000074 *(A)*

NEZ PERCE COUNTY

LEWISTON

Children's Home Finding and Aid Society of North Idaho
1805 19th Ave., Lewiston
02-23-07
07000090 *(A, C)*

OWYHEE COUNTY

JORDAN VALLEY

Gusman, James E. and Emma, Ranch
South Mountain Rd., 6.0 mi. SE of Jordan Valley, Jordan Valley OR vicinity
12-09-99
99001477 *(A)*

PAYETTE COUNTY

PAYETTE

Jacobsen, N. A., House
1115 1st Ave. N., Payette
01-07-98
97001610 *(A, C)*

Portia Club
225 N. 9th St., Payette
04-07-10
10000159 *(A)*

POWER COUNTY

AMERICAN FALLS

American Falls Archaeological District
Address Restricted, American Falls vicinity
07-01-99
99000804 *(D)*

American Falls Reservoir Flooded Town Site
American Falls Reservoir, American Falls
01-28-02
01001480 *(A)*

Davie, William, House
703 Hutchinson Ave., American Falls
04-02-08
American Falls, Idaho, Relocated Townsite MPS
08000252 *(A, b)*

St. John's Episcopal Church
328 Roosevelt St., American Falls
02-07-07
American Falls, Idaho, Relocated Townsite MPS
07000004 *(A, a, b)*

Sparks, Walter, House
408 Roosevelt St., American Falls
02-07-07
American Falls, Idaho, Relocated Townsite MPS
07000002 *(A, b)*

Warwas, Richard and Winnie, House
275 Polk St., American Falls
08-31-06
American Falls, Idaho, Relocated Townsite MPS
06000741 *(A, b)*

SHOSHONE COUNTY

AVERY

Chicago, Milwaukee, St. Paul and Pacific Railroad Company Historic District
Idaho Panhandle National Forest, encompassing 56 mi. between St. Regis MT and Avery ID, Avery vicinity
10-26-00
00001269 *(A, C, D)*

MULLAN

St. Andrew's Episcopal Church
104 Hunter Ave., Mullan
04-01-99
99000419 *(A)*

TETON COUNTY

DRIGGS

Spud Drive-In Theater
231 S. ID 33, Driggs vicinity
06-05-03
99001475 *(A)*

TETONIA

Hollingshead Homestead
107 W. 1200 N. Teton County Rd., Tetonia vicinity
02-09-06
06000002 *(A, C)*

TWIN FALLS COUNTY

CASTLEFORD

Toana Freight Wagon Road Historic District
Generally runs south to north from Nevada-Idaho state line to the Snake River, Castleford vicinity
11-29-06
06001075 *(A)*

FILER

Union School
21337 US 30, Filer
03-20-03
Public School Buildings in Idaho MPS
03000123 *(A)*

ROGERSON

Salmon Falls Dam
Three Creek Highway, Rogerson vicinity
05-15-09
09000328 *(A, B, C)*

TWIN FALLS

Twin Falls Downtown Historic District
Roughly bounded by 2nd Ave. N., 2nd St. E., 2nd St. W., 2nd St. S., 3rd Ave. S., and 3rd St. W., Twin Falls
02-04-00
00000035 *(A, C)*

Twin Falls Original Town Site Residential Historic District
Roughly bounded by Blue Lakes Ave., Addison Ave., 2nd Ave. E., 2nd Ave. W., Twin Falls
11-30-01
01001306 *(A, C, a)*

VALLEY COUNTY

SMITHS FERRY

North Fork Payette River Bridge/"Rainbow Bridge"
Approx. 2.5 mi. N of Smiths Ferry on ID 55, Smiths Ferry vicinity
04-02-99
99000416 *(C)*

YELLOW PINE

Big Creek Commissary
Payette National Forest, Big Cr. area, Yellow Pine vicinity
04-21-00
00000327 *(A, C)*

WASHINGTON COUNTY

CAMBRIDGE

Edwards/Gillette Barn
3059 Rush Creek Rd., Cambridge
02-19-02
02000013 (C)

Wilson House
75 N. 5th St., Cambridge vicinity
01-06-04
03001369 (C)

WEISER

Star Theatre
342 State St., Weiser
11-30-99
Motion Picture Theater Buildings in Idaho, 1897-1949 MPS
99001413 (A)

Weiser Oregon Short Line Railroad Depot
One State St., Weiser
02-07-07
07000006 (A, C)

IDEQ 2009 Air Quality Monitoring Report

2009 Air Quality Monitoring Data Summary

State of Idaho
Department of Environmental Quality

January 2012

The 2009 Air Quality Monitoring Data Summary is available
for viewing or downloading on the DEQ website at:

http://www.deq.idaho.gov/air-monitoring-network

Links to additional documents for download are also available at the DEQ website.

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Introduction

This annual report is issued by the Idaho Department of Environmental Quality (DEQ) to inform the public of air quality throughout Idaho. The purpose of this report is to summarize regional ambient air quality while presenting air monitoring results for six criteria air pollutants. The United States Environmental Protection Agency (EPA) sets national ambient air quality standards (NAAQS) for these pollutants. These criteria air pollutants include the following:

- Particulate matter (PM_{10} ≤10 micrometers (µm), $PM_{2.5}$ ≤ 2.5 µm in diameter)
- Carbon monoxide (CO)
- Sulfur dioxide (SO_2)
- Nitrogen dioxide (NO_2)
- Ozone (O_3)
- Lead (Pb)

In Idaho, criteria pollutant monitoring occurs primarily in areas of high population where the potential for human exposure is greatest. Particulate matter is currently the most common criteria air pollutant of concern in Idaho because particulate sources are widespread throughout the state. Common sources include windblown dust, re-entrained road dust, smoke (residential, agricultural, and forest fires), industrial emissions, and motor vehicle emissions.

The PM_{10} standard has been in effect since 1987 and historically had been the particulate size of concern. However, $PM_{2.5}$, or fine particulate matter, has been monitored in Idaho since 1998 and has become a pollutant of concern. Numerous studies have associated $PM_{2.5}$ with a variety of respiratory and cardiovascular problems, ranging from aggravated asthma to irregular heartbeats, heart attacks, and early death in people with heart or lung disease. The $PM_{2.5}$ and PM_{10} NAAQS were revised by EPA effective December 17, 2006. Due to a lack of evidence linking health problems to long-term exposure to coarse particle pollution, EPA revoked the annual PM_{10} standard of 50 micrograms per cubic meter (µg/m^3) while retaining the short-term 24-hour standard of 150 µg/m^3. The 24-hour standard for $PM_{2.5}$ was lowered from 65 µg/m^3 to 35 µg/m^3 to provide increased protection against health effects associated with short-term exposure (including premature mortality and increased hospital admissions and emergency room visits).

Another historical air pollutant of concern in Idaho is carbon monoxide. The primary source of carbon monoxide is incomplete fossil fuel combustion. Carbon monoxide concentrations have the potential to be high in the urbanized areas where automobile traffic is heavy and cars frequently idle at stoplights. The Boise area (northern Ada County) was the only carbon monoxide nonattainment area in the state. When the State Implementation Plan and Maintenance Plan were accepted by EPA on December 27, 2002, it was reclassified as a maintenance area. No violations of the 1-or 8-hour carbon monoxide NAAQS have occurred since 1991.

Sulfur dioxide and nitrogen dioxide sources are few and localized because these air pollutants come primarily from large industrial sources (transportation sources also contribute to nitrogen dioxide). There is little heavy industry in Idaho and elevated sulfur dioxide and nitrogen dioxide concentrations in ambient air are typically not found. However, due to potential concerns of some localized sources, DEQ has monitored for one or both of these pollutants in Boise, Pocatello, Moyie Springs, Mountain Home, Coeur d'Alene, and Soda Springs. In the past 10 years of targeted monitoring, DEQ has not measured significant concentrations of these pollutants at these monitoring sites.

The fifth criteria air pollutant, ozone, has been monitored by DEQ, in the Treasure Valley since 2002 and in Coeur d'Alene since 2005. Ozone is created when combustion by-products (volatile organic compounds [VOCs]) near the ground react with nitrogen oxides and other compounds to create photochemical smog. These reactions are stimulated on days of intense sunlight and warm temperatures. Ozone has become a pollutant of concern since many summertime days are classified as moderate for ozone on the Air Quality Index (AQI). EPA lowered the 8-hour ozone standard on May 27, 2008, from 0.08 ppm to 0.075 ppm. The new standard poses a greater risk of nonattainment for all airsheds but particularly the Treasure Valley airshed. EPA announced it was reconsidering the ozone standard and was expected to release new proposed NAAQS ozone standards in December 2009. In 2011, EPA announced it would postpone any changes to the ozone NAAQS until 2013.

The sixth criteria air pollutant, lead, is not currently being monitored by DEQ. Lead was monitored in the Shoshone County town of Kellogg, near the Bunker Hill superfund site, because lead was a by-product of the smelting process that occurred in the area for decades. Although a significant problem in the 1970s and early 1980s, airborne lead concentrations at this monitoring site were very low through the 1990s. DEQ discontinued monitoring for lead in 2002. EPA reviewed the lead NAAQS and on November 12, 2008, lowered the standard significantly to 0.15 $\mu g/m^3$. The new standard provided different monitoring requirements based on whether there were sources emitting significant volumes of lead. Source-oriented monitoring is required for states with sources of lead that emit or have the potential to emit more than 0.5 tons per year (tpy). Nonsource-oriented monitoring is required for urban areas with a population greater than 500,000. The nonsource-oriented requirements will be implemented at the NCore multipollutant monitoring station in Meridian. DEQ will initiate PM_{10} lead monitoring at the NCore site in Meridian by January 1, 2012.

The NCore multipollutant monitoring site in Meridian is part of an EPA network that uses advanced measurement systems to record data for particles, trace gases, and meteorology. These data are not used to assess compliance with the NAAQS. Instead, the NCore data are used to support air quality forecasting, model evaluation, and to develop emissions strategies.

DEQ monitored for certain common urban toxic air pollutants in the Treasure Valley from 2003 to the beginning of 2005 to determine if concentrations were at levels that could have adverse health effects. The Community Scale Air Toxics Monitoring Project also measured toxic air pollutants in 2007. Health effects from toxic air pollutants include, but are not limited to, increased cancer risk and respiratory, cardiovascular, and neurological effects. While DEQ has discontinued air toxics monitoring, the data proved valuable toward reconciling EPA's National Air Toxics Assessment (NATA) program to verify

prediction models. The NATA models predict cancer and noncancer risk values across Idaho's airsheds using emissions estimates of certain air toxic compounds. The data have also been crucial in developing DEQ's air toxics models. As resources become available, Idaho may resume air toxic monitoring in the future.

While Idaho generally enjoys good air quality, in many ways our airsheds are faced with new challenges. Some of these challenges are related to long-term economic and population growth, particularly in terms of vehicles on roadways and growth in new construction. Each day, DEQ measures the concentration of certain air pollutants throughout the state. DEQ may issue local burn restrictions (voluntary and/or mandatory) when concentrations of these air pollutants reach or exceed the health-based standards or limits established by local ordinance, state law, or federal regulation. Concerned citizens may tune in to the news on their local radio or television station to find out if a burn ban has been issued, or access DEQ's website at http://www.deq.idaho.gov/air-quality.aspx. DEQ issues a news bulletin to local news media, law enforcement, and fire officials each time a burn ban is imposed. Each year there are a number of voluntary and sometimes mandatory bans issued due to deteriorated local air quality conditions.

Real-time air monitoring data are available on DEQ's website at http://airquality.deq.idaho.gov/. We encourage you to visit our website at http://www.deq.idaho.gov/ to find more extensive air quality data, educational materials, and discussions of current topics.

We are expanding and refining our website to better serve the residents of Idaho. Improvements are expected to provide the public with better access to real-time monitoring data as well as reorganize publications and other information regarding air quality. We want your feedback on our air quality data and program. Please submit your comments via e-mail to Bruce Louks, Monitoring, Modeling, and Emissions Inventory Manager, at Bruce.Louks@deq.idaho.gov or call at 208-373-0294.

Air Quality Standards

The federal Clean Air Act of 1970 (CAA) requires EPA to set NAAQS for air pollutants considered harmful to public health and the environment. The standards are designed to primarily protect the general public, including sensitive populations such as asthmatics, children, and the elderly. They are also intended to safeguard public welfare by reducing effects such as decreased visibility and damage to animals, crops, vegetation, and buildings. EPA established standards for six criteria air pollutants. Table 1 contains seven air pollutants, which include two size ranges of particulate matter.

The state of Idaho adheres to the NAAQS. For more information, EPA air quality standards and supporting rationale are available at http://epa.gov/air/criteria.html.

Table 1. 2009 air quality standards for criteria pollutants.

Pollutant	Level	Averaging Time	Metric
Ozone (O_3)	0.075 ppm	8-hour	The 3-year average of the 4th highest daily maximum 8-hour average concentration cannot exceed the level measured at each monitor within an area over each year. The standard was lowered May 27, 2008, from 0.08 ppm.
Particulate matter, 10 micrometers (PM_{10})	150 $\mu g/m^3$	24-hour	The 24-hour average cannot exceed the level more than once per year on average over 3 years.
Particulate matter, 2.5 micrometers ($PM_{2.5}$)	15 $\mu g/m^3$	Annual (arithmetic average)	The 3-year annual average of the weighted annual mean concentrations cannot exceed the level. The standard was lowered December 17, 2006, from 15.4 $\mu g/m^3$.
	35 $\mu g/m^3$	24-hour	The 3-year average of the 98th percentile (based on the number of samples taken) of the daily concentrations must not exceed the level. The 24-hour standard was lowered from 65 $\mu g/m^3$ to 35 $\mu g/m^3$on December 17, 2006.
Carbon monoxide (CO)	35 ppm	1-hour	The 1-hour average cannot exceed the level more than once per year.
	9 ppm	8-hour	The 8-hour average cannot exceed the level more than once per year.
Sulfur dioxide (SO_2)	0.03 ppm	Annual (arithmetic average)	The annual arithmetic mean of the 1-hour averages cannot exceed the level.
	0.14 ppm	24-hour	The 24-hour average cannot exceed the level more than once per year.
Lead (Pb)	0.15 $\mu g/m^3$	Rolling 3-month average	The rolling 3-month average (12 average periods per year) cannot exceed the level. The standard was lowered October 15, 2008, from 1.5 $\mu g/m^3$.
Nitrogen dioxide (NO_2)	0.053 ppm	Annual (arithmetic average)	The annual mean cannot exceed the level.

Note: Daily concentration is the 24-hour average, measured from midnight to midnight.

The NAAQS for each pollutant may have different averaging periods (e.g., hourly and 8-hour averages). These different forms of the standard are created and enforced to address varied health impacts that result from shorter, high-level exposure versus longer, low-level exposure. These differences are addressed pollutant-by-pollutant in the following sections, and additional information is on the EPA website. A distinction exists between “exceeding” and “violating” a standard; the two are not equivalent. This distinction results from the nature of the standards. In most instances, it is allowable for an area to exceed the standard a few times to allow for possible unusual meteorological circumstances.

For example, a carbon monoxide 8-hour average of 15 ppm clearly exceeds the standard; however, it does not violate the standard if it is the only exceedance that year (the standard allows for one exceedance).

The EPA standards typically apply to an "area," which may be defined in different ways. Data are presented for individual monitoring stations in the following sections because this provides more insight into regional differences in Idaho's ambient air quality. The following summaries show how Idaho's airsheds compared to the standards discussed above for 2009 and in many instances incorporate the AQI and other measures of air quality where appropriate. The AQI color code shading is shown to aid in interpreting air quality but does not imply whether or not standards were met for each air pollutant. An airshed must satisfy the conditions in Table 1 to ensure compliance with the NAAQS.

Monitoring Network

The Idaho monitoring network is a composite of meteorological and air pollutant-specific monitoring equipment. DEQ operates most of the monitors while several tribes operate monitors on tribal lands. Data from the network are sent directly to engineers and scientists through a telemetry network.

Table 2 presents a summary of the monitoring stations used and parameters monitored during 2009. Some parameters were monitored for only part of the year.

Figure 1 shows a map of monitoring stations that were active in 2009. Monitoring stations are mainly located in high population areas; however, DEQ does monitor air quality in some rural areas. Some sites are selected to focus on the emissions of a single pollutant or group of sources (e.g., near a high-traffic volume or residential wood burning area). Monitor siting and monitoring objectives are discussed in the pollutant-specific sections of this report.

Criteria pollutants are measured using methods approved by EPA to assess Idaho's compliance with NAAQS. In addition, some pollutants of interest are measured using more than one method. These additional methods help engineers and scientists to better understand the presence and behavior of these pollutants. Table 3 lists the methods used for the various pollutants. The tapered element oscillating microbalance (TEOM) method is a continuous monitoring method used for particulate matter. The TEOM method measures mass concentrations at preset time intervals (e.g., hourly). The TEOM method can also be accessed through telemetry for instantaneous particulate matter concentrations. TEOM methods enable real-time data interpretation, which is discussed in the particulate matter section. Additional information on measurement methods is available at EPA's website: http://www.epa.gov/ttn/amtic/.

In addition to the criteria air pollutants described in this report, urban air toxic compounds were monitored at a Nampa site from 2003 to 2005 and at five other sites in 2007. If resources become available, DEQ may resume air toxics monitoring in the future. For details on air toxics and chemical toxicity, visit the EPA website at www.epa.gov/ttn/atw/index.html.

Particulate Monitoring

Coarse particulate (PM_{10}) and fine particulate ($PM_{2.5}$) are measured using a variety of methods in Idaho. EPA considers the federal reference method (FRM) or the federal equivalent method (FEM) to be most accurate for determining PM_{10} and $PM_{2.5}$ concentrations. The FRM involves pulling in air (at a given flow rate) and trapping particles of a certain size (PM_{10} or $PM_{2.5}$) on a preweighed filter. The filter is then weighed again, and the resulting mass is divided by volume of air sampled (determined from flow rate and amount of time) to provide concentration. Particles on the filter can be chemically analyzed later for more information about the sources of particulate matter. Unfortunately, the FRM does not provide continuous or timely information. EPA has designated the TEOM continuous method an FEM for PM_{10}. DEQ uses a specific variation of the TEOM, TEOM-Filter Dynamics Measurement System, at the Pinehurst monitoring site. This variation is designated an equivalent method for $PM_{2.5}$ but the other TEOMs are not. Data collected by methods not designated FRM or FEM cannot be used to determine compliance to NAAQS. DEQ uses the TEOM continuous method (designated special purpose monitors)

to provide more time-resolved data (i.e., hourly averages) and to assess and forecast air quality in real-time or near real-time.

Table 2. Monitoring network for 2009.

Site	Location	PM_{10} FRM	PM_{10} TEOM	$PM_{2.5}$ FRM	$PM_{2.5}$ TEOM	O_3	SO_2	NO_2	NO_y	CO
Boise	Idaho Transportation Department—3311 W. State Street					●				
Boise	Mountain View Elementary—3500 Carbarton Lane			●	●					
Boise	Fire Station #5—16th and Front Street		●							
Boise	Eastman Building—166 N. 9th Street									●
Boise	White Pine Elementary—401 E. Linden Street					●				
Coeur d'Alene	Lancaster Road				●	●		●		
Coeur d'Alene	Lakes Middle School—930 N. 15th Street				●					
Franklin	East 4800 South			●						
Garden Valley	946 Banks-Lowman Road				●					
Grangeville	United States Forest Service compound				●					
Idaho City	3851 Highway 21				●					
Idaho Falls	Hickory and Sycamore				●					
Ketchum	111 W. 8th Street				●					
Lewiston	Sunset Park—1200 29th Street				●					
McCall	United States Forest Service—500 North Mission Street				●					
Meridian	St. Luke's—520 E. Eagle Road.			●	●	●	●	●	●	●
Moscow	1025 Plant Sciences Road				●					
Nampa	Fire Station—923 1st Street		●	●	●					
Pinehurst	Pinehurst School—106 Church Street		●	●	●					
Pocatello	Garrett and Gould	●	●		●					
Pocatello	Wastewater Treatment Plant—Batiste and Chubbuck						●			
Salmon	618 N. Saint Charles Street			●	●					
Sandpoint	310 S. Division Street		●							
Sandpoint	1601 Ontario		●		●					
Soda Springs	P4/Monsanto—5 Mile Road						●			
St. Maries	9th and Center			●	●					
Twin Falls	1913 Addison Avenue East				●					

Notes:

PM_{10} FRM—particulate matter 10 micrometers, federal reference method; PM_{10} TEOM—particulate matter 10 micrometers, tapered element oscillating microbalance, continuous federal equivalent method; $PM_{2.5}$ FRM—particulate matter 2.5 micrometers, federal reference method; $PM_{2.5}$ TEOM—particulate matter 2.5 micrometers, tapered element oscillating microbalance, continuous federal equivalent method; O_3—ozone, seasonal (May–September); SO_2—sulfur dioxide; NO_2—nitrogen dioxide, seasonal (May through September); NO_y—total reactive nitrogen; CO—carbon monoxide; ●—trace

Table 3. Monitoring methods used in Idaho in 2009.

Pollutant Code	Measurement	Method	Units
CO	Carbon monoxide	Gas nondispersive infrared radiation	Parts per million
NO_x/NO_y	Nitrogen oxides (NO_x)	Chemiluminescence	Parts per million
O_3	Ozone	UV absorption	Parts per million
PM_{10} FRM	PM_{10} reference	Reference—Hi Vol Andersen/ GMW 1200	Micrograms per cubic meter
PM_{10} TEOM FEM	PM_{10} TEOM	R&P mass transducer	Micrograms per cubic meter
$PM_{2.5}$ FRM	$PM_{2.5}$ reference	Reference—R&P Partisol 2025	Micrograms per cubic meter
$PM_{2.5}$ TEOM	$PM_{2.5}$ TEOM	R&P mass transducer	Micrograms per cubic meter
SO_2	Sulfur dioxide	UV fluorescence	Parts per million

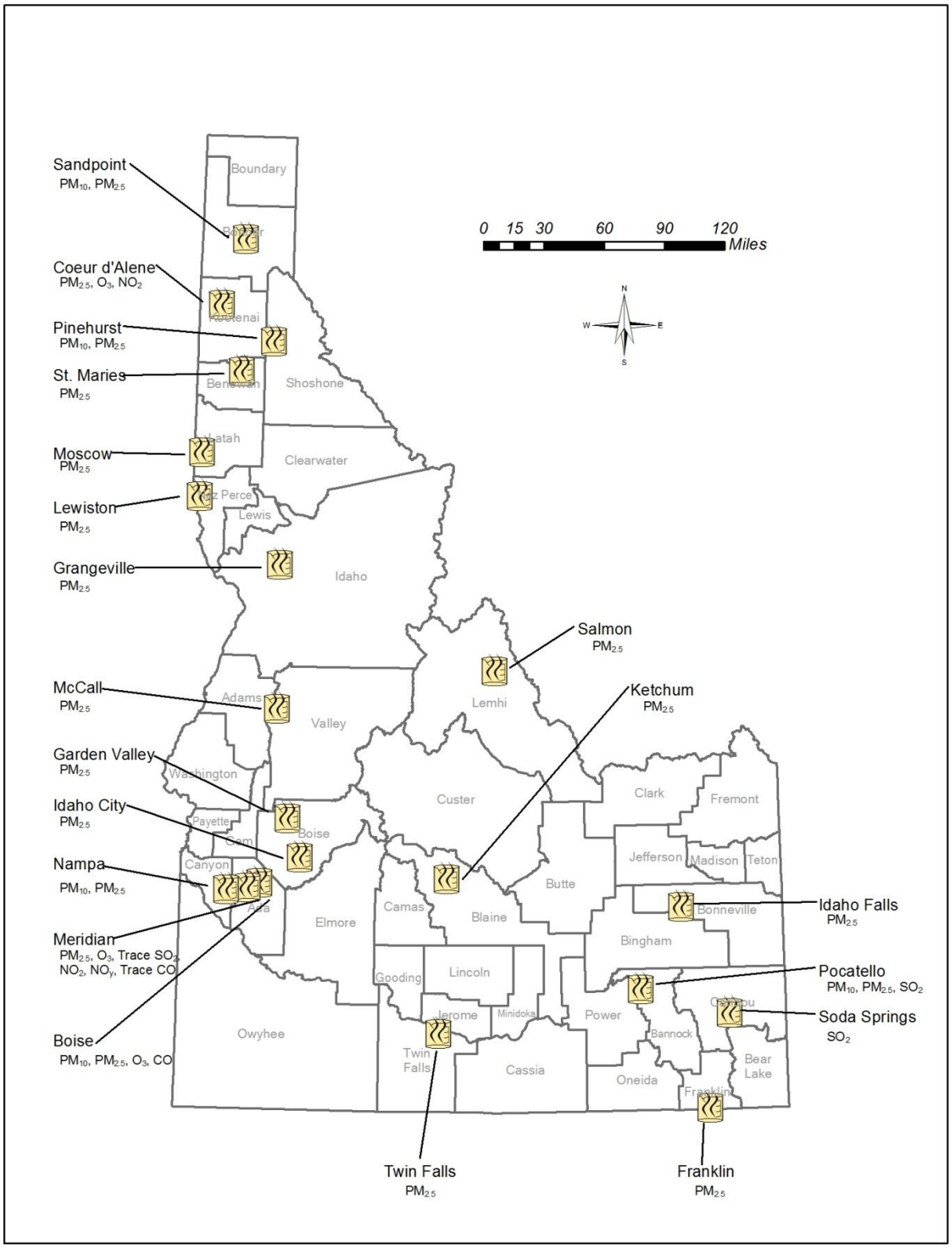


Figure 1. 2009 Idaho ambient air monitoring network.

Monitoring Results

Ozone

Ozone, a typically a summertime air pollution problem, forms when pollutants from internal combustion engines and industrial sources (e.g., paints, solvents, and gas vapors) react with sunlight. These pollutants are called ozone precursors and include VOCs and nitrogen oxides. Ozone can also be directly emitted by industrial sources. Ozone levels are usually highest in the afternoon because of the intense sunlight, warm temperatures, and the time required for ozone to form. These levels are highly affected by weather. DEQ monitored ozone from May through September 2009, as this is the time period specified by EPA requirements and the most likely time that high ozone levels will be observed.

Ozone is considered beneficial in the upper atmosphere because it helps to protect the earth from the sun's rays; however, ozone formed at ground level is unhealthy. Elevated concentrations of ground-level ozone can cause reduced lung function and respiratory irritation and can aggravate asthma. Ozone has also been linked to immune system effects (www.epa.gov/ttn/oarpg/naaqsfin/o3health.html). The damage ozone causes to the lungs typically heals within a few days, but repeated or prolonged exposure may cause permanent damage. People with respiratory conditions should limit outdoor exertion if ozone levels are high. Even healthy individuals may experience respiratory symptoms on a high ozone day. Ground-level ozone can also damage agricultural crops and forests, interfering with their ability to photosynthesize and grow.

Precursor chemicals that react with sunlight to produce ozone are generated primarily in large metropolitan areas. Because Idaho summers are normally hot and dry, ozone levels typically begin to rise in the late morning and peak in the late afternoon and early evening. This phenomenon follows closely with the time of day that the sun is the highest in the sky and temperatures are the hottest.

The ozone standard is defined so that the three highest ozone concentrations in any particular year can exceed the level of the standard while the area still maintains an "attainment" classification. However, if the 3-year averages of the 4th highest concentration exceed the level of the standard, the area is classified as "nonattainment" (Figure 2). Starting in 2008, the 3-year average (2006–2008) of the 4th highest 8-hour concentration will violate the NAAQS if it exceeds 0.075 ppm (0.076 ppm or higher).

Since 2002 DEQ has monitored ozone in Boise (Idaho Transportation Department, Whitney Elementary, and White Pine Elementary), Coeur d'Alene (Lancaster Road), and Mayfield (Tilli Road). Graphs presented in Figure 3–Figure 10 show trends in ozone levels at the monitoring stations in operation during 2009. For each station, the first graph presents daily maximum 8-hour average data for May through September. The shading on each graph corresponds to the AQI categories. The AQI categories of orange and above indicate NAAQS excursions. Breaks in the graphs are due to data being discarded as invalid. Data invalidation occurs when an instrument is taken off-line for routine maintenance, or there is a malfunction. Only valid data are shown on the graphs. The second graph presents the four highest concentrations observed during the year. The yellow circle presents the rolling 3-year average. The 3-year average of the 4th highest concentration is the value used to assess compliance with the NAAQS.

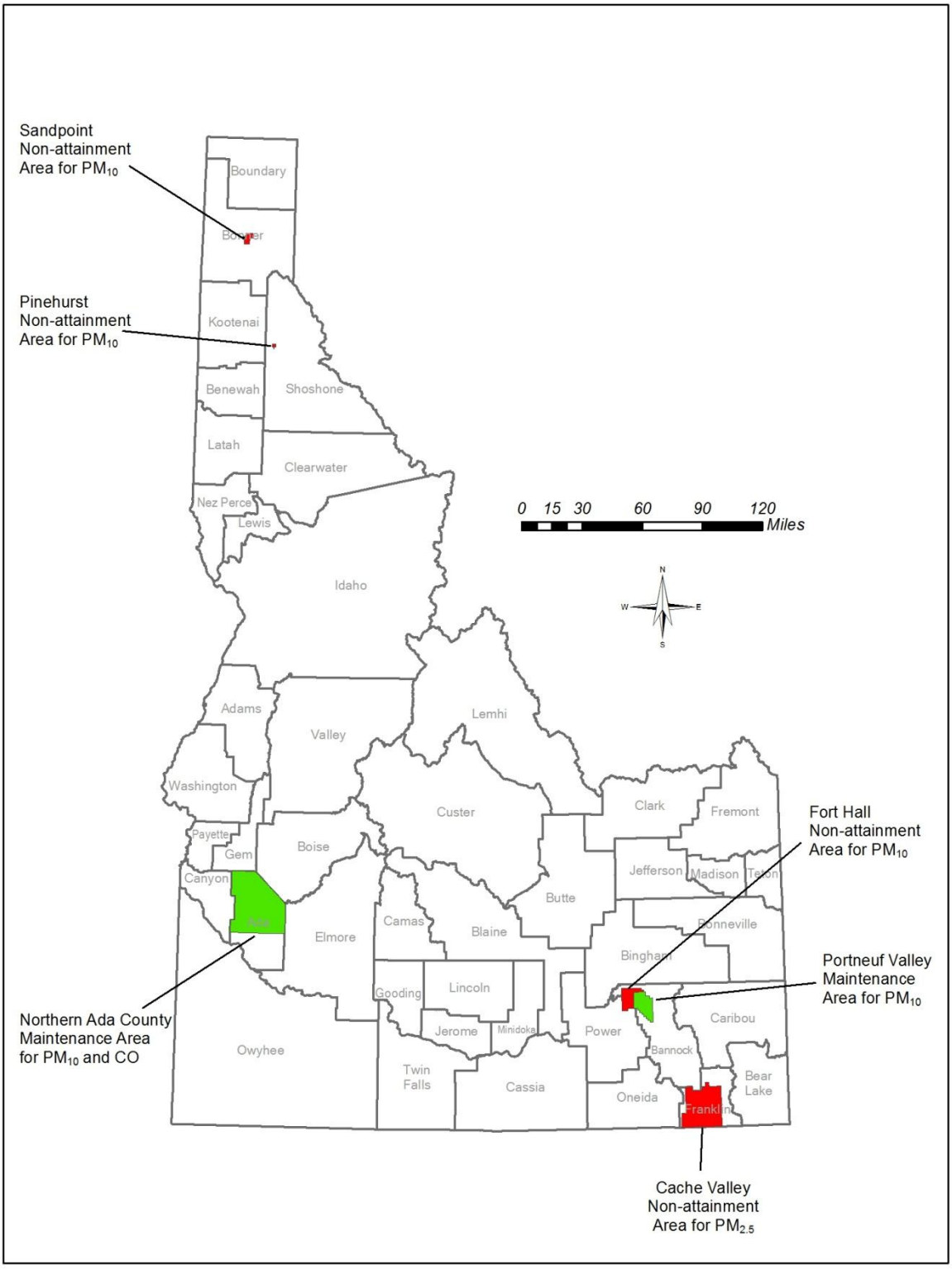
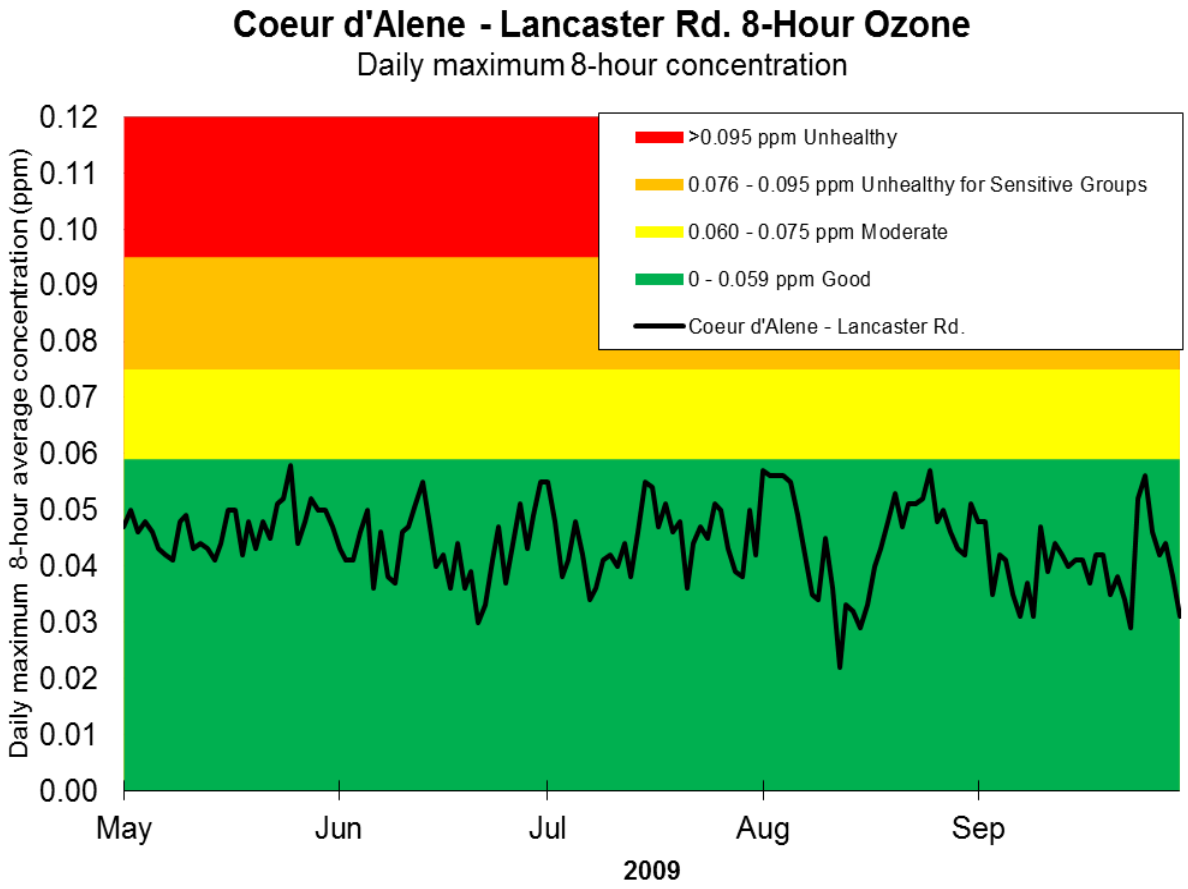


Figure 2. 2009 Idaho nonattainment and maintenance areas.

Figure 11 shows a summary of the ozone monitoring data against the previous and new 8-hour federal standard. It shows that the state has remained at or below the previous ozone standard since monitoring began. It also shows that the Treasure Valley is close to violating the new standard. For additional information on ozone, visit www.epa.gov/air/ozonepollution/, and refer to the Definitions and Criteria Air Pollutants sections of this document.



* Gaps in the charted data reflect times when valid data were not collected either from instrument malfunction, quality assurance failure, or equipment maintenance.

Figure 3. Coeur d'Alene—Landcaster Road 8-hour ozone maximum concentration.

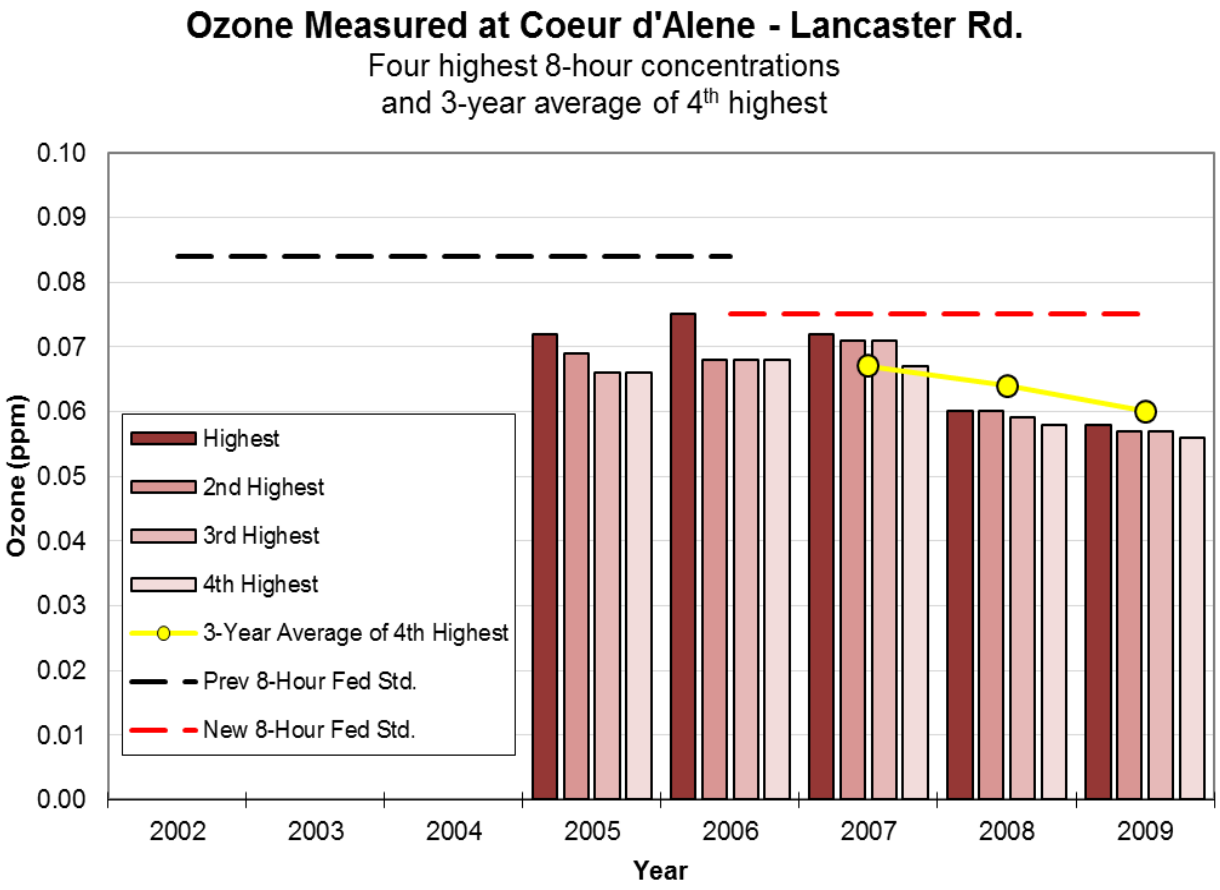
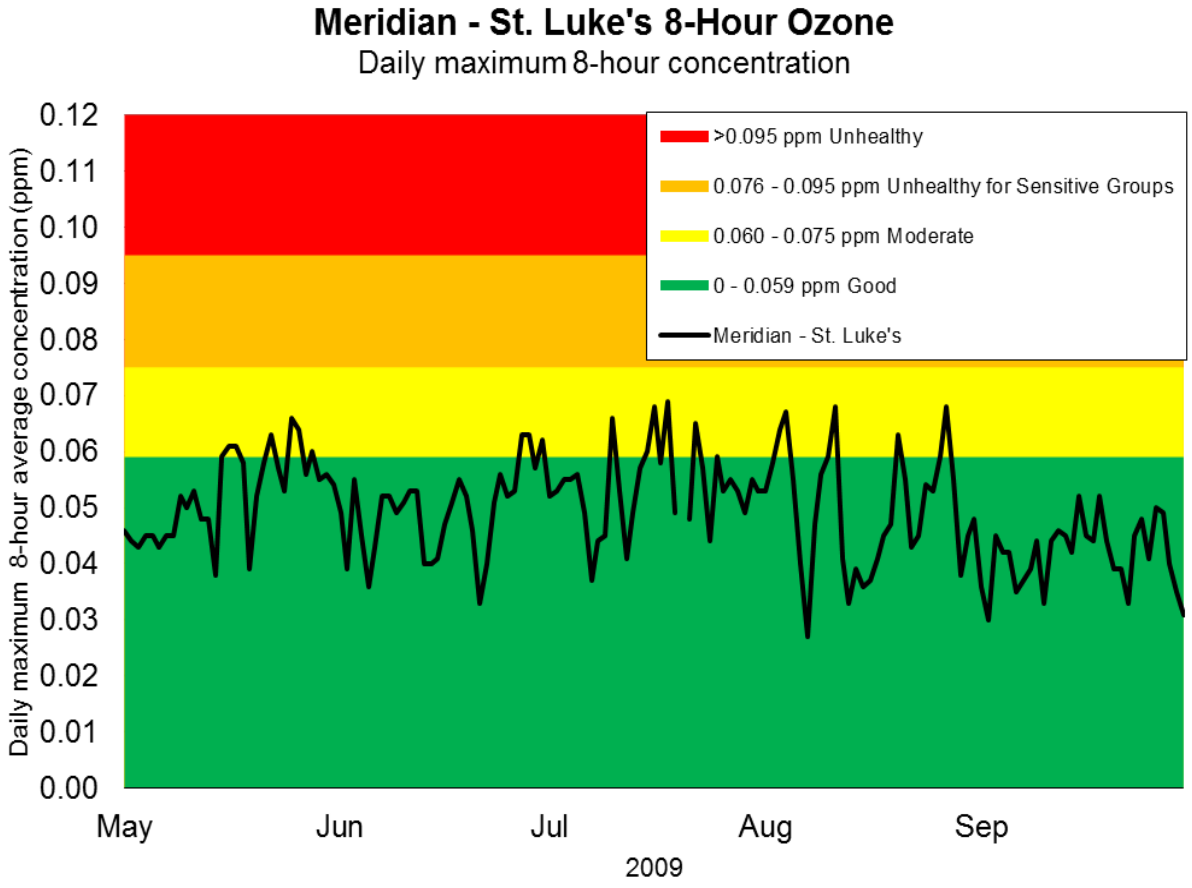


Figure 4. Coeur d'Alene—Landcaster Road highest 8-hour ozone concentrations and 3-year average of the 4th highest concentration.



* Gaps in the charted data reflect times when valid data were not collected either from instrument malfunction, quality assurance failure, or equipment maintenance.

Figure 5. Meridian—St. Luke's 8-hour ozone daily maximum concentration.

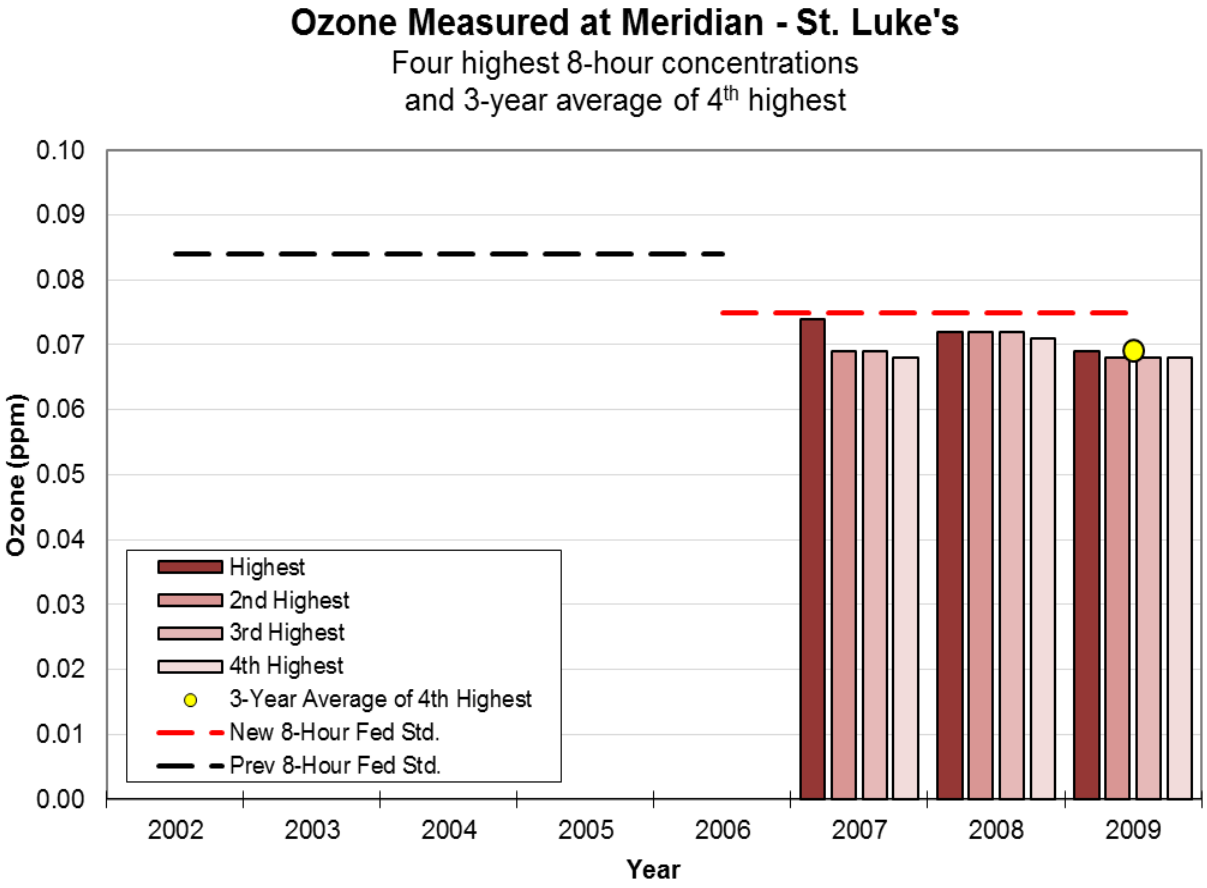
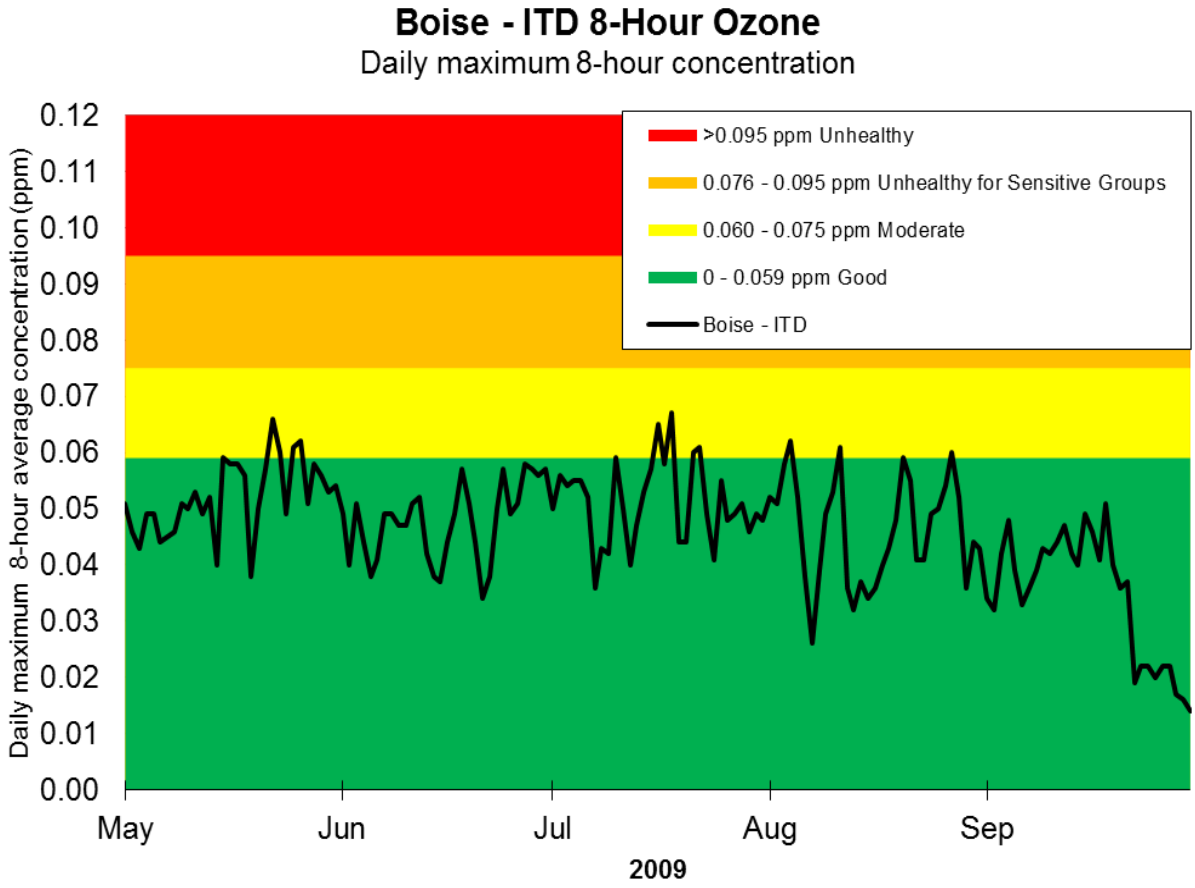


Figure 6. Meridian—St. Luke's highest 8-hour ozone concentrations and 3-year average of the 4th highest concentration.



* Gaps in the charted data reflect times when valid data were not collected either from instrument malfunction, quality assurance failure, or equipment maintenance.

Figure 7. Boise—Idaho Transportation Department 8-hour ozone daily maximum concentration.

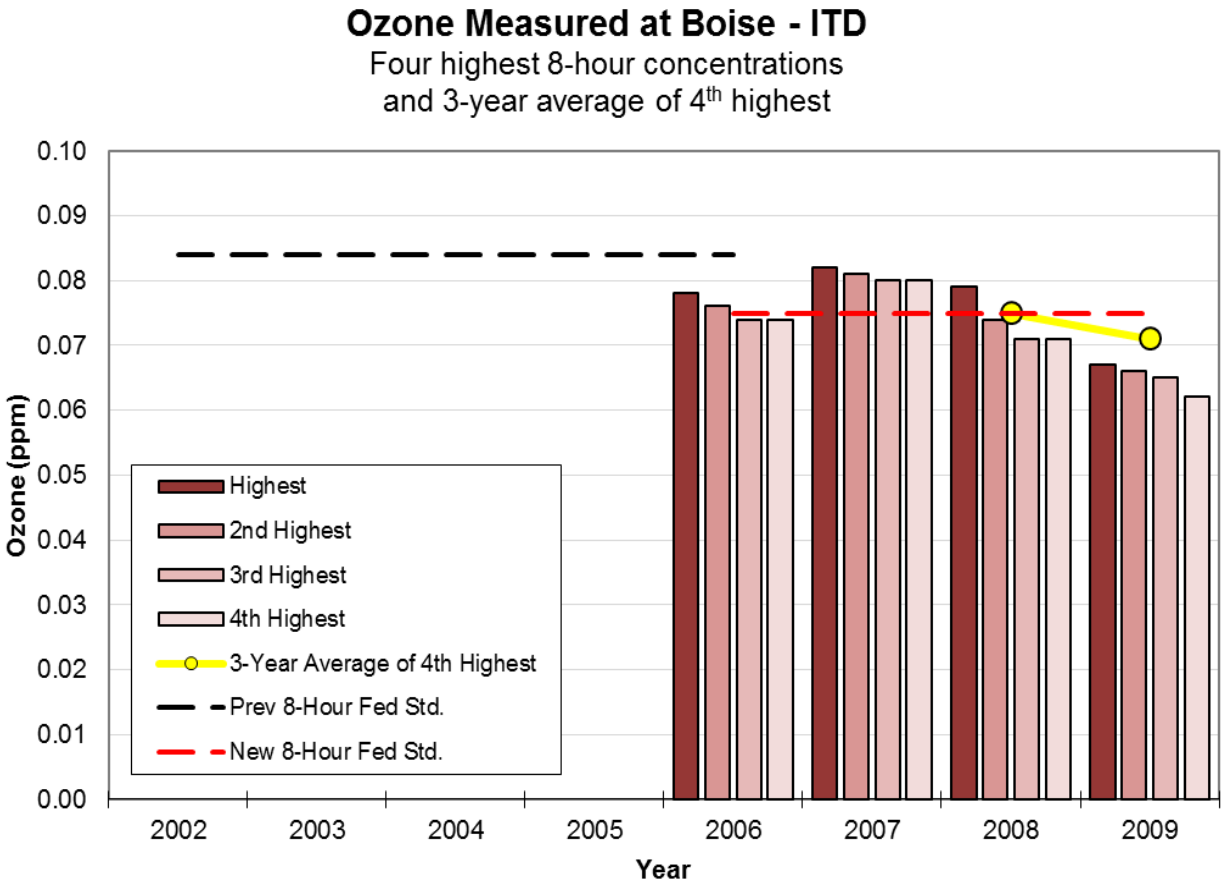


Figure 8. Boise—Idaho Transportation Department annual four highest 8-hour ozone concentrations and 3-year average of the 4th highest concentration.

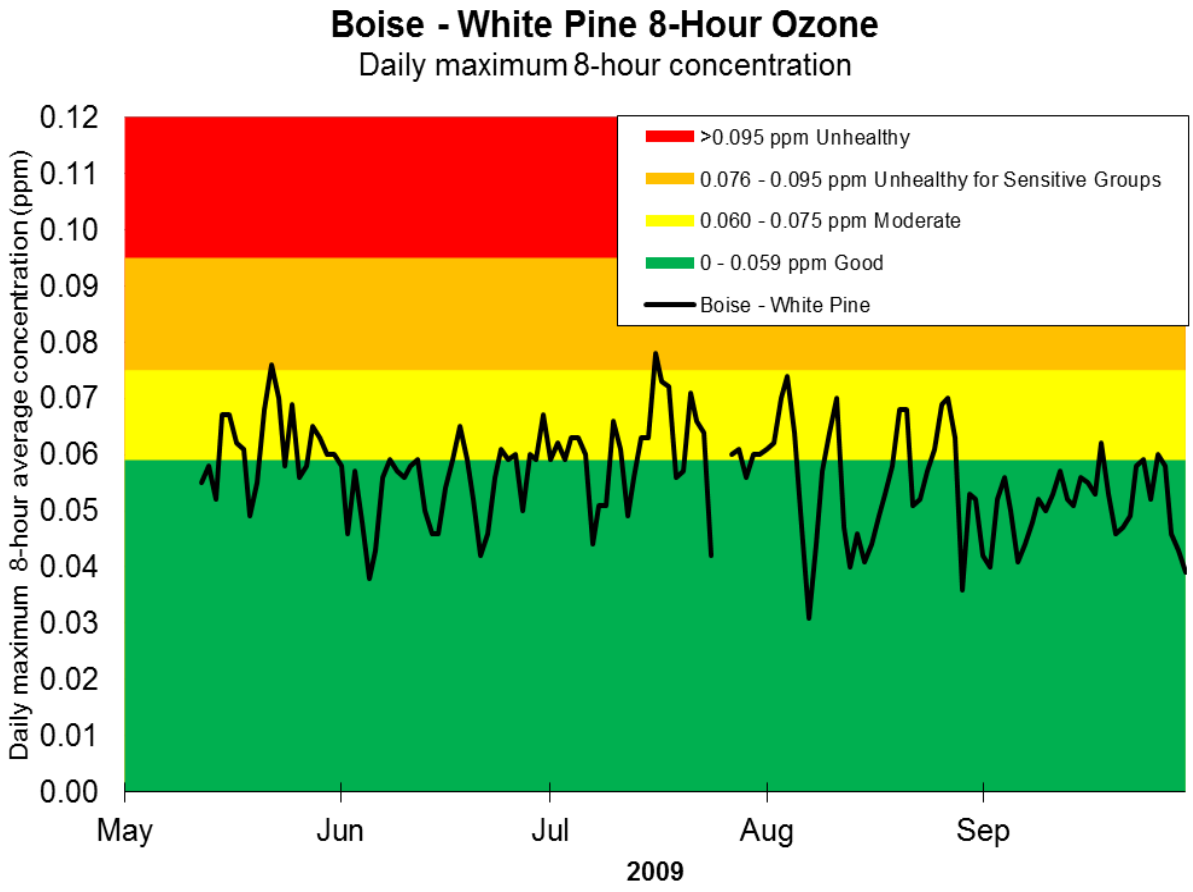


Figure 9. Boise—White Pine 8-hour ozone daily maximum concentration.

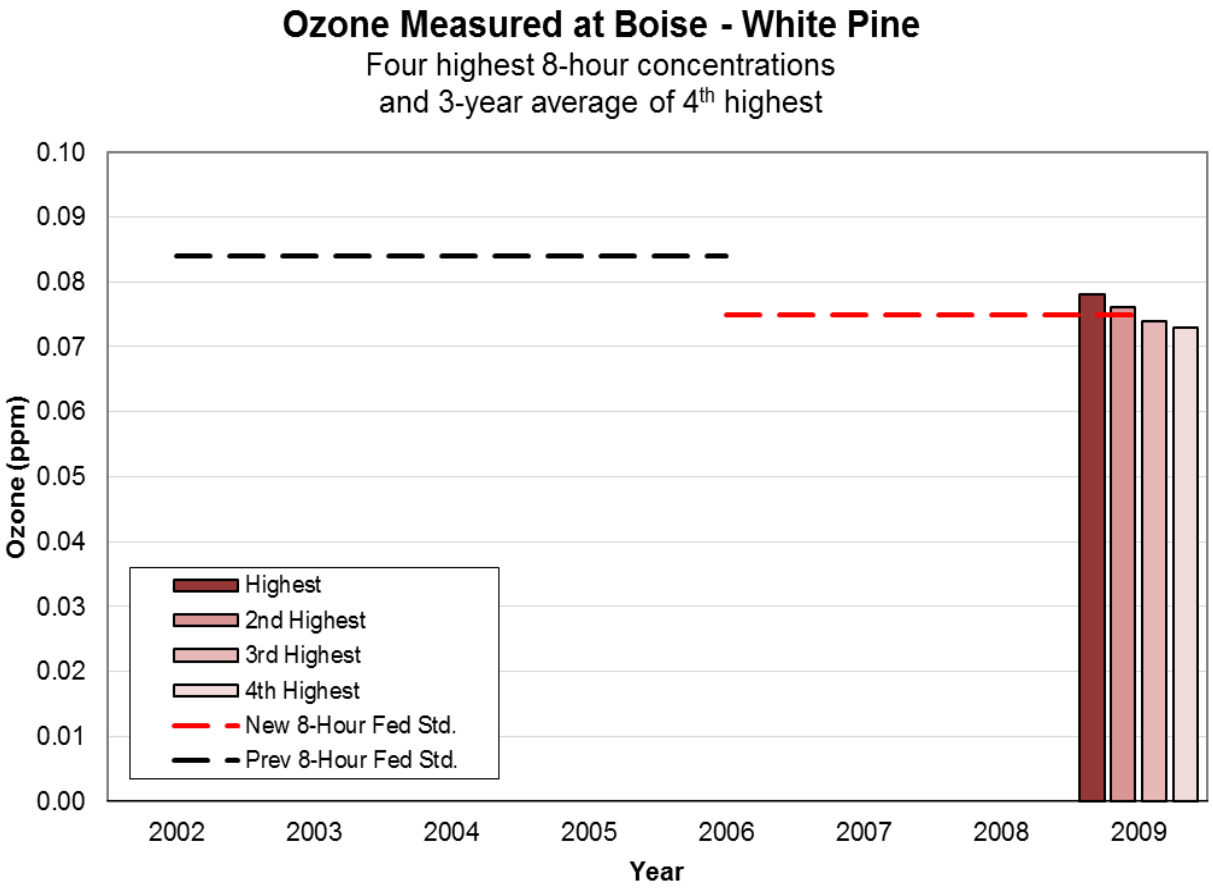


Figure 10. Boise—White Pine highest 8-hour ozone concentrations and 3-year average of the 4th highest concentration.

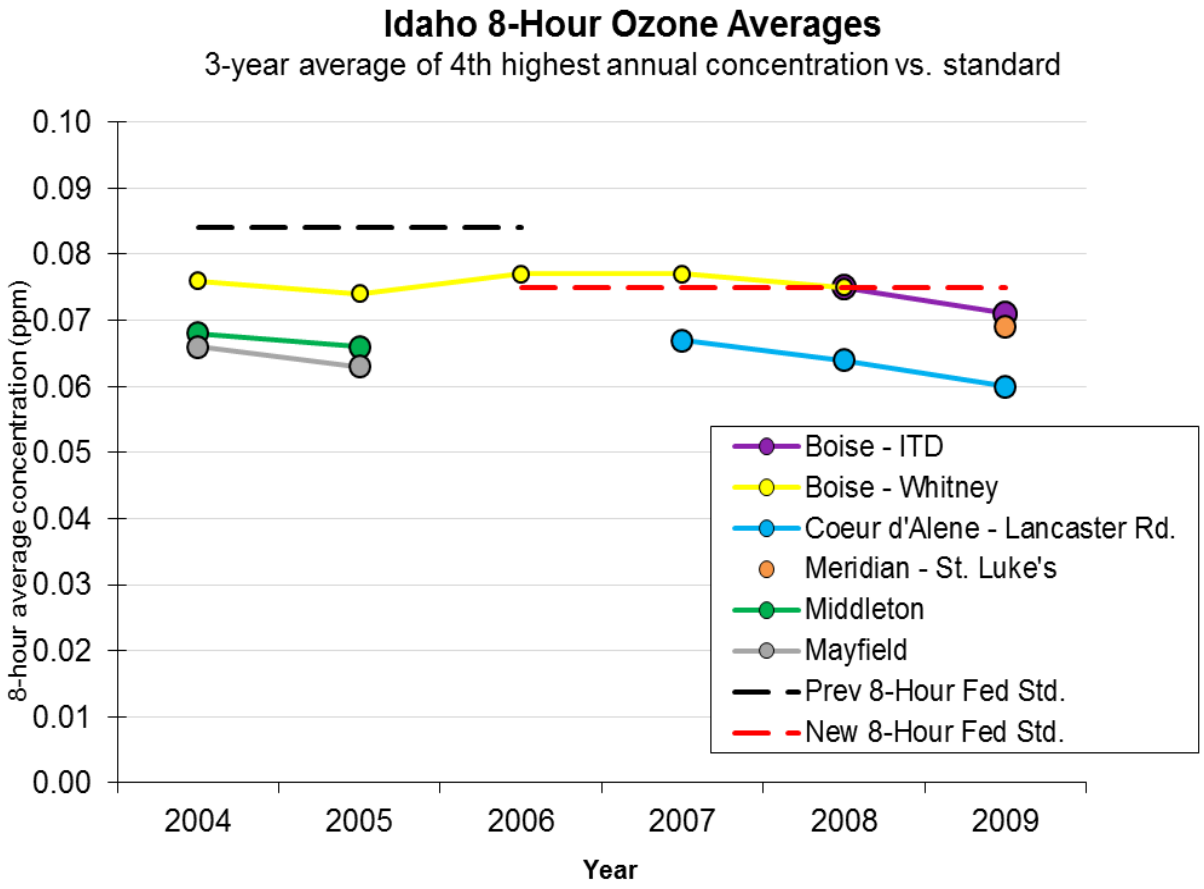


Figure 11. Idaho 8-hour ozone concentrations and 3-year average of the 4th highest concentration.

Particulate Matter (10 micrometers)

Particulate matter includes solid matter and liquid droplets suspended in the air. Particles smaller than 2.5 micrometers in diameter are called "fine" particles, or $PM_{2.5}$. Particles between 2.5 and 10 micrometers in diameter are called "coarse" particles. PM_{10} includes fine and coarse particles. Coarse particles typically come from crushing or grinding operations and dust from roads. PM_{10} can aggravate respiratory conditions such as asthma. People with respiratory conditions should avoid outdoor exertion if PM_{10} levels are high.

The federal annual PM_{10} standard was revoked effective December 17, 2006, from a lack of evidence linking health problems to long-term exposure to coarse particle pollution. The 24-hour standard was not changed. EPA may choose to replace the PM_{10} standard in the future with a $PM_{10-2.5}$ (PM_{coarse}) standard, ranging from diameters 2.5 to 10 micrometers. Boise, Pocatello, Sandpoint, and Pinehurst have previously violated federal PM_{10} standards (Figure 2). Sandpoint and Pinehurst are currently nonattainment areas for PM_{10}. Pocatello and Boise (northern Ada County) were formerly nonattainment areas but are now considered to be maintenance areas for PM_{10}.

Idaho monitors PM_{10} using both the reference and continuous equivalent methods. The PM_{10} TEOM is a federal equivalent method. TEOM data are also used to determine compliance to the PM_{10} NAAQS. The FRM and TEOM method results are shown in the following figures. TEOM method data are also used to determine the daily AQI and to inform the public of air quality values in near real-time via DEQ's webpages at http://airquality.deq.idaho.gov/.

Maximum daily values (24-hour average) confirm that Idaho has generally shown a decrease since 1999 although the high value for the Pocatello Garrett and Gould site reflects an unusual high wind event that occurred on August 6, 2009 (Figure 12). Statistical summaries of the FRM and TEOM method PM_{10} concentrations are provided in Appendix A. The maximum PM_{10} measured in 2009 at the Pocatello monitor exceeded the 24-hour NAAQS standard. However, the 24-hour PM_{10} NAAQS is only considered violated if there are more than three exceedances during the consecutive 3-year period. For example, we could experience two exceedances in year one, none in year two, and one in year three and not violate the NAAQS.

Figure 13 demonstrates that Idaho's airsheds, where monitoring is occurring, were in compliance for the daily NAAQS for PM_{10} in 2009. Pocatello's Garrett and Gould site was measured using the filter-based federal reference method (FRM) while Sandpoint, Pinehurst, Boise, and Nampa were measured using the TEOM method, as the federal equivalent method (FEM). The graph shows the 3-year average estimated exceedances of the 24-hour primary standard. It is clear that all concentrations are below the NAAQS in 2009.

For additional information on PM_{10}, visit www.epa.gov/oar/particlepollution/, and refer to the definitions section of this document.

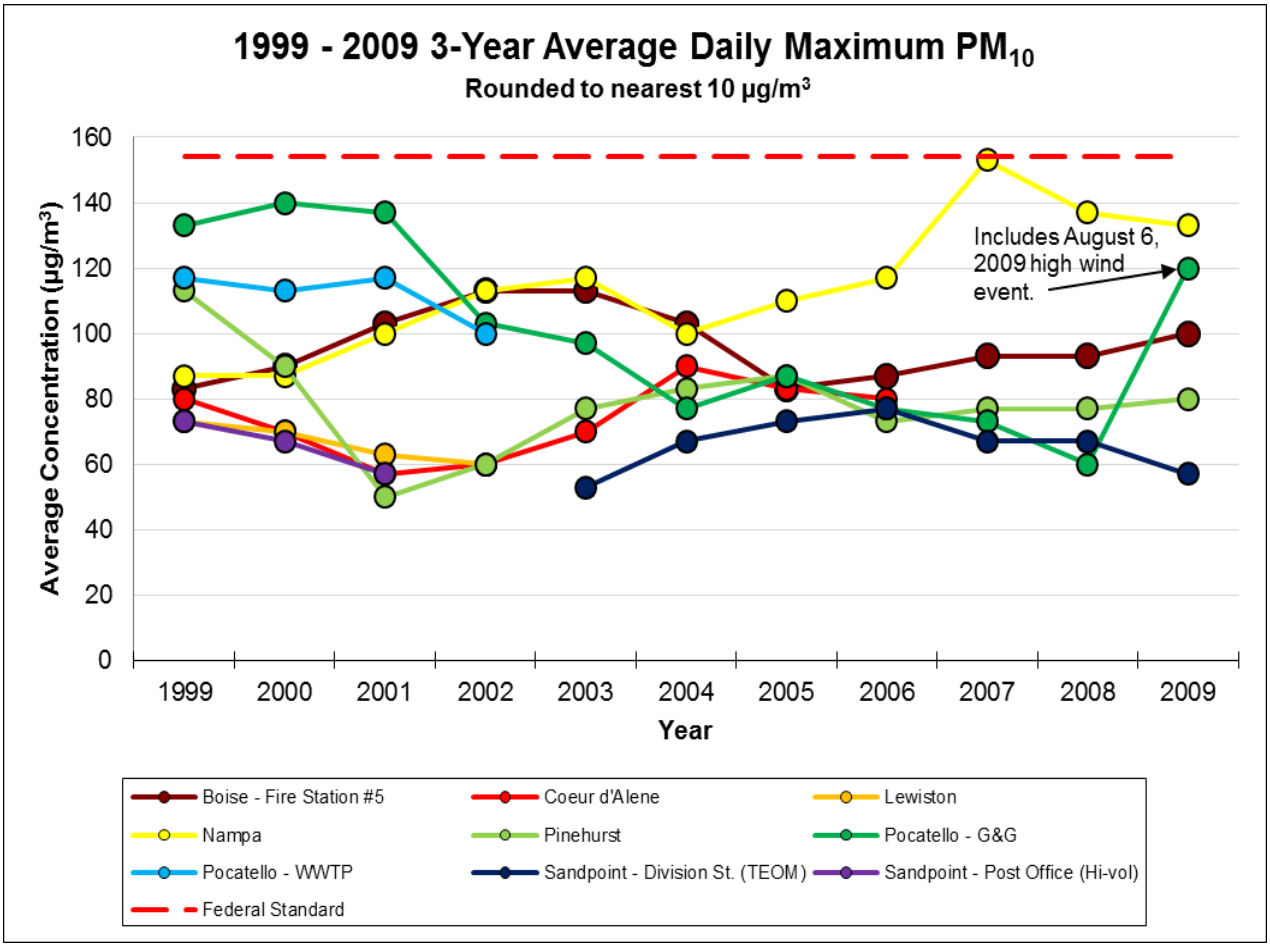


Figure 12. Three-year average of daily maximum PM_{10}.

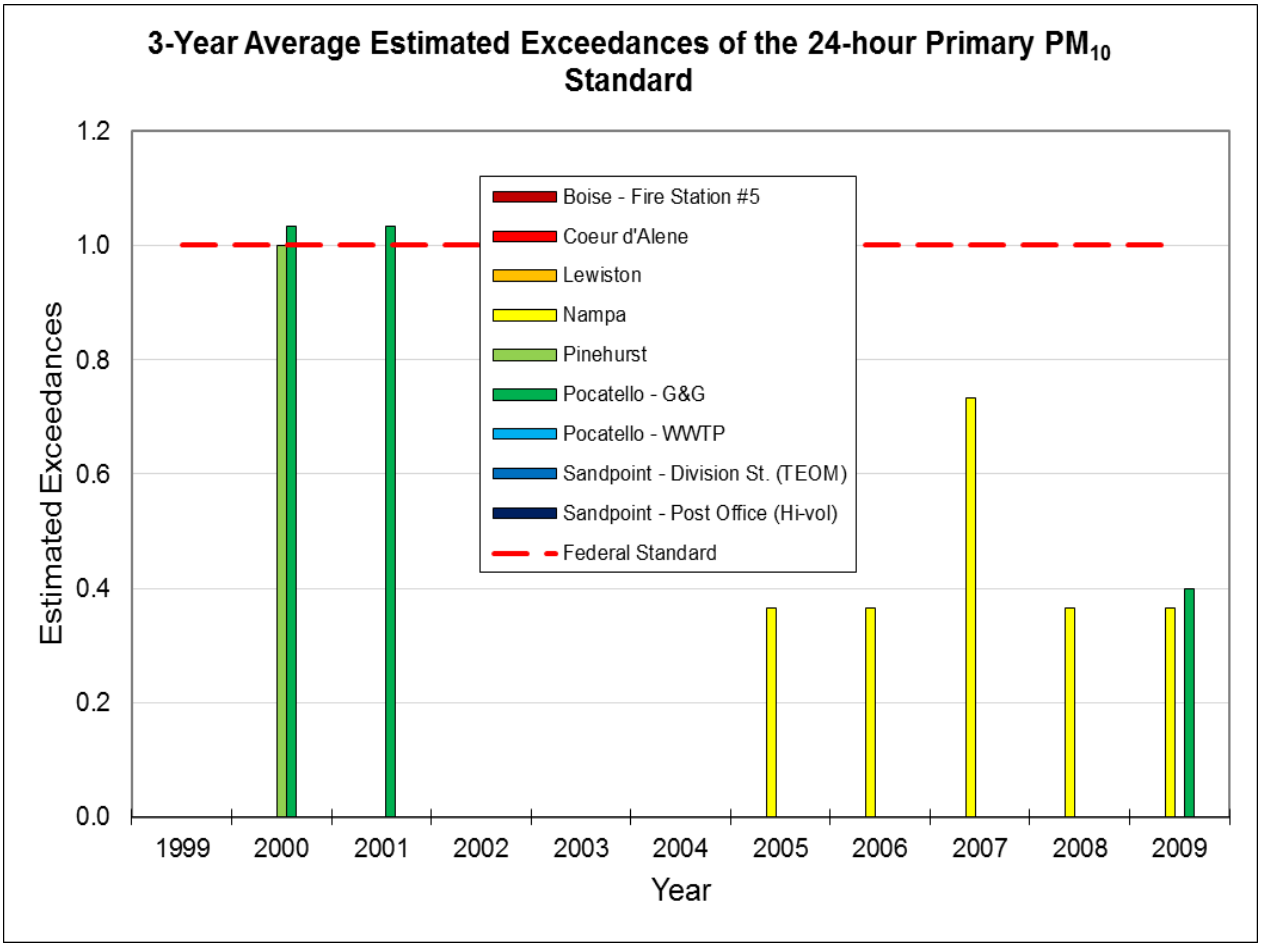


Figure 13. Three-year average estimated exceedances of the daily PM_{10} standard.

Particulate Matter (2.5 micrometers)

Particles 2.5 micrometers in diameter or less are called "fine" particles, or $PM_{2.5}$. DEQ considers $PM_{2.5}$ to be one of the major air pollution concerns affecting a number of airsheds in Idaho. $PM_{2.5}$ generally comes from wood and agricultural burning, and other area sources, as well as industrial boilers, and vehicle exhaust including cars, diesel trucks, and buses. Fine particulate matter can also be formed secondarily in the atmosphere by chemical reactions of pollutant gases.

Exposure to $PM_{2.5}$ can have serious health effects. Fine particles are closely associated with increased respiratory disease, decreased lung function, and even premature death. Children, older adults, and people with some illnesses are more sensitive and more likely to develop heart or lung problems associated with $PM_{2.5}$. People with respiratory or heart disease, older adults, and children should avoid outdoor exertion if $PM_{2.5}$ levels are high. $PM_{2.5}$ also significantly affects visibility.

$PM_{2.5}$ is primarily measured by DEQ using two different methods, federal reference method and the tapered element oscillating method (TEOM). The federal reference method is the method approved by EPA to determine $PM_{2.5}$ NAAQS compliance. This method involves pulling air through a size-selective inlet and a preweighed filter at a given flow rate that traps particles of a certain size (in this case $PM_{2.5}$) on the preweighed filter. The filter is weighed again, and the net weight is divided by volume of sampled air (determined from flow rate and amount of time) to provide the concentration. Unfortunately, the reference method does not provide continuous or timely information. Idaho uses the TEOM method to provide more time-relevant data. The TEOM method uses measurement of mass to determine particulate matter present. A third method of $PM_{2.5}$ measurement is used during agricultural burning season, the Nephelometer. These transportable instruments help DEQ estimate $PM_{2.5}$ concentrations during monitoring activities.

EPA provides federal reference method (FRM) and federal equivalent method (FEM) designation to monitoring methods that meet certain requirements. The designation allows the methods to be recognized by EPA as appropriate for NAAQS compliance determinations. The graphs in this section use data collected primarily from FRMs. The continuous data are from TEOM methods, not designated as FRM or FEM but as special purpose monitors. The TEOM continuous methods are compared to the FRM values for a 1-year period, and calculations are made to determine the degree of difference between the two methods. The differences are then applied to the current continuous values in an attempt to make them "reference method-like." Data gathered by the TEOM or Nephelometer methods cannot be used for NAAQS compliance determinations because they do not meet EPA equivalency requirements. States can request approval to use non-FRM and non-FEM monitors for NAAQS compliance through the Approved Regional Method process. DEQ has not begun this process.

Figure 14 shows the 2009 3-year average of the 98th percentile 24-hour (daily) averages at Idaho monitoring stations against the federal standard. The annual averages for 2001–2009 all fell well below the previous standard of 65 $\mu g/m^3$. For 2009, the graph shows the 3-year average for Pinehurst very near the new NAAQS of 35 $\mu g/m^3$. All of the $PM_{2.5}$ monitors meet the daily NAAQS using the federal reference method. All of Idaho was designated attainment/unclassifiable for $PM_{2.5}$ in 2009 with the

exception of Cache Valley (Franklin County). Cache Valley was designated nonattainment along with Logan, Utah (Cache Valley) because they share the same airshed and Metropolitan Statistical Area.

Figure 15 shows the 3-year average of the annual averages at each monitoring station against the federal standard. The data show that the annual standard of 15 $\mu g/m^3$ was not exceeded at any of the monitoring stations.

Figure 16–Figure 34 show daily $PM_{2.5}$ concentrations measured at Idaho sites during 2009 using the TEOM continuous analyzers against a backdrop of AQI breakpoints. The highest measured 24-hour concentration of $PM_{2.5}$ measured with the TEOM monitors in 2009 was 55.82 $\mu g/m^3$, measured at Pinehurst on December 16, 2009, during a winter stagnation period. A few of the graphs show some blank periods with no concentrations. These are times when a TEOM monitor was not functioning due to mechanical malfunctions or maintenance.

For additional information on particulate matter, visit www.epa.gov/oar/particlepollution/, and refer to the Definitions and Criteria Air Pollutants sections of this document.

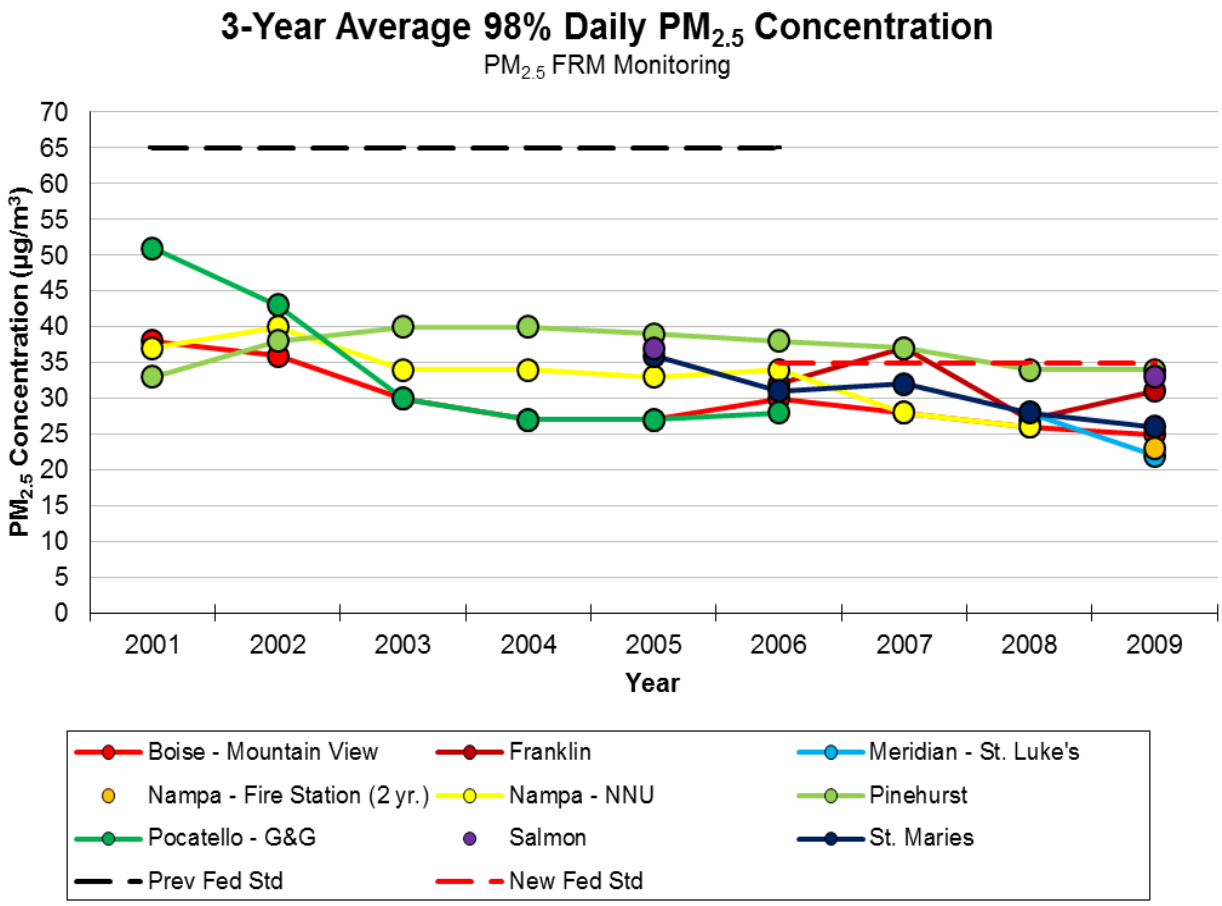


Figure 14. Three-year average 98th percentile daily $PM_{2.5}$ concentration (monitors operated in 2009).

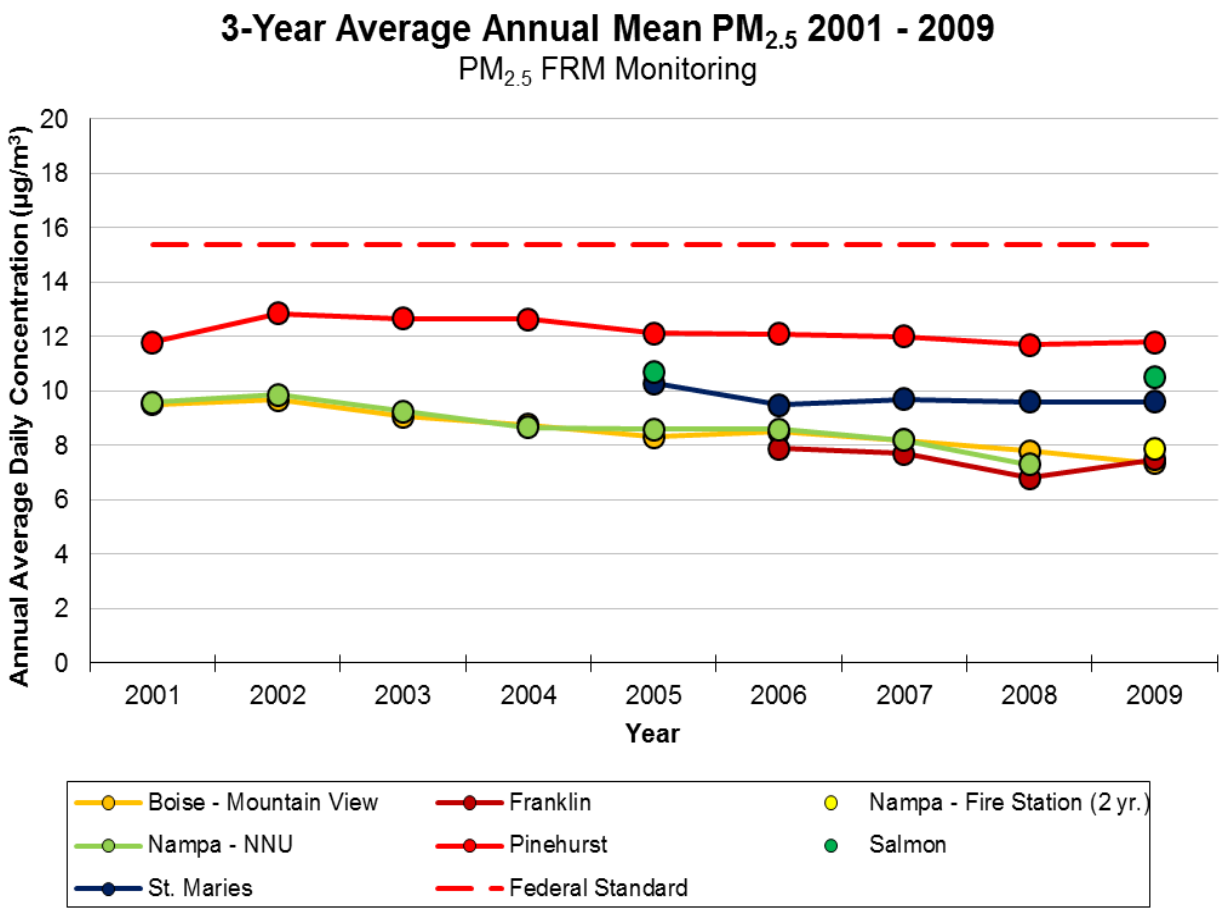


Figure 15. $PM_{2.5}$ 3-year average annual mean (monitors operated in 2009).

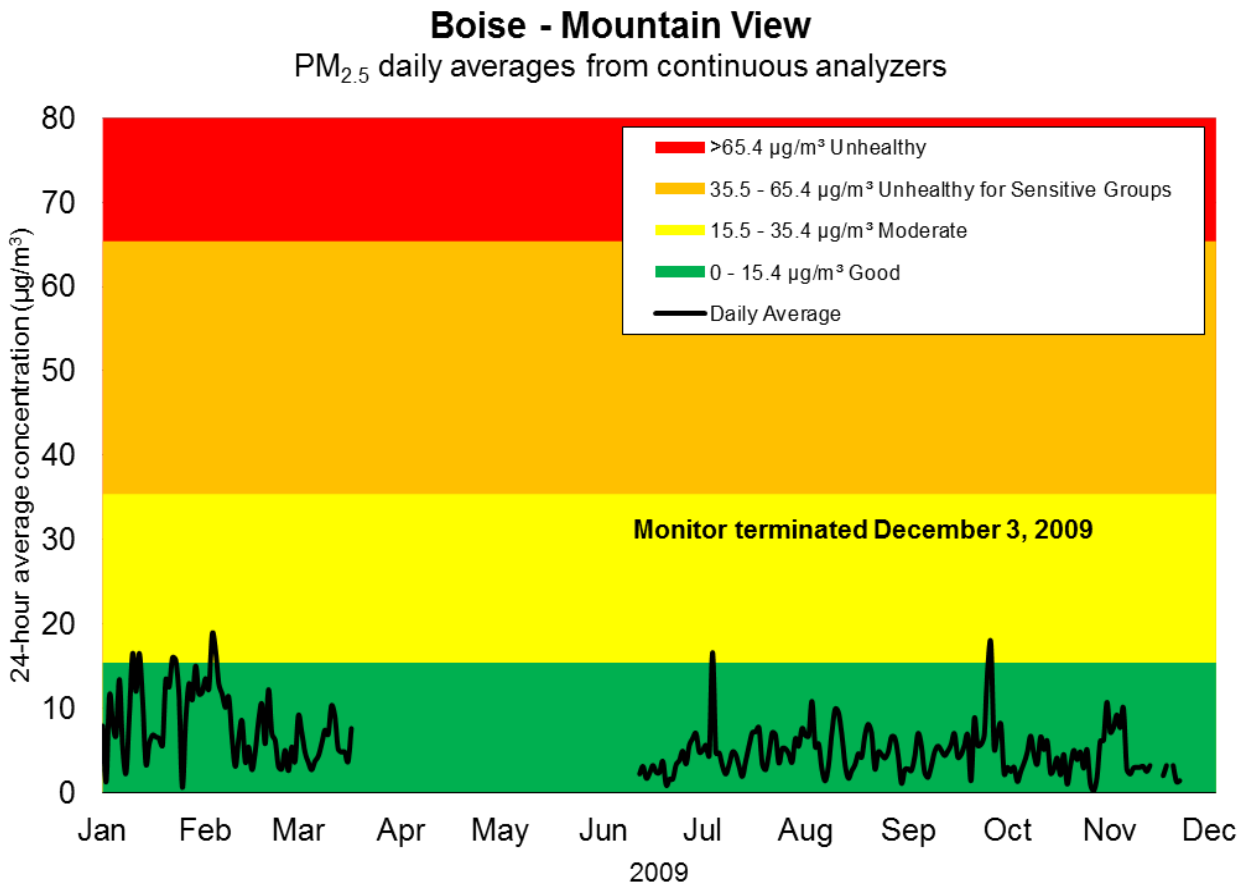


Figure 16. Boise—Mountain View $PM_{2.5}$ daily averages from continuous analyzer.

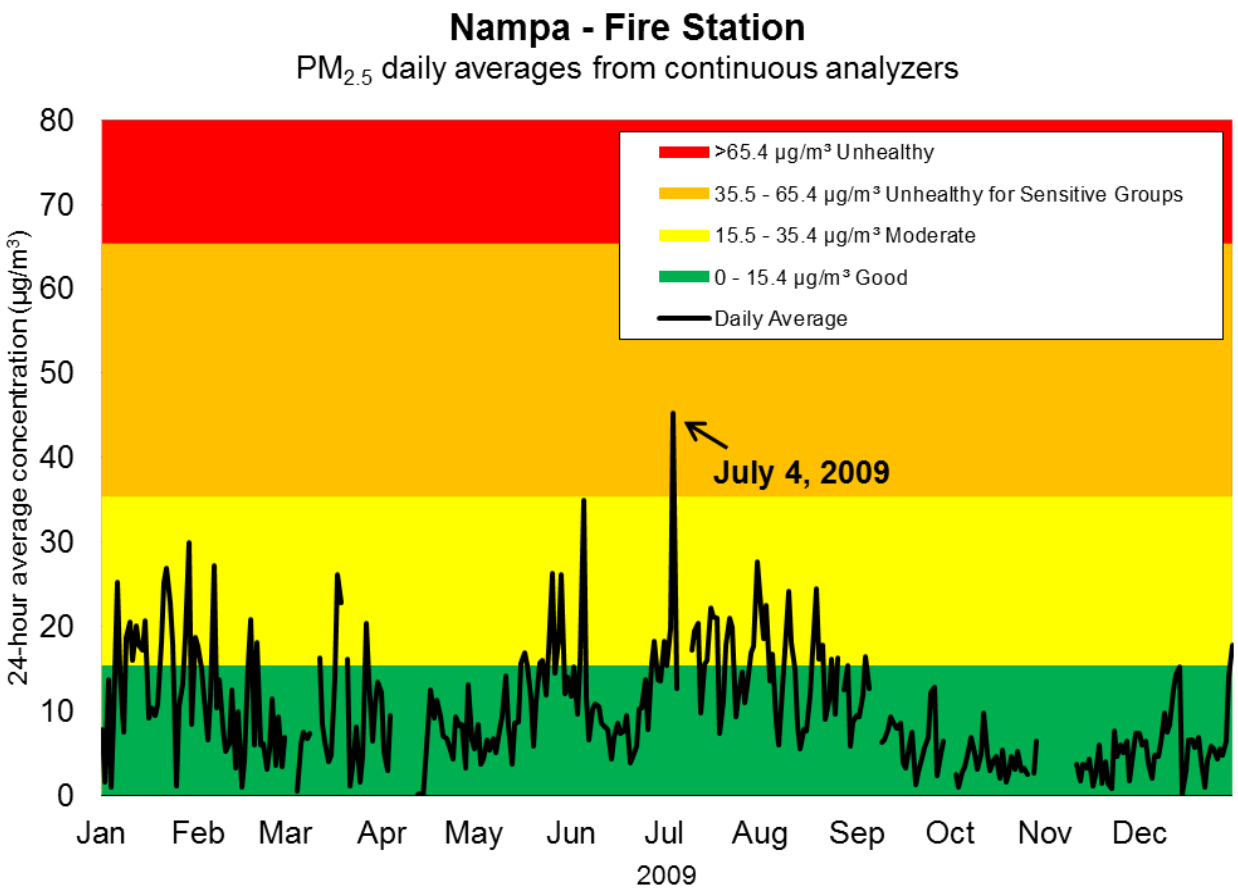


Figure 17. Nampa—Fire Station $PM_{2.5}$ daily averages from continuous analyzer.

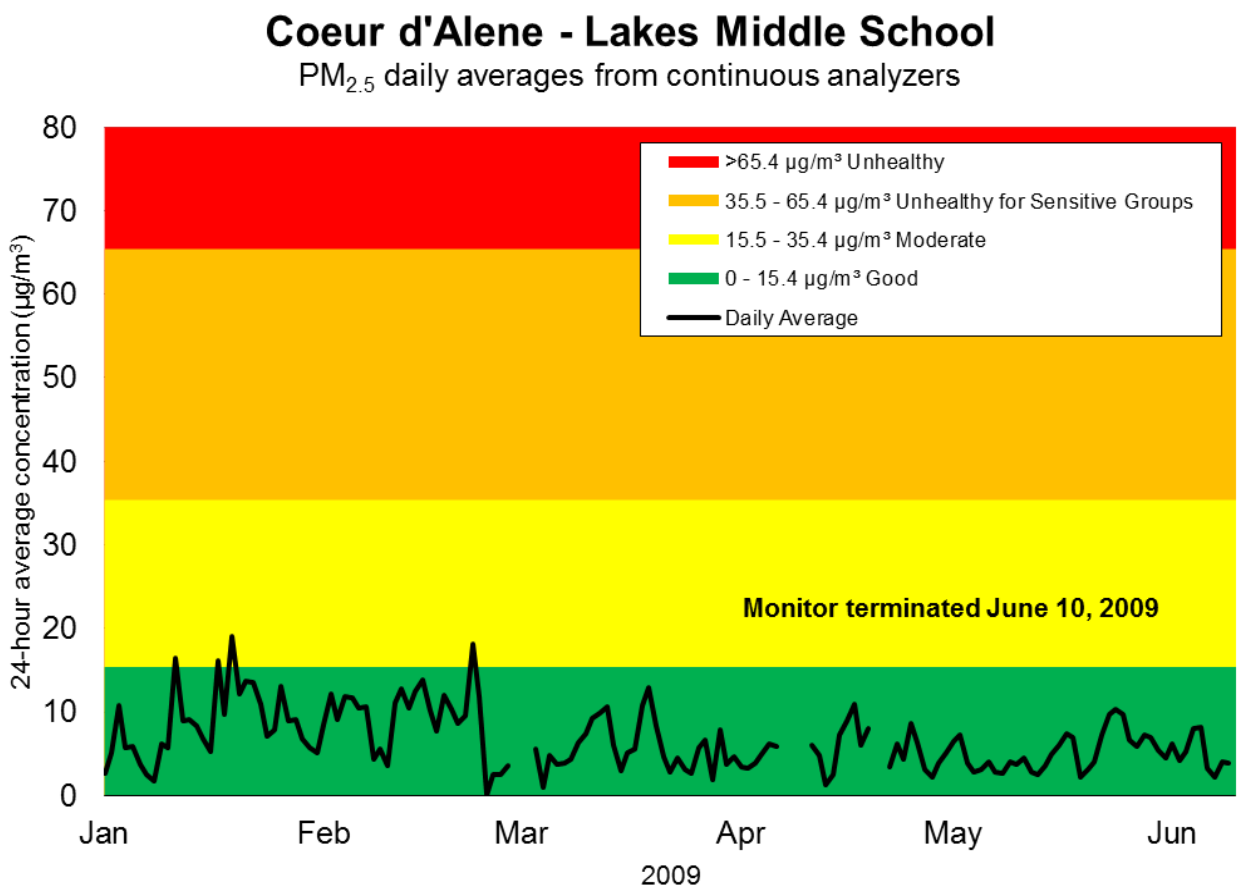


Figure 18. Coeur d'Alene—Lakes Middle School $PM_{2.5}$ daily averages from continuous analyzer.

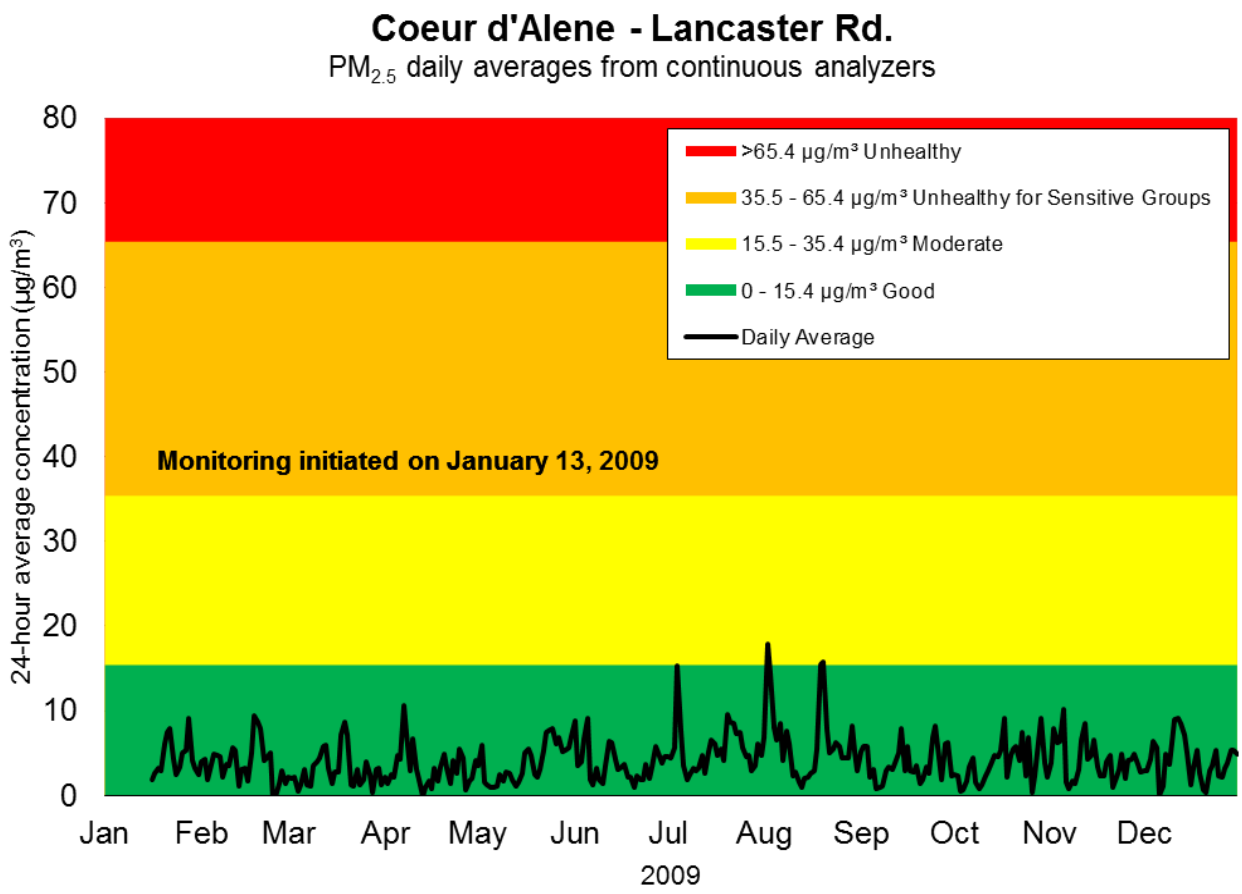


Figure 19. Coeur d'Alene—Landcaster Road $PM_{2.5}$ daily averages from continuous analyzer.

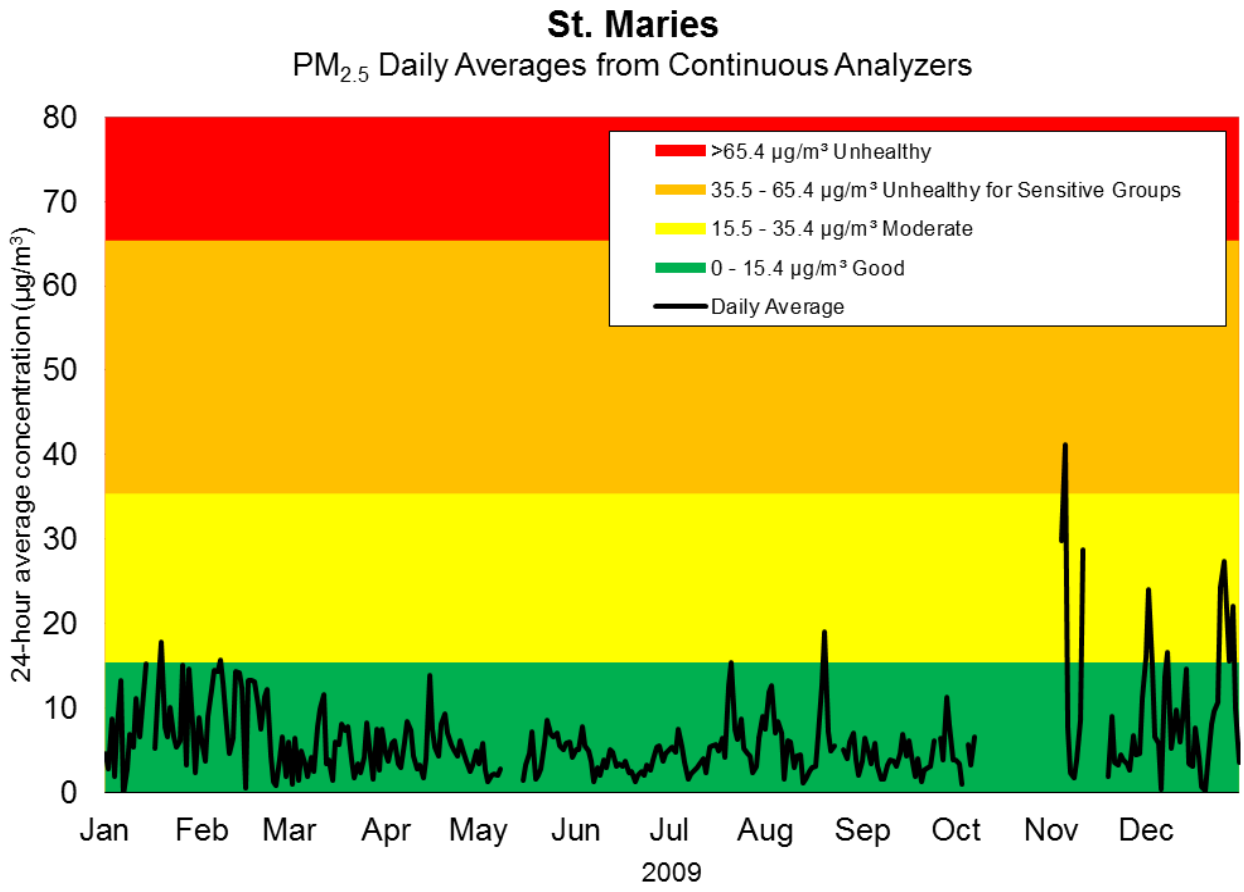


Figure 20. St. Maries $PM_{2.5}$ daily averages from continuous analyzer.

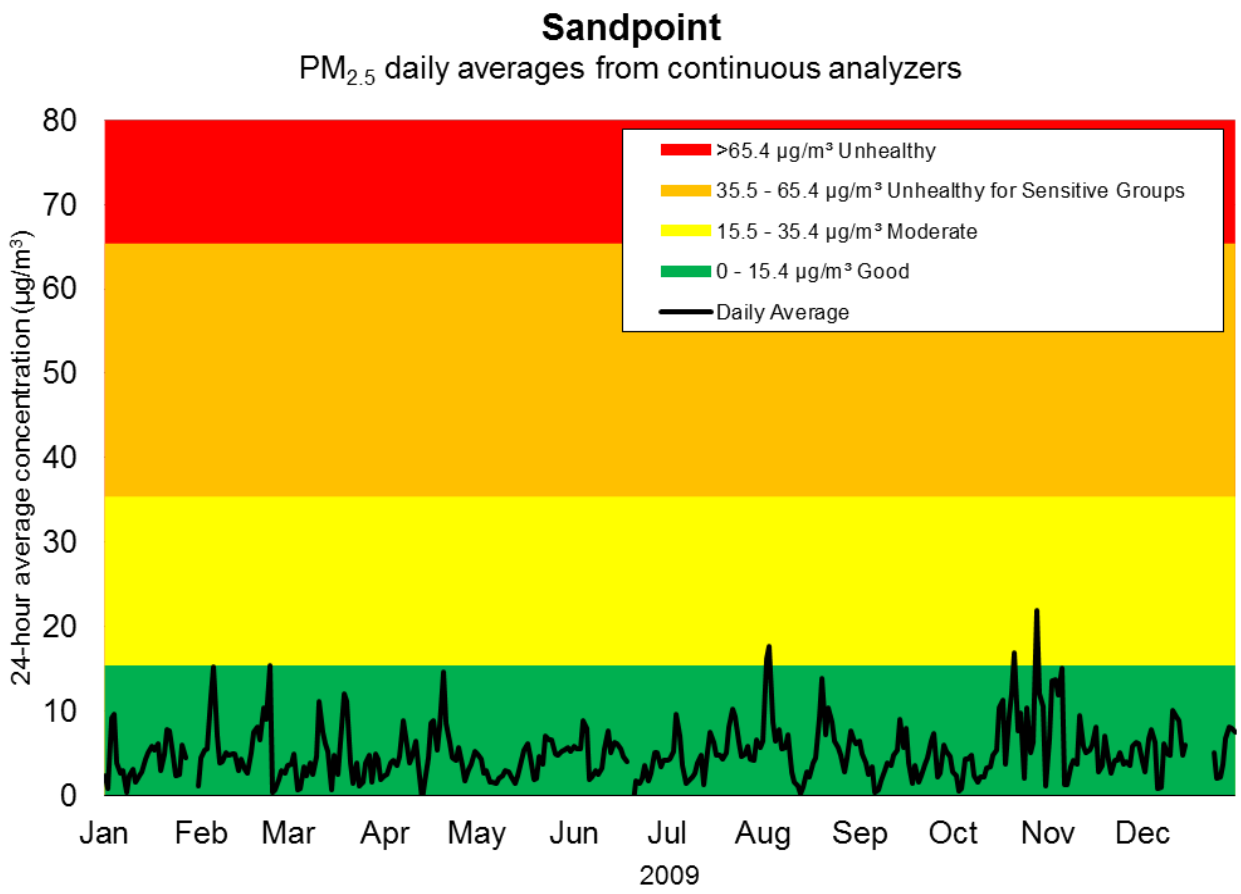


Figure 21. Sandpoint $PM_{2.5}$ daily averages from continuous analyzer.

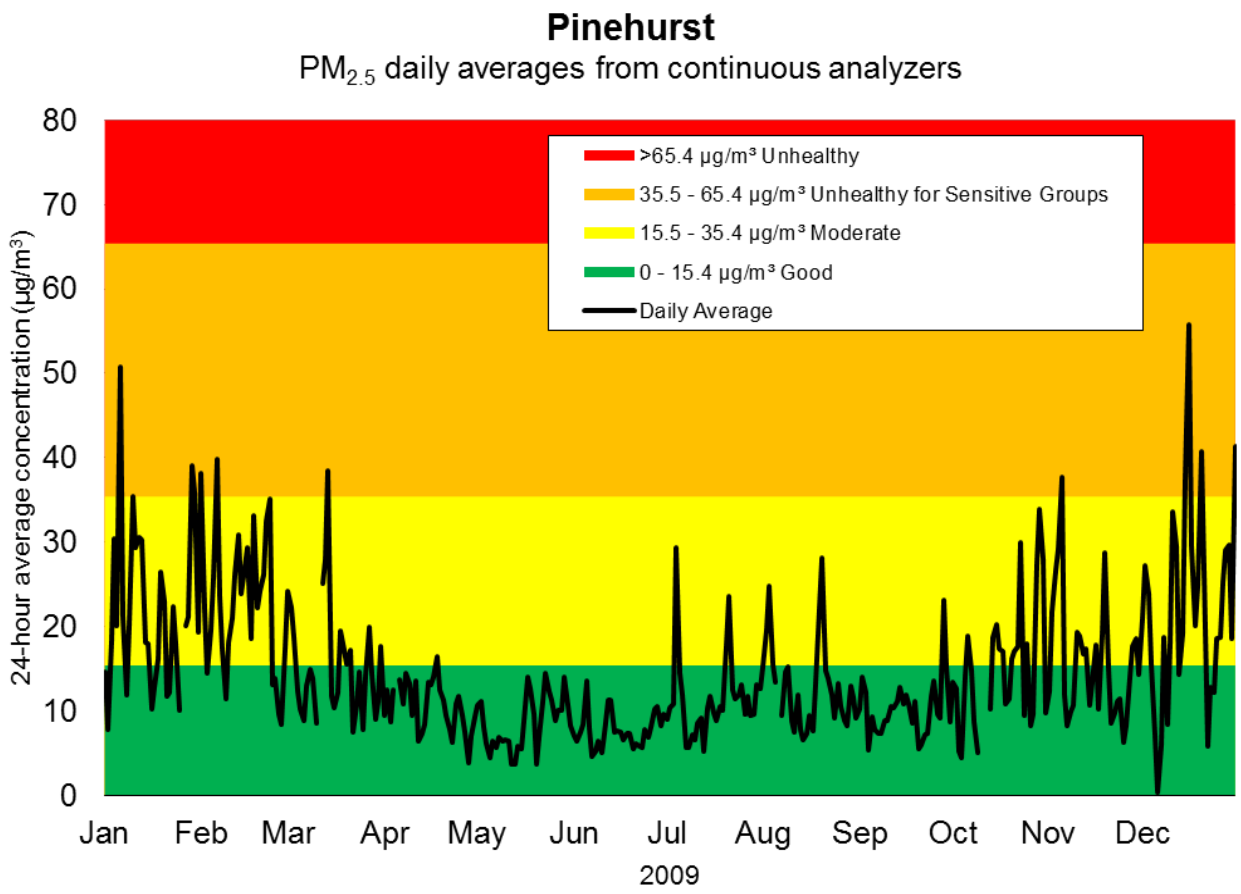


Figure 22. Pinehurst $PM_{2.5}$ daily averages from continuous analyzer.

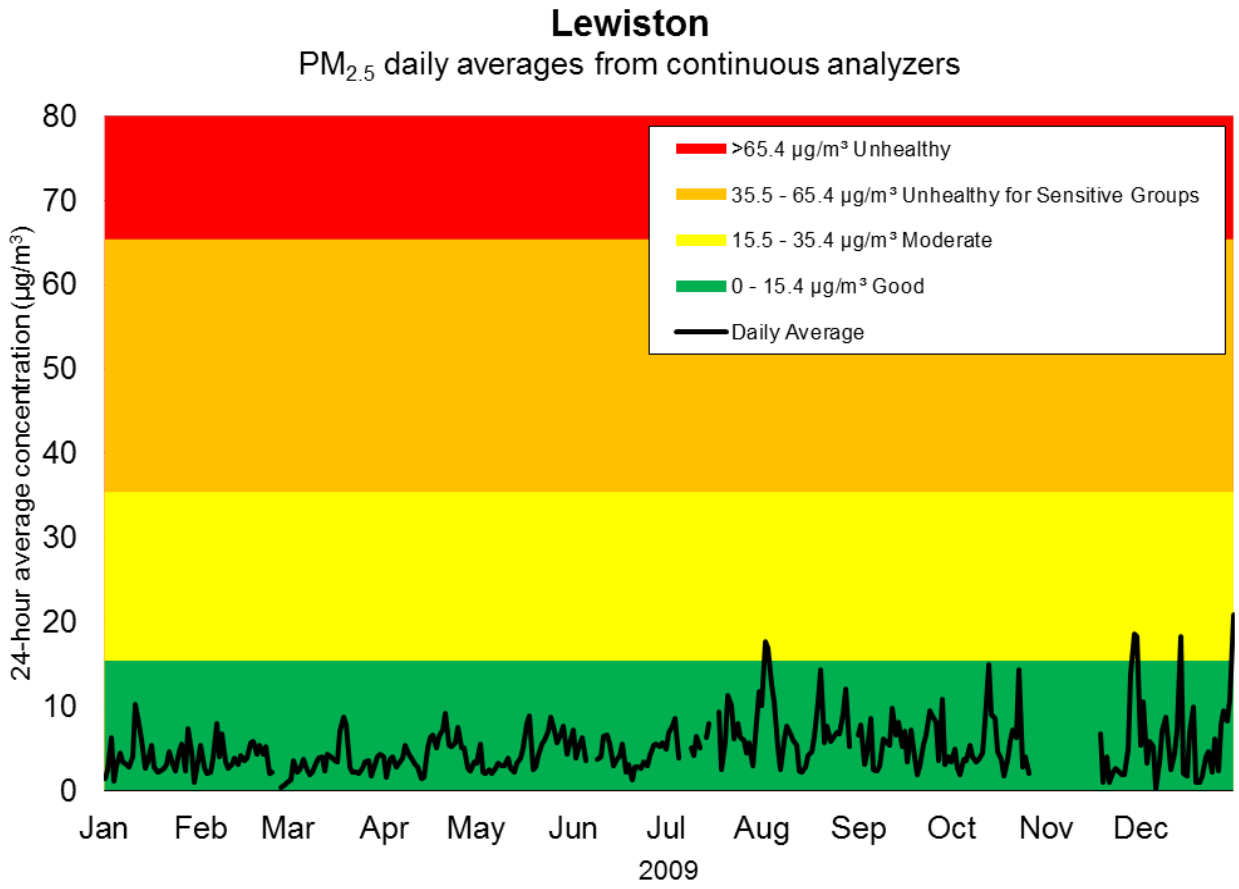


Figure 23. Lewiston $PM_{2.5}$ daily averages from continuous analyzer.

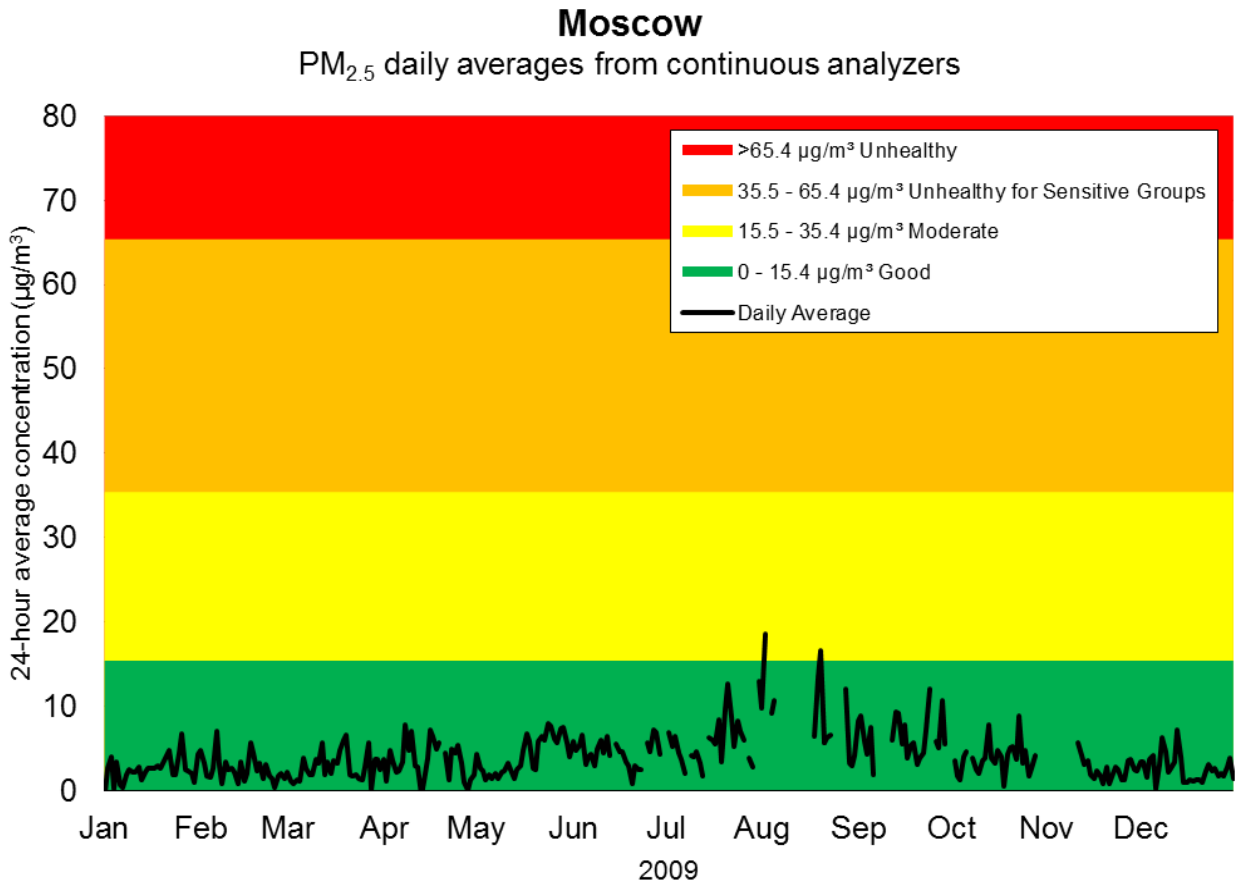


Figure 24. Moscow $PM_{2.5}$ daily averages from continuous analyzer.

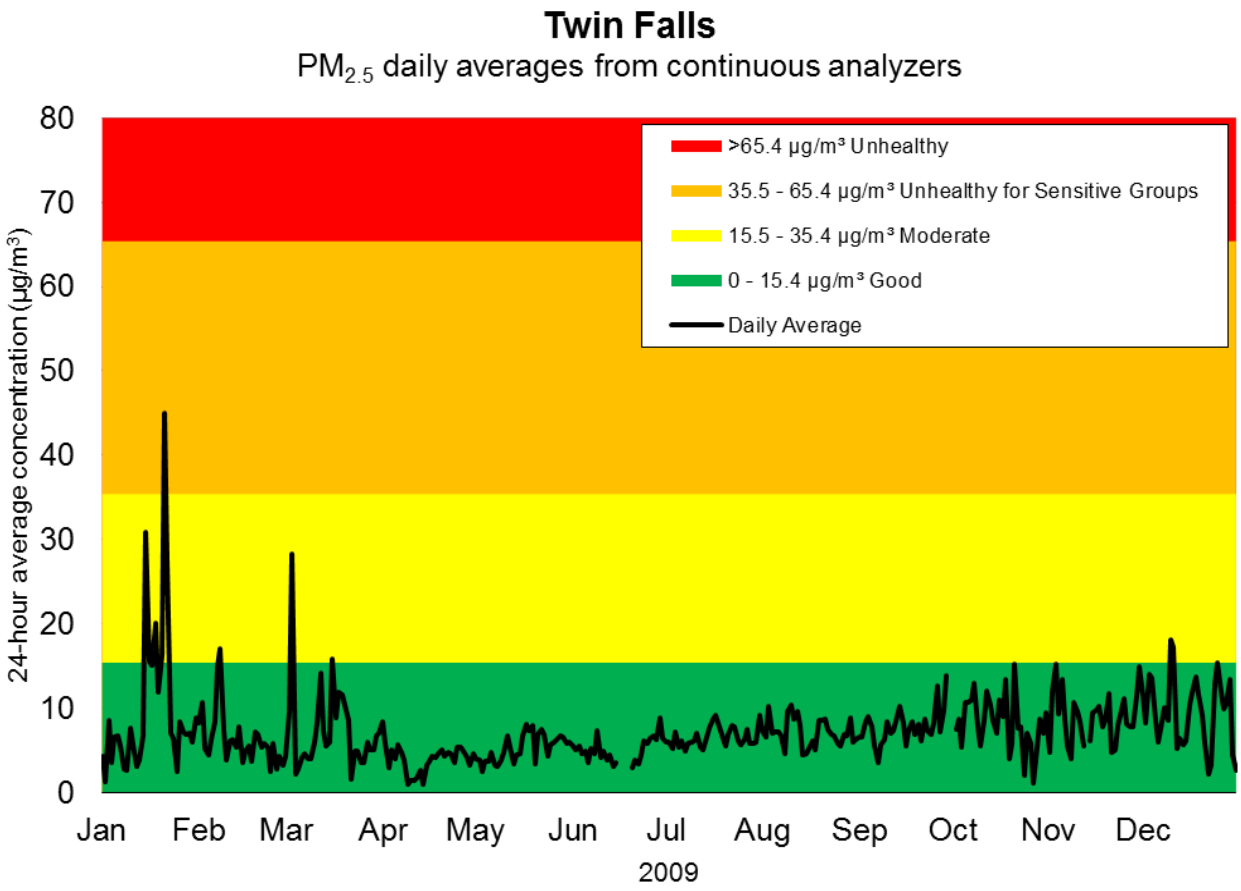


Figure 25. Twin Falls $PM_{2.5}$ daily averages from continuous analyzer.

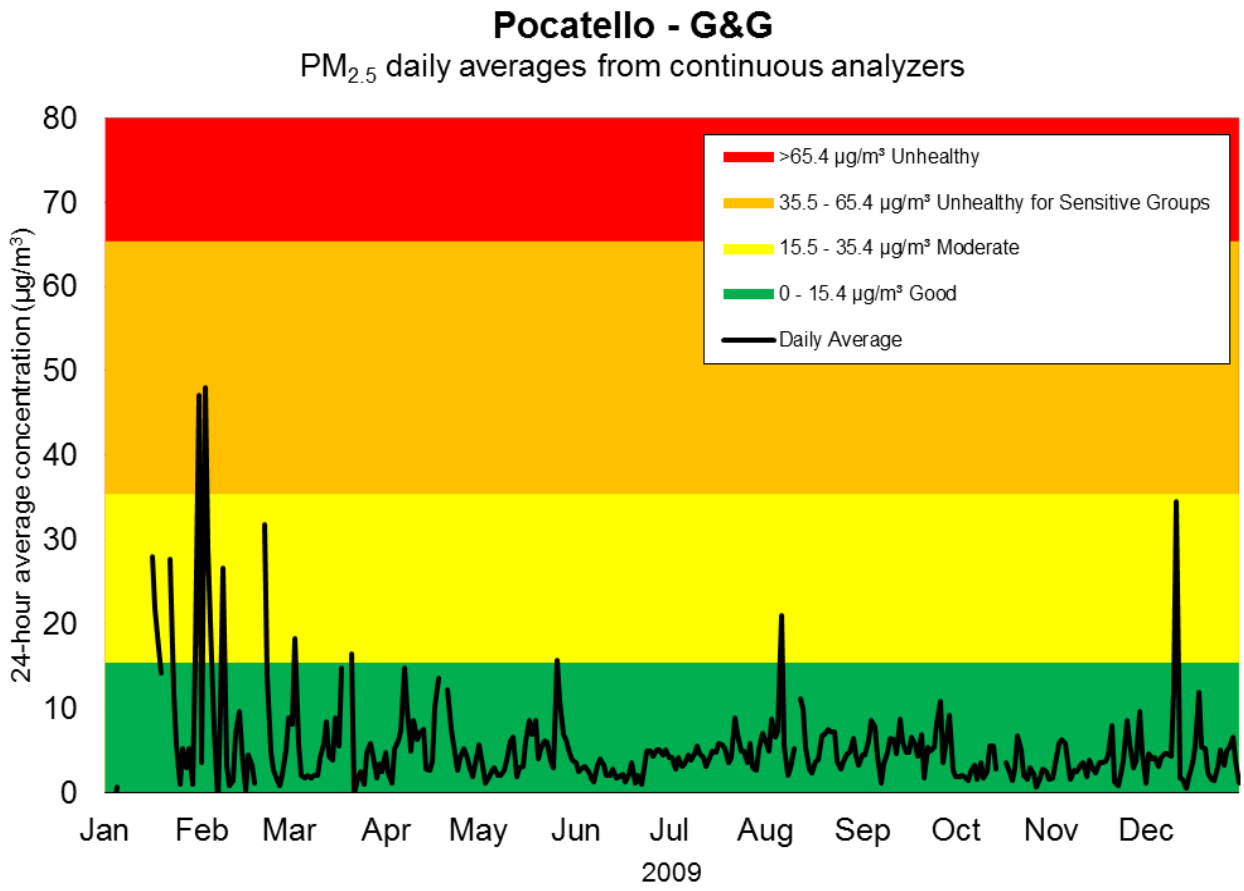


Figure 26. Pocatello—Garrett and Gould $PM_{2.5}$ daily averages from continuous analyzer.

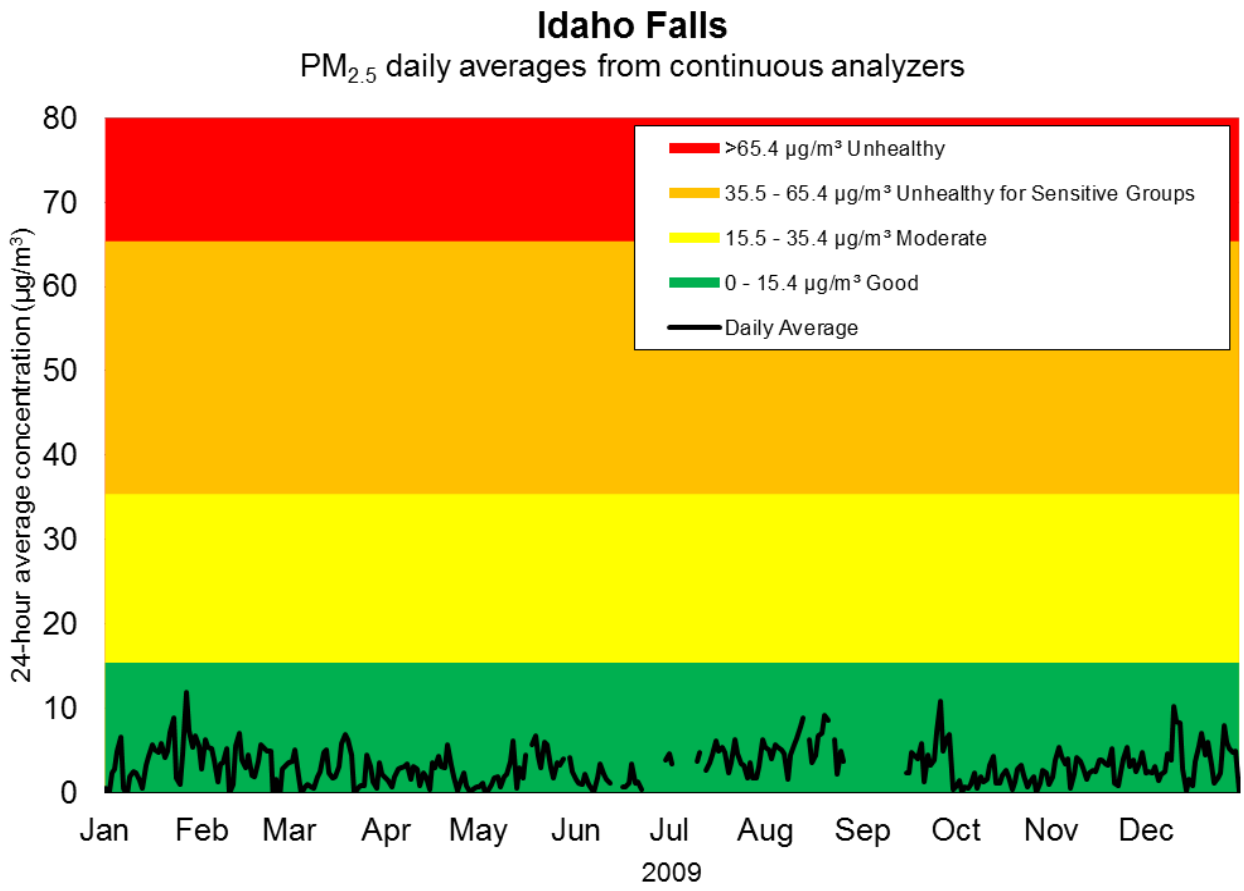


Figure 27. Idaho Falls $PM_{2.5}$ daily averages from continuous analyzer.

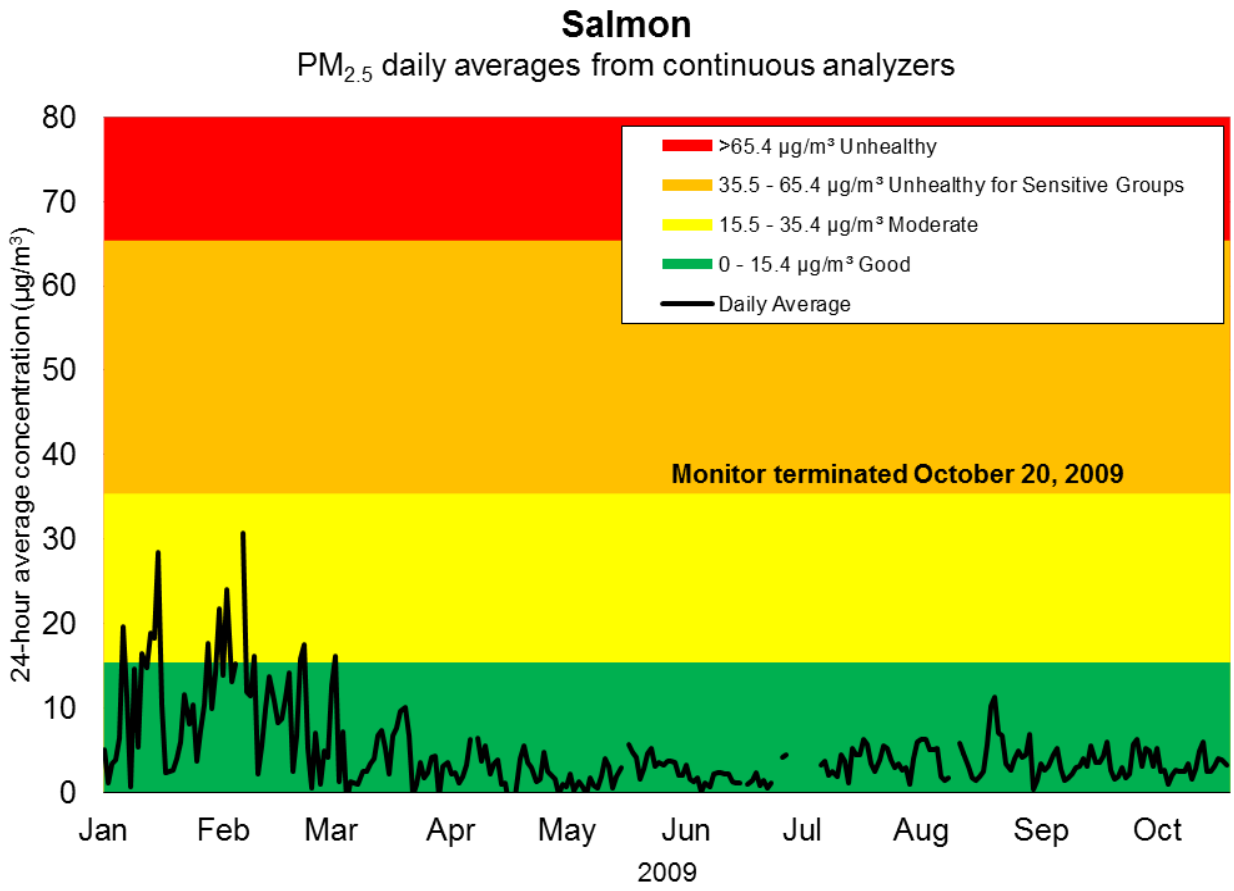


Figure 28. Salmon $PM_{2.5}$ daily averages from continuous analyzer.

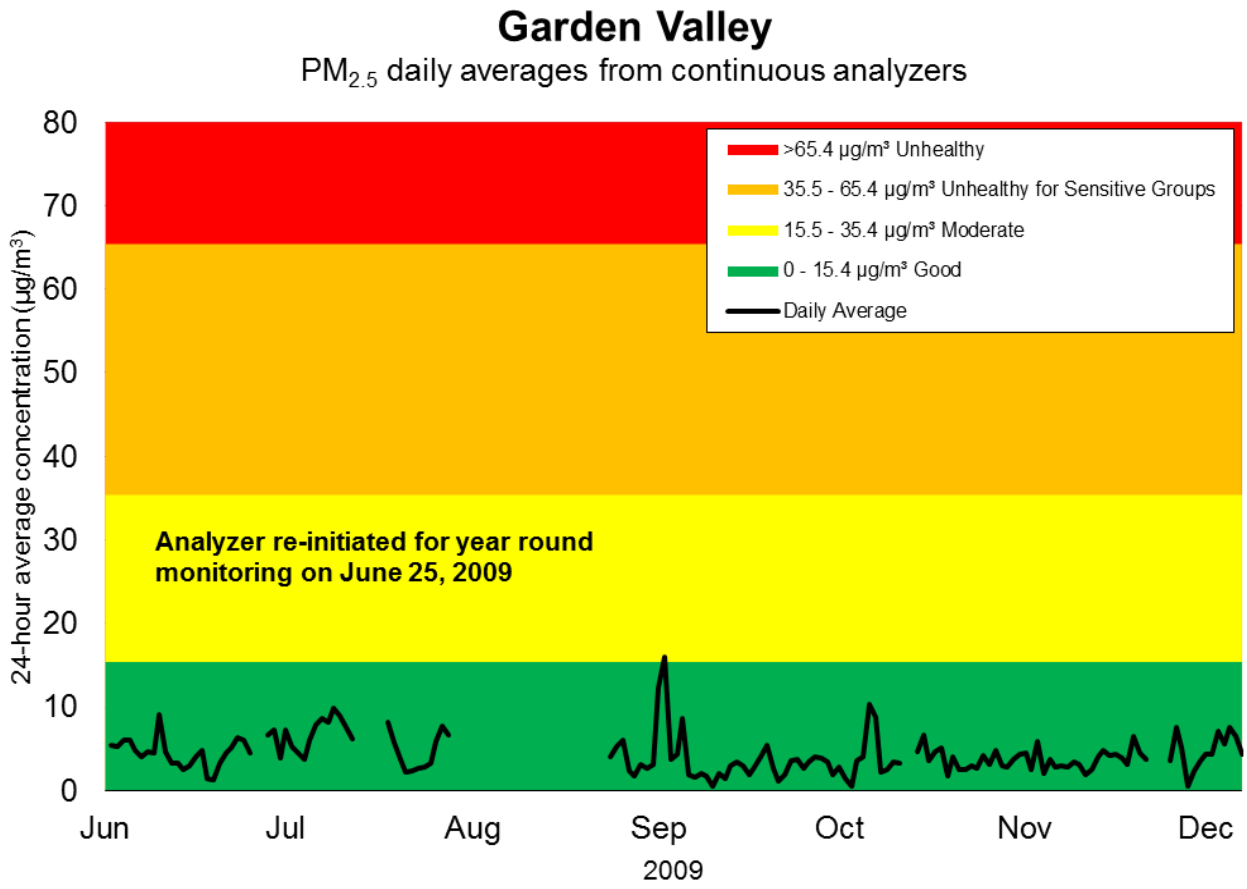


Figure 29. Garden Valley $PM_{2.5}$ daily averages from continuous analyzer.

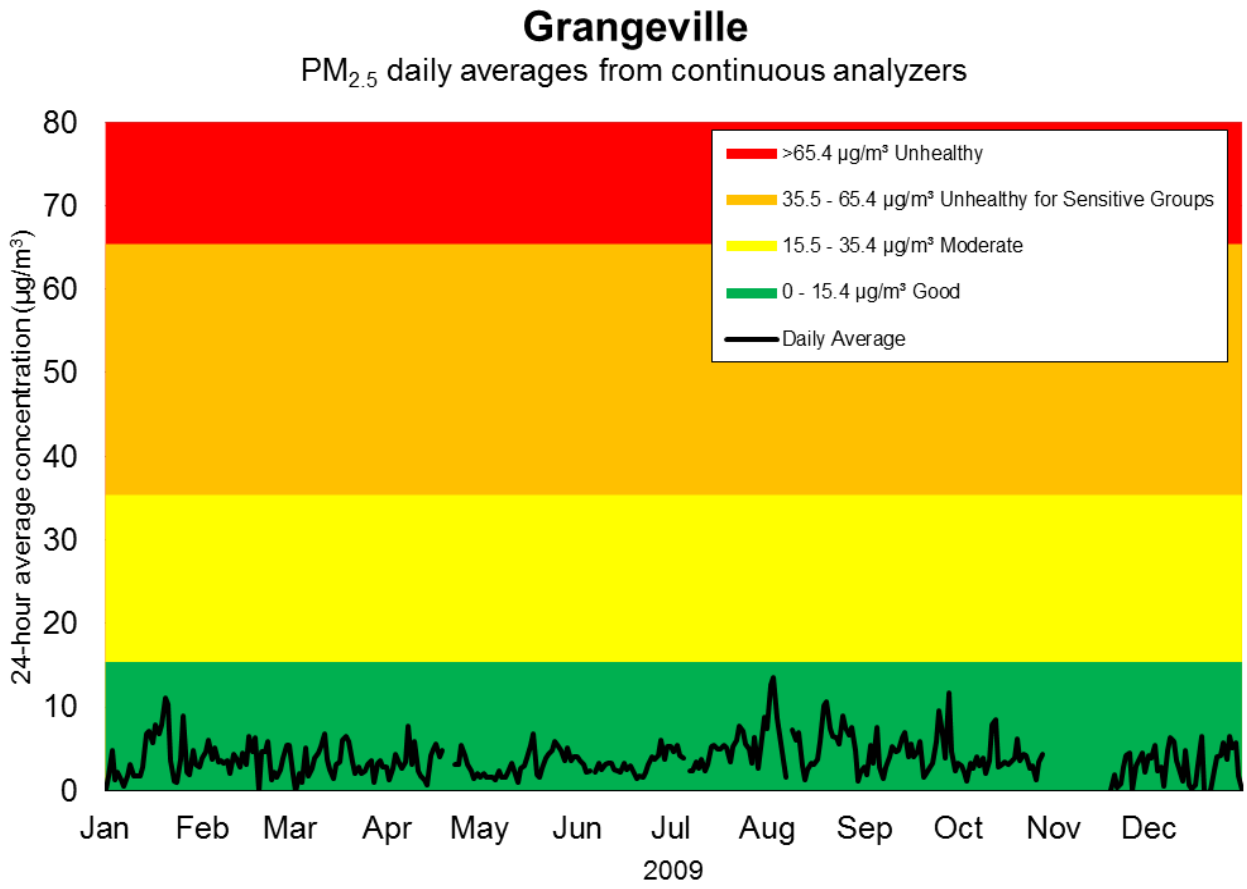


Figure 30. Grangeville $PM_{2.5}$ daily averages from continuous analyzer.

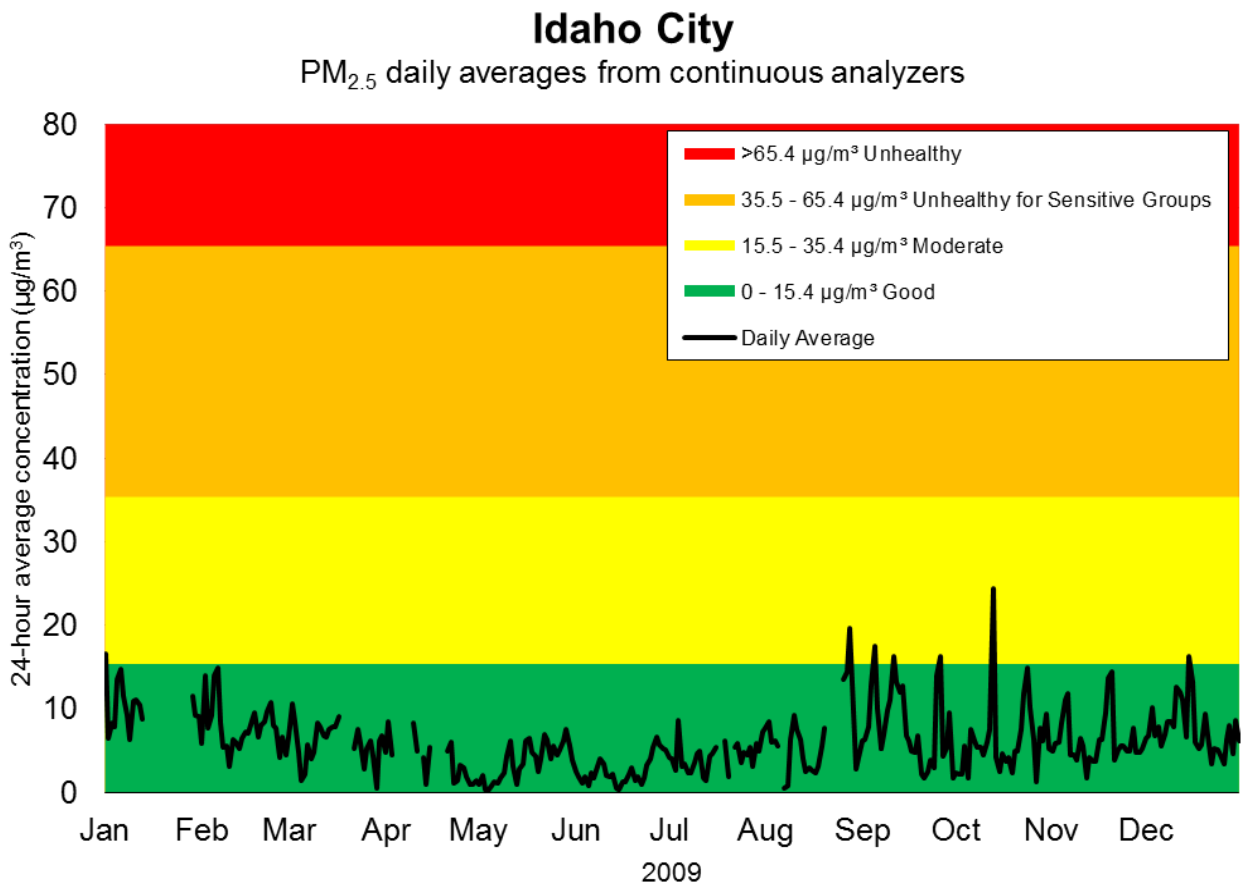


Figure 31. Idaho City $PM_{2.5}$ daily averages from continuous analyzer.

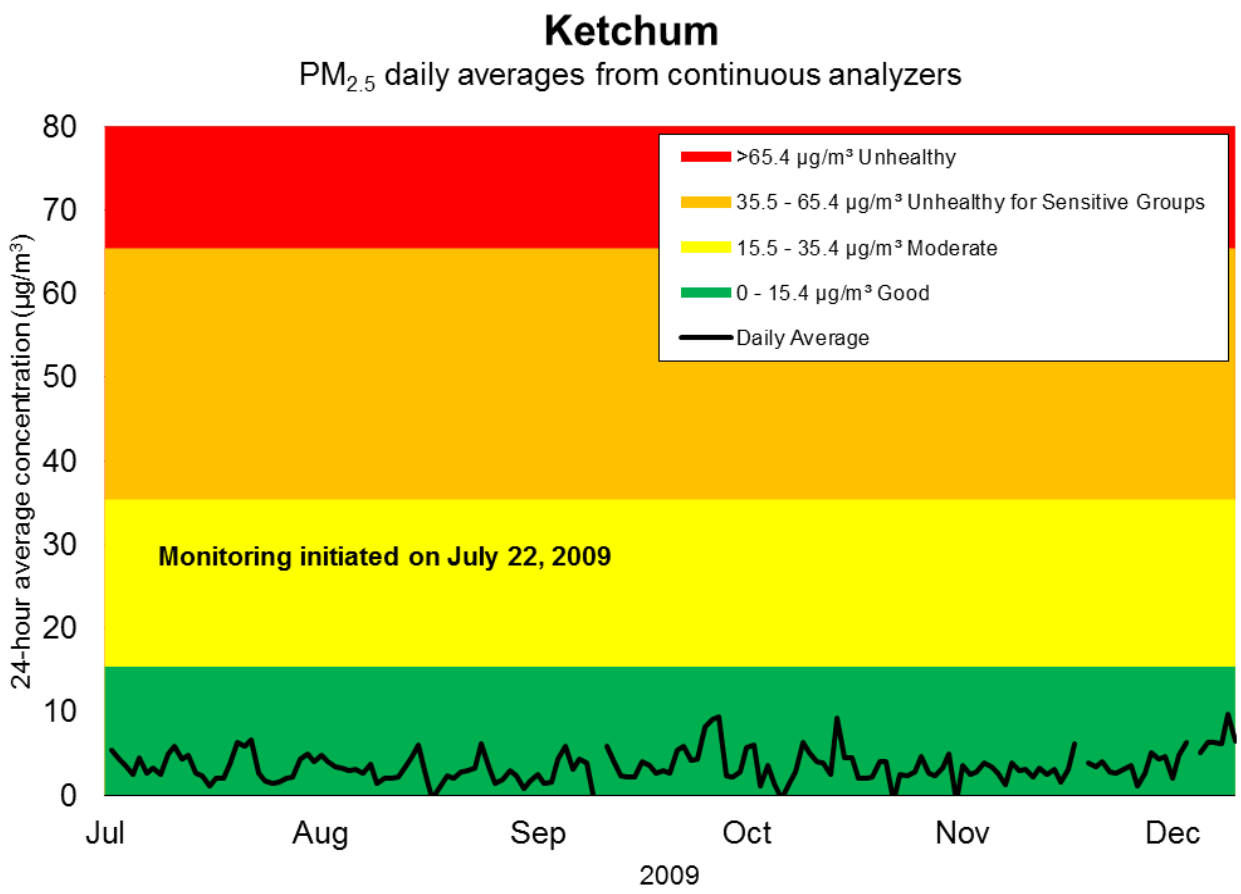


Figure 32. Ketchum $PM_{2.5}$ daily averages from continuous analyzer.

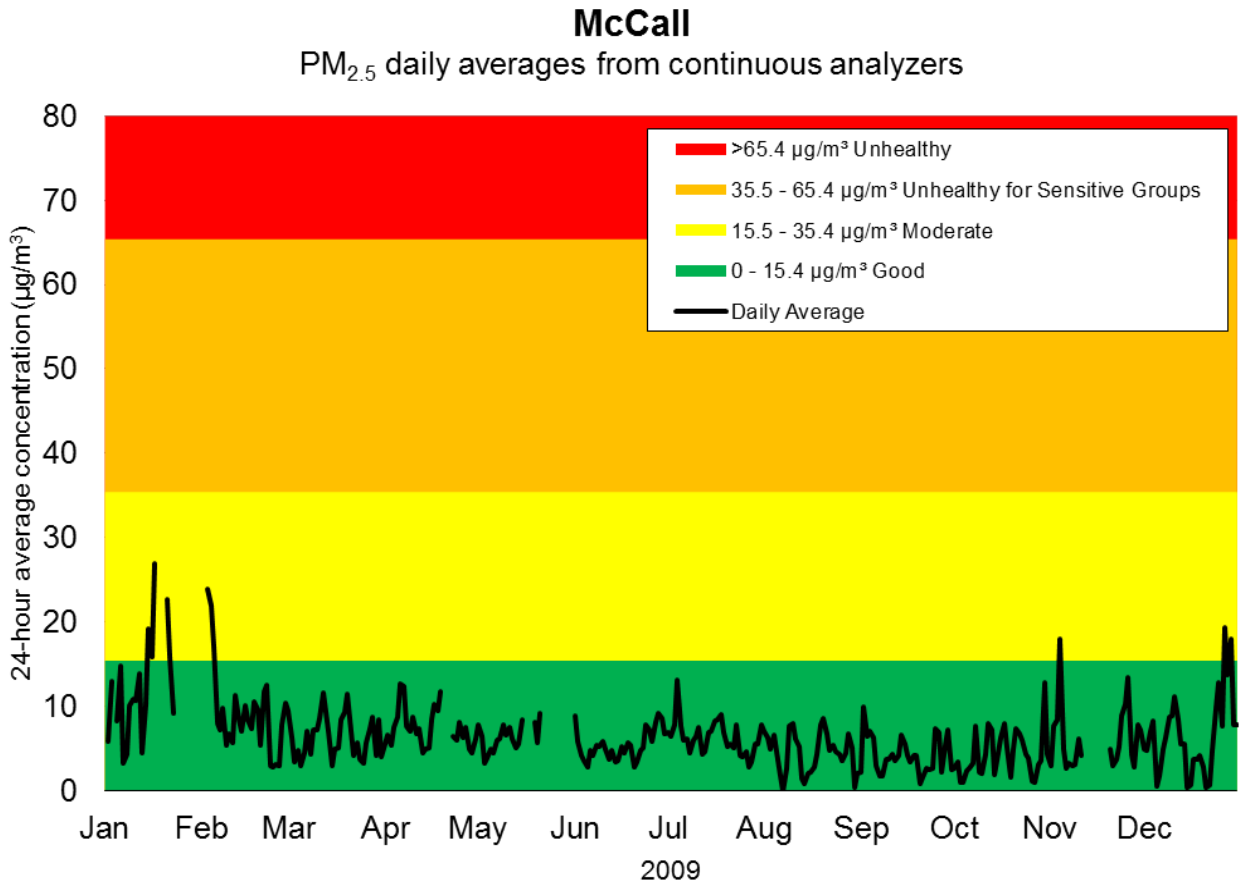


Figure 33. McCall $PM_{2.5}$ daily averages from continuous analyzer.

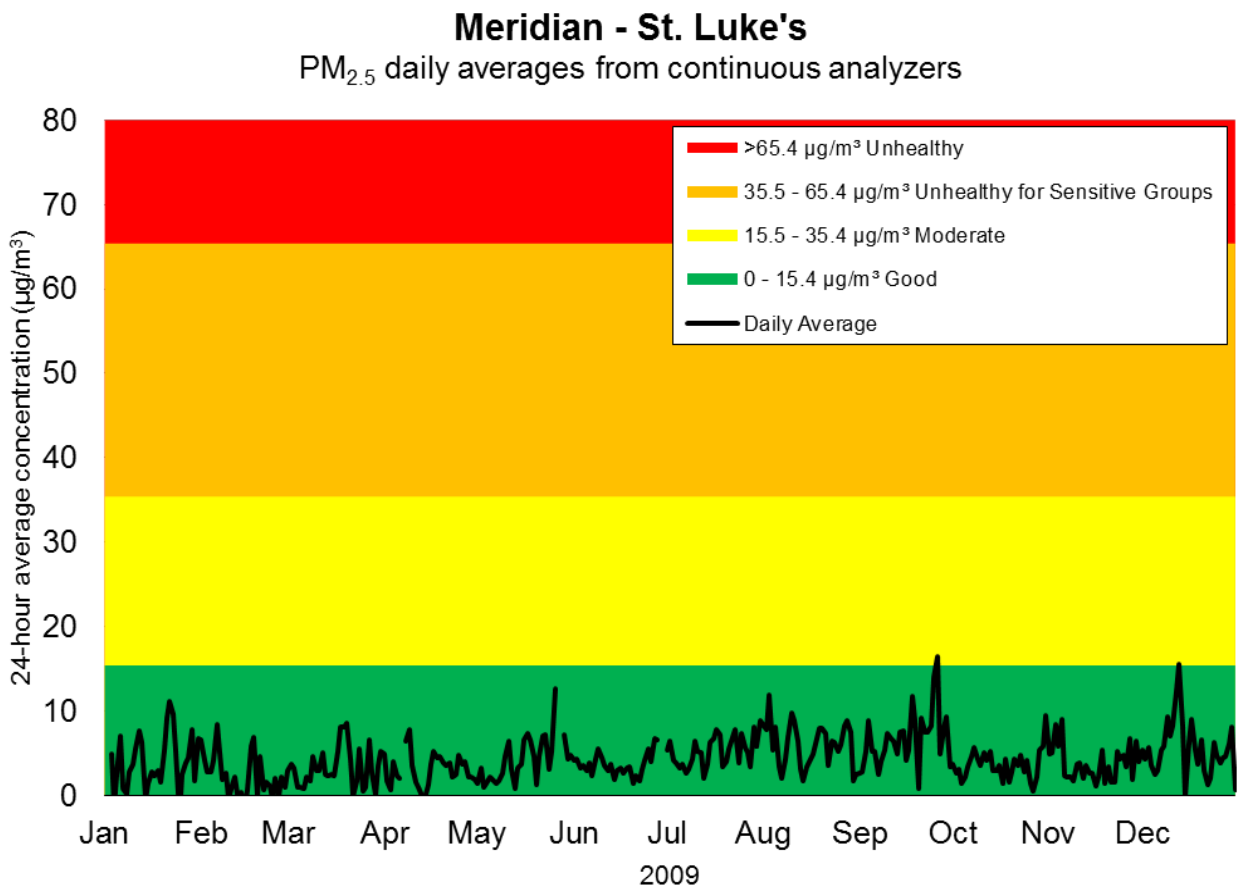


Figure 34. Meridian—St. Luke's $PM_{2.5}$ daily averages from continuous analyzer.

Carbon Monoxide

Carbon monoxide is an odorless, colorless gas that can enter the bloodstream through the lungs and reduce the amount of oxygen that reaches organs and tissues. Carbon monoxide forms when the carbon in fuels do not burn completely. The majority of carbon monoxide comes from vehicle exhaust. In cities, 85–95% of all carbon monoxide emissions come from motor vehicle exhaust.

Elevated levels of carbon monoxide in the ambient air can occur in urban canyon areas with heavy traffic congestion. The highest levels of carbon monoxide in the outside air typically occur during the colder months of the year when temperature inversions are more frequent. People with cardiovascular disease or respiratory problems might experience chest pain and increased cardiovascular symptoms, particularly while exercising, if carbon monoxide levels are high. High levels of carbon monoxide can affect alertness and vision even in healthy individuals.

Carbon monoxide monitoring stations are generally located in urban canyon areas with heavy traffic congestion. These include central business areas, roadsides, and shopping malls. Idaho currently monitors carbon monoxide in Boise as a condition of EPA's *Northern Ada County (Boise), Idaho CO Maintenance Plan*. In 2009, "trace" carbon monoxide monitoring began at the NCore site in Meridian. Trace monitoring provides the ability to determine whether variations in observed concentrations below 1.0 ppm are from actual changes in atmospheric concentration or from poor sensitivity of older instruments at those low levels.

Figure 35 shows the highest 8-hour concentrations at Idaho's monitoring sites versus the NAAQS from 1991 through 2009. The 2nd-highest concentration is displayed on these graphs because, under the federal rule, the 8-hour standard cannot be exceeded more than once per year (thus, choosing the 2nd highest). The data in these graphs confirm the general downward trend for ambient carbon monoxide concentrations from the early 1990s to present. There were no 8-hour concentrations measured at any sites that exceeded the NAAQS (9 ppm). The maximum 8-hour concentration for carbon monoxide in 2009 was 3.8 ppm, well below the 8-hour standard. These data are provided in Appendix A.

The NAAQS also includes a 1-hour standard for carbon monoxide of 35 ppm (cannot be exceeded more than once in any year). Measured 1-hour concentrations in Idaho are historically much lower than the 35 ppm standard, and therefore 1-hour carbon monoxide trends were not graphed. The maximum and 2nd-highest measured 1-hour carbon monoxide concentration in 2009 are 10.0 ppm and 9.5 ppm, respectively. Additional 1-hour average carbon monoxide data are provided in Appendix A.

For additional information on carbon monoxide, visit http://www.epa.gov/airquality/carbonmonoxide/, and refer to the Definitions and Criteria Air Pollutants sections of this document.

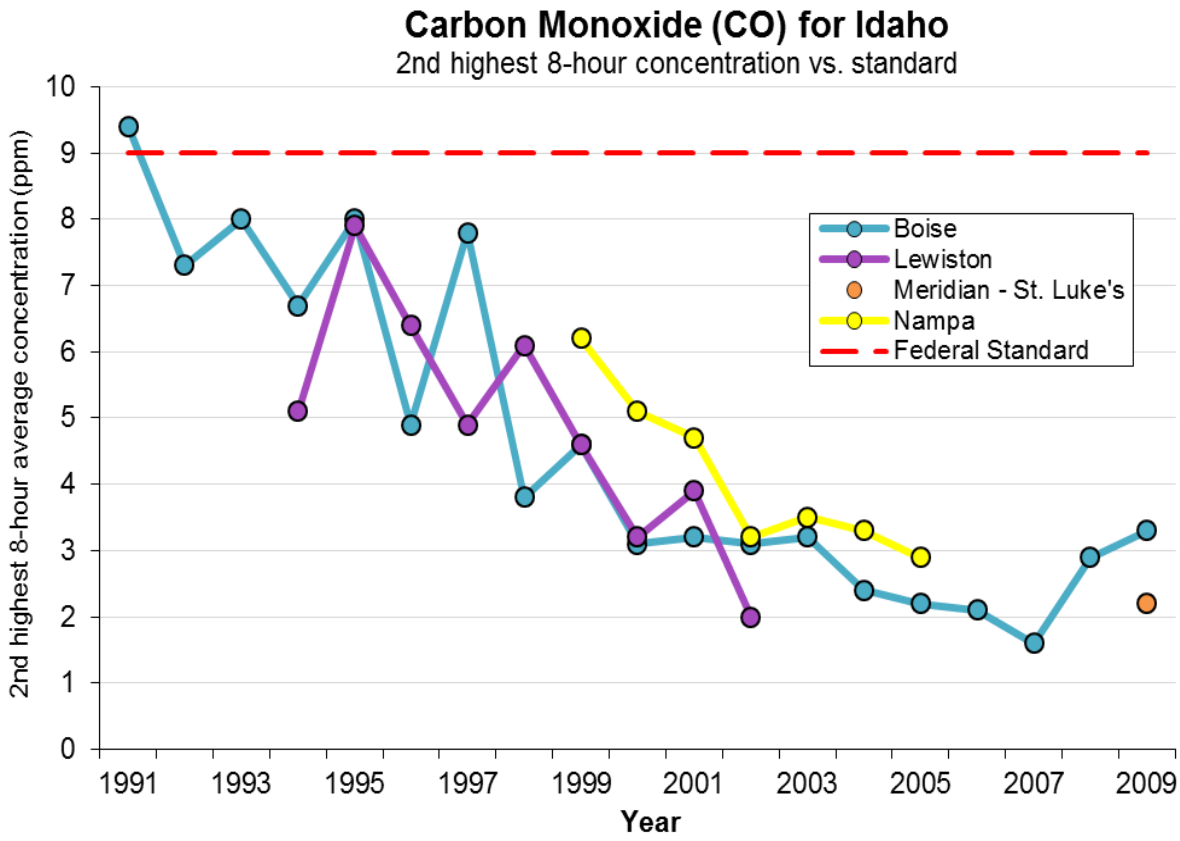


Figure 35. Carbon monoxide 2nd highest 8-hour concentration.

Sulfur Dioxide

Sulfur dioxide is a colorless, reactive gas produced by burning fuels containing sulfur, such as coal and oil, and by industrial processes. Historically, the greatest sources of sulfur dioxide were industrial facilities that derived their products from raw materials like metallic ore, coal, and crude oil, or that burned coal or oil to produce process heat (petroleum refineries, cement manufacturing, and metal processing facilities). Currently, on-road vehicles, marine craft, and diesel construction equipment also release significant sulfur dioxide emissions to the air.

People with asthma who are active outdoors may experience bronchoconstriction, where symptoms include wheezing, shortness of breath, and tightening of the chest. People should limit outdoor exertion if sulfur dioxide levels are high.

Figure 36 shows that the maximum measured sulfur dioxide concentrations in 2009 were significantly below the federal standards. Figure 37 and Figure 38 show the maximum 24-hour and 3-hour concentrations, respectively, at Idaho's monitoring sites. The maximum 24-hour and 3-hour averages were 0.0224 ppm and 0.0736 ppm, respectively. Note that the Soda Springs monitor is at a different location than it was in 1999–2002 monitoring period. DEQ changed from population exposure monitoring to "hotspot" monitoring at Soda Springs. Hotspot refers to monitoring that is designed to investigate pollution sources on a local scale. This monitoring assesses impacts from discreet sources to ambient air, rather than emissions being monitored directly from a stack or chimney.

In 2009, DEQ began trace sulfur dioxide monitoring at the NCore site in Meridian. Trace monitoring provides the ability to determine whether variations in observed concentrations below 0.05 ppm are from actual changes in atmospheric concentration or from poor sensitivity of older instruments at those low levels.

Additional sulfur dioxide data are located in Appendix A. For information on sulfur dioxide visit http://www.epa.gov/air/sulfurdioxide/, and refer to the Definitions and Criteria Air Pollutants sections of this document.

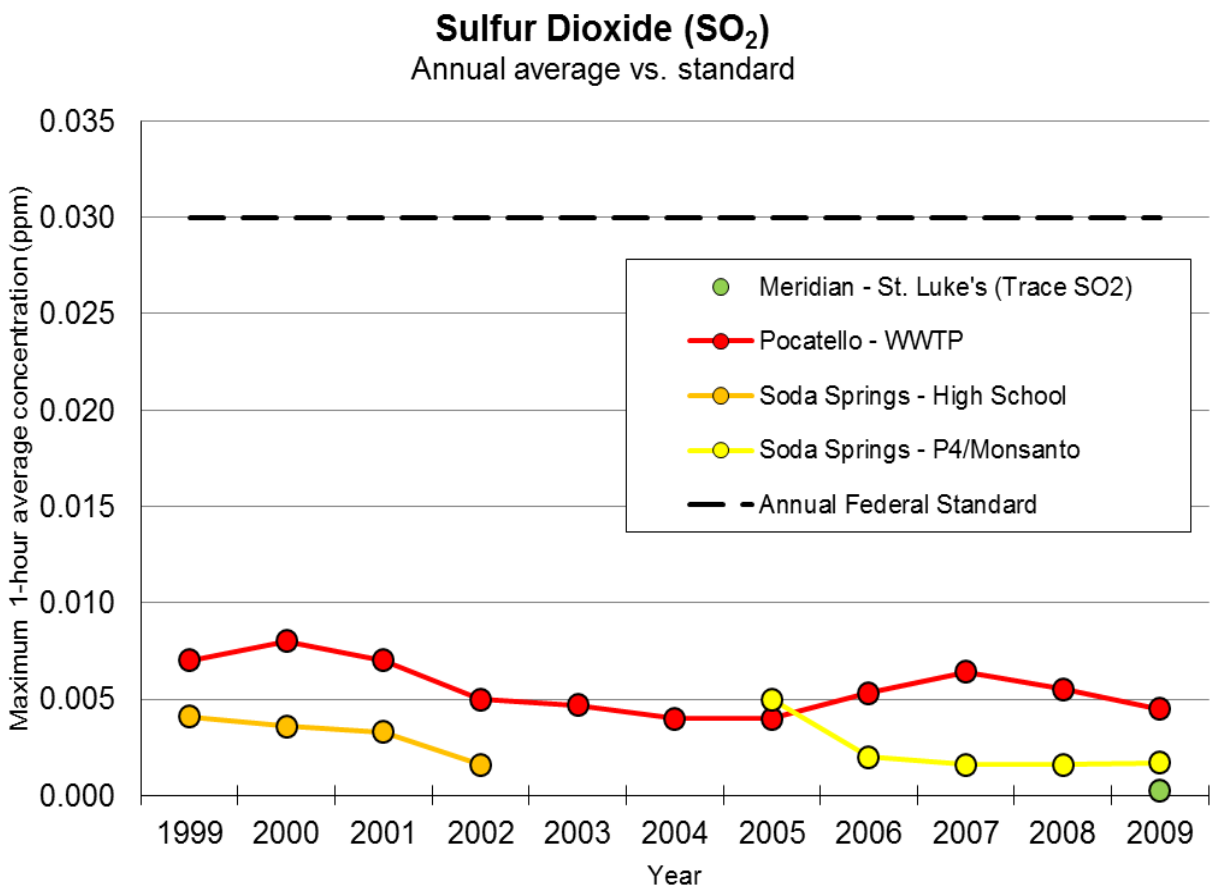


Figure 36. Sulfur dioxide annual average.

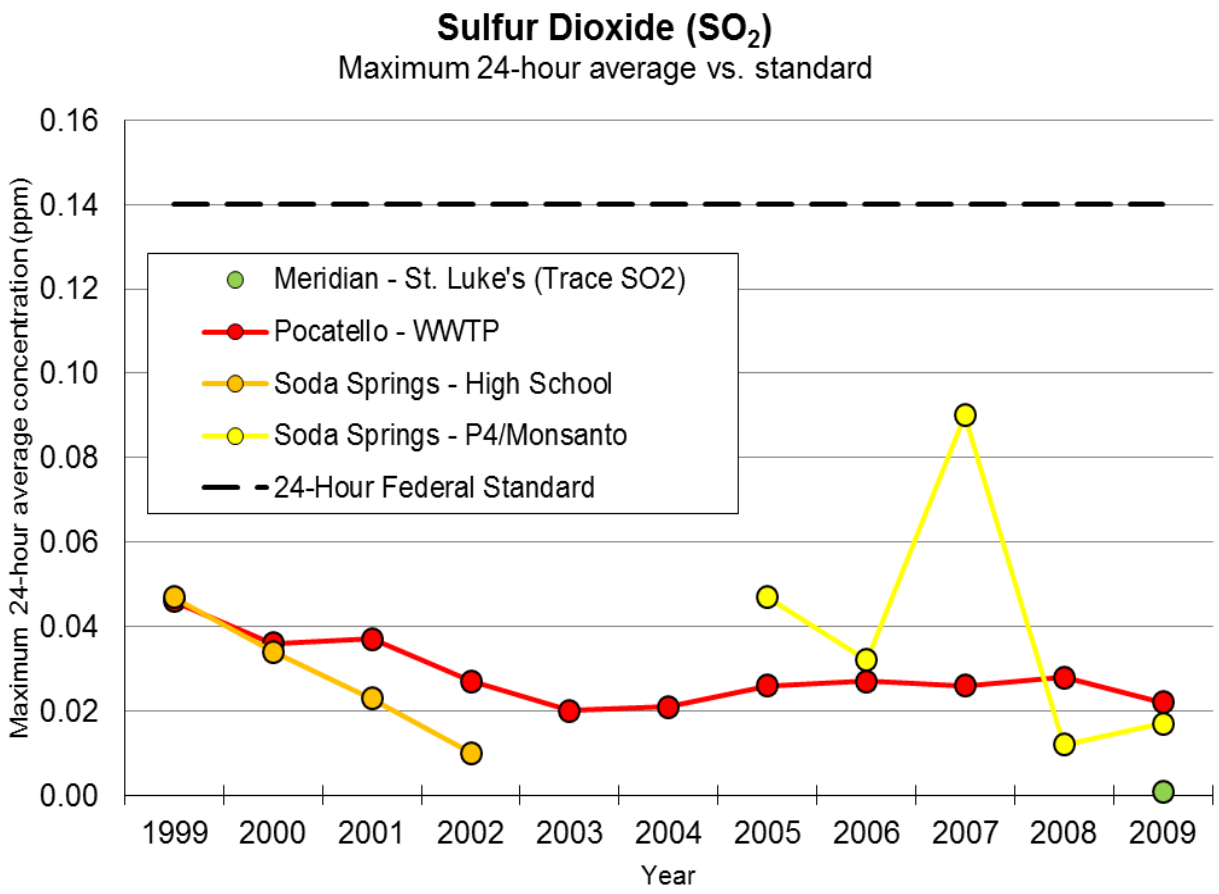


Figure 37. Sulfur dioxide maximum 24-hour average.

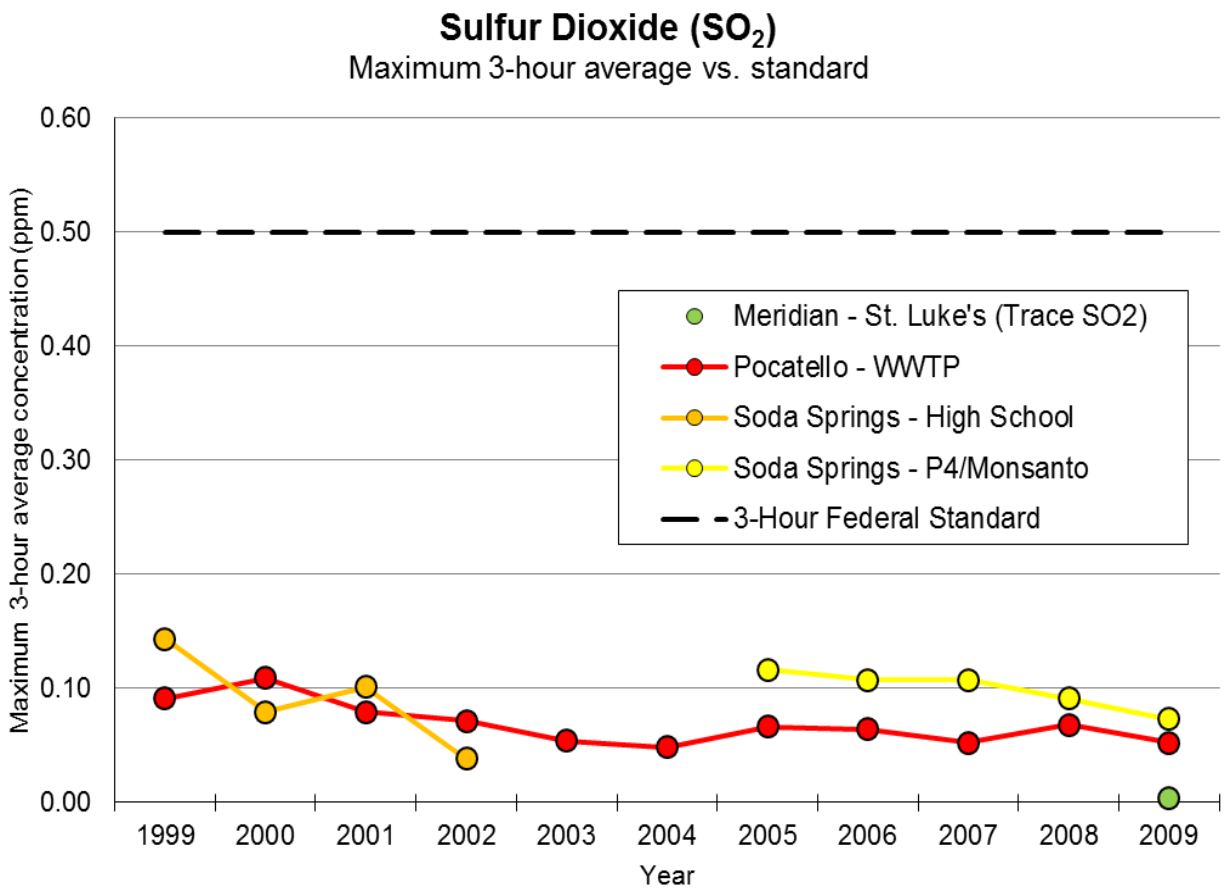


Figure 38. Sulfur dioxide maximum 3-hour average.

Lead

Lead is a highly toxic metal that was used for many years in household products, automobile fuel, and industrial chemicals. Airborne lead was associated primarily with automobile exhaust and lead smelters. The large reductions in lead emissions from motor vehicles have resulted in great reductions of ambient lead levels across the United States. Industrial processes, particularly primary and secondary lead smelters and battery manufacturers, are now responsible for most of the lead emissions.

People, animals, and fish are mainly exposed to lead by breathing and ingesting it in food, water, soil, or dust. Lead accumulates in the blood, bones, muscles, and fat. Infants and young children are especially sensitive to even low levels of lead. Lead can have health effects ranging from behavioral problems and learning disabilities to seizures and death.

According to EPA, the primary sources of lead exposure are lead-based paint, lead-contaminated dust, and lead-contaminated residual soils. Refer to the EPA website, www.epa.gov/ttnatw01/hlthef/lead.html, for ways to limit your exposure to these lead sources.

Lead has not been monitored in Idaho since 2002. With the phase-out of lead in fuel and the closure of the Bunker Hill lead smelter in Kellogg, airborne lead is no longer considered a public health concern in Idaho.

On November 12, 2008, EPA substantially strengthened the NAAQS for lead. EPA revised the level of the primary (health-based) standard from 1.5 $\mu g/m^3$ to 0.15 $\mu g/m^3$ and revised the secondary (welfare-based) standard to be identical in all respects to the primary standard. In conjunction with strengthening the lead NAAQS, EPA promulgated new monitoring requirements in 2010. Monitoring is now required near lead sources that may contribute to violations of the lead NAAQS. Source-oriented monitoring is required near any source that emits more than 0.5 tons per year. Idaho does not have any sources of lead that trigger source-oriented monitoring. The monitoring regulations also require nonsource-oriented monitoring in metropolitan areas exceeding a 500,000 population at NCore multipollutant monitoring sites, beginning January 2012.

For additional information on lead, visit www.epa.gov/air/lead/, and refer to the Definitions and Criteria Air Pollutants sections of this document.

Nitrogen Dioxide

Nitrogen dioxide is a reddish brown, highly reactive gas that forms from the reaction of nitrogen oxide and oxygen in the atmosphere. The term NO_X, which is frequently used, refers to both nitrogen oxide and nitrogen dioxide. Nitrogen dioxide will react with VOCs and can result in ozone. On-road vehicles like trucks and automobiles are the major sources of NO_X in many airsheds. Industrial boilers and processes, home heaters, and gas stoves can also produce NO_X. Nitrogen dioxide pollution is greatest during the cold weather seasons.

Nitrogen dioxide can cause respiratory symptoms such as coughing, wheezing, and shortness of breath in people with respiratory diseases such as asthma. Long-term exposure can lead to respiratory infections.

Motor vehicle manufacturers have been required to reduce NO_X emissions from cars and trucks since the 1970s. NO_X is not considered a significant pollution problem in Idaho. In 2009, DEQ operated only two nitrogen dioxide monitors, at Coeur d'Alene and Meridian. The monitoring objective was to assess ambient NO_X concentrations for evaluating ozone formation processes during the ozone season.

The maximum 1-hour average of nitrogen dioxide measured in 2009 was 0.053 ppm. The averages observed have consistently been well below the annual NAAQS, as shown in Figure 39 and in the data in Appendix A. Until 2009, these averages could not be used to assess NAAQS compliance since the monitors were not operated for the entire year. Beginning in 2009, DEQ began monitoring nitrogen dioxide year-round at the NCore site in Meridian.

For additional information on nitrogen dioxide, visit http://www.epa.gov/air/nitrogenoxides/, and refer to the Definitions and Criteria Air Pollutants sections of this document.

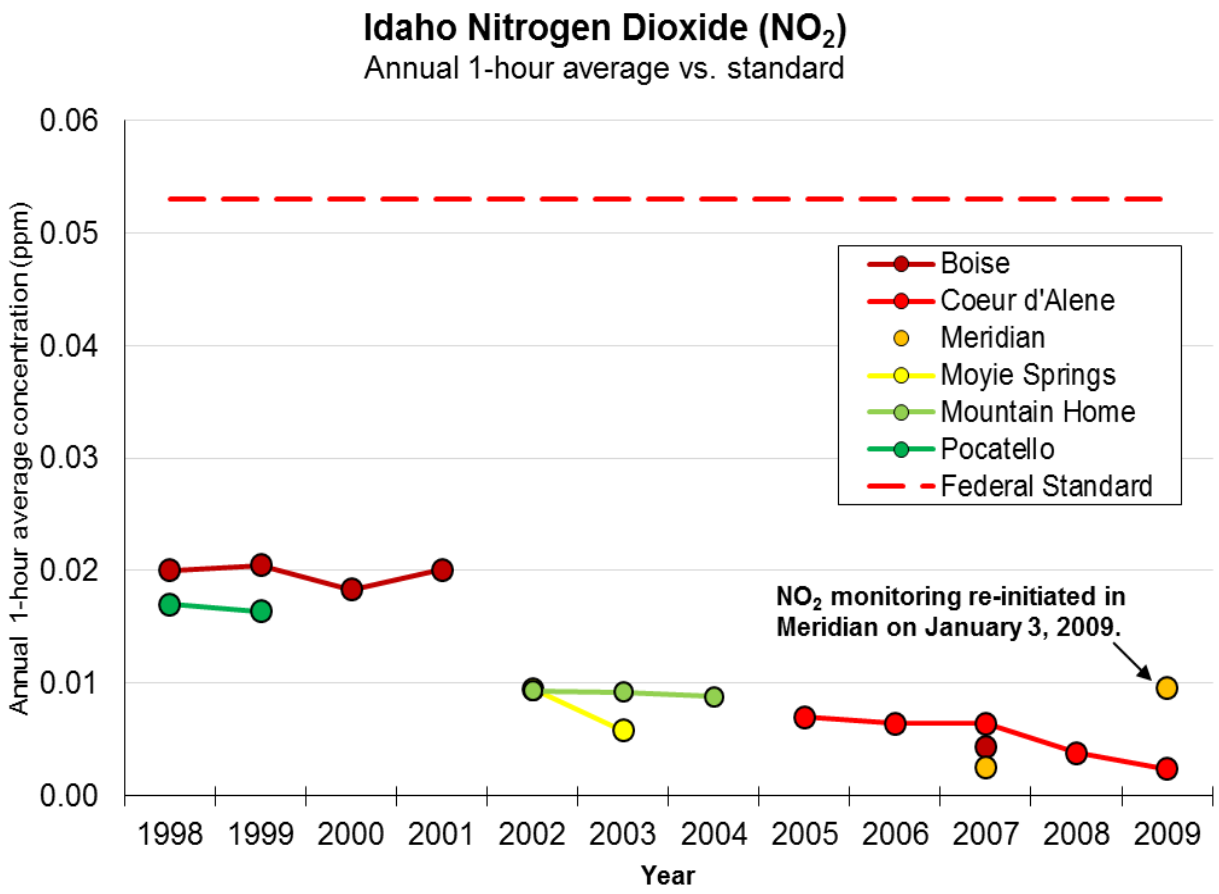


Figure 39. Nitrogen dioxide annual 1-hour average.

Air Quality Index

The AQI is reported according to a 500-point scale for each of the major criteria air pollutants: ozone, particulate matter (PM_{10} and $PM_{2.5}$), carbon monoxide, nitrogen dioxide, and sulfur dioxide. The "worst denominator" determines the ranking. For example, if an area has a carbon monoxide value of 132 on a given day and all other pollutants are below 50, the AQI for that day would be 132. The AQI scale breaks down into six categories. Each category has a corresponding color, shown below in Table 4. For information on the concentration breakpoints for each pollutant, refer to Table A-1 in Appendix A.

Table 4. Environmental Protection Agency Air Quality Index breakpoint definitions.

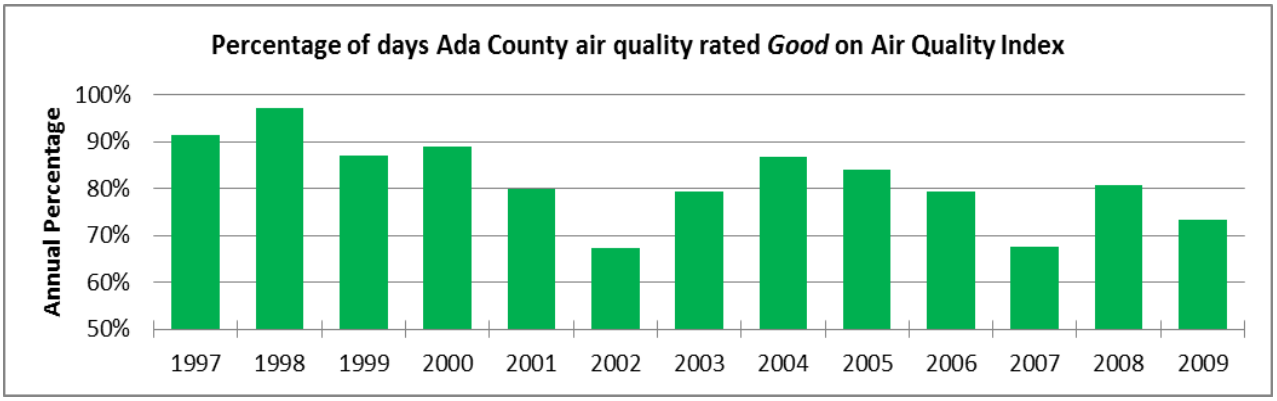
Levels of Health Concern	Numeric Value	Meaning
Good	0–50	Air quality is satisfactory, and air pollution poses little or no risk.
Moderate	51–100	Air quality is acceptable, however, for some pollutants there may be a moderate health concern for a small number of people who are unusually sensitive to air pollution.
Unhealthy for sensitive groups	101–150	Members of sensitive groups may experience health effects. The general public is not likely to be affected.
Unhealthy	151–200	Everyone may begin to experience health effects. Members of sensitive groups may experience more serious health effects.
Very unhealthy	201–300	Health alert: everyone may experience more serious health effects.
Hazardous	301–500	Health warnings of emergency conditions. The entire population is more likely to be affected.

The AQI is a national index, so the values and colors used to show local air quality and the associated level of health concern will be the same everywhere in the United States. The number of Good air quality days continues to dominate regionally in Idaho. However, there were brief periods when the air quality degraded into Moderate, and Unhealthy for Sensitive Groups. Table 5 shows the number of days in each AQI category in Idaho counties where air quality is monitored. In 2009, the highest AQI value of 141 was recorded in Bannock County for PM_{10}. This value was in the Unhealthy for Sensitive Groups range.

While it may appear as if there has been an overall decrease in the number of Good days since 1999, the apparent decline is partly from changes that were made in the AQI index itself. In that year, $PM_{2.5}$ was added to the index, and the Unhealthy category was divided into Unhealthy and Unhealthy for Sensitive Groups. In addition, ozone monitoring, which was added to the AQI calculation in 2002 for the Treasure Valley and in 2005 for Coeur d'Alene, has been a major contributor to the increased number of Moderate days. The AQI graphs that follow (Figure 40–Figure 57) present the distribution of air quality for each individual county. The AQI data summaries for each county, which support the graph's data, are located in Table A-2 in Appendix A.

Table 5. 2009 Air Quality Index yearly summary.

2009 AQI Ratings						
2009		Number of days in AQI category				
County	Total number of AQI days	Good	Moderate	Unhealthy for sensitive groups	Unhealthy	Highest AQI
Ada	365	268	95	2		106
Bannock	363	290	69	4		141
Benewah	364	315	43	6		128
Blaine	159	159				31
Boise	329	322	7			69
Bonner	365	358	7			89
Bonneville	327	327				39
Canyon	357	277	79	1		110
Caribou	365	360	4	1		126
Franklin	105	91	12	2		117
Idaho	338	338				44
Kootenai	365	358	7			58
Latah	322	320	2			57
Lemhi	354	297	55	2		104
Nez Perce	332	326	6			61
Shoshone	365	244	115	6		136
Twin Falls	358	348	9	1		110
Valley	328	317	11			73



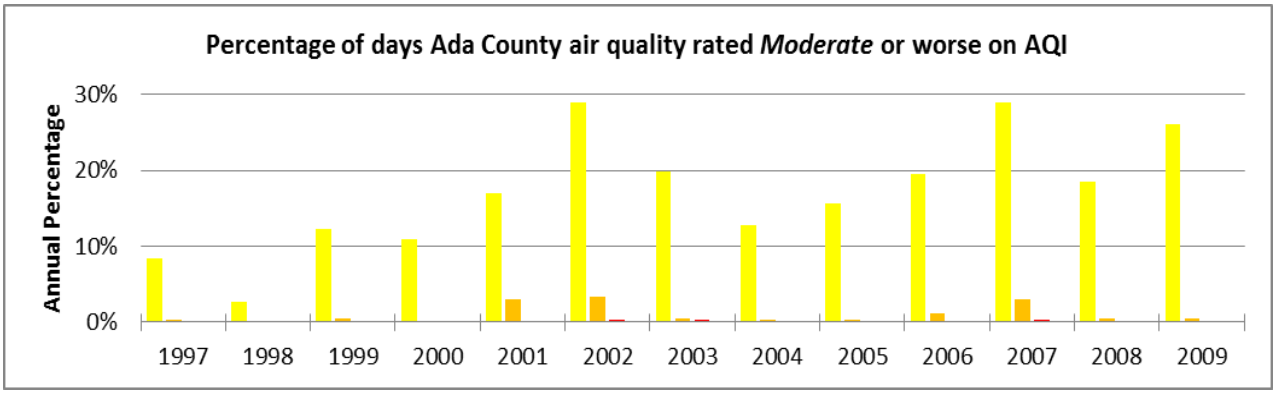


Figure 40. Air quality for Ada County.

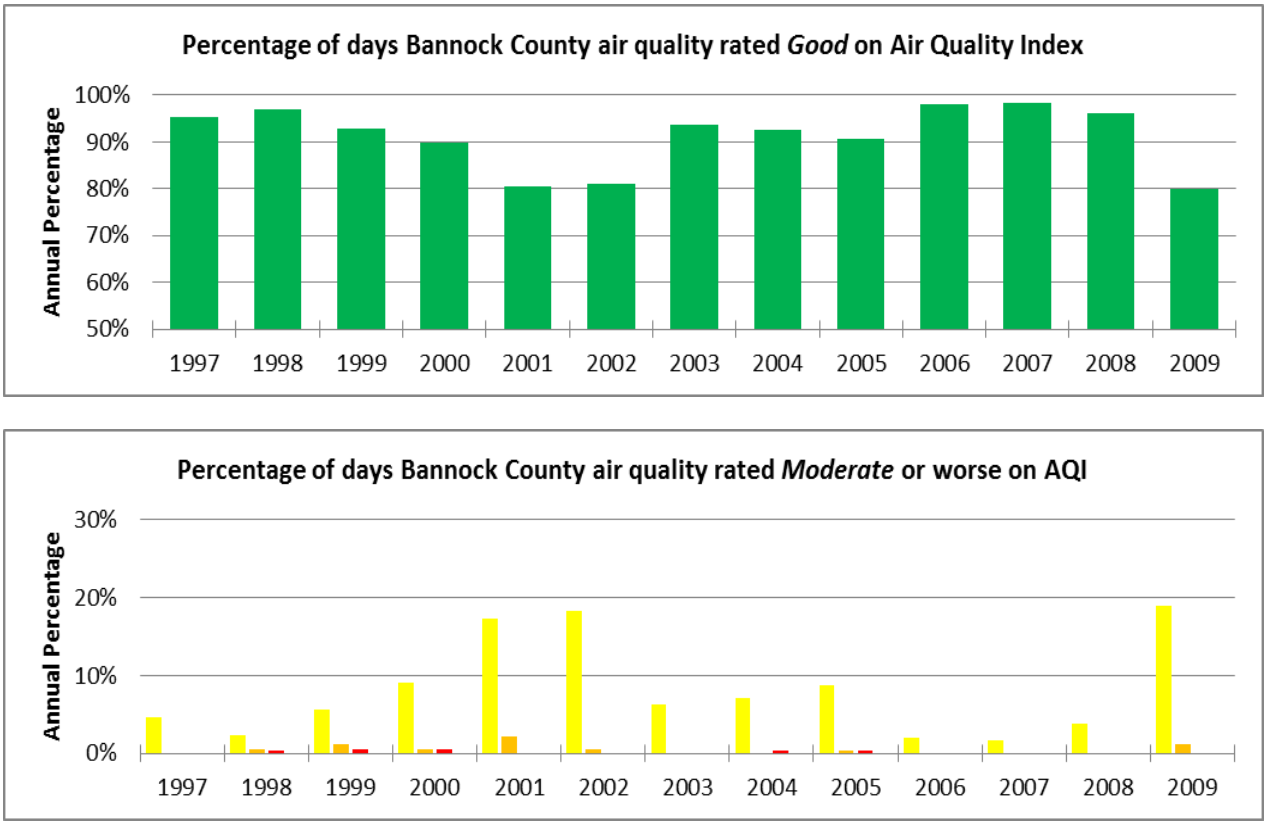


Figure 41. Air quality for Bannock County.

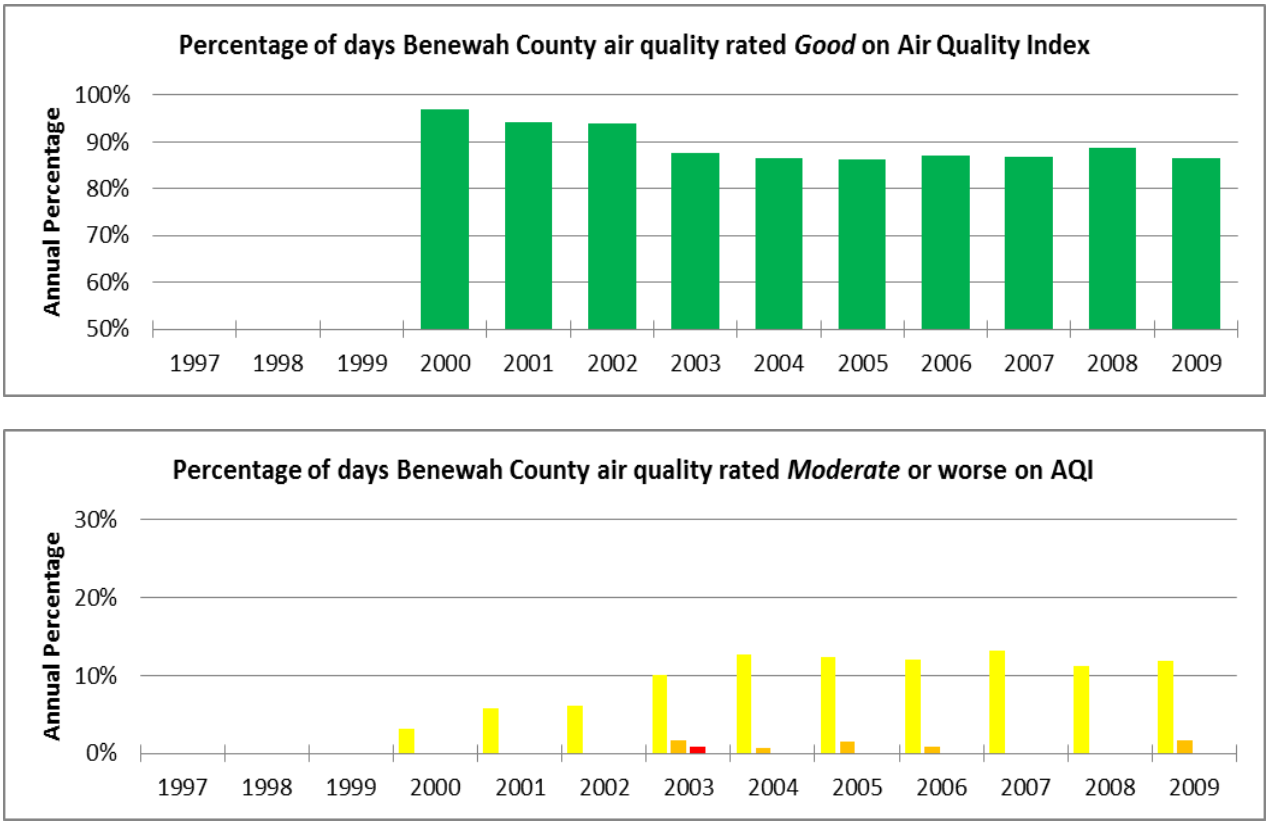


Figure 42. Air quality for Benewah County.

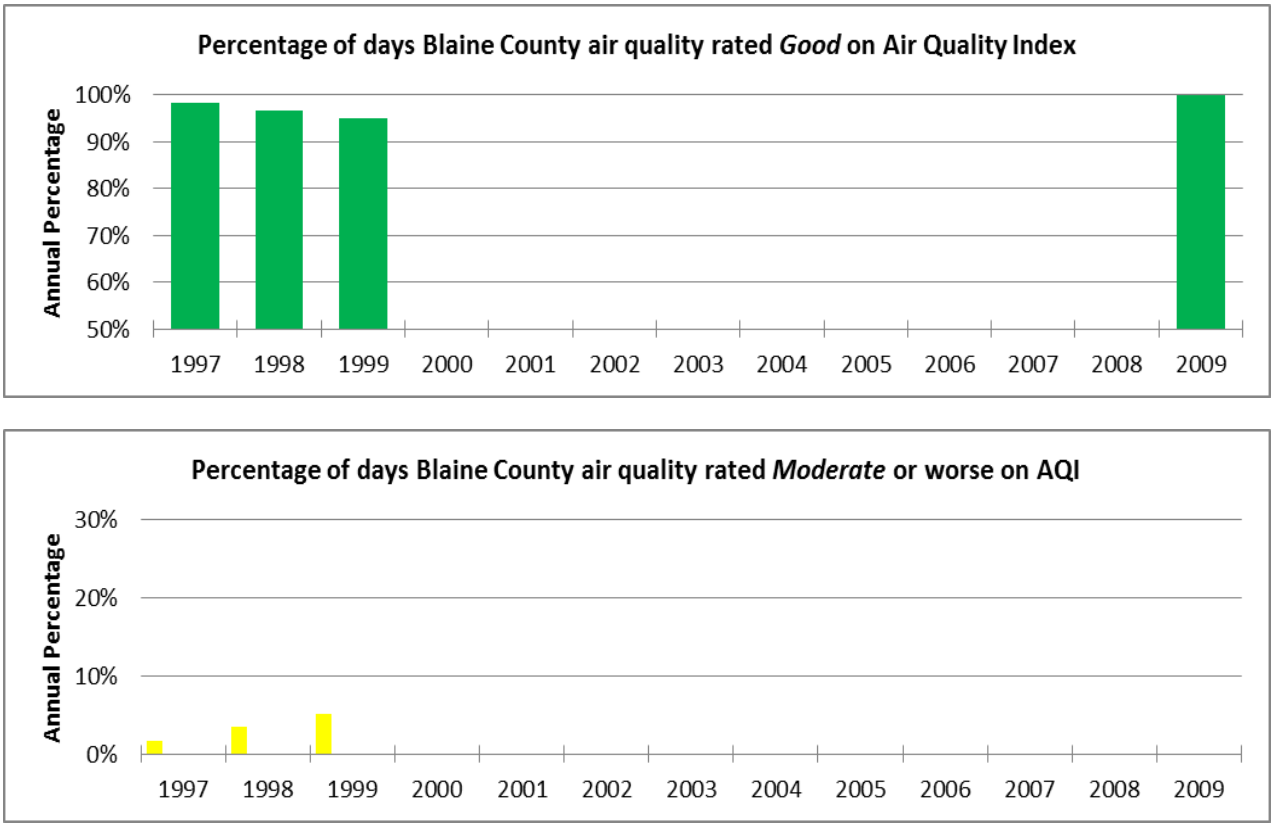


Figure 43. Air quality for Blaine County.

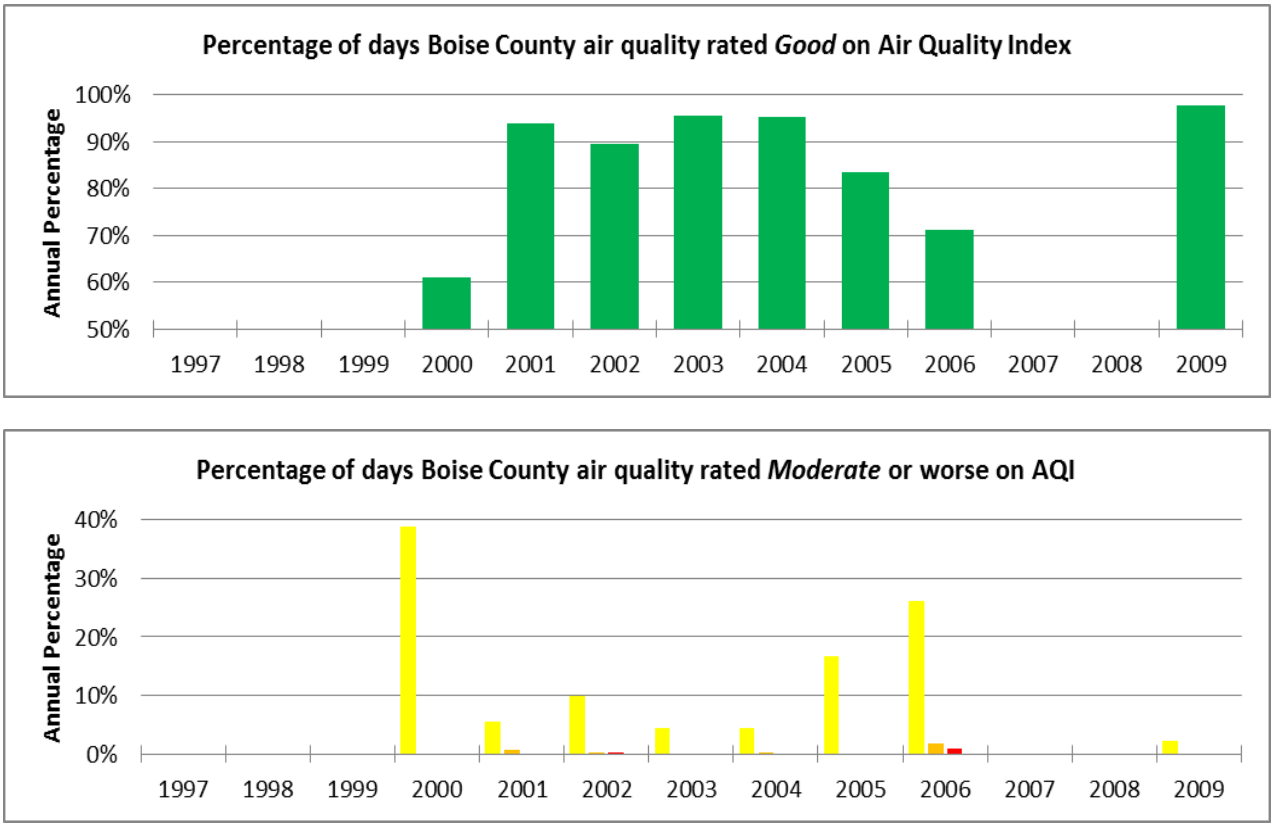


Figure 44. Air quality for Boise County.

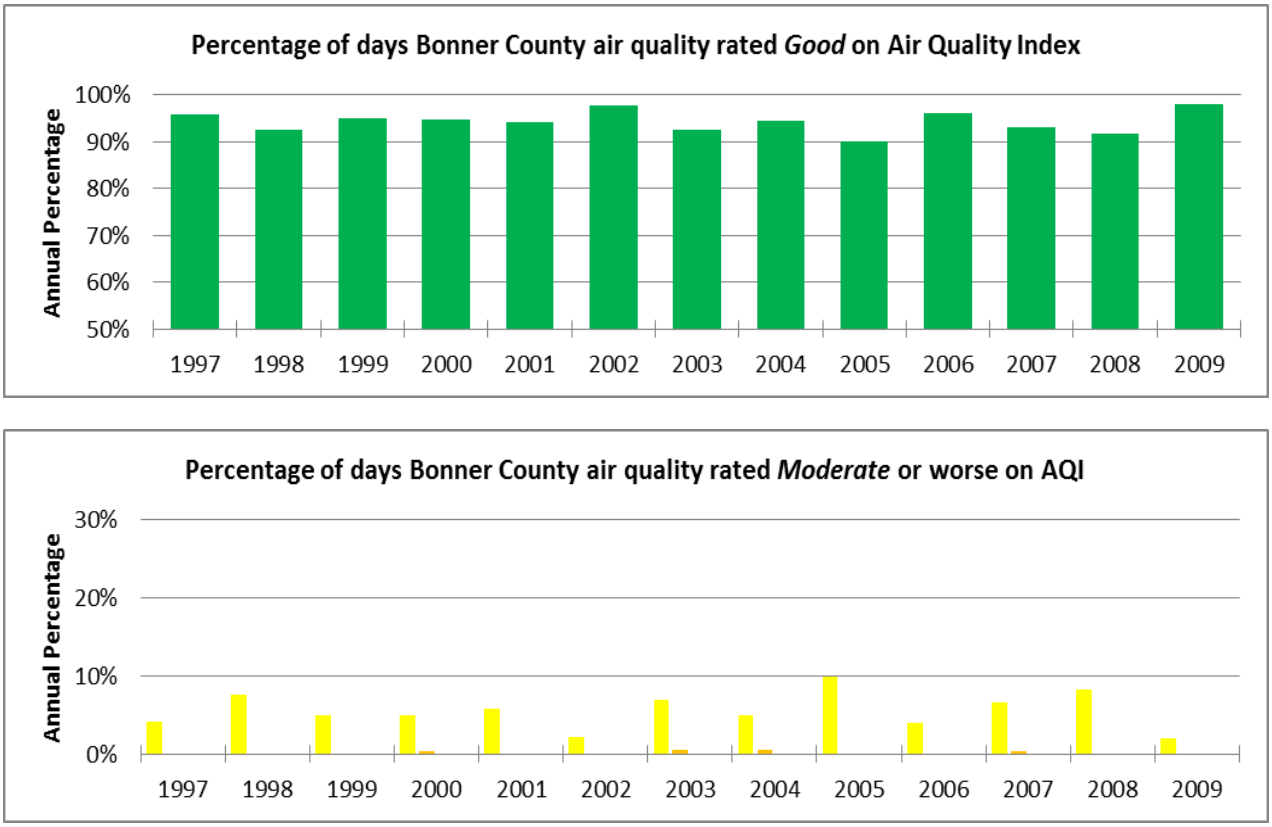


Figure 45. Air quality for Bonner County.

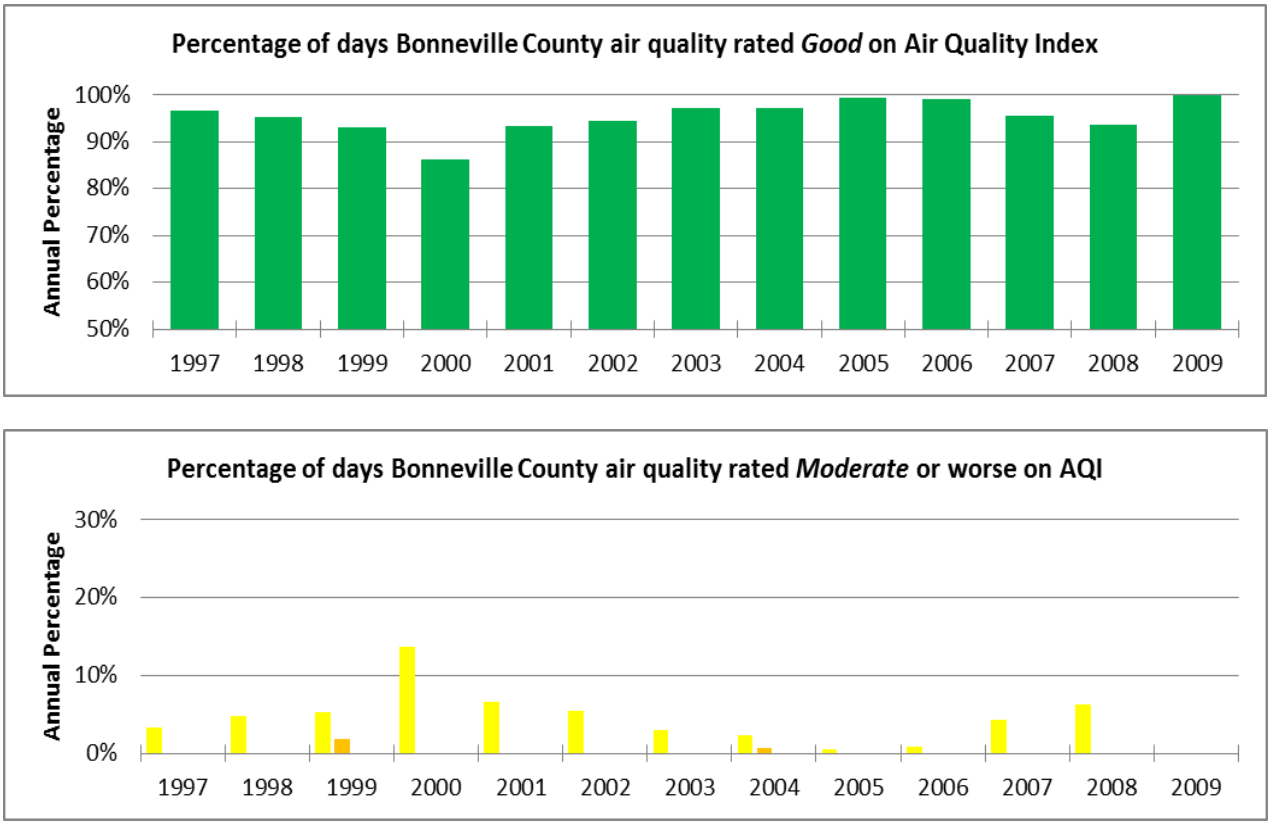


Figure 46. Air quality for Bonneville County.

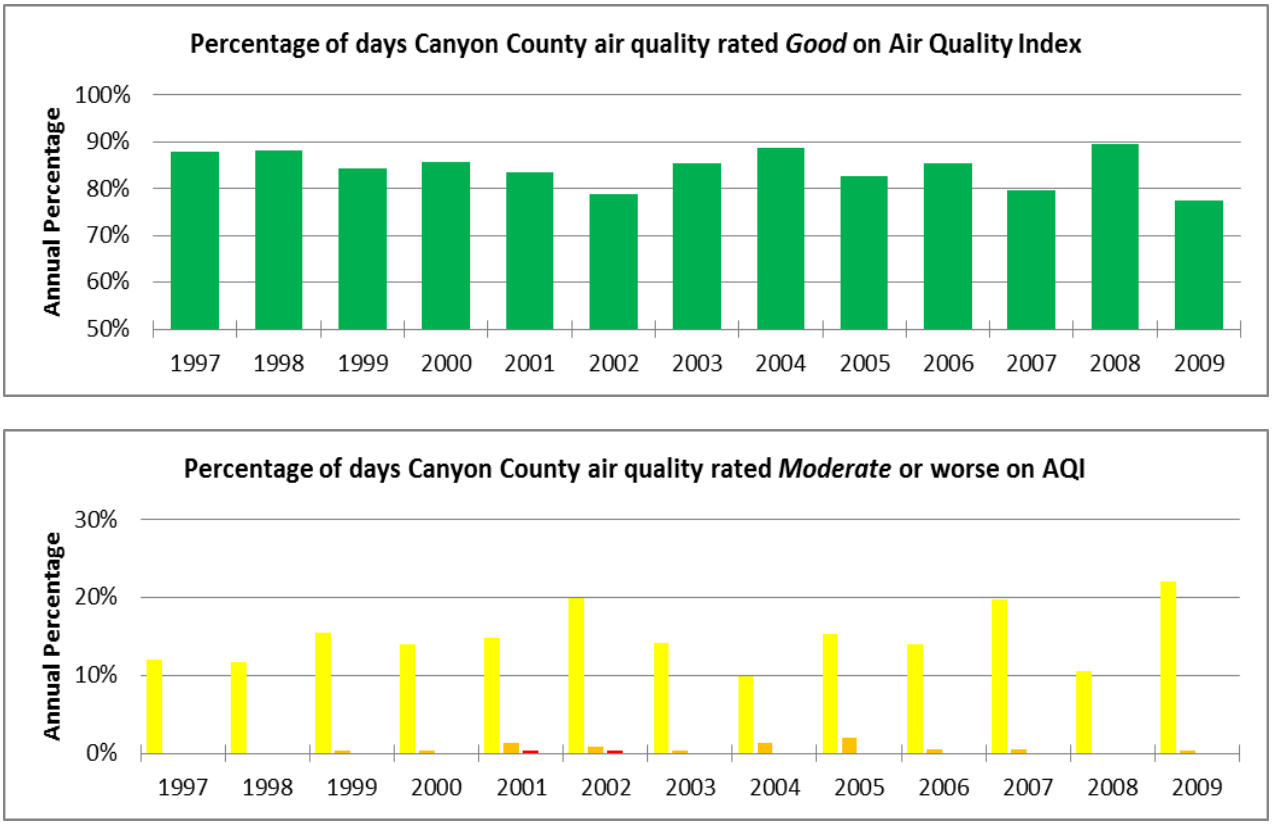


Figure 47. Air quality for Canyon County.

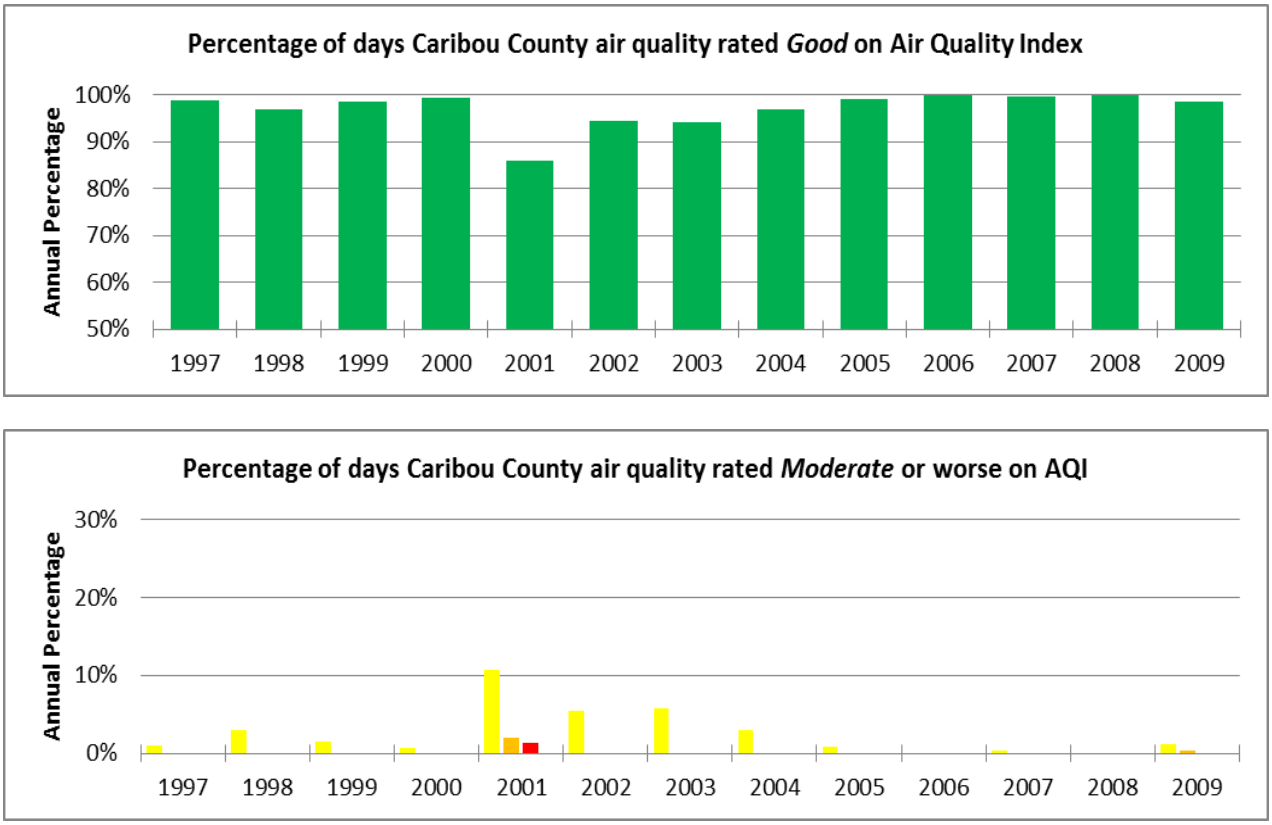


Figure 48. Air quality for Caribou County.

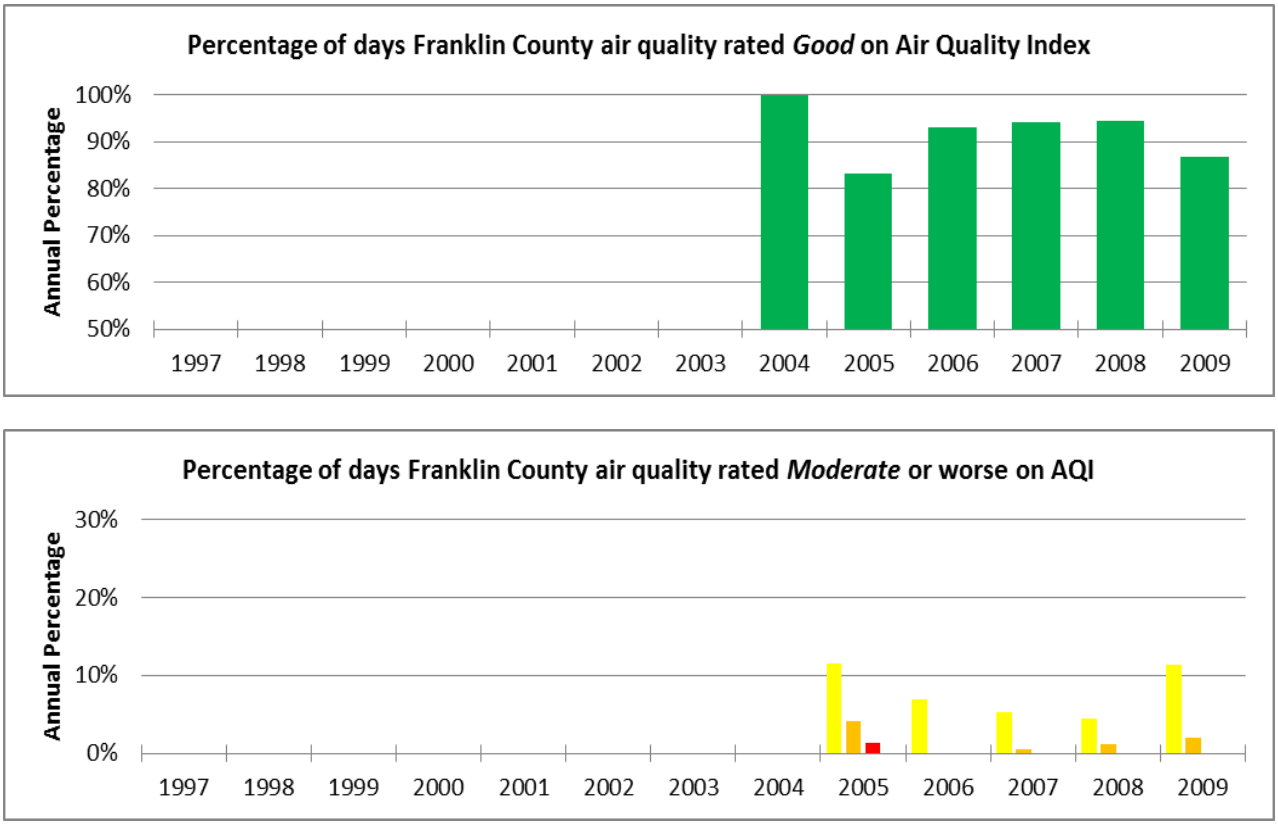


Figure 49. Air quality for Franklin County.

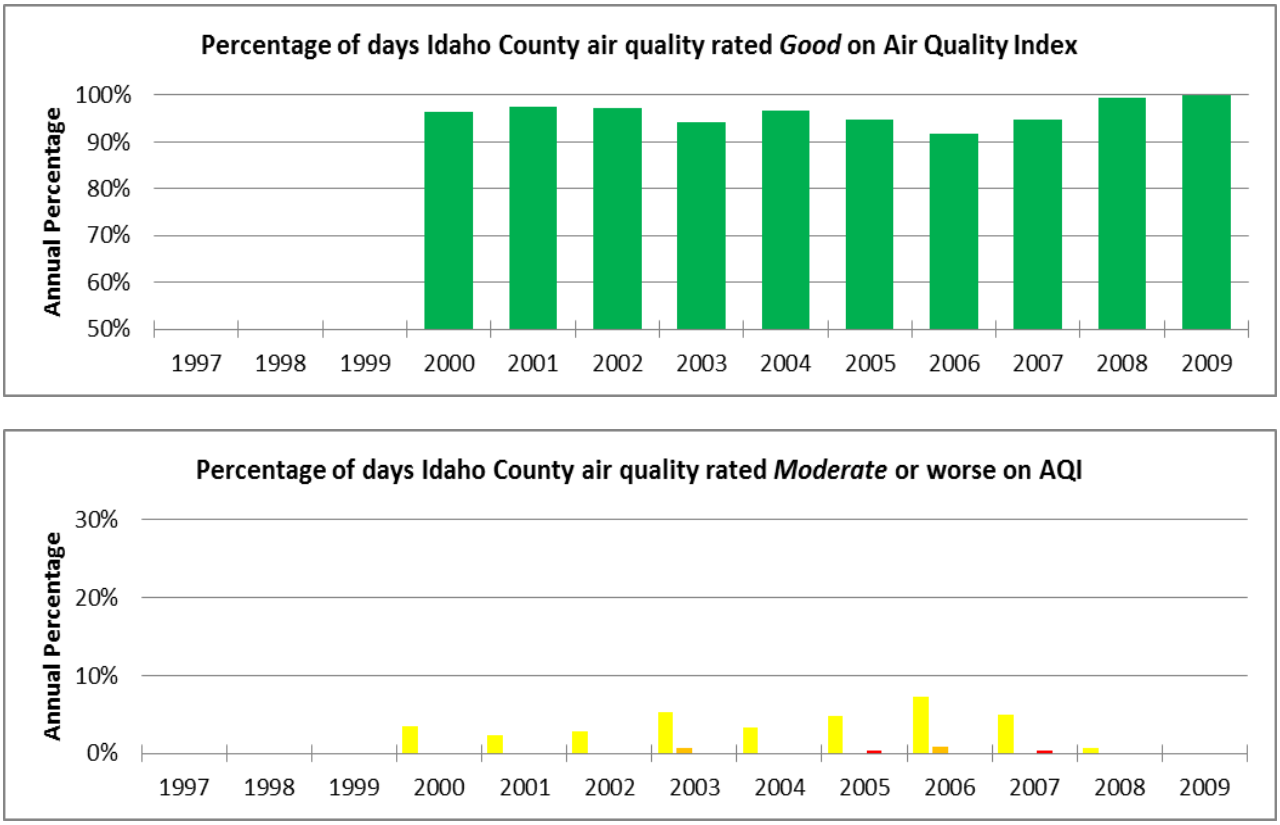


Figure 50. Air quality for Idaho County.

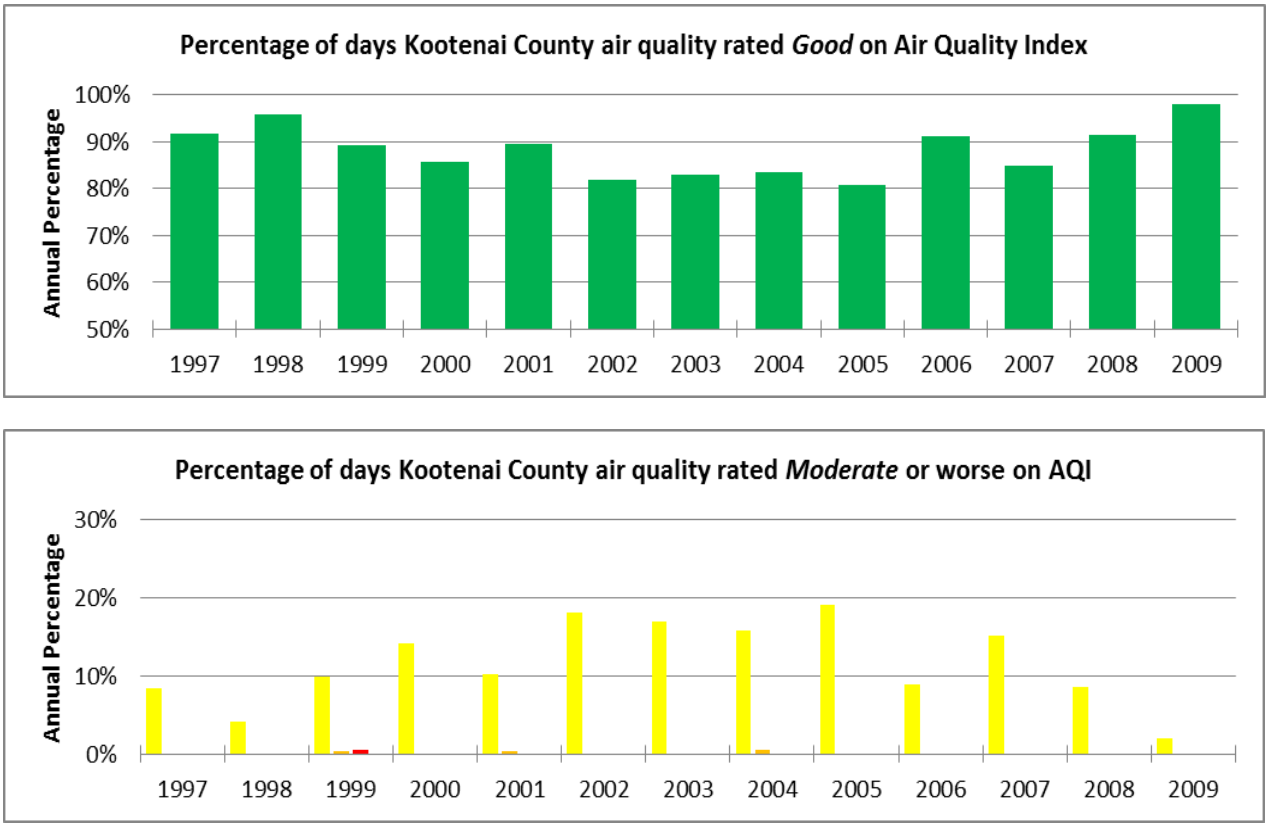


Figure 51. Air quality for Kootenai County.

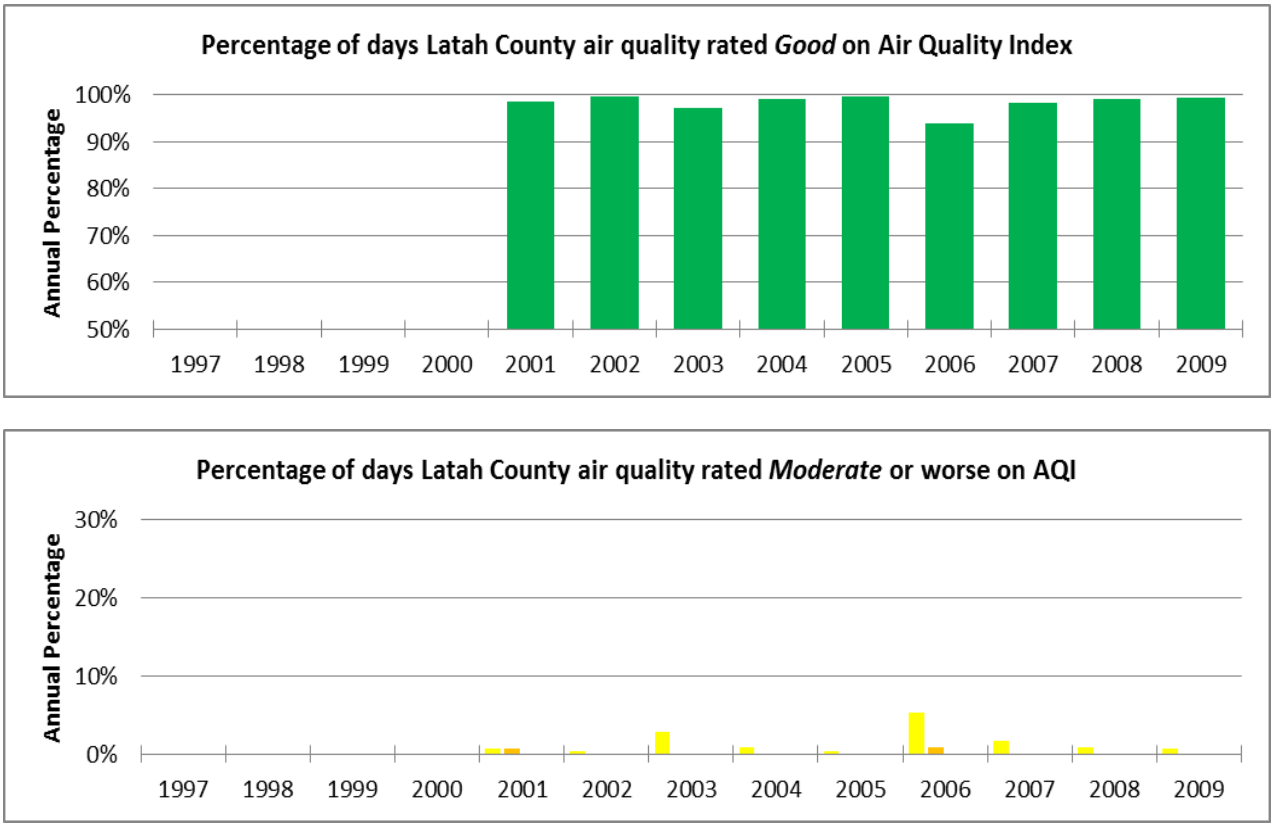


Figure 52. Air quality for Latah County.

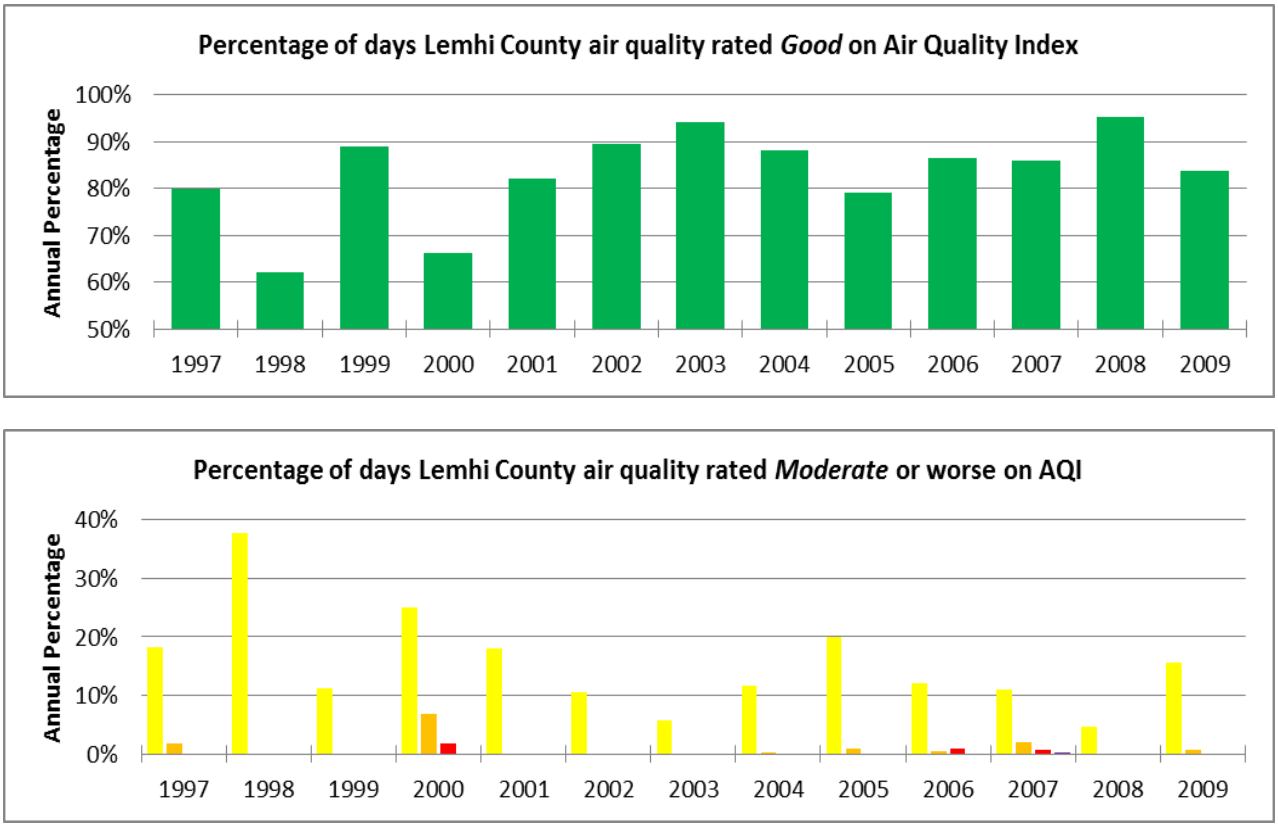


Figure 53. Air quality for Lemhi County.

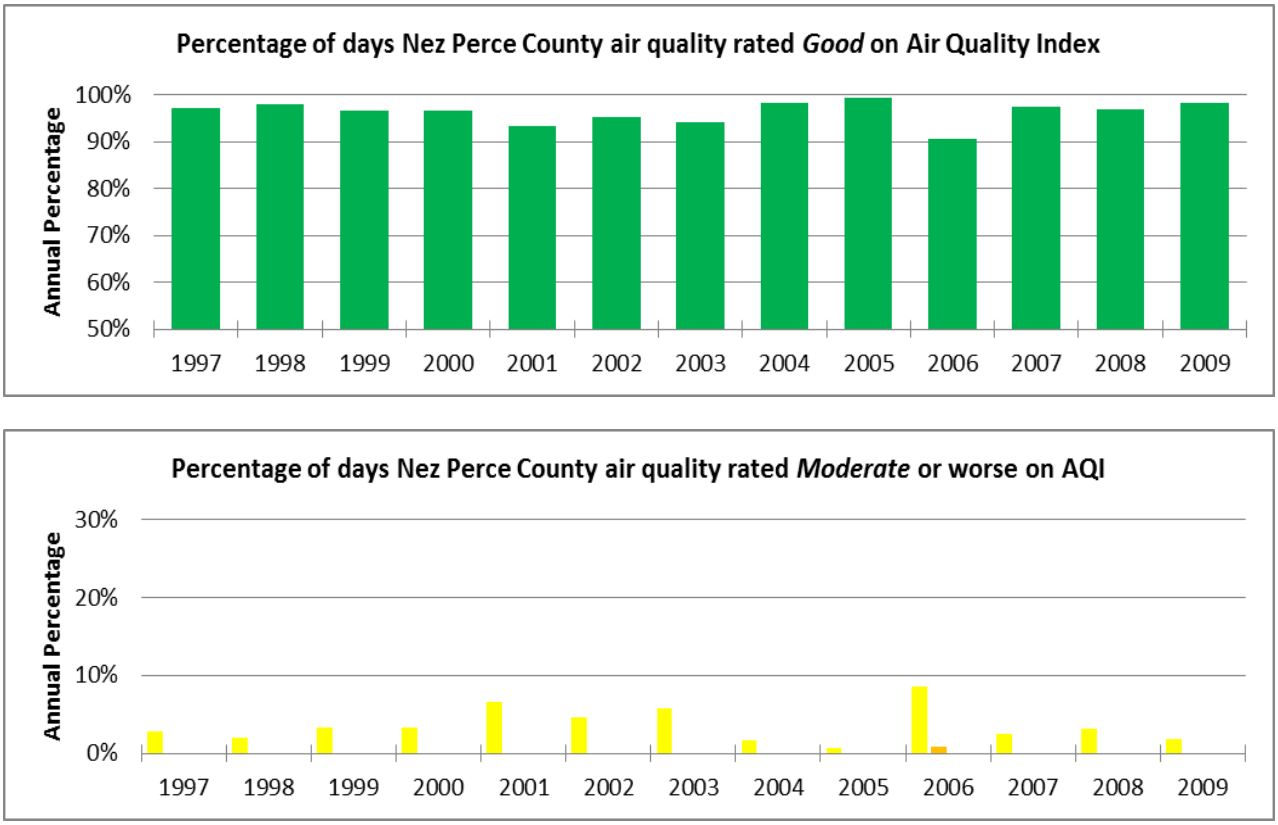


Figure 54. Air quality for Nez Perce County.

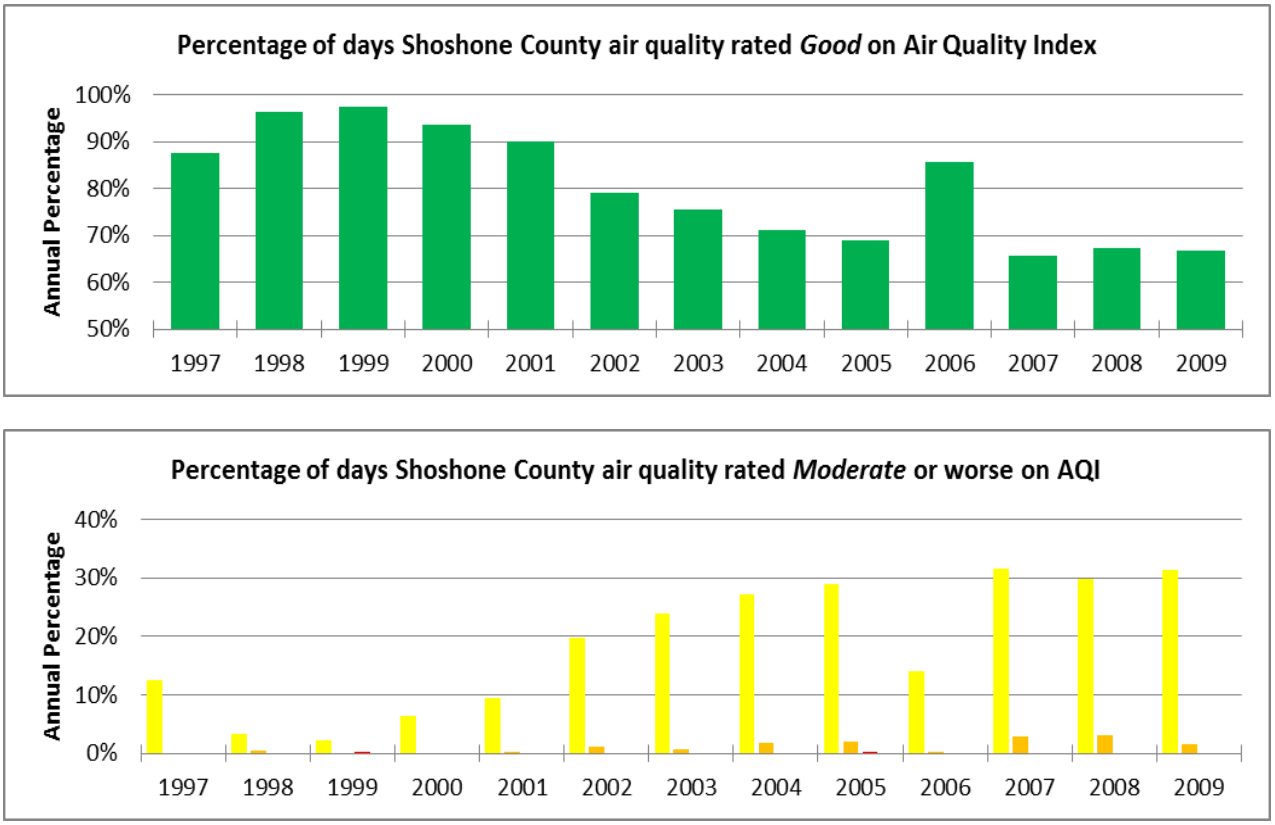


Figure 55. Air quality for Shoshone County.

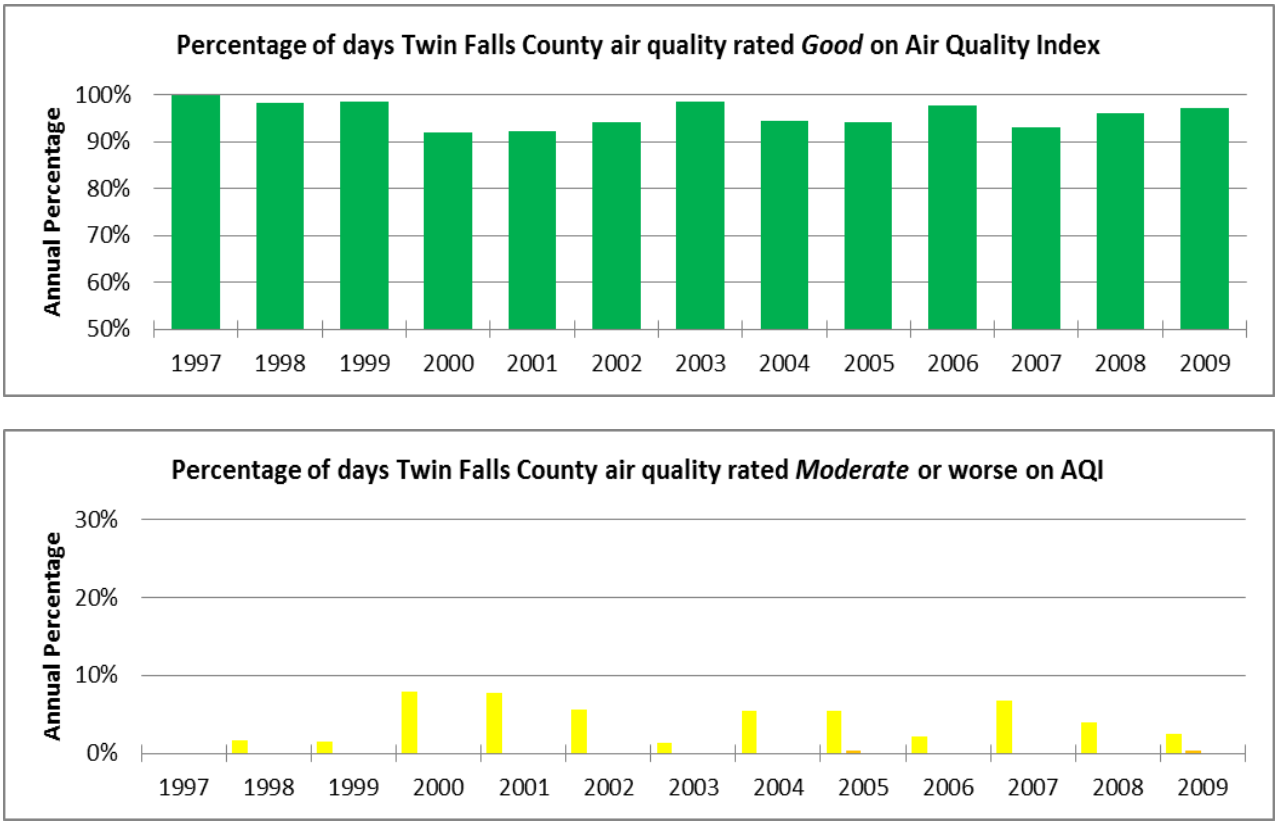


Figure 56. Air quality for Twin Falls County.

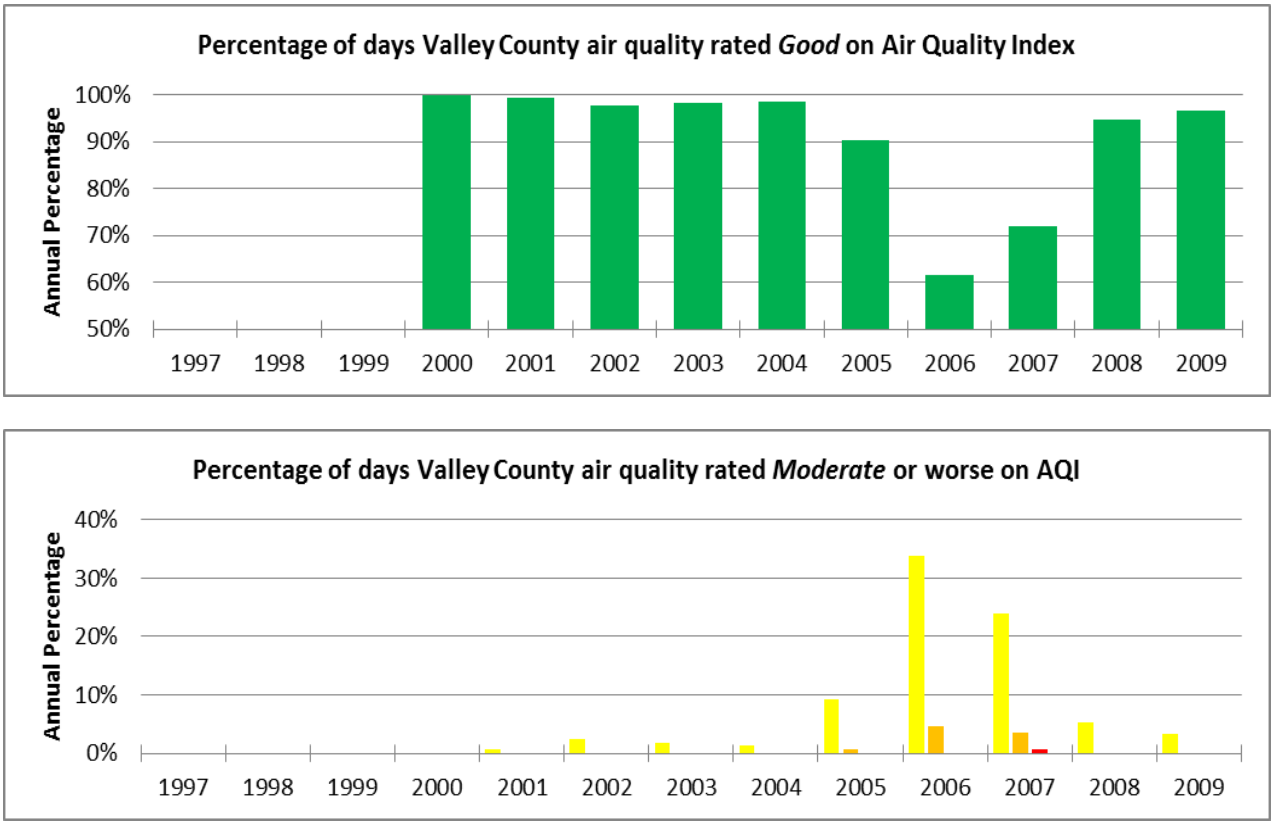


Figure 57. Air quality for Valley County.

Impaired Air Quality

Winter Burn Bans

Idaho has a winter-impaired air quality program primarily targeting sources of particulate matter from open outdoor burning, prescribed fire use, and wood stoves and fireplaces. Idaho's program is implemented through local ordinances in those areas that have had winter inversion problems. These ordinances specify that public actions such as open burning bans or indoor wood burning bans take place whenever DEQ reports an AQI above a certain value and air stagnation conditions are forecasted to continue for at least 24 hours.

The DEQ online Daily Air Quality Reports and Forecasts lists the daily air quality in many cities and regions in Idaho. Each report lists the air pollutant being monitored, AQI, and burn restrictions, if any, for the day. Residents interested in air quality information can visit the website to see the forecast for their area.

DEQ issues an air quality advisory for specific locations between 2:00 p.m. and 4:00 p.m. for the next day when air quality is forecast to be poor. The advisories issued are based upon the expected conditions for the next day. Updates are sent out on weekend days at the same times if conditions are expected to be poor. These advisories are provided to local media outlets and to others through e-mail notification lists.

Summer Ozone Alerts

DEQ forecasts pollution conditions for ozone in the Treasure Valley and Kootenai County using pollutant monitoring data and meteorological information. Because ozone needs heat and sunlight to form, it is considered a summertime problem and is only monitored from May 1 through September 30. Ozone pollution can rise to high levels when the valley experiences hot days with few clouds in the sky. The Treasure Valley and Kootenai County tend to see daily ozone levels that begin to rise in the late morning and peak in the late afternoon and early evening. This phenomenon follows closely with the time of day that the sun is the highest in the sky through the time temperatures are the hottest. Since we have no control over our weather characteristics, we have to focus on controlling what we put into our air. Under yellow or moderate alerts, the public is requested to change certain behaviors to prevent further deterioration of air quality. These alerts will be reported to local media outlets and to others through an e-mail notification list.

Definitions

Air Toxics

Air toxics are broadly defined as almost 700 pollutants that DEQ considers to be potentially harmful to human health and the environment. These pollutants are listed in the Idaho air rules in IDAPA 58.01.01.585 and 586 (http://adm.idaho.gov/adminrules/rules/idapa58/0101.pdf). Hazardous air pollutants (see below) are included in this list to identify them as a subset of air toxics.

Criteria Air Pollutant

The Clean Air Act of 1970 defined six criteria air pollutants and established ambient concentrations of each to protect public health. EPA periodically revises the original concentration limits and methods of measurement, most recently in 2008. See Table 1 for the list and the allowed ambient concentrations.

Hazardous Air Pollutant

A hazardous air pollutant (HAP) is an air contaminant identified as toxic in the federal Clean Air Act, Section 112(b). Currently listed, 188 pollutants are considered HAPs (http://www.epa.gov/ttn/atw/188polls.html).

Temperature Inversions

The earth gains and loses most of its energy at its surface. It is warmed by solar heating during the day and cooled by radiation emissions at night. During the late morning and afternoon hours, the air near the surface is warmer than the air aloft and allows for good pollutant dispersion (vertical mixing may be 1,500 meters or more). At night with clear skies, the surface radiates heat into outer space, creating cooler air at the surface and warmer air aloft. Warmer air above cooler air (temperature inversion) is a stable condition and limits the upward movement of pollution because the warmer air acts as a barrier. With little or no wind, pollutants are trapped near the surface (vertical mixing may be 200 meters or less) and can reach high levels of concentration.

Volatile Organic Compound

A volatile organic compound (VOC) is a gas emitted from certain solids and liquids that participates in atmospheric photochemical reactions. This excludes all compounds determined to have negligible photochemical reactivity by EPA and listed in 40 CFR 51.100(s) in effect July 1, 1998.

Visibility/Regional Haze

Visibility is often explained in terms of visual range and light extinction. Visual range is the maximum distance—usually miles or kilometers—that you can see a black object against the horizon. Light extinction is the sum of light scattering and light absorption by fine particles and gases in the atmosphere. The more light extinction, the shorter your visual range will be. Reduced visibility (or visual range) is caused by weather (clouds, fog, and rain) and air pollution (fine particles and gases). The major pollution contributor to reduced visibility is fine particulate matter ($PM_{2.5}$) emissions, which are transported aloft and may remain suspended for a week or longer. Fine particles have a greater impact than coarse particles at locations far from the emitting source because they remain suspended in the

atmosphere longer and travel farther. $PM_{2.5}$ also presents some of the most serious health hazards to the public, so you can roughly assume that the worse the visibility, the unhealthier the air is to breathe.

Pollution Sources

Area Sources

Area sources are categories of pollution sources, in which each individual industrial source emits pollutants below the thresholds for a point-source facility designation, and includes other categories that are a result of human activities. Area sources are best estimated at a county level in association with population numbers (e.g., natural gas use for home heating, gas stoves, or woodstoves).

Biogenics

Biogenics are natural sources such as trees, plants, grass, crops, and soils. The worldwide emissions rate of these natural hydrocarbons has been estimated to exceed that of nonmethane hydrocarbons originating from human sources. Isoprene, one of the major constituents of biogenic emissions, is very photoreactive and makes biogenic VOCs, a contributor in ozone formation .

Emission Factor

Emission factor is a value derived from source tests, material balance calculations, or engineering comparisons with similar processes. It is used to estimate emissions from process quantities.

Nonroad Mobile Sources

Nonroad mobile sources include farm vehicles, on-site construction/industrial vehicles, logging equipment, small marine craft, aircraft, trains, lawn and garden equipment, and off-road trail machines.

On-road Mobile Sources

On-road mobile sources include cars, trucks, sport utility vehicles, motorcycles and buses.

Point Sources

For the every-third-year statewide emissions inventory, point sources are defined as facilities that have actual annual air pollutant emissions equal to, or exceeding, 1,000 tpy of carbon monoxide; 100 tpy of NO_X, PM_{10}, $PM_{2.5}$, SO_x, or VOCs; or 5 tpy of lead.

Registered Facility

The total of all pollutant-emitting activities located on adjacent or contiguous properties owned or operated by one person or a corporate entity. It includes all of the pollutant-emitting buildings, processes, structures, equipment, control apparatuses, and storage areas at a facility.

Criteria Air Pollutants

Ozone

- **What is it?**
  Ozone (O_3), a bluish-colored gas molecule with a strong odor, is composed of three atoms of oxygen. In the upper atmosphere, ozone occurs naturally and partially absorbs the sun's harmful ultraviolet rays. Ozone at ground level is a summertime air pollution problem.

- **How is it caused?**
  Ozone forms when photochemical pollutants from cars, trucks, and industrial sources react with sunlight. Ozone-forming pollutants include NO_X and VOCs; even gasoline-powered yard equipment, paints, solvents, and off-road vehicle motors contribute.

- **When does it happen?**
  Ozone pollution is most common in the summer months, when sunlight and stable atmospheric conditions occur. Ozone levels are usually highest in the afternoon, as sunlight photochemically transforms NO_X and VOCs into ozone.

- **Who is affected?**
  Adults and children who are active outdoors, people with respiratory disease such as asthma, and people with unusual sensitivity to ozone. During physical activity, ozone penetrates deeper into the lungs and can do more damage.

  Ozone is a reactive gas. For this reason, high ozone concentrations can cause respiratory distress and disease in humans, decreased yields of agricultural crops and forests, and damage to some rubber products, plastics, and paints used outdoors. National crop losses from ozone exposure are estimated at $3 billion to $5 billion annually. Forest losses are harder to estimate.

- **What are the health effects?**
  Ozone can cause coughing and throat irritation, make deep vigorous breathing more difficult, and increase the chance of respiratory infections. It increases sensitivity to allergens and can trigger asthma attacks. The damage it causes to the lungs heals within a few days, but repeated or prolonged exposure may cause permanent damage.

- **What can I do about it?**
  If ozone levels are high and you have a respiratory condition or are normally active outdoors, try to limit your outdoor exertion.

  In the United States, management of ozone and other photochemical oxidants has been a major goal of federal and state clean air legislation (Clean Air Act of 1970). Although many of the pollution control efforts required by the CAA have been implemented, efforts to decrease ozone pollution have been only partially successful.

- **Where is it measured?**
  Unlike other pollutants monitored here in Idaho, ozone is formed when precursor compounds react in the atmosphere. Winds transport ozone and precursor emissions from one area to another. For the Treasure Valley, ozone precursors are emitted into the air in urban areas of the airshed and subsequently travel southeasterly to more rural areas as they react to form ozone. As a result, for the Treasure Valley airshed, DEQ has monitors in various locations. Another ozone monitor has been running in the Coeur d'Alene area since 2005.

Particulate Matter

- **What is it?**
  Particulate matter (PM) includes both solid matter and liquid droplets suspended in the air. Particles smaller than 2.5 micrometers in diameter are called "fine" particles, or $PM_{2.5}$. Particles between 2.5 and 10 micrometers in diameter are called "coarse" particles, or PM_{10}. PM_{10} includes both fine and coarse particles. DEQ considers $PM_{2.5}$ to be one of the major air pollution concerns affecting our state.

  How is it caused?
  $PM_{2.5}$ comes from all types of combustion, including cars, diesel trucks, power plants, wood burning, and from some industrial processes. It can also be formed in the atmosphere by chemical reactions of pollutant gases. The "coarse" particles in PM_{10} typically come from crushing or grinding operations and dust from roads.

- **When does it happen?**
  Daily $PM_{2.5}$ trends in urbanized areas suggest that $PM_{2.5}$ levels peak in association with traffic flow and rush hour periods. Periods of stagnate weather patterns, such as when surface inversions typically occur, contribute to elevated $PM_{2.5}$ trends.

- **Who is affected?**
  People with asthma and heart or lung disease, the elderly, and children. $PM_{2.5}$ also significantly affects visibility.

- **What are the health effects?**
  Fine particulates ($PM_{2.5}$) pose a greater risk to human health than coarse particulates, because they penetrate deeper into the respiratory system. $PM_{2.5}$ exposure can have serious health effects. People with heart or lung diseases are at increased risk of attacks or premature death. Children and the elderly are more likely to develop heart or lung problems. PM_{10} can aggravate respiratory conditions such as asthma.

What can I do about it?
If $PM_{2.5}$ levels are high, people with respiratory or heart disease, the elderly, and children should avoid outdoor exertion. If PM_{10} levels are high, people with respiratory conditions should avoid outdoor exertion.

- **Where is it measured?**
  Due to the health risks associated with particulate matter, both $PM_{2.5}$ and PM_{10} are monitored in various population-oriented locations throughout Idaho.

Carbon Monoxide

- **What is it?**
  Carbon monoxide (CO) is an odorless, colorless gas that can enter the bloodstream through the lungs and reduce the amount of oxygen that reaches organs and tissues.

- **How is it caused?**
  Carbon monoxide forms when the carbon in fuels does not burn completely. Vehicle exhaust contributes 60% of all carbon monoxide. In cities, that contribution can be as high as 95%.

- **When does it happen?**
  Carbon monoxide pollution is at its worst in cold weather because fuels burn less efficiently in low temperatures. Carbon monoxide levels usually peak during morning and evening rush hours.

- **Who is affected?**
  People with cardiovascular disease, such as angina, or cardiovascular or respiratory problems, also fetuses and young infants.

- **What are the health effects?**
  Chest pain and increased cardiovascular symptoms, particularly while exercising. High levels of carbon monoxide can even affect alertness and vision in healthy individuals.

- **What can I do about it?**
  If carbon monoxide levels are high, limit exertion and avoid sources of carbon monoxide such as heavy traffic.

- **Where is it measured?**
  Carbon monoxide monitoring stations are located in urban canyon areas with heavy traffic congestion. These include central business areas, roadsides, and shopping malls. The Boise carbon monoxide monitor is located in downtown Boise and monitors carbon monoxide as part of an air quality maintenance plan. Beginning in 2009, carbon monoxide is also monitored in Meridian.

Sulfur Dioxide

- **What is it?**
  Sulfur dioxide (SO_2)is a colorless, reactive gas.

- **How is it caused?**
  Sulfur dioxide is produced by burning sulfur-containing fuels such as coal and oil and by some industrial processes.

- **Where does it happen?**
  The highest concentrations of sulfur dioxide are usually near large industrial sources.

- **Who is affected?**
  People with asthma who are active outdoors.

- **What are the health effects?**
  Bronchoconstriction, which can cause wheezing, shortness of breath, and tightening of the chest. When exposure to sulfur dioxide ends, the symptoms should clear up within an hour.

- **What can I do about it?**
  If sulfur dioxide levels are high, limit your outdoor exertion.

- **Where is it measured?**
  Because the large primary sources of sulfur dioxide in Idaho are industrial, DEQ monitors for sulfur dioxide near large facilities with high sulfur dioxide emissions. The monitors running in 2009 were in Pocatello, Soda Springs, and Meridian.

Lead

- **What is it?**
  Lead (Pb) is a highly toxic metal that was used for many years in household products, automobile fuel, and industrial chemicals.

- **How is it caused?**
  Locally, airborne lead is associated primarily with automobile exhaust and lead smelters. Since the phase-out of lead in fuels, cars and trucks are no longer a significant source of lead. The Kellogg Bunker Hill Mine ceased operations in 1981, which also contributed to lead source reduction.

- **When does it happen?**
  Lead concentrations are likely to be highest near sources where current or former lead smelting/processing operations caused particle fallout, especially in nearby soils such as unpaved parking lots.

- **Who is affected?**
  Everyone. Children six years and younger are most at risk.

- **What are the health effects?**
  Lead can have health effects ranging from behavioral problems and learning disabilities to seizures and death.

- **What can I do about it?**
  According to EPA, the primary sources of lead exposure are lead-based paint, lead-contaminated dust, and lead-contaminated residual soils. Refer to EPA's website at http://www.epa.gov/ttn/atw/hlthef/lead.html for ways to limit your exposure to these lead sources.

- **Where is it measured?**
  Due to the phase-out of leaded fuels and the closure of Idaho's only lead smelter in 1981, DEQ discontinued monitoring for airborne lead. Historical monitoring was continued until 2002 but was discontinued due to the low levels being measured. With the lowering of the lead standard, DEQ will resume monitoring of lead in 2011 at the NCore site in Meridian.

Nitrogen Dioxide

- **What is it?**
  Nitrogen dioxide (NO_2) is a reddish brown, highly reactive gas that forms from the reaction of nitrogen oxide (NO) and oxygen in the atmosphere. Nitrogen dioxide will react with VOCs and can result in the formation of ozone.

- **How is it caused?**
  High temperature combustion sources such as power plants and automobiles are major producers of nitrogen oxide. Home heaters and gas stoves can also produce nitrogen oxide.

- **When does it happen?**
  Nitrogen dioxide pollution is greatest in cold weather. It follows a similar trend to carbon monoxide.

- **Who is affected?**
  Children and people with respiratory diseases, such as asthma.

- **What are the health effects?**
  Nitrogen dioxide can cause respiratory symptoms such as coughing, wheezing, and shortness of breath. Long-term exposure can lead to respiratory infections.

- **What can I do about it?**
  Since the 1970s, motor vehicle manufacturers have been required to reduce nitrogen oxide emissions from cars and trucks. It is not a significant pollution problem in Idaho.

- **Where is it measured?**
  Nitrogen dioxide is not a major concern in Idaho. It was measured during 2009 at the Lancaster Road site near Coeur d'Alene, concurrent with the ozone monitoring season. Beginning in 2009, it is monitored year-round at Meridian.

Appendix A

Table A-1. Calculation and breakpoint for the Air Quality Index.

Breakpoints for Criteria Pollutants							AQI Categories	
0_3 (ppm) 8-hour	0_3 (ppm) 1-hour[a]	$PM_{2.5}$ ($\mu g/m^3$)	PM_{10} ($\mu g/m^3$)	CO (ppm)	SO_2 (ppm)	NO_2 (ppm)	AQI value	Category
0.000–0.059	—	0.0–15.4	0–54	0.0–4.4	0.000–0.034	(b)	0–50	Good
0.060–0.075	—	15.5–35.4	55–154	4.5–9.4	0.035–0.144	(b)	51–100	Moderate
0.076–0.095	0.125–0.164	35.5–65.4	155–254	9.5–12.4	0.145–0.224	(b)	101–150	Unhealthy for sensitive groups
0.096–0.115	0.165–0.204	65.5–150.4	255–354	12.5–15.4	0.225–0.304	(b)	151–200	Unhealthy
0.116–0.374	0.205–0.404	150.5–250.4	355–424	15.5–30.4	0.305–0.604	0.65–1.24	201–300	Very unhealthy
(c)	0.405–0.504	250.5–350.4	425–504	30.5–40.4	0.605–0.804	1.25–1.64	301–400	Hazardous
(c)	0.505–0.604	350.4–500.4	505–604	40.5–50.4	0.805–1.004	1.65–2.04	401–500	

a. Areas are generally required to report the AQI based on 8-hour ozone values. However, there are a small number of areas where an AQI based on 1-hour ozone values would be safer. In these cases, in addition to calculating the 8-hour ozone value, the 1-hour ozone value may be calculated, and the greater of the two values reported.

b. Nitrogen dioxide has no short-term National Ambient Air Quality Standard (NAAQS) and can generate an AQI only above a value of 200.

c. Eight-hour ozone values do not define higher AQI values (above 300). AQI values above 300 are calculated with 1-hour ozone concentrations.

For more detailed information about the AQI and the pollutants it measures, go to http://www.airnow.gov/.

Table A-2. 2009 Air Quality Index summary report.

2009		Number of Days for AQI Categories						Number of Days for Main AQI Pollutants					
County	Total Number of AQI Days	Good	Moderate	Unhealthy for Sensitive Groups	Unhealthy	Very Unhealthy	Max AQI	CO	NO_2	O_3	SO_2	$PM_{2.5}$	PM_{10}
Ada	365	268	95	2			106	11	64	102		161	27
Bannock	363	290	69	4			141				150	86	127
Benewah	364	315	43	6			128					364	
Blaine	159	159					31					159	
Boise	329	322	7				69					329	
Bonner	365	358	7				89					219	146
Bonneville	327	327					39					327	
Canyon	357	277	79	1			110					278	79
Caribou	365	360	4	1			126				365		
Franklin	105	91	12	2			117					105	
Idaho	338	338					44					338	
Kootenai	365	358	7				58			149		216	
Latah	322	320	2				57					322	
Lemhi	354	297	55	2			104					354	
Nez Perce	332	326	6				61					332	
Shoshone	365	244	115	6			136					362	3
Twin Falls	358	348	9	1			110					358	
Valley	328	317	11				73					328	

Table A-3. 2009 monitor values summary for $PM_{2.5}$.[a]

		24-hour $PM_{2.5}$												
Data Year	**County**	**# Obs.**	**1st Max**	**2nd Max**	**3rd Max**	**4th Max**	**98th %**	**# Exceed**	**Annual Mean**	**Annual # Exceed**	**Monitor #**	**Site ID**	**Site Address**	**City**
2009	Ada	117	30.4	19.3	17	16.6	17	0	6.29	0	1	160010010	St. Luke's–520 S. Eagle Rd.	Meridian
2009	Ada	68	31.3	24.3	19.2	17.4	24.3	0	6.66	0	1	160010011	Mountain View School–3500 Carbarton Ln.	Boise
2009	Benewah	120	32	30.1	26.6	25.8	26.6	0	9.71	0	1	160090010	9th and Center	St. Maries
2009	Canyon	61	18.8	18.3	17.8	17.3	18.3	0	7.51	0	1	160270002	Nampa Fire Station–923 1st St.	Nampa
2009	Franklin	105	48.7	42.6	40.3	38.2	40.3	4	8.34	0	1	160410001	Water Treatment Facility–East 4800 South	Franklin
2009	Lemhi	49	42.2	36.7	32.7	32.6	42.2	2	10.39	0	1	160590004	618 N. St. Charles St.	Salmon
2009	Shoshone	354	54.4	46.6	41.3	41	34.7	7	11.78	0	1	160790017	Pinehurst School–106 Church St.	Pinehurst
2009	Shoshone	60	35.8	34.3	31	28.6	34.3	1	12.08	0	2	160790017	Pinehurst School–106 Church St. (Pinehurst Precision Monitor)	Pinehurst

a. Values indicated come from Federal Reference or Equivalent Method measurements.

b. # exceed indicates the number of times measurements exceeded the National Ambient Air Quality Standard (NAAQS) of 35.5 micrograms per cubic meter (ug/m^3). Exceedances themselves do not cause an area to be designated nonattainment, but they can cause the 98th percentile value to be higher which, when averaged with the previous two years, can cause an area to be designated nonattainment. For example, in 2008, the 98th percentile for Pinehurst was above the standard at 36.2 $\mu g/m^3$. Since the 3-year average of the 2007–2009 98th percentile is 34.7 $\mu g/m^3$, which is below the standard, the area is classified as nonattainment.

Table A-4. 2009 monitor values summary for PM_{10}.[a]

		24-hour PM_{10}												
Data Year	**County**	**# Obs**	**1st Max**	**2nd Max**	**3rd Max**	**4th Max**	**# Exceed Actual**	**Estimated Exceedances**	**Annual Mean**	**Annual # Exceed**	**Monitor #**	**Site ID**	**Site Address**	**City**
2009	Ada	328	118	71	66	56	0	0	20.9	0	3	160010009	Fire Station #5–16th and Front	Boise
2009	Bannock	1	4	NA	NA	NA	0	0	4.0	0	2	160050015	Garrett and Gould (Precision monitor terminated 1/1/2009)	Pocatello
2009	Bannock	43	82	41	40	40	0	0	22.0	0	1	160050015	Garrett and Gould (Primary monitor terminated 9/23/2009)	Pocatello
2009	Bannock	329	235	83	71	70	1	1.195	23.2	0	3	160050015	Garrett and Gould (PM_{10} TEOM)	Pocatello
2009	Bonner	81	36	31	31	30	0	0	12.2	0	1	160170004	310 South Division St. (PM_{10} TEOM terminated 3/30/2009)	Sandpoint
2009	Bonner	275	131	72	65	64	0	0	14.4	0	3	160170005	1601 Ontario St. (PM_{10} TEOM initiated 3/30/2009)	Sandpoint
2009	Canyon	273	98	81	78	75	0	0	22.8	0	2	160270002	Nampa Fire Station–923 1st St.	Nampa
2009	Shoshone	358	55	50	49	46	0	0	14.7	0	3	160790017	Pinehurst School–106 Church St.	Pinehurst

a. Values indicated come from Federal Reference or Equivalent Method measurements.

Table A-5. 2009 monitor values for ozone.

		8-hour O_3											
Data Year	County	1st Max	2nd Max	3rd Max	4th Max	Days > Std.	Required Days	# Days	% Days	Monitor #	Site ID	Site Address	City
2009	Ada	0.069	0.068	0.068	0.068	0	153	150	98	1	160010010	St. Luke's–520 S. Eagle Rd.	Meridian
2009	Ada	0.067	0.066	0.065	0.062	0	153	153	100	1	160010019	Idaho Transportation Dept.–3311 W. State St.	Boise
2009	Ada	0.078	0.076	0.074	0.073	2	153	126	82	1	160010017	White Pine Elementary–401 E. Linden	Boise
2009	Butte	0.059	0.058	0.058	0.058	0	153	150	98	1	160230101	Craters of the Moon National Monument	Arco
2009	Kootenai	0.058	0.057	0.057	0.056	0	153	146	95	1	160550003	Lancaster Rd.	Coeur d'Alene

Table A-6. 2009 monitor values summary for carbon monoxide.

		1-hour CO				8-hour CO						
Data Year	County	# Obs.	1st Max	2nd Max	# Exceed	1st Max	2nd Max	# Exceed	Monitor #	Site ID	Site Address	City
2009	Ada	7832	3.425	3.207	0	3	2.2	0	1	160010010	St. Luke's–520 S. Eagle Rd.	Meridian
2009	Ada	8418	10.0	9.5	0	3.8	3.3	0	1	160010014	Eastman Building–166 N. 9th St.	Boise

Table A-7. 2009 monitor values summary for nitrogen dioxide.

		1-hour NO_2			Annual NO_2					
Data Year	County	# Obs.	1st Max	2nd Max	Mean	# Exceed	Monitor #	Site ID	Site Address	City
2009	Ada	5844	0.053	0.052	0.0095	0	1	160010010	St. Luke's–520 S. Eagle Rd.	Meridian
2009	Kootenai	1911	0.022	0.022	0.0024	0	1	160550003	Lancaster Rd.	Coeur d'Alene

Table A-8. 2009 monitor values summary for sulfur dioxide.

		1-hour SO_2			3-hour SO_2			24-hour SO_2			Annual SO_2				
Data Year	County	# Obs.	1st Max	2nd Max	1st Max	2nd Max	# Exceed	1st Max	2nd Max	# Exceed	Mean	# Exceed	Site ID	Site Address	City
2009	Ada	3748	0.0056	0.0051	0.0031	0.0029	0	0.0008	0.0007	0	0.0003	0	160010010	St. Luke's–520 S. Eagle Rd.	Meridian
2009	Bannock	7655	0.080	0.063	0.0523	0.0523	0	0.0224	0.0218	0	0.0046	0	160050004	Sewage Treatment Plant–Baptiste and Chubbuck	Pocatello
2009	Caribou	8715	0.131	0.054	0.0736	0.0360	0	0.0174	0.0100	0	0.0018	0	160290031	P4/Monsanto–Five Mile Rd.	Soda Springs

Appendix C

Public Participation Information

Public Meeting Notices

Printed in the Morning News

February 11 & 18, 2014

SUDOKU

	4		1		6			
		1					9	
6								
	5		3			8		2
9			2	5		7		
		2						9
		9		7				
8		4		2				
7	1						6	3

Level: Beginner

Fun By The Numbers

Like puzzles? Then you'll love sudoku. This mind-bending puzzle will have you hooked from the moment you square off, so sharpen your pencil and put your sudoku savvy to the test!

Here's How It Works:

Sudoku puzzles are formatted as a 9x9 grid, broken down into nine 3x3 boxes. To solve a sudoku, the numbers 1 through 9 must fill each row, column and box. Each number can appear only once in each row, column and box. You can figure out the order in which the numbers will appear by using the numeric clues already provided in the boxes. The more numbers you name, the easier it gets to solve the puzzle!

ANSWER:

2	1	4	6	5	9	3	7	8
8	6	7	3	2	1	4	5	9
3	5	9	8	4	7	1	2	6
1	9	2	5	7	4	8	6	3
4	7	6	2	8	3	5	9	1
5	8	3	1	9	6	2	4	7
6	4	1	7	3	2	9	8	5
9	3	8	4	6	5	7	1	2
7	2	5	9	1	8	6	3	4

420 Cars

2012 LINCOLN MKZ

All-wheel drive. Only 8K miles!!! Very hard-to-find. Heated/cooled leather seats, power moon roof, factory touch screen navigation, color back up camera, side blind/cross traffic alert, ambient lighting, Sirius satellite radio, THX sound system. This car costs approximately $50K new.

Save approximately $17K
Off the new price with only 8K miles!!
Only $32,995!!!!
Call Allen, 589-7142 or
Liquidators Unlimited
522-7142, Idaho Falls
792 E. Greenway

2013 TOYOTA AVALON XLE

Why pay approximately $40,000+ for new? This car looks and runs like new. Most all options - 20K. Beautiful, luxurious, economical car for only $27,895.

Call Von, 589-7142 or
Liquidators Unlimited
522-7142, Idaho Falls
792 E. Greenway

WX AUTO SALES
690 S. Broadway
Blackfoot, ID
782-0775

See Our Entire Inventory @
www.wxautosales.com

-2011 Honda Civic VP

4-door, automatic, charcoal exterior, grey cloth interior. Runs great!! Front-wheel drive. Great gas mileage!!

Priced at $11,500

-2007 GMC Acaidia SLT II.

Leather interior, navigation, all-wheel drive. All the options, including two sunroofs, 109,000 miles.

Sell for only $15,900

-2008 Pontiac Grand Prix

3800 engine, white, black cloth interior - 152,000 miles. Sound car.

Sell for only $6,600 obo

-2007 Honda Civic SI

4-door, 6-speed manual transmission, custom wheels, tinted windows, smoked tail lights with LED's. Silver exterior, black interior - 2.0 liter V-tec.

Priced at $10,400

-2000 Chevy Silverado 1500, 4x4

Shortbox, regular cab, Z-71 package, custom wheels, oversized tires, lots of chrome -4.8 liter, V-8 - 145,000 miles.

Priced at $7,250 obo

-2000 Subaru Legacy Outback

2.5 liter, 4-cylinder motor. All-wheel drive. Good tires. White exterior, black interior - 164,000 miles. Runs great!! Priced at $5,500

-1999 Honda Civic LX

4-door, automatic, 4-cylinder engine, front-wheel drive. Green exterior. Runs great!!

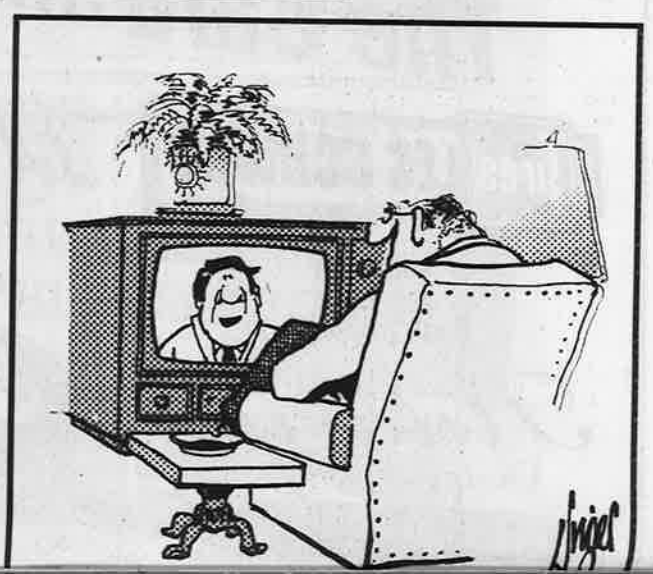
Only $3,500

500 Legals

The City of Blackfoot will hold a public hearing on March 4, 2014 at City Hall, 157 N. Broadway at 7:00 p.m. The purpose of the public hearing will be to present the drafted Blackfoot Wastewater Treatment Plant Facility Plan, discuss upgrade alternatives addressed in the Facility Plan, review pros/cons and potential environmental impacts of each alternative, summarize available funding sources and potential ratepayer impacts, and solicit verbal and written comments regarding the Facility Plan and information presented. Beginning February 10th, 2014, a hard copy of the Facility Plan will be available at the City Hall and at the City Library for review. In addition, a digital copy will be available on the City's website at www.cityofblackfoot.org. Written comments will be accepted for a period between February 10, 2014 and February 26, 2014. After the close of the public comment period and consideration of public input, the City Council will select an alternative and document the selection. A detailed environmental evaluation will subsequently be performed on the selected alternative.

Publish February 11th and 18th, 2014 (#9942)

Herman by *Jim Unger*



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2008 FORD F-150
LARIAT PKG.
47K MILES, SUNROOF
LEATHER SEATS
POWER REAR SLIDER
SEAT HEATERS
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WELL MAINTATNED---

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792 E. Greenway

2006 CHEVROLET IMPALA

Why pay new car price? Local trade-in. This car is like new condition in every way - even the seats and carpet look brand new!! Most options! 86K. Beautiful, economical transportation.

Only $8,985
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792 E. Greenway

2007 LINCOLN MKZ

Second Owner - Local Trade
Only 50,000 miles!!!!

Heated seats, FWD, Garmin navigation, 30 miles per gallon. Pefect Car Fax. Needs nothing! Hard-to-find.

Only $16,995
Call Allen, 589-7105 or
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522-7142, Idaho Falls
792 E. Greenway

2013 CHEVROLET IMPALA LTZ

300 HP (V-6), heated leather seats, XM, OnStar remote start, rear spoiler. Only 16K miles.

Why pay approximately $32K new??

SUDOKU

	1			2	7			
						3		
7				5			9	4
		7		1				
5	2				9			
		4					7	1
			4			5	6	
					1			9
	4		2		3			

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ANSWER:

1	4	7	6	8	2	5	9	3
8	9	2	4	3	5	6	7	1
3	6	5	9	7	1	8	4	2
5	2	8	1	6	9	4	3	7
7	1	4	5	2	3	9	8	6
9	3	6	8	4	7	2	1	5
6	7	3	2	9	8	1	5	4
4	8	1	3	5	6	7	2	9
2	5	9	7	1	4	3	6	8

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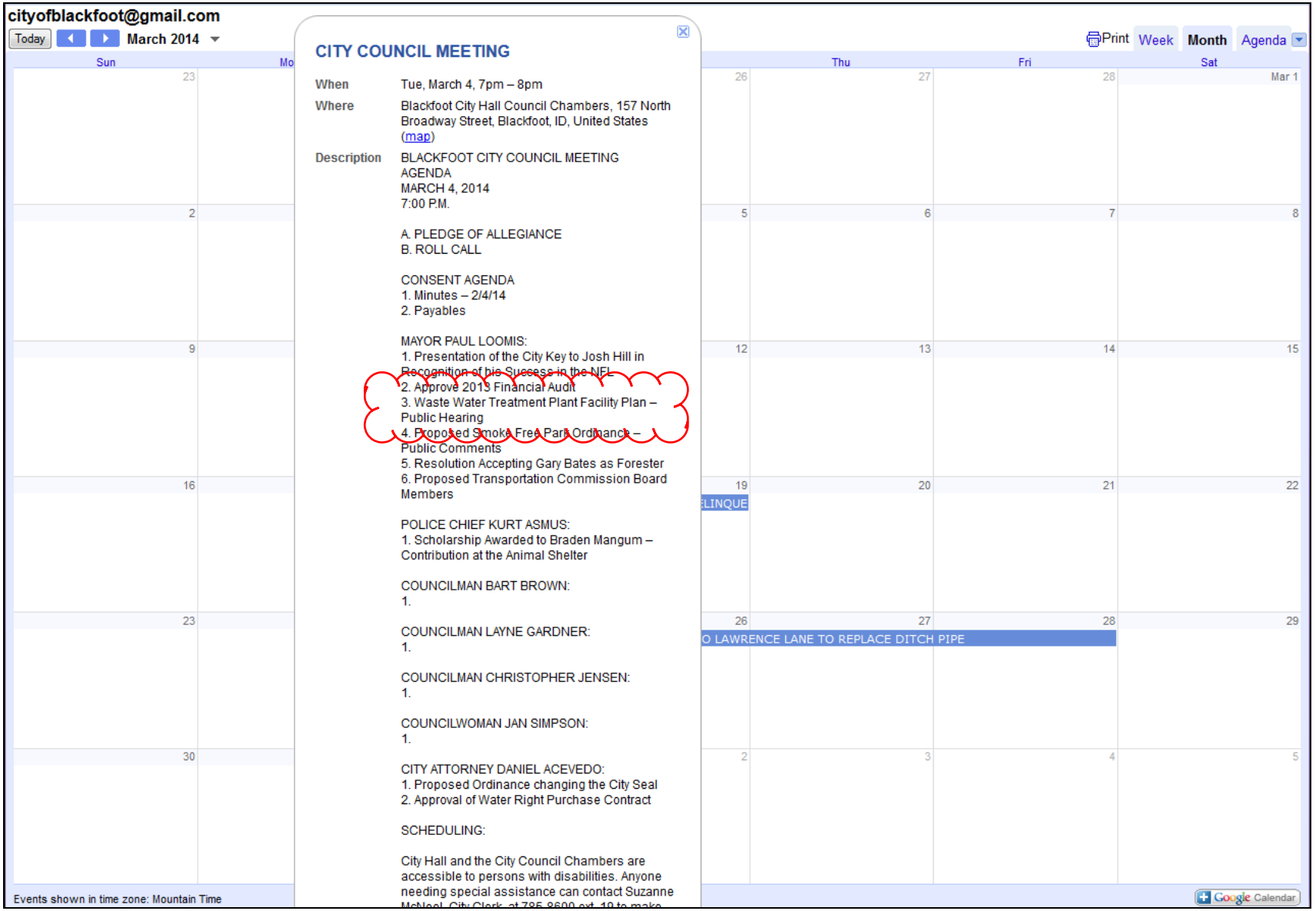
Publish February 11th and 18th, 2014 (#9942)

NOTICE OF TRUSTEE'S SALE Trustee's Sale No. 02-PF-131567 NOTICE IS HEREBY GIVEN that, ALLIANCE TITLE and ESCROW CORP., the duly appointed Successor Trustee, will on June 13, 2014, at the hour of 12:00 PM, of said day, FRONT LOBBY OF THE BINGHAM COUNTY COURTHOUSE, 501 N. MAPLE, BLACKFOOT, ID, sell at public auction to the highest bidder, for cash, in lawful money of the United States, all payable at the time of sale, the following described real and personal property (hereafter referred to collectively as the "Property"), situated in the County of BINGHAM, State of Idaho, to-wit: LOT 22 IN BLOCK 2 OF MOUNTAIN VIEW ESTATES, BINGHAM COUNTY IDAHO, ACCORDING TO THE PLAT RECORDED AUGUST 25, 1998 AS INSTRUMENT NO. 468827. The Trustee has no knowledge of a more particular description of the above-referenced Property but, for purposes of compliance with Section 60-113 of Idaho Code, the Trustee has been informed that the address of 1292 DANIELLE WAY, BLACKFOOT, ID 83221, is sometimes associated with said real property. The Property will be sold subject to (1) the lien of real property taxes not yet due and payable; (2) all matters which would be disclosed by an accurate survey and inspection of the Property; (3) all matters of record; (4) all unrecorded matters which would be disclosed by inquiry of persons in possession of the Property; (5) all prior liens, encumbrances, and rights to foreclose or trustee's sale; (6) all easements, rights of way, and encroachments; (7) all water rights, claims or title to water; (8) all leases or rights of parties in possession; and (9) all matters which would be disclosed by a physical inspection of the Property. The Property will be sold "AS IS" without any representation or warranty, express or implied, regarding title, possession, boundaries, encumbrances, or quality. The Trustee disclaims any warranty of habitability, fitness or merchantability. The Property will be sold to the highest bidder for cash or cashier's check drawn on a state or national bank, a check drawn by a state or federal credit union, or a check drawn by a state or federal savings and loan association, savings association, or savings bank specified in section 63-3037 of Idaho Code. The Property will be sold subject to the rights of redemption set forth in section 45-1506(8), Idaho Code. The Trustee will conduct the sale according to the terms of the Deed of Trust and Idaho law. The Trustee may postpone the sale by public announcement at the time and place noticed for the sale. The Trustee may postpone the sale one or more times by giving notice of the postponement by public announcement at the time previously scheduled for the sale. The Trustee may postpone the sale to any subsequent date and time. The Trustee may conduct the sale in any place within the County where the Property is located. This Notice is given pursuant to the Deed of Trust executed by, JOEL MENG, A MARRIED MAN AS HIS SOLE AND SEPARATE PROPERTY, as Grantor, to FIRST AMERICAN TITLE COMPANY, as Trustee, for the benefit and security of MORTGAGE ELECTRONIC REGISTRATION SYSTEMS, INC. AS NOMINEE FOR PROVIDENT FUNDING ASSOCIATES, L.P., ITS SUCCESSORS AND ASSIGNS, as Beneficiary, dated 10/10/2007, recorded 10/22/2007, under Instrument No. 587001, modified under agreement signed by the Borrower on 02/28/2013 and by the Lender on 03/04/13, Mortgage records of BINGHAM County, IDAHO, the beneficial interest in which is presently held by Provident Funding Associates, L.P. THE ABOVE GRANTORS ARE NAMED TO COMPLY WITH SECTION 45-1506(4)(A). IDAHO CODE. NO REPRESENTATION IS MADE THAT THEY ARE, OR ARE NOT. PRESENTLY RESPONSIBLE FOR THIS OBLIGATION. The default for which is sale is made is the failure to pay when due under the Deed of Trust Note dated 10/10/2007, THE MONTHLY PAYMENT WHICH BECAME DUE ON 10/1/2013 AND ALL SUBSEQUENT MONTHLY PAYMENTS, PLUS LATE CHARGES AND OTHER COSTS AND FEES AS SET FORTH. Amount due as of February 5, 2014 Delinquent Payments from October 01, 2013 5 payments at $ 1,340.11 each $ 6,700.55 (10-01-13 through 02-05-14) Late Charges: $ 244.90 BENEFICIARY ADVANCES PHONE PAY $ 7.50 NSF FEE $ 50.00 EXTERIOR INSPECTION $100.00 Suspense Credit:$0.00 TOTAL: $7,102.95 All delinquencies are now due, together with unpaid and accruing taxes, assessments, trustee's fees, attorney's fees, costs and advances made to protect the security associated with this foreclosure. The principal balance is $232,958.03, together with interest thereon at 4.000% per annum from 9/1/2013, until paid. The Beneficiary elects to sell or cause the trust property to be sold to satisfy said obligation. Anyone having any objection to the sale on any grounds whatsoever will be afforded an opportunity to be heard as to those objections if they bring a lawsuit to restrain the same. DATED: 2/5/2014. ALLIANCE TITLE and ESCROW CORP. Trustee By: Joel Meng, Asst. Secretary c/o REGIONAL TRUSTEE SERVICES CORPORATION 616 1st Avenue, Suite 500 Seattle, WA 98104 Phone: (206) 340-2550 Sale Information: http://www.rtrustee.com A-4443315 **02/18/2014, 02/25/2014, 03/04/2014, 03/11/2014 (#9945)**

Public Meeting on City Calendar

March 4, 2014



Screen Capture from Blackfoot City's online calendar, www.cityofblackfoot.org

City Council Public Meeting Presentation by Alan Giesbrecht for Wastewater Treatment Facility Plan

March 4, 2014

City of Blackfoot
Wastewater System

Wastewater Treatment Facility Plan

Public Meeting

March 4, 2014

J·U·B ENGINEERS, INC.

Presentation Outline

Purpose of Meeting: To inform the public and City officials of work completed on wastewater treatment facility plan and solicit input and comments on alternatives.

- Background
- Recommended Improvements
- Development and Evaluation of Alternatives

Background – System Overview

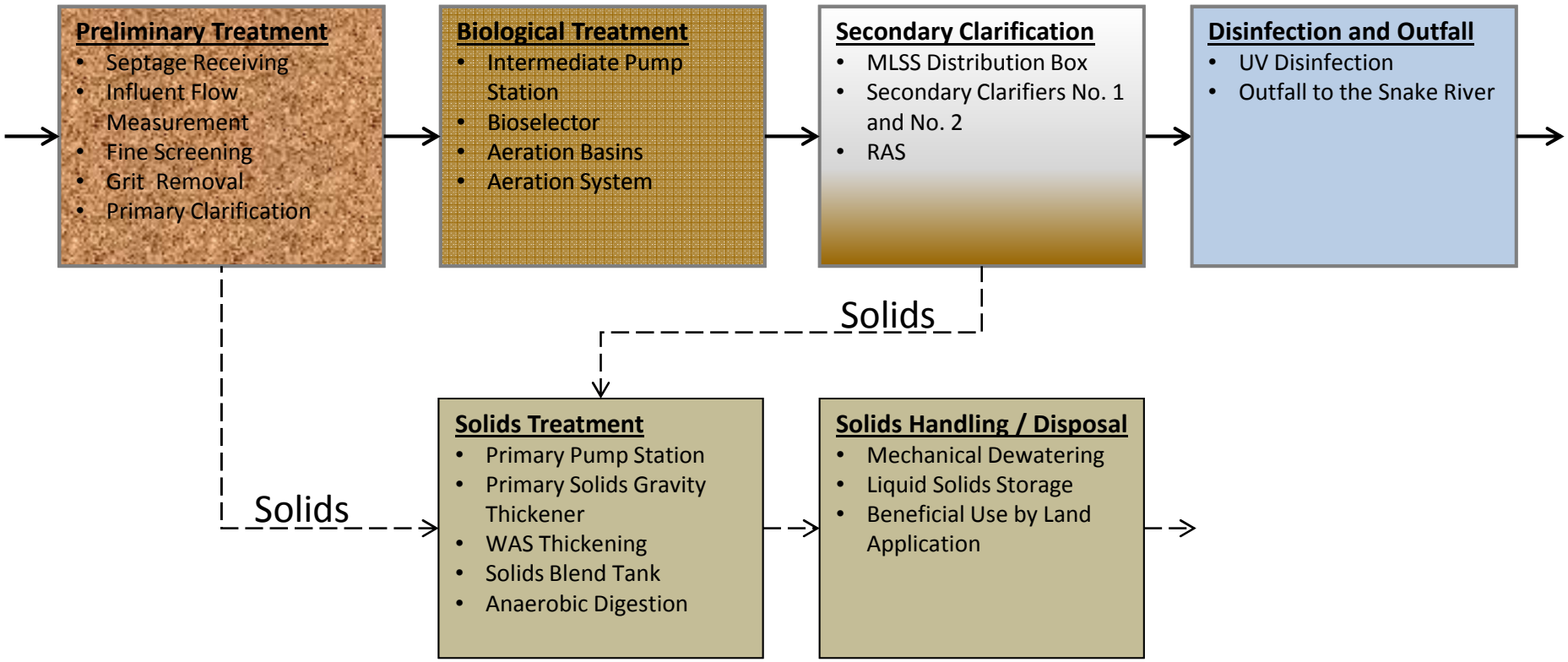
Wastewater is collected from the City of Blackfoot and the Groveland and Moreland Sewer Districts

Wastewater is treated by the City's mechanical treatment plant

Treated wastewater is discharged to the Snake River

J·U·B ENGINEERS, INC.

Treatment Facility Simplified Schematic



J·U·B ENGINEERS, INC.

Background – Timeline Review

1970's

- Facility upgrades to provide secondary treatment
- Most of these processes are still on-line today

1980's

- Additional upgrades to preliminary treatment and solids systems
- Most of these processes are still on-line today

1998

- Previous facility planning effort completed

1998 – 2013

- Various upgrades completed for maintenance and permit compliance

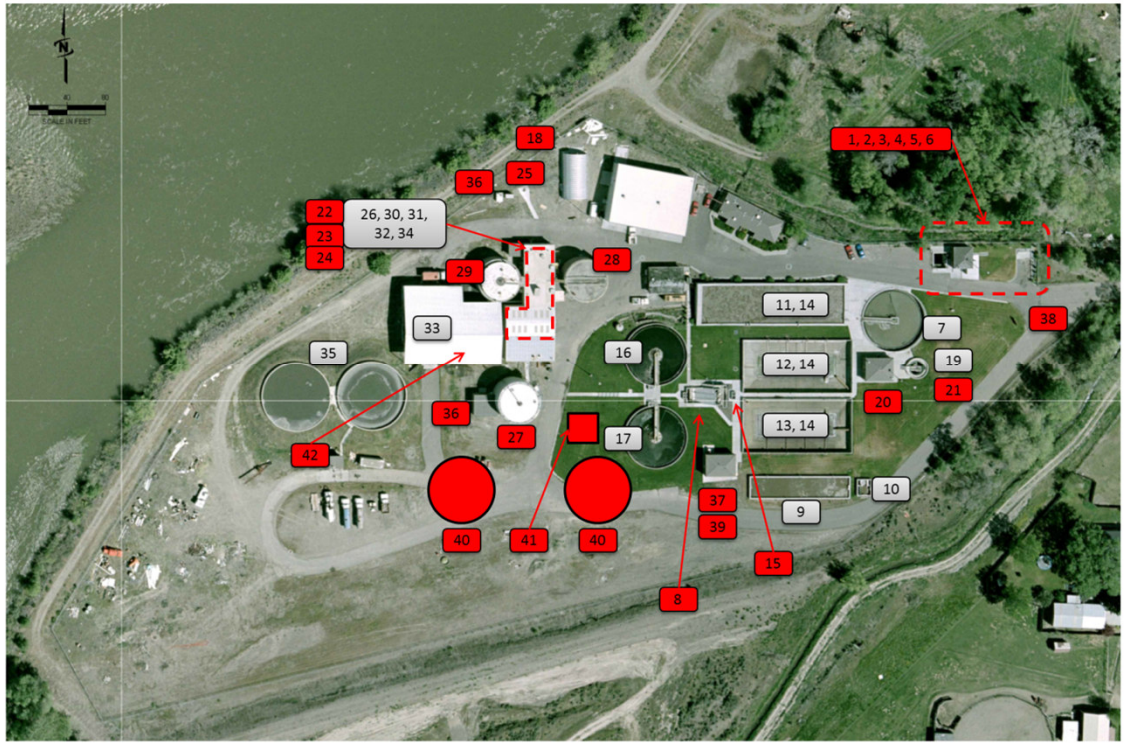
2012 - 2013

- Issues related to reliability, capacity, and operation and maintenance surfaced, including violations of EPA permit requirements
- Water quality studies completed on the Snake River

2013 - 2014

- Facility plan drafted to establish alternatives for addressing deficiencies and meeting more stringent limits set by the newly established EPA discharge permit

Recommended Improvements



Item	Description
1	Influent Flow Meter
2	Step Screen
3	Washer / Compactor
4	Aerated Grit Chamber
5	Grit Pump
6	Grit Classifier
7	Primary Clarifier
8	Screw Pump Station
9	Anaerobic / Anoxic Selectors
10	Distribution Box to Aeration Basins
11	Aeration Basin No. 1
12	Aeration Basin No. 2
13	Aeration Basin No. 3
14	Internal Recycle Pumps
15	Distribution Box to Secondary Clarifiers
16	Secondary Clarifier No. 1
17	Secondary Clarifier No. 2
18	UV Disinfection
19	Primary Clarifier Scum Pit
20	Primary Solids Pump Station
21	Gravity Thickener with New Cover
22	WAS Pumping
23	WAS Thickening
24	Thickened WAS Pumping
25	Solids Blend Tank Recoating and PS re-route
26	Digester Feed Pump
27	Thermophilic Digester
28	Primary Mesophilic Digester
29	Secondary Mesophilic Digester
30	Digested Solids Feed to Dewatering
31	Mechanical Dewatering with Stand-by Unit
32	Solids Conveyor to Storage
33	Dry Solids Storage
34	Digested Solids Feed to Liquid Storage
35	Liquid Solids Storage
36	Digester Gas Flaring / Reuse
37	Blower / Diffuser System
38	Package Septage Receiving Station
39	Chemical Feed System for Phosphorus Removal
40	New Secondary Clarifiers
41	RAS / WAS Pump Station
42	Thermophilic Digested Solids Transfer Pump

Based on:

- Capacity needs
- Permit requirements
- Maintaining existing structures and processes throughout the entire 50+ year life

Assumes a 20 year planning period

J·U·B ENGINEERS, INC.

Alternatives Evaluated

Alternative 1	No action
Alternative 2	Address critically overloaded components only
Alternative 3	Address critically overloaded components and probable permit violations
Alternative 4	Upgrade all components with noted deficiencies

Alternative 1 – No Action

Description

- No improvements would be made during the 20-year planning period

Pros

- No capital expenditure

Cons

- The facility would not be able to support community growth due to limited capacity
- Permit violations would be likely with potential fines from EPA
- O&M costs would increase
- Existing facilities would continue to degrade

Alternative 2 – Address Critically Overloaded Components Only

Description

- Upgrade components that will be overloaded during the 20-year planning period
- Upgrades or modifications to the following: influent fine screening and grit removal, intermediate pump station, blower/diffused aeration system, Secondary Clarifier No. 3, RAS/WAS tie-in, UV disinfection system, WAS thickening, and solids blend tank

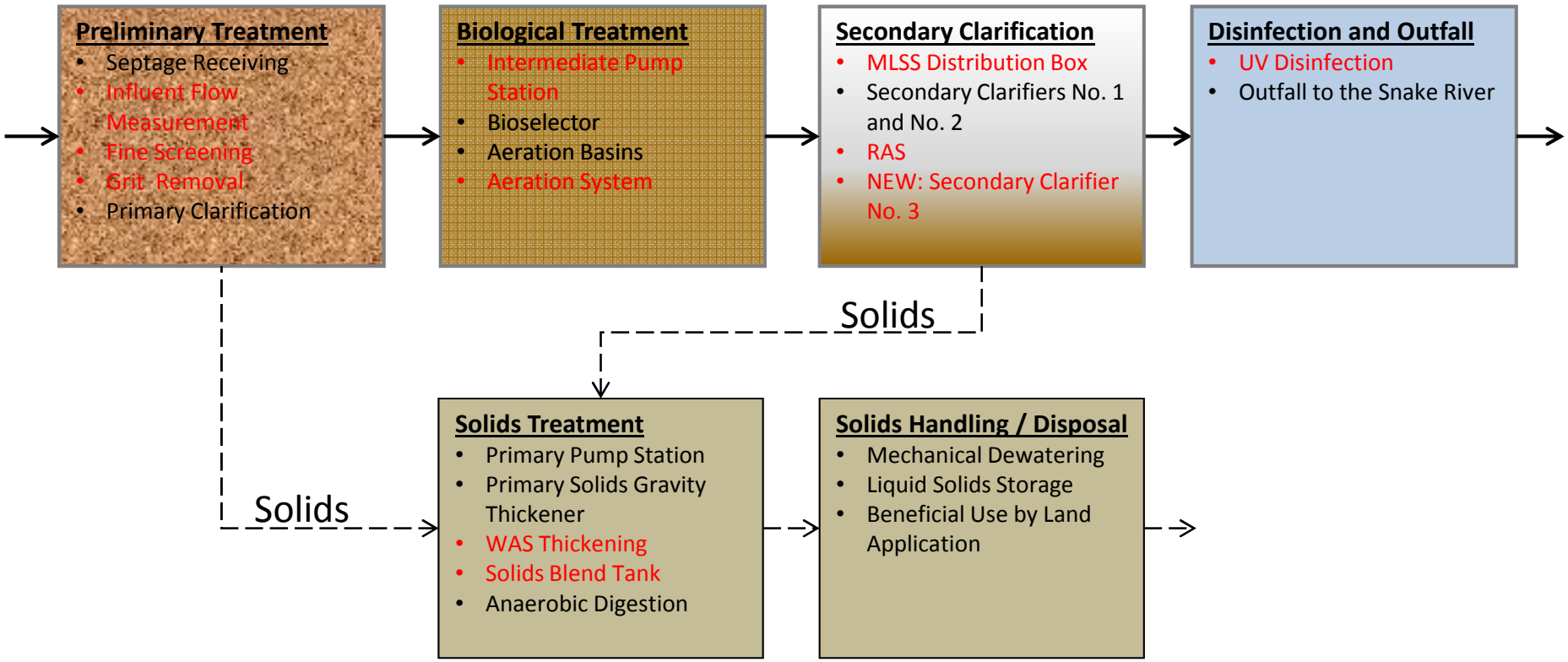
Pros

- Provides increased capacity for existing and future flows in Preliminary Treatment
- Adds secondary clarifier redundancy for today's flows
- Lowest capital cost (except for No Action Alternative 1)

Cons

- Limited redundancy for secondary clarification at future flows
- No redundancy for phosphorus compliance
- Does not address all noted deficiencies (e.g., operation or safety improvements)

Alternative 2
Simplified Schematic



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Alternative 3 – Address Critically Overloaded Components and Probable Permit Violations

Description

- Upgrade components that will be overloaded during the 20-year planning period, and improvements that would improve the facility's ability to satisfy permit conditions
- Upgrades included in Alternative 2 plus upgrades or modifications to the following: septage receiving station, chemical feed system, addition of Secondary Clarifier No. 4, building expansion and improvements for UV disinfection system, solids transfer pump, digester upgrades, iron sponge scrubber and gas storage, and solids return line from liquid solids storage

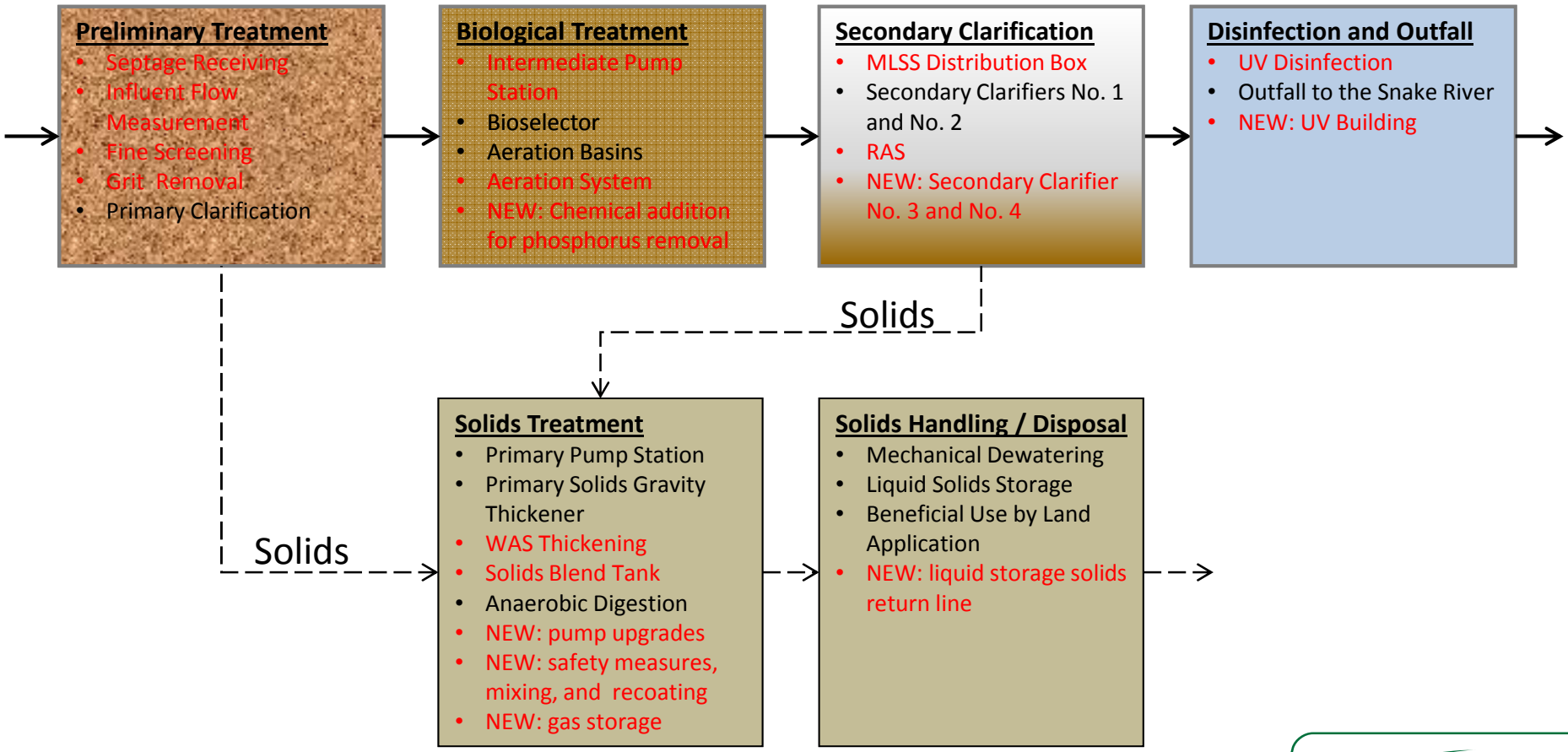
Pros

- Provides increased capacity for existing and future flows in Preliminary Treatment
- Adds secondary clarifier redundancy and improved operations through 20-year planning period
- Adds redundancy for phosphorus compliance, which reduces risk of permit violations

Cons

- Does not address all noted deficiencies (e.g., operation or safety improvements)

Alternative 3
Simplified Schematic



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Alternative 4 – Upgrade All Components with Noted Deficiencies

Description

- Address all components identified with operational or capacity deficiencies within the 20-year planning period
- Upgrades included in Alternatives 2 and 3 plus upgrades or modifications to the following: odor control at headworks, primary solids pumps, covering the gravity thickener, RAS/WAS pump station, and addition of a redundant screw press

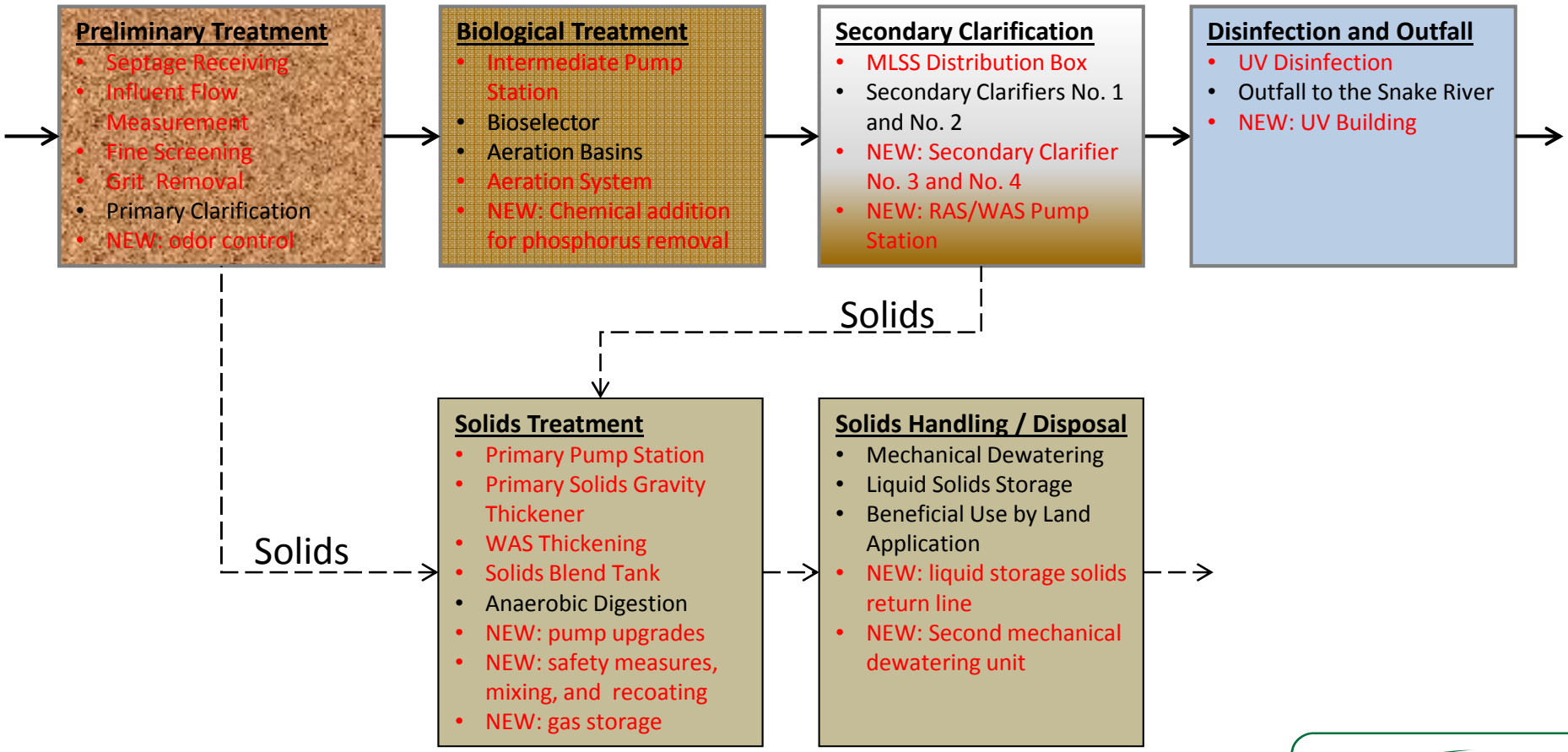
Pros

- Provides increased capacity for existing and future flows in Preliminary Treatment
- Adds secondary clarifier redundancy and improved operations through 20-year planning period
- Adds redundancy for phosphorus compliance, which reduces risk of permit violations
- Addresses other noted deficiencies throughout the plant

Cons

- Highest capital cost

Alternative 4
Simplified Schematic



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Alternative Screening

- Alternatives were screened for the following:
  - Life cycle costs
  - Environmental criteria
  - Operations and redundancy
- Details are provided in Chapter 7 of Facility Plan

Life Cycle Costs - Summary

Alternative	Capital Cost (2013 Dollars)	Present Worth O&M Costs (2013 Dollars)	Total Present Worth (2013 Dollars)
Alternative 1 – No-Action Alternative	$-	No Change from Existing	$-
Alternative 2 – Address Critically Overloaded Components Only	$7,889,000	$541,000 (Above Existing Conditions)	$8,430,000
Monthly Cost per EDU (no grant funding) [(a)]	$5.11 to $6.13	$0.35 to $0.42	$5.46 to $6.55
Monthly Cost per EDU (including $315,000 Community Development Block Grant) [(a)]	$4.91 to $5.89	$0.35 to $0.42	$5.26 to $6.31
Alternative 3 – Address Overloaded Components and Probable Permit Violations	$15,935,000	$3,439,000 (Above Existing Conditions)	$19,374,000
Monthly Cost per EDU (no grant funding) [(a)]	$10.33 to $12.39	$2.23 to $2.67	$12.56 to $15.06
Monthly Cost per EDU (including $315,000 Community Development Block Grant) [(a)]	$10.12 to $12.15	$2.23 to $2.67	$12.35 to $14.82
Alternative 4 – Upgrade All Components with Noted Deficiencies	$19,706,000	$4,644,000 (Above Existing Conditions)	$24,350,000
Monthly Cost per EDU (no grant funding) [(a)]	$12.77 to $15.32	$3.01 to $3.61	$15.78 to $18.93
Monthly Cost per EDU (including $315,000 Community Development Block Grant) [(a)]	$12.57 to $15.08	$3.01 to $3.61	$15.58 to $18.69

[(a)] *Based on the following number of connections reported by the City: residential connections – 5,201; church, business, and non-industrial connections – 939 equivalent dwelling units (EDUs); Significant Industrial Users – 1,485 EDUs. Assumes an interest rate between 1.75 and 3.75 percent, and a payback period of 20 years. Grant portion as noted.*

Environmental Criteria

- Climate/Physical Aspects
- Population, Economic, and Social Profile
- Land Use
- Floodplain Development
- Wetlands and Water Quality
- Wild and Scenic Rivers
- Cultural Resources
- Flora and Fauna
- Recreation and Open Space
- Agricultural Lands
- Air Quality
- Energy
- Public Health

Environmental Screening - Summary

Environmental Criteria	Alternative 1: Do Nothing	Alternative 2: Address Critically Overloaded Components Only	Alternative 3: Critically Overloaded and Probable Permit Violations	Alternative 4: Upgrade All Components with Deficiencies
Climate/Physical Aspects (topography/geology/and soils)	Short- and long-term (biosolids)	Short-term impact (construction)	Short-term impact (construction)	Short-term impact (construction)
Population, Economic, and Social Profile	Long-term impact (limited growth)	Short-term improvement (limited growth potential)	Long-term improvement (growth potential)	Long-term improvement (growth potential)
Land Use	None identified	None identified	None identified	None identified
Floodplain Development	None identified	None identified	None identified	None identified
Water Quality	Short- and long-term impact (effluent quality)	Short-term improvement, long-term concern	Long-term improvement (effluent quality)	Long-term improvement (effluent quality)
Wetlands	None identified	None identified	None identified	None identified
Wild & Scenic Rivers	None identified	None identified	None identified	None identified
Cultural Resources	None identified	None identified	None identified	None identified
Flora and Fauna	None identified	Short-term impact (construction)	Short-term impact (construction)	Short-term impact (construction)
Recreation/Open Space	None identified	None identified	None identified	None identified
Agricultural Lands	None identified	None identified	None identified	None identified
Air Quality	Long-term impact (gas emissions)	Short-term impact (construction) Long-term impact (gas emissions)	Short-term impact (construction) Long-term improvement (reduced gas emissions)	Short-term impact (construction) Long-term improvement (reduced gas emissions)
Energy	Long-term impact	Long-term impact	Long-term impact (beneficial gas reuse)	Long-term impact (beneficial gas reuse)
Public Health	Long-term impact	Short-term improvement, long-term concern	Long-term improvement (water quality)	Long-term improvement (water quality)

Alternative Summary

Criteria	Alternative 1: Do Nothing	Alternative 2: Address Critically Overloaded Components Only	Alternative 3: Critically Overloaded and Probable Permit Violations	Alternative 4: Upgrade All Components with Deficiencies
Life Cycle Cost				
Environmental Impact				
Operations and Redundancy				

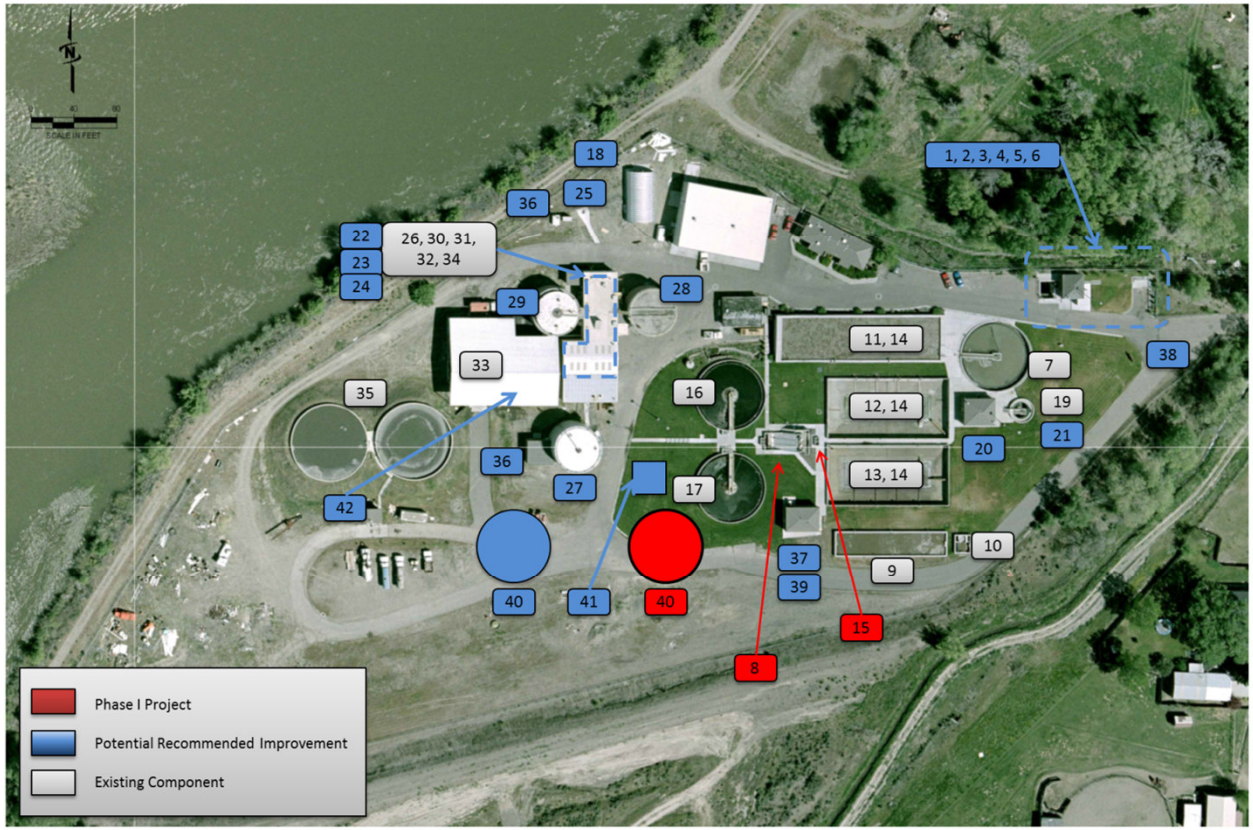
J·U·B ENGINEERS, INC.

Next Steps

- Address public comments on the alternatives
- City to select the preferred alternative
- Complete an environmental review of the preferred alternative with the Idaho Department of Environmental Quality and related agencies
- Develop a phasing plan for the improvements
- Implement improvements as needed to maintain adequate capacity and treatment levels to protect water quality
  - Phase 1 in 2014/2015

Phase 1 Upgrades
(Included in Alternatives 2, 3, and 4)

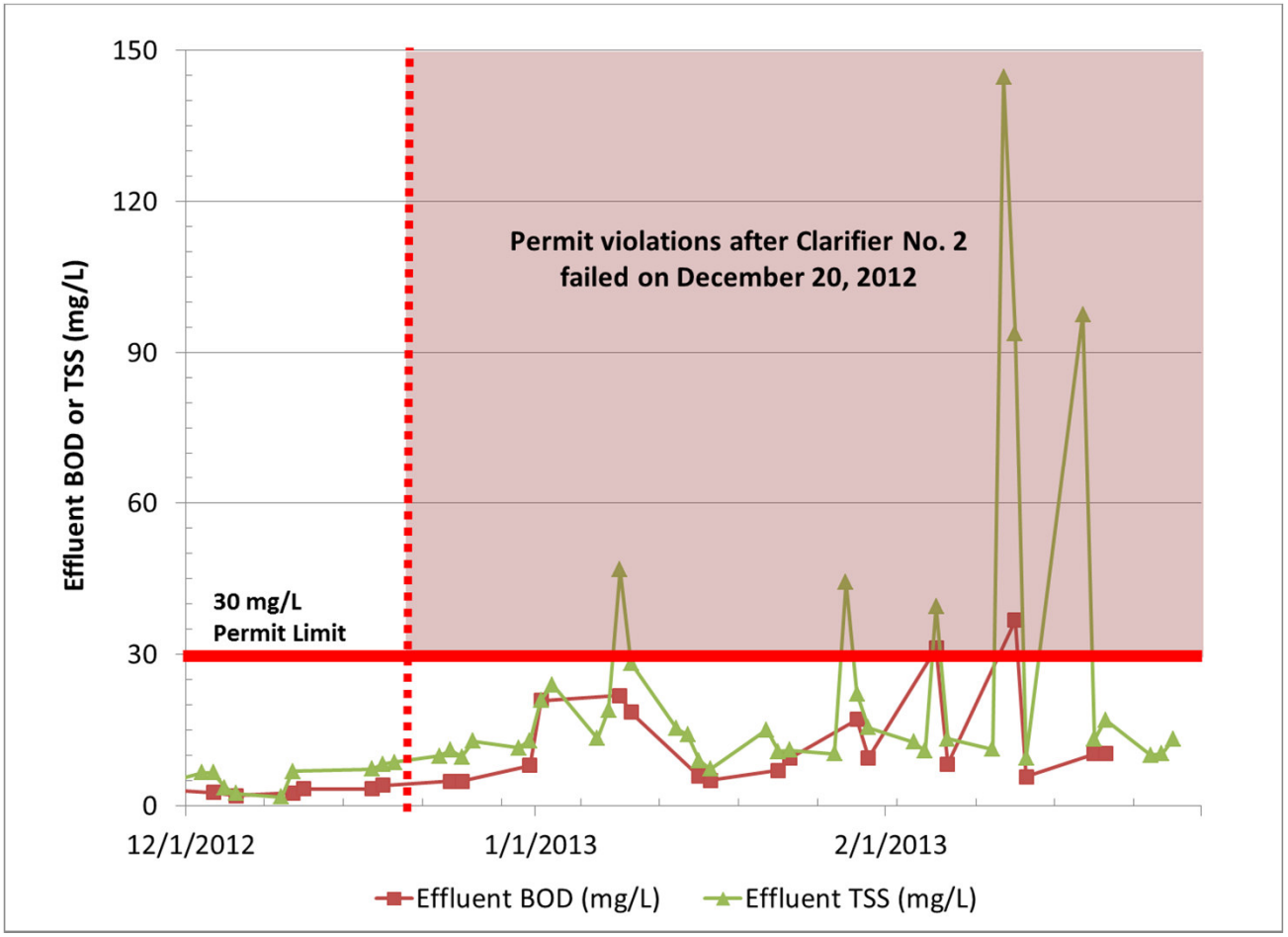
Facility Plan List of Recommended Improvements | Proposed Phase I Upgrades for 2014 / 2015



Item	Description
1	Influent Flow Meter
2	Step Screen
3	Washer / Compactor
4	Aerated Grit Chamber
5	Grit Pump
6	Grit Classifier
7	Primary Clarifier
8	Intermediate Pump Station
9	Anaerobic / Anoxic Selectors
10	Distribution Box to Aeration Basins
11	Aeration Basin No. 1
12	Aeration Basin No. 2
13	Aeration Basin No. 3
14	Internal Recycle Pumps
15	Distribution Box to Secondary Clarifiers
16	Secondary Clarifier No. 1
17	Secondary Clarifier No. 2
18	UV Disinfection
19	Primary Clarifier Scum Pit
20	Primary Solids Pump Station
21	Gravity Thickener with New Cover
22	WAS Pumping
23	WAS Thickening
24	Thickened WAS Pumping
25	Solids Blend Tank Recoating and PS re-route
26	Digester Feed Pump
27	Thermophilic Digester
28	Primary Mesophilic Digester
29	Secondary Mesophilic Digester
30	Digested Solids Feed to Dewatering
31	Mechanical Dewatering with Stand-by Unit
32	Solids Conveyor to Storage
33	Dry Solids Storage
34	Digested Solids Feed to Liquid Storage
35	Liquid Solids Storage
36	Digester Gas Flaring / Reuse
37	Blower / Diffuser System
38	Package Septage Receiving Station
39	Chemical Feed System for Phosphorus Removal
40	New Secondary Clarifier No. 3 and No. 4
41	RAS / WAS Pump Station
42	Thermophilic Digested Solids Transfer Pump

J·U·B ENGINEERS, INC.

Phase 1 Upgrade Justification



J·U·B ENGINEERS, INC.

Any Comments or Questions?

- Sign-in on the Attendee List.
- Comment/Question forms available at sign-in table.

Alan Giesbrecht, P.E.
J-U-B ENGINEERS, Inc.
Pocatello, ID

Blackfoot City Council Meeting Minutes

March 4, 2014

BLACKFOOT CITY COUNCIL MEETING
MARCH 04, 2014
7:00 P.M.

Mayor Paul Loomis welcomed those in attendance and invited everyone to join him in the Pledge of Allegiance. Roll call was taken and those in attendance were: Councilman Brown, Councilman Gardner, Councilman Jensen and Councilwoman Simpson.

Mayor Loomis presented the consent agenda which includes the following: Minutes from the 02/04/14 council meeting and payables. Councilwoman Simpson moved to correct the minutes from 02/04/14. There was an incorrect dollar amount for the purchase price of the water rights. Councilwoman Simpson moved to amend the City Council Meeting minutes on 02/04/14 from $950.00 to $900.00 per share and approve the consent agenda. Councilman Jensen seconded. All were in favor.

Mayor Loomis then moved forward to present Josh Hill with a Key to "The City of Blackfoot". He is a native of Blackfoot and attended Blackfoot High School. He currently plays football in the NFL as a tight end for the New Orleans Saints. Mayor Loomis and city employee Carlos Martinez presented Mr. Hill a plaque with the following printed on it:

THIS KEY OF THE CITY OF BLACKFOOT
IS AWARDED TO
JOSH HILL

FOR EXCEPTIONAL ACCOMPLISHMENT AND POSITIVE REPRESENTATION OF OUR COMMUNITY. Your personal sacrifice, hard work, and behavior set you apart as a tremendous role model for all of us to emulate, both young and old. The success you achieve in the NFL is but a testament of the positive influence you will continue to have on others far beyond that venue. You have become a "Favorite Son" of this community; bless you for your service and God's Speed!

Given under my hand this day, 4 March 2014

PAUL M. LOOMIS, Mayor

Mayor Loomis thanked Mr. Hill for his involvement in the community of Blackfoot. This is the first time that a Key to the City has been given. Mr. Hill accepted the award and thanked the community for all their support. He honored his parents for the way they raised him, the good influence they were on him and for their support. He stated he will continue to do the best to make the community proud.

Mayor Loomis recognized Braden and Tracen Mangum for all the work they have accomplished at the animal shelter. They have made some great improvements at the shelter and are outstanding members of the community. Braden was selected as Idaho's top Middle Level youth volunteer in the 2014 Prudential Spirit of Community Award. He will receive an engraved Prudential Spirit of Community silver medallion, a letter from the President of the United States, a $1,000, and a trip to Washington, D.C., in May. He will also be considered for one of ten national awards. Tracen was identified as one of Idaho's Distinguished Finalists for 2014. Mayor Loomis presented them with a pin from the City of Blackfoot. Braden stated it feels really good

to help out the community and it is great to see all the improvements made at the shelter. He expressed his gratitude for being one of those selected for his project.

Mayor Loomis presented the next item; approval of the 2013 Financial Audit. He asked the council if there were any questions about the report. The financial audit was presented to the council in the planning meeting that was held on 2/25/2014. Councilman Jensen moved to accept the audit as presented. Councilman Brown seconded. All were in favor. Mayor Loomis stated the audit was completed without deficiencies. Our procedures in the city are in good shape. We still have financial challenges and we will continue to do so. We will continue to make tough budget decisions to keep Blackfoot on good financial footing

Mayor Loomis continued with the next item on the agenda; the Proposed Smoke Free Park Ordinance. He welcomed any comments from the public. Tracy Lambson with the Southeastern Idaho Public Health Department was representing Blackfoot Independence High School. She reviewed points from previous meetings and encouraged them to endorse a smoke free park or designate a smoking area. Mayor Loomis opened it up for discussion, inviting the patrons to participate in the discussion. Councilman Jensen reviewed past discussions. He stated it had been tabled and the council gave directions to form a committee to research the options of where to place cigarette dispensers and decide what area needed to be designated as nonsmoking. He informed the council that it is already a city ordinance; it only needs to address designation areas in which patrons can smoke and by placing signage and cigarette butt receptacles. Attorney Dan Acevedo explained the difference between a misdemeanor charge and an infraction in the proposed ordinance. The proposal clarifies the current ordinance and gives it some teeth. Councilwoman Simpson said she wasn't comfortable with the proposed misdemeanor penalty and felt like it is a little harsh and it will be hard to enforce. The Council discussed whether it should be a misdemeanor or an infraction of a $100.00 fine. Attorney Dan Acevedo informed the council that he will need to change the ordinance. Councilman Brown moved to adopt Ordinance No. 2119 as an infraction with a $100 fine plus applicable court costs vs. a misdemeanor with a $300 fine and waive all readings. Councilman Gardner seconded. On a roll call vote:

Councilman Brown	-	Yes
Councilman Gardner	-	Yes
Councilman Jensen	-	Yes
Councilwoman Simpson	-	Yes

ORDINANCE NO. 2119

AN ORDINANCE OF THE CITY OF BLACKFOOT, IDAHO, AMENDING CHAPTER 8 OF TITLE 8 REGARDING SMOKING REGULATIONS IN CITY PARKS BY REPLACING THE OLD SECTION 8-8-1(l) AND REPLACING IT WITH A NEW SECTION 8-8-1(L); PROVIDING FOR THE EFFECTIVE DATE OF SAID CHANGE.

BE IT ORDAINED BY THE MAYOR AND THE CITY COUNCIL OF THE CITY OF BLACKFOOT, IDAHO AS FOLLOWS:

SECTION 1: That Section 8-8-1(L) be stricken in its entirety and replaced with the following new Section 8-8-1(L) as follows:

Smoking tobacco products shall be prohibited in all City parks. Notwithstanding the foregoing prohibition of smoking tobacco in all City parks, the City Council may, by resolution duly passed at a City Council Meeting, designate that smoking tobacco products may be allowed in specific designated smoking areas in one or more City parks. Such areas shall be designated by clearly visible signage. In the event that the City Council designates such an area, smoking tobacco products shall be limited to the designated area. Smoking tobacco products in any area of a City park not designated as a smoking area shall be prohibited. Any person who pleads guilty or is found guilty of violating this ordinance shall be guilty of an infraction with a set fine of $100.00 plus applicable court cost.

SECTION 2: This Ordinance shall be in full force and effect from and after its passage and the publication.

PASSED AND APPROVED by the Mayor and City Council this 4th day of March, 2014.

CITY OF BLACKFOOT, IDAHO

By: _____
Paul Loomis, Mayor

ATTEST: _____
Suzanne McNeel, City Clerk

The council discussed what needed to be done to implement this ordinance including: signage, smoke receptacles, etc. and where to designate smoking areas. Councilman Jensen moved to approve a resolution to designate four parking lots as smoking areas and post signage as soon as possible (Soccer & Baseball Complex parking lots, Veteran's and Jensen Grove parking lots). Councilman Brown seconded. All were in favor.

Mayor Loomis presented an agreement to accept Gerry Bates as the Community Forestry Advisor for the City of Blackfoot as a representative of the State of Idaho. Councilwoman Simpson questioned what the purpose was of establishing a forestry department in the City. Mayor Loomis stated having a forestry department within our parks department gives us an opportunity for technical support and will fulfill the requirements for the Tree USA designation. Councilwoman Simpson moved to accept the contract with Gerry Bates as a forestry adviser and authorize the Mayor to sign the contract. Councilman Gardner seconded. All were in favor.

Mayor Loomis then proposed two new members to the Transportation Commission Board. He nominated Mr. Curtis Cannon, a local businessman, and Mr. Hal Silizly, Principal of Stalker Elementary. They meet monthly and help monitor traffic flows, street safety, and traffic concerns in the City. At the last meeting they discussed in depth the cross walk at the Blackfoot High School

where an accident occurred. They are looking at ways to make the crossing safer with flashing lights and signage. Councilman Jensen explained the Transportation Commission Board reviews citizens concerns, safety issues, speed limits, new developments ingresses and egresses, works closely with developers and city officials to make sure all concerns are addressed and then if needed make recommendations to the City Council. Councilwoman Simpson moved to ratify the two members that Mayor Loomis has recommended for the Transportation Commission Board. Councilman Brown seconded. All were in favor.

Attorney Acevedo presented the proposed ordinance changing the City Seal. He identified the proposed changes and presented the old and new seal for the council and patrons to view. Councilman Brown moved to approve Ordinance No. 2120 changing the seal of the City of Blackfoot, Idaho as proposed and the ordinance changes as outlined and waive all readings. Councilwoman Simpson seconded. On a roll call vote:

Councilman Brown	-	Yes
Councilman Gardner	-	Yes
Councilman Jensen	-	Yes
Councilman Simpson	-	Yes

ORDINANCE NO. 2120

AN ORDINANCE OF THE CITY OF BLACKFOOT, IDAHO, AMENDING 1-5-2 REGARDING THE CORPORATE SEAL; PROVIDING FOR THE EFFECTIVE DATE OF SAID CHANGE.

BE IT ORDAINED BY THE MAYOR AND THE CITY COUNCIL OF THE CITY OF BLACKFOOT, IDAHO AS FOLLOWS:

SECTION 1: That Section 1-5-2 of the Blackfoot City Code be amended as follows:

Chapter 5
OFFICIAL AND CORPORATE PROVISIONS

1-5-1: ORDER CREATING MUNICIPALITY:
1-5-2: CORPORATE SEAL:
1-5-3: OFFICIAL NEWSPAPER:

1-5-1: ORDER CREATING MUNICIPALITY:

The municipality known as the City of Blackfoot hereby is recognized as being created on January 17, 1901, under the laws of the state, and hereinafter shall be known as the City of Blackfoot. (2003 Code § 1-03-01)

1-5-2: CORPORATE SEAL:

A. Design:

1. The corporate seal of the City of Blackfoot, Bingham County, Idaho, shall be circular in form with inner circle of solid silver band design and outer circle of rope design. Within the circle are three (3) silver stars over the image of an eagle. Under the eagle are the words, "BINGHAM COUNTY, IDAHO". The words, " GREAT SEAL OF THE CITY OF BLACKFOOT ", appear in a circular pattern in silver color with blue background between the outer circle of rope design and the inner circle of solid silver band. At the bottom of the seal is a ribbon and the following, "Incorporated1901".

2. A facsimile of the above described seal is as follows:

(2003 Code § 1-05-01)

B. Adoption of Seal: The seal described in subsection A of this section hereby is adopted as the corporate seal of the City of Blackfoot, Bingham County, Idaho. (2003 Code § 1-05-02)

C. City Clerk Custodian of Seal: The city clerk shall be the custodian of the corporate seal of the city and shall affix said seal's imprint upon all official documents, records and licenses. (2003 Code § 1-05-03)

1-5-3: OFFICIAL NEWSPAPER:

The Morning News, a daily newspaper published at and within the city, hereby is designated and appointed as the official newspaper of the city. (2003 Code § 1-20-01)

SECTION 2: That the effective date of this Ordinance shall be the 4th day of March, 2014.

PASSED AND APPROVED by the Mayor and City Council this 4th day of March, 2014.

CITY OF BLACKFOOT, IDAHO

By: _____
Paul Loomis, Mayor

ATTEST: _____
Suzanne McNeel, City Clerk

Attorney Acevedo reported on the proposed water right purchase contract. Mr. Acevedo and Councilman Brown researched the seller of the rights and they came to the same conclusion that the water rights are solid ones from 1987, also dating back to about 1950-1960. Councilman Jensen also stated they were for ground water and not just surface water. Mr. Acevedo presented the contract to the council to authorize the Mayor to sign the contract to purchase the water rights for $900 an acre ft., $90,000 total with a refundable down payment of $4,500. Councilman Brown stated this is a lengthy process and could take time to complete. Councilman Brown moved to approve the water rights purchase contract and authorize Mayor Loomis to sign it. Councilman Jensen seconded. All were in favor.

Mayor Loomis then suspended the City Council Meeting and opened a public hearing concerning the Waste Water Treatment Plant facility plans and turned the time over to Wastewater Treatment Plant Superintendant Rex Moffat. Mr. Moffat introduced Alan Giesbrecht, P.E. at J-U-B Engineering, Inc. from Pocatello, Idaho who is the engineer on the project for the facility plan. Mr. Giesrecht did a presentation to the public about the Wastewater Treatment Facility Plan as follows:

The purpose of meeting is to inform the public and City officials of work completed on the wastewater treatment facility plan and solicit input and comments on alternatives.

- Background - System Overview
- Treatment - Facility Simplified Schematic
- Background - Timeline Review
- Recommended Improvements

Alternatives Evaluated:

1. No Action

2. Address critically overloaded components only
3. Address critically overloaded components and probable permit violations
4. Upgrade all components with noted deficiencies

Alternative screening:

- Alternatives were screened for the following:
    a. Life cycle costs - summary
    b. Environmental criteria
    c. Operations and redundancy
- Environmental screening - summary
- Alternative summary
- Next Steps
    a. Address public comments on the alternatives
    b. City to select the preferred alternative
    c. Complete an environmental review of the preferred alternative with Idaho Department of Environmental quality and related agencies
    d. Develop a phasing plan for the improvements
    e. Implement improvements as needed to maintain adequate capacity and treatment levels to protect water quality

Mr. Giesbrecht encouraged the patrons to give written comments or ask questions and they would address those questions or comments regarding the facilities plan alternatives. Mayor Loomis reviewed the process the city has taken up to this point including the judicial review to proceed with bidding, planning and construction of a new clarifier. Before we can do that we need to approve one of the alternatives that have been presented and out of that come the environmental documents. Once the environmental documents are completed then we can proceed with getting a loan or a bond to do the clarifier. This is part of the administrative process. He stated once we identify an alternative and the environmental document is completed, it is good for five years. Mayor Loomis stated it is a twenty year plan, but if we do not accomplishment everything in the alternative within the five years, we will have to go back and do the environmental document again. He suggested the council pick an alternative that gives us enough room to look ahead and accomplish everything we need to in that five year period. There was a discussion regarding when the clarifier went down and the fines the City could be assessed from the EPA. Councilman Brown encouraged the city to be more proactive and would like to see the rates increase slowly. Councilman Gardner discussed the current rates and the proposed rate structure for the next five years that will take care of the clarifier and other issues. Councilman Jensen asked the question: is option 3 the one that we can all live with whereas option 4 will allow us to pick and choose the things we need to do. If option 4 is chosen it gives the flexibility to choose which items need to be done from the capital improvement plan but does not lock us into anything. Mayor Loomis asked if there was an additional cost for option 3 over option 4. Mr. Giesbrecht stated the cost was the same for all options. He said the only reason you would not want to choose option 4 was if there was something you definitely did not want to do in it. They then discussed what was included in each option. Mayor Loomis asked Mr. Moffat if there was anything that the city would not want to do in option 4. He stated there is nothing in option No. 4 that we would not want to do.

Audrey Stanfield, Blackfoot, ID, shared her concerns about approving option 4 on a twenty year plan. Will this decision affect future councils? What if twenty years down the road the council

members are not as conservative? So if you choose something greater than what we can afford it could put us in peril from future councilmen that don't think the way you think. She also shared concerns about the patrons that are on the circuit breaker program or are living on reduced incomes.

Councilman Jensen stated costs continue to go up to operate our facilities and the EPA is getting stricter with their requirements, but in reality our city needs to continue to provide this service. It is necessary that we stay within their guidelines. Mayor Loomis stated we are in a planning process and we need to prepare for the future. Councilman Jensen reiterated that what this council does today does not lock in any future council into the decision we make today. Councilman Brown stated we need to plan more carefully and set the stage by adopting this plan so we can work over the next ten to twenty years at actually picking out those items that are applicable. This is more red tape that we have to cut through for EPA in order for them to allow us to do anything to begin with. So therefore it doesn't make any sense to approve anything other than option 4.

There were no other comments, so Mayor Loomis closed the public hearing and resumed council meeting. Councilman Jensen moved to approve option 4 to be the option to move forward with at this time. Councilwoman Simpson seconded. All were in favor.

Mr. Acevedo presented Resolution No. 327 regarding designated smoking areas in city parks as follows:

RESOLUTION NO. 327

A RESOLUTION OF THE MAYOR AND CITY COUNCIL OF THE CITY OF BLACKFOOT, IDAHO, DESIGNATING AREAS WITHIN CERTAIN CITY PARKS WHERE SMOKING OF TOBACCO PRODUCTS SHALL BE ALLOWED.

THIS RESOLUTION, is made on the date hereinafter set forth by the City Council of the City of Blackfoot, Idaho.

RECITALS

1. WHEREAS the City Council passed Ordinance Number 2119 on March 4, 2014, that prohibits the smoking of tobacco products in City parks except in areas designated by the City Council by specific resolution; and

2. WHEREAS the City Council has identified parks in which to designate approved smoking areas,

NOW THEREFORE BE IT RESOLVED THAT:

1. The parking lots of the following parks shall be designated as areas wherein the smoking of tobacco products shall be allowed pursuant to Ordinance No. 2119, Blackfoot City Code 8-8-1(L): Jensen's Grove Park, Veteran's Memorial Park, the Baseball Complex Park, and the Soccer Complex Park.

2. Appropriate signage shall be installed in the above-reference parks designating smoking

areas and stating the penalty for violation of Blackfoot City Code 8-8-1(L).

PASSED BY THE COUNCIL AND APPROVED BY THE MAYOR this 4th day of March, 2014.

_____
Mayor Paul Loomis

ATTEST:

_____
Suzanne McNeel, City Clerk

Councilman Jensen moved to approve Resolution No. 327 as presented and waive any further readings. Councilman Brown seconded. All were in favor.

Mayor Loomis welcomed the scout that was attending the council meeting.

Councilman Jensen moved to adjourn. Councilman Brown seconded. All were in favor. The meeting adjourned at 8:46 p.m.

City of Blackfoot

_____
Mayor Paul Loomis

Attest:

_____
City Clerk Suzanne McNeel

Public Review Comment/Question Form

City of Blackfoot
Public Review Draft Wastewater Treatment Plant Facility Plan
COMMENT / QUESTION FORM

Please return your comments to City Clerk at March 4, 2014 Public Meeting

Name:	
Address:	
Email:	

City of Blackfoot
c/o J-U-B ENGINEERS, INC.
275 South 5th Ave, Suite 220
Pocatello, ID 83201
asg@jub.com

City of Blackfoot
Public Review Draft Wastewater Treatment Plant Facility Plan
COMMENT / QUESTION FORM

Please return your comments to City Clerk at March 4, 2014 Public Meeting

Name:	
Address:	
Email:	

City of Blackfoot
c/o J-U-B ENGINEERS, INC.
275 South 5th Ave, Suite 220
Pocatello, ID 83201
asg@jub.com