United States
Department of
Agriculture

Forest Service

Draft Supplemental Environmental Impact Statement

July 2023

Crow Creek Pipeline Project

Caribou-Targhee National Forest, Montpelier Ranger District
Bear Lake and Caribou Counties, Idaho, and Lincoln County, Wyoming

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USDA United States Department of Agriculture
Forest Service
Caribou-Targhee National Forest HQ
1405 Hollipark Drive
Idaho Falls, ID 83401
208-557-5900
Fax: 208-557-5827

File Code: 1950
Date: July 14, 2023

Dear Interested Party,

On March 29, 2022, the Caribou-Targhee National Forest (CTNF) withdrew a signed 2019 Final Record of Decision (ROD) which would have approved the Crow Creek Pipeline Project authorizing Lower Valley Energy (LVE), to construct and maintain a new pipeline to provide natural gas to western Wyoming (http://www.fs.usda.gov/project/?project=52624).

The Office of General Council notified the agency on March 18, 2022, that under the Minerals Leasing Act, the United States Forest Service (USFS) did not have the authority to issue a special use authorization when a pipeline crosses more than one jurisdiction of federally managed lands. This authority resided with the Bureau of Land Management (BLM). Given the lack of authority, the USFS withdrew the 2019 ROD to comply with the Minerals Leasing Act and worked with the BLM on how to use the existing environmental analysis to issue a new decision. The USFS has worked with the proponent, LVE, to alter the route to avoid lands managed by the BLM.

The Montpelier Ranger District of the Caribou-Targhee National Forest (CTNF) is inviting comments on the Crow Creek Pipeline Project Draft Supplemental Environmental Impact Statement. The Forest is proposing to issue a Special Use Authorization (SUA) and amendment to the Forest Plan allowing a utility corridor.

This Draft Supplemental Environmental Impact Statement (DSEIS) has been prepared to inform the public and disclose the direct, indirect, and cumulative environmental impacts that would result from the Project which includes the construction of a twelve-inch diameter or less, high-pressure pipeline to provide natural gas to the Afton/Star Valley, Wyoming area that would cross through Bear Lake and Caribou Counties in Idaho and Lincoln County, Wyoming. This pipeline would parallel existing road corridors through Forest Service ownership where feasible. In several locations, the pipeline would be constructed within an Inventoried Roadless Area. The total pipeline length is approximately 49 miles with approximately 18 miles crossing USFS-managed federal land.

The purpose of this proposed action is to provide natural gas to the Afton/Star Valley Wyoming area by pipeline. LVE currently provides natural gas to the Afton/Star Valley area by trucking liquefied natural gas to a central distribution facility located in Star Valley.

The USFS CTNF has prepared this Draft Supplemental Environmental Impact Statement (DSEIS) in response to a revised Application for Transportation and Utility System and Facilities on Federal Lands (Standard Form 299), submitted by LVE on September 14, 2022. This DSEIS has been prepared pursuant with the requirements of the National Environmental Policy Act

(NEPA) and its implementing regulations issued by the Council on Environmental Quality (40 Code of Federal Regulations 1500-1508). The USFS is the lead agency for this SEIS.

This DSEIS only addresses those resources where a change in conditions have occurred and/or need updating since the issuance of the 2019 final EIS.

Reviewers should provide the Forest Service with their comments during the review period of the DSEIS which is 90 days for the proposed amendment. The publication date of the Notice of Availability in the Federal Register is the exclusive means for calculating the comment period for this analysis. This will enable the Forest Service to analyze and respond to the comments at one time and to use information acquired in the preparation of the final EIS, thus avoiding undue delay in the decision making process. The DSEIS is available for review at the Caribou-Targhee Forest Supervisors Office at 1405 Hollipark Drive, Idaho Falls, Idaho; the Montpelier Ranger District Office at 322 N. 4th Street, Montpelier, Idaho 83254; or online at http://www.fs.usda.gov/projects/ctnf/landmanagement/projects.

Additional information regarding this action can be obtained from: Robbert Mickelsen at 208-557-5764 or robbert.mickelsen@usda.gov .

Those wishing to comment should not rely upon dates or timeframe information provided by any other source. It is the responsibility of persons providing comments to submit them by the close of the comment period. The regulations prohibit extending the length of the comment period. Written comments must be submitted to:

ROBBERT MICKELSEN
CROW CREEK PIPELINE PROJECT
1405 HOLLIPARK DR.
IDAHO FALLS, ID, 83401

The office business hours for those submitting hand-delivered comments are: 9:00 AM - 5:00 PM Monday through Friday, excluding holidays.

Electronic comments including attachments may be submitted by email in word (.doc), portable document format (.pdf), rich text format (.rtf), text (.txt), and hypertext markup language (.html) are the preferred method of comment submission. Electronic comments can be submitted via the project's public participation portal at https://www.fs.usda.gov/project/ctnf/?project=63218.

Sincerely,

MELVIN BOLLING
Forest Supervisor

Title: Crow Creek Pipeline Project

Draft Supplemental Environmental Impact Statement

Bear Lake and Caribou Counties, Idaho, and Lincoln County, Wyoming

Lead Agency: USDA, Forest Service

Responsible Official: Mel Bolling, Forest Supervisor

Caribou-Targhee National Forest

1405 Hollipark Drive, Idaho Falls, ID 83401

For information: Robbert Mickelsen, Ecosystem Branch Chief

Caribou-Targhee National Forest and Curlew National Grassland

1405 Hollipark Drive, Idaho Falls, ID 83401

208-557-5900

Abstract: The U.S. Forest Service (USFS), Caribou-Targhee National Forest proposes to create a utility corridor and issue a special use permit for the construction, operation, and maintenance of a new 12-inch or less diameter, high-pressure pipeline to provide natural gas to the Afton/Star Valley, Wyoming area. In several locations in the Project Area, the Project would follow an existing road, which is the dividing feature between two Inventoried Roadless Areas. In other locations, terrain limitations, stream environments, or practicality (shorter route, less disturbance) results in the Project deviating from the road corridor. The total pipeline length would be approximately 49 miles, with approximately 18 miles crossing USFS-managed federal land. Lower Valley Energy will secure easements and/or permits necessary for construction on private and state lands.

EXECUTIVE SUMMARY

INTRODUCTION

On March 29, 2022, the Caribou-Targhee National Forest (CTNF) withdrew a signed 2019 Final Record of Decision (ROD) which would have approved the Crow Creek Pipeline Project authorizing Lower Valley Energy (LVE), to construct and maintain a new pipeline to provide natural gas to western Wyoming (http://www.fs.usda.gov/project/?project=52624).

The Office of General Council notified the agency on March 18, 2022, that under the Minerals Leasing Act, the United States Forest Service (USFS) did not have the authority to issue a special use authorization when a pipeline crosses more than one jurisdiction of federally managed lands. This authority resided with the Bureau of Land Management (BLM). Given the lack of authority, the USFS withdrew the 2019 ROD to comply with the Minerals Leasing Act and worked with the BLM on how to use the existing environmental analysis to issue a new decision. The USFS has worked with the proponent, LVE, to alter the route to avoid lands managed by the BLM.

The USFS CTNF has prepared this Draft Supplemental Environmental Impact Statement (DSEIS) in response to a revised Application for Transportation and Utility System and Facilities on Federal Lands (Standard Form 299), submitted by LVE on September 14, 2022. This DSEIS has been prepared pursuant to the requirements of the National Environmental Policy Act (NEPA) and its implementing regulations issued by the Council on Environmental Quality (40 Code of Federal Regulations 1500-1508). The USFS is the lead agency for this SEIS.

This DSEIS is intended to inform the public and disclose the direct, indirect, and cumulative environmental impacts that would result from the Project which includes the construction, operation and maintenance of a new twelve-inch or less diameter, high-pressure pipeline to provide natural gas to the Afton/Star Valley Wyoming area that would cross through Bear Lake and Caribou Counties in Idaho and Lincoln County, Wyoming.

This DSEIS only addresses those resources where a change in conditions have occurred and/or need updating since the issuance of the 2019 FEIS.

SUMMARY OF THE PROPOSED PROJECT

The proposal is to construct a new twelve-inch or less outside diameter, high-pressure pipeline to provide natural gas to the Afton/Star Valley, Wyoming area. The pipeline would be approximately 49 miles long with approximately 18 miles crossing National Forest System (NFS) lands administered by the CTNF. The pipeline would follow existing roads for approximately 60 percent of its length. However, in other locations, terrain limitations, stream environments, or practicality (shorter route, less disturbance) results in deviating from existing road corridors.

The Project would require the creation of a utility corridor and subsequent Caribou National Forest (CNF) Revised Forest Plan (RFP) Amendment as well as the issuance of a Special Use Authorization (SUA) from the USFS for a pipeline right-of-way (ROW) across NFS lands. Easements would be acquired on private land that would be crossed by the proposed pipeline. Private land would remain under ownership of the title holder, and private property owners would be compensated for the easement. Lower Valley Energy (LVE) would own, operate, and maintain

the proposed pipeline. The ROW and easements would measure 20 feet in width, with the pipeline generally in the center or along the roadway edge.

The proposed pipeline as well as temporary ground disturbance required for construction would be constructed within a temporary 50-foot ROW/easement (25-foot width in wetlands and aquatic influence zones). In general, all movement during construction along the corridor would be using drive and crush vegetation techniques with no blading or clearing of ground for travel purposes. Staging and turning areas would be confined to the temporary ROW. Restoration would be required at the completion of construction to re-contour and re-vegetate disturbed areas in the project corridor. Locations where access by the general public may occur due to project disturbance would be blocked to reduce the possibility of new access to areas, particularly areas within Inventoried Roadless Areas (IRAs) that may be perceived open to travel due to construction disturbance. Some tree removal would be necessary in the IRAs; however, due to the lack of trees in the corridor, this is expected to be minimal.

Project construction would commence as soon as all necessary agency approvals and permits are obtained and all ROW authorizations and easements are secured. Construction of the project would take 9 to 24 months to complete. Generally, construction would occur during times of low flow in the streams and waterways. LVE would inspect the pipeline annually to determine if maintenance is needed. Restoration would be implemented following any maintenance activities that result or require ground disturbance.

PROJECT ALTERNATIVES

This DSEIS addresses only the proposed pipeline alignment (Proposed Action) and the No Action Alternative. The Proposed Action analyzed in this DSEIS consists of the Agency Preferred Alternative identified in the 2019 FEIS (USFS 2019), plus an approximately 0.5-mile reroute on private land developed to avoid crossing land administered by the BLM. Other routes considered and/or analyzed are described in the 2019 FEIS (USFS 2019).

Proposed Action – The Proposed Action route begins along the Williams Gas Company pipeline south of Montpelier, Idaho. The route would extend northeast from US 30 on private land, entering NFS land south of Geneva Summit and US 89. After crossing US 89, the route extends north, mostly following either existing two-track trails/roads and existing and well-established USFS roads until joining the Crow Creek Road (USFS Road 111), which it then parallels until reaching Star Valley, where it crosses private land/follows various roads to the LVE receiving facility in Afton.

No Action Alternative – Under this Alternative, an SUA would not be issued and a pipeline across NFS land would not be built. The existing LVE system would continue to rely on surface transportation of Liquified Natural Gas (LNG) for the foreseeable future.

AGENCY PREFERRED ALTERNATIVE

The Agency Preferred Alternative is the Proposed Action.

ENVIRONMENTALLY PREFERABLE ALTERNATIVE

The No Action Alternative would have the least environmental impacts, although it would not meet the purpose and need to provide reliable natural gas transmission capacity to Afton, Wyoming. Under the No Action Alternative, natural gas would continue to be delivered to the Afton area by truck along highways.

Issues Summary

As mentioned above, the DSEIS only addresses those resources where a change in conditions has either occurred from the 0.50-mile reroute on private land or new information is available and relevant to the impact analysis. Using the comments from the public and other agencies for the 2019 FEIS, the interdisciplinary team developed a list of issues to address. The following three key issues were identified during scoping for this Project but are not being carried forward for analysis in this DSEIS as there has not been a change of conditions or change in impact analysis for these issues and no additional key issues have been identified:

Inventoried Roadless Areas (IRAs): Construction of a pipeline through IRAs would create a visible and physical change to the IRA. The visible impacts would be temporary until the restoration process is complete. The physical impact includes the permanent presence of a pipeline underground through the IRA, and visual markers above ground. Pipeline construction is allowed consistent with the Idaho Roadless Rule and the Idaho Governor's Roadless Commission has been briefed on this project.

Wetlands, Water Resources and Water Quality: The proposed pipeline corridor contains or is adjacent to, 75 wetland or waters of the United States (WOTUS) sites. The proposed pipeline would cross several intermittent or perennial streams, and some canals or ditches with connectivity to WOTUS. It is anticipated that the pipeline would cross these WOTUS sites by boring or by trenching, burying the pipe, and backfilling the trenches. Pipeline construction would potentially introduce silt, sediment, or other contaminants into WOTUS and may destabilize streambanks over the long term, and in disturbed areas uphill of stream corridors.

Soils and Erosion: Construction of the pipeline would disturb soil to approximately 48 inches in depth. When precipitation falls on disturbed soils that have not been stabilized, erosion can occur. Erosion may result in siltation to nearby waters, exposure of the pipe or displacement of large quantities of soil.

All resources potentially impacted by the Project were analyzed in the 2019 FEIS (USFS 2019) and effects to these resources were described in detail in Chapter 3 of the 2019 FEIS. Due to either a resource being impacted by the 0.50-mile reroute on private land or where a change of conditions has occurred or new information has become available since issuance of the 2019 FEIS that would affect the impact analysis already completed, the following resources are analyzed and addressed in this DSEIS:

- Special status plants;
- Special status wildlife; and
- Cultural resources.

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CHAPTER 1 PURPOSE AND NEED FOR ACTION

1.1 INTRODUCTION

On March 29, 2022, the Caribou-Targhee National Forest (CTNF) withdrew a signed 2019 Final Record of Decision (ROD) which would have approved the Crow Creek Pipeline Project authorizing Lower Valley Energy (LVE), to construct and maintain a new pipeline to provide natural gas to western Wyoming (http://www.fs.usda.gov/project/?project=52624).

The Office of General Council notified the agency on March 18, 2022, that under the Minerals Leasing Act, the United States Forest Service (USFS) did not have the authority to issue a special use authorization when a pipeline crosses more than one jurisdiction of federally managed lands. This authority resided with the Bureau of Land Management (BLM). Given the lack of authority, the Forest withdrew the 2019 ROD to comply with the Minerals Leasing Act and worked with the BLM on how to use the existing environmental analysis to issue a new decision. The Forest has worked with the proponent, LVE, to alter the route to avoid lands managed by the BLM.

The USFS CTNF has prepared this Draft Supplemental Environmental Impact Statement (DSEIS) is in response to a revised Application for Transportation and Utility System and Facilities on Federal Lands (Standard Form 299), submitted by LVE on September 14, 2022.

LVE is proposing to construct, operate, and maintain a 12-inch or less outside diameter, high pressure natural gas pipeline within a right-of-way (ROW) between a tie-in at the Williams Gas Company trunk line located south of Montpelier, Idaho and an LVE receiving facility in Afton, Wyoming; and conduct restoration activities associated with construction related disturbance (the Project). The Project would cross National Forest System (NFS) lands managed by the CTNF, state lands owned by Wyoming and Idaho, and private lands. Additionally, the CTNF proposes to amend the Caribou National Forest (CNF) Revised Forest Plan (RFP) to establish a permanent 20-foot-wide utility corridor that would contain the requested ROW and to issue a Special Use Authorization (SUA) for a pipeline to be installed within that corridor across NFS land with a 50-foot construction (temporary) ROW width (25-foot width in wetlands and aquatic influence zones). Due to the extent of NFS lands between Montpelier, Idaho and Afton, Wyoming and limited feasible route options, avoiding the need for crossing NFS lands and subsequently needing an SUA was evaluated, but determined not to be possible.

This DSEIS was prepared in compliance with the National Environmental Policy Act (NEPA) and other relevant federal and state laws and regulations. This DSEIS is intended to inform the public and discloses the direct, indirect, and cumulative impacts that would result from the Proposed Action and alternatives to the Proposed Action. The document is organized into five chapters:

Chapter 1. Purpose and Need for Action: This chapter includes information on the history of the project proposal, the purpose of and need for the project, and the agency's proposal for achieving that purpose and need.

Chapter 2. Alternatives, including the Proposed Action: This chapter provides a more detailed description of the Proposed Action and No Action Alternative. This chapter also includes design features/applicant committed environmental protection measures that would be implemented for the Project and any applicable mitigation measures.

Chapter 3. Affected Environment and Environmental Consequences: This chapter describes the affected environment and environmental effects of implementing the Proposed Action and No Action Alternative for only those resources where a change in condition has either occurred from the 0.50-mile reroute on private land or new information is available and relevant to the impact analysis since the issuance of the 2019 FEIS.

Chapter 4. Consultation and Coordination: This chapter provides a list of preparers and agencies consulted during the development of the DSEIS.

Chapter 5. References, Acronyms, and Glossary: This chapter provides a list of the references cited in the DSEIS, the acronyms used, and a glossary of terms.

Appendix: The appendix provides detailed maps of the Project.

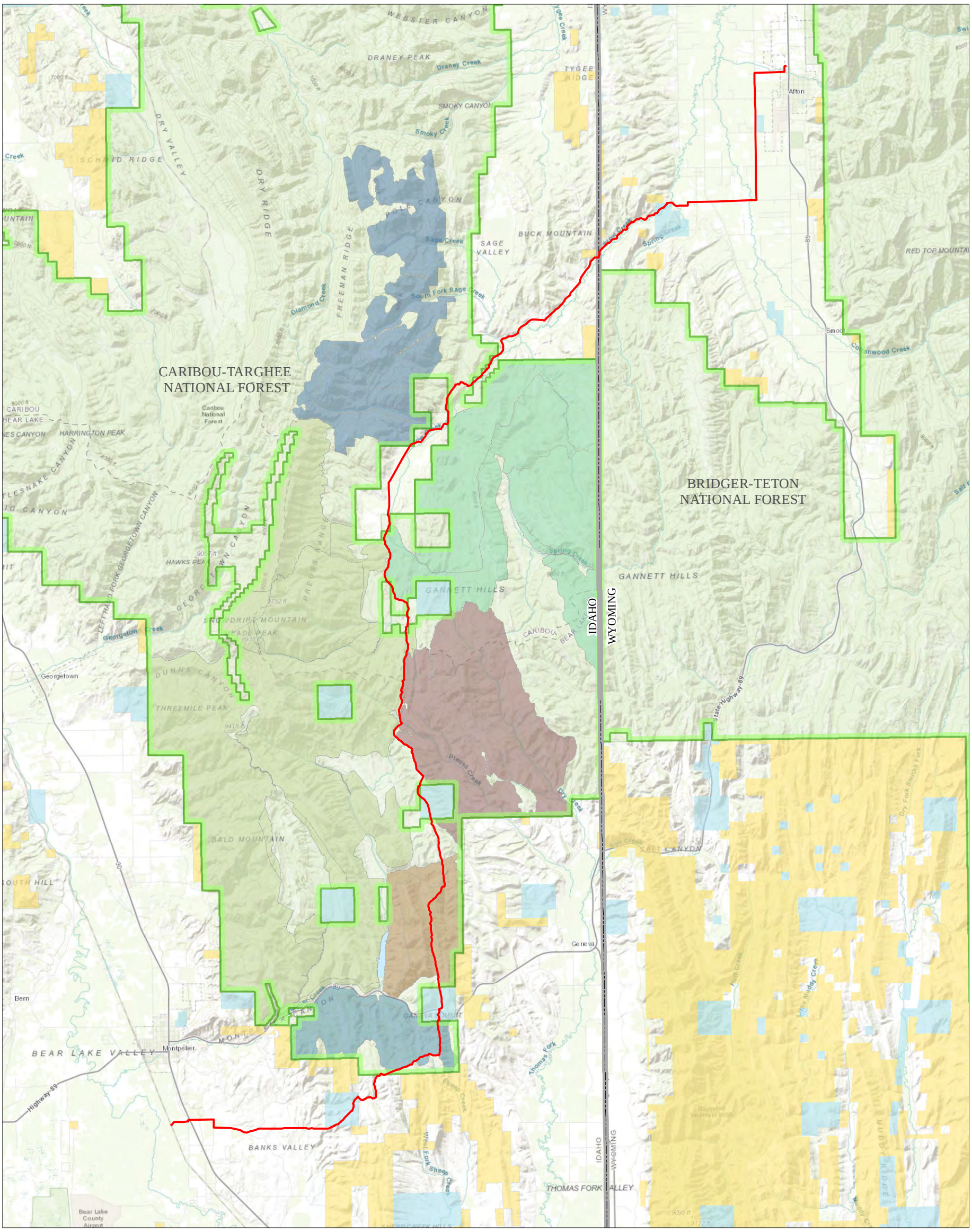
Additional documentation, including the detailed analyses of Project Area resources, may be found in the planning record located at the Caribou-Targhee National Forest Headquarters Office, 1405 Hollipark Drive, Idaho Falls, Idaho 83401.

1.2 BACKGROUND

To meet Afton, Wyoming's natural gas demands, LVE currently purchases and trucks liquified natural gas (LNG) from the Exxon plant in La Barge, Wyoming. Costs for liquification and transportation of LNG have been increasing steadily every year for the past several years. Natural gas delivery to Afton is often unreliable, as during most years the Exxon supplier plant experiences operational problems that can last from a few days to a week. During these periods, the town of Afton has almost run out of gas several times while LVE scrambles to find other, more expensive LNG supplies to maintain service to Afton. A recent cost/benefit study concluded that the construction and operation of a pipeline would result in overall cost savings to LVE customers by eliminating cost associated with liquefication and trucking of natural gas.

1.2.1 Project Area

The Project Area is located in Caribou and Bear Lake counties, Idaho, and Lincoln County, Wyoming, between the towns of Montpelier, Idaho and Afton, Wyoming (**Figure 1.2-1**). The southern terminus of the Project is just south of Montpelier, Idaho, and the northern terminus of the Project Area is in Afton, Wyoming.



Legend

Proposed Pipeline Alignment

Land Status

- Bureau of Land Managment
- Private
- State
- US Forest Service

Inventoried Roadless Area (IRA) in the Vicinity of the Project

- Gannett-Spring Creek
- Hell Hole
- Meade Peak
- Red Mountain
- Sage Creek
- Telephone Draw

Notes
1. Coordinate System: NAD 1983 StatePlane Idaho East FIPS 1101 Feet
2. Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

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Figure 1.2-1
Overview of Proposed Action
Lower Valley Energy
Crow Creek Pipeline Project

1.3 PURPOSE AND NEED FOR ACTION

Under the Council on Environmental Quality (CEQ) Code of Federal Regulations (CFR) for NEPA (40 CFR Section 1502.13), an DSEIS must identify the underlying purpose and need to which the lead agency is responding to in proposing the action and alternative actions.

The purpose of the proposed federal action for the USFS is to evaluate and respond to LVE's revised proposal to construct a natural gas pipeline. The Project would provide infrastructure to transport natural gas from the existing Williams pipeline south of Montpelier, Idaho to Afton, Wyoming. The Crow Creek Pipeline would increase reliability of natural gas supplies to residents in Afton, Wyoming and reduce costs and risk associated with storage, processing, and transportation of LNG. Additionally, because the LNG is presently trucked to Afton, the pipeline would reduce the number of truck miles driven, thereby reducing emissions, diesel consumption, and increase safety by removing trucks carrying flammable materials from the affected highways.

In summary, expected public benefits of the project include: (1) a reliable supply of natural gas to Afton customers, (2) reduced costs for natural gas customers in Afton, and (3) increased safety on highways due to fewer hours on the highway for trucks hauling LNG.

Though LVE intends to maintain and operate the existing LNG storage and vaporization facility as a backup to the pipeline, the main gas supply would be the pipeline. Lower Valley Energy may eventually choose to retire the LNG facility and rely entirely on the pipeline for natural gas supply if conditions warrant.

1.4 PROPOSED ACTION

The Proposed Action to meet the purpose and need is to issue a SUA for a pipeline to be installed across NFS land with a 50-foot construction (temporary) ROW width (25-foot construction (temporary) width in wetlands and aquatic influence zones), a 20-foot-wide permanent ROW, and to establish a 20-foot wide utility corridor for the permanent ROW. The pipeline would also be installed on non-NFS lands where a SUA from the USFS would not be required, but other authorizations/approvals would need to be obtained by LVE.

1.5 AUTHORIZING ACTIONS AND DECISION FRAMEWORK

The Project Area contains NFS lands, Idaho state endowment trust land administered by the Idaho Department of Lands (IDL), land administered by the state of Wyoming, and private land. State land and private land are discussed to provide the responsible official(s) with a complete picture of the potential impacts of the Project. However, as explained in below in **Section 1.5.1**, the decisions being made only apply to NFS lands administered by the USFS as the USFS has no authority over non-NFS lands that are part of the Project.

1.5.1 USFS Decisions

The responsible official for the USFS, which is the CTNF Forest Supervisor, would be responsible for the issuance and approval of any SUAs needed for pipeline construction and maintenance located within the CTNF as well as the RFP Amendment for the creation of a utility corridor through the CTNF and within IRAs, including whether and how to authorize these operations. No modifications to Inventoried Roadless Area (IRA) boundaries would be required as part of the

Project, nor would access roads be constructed, either for construction or maintenance of the pipeline.

The CTNF Forest Supervisor will review the environmental consequences in this DSEIS and make the following decisions applicable only on NFS lands:

- Authorize the Project via a SUA construction within a 50-foot-wide construction ROW (25-foot width in wetlands and aquatic influence zones); and operation and maintenance within a 20-foot-wide permanent ROW of the proposed 12--inch or less outside diameter, natural gas pipeline across NFS land. Project design features, mitigation measures, and monitoring would be required to reduce impacts to NFS lands and to restore areas disturbed during construction of the pipeline. (No temporary roads would be constructed for construction access on NFS lands); and
- Amend the CNF RFP to establish a 20-foot-wide utility corridor (corresponding with the Project's permanent ROW) within the CTNF and IRA lands; or
- Not authorize and issue a SUA for the Project.

1.5.2 Applicable Permits, Approvals, and Consultation

Table 1.5-1 lists the major permits, approvals, and consultation potentially required for the Project.

Table 1.5-1 Major Permits, Approvals, and Consultation Potentially Required for the Project

PERMIT/ CONSULTATION/ APPROVAL NAME	NATURE OF PERMIT ACTION	APPLICABLE PROJECT COMPONENT	STATUS OF PERMIT OR APPROVAL ACTION
U.S. FOREST SERVICE			
Special Use Authorization	Surface disturbance on NFS lands	Use and Occupancy of NFS lands for pipeline	Pending after ROD
Revised Forest Plan (RFP) Amendment	Amend RFP to include utility corridor for the pipeline project	Use of NFS lands for installation and maintenance of natural gas pipeline	Approved with the signing of the ROD
IDAHO STATE HISTORIC PRESERVATION OFFICE			
National Historic Preservation Act Compliance Section 106	Protects cultural and historical resources	All ground-disturbing activities	Idaho State Historic Preservation Office concurrence received on cultural resource site evaluations; consultation complete
WYOMING STATE HISTORIC PRESERVATION OFFICE			
National Historic Preservation Act Compliance Section 106	Protects cultural and historical resources	All ground-disturbing activities	Wyoming State Historic Preservation Office concurrence received on cultural resource site evaluations; consultation complete

PERMIT/ CONSULTATION/ APPROVAL NAME	NATURE OF PERMIT ACTION	APPLICABLE PROJECT COMPONENT	STATUS OF PERMIT OR APPROVAL ACTION
U.S. FISH AND WILDLIFE SERVICE			
Endangered Species Act of 1973 Compliance (Section 7)	Protects threatened and endangered species	All ground-disturbing activities	Biological Assessment (BA) would be prepared for the Agency Preferred Alternative when determined
Migratory Bird Treaty Act	Protects migratory birds	All ground-disturbing and vegetation removing activities	Analysis and mitigation measures presented in 2019 FEIS
Bald and Golden Eagle Protection Act	Protects bald and golden eagles	All ground-disturbing activities	Analysis completed in the 2019 FEIS
U.S. ENVIRONMENTAL PROTECTION AGENCY			
National Pollution Discharge Elimination System Permit	Protects quality of surface water from storm water discharge under the Clean Water Act (CWA)	All ground-disturbing activities	Pending after ROD. Permit must be obtained prior to discharge of storm water.
Spill Prevention Control and Countermeasures Plan	Provides management direction for potential spills	All ground-disturbing activities	Pending after ROD. Must be prepared and implemented prior to beginning operations.
U.S. ARMY CORPS OF ENGINEERS			
Permit to Discharge Dredged or Fill Material (Section 404 Permit applied as a Joint Permit in conjunction with the Idaho Department of Water Resources Stream Channel Alteration Permit and a Wyoming Department of Environmental Quality Clean Water Act 401 certification)	Authorized placement of dredged or fill material in WOTUS, including adjacent wetlands. CWA compliance.	Stream and Wetland Disturbing activities	Already obtained by LVE as no change of conditions to WOTUS have occurred since the 2019 FEIS.
FEDERAL ENERGY REGULATORY COMMISSION			
Natural Gas Act – Section 7(f) authority for a "service area determination"	The Federal Energy Regulatory Commission has responsibilities over all transmission facilities unless they delegate that authority to the States. A service area determination would shift primary oversight and jurisdiction to the Wyoming Public Service Commission and Idaho Public Utilities Commission.	Installation and maintenance of natural gas pipeline	Pending ROD. Service area determination must be obtained and approved before construction.

PERMIT/ CONSULTATION/ APPROVAL NAME	NATURE OF PERMIT ACTION	APPLICABLE PROJECT COMPONENT	STATUS OF PERMIT OR APPROVAL ACTION
SHOSHONE-BANNOCK TRIBES			
Native American Consultation	Government-to-government consultation regarding mitigation of project impacts on treaty rights	All ground-disturbing activities	Ongoing consultation
CARIBOU COUNTY, IDAHO			
Conditional Use Permit	Approval of construction of facilities within an approved land use	All construction and ground-disturbing activities	Pending ROD. Required conditional use permit would be obtained prior to commencement of construction.
BEAR LAKE COUNTY, IDAHO			
Conditional Use Permit	Approval of construction of facilities within an approved land use	All construction and ground-disturbing activities	Pending ROD. Required conditional use permit would be obtained prior to commencement of construction.
LINCOLN COUNTY, WYOMING			
Conditional Use Permit	Approval of construction of facilities within an approved land use	All construction and ground-disturbing activities	Pending ROD. Required conditional use permit would be obtained prior to commencement of construction.
IDAHO DEPARTMENT OF ENVIRONMENTAL QUALITY			
Certification of Water Quality (CWA, 401 Certification)	Protects quality of WOTUS, including adjacent wetlands from discharges	Disturbances of wetlands and/or WOTUS	Pending. Certification must be received prior to approval of a federal permit that may result in discharge to WOTUS, including adjacent wetlands.
IDAHO DEPARTMENT OF WATER RESOURCES			
Stream Channel Alteration Permit(s) applied for as a Joint Permit in conjunction with the USACE Section 404 Permit	Protection of perennial and intermittent stream channels	Stream crossings	Already obtained by LVE as no change of conditions to stream crossings have occurred since the 2019 FEIS.
IDAHO DEPARTMENT OF LANDS			
Easement Across State Land	Easement for pipeline across parts of T9S R46E S36	Pipeline	Pending ROD. Application would be filed to seek approval before construction.
WYOMING OFFICE OF STATE LANDS			
Easement Across State Land	Special use lease for pipeline across parts of 31N 119W S16	Pipeline	Pending ROD. Application would be filed to seek approval before construction.

PERMIT/ CONSULTATION/ APPROVAL NAME	NATURE OF PERMIT ACTION	APPLICABLE PROJECT COMPONENT	STATUS OF PERMIT OR APPROVAL ACTION
WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY			
Clean Water Act 401 Certification applied for in conjunction with the USACE Section 404 permit.	Certifies that instream activities that require a 404 permit from the U.S. Army Corps of Engineers will be in compliance with applicable surface water quality standards	Stream and Wetland Disturbing activities	Pending ROD. Certification must be obtained and approved before construction.
Wyoming Pollution Discharge Elimination System (WYPDES) Large Construction General Permit	Covers stormwater discharges from construction activities that disturb more than 5 acres	All construction and ground-disturbing activities	Pending ROD. Permits must be obtained and approved before construction.
WYPDES Discharge Permit	Covers discharge of any pollutants from a point source	All construction and ground-disturbing activities	Pending ROD. Permits must be obtained and approved before construction.
Turbidity Waiver	Authorizes temporary increases in turbidity above the numeric criteria for a specific activity	Stream and Wetland Disturbing activities	Pending ROD. Permits must be obtained and approved before construction.

1.6 RELATIONSHIP TO AGENCY POLICIES, PLANS, AND REGULATIONS

1.6.1 Caribou National Forest Revised Forest and Travel Plan

Management prescriptions outlined in the CNF RFP have been developed and are applied to specific areas of the NFS lands to attain multiple-use and other goals and objectives. The Project would cross six management prescription areas: Prescription 2.1.2 (b) – Visual Quality Maintenance; Prescription 2.7.1 (d) – Elk and Deer Winter Range, Critical; Prescription 2.7.2 (d) – Elk and Deer Winter Range; Prescription 2.8.3 – Aquatic Influence Zones; Prescription 3.1 (e) – Nonmotorized Recreation and Wildlife Security; and Prescription 6.2 (b) – Rangeland Vegetation Management (USFS 2003a). Prescription 8.1(b) – Concentrated Development Areas applies to all existing concentrated developments including communication sites, utility corridors, and administrative sites. Where the Project would cross prescriptions other than 8.1(b), an amendment to the CNF RFP would be required to change the existing prescription and establish a utility corridor for this Project. No change of conditions since the 2019 FEIS have occurred related to management prescriptions.

Scope and Scale of the Amendment

The scope of this amendment is to change the Forest Plan management prescription to 8.1(b) where a permanent right of way associated with the Project would cross other management prescriptions, as described above. This programmatic amendment would apply to any future management proposals.

The scale of this amendment is a 20-foot-wide corridor covering approximately 44 acres on NFS within the Caribou-Targhee National Forest as displayed on the Figures in **Appendix A**.

Substantive Requirements Likely to be Directly Related to the Amendment

The following Forest Service planning rule provisions likely to be directly related and, therefore, applicable to the Forest Plan amendment. These provisions are as follows:

- 36 CFR 219.8 *Sustainability*, (a)(3) ecological sustainability –riparian areas;
- 36 CFR 219.8 Sustainability, (a)(4) ecological sustainability-Best Management Practices for Water Quality;
- 36 CFR 219.9 *Diversity of plant and animal communities*, (a)(2) ecosystem plan components – ecosystem diversity;
- 36 CFR 219.9 *Diversity of plant and animal communities*, (b)(1) additional, species-specific plan components, specifically components to provide the ecological conditions necessary to contribute to the recovery of federally listed or proposed species;
- 36 CFR 219.10 *Multiple use*, (a)(2), integrated resource management for multiple use, specifically nonrenewable energy resource-natural gas; and
- 36 CFR 219.10 *Multiple use*, (a)(3) appropriate placement and sustainable management of infrastructure, such as recreational facilities and transportation and utility corridors, specifically a utility corridor for a permanent 20-foot right of way.

A forest's Travel Plan and Map identify which roads and trails allow what type of travel and the time of year travel routes are open to use. Individual road and trail management and snow season travel were determined by the Caribou Travel Plan Revision EIS and ROD in 2005. The CTNF Revised Travel Plan restricts motorized travel to designated routes forest-wide.

The Project would utilize existing county and NFS roads for access, and portions of the Project would be parallel to or within the roadway prism. All access to the construction areas outside existing county and NFS roads would generally involve minimal trimming or mowing to allow drive and crush cross-country travel; no new roads would be constructed, either temporary or permanent. No motorized access to the established utility corridor would be permitted following construction. Therefore, the Project would be in conformance with the CTNF Revised Travel Plan.

1.6.2 Inventoried Roadless Areas

Six IRAs are located in the Project Area: Gannett-Spring Creek, Hell Hole, Meade Peak, Red Mountain, Sage Creek, and Telephone Draw. On November 29 and 30, 2006, Idaho Governor James Risch presented a petition for rulemaking under section 553(e) of the Administrative Procedures Act on behalf of the State of Idaho.

No road building is proposed within IRAs or any other part of the Project. Only activities needed to construct the pipeline would occur and the construction areas would be fully reclaimed to original contour and native vegetation. Timber cutting within IRAs would be incidental because the vegetation communities are primarily sagebrush and mountain brush.

No motorized access to the corridor would be permitted following construction. Therefore, the Project would be in compliance with the Idaho Roadless Rule that is in effect. Potential impacts to the IRAs from the Project were analyzed in the 2019 FEIS (USFS 2019) and no change of conditions have occurred since that time.

1.7 PUBLIC SCOPING

A Notice of Intent (NOI) to prepare an EIS was published on January 30, 2018 in the Federal Register (FR) (83 *FR* 4182). Publication of the NOI in the FR initiated a 30-day public scoping period that provided for acceptance of written comments.

A scoping notice was provided to the media in Idaho and Wyoming by a USFS news release, and notices were published in the legal notice sections of the *Idaho State Journal* and *Star Valley Independent* newspapers. Copies of the scoping notice were mailed to parties that expressed previous interest in USFS projects, as well as additional parties that might be interested in the Project (e.g., adjacent landowners and land managers). In addition, scoping information was posted on the USFS project website.

Two public scoping meetings were held, each as an open house forum. The open houses included display boards and handouts illustrating and describing the Project and provided the opportunity to comment on the Project.

A public mailing list was compiled, and scoping letters were sent to federal, state, tribal, and local government agencies, and members of the interested public. During the scoping period, 32 individual comments were received either by mail or electronically. While standardized comment forms were distributed during the public meetings, none were received back with comments.

As a result of the public scoping process, potential issues or resource concerns were identified by the public as potentially affecting: IRAs; transportation; noise; water resources; fisheries and aquatic resources; socioeconomic conditions; reclamation and restoration; wildlife and vegetation; soils; threatened, endangered, and sensitive species; air quality; land use; private property values; recreation resources; visual resources; hazardous materials; cultural resources; and cumulative effects. All of these potential issues or resource concerns were analyzed in the 2019 FEIS (USFS 2019).

The scoping comments were reviewed for relevance to the Project, and those deemed relevant were analyzed in the 2019 FEIS. Detailed information regarding the public scoping process for the Project is provided in the *Crow Creek Pipeline Environmental Impact Statement Scoping Report* (Stantec 2018a).

Additional public scoping for the Project was determined not to be required for the DSEIS, since only those resources where a change in conditions occurred, either from the 0.50-mile reroute on private land or where new information had become available since the issuance of the 2019 FEIS and was relevant to the impact analysis, were carried forward for analysis.

1.8 ISSUES ADDRESSED IN THE EIS

No new key issues not already analyzed in the 2019 FEIS were identified; therefore, only "non-key issues" that are impacted by the 0.50-mile reroute on private land or where a change of conditions occurred, or new information had become available since issuance of the 2019 FEIS that would affect the impact analysis will be addressed in this DSEIS.

The following three key issues were identified during scoping for this Project and were addressed in the 2019 FEIS but are not being carried forward for analysis in this DSEIS as there has not been a change of conditions or new information that would result in a change in impact analysis.

IRAs: Construction of a pipeline through IRAs would create a visible and physical change to the IRA. The visible impacts would be temporary until the restoration process is complete. The physical impact includes the permanent presence of a pipeline underground through the IRA, and visual markers above ground.

Wetlands, Water Resources, and Water Quality: The proposed pipeline corridor contains or is adjacent to, 75 wetland or WOTUS sites. The proposed pipeline would cross several intermittent or perennial streams, and some canals or ditches with connectivity to WOTUS. It is anticipated that the pipeline would cross these WOTUS sites by boring under the channel, or by trenching, burying the pipe, backfilling the trenches, while protecting the integrity of the stream channel and water quality. Pipeline construction would potentially introduce silt, sediment, or other contaminants into WOTUS.

Soils and Erosion: Construction of the pipeline would disturb soil to approximately 48 inches in depth. When precipitation falls on disturbed soils that have not been stabilized, erosion can occur. Erosion may result in siltation to nearby waters, exposure of the pipe or displacement of large quantities of soil.

All resources potentially impacted by the Project were analyzed in the 2019 FEIS (USFS 2019) and effects to these resources were described in detail in Chapter 3 of the 2019 FEIS. Due to either a resource being impacted by the 0.50-mile reroute on private land or where a change of conditions has occurred or new information has become available since issuance of the 2019 FEIS that would affect the impact analysis already completed, the following resources are analyzed and addressed in this DSEIS:

- Special status plants;
- Special status wildlife; and
- Cultural resources.

CHAPTER 2 ALTERNATIVES

2.1 INTRODUCTION

This chapter describes and compares the Proposed Action and the No Action Alternative for the Project. The 2019 FEIS (USFS 2019) provides a description of other alternatives that were either fully analyzed or were considered but eliminated from further analysis.

2.2 ALTERNATIVES CONSIDERED IN DETAIL

Only the Proposed Action and the No Action Alternative are being considered in detail in this DSEIS because there was only a change to the Proposed Action on non-NFS lands. No changes were proposed to the full suite of action alternatives that were either fully considered and analyzed or were considered but eliminated from detail in the 2019 FEIS.

2.2.1 No Action Alternative

Under the No Action Alternative, a SUA authorizing the establishment of a utility corridor and the construction, operation, and maintenance of a 12-inch maximum outside diameter pipeline within a 50-foot-wide temporary construction ROW across NFS land (25-foot width in wetlands and aquatic influence zones (AIZ)) would not be issued to LVE, and the CNF RFP would not be amended to change the USFS management prescriptions to establish a utility corridor for the permanent pipeline ROW. Project activities and associated environmental impacts on NFS lands and private land would not occur. The existing LNG transportation system would continue to rely on the surface transportation currently in operation for the foreseeable future and LVE would need to rely on the Exxon plant in La Barge, Wyoming to provide a timely and reliable supply of LNG. The approximately 140 loads or 280 trips of LNG delivery would continue resulting in ongoing emissions from trucks delivering the LNG to Afton, Wyoming. The No Action Alternative does not provide a mechanism for mitigating potential environmental contamination due to roadway transportation release of LNG that could result from accidents during transportation of LNG.

2.2.2 Proposed Action

2.2.2.1 Route Location and Description and Project Components

LVE is proposing to construct, operate, and maintain a 12-inch or less outside diameter, high pressure natural gas pipeline within a ROW, that would connect to an existing Williams Gas Company pipeline south of Montpelier, Idaho and an existing LVE receiving facility located at 236 Washington Avenue, Afton, Wyoming (**Figure 1.2-1**).

The proposed 12-inch maximum outside diameter natural gas pipeline would generally be constructed using open trench and fill methods and would be comprised of a high-density polyethylene (HDPE) material that is fused at joints and buried with a typical depth of cover of 30 inches. Greater depth may be necessary if required or deemed beneficial. Code allows for 24” of pipe cover in rock formations. There has not been a ‘life expectancy’ established for HDPE gas pipe; however, there are HDPE gas lines in service since the 1960s or before, that show no signs of degradation. Because there are no corrosion issues, the life expectancy is more dependent on usefulness rather than quality of material. For LVE, the serviceability of the pipeline is expected to easily exceed 50 years.

Project components include: the pipeline, a regulator/metering/odorization station at the tap of the William's pipeline (on private land), three buried 12-inch (maximum) block valves somewhat equally spaced along the pipeline, and a tie into the existing town regulator station in Afton. Currently, no taps with small regulator stations are proposed along the pipeline; however, this may change as pipeline segments are completed because impacted private landowners may want a tap as part of their compensation. The only aboveground facilities associated with the Crow Creek Pipeline are the stations at each end of the pipeline and markers within line-of-sight from each other indicating the presence of a pipeline and company contact information.

The proposed pipeline would be in operation year-round and would have a Maximum Allowable Operating Pressure (MAOP) of 125 pounds per square inch gage (psig); it would likely operate between 90 and 110 psig range on start-up. Total yearly volumes would start at 112 million cubic feet (mcf) and would likely increase each year. Maximum daily flows after the commissioning of the pipeline are estimated at 850 mcf in the winter with minimum summer flows of 25 to 30 mcf. Lifespan of the pipeline is expected to be at least 50 years or until the pipeline capacity no longer meets the demands of its service territory.

Prior to construction, company employees and contractors would be instructed to use only designated access roads and areas as approved in the ROW grant for access.

2.2.2.2 CNF RFP Amendment

As described in **Section 1.6.1**, under the Proposed Action, the Project would require that the USFS Management Prescriptions for the 20-foot-wide permanent ROW SUA be changed to Prescription 8.1 (b) to create a corridor containing the permanent ROW. A total of 44 acres of the permanent ROW would be within USFS land.

2.2.2.3 Pipeline Construction

Construction of the pipeline would consist of marking the temporary construction ROW, establishment of staging areas, vegetation clearing where needed; trenching or boring, installation of the 12-inch maximum outside diameter HDPE natural gas pipeline, including backfilling of the trench; hydrostatic testing; and restoration of disturbed areas.

Marking of the ROW

Prior to ground disturbance, the 50-foot wide (25-foot wide in WOTUS, including wetlands and AIZs) temporary construction ROW limits would be marked in the Project Area via flagging or lathe stakes, as needed.

Staging Areas

Headquarters for construction personnel and equipment storage yards likely would be located at the LVE offices in Afton, Wyoming and at temporary staging areas along the route. Up to four staging areas may be needed to store construction materials, equipment, tools, fuel, service trucks, spare parts, and vehicles. The staging areas would house portable, self-contained toilets or serve as equipment maintenance areas. Staging areas would measure approximately 100 feet in length by 50 feet in width and would be entirely within the temporary construction ROW. Any hazardous materials such as fuel, lubricants, and solvents, would be handled and stored in accordance with applicable regulations, including 40 CFR 262. Handling, storage, and clean-up of hazardous

materials at staging areas would be described in a Spill Prevention, Control and Countermeasures (SPCC) Plan. Staging areas would include secondary containment to capture and contain any potential spills or leaks. No staging areas or hazardous materials storage areas would be constructed within any AIZs (USFS 2003a).

Construction Access

Existing roads would be used for construction and maintenance access as much as possible. No new roads would be constructed for the Project. Access in areas not accessible by existing roads would be by using cross-country travel and drive and crush vegetation techniques, except in areas where larger shrub vegetation would require mowing. Portions of the Proposed Action would be within the existing road prism and portions would be adjacent to the road, within the road ROW. All existing access roads would be returned to the same or better condition upon completion of construction.

Vegetation Removal

Prior to construction, noxious weeds would be inventoried by LVE's qualified contractor and treated on public land within the ROW to minimize or prevent spread during construction. All construction equipment would be pressure washed to ensure noxious weeds are not carried onto the construction site. Treatment methods would include manual and mechanical methods, Integrated Pest Management (IPM), and the use of herbicides as prescribed in the Caribou-Targhee National Forest and Curlew National Grassland Integrated Weed Management Analysis (USFS 2021).

Prior to pipeline installation, vegetation would be removed as needed within the 50-foot wide temporary construction ROW. Removal of vegetation would generally consist of mowing or masticating shrub and grass vegetation where necessary in a manner that leaves root systems intact to encourage growth and minimize soil erosion. In forested areas, trees would be removed using heavy equipment where terrain and slope stability permits and skidded to log landings for disposal. Prior to construction in riparian areas, shrub and riparian vegetation would be preserved by carefully stockpiling appropriate materials. All areas are expected to be accessible with equipment.

Trenching

A trackhoe would be used to dig a trench within the 50-foot-wide construction ROW to a depth of approximately 48 inches (may be less in areas of rock) using an 18- or 24-inch bucket. Topsoil would be removed first, only from areas that would be trenched. Topsoil would then be separated and protected for reclamation upon completion of construction. Other soil horizons would be cast to one side, to allow vehicular operation and pipeline assembly adjacent to the trench on the other side. All side cast excavated materials would remain in the 50-foot construction ROW.

Pipeline Installation

Prior to pipeline installation, the pipeline trench would be bedded, and the trench backfilled with suitable shading material (such as crusher sand), which, if not available onsite, would be obtained commercially off site and hauled onsite using dump trucks. Installation of the pipeline would consist of arranging pipe in a line parallel to the trench, heat fusing pipe sections together using a

butt fusion machine, visually inspecting the fused pipe prior to lowering of the pipe into the trench, and back filling the trench using side cast materials from excavation. In riparian areas where large trees are present, BMPs such as protective sleeves would be utilized to protect the pipe and reduce the need to remove such vegetation when it becomes re-established. To prevent the pipeline from acting as a subsurface drain, clay plugs would be installed at intervals along its length whenever groundwater is encountered.

Pressure Testing

After the pipe is installed and the trench is backfilled, the pipeline would be tested to a pressure of 225 pounds per square inch gauge (psig) for a period of 24 hours using nitrogen. This would establish a MAOP of 125 psig.

Construction-Related Ground Disturbance

All ground disturbance occurring on the Project is expected to be temporary. For analysis purposes, it is assumed that the entire 50-foot-wide temporary construction ROW would be disturbed to some degree during construction. However, there would be no removal of topsoil or other soil displacement in previously undisturbed areas except in locations where the trench would be excavated and the pipeline installed, no new access roads would be constructed, and all previously undisturbed areas outside the existing roadway prism would be restored. LVE would use local shale for spot surfacing existing roadways where necessary.

2.2.2.4 Restoration of Construction-Related Disturbance

The terms “reclamation” and “restoration” are used interchangeably throughout this DSEIS, as are the terms “reclaim” and “restore.” During restoration, riparian vegetation which would be stockpiled prior to construction and may include shrubs and wetland plants, would be used to re-vegetate riparian or wetland areas. During the restoration process, materials backfilled in the trench would be compacted and then covered with reserved topsoil. Following the placement of topsoil, the areas to be revegetated would be properly prepared to receive seeds by ripping or scarifying the surface and drilling or broadcasting seed onto the area or planting stockpiled plants. All restoration efforts would be conducted either in the spring or the fall to take advantage of high ground moisture conditions. Restoration seed mixes used on NFS lands would be approved by the USFS. Restoration seed mixes on Idaho state endowment trust land would be approved by the IDL. Restoration seed mixes would not contain prohibited noxious weed seeds in accordance with Idaho and Wyoming state prohibited weed seed laws and regulations. Restoration success would be monitored until restoration is deemed successful by the USFS. Any restoration on Idaho state endowment trust land would be approved and/or overseen by the IDL. **Photo 2.2-1** shows an example of typical pipeline construction restoration processes and successional growth of vegetation over pipeline construction across open ground after several years. **Photo 2.2-2** shows an example of typical pipeline construction restoration along a roadway.

Photo 2.2-1 Example of typical pipeline construction restoration across open land.

Photo 2.2-2 Example of typical pipeline construction restoration along a roadway.

2.2.2.5 Construction Schedule

The Project would commence as soon as all necessary agency approvals and permits are obtained (**Section 1.5**), and all ROW authorizations and easements are secured. Construction of the Project would take 9 to 24 months. Noise-generating activities (e.g., blasting) near sensitive noise receptors (i.e., occupied residences) would be limited to Monday through Friday from 7:00 a.m. to 7:00 p.m. Otherwise, work may occur 12 hours per day any day of the week. Construction at stream crossings and at wetland sites would occur during periods of low flow where required or during construction windows as required by state or federal agencies.

2.2.2.6 Construction Equipment and Vehicles

Typical construction equipment for this type of project includes pickup trucks, loaders, chain saws and/or mechanical shears, hydro-axes and/or brush-hogs, rock saws, various sized dozers, shovels and backhoes, side booms, and pipe fusion equipment. Equipment used during ROW reclamation consists of dozers, blades, and track hoes. Temporary equipment storage yards likely would be located at or near Afton, Wyoming and/or Montpelier, Idaho and/or at temporary staging areas along the route.

The typical equipment and vehicles that may be necessary are listed in **Table 2.2-1**. Use of equipment is dependent on site-specific conditions encountered. Likewise, **Table 2.2-1** does not list various power and hand tools that would likely be used for the project, such as hammers, sanders, wire cutters, and shovels.

Table 2.2-1 Typical Construction Equipment and Vehicles

EQUIPMENT	USE
Pickup trucks of varying sizes	Transport construction personnel
2-ton flatbed trucks; flatbed boom truck	Haul and unload materials
Rigging truck	Haul tools and equipment
Mechanic truck	Service and repair equipment
Shop vans	Store tools
Bulldozer	Grade work sites and restoration
Road grader	Maintain and repair existing roads
Truck mounted digger or backhoe	Excavate
Crawler backhoe	Excavate
Small mobile cranes (12 tons)	Load and unload materials
Transport	Haul pipe and equipment
Semi-truck trailers	Haul pipe and equipment
Air compressors	Operate air tools
Air tampers	Compact soil
Dump truck	Temporarily relocate topsoil for storage and use in restoration
Fuel and equipment fluid truck	Refuel and maintain vehicles
Water truck	Suppress dust and fire
Rangeland drill	Sow seed
Hydroaxe or masticator	Chop shrubs and small diameter trees

2.2.2.7 Proposed Action Summary

Table 2.2-2 summarizes land status and length of the proposed ROW for the Proposed Action that is displayed on **Figure 1.2-1** and in more detail in **Appendix A**.

Table 2.2-2 ROW/Easement Requirements for the Proposed Action

LAND OWNERSHIP/ ADMINISTRATION	MILES IN ALIGNMENT	ACRES OF ROW/EASEMENT/UTILITY CORRIDOR	
		50-FOOT TEMPORARY CONSTRUCTION ROW*	20-FOOT PERMANENT ROW & UTILITY CORRIDOR**
USFS	18.2	109.7	44.0
State Land	4.1	24.2	9.8
Private Land	26.9	163.0	65.2
Total	49.2	296.9	119.0

*Total estimated disturbance.
**Would require amendment of the CNF RFP.

2.2.2.8 Operation and Maintenance

The pipeline would be operated from the LVE complex in Afton, Wyoming. LVE personnel at the LVE complex would monitor gas flow, leak detection as well as maintenance activities and inspections.

LVE would inspect the line annually to determine if maintenance is needed. Annual inspection would be made by vehicle on roadways, by all-terrain vehicle where permitted or from the ground by walking. A typical inspection involves visual inspection, leak detection and general condition of the pipeline ROW including erosion issues. The ROW would be patrolled after significant natural incidents (such as fires, earthquakes, floods, torrential rains, or avalanches) to observe facility conditions and the surrounding environment and to begin repairing any damages.

Because the roots of larger trees could damage the pipeline, periodic tree and vegetation maintenance of the proposed permanent 20-foot-wide pipeline ROW would be conducted with a masticator, or large trees may be felled, lopped, and scattered or chipped and broadcast onsite on a case-by-case basis. Cross-country maintenance access would be by foot travel, pickup truck, or OHV from the nearest designated NFS road to the permanent pipeline ROW.

2.2.2.9 Pipeline Abandonment

As discussed in **Section 2.2.2.1**, the serviceability of the pipeline is expected to easily exceed 50 years. Once the pipeline capacity no longer meets the demands of its service territory, it would be inactivated or abandoned in place. LVE would follow their Construction Manual, a set of procedures that LVE follows when performing any construction function regulated by Part 192 of the Federal Code, when performing their pipeline abandonment activities. Prior to abandonment, the pipeline would be disconnected from all sources and supplies of gas and purged of gas. If air is used for purging, LVE would ensure that a combustible mixture is not present after purging. In addition, the pipeline would be cut and sealed as follows:

- In Class 1 (location with 10 or fewer buildings intended for human occupancy) and Class 2 locations (location with > than 10 but < 46 buildings intended for human occupancy), the pipeline would be cut and sealed in sections not exceeding one mile in length. In addition, the pipeline would be cut and sealed on both sides of road crossings.
- In Class 3 (location with 46 or more buildings intended for human occupancy, or where the pipeline lies within 100 yards of any building or small well-defined outside area occupied by 20 or more people on at least 5 days per week for 10 weeks in any 12-month period) and Class 4 locations (location with a prevalence of buildings with four or more stories above ground), the pipeline would be cut and sealed every two blocks or a maximum of 1,000 feet.

The Project mostly occurs in areas with very little population and would be in Class 1 or Class 2 locations except the terminus at LVE's facility in Afton which is a Class 3 location. Small areas of disturbance where the pipeline would be cut and sealed in sections would likely be needed at the time pipeline abandonment took place, well into the future and likely 50 years or longer.

2.2.2.10 Design Features/Applicant Committed Environmental Protection Measures

This section summarizes the design features/applicant committed Environmental Protection Measures (EPMs) and safety measures that would be utilized and implemented for the Proposed Action.

Cultural Resources

The proposed new disturbance areas for the Proposed Action were inventoried for cultural resources during baseline surveys on NFS and State of Idaho and Wyoming lands. Private lands were not inventoried. Reports on these investigations, including descriptions of any discovered sites or cultural materials, were provided to the regulatory agencies. SHPO consultation and concurrence on site evaluations has been received for all inventoried areas (ISHPO 2018, WSHPO 2018).

If unanticipated cultural materials or historic sites are encountered during construction activities, the appropriate agency would be notified, and construction activities would be halted near the discovery until inspected by a qualified agency representative and a mitigation plan developed if determined necessary.

Air Quality

Watering to control and minimize fugitive dust emissions during construction activities would be used.

Access

During construction activities, LVE would provide appropriate signage and notifications along all roads to inform recreation users and residents in the area that active construction activities are occurring and that travel delays are possible. LVE would implement appropriate traffic control, so that no existing roads are closed or shut down for extended periods, but that at least single lane traffic passage occurs with minimal delays.

Soils

Salvaging topsoil and vegetation growth medium from disturbed areas prior to construction activities would occur to support long-term reclamation success. All topsoil would be side cast and salvaged from proposed disturbance areas for use in reclamation immediately following construction activities.

Vegetation

Reclamation activities (**Section 2.2.2.4**) are designed to: limit any potential impacts to the environment; re-establish the natural drainage patterns; stabilize reclaimed surfaces; and return the land to its original pre-construction multiple uses on public land such as recreation, livestock grazing and wildlife habitat. Success would be demonstrated as required on NFS lands. Revegetation of disturbed areas would be conducted according to the reclamation plan developed by LVE and approved by the applicable jurisdictional agency and/or landowner, prior to construction and during reclamation activities by seeding and planting with a reclamation seed mix which has been approved by the USFS or by revegetating riparian and wetland areas using a seed mix as well as stockpiled or root stock wetland plants and shrubs.

In order to control and prevent the spread of noxious weeds, prior to construction, LVE would prepare a noxious weed control and prevention program to be implemented during construction. This program would be approved by the USFS.

Timber cutting within the project corridor would be incidental because the vegetation communities are primarily sagebrush and mountain brush; however, when incidental timber harvest is necessary, LVE would purchase all cruised timber at the market value appraised at the time of harvest. Non-commercial timber, brush, and slash would be stockpiled for use as runoff and sediment controls, if applicable along the downhill margins of disturbed areas. (USFS Interdisciplinary Team)

Small brush and slash would be incorporated into the topsoil as it is salvaged.

To prevent unauthorized use of the ROW following reclamation activities, LVE would work with the USFS to block off access points to the ROW in applicable areas using a combination of logs, large boulders, gates, etc. LVE would need to ensure that unauthorized access to the ROW is successful over the long-term and monitor the effectiveness of blocking off access points, as improvements could be needed if unauthorized access occurs.

Surface Water

Stormwater management for projects that could potentially discharge to a WOTUS is required by the United States Environmental Protection Agency (USEPA). The overarching goal of the various management and monitoring requirements is to ensure that episodic stormwater runoff from the site does not degrade surface water quality. A Stormwater Pollution Prevention Plan (SWPPP) would be fully developed after final approval for the Project and implemented prior to and during construction activities.

Best Management Practices (BMPs), including the construction and installation of sediment controls (e.g., wattles, silt fence, etc.), would be employed to avoid impacts to surface water from

construction activities and required monitoring of the BMPs for the life of the Project would include visual inspections of sediment control features. While the number of open stream crossings needed during construction have been minimized to the extent possible, several would still occur and site-specific BMPs would be implemented at those locations (see USFS 2019, Appendix 3C). Relevant National Core BMPs (USFS 2012) have been considered for the Project, including implementation of the following:

- To the extent possible, crossing at a stable uniform section of stream and orienting the disturbance to be perpendicular to the flow;
- Replacing bed and bank materials in a manner that does not alter streamflow characteristics, bank resiliency, or channel continuity; and
- Minimizing erosion and scour during the construction period and ensuring post-construction channel stability, using hardened materials (e.g., riprap) as needed.

A streamgage operated and maintained by the United States Geological Survey (USGS), #13025500, USGS Station Name: Crow Creek near Fairview, Wyoming, has been identified by the Department of Interior and should be avoided and safeguarded during construction activities.

Wetlands

Wetlands and riparian areas were avoided to the extent possible during Project design but could not be avoided in all cases such as at certain stream crossings, where avoidance is not possible. The installation of the pipeline would require temporarily disturbing some wetland and stream areas. Where construction at stream crossings would be done by open trench methods, United States Army Corps of Engineers (USACE) Section 404 authorization, via Nationwide Permit 12 for Utility Activities (NWP 12), would be required. Nationwide Permit 12 requires numerous measures to ensure that stream morphology (e.g., width-depth ratio, roughness, floodplain characteristics) does not change and aquatic habitat is maintained. These requirements include: no change in pre-construction contours at the crossing; constructing and backfilling into the trench such that water does not collect or drain, thereby avoiding a french drain effect; immediately stabilizing exposed stream banks; maintaining the condition, capacity, and location of open waters; no substantial disruption of indigenous aquatic life; complying with controls in spawning areas; and using appropriate erosion and sediment controls. Where vehicles must cross wetlands or streams, either temporary construction mats or temporary bridges may be used. These would be of sufficient size to disperse the weight of the vehicles sufficient to prevent rutting in and adjoining the WOTUS site. However, to the extent practical, LVE would try to avoid crossing perennial streams with equipment to further minimize impacts to streambanks and streambank vegetation, especially where such crossings are near an existing roadway. Typically, equipment would be positioned on one side of the creek to be trenched and the disturbance area minimize to only what is absolutely needed. Further, instead of driving through the creek, LVE would generally either stay on only one side of the creek to perform the trenching activities or drive around to the other side of the creek and set up to complete the remaining trenching activities.

In addition to the BMPs described above for surface water, wetland-specific BMPs based on National Core BMPs (USFS 2012) that would also be implemented include:

- Providing for sufficient cross drainage to minimize changes to natural surface and subsurface water flow of the wetland (e.g., not altering the natural flow patterns across wetlands); and
- Avoiding rutting from vehicle traffic across wetlands during construction and reestablishing micro-topography if rutting occurs.

Wildlife and Aquatic Resources

If any active nests of Partner's in Flight (PIF) priority species, United States Fish and Wildlife Service (USFWS) birds of Greatest Conservation Concern, or active raptors are discovered during Project baseline and pre-construction surveys of these species suitable habitat or during Project implementation and would be disturbed, a USFS biologist would be contacted to determine the appropriate course of action to avoid impacting the active nest which may include project delays, reroutes, and/or nest buffers until the nest is fledged.

In addition to the BMPs described above for surface water resource protection at necessary stream crossings, the following BMPs based on National Core BMPs (USFS 2012) would focus on aquatic resource impact minimization:

- Considering fish and other aquatic life migration and passage needs in regard to timing of disturbance and mechanisms for routing water through the construction zone;
- Clearly delineating the work zone associated with the crossing and keeping staging areas, fueling activities, etc. out of the influence of the crossing;
- Ensuring equipment operated in or adjacent to the waterbody is clean of aquatic invasive species, as well as oil and grease, and is well maintained;
- Returning clean flows to the downstream channel in as short as distance as feasible; and,
- Restoring streamflows to their natural stream course as soon as practicable after construction.

To minimize potential impacts to nearby greater sage grouse (GRSG) leks, the following design features would be in place as described below.

- For portions of the Project located on State of Idaho endowment trust lands, required design features listed in a Project-specific letter (State of Idaho 2023) would be implemented while within IHMAs (currently managed as PHMAs).
- On NFS lands, USFS guidelines for GRSG would be implemented within 6.2 miles of an occupied lek as required, specifically GRSG-GEN-ST-006-Standard, and GRSG-GEN-ST-007-Standard (USFS 2015):
- GRSG-GEN-ST-006-Standard - Do not authorize new surface disturbing and disruptive activities that create noise at 10 dB above ambient measured at the perimeter of an occupied lek during lekking (from March 1 to April 30) from 6 p.m. to 9 a.m. Do not include noise resulting from human activities that have been authorized and initiated within the past 10 years in the ambient baseline measurement.
- GRSG-GEN-ST-007-Standard - During breeding and nesting (from March 1 to June 15), surface disturbing and disruptive activities to nesting birds should be avoided.

Hazardous Materials and Wastes

EPA regulations for spill prevention, control and countermeasures standards (40 CFR 112) for petroleum products would be met through the implementation of a Spill Prevention Control and Countermeasures (SPCC) Plan. The SPCC Plan would be implemented prior to placement and use of any petroleum products on site. A Professional Engineer would certify the SPCC Plan has been prepared in accordance with good engineering practices and meets applicable standards, and as required by the USEPA, review any amendments to the SPCC Plan. No hazardous materials would be stored within any AIZs (USFS 2003a).

2.3 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED STUDY

The NEPA requires federal agencies to rigorously explore and objectively evaluate all reasonable alternatives and to briefly discuss the reasons for eliminating any alternatives that were not further developed in detail (40 CFR 1502.14). Potential alternatives were evaluated to determine which were reasonable to consider further, using the CEQ, USFS NEPA Handbook, and USFS Special Uses Handbook (FSH 2709.11). The screening criteria from CEQ and agency requirements are found in the project record. Alternatives that were dismissed from further consideration are summarized below.

Five alternative pipeline routes and/or segments of pipeline were eliminated from consideration because of construction limitations, past and potential future mining conflicts, additional resource impacts, cost, and private land issues. All five eliminated alternative routes and/or segments have limitations either due to inadequate construction easements, limited/difficult access areas, increase resource impacts, access, and severe traffic impacts, such as road closure requirements. Some areas would require extensive ROW clearing, including tree removal and hillside cut/fill. A detailed description of the alternatives considered but eliminated was presented in the 2019 FEIS (USFS 2019).

2.4 AGENCY PREFERRED ALTERNATIVE

The Agency Preferred Alternative is the Proposed Action. as it meets the purpose and need of the Project and was the most feasible route for construction taking into consideration environmental resources and associated impacts.

2.5 ENVIRONMENTALLY PREFERABLE ALTERNATIVE

The No Action Alternative is the environmentally preferable alternative, although it does not meet the purpose and need for the Project. **Chapter 3** provides a detailed analysis comparison of impacts between the Proposed Action and No Action Alternative for those resources carried forward.

CHAPTER 3 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1 INTRODUCTION TO ENVIRONMENTAL ANALYSIS

This chapter summarizes the physical, biological, social, and economic environments of the Project Area and the effects of implementing the Proposed Action and No Action Alternative on that environment. As applicable, this chapter discusses NFS lands, Idaho state endowment trust land administered by the IDL, state of Wyoming land, and private land. However, as explained in **Section 1.5**, the decisions being made only apply to NFS land administered by USFS.

3.1.1 Impact Assessment

The Proposed Action outlined in Chapter 2 may cause, either directly or indirectly, changes in the human environment. This DSEIS assesses and analyzes these potential changes and discloses the effects to the decision-makers and the public. This process of disclosure is one of the fundamental aims of NEPA.

Many concepts and terms used when discussing impacts assessment may not be familiar to the average reader. The following sections attempt to clarify some of these concepts.

3.1.1.1 Effects/Impacts

The terms "effect" and "impact" are synonymous under NEPA. Effects may refer to ecological, aesthetic, historical, cultural, economic, social, or health-related phenomena that may be caused by the Proposed Action or the No Action Alternative. Effects may be direct, indirect, or cumulative in nature.

3.1.1.2 Direct and Indirect Effects

A direct effect occurs at the same time and place as the action. Indirect effects are reasonably foreseeable effects that occur later in time or are removed in distance from the action. Direct and indirect effects are discussed in combination under each affected resource.

3.1.1.3 Mitigation for Impacts

Where applicable, mitigation measures are proposed in this document. If residual effects remain after the mitigation is applied, those effects are described as well. Mitigation measures are means to address environmental impacts that are applied in the impact analysis to reduce intensity or eliminate the impacts. To be adequate and effective, CEQ regulations (40 CFR 1508.20) require that mitigation measures fit into one of five categories:

1) Avoiding the impact altogether by not taking a certain action or parts of an action;
2) Minimizing impacts by limiting the degree or magnitude of the action and its implementation;
3) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;

4) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; or
5) Compensating for the impact by replacing or providing substitute resources or environments.

3.1.1.4 Irreversible and Irretrievable Commitment of Resources

An irreversible commitment of resources occurs if the commitment cannot be changed once made. An irreversible commitment of resources occurs when resources are used, consumed, destroyed, or degraded during project construction and operation and cannot be reused or recovered. It effectively removes the option of future resource use. Irretrievable commitments of resources occur when there are long-term losses of resource production or use. These losses are not permanent and can be reversed in the long-term if project facilities or land uses change.

3.1.1.5 Relationship of Short-term Uses and Long-term Productivity of Resource

The relationship between short-term uses and long-term productivity describes the effects of the short-term use of the resource for the project, and whether that use is likely to adversely affect the long-term productivity and sustainability of the resource.

3.1.1.6 Significance

The word "significant" has a very particular meaning when used in a NEPA document. Significance is defined by CEQ as a measure of the intensity and context of the effects of a major federal action on, or the importance of that action to, the human environment. Significance is a function of the beneficial and adverse effects of an action on the environment.

Intensity refers to the severity or level of magnitude of impact. Public health and safety, proximity to sensitive areas, level of controversy, unique risks, or potentially precedent-setting effects are all factors to be considered in determining intensity of effect. This EIS primarily uses the terms major, moderate, minor, or negligible in describing the intensity of effects.

Context means that the effect(s) of an action must be analyzed within a framework, or within physical or conceptual limits. Resource disciplines; location, type, or size of area affected (e.g., site-specific, local, regional, national); and affected interests are all elements of context that ultimately determine significance. Both long- and short-term effects are relevant to context.

3.1.1.7 Indicators

An impact indicator is an element or parameter used to determine change (and the intensity of change) in a resource. Working from an established existing condition (i.e., baseline conditions described in the sections that follow under each resource heading) an indicator is used to predict or detect change in a resource related to causal effects of the project. Use of the term "significant" when referring to effects indicates some threshold for a particular impact indicator has been exceeded.

3.1.1.8 Environmental Effect Categories

The following environmental effect categories (**Table 3.1-1**) are presented to define relative levels of effect intensity and duration and to provide a common language when describing effects. The definitions in the following table are general. Descriptors are specifically defined for certain resources when the general definitions presented in this table are inadequate.

Table 3.1-1 Summary of Terms Used to Describe Effects in the EIS

ATTRIBUTE OF EFFECT		DESCRIPTION
Magnitude (Intensity)	Negligible	No measurable change in current conditions.
	Minor	A small but measurable change in current conditions.
	Moderate	An easily discernible and measurable change in current conditions.
	Major	A large, easily measurable change in current conditions.
Duration	Short-term	Less than10 years.
	Long-term	More than 10 years.

3.1.2 Incorporation by Reference

The current baseline conditions for each resource were assessed in Project specific technical reports. The technical reports are a part of the planning record on file at the Montpelier Ranger District office in Montpelier, Idaho. The following reports, assessments, and other documents are incorporated by reference for applicable resources carried forward for analysis in this DSEIS:

- *Technical Report: Cultural Resources (Corbeil 2018)*
- *Technical Report: Wildlife Resources (Stantec 2018b)*

3.1.3 Cumulative Effects

Cumulative effects are defined as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such actions" (40 CFR 1508.7).

The *temporal extent* of the actions to be considered is the maximum term of the pipeline that would be issued for the proposed ROW/easement. The *spatial extent* of the projects considered in the cumulative effects analysis varies by the resource. **Table 3.1-2** defines the Cumulative Impact Analysis Area (CIAA) (**Figure 3.1-1**) considered for resources carried forward for analysis in this DSEIS. Additionally, relevant resource-specific data is displayed on **Figure 3.1-1** based on available USFS, Idaho Department of Fish and Game (IDFG), Wyoming Game and Fish Department (WGFD), and USFWS data.

Table 3.1-2 Cumulative Impact Analysis Area by Resource

RESOURCE	DEFINITION OF CIAA	RATIONALE FOR CIAA
Special Status Plants	All areas within 300 feet[1] of the centerline of the Proposed Action, which consists of approximately 3,394 acres.	The Proposed Action would be unlikely to have any measurable incremental effects on the resource beyond 300 feet.
Special Status Wildlife	All areas within the 12 hydrological unit codes (HUC) at the HUC-12 level surrounding the Proposed Action, which consists of approximately 297,495 acres.	The Proposed Action would be unlikely to have any measurable incremental effects on the resource beyond the 12 HUCs at the HUC-12 level surrounding the Proposed Action.
Cultural Resources	All areas within 100 feet of the centerline of the Proposed Action, which consists of approximately 1,131 acres.	Maximum extent of construction- and maintenance-related surface disturbance and includes a buffer from which a cultural site could be viewed concurrent with visual impacts of the Proposed Action.

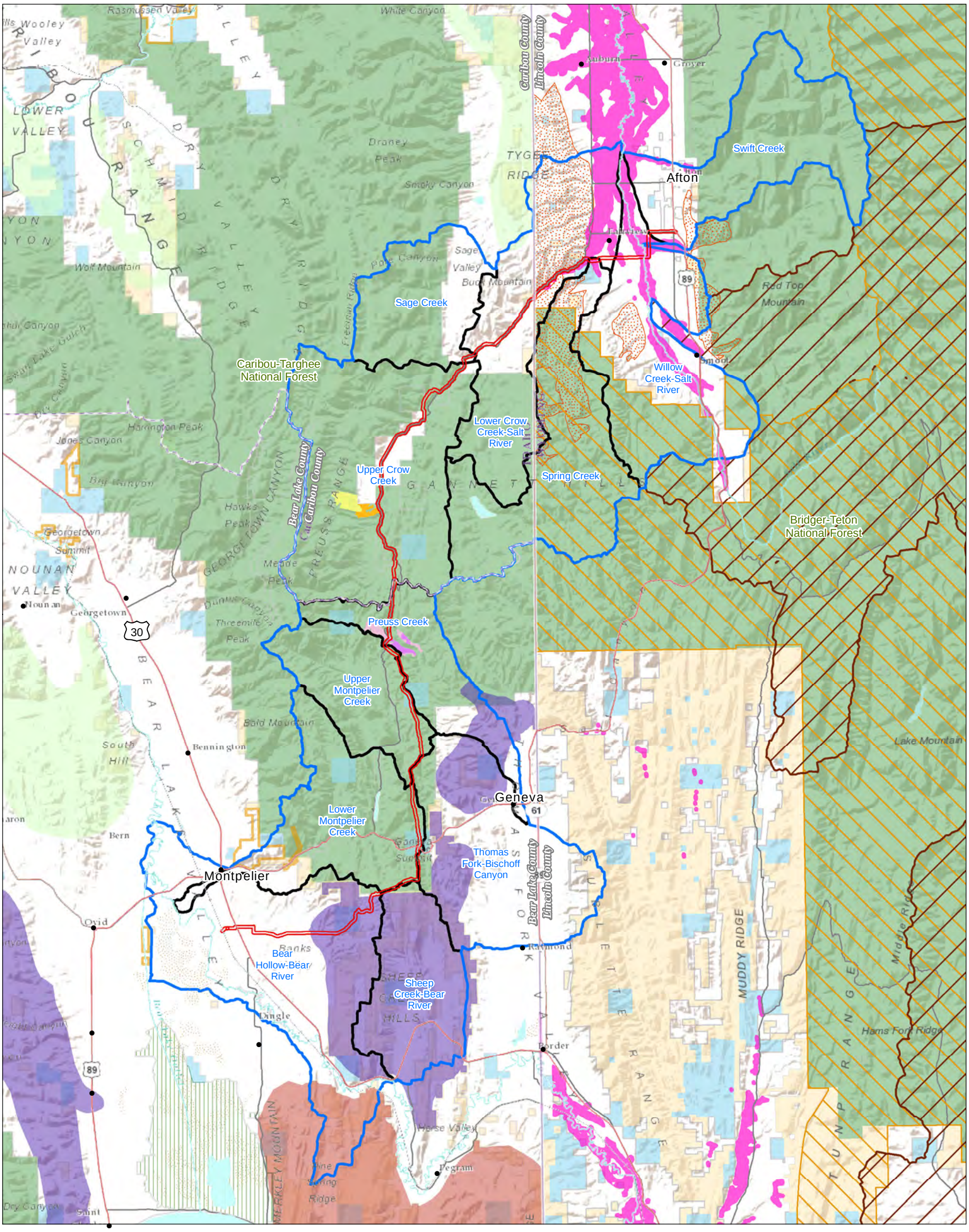
[1]Based on Farmer 1993; Padgett et al. 2008; Sharifi et al. 1997; and USFWS 2011.

The CIAA for special status plants includes all areas within 300 feet of the centerline of the Proposed Action, which encompasses approximately 3,394 acres (**Figure 3.1-1**). This CIAA was selected based on scientific literature regarding potential indirect impacts to vegetation, primarily dust-related impacts (Farmer 1993; Padgett et al. 2008; Sharifi et al. 1997, USFWS 2011).

The CIAA for special status wildlife species encompasses 12 HUCs at the HUC-12 level (also known as 6th level hydrological units) (**Figure 3.1-1**), as some level of surface disturbance and human presence and noise from the Project would occur within this area. The individual HUCs were used because they have a definitive boundary based on watersheds and encompass the Project activities. The total area of the CIAA is approximately 297,495 acres.

The CIAA for cultural resources (i.e., the APE), includes all areas within 100 feet of the centerline of the Proposed Action, which consists of approximately 1,131 acres. This area includes the maximum extent of construction- and maintenance-related surface disturbance and includes a buffer from which a cultural site could be viewed concurrent with visual impacts of the Proposed Action.

The CEQ issued an interpretative memorandum on June 24, 2005, regarding analysis of past actions, which states, “agencies can conduct an adequate cumulative effects analysis by focusing on the current aggregate effects of past actions without delving into the historical details of individual past actions.” To understand the contribution of past actions to the cumulative effects of the project, this analysis relies on current environmental conditions as a proxy for the impacts of past actions. This is because existing conditions reflect the aggregate impact of all prior human actions and natural events that have affected the environment and might contribute to cumulative effects.



Legend

- Proposed Action (300-foot-wide buffer on each side of the centerline)
- Sixth-Level Hydrological Units
- Cumulative Impacts Analysis Area
- County
- Road
- City/Town

Land Status

- Bureau of Land Managment
- Idaho Department of Fish and Game
- National Wildlife Refuge
- Private
- State
- U.S Forest Service

- USFWS Ute Ladies'-tresses Potential Habitat
- Canada Lynx Critical Habitat
- Grizzly Bear Occurrence

Northern Goshawk - Clear Creek Guard Station Territory

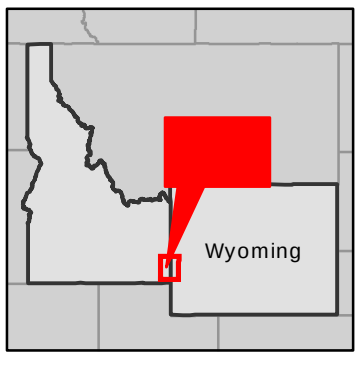
- Nest Area
- Post-fledgling Family Area

Northern Goshawk - Preuss Creek Territory

- Nest Area
- Post-fledgling Family Area

Idaho and Southwestern Montana Sub Regional Greater Sage-grouse Data

- General Habitat Management Area (currently managed as Priority Habitat Management Area)
- Important Habitat Management Area (currently managed as Priority Habitat Management Area)
- Priority Habitat Management Area
- Greater Sage-grouse Potential Habitat (WY)



Notes
1. Coordinate System: NAD 1983 StatePlane Idaho East FIPS 1101 Feet
2. Service Layer Credits: Sources: Esri, USGS, NOAA
Sources: Esri, Garmin, USGS, NPS
3. ID Sage-grouse data: Idaho and Southwestern Montana Sub Regional Sage-Grouse FEIS (2015)
4. WY Sage-grouse data:Wyoming Game and Fish Department
5. Other sources: USFWS, Esri, NPS

0 3 6
Miles

1:260,000 (at original document size of 11x17)

N

Figure 3.1-1
Cumulative Impacts Analysis Area
Lower Valley Energy
Crow Creek Pipeline Project

The present actions within the resource CIAAs that have had cumulative effects to resources that would be impacted by the Project include the following:

- Resource management activities, such as timber sales or vegetation treatments;
- Recreation
- Mining and exploration
- Wildfires
- Other utility lines (e.g., powerlines) and roads;
- Maintenance and use of existing transportation network;
- Urban development in Afton, Wyoming and Montpelier, Idaho;
- Private land development and uses;
- Livestock grazing, ranching, and other agriculture – public and private land; and
- Sand and gravel extraction.

NEPA requires analysis of "reasonably foreseeable" future actions and does not require speculation about unknown future events. Therefore, the cumulative effects analysis is generally limited to projects with known locations and descriptions, usually those for which a permit application has been filed or other public announcement made with enough detail to allow for comparison provided. Projects with known locations and descriptions that have been considered as "reasonably foreseeable" include the continuation of present actions such as recreation activities, private land development and uses, and livestock grazing. There are no other reasonably foreseeable actions known within the CIAAs.

3.1.4 Resources Carried Forward for Analysis

As described in **Section 1.8**, all resources potentially impacted by the Project were analyzed in the 2019 FEIS, Chapter 3 (USFS 2019). Due to either a resource being impacted by the 0.50-mile reroute on private land or where a change of conditions has occurred or new information has become available since issuance of the 2019 FEIS that could affect the impact analysis, the following resources are being analyzed and addressed in this DSEIS:

- Special status plants;
- Special status wildlife; and
- Cultural resources.

The 0.50-mile reroute on private land would result in essentially the same type and extent of resource impacts previously analyzed in the 2019 FEIS and therefore, those resources are not being carried forward for analysis in this DSEIS. In addition, the private land easements for the associated reroute have already been obtained by LVE, therefore besides the route being shifted off land administered by the BLM to private land, no change of impacts would occur and the mileage and land status of the Proposed Action analyzed in this DSEIS has been described in Chapter 2.

3.2 SPECIAL STATUS PLANTS

Special status plants are species that meet one or more of the following criteria:

- Federally-listed, proposed, or candidate for listing, as threatened or endangered;
- Designated as sensitive or species of concern by the USFS;
- Listed as threatened or endangered with the state of Idaho or state of Wyoming; and
- Listed as At-Risk with the Idaho Natural Heritage Program or Wyoming Natural Diversity Database.

The study area for special status plants consists of the Proposed Action, as well as a 600-foot buffer (300-feet on either side of centerline).

3.2.1 Affected Environment

Special status plant species and their potential to occur are shown in **Table 3.2-1**.

Table 3.2-1 Potential Special Status Plants within the Study Area

SPECIAL STATUS PLANT	STATUS[1]	HABITAT	POTENTIAL TO OCCUR
Ute Ladies'-tresses (*Spiranthes diluvialis*)	T	Riparian edges, gravel bars, old oxbows, high flow channels, and moist to wet meadows. In Idaho, it is known to occur only along the Snake River and the Henry's Fork River (Fertig et al. 2005). USFWS modeled potential habitat (approximately 9.7 acres) occurs within the Project Area in Wyoming (USFWS 2022a); however, suitable habitat is not likely to occur along Crow Creek or the Salt River and no disturbance to modeled potential habitat would occur.	No
Starveling Milkvetch (*Astragalus jejunus* var. *jejunus*)	SS	Shale of the Twin Creek Limestone Formation. Known occurrences are in the project analysis area. (Mancuso and Moseley 1990, Kinter 2009, Lehman 2018).	Yes
Payson's Bladderpod (*Lesquerella paysonii*)	SS	Ridges and high peaks of the Snake River Range above the Snake River; also, on Caribou Mountain (Moseley 1996).	No
Cache Beardtongue (*Penstemon compactus*)	SS	High elevation limestone substrates, on bedrock, outcrops, or cliff bands ranging from 8,800 to 9,300 feet in elevation (Mancuso 2003).	No

SPECIAL STATUS PLANT	STATUS[1]	HABITAT	POTENTIAL TO OCCUR
Grass-like Spleenwort (*Asplenium septentrionale*)	WPS	Generally, found in cracks and crevices of rock outcrops and large boulders at elevations of 2,000-10,000 feet within mixed conifer forest (Mancuso 2003).	No
Green Spleenwort (*Asplenium trichomanes-ramosum*)	WPS	Moist limestone or other basic substrates at high elevations (Mancuso 2003).	No
Idaho Sedge (*Carex idahoa*)	WPS	Low, level wetland transition zones within the Blackfoot River watershed (Tetra Tech 2013).	No
Winward's goldenbush (*Ericameria discoidea* var. *winwardii*)	WPS	Known occurrences on barren twin creek limestone outcrops near the proposed alignment (Kinter 2009, Lehman 2018).	Yes
Rydberg's Musineon (*Musineon lineare*)	WPS	Ledges and crevices on near-vertical outcrops between 8,200 and 9,000 feet in elevation (Mancuso 2003).	No
Red Glasswort *(Salicornia rubra*)	WPS	Low elevation flats; prefers basic, saline soils (Tetra Tech 2013).	No
Whitebark Pine *(Pinus albicaulis)*	T	Found in cold, windy, high-elevation or high-latitude sites in western North America, usually on steep slopes at alpine tree lines and in subalpine areas (Arno and Hoff 1989; BLM 2016; USFWS 2021a). In moist mountain ranges, whitebark pine is most abundant on warm, dry exposures; but in semiarid ranges, it becomes prevalent on cool exposures and moist sites (Arno and Hoff 1989).	No

Source: Stantec 2018b
[1] Status designations:
SS – Forest Service Sensitive in Region 4
T – USFWS ESA Threatened
P – USFWS ESA Proposed
CH – USFWS ESA Critical Habitat
IDT – listed by the state of Idaho as Threatened
NNHP – designated by the NNHP as At-Risk

As listed in **Table 3.2-1**, the only special status plant species that have the potential to occur in the study area are Winward's goldenbush (*Ericameria discoidea* var. *winwardii*) and Starveling milkvetch (*Astragalus jejunus var. jejunus*). As such, they are the only species discussed further.

3.2.1.1 Winward's Goldenbush

In Wyoming, populations are known from barren, north-facing exposures of fine, whitish-gray clay of the Fossil Butte member of the Green River shale. Sites typically have 20 percent or less rock cover and 15-25 percent vegetative cover of cushion plants and bunchgrasses within openings in denser *Artemisia arbuscula-Kraschenninnikovia lanata* shrublands at 7000-7050 feet (Fertig 2012). Idaho populations are in cushion plant communities on gently dipping slopes and low knolls of the Twin Creek limestone at 6700-7000 feet (Kinter 2009).

Surveys conducted in 2017 found and expanded the known occurrence subpopulations of Winward's goldenbush within the Project study area (Lehman 2018). No populations were found within the Project's proposed 50-foot-wide ROW.

3.2.1.2 Starveling milkvetch

Starveling milkvetch has limited known occurrences in Idaho and is clustered in Southeast Idaho with known occurrences near or within the study area. Throughout its range Starveling milkvetch is found on dry barren ridges, bluffs, or river terraces, on shale, tuff, clay, sandstone, and cobblestone. In Idaho, starveling milkvetch occurs on knolls, ridges, and other exposures of raw, loose, sparsely vegetated, light-colored shale. It seems to be restricted to calcareous shale having a fine to stone size texture. These bright outcrops stand out visually on the landscape. (Mancuso et al. 1990, Kinter 2009) Surveys conducted in 2017 found and expanded the known occurrence subpopulations of starveling milkvetch within the project analysis area (Lehman 2018). No populations were found within the Project's proposed 50-foot-wide ROW.

3.2.2 Environmental Consequences

3.2.2.1 Methods of Analysis

For the analysis of impacts to Special Status Plant Species, the indicators are:

- Acres of disturbance to habitat currently occupied by special status plants; and
- Acres of disturbance to unoccupied potential habitat.

3.2.2.2 No Action Alternative

Under the No Action Alternative, the pipeline would not be constructed, LNG would continue to be trucked to Afton, there would be no disturbance in the Project Area, and therefore no impacts to special status plant species.

3.2.2.3 Proposed Action

Construction and Reclamation

Plant Populations

As stated above, no known populations of any special status plant species were found to occur within the 50-foot wide Proposed Action ROW route. As such, there would be no direct impacts

to special status plant populations; however, indirect effects may occur to Winwards' goldenbush and starveling milkvetch due to the close proximity of the known populations and the impacts to potentially suitable habitat.

Potential Habitat

Two species have the potential to occur within the Project Area, Winward's goldenbush and Starveling milkvetch. Both of these species are known to occur in distinctly barren or sparsely vegetated areas within areas generally mapped as big sagebrush, dwarf sagebrush, sparsely vegetated or herbaceous habitats. There would be approximately 215 acres of big sagebrush disturbed for the Proposed Action route. In addition, it is likely that if new populations were discovered in the Project Area, slight realignments could be made to completely avoid any potential direct impacts to either species.

Operation and Maintenance

Operation and maintenance of the pipeline would not result in any additional impact to Winward's goldenbush or Starveling milkvetch. No new disturbance would occur as any vehicle accessing the pipeline would travel on established roads or the previously disturbed pipeline route.

Design Features/Environmental Protection Measures to Avoid or Minimize Impacts

- Prior to construction, a preconstruction survey would be conducted in areas that may contain habitat for special status species.
- Using route markers/signage, boulders, gates, etc. to block and indicate the pipeline corridor is not open to OHV use.

3.2.2.4 Cumulative Effects

The CIAA for special status plants includes all areas within 300 feet of the centerline of the Proposed Action, which encompasses approximately 3,394 acres, including approximately 118.5 acres of Ute ladies'-tresses potential habitat (**Figure 3.1-1**). This CIAA was selected based on scientific literature regarding potential indirect impacts to vegetation, primarily dust-related impacts (Farmer 1993; Padgett et al. 2008; Sharifi et al. 1997, USFWS 2011).

Cumulative impacts to special status plant species in the CIAA would be short-term and minor. As there are no known populations occurring within the Project Area, cumulative impacts would be limited to loss of potential habitat and indirect impacts to any existing populations near the Project area. Other past, present, and future activities that may impact potentially suitable habitat for special status plant species include wildfires, mining and exploration, livestock grazing, off-road vehicles, and recreation activities. Given the amount of suitable habitat present (i.e., shrublands) in the CIAA, this impact would be negligible. Noxious weed and invasive species EPMs currently outlined in this DSEIS as well as EPMs determined during preconstruction consultation with the USFS prior to implementation of EPMs would minimize potential cumulative effects from the Proposed Action to special status plant species.

3.3 SPECIAL STATUS WILDLIFE

This section analyzes special status wildlife, which are defined as species that meet one or more of the following criteria:

- Listed, proposed or candidate for listing under the federal ESA as threatened, endangered, proposed, or candidate for listing;
- Designated by the USFS as sensitive; and
- Designated by IDFG or WGFD as Species of Greatest Conservation Need (Idaho) or Species of Concern (Wyoming).

The study area for special status species is the temporary 50-foot construction ROW for the Proposed Action, plus a 0.5-mile buffer (0.25-miles on both sides of the ROW). It encompasses approximately 20,000 acres.

3.3.1 State of Idaho Species of Greatest Conservation Need

The State of Idaho has identified Species of Greatest Conservation Need (SCGN) in Idaho in the State Wildlife Action Plan. These species are divided into three tiers based on their relative conservation priority in Idaho. Tier 1 species are considered critically imperiled: at high risk because of extreme rarity (often five or fewer occurrences), rapidly declining numbers, or other factors that make it particularly vulnerable to rangewide extinction or extirpation. Tier 2 species are those that are considered imperiled and are at risk because of restricted range, few populations (often 20 or fewer), rapidly declining numbers, or other factors that make it vulnerable to rangewide extinction or extirpation. Tier 3 species are considered vulnerable and are at moderate risk because of restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors that make it vulnerable to rangewide extinction or extirpation.

3.3.2 State of Wyoming Species of Concern

Species of Concern in Wyoming are maintained by the Wyoming Natural Diversity Database (WYNDD). These species of concern are those that are vulnerable to extirpation at the global or state level due to:

- Their rarity (e.g., restricted distribution, small population size, low population density)
- Inherent vulnerability (e.g., specialize habitat requirements, restrictive life history)
- Threats (e.g., significant loss of habitat, sensitivity to disturbances).

3.3.3 Affected Environment

The information presented in this section is summarized from the wildlife resources technical report prepared for the 2019 FEIS (Stantec 2018b). The information used to describe the baseline condition comes from the following sources:

- General wildlife surveys conducted for this Project, which are described in Stantec (2018b);
- Wildlife surveys conducted for nearby projects, specifically the East Smoky Mine EIS (Stantec 2016), the Dairy Syncline Mine EIS (JBR 2012), and Smoky Canyon Mine Panels F and G EIS (Maxim 2000, 2004).

- Other data sources included consultation or data queries with USFS, IDFG, WYNDD, WGFD, USFWS, and the Idaho Fish and Wildlife Information System (IFWIS).

Table 3.3-1 presents the special status wildlife species with the potential to occur in the study area based on a review of species habitat requirements, vegetation maps, and correspondence with state and federal biologists. Species that did not have the potential to occur are species that have a known range that do not overlap the region; have no potentially suitable habitat within at least 10 miles of the study area; or have significant barriers between known habitat and the Project Area (e.g., bighorn sheep).

Table 3.3-1 Special Status Wildlife Species with Potential to Occur in the Study Area

COMMON NAME	SCIENTIFIC NAME	USFWS	IDFG/TIER*	WGFD	USFS
General Mammals					
Canada lynx	*Lynx canadensis*	T	S1	S1	
Gray wolf	*Canis lupus*		S1	S1	S
Grizzly bear	*Ursus arctos horribilis*	T	S2/Tier 1		
North American wolverine (wolverine)	*Gulo gulo luscus*	P	S2/Tier 1	S2	
Pygmy rabbit	*Brachylagus idahoensis*		S2/Tier 2	S1	S
Bats					
Spotted bat	*Euderma maculatum*		S3	S3	S
Townsend's big-eared bat	*Corynorhinus townsendii*		S3/Tier 3	S2	S
Birds					
Bald eagle	*Haliaeetus leucocephalus*			S3B S5N	S
Bobolink	*Dolichonyx oryzivorus*		S2B/Tier 2		
Boreal owl	*Aegolius funereus*			S2	S
Brewer's sparrow	*Spizella breweri*			S5	
Columbian sharp-tailed grouse	*Tympanuchus phasicnellus columbianus*		S3/Tier 2	S1	S
Flammulated owl	*Otus flammeolus*		S3B	S1	S
Golden Eagle	*Aquila chrysaetos*		S3/Tier 2		
Grasshopper Sparrow	*Ammodramus savannarum*		S3B/Tier 3		
Great gray owl	*Strix nebulosa*		S3/Tier 3	S2	S
Greater sage-grouse (GRSG)	*Centrocercus urophasianus*		S2/Tier 1	S3S4	S
Harlequin duck	*Histrionicus histrionicus*		S1B/Tier 2	S1B	S
Northern goshawk	*Accipiter gentiles*		S4	S2BS3N	S
Olive-sided flycatcher	*Contopus borealis*		S3B/Tier 3	S4B	
Peregrine falcon	*Falco peregrines anatum*			S2	S
Prairie falcon	*Falco mexicanus*				
Sagebrush sparrow	*Amphispiza belli*		S3B/Tier 2		
Short-eared owl	*Asio Flammeus*		S3/Tier 3		
Three-toed woodpecker	*Picoides tridactylus*		S2		S
Trumpeter swan	*Cygnus succinators*		S1B S2N/Tier 2	S3BS3N	S
Willow flycatcher	*Empidonax trailii*		S5B	S4B	
Yellow-billed cuckoo	*Coccyzus americanus*	T	S1B/Tier 1	S2	

COMMON NAME	SCIENTIFIC NAME	USFWS	IDFG/TIER*	WGFD	USFS
Amphibians					
Columbia spotted frog	*Rana luteiventris*		S4/Tier 1	S3	S
Common garter snake	*Thamnophis sirtalis*		S3	S5	
Northern leopard frog	*Rana pipens*		S2/Tier 2		
Boreal toad	*Bufo boreas*		S3/Tier 2	S3	S
Insects					
Monarch butterfly	*Danaus plexippus*	C	S2/Tier 3		

Source: USFWS' Information for Planning and Consultation (IpaC) website (accessed November 2022), IDFG (2018a), WYNDD (2018), and USFS (2016).

USFWS: E – Endangered: species in danger of extinction throughout all or a significant portion of its range. T – Threatened: species likely to become endangered within the foreseeable future throughout all or a significant portion of its range. XN – Experimental/Nonessential Population: a population (including its offspring) of a listed species designated by rule published in the Federal Register (FR) that is wholly separate geographically from other populations of the same species. C – Candidate Species. P – Proposed Species

IDFG/WGFD: S1= Critically imperiled: at high risk because of extreme rarity (often five or fewer occurrences), rapidly declining numbers, or other factors that make it particularly vulnerable to rangewide extinction or extirpation. S2 = Imperiled: at risk because of restricted range, few populations (often 20 or fewer), rapidly declining numbers, or other factors that make it vulnerable to rangewide extinction or extirpation. S3 = Vulnerable: at moderate risk because of restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors that make it vulnerable to rangewide extinction or extirpation. S4 Apparently secure: uncommon but not rare; some cause for long–term concern due to declines or other factors. S5 = Secure: common, widespread, and abundant. B = Breeding: conservation status refers to the breeding population of the species. N = Nonbreeding: conservation status refers to the non–breeding population of the species. *Please note: Tiers only apply to Idaho SGCN species. USFS: S = Sensitive: animal species identified by the Regional Forester for which population viability is a concern, as evidenced by significant current or predicted downward trends in population numbers or significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution.

3.3.3.1 Species Accounts

Federally-Listed Threatened, Endangered, or Proposed Species

Canada Lynx

The Canada lynx is listed as a Threatened species under the ESA (FR 65(58) [March 24, 2000]: 16052-16086). On August 1, 2022, the USFWS initiated a 5-year review for the Canada lynx (87 FR 48037) and per a U.S. District Court of Montana settlement agreement in late-2021, is currently evaluating critical habitat, preparing a draft recovery plan (required to be completed by December 2023), and updating the Species Status Assessment. Critical habitat for Canada lynx was designated by the USFWS on February 25, 2009 (74 FR 8616) and revised on September 12, 2014 (79 FR 54781). Critical habitat was designated in five core units: Unit 1 in Maine, Unit 2 in Minnesota, Unit 3 in Montana and Idaho, Unit 4 in Washington, and Unit 5 in Wyoming and Montana (74 Federal Register 8616). There is no designated critical habitat in the study area based on the 2014 critical habitat designation, however, a corner of designated critical habitat is directly adjacent (less than 500 feet) to the study area in lower Crow Creek. There will be no effect on Canada lynx Critical Habitat from implementing this Project therefore, no further analysis on Critical Habitat is needed.

Canada lynx occur in most boreal forest habitats in North America, including the classic boreal forests or taiga of northern Canada and Alaska, upper elevation coniferous forests of the Rocky Mountains and Cascade Range, and mixed coniferous-deciduous forests of southeastern Canada,

New England, and the Great Lakes states (Aubry et al. 2000). The Northern Rocky Mountain/Cascades Region (38 million acres), which includes parts of the CTNF, contains the majority of the Canada lynx occurrences in the U.S. Most Canada lynx occurrences are within moist Douglas fir and western spruce/fir forests between 5,000 and 6,500 feet (FR 65:16052-16086).

Throughout North America, the Canada lynx's diet, in both winter and summer, is dominated by snowshoe hares. In southern boreal forests, alternative prey, especially red squirrels, are also important constituents of the diet. As in the taiga, Canada lynx in southern regions are associated with boreal and sub-boreal forest conditions, including upper elevation, coniferous forests in the western mountains. In both northern and southern regions, Canada lynx occur predominantly in habitats where snowshoe hares are abundant, especially early successional stands with high stem densities. In southern boreal forests, however, such habitats appear to be used primarily for hunting; all known den sites in southern regions were in mature forest stands with large woody debris. Relatively large home ranges appear to be characteristic of the Canada lynx in southern boreal forests (USFS 2007).

The Montpelier Ranger District, including the study area, was not identified in the Northern Rockies Lynx Management Direction Final Environmental Impact Statement (FEIS) (USFS 2007) as core, secondary, peripheral, occupied, or unoccupied Canada lynx habitat, primarily due to factors relating to the vegetation types present and average patch size (USFS 2003a, 2002). During a meeting on September 5, 2001, with the USFWS, Salmon-Challis NF, Bridger-Teton NF, CTNF, and BLM from Montana and Idaho. It was jointly decided by CTNF and USFWS personnel that primary vegetation types (Canada lynx habitat) on the CNF, were too patchy and disjunct to provide suitable Canada lynx habitat. A patch size analysis conducted for the CNF found that in the watersheds reviewed, the average patch sizes for mixed conifer stands ranged from 14 to 27 acres, and 20 to 44 acres for lodgepole pine. During that meeting, it was agreed that the CNF portion of the CTNF would be dropped as suitable lynx habitat, and no lynx analysis units would be delineated on the CNF. However, the Montpelier Ranger District was identified as potential linkage habitat between the "core" Canada lynx habitat in Bridger-Teton National Forest and "peripheral" habitat in the Ashley National Forest in Utah (USFS 2003b; USFS 2007). This potential linkage habitat does not contain boreal forest and would likely be used for movement/dispersal only. However, based on recent research and habitat modeling verified by Global Positioning System occurrence locations by Olson et al. (2020), habitat in and near the study area that has been in the past classified as potential linkage habitat may be more suitable for Canada lynx (and predictive of future occurrences) than previously thought based on recent species distribution and habitat models. Additionally, the Interagency Lynx Biology Team is currently reviewing new literature for the Canada lynx, which may result in a new suitable habitat map and possibly a new LACS. This effort has not been finalized but is currently in process.

Idaho Fish and Wildlife Information System records contain one observation of a female Canada lynx with two kittens in August 2005 two miles southeast of the Blackfoot River Narrows (IFWIS 2022). These individuals were believed to be transplants from Colorado that were moving back northwards (Devineau 2010; USFS 2018a). No Canada lynx or lynx sign was observed during winter track surveys conducted for nearby projects (i.e., Dairy Syncline Mine, East Smoky Mine) in 2008, March 2011, March 2014, and April 2014 (JBR 2012 and Stantec 2016). Likewise,

tracking surveys were conducted in the study area in March 2018, with no observations or sign of Canada lynx (Stantec 2018b). Additionally, ongoing track surveys from 2003 to 2018 by USFS wildlife biologists have not detected Canada lynx in the CNF (USFS 2018a). As a result, although Canada lynx have the potential to move through the study area, the only documented occurrence was in August 2005; therefore, the likelihood of occurrence within the study area is low.

Grizzly Bear

The USFWS listed grizzly bear in the lower 48 states as threatened in July 1975 (40 FR 31734). When listed in 1975, only five areas in mountainous regions, national parks, and wilderness areas contained populations. These five areas were the Northern Continental Divide area in northwest Montana; the Greater Yellowstone area in northwest Wyoming, eastern Idaho, and southwest Montana; the Cabinet-Yaak Mountains area in northeast Idaho and Montana; the Selkirk Mountains area in northwest Idaho and northeast Washington; and the North Cascades area in northcentral Washington (USFWS 1993). A recovery plan was completed in 1993, which designated the areas above, plus the Bitterroot Mountains of central Idaho, as recovery areas, also referred to as grizzly bear ecosystems (USFWS 1993). The closest grizzly bear ecosystem to the study area is the Greater Yellowstone Ecosystem (GYE), which had a conservation strategy developed in 2016 (Sullenger 2016). The GYE population has been the subject of several delisting efforts, the most recent in 2017 (82 FR 57698). However, the USFWS completed a status review for grizzly bear in the lower 48 states in 2022 and recommended the species retain its status as threatened (USFWS 2022b). Critical habitat has not been designated for the grizzly bear.

Historically, grizzly bears occurred throughout much of the western half of the lower 48 states, western Canada, and most of Alaska. Populations declined dramatically with the arrival of European settlers and when listed in 1975, the species occupied less than two percent of its former range (USFWS 2022b). However, the GYE population has tripled since the early 1980s and within the portion of the ecosystem that is monitored (termed the demographic monitoring area), the 2021 population estimate was approximately 1,069 individuals. However, the total estimated distribution is larger than the demographic monitoring area and the population is larger than the 2021 estimate (USFWS 2021b). Currently, the GYE population occupies a range that extends from near Bozeman and Livingston, Montana, in the north, to the Wind River Range and Wyoming Range in the south.

The study area is outside the known distribution of the GYE population. The nearest observations have been near Salt Creek Summit (approximately 12 miles to the east of the study area), and near Palisades Reservoir (approximately 40 miles to the north of the study area). Although there have been no observations within the study area, it is recognized that the GYE population is expanding and permanently occupying new areas (USFWS 2021b). The study area (and the CNF in general) provides suitable habitat for grizzly bear. In addition, there is connectivity between the study area and known grizzly bear occurrences to the north and east of the study area. As a result, it is possible that grizzly bears may be present in the study area at some point during the life of the Project.

Monarch Butterfly

The monarch butterfly was listed as a candidate species under the ESA on December 17, 2020 (85 FR 81813). At that time, the monarch butterfly's listing as a threatened species was determined to

be warranted but was precluded by work on higher-priority listing actions. As a candidate species, critical habitat has not been designated for the monarch butterfly.

Monarch butterflies are endemic to the continental U.S. and are divided into eastern and western populations, geographically isolated by the Rocky Mountains. Western populations breed in every state west of the Rocky Mountains and migrate back to coastal California each fall to overwinter in coastal groves of blue gum eucalyptus (*Eucalyptus globulus*), Monterey pine (*Pinus radiata*), and Monterey cypress (*Hesperocyparis macrocarpa*) (USFWS 2020). Monarchs arrive in Idaho in early June where they breed and spend the summer, before beginning their migration back to the coast in mid-August through mid-September (Waterbury et al. 2019). Monarch butterflies are specialists, dependent on milkweed species for egg laying sites and larval stage development. Monarch caterpillars feed exclusively on milkweed species, making milkweed critical to their survival and in determining their distribution, range, and habitat use. Showy milkweed (*Asclepias speciosa*) and swamp milkweed (*Asclepias incarnata*) have been found to be preferred by the western monarch butterfly (Waterbury et al. 2019).

Limited monitoring of the monarch butterfly began in the 1980's, although large-scale yearly assessments did not begin until 1997. Since 1997, population counts have generally been declining every year (IDFG 2017b). The primary threats impacting monarchs are habitat loss and fragmentation, loss of milkweed, and intensified weather events that impact monarch populations. Surveys for the monarch butterfly have historically focused on locations of milkweed. Milkweed typically occurs in non-forested openings along waterways and may also occur in roadside ditches, agricultural fields, and pastures. In Idaho, primary distribution of milkweed and breeding monarchs is along the Snake River plain (Svancara et al. 2019; Waterbury et al. 2019). Habitat suitability modeling shows the study area and its vicinity to be "not suitable" for milkweed or monarch butterflies (Svancara et al. 2019). One of the limitations of the study area is its elevation, as one of the primary predictive variables of suitable habitat is an elevation less than or equal to 4,265 feet above mean sea level (amsl). Minimum elevation in the study area is approximately 6,000 feet amsl. As a result, it is unlikely that monarch butterflies use any portions of the study area for breeding. However, floral resources used by monarch butterflies for migration can occur in a broader range of habitats. As a result, although the probability is low, migratory monarchs may occur in the study area on a transient basis.

Wolverine

In February 2013, the USFWS published a proposed rule to list the distinct population segment (DPS) of the wolverine in the contiguous U.S. as a threatened species, citing the primary threat to the species as loss of habitat and range as a result of climate change (78 FR 7863). This decision was subsequently withdrawn. On April 4, 2016, the U.S. District Court of Montana vacated the USFWS's withdrawal of its proposed rule (81 FR 71670). At the time of the 2019 FEIS publication, the proposed listing was under review and pending a final decision on the status of the species. Therefore, the USFS analyzed the species as "proposed-threatened." Additionally, because wolverines were a proposed species, rather than listed, there was no critical habitat designated for the species. On October 8, 2020, the USFWS determined that the best available science showed that the factors affecting wolverine populations were not as significant as believed in 2013 when the USFWS proposed to list the wolverine found in the contiguous U.S. as threatened. Therefore, this species did not meet the definition of threatened or endangered under

the ESA and the USFWS withdrew its listing proposal. However, on May 26, 2022, the U.S. District Court of Montana vacated the USFWS's 2020 decision to withdraw the 2013 proposed rule to list the wolverine as a threatened distinct population segment in the contiguous U.S. Therefore, for this analysis, the wolverine reverts back to proposed for listing status (i.e., proposed-threatened) under the 2013 proposed rule.

In North America, wolverines occur within a wide variety of arctic and alpine habitats, but they occur primarily in boreal forests, tundra, and mountains. The southern portion of their range extends into Idaho [FR 73(48):12929-12941; March 11, 2008]. A general trait of areas occupied by wolverines is the remoteness from humans and human developments (Banci 1994). Wolverine distribution in Idaho is strongly correlated with snow, cold temperatures, high elevation montane habitats and rugged terrain, including talus slopes (Inman 2013). Spring snow cover (April 24 to May 15) is the best overall predictor of wolverine occupancy and appropriate levels of snow cover during the denning period is essential for successful wolverine reproduction. Wolverines have an extended mating period (from May to August) and give birth to kits in February to mid-March (IDFG 2014). Dens tend to be on north facing slopes, often at elevations greater than 8,200 feet, in areas of high structural diversity with logs and large woody debris, large boulders, and deep snow (Copeland et al. 2007; IDFG 2014; Inman 2013). Wolverine summer habitat in Idaho is associated with high elevation whitebark pine communities with steep slopes and coarse talus (IDFG 2014).

In southeast Idaho, scattered historical occurrences of wolverine have been reported (Groves 1988). In 2018, the USFS completed a Geographic Information System analysis to identify potential natal denning habitat on the CNF (USFS 2018b). According to the model, there is no denning habitat in the study area. Additionally, the study area is generally rolling terrain at elevations less than 7,500 feet and lacks the steep north facing terrain and structural diversity required. As a result of the lack of denning habitat, the study area is unlikely to support a breeding wolverine population. No wolverine or wolverine sign (i.e., tracks) were observed during winter surveys of the study area in March 2018 (Stantec 2018b). In addition, no wolverine or sign were observed during other nearby surveys conducted in 2008, 2011, and 2014 (JBR 2012; Stantec 2016). However, multiple recent observations have occurred in southeast Idaho, including approximately eight miles to the north of the study area near the Smoky Canyon Mine (IFWIS 2022), and presence of wolverines within/adjacent to the study area is possible. Any wolverines present in the study area would likely be dispersing through to adjacent areas of higher quality habitat.

Yellow-billed Cuckoo

The western DPS of the yellow-billed cuckoo was listed as threatened on October 3, 2014 (79 FR 59992). The DPS listed covers twelve western states including Idaho and Wyoming. Critical habitat was designated on April 21, 2021 (86 FR 20798). There is no designated critical habitat in the study area. The nearest designated critical habitat is along the Snake River near Ririe, Idaho, approximately 70 miles to the north-northwest of the study area.

The western DPS of the yellow-billed cuckoo is a non-tropical migrant that winters in South America and breeds in western North America. The species has an extremely restrictive set of habitat requirements that includes native riparian habitat where vegetation is typically dominated by a multi-layered structure of cottonwoods (*Populus* spp.) and willows (*Salix* spp.). Vegetation

patch size is also an important factor in determining suitability for yellow-billed cuckoo. Suitable patches are characterized as at least 12 acres or more in overall size and separated from other suitable patches by at least 300 meters (USFWS 2019). Additionally, within a suitably sized vegetative patch, multi-layered riparian vegetative strata should be a minimum of 100 meters wide by 100 meters long (e.g., long narrow patches would be considered unsuitable).

Population numbers for this species are yet to be determined in Idaho or Wyoming, but a limited number of rare sightings have been documented within the cottonwood galleries of the Henry's Fork, South Fork, and main stem of the Snake River in eastern Idaho, and along the Green River in southwest Wyoming (USFWS 2021b, WGFD undated). The study area has some areas of willows, particularly along Crow Creek. However, these areas are not large enough (i.e., smaller than 12 acres and generally linear) and do not contain the cottonwood overstory required for nesting. Therefore, the study area does not provide suitable nesting habitat for yellow-billed cuckoos and there have no known detections on the CNF. Although it is possible that migrating individuals could pass through the study area, it is unlikely given the general lack of suitable habitat for the species, as well the distance of the study area from suitable nesting habitat in eastern Idaho and western Wyoming.

Forest Service Sensitive Species

Gray Wolf

As of May 5, 2011, wolves in Idaho are not on the Endangered Species List [FR 76(87) (May 5, 2011):25590-25592]. Wolves are sociable animals, frequently traveling and hunting in packs of two to 12 wolves. Packs typically occupy and defend territories of 50-550 square km (20-214 square miles) from other wolf packs. Wolves prey on a wide variety of mammals, including mule deer, elk, and beaver. Idaho wolf numbers in the Northern Rocky Mountain DPS area have grown steadily since the mid-90s and have stabilized to around 1,700 wolves as of 2010 (USFWS et al. 2011). There are no established packs or breeding on the CNF (IDGF 2018; USFWS et al. 2016). However, a wolf was documented approximately 5 miles to the north of the study area in 2014 (Stantec 2016) and other wolf sightings continue to be reported in the area. As a result, habitat in the study area could provide year-round movement routes for wolves. No wolves or wolf sign (i.e., tracks) were observed during winter surveys of the study area in March 2018 (Stantec 2018b).

Pygmy Rabbit

Pygmy rabbits in Idaho are not part of the Columbia Basin DPS that is on the Endangered Species List. USFWS conducted a status review of pygmy rabbit in 2010 and found that listing was not warranted [FR 75(189) September 30, 2010:60516-60561]. Pygmy rabbits are limited to habitat characterized by deep, friable soils and tall (often >six feet), dense sagebrush, which provides both food (95 percent of the diet) and cover. Burrows are usually located on slopes at the base of sagebrush plants. No occupied habitat has been found on the CTNF. There is no suitable habitat for pygmy rabbits in the study area, and the study area is just outside the known range of the species, mainly south and central Idaho [FR 75(189) September 30, 2010:60516-60561].

Spotted Bat

Spotted bats are rare, and their distribution is highly fragmented. The limiting factor to their occurrence is most likely suitable roost sites (rock and cliff crevices) and human disturbance.

Spotted bats usually occur in deep, narrow canyons, and roost in cracks or crevices within the rocky outcrops and cliffs (IDFG 2005). In Idaho, the spotted bat occurs mainly in the southwest corner of the state (Perkins and Peterson 1997). Dominant vegetation types in Idaho include sagebrush, juniper, mountain mahogany, and cottonwood (IDFG 2005). In 2003, one spotted bat was recorded in south-central Idaho, just west of Almo, near the City of Rocks Road (Rodhouse et al. 2009). Past surveys within the CTNF have not documented the presence of spotted bats (USFS 2003b). Suitable cliffs (roost sites) are not present within or near the Project Area and spotted bats were not detected during bat surveys within the study area in 2017 (Stantec 2018).

Townsend's Big-eared bat

Townsend's big-eared bats occur in much of western North America, in a variety of habitats from desert shrub to deciduous and coniferous forest, and over a wide range of elevations. The species' distribution, however, is strongly correlated with the availability of caves or cave-like roosting habitat, such as abandoned mines (Pierson et al. 1999).

Past surveys within the CTNF have found Townsend's big-eared bats in the Bear River Range, Preuss Range, Portneuf Range, and Elkhorn Mountains (USFS 2003b). Surveys conducted in the Montpelier Ranger District of the CTNF found five mines and caves with low numbers of Townsend's big-eared bats during the summer and 11 mines and caves with low numbers during the winter (USFS 2003b). No suitable maternity or hibernacula habitat is present in the study area, as the study area does not contain caves. Snags in the study area are suitable for roosting, and the Townsend's big-eared bats may forage or roost in the study area during spring, summer, or fall. Townsend's big-eared bats were not detected during bat surveys within the study area in 2017 (Stantec 2018b).

Bald Eagle

During breeding season, bald eagles nest in tall trees and cliffs near water in areas that support an adequate food supply of fish, waterfowl, rabbits, and carrion. Significant populations of bald eagle winter in Idaho and Wyoming near open water habitats and will use communal roosting sites in as shelter (BLM 2003; USFWS 2009). In Wyoming and Idaho, winter roost sites are found in riparian and upland forests, often on north-facing slopes (Stalmaster 1987). In Idaho, there were 188 occupied breeding pairs of bald eagles in 2009 (Stantec 2016). As of 2006, there were no occupied bald eagle nests within the study area (Sallabanks 2006). The closest nest sites were to the north along the Snake River and Palisades Reservoir, west on the Blackfoot River (Sallabanks 2006), and northeast near Thayne, Wyoming (USFS 2003a). Although suitable nesting sites may be present along some of the perennial streams in the area, no nests were observed in the study area during surveys in 2017 or 2018. However, there are known winter roost sites along Crow Creek. The USFS and others have monitored the Crow Creek wintering eagle populations; counts of bald eagles have ranged from zero to two (USFS 2012, 2013b, 2014; JBR 2012).

Boreal Owl

In the Rocky Mountains, boreal owls are typically found in subalpine forest habitats characterized by subalpine fir or Engelmann spruce (*Picea engelmannii*) (Hayward et al. 1994). Studies in Idaho found that boreal owl nesting sites were concentrated in mixed-conifer and aspen forests with no nesting in lodgepole pine forests and infrequent nesting in spruce fir. In general, no single

vegetation type provided all resources used by boreal owls, implying a complex pattern of habitat use (Hayward et al. 1994). The study area contains limited suitable habitat in mature forest stands and boreal owls may occur year-round, but no observations or callbacks were heard during site-specific surveys (Stantec 2018b). In addition, no observations have been noted during nearby site-specific surveys for the Smoky Canyon or Dairy Syncline mines (JBR 2012 and Stantec 2016).

Columbian Sharp-tailed Grouse

Columbian sharp-tailed grouse occur in habitats generally characterized by dense herbaceous cover and a mixture of shrubs. Habitat requirements in winter are narrower, as Columbian sharp-tailed grouse often rely on riparian areas or deciduous hardwood shrub stands (IDFG 2005). In southeast Idaho, Columbian sharp-tailed grouse are reasonably widespread in shrub and grass habitats adjacent to or in mountainous foothills (IDFG 2005). No leks have been documented on CTNF system lands, although several occur adjacent to the CTNF (USFS 2003b). Elevations on the CTNF are relatively high for suitable spring, summer, and fall habitat for Columbian sharp-tailed grouse. Suitable winter habitat, i.e., aspen, chokecherry, and serviceberry, is present generally limited to lower elevation riparian areas. Columbian sharp-tailed grouse may be present in suitable or marginally suitable habitat year-round.

Columbian sharp-tailed grouse have been observed in nearby areas, including the Nounan Valley, Diamond Creek and Slug Creek (JBR 2012). However, no Columbia sharp-tailed grouse were observed during surveys conducted in the study area in 2017 or 2018 (Stantec 2018b).

Flammulated Owl

Flammulated owls are small, secretive owls that nest in cavities and feed exclusively on insects. They occur year-round in cold temperate and semi-arid climates, in areas with open forest structure and some dense foliage, and with a high abundance or diversity of insect prey. Owls migrate following the availability of insect prey. Flammulated owls appear to occupy warm microclimates within mid-elevation conifer woodland habitats, either in response to prey availability or thermoregulation (McCallum 1994). The study area contains limited suitable habitat in mature forest stands. Surveys in 2018 detected flammulated owls at two locations near Preuss Creek via responses to broadcast calls (Stantec 2018b). Nest cavities were not located.

Great Gray Owl

Great gray owls occur in mid- to high-elevation conifer forests, nesting in mature forest stands that contain snags. In southeast Idaho, nests have been found in mid- to late-succession Douglas fir forests near clear-cuts or natural meadows. Most sightings of great gray owls in Idaho are in the lodgepole pine/Douglas fir/aspen zone. Open forested stands of Douglas fir and aspen interspersed with open meadows and within the study area may provide suitable habitat for great gray owls. The IFWIS data show that great gray owls have been recorded in multiple areas surrounding the study area and great gray owls have been observed approximately five miles north of the study area around the Smoky Canyon Mine (Stantec 2016). No callbacks were heard in the study area during surveys in 2018; however, a juvenile great gray owl was observed at night along the road near the turnoff to Whiskey Flat (Stantec 2018b).

Greater Sage Grouse

The GRSG is a USFS Sensitive Species, and a state protected game bird managed in accordance with the Idaho Governor's Greater Sage-Grouse Conservation Strategy – 2017 and the Idaho 2021 Plan: Policy for Managing Greater Sage-Grouse in Idaho (State of Idaho 2021). In March 2010, the USFWS designated the GRSG as a candidate for listing under the ESA. Concerns about long-term declines in sage-grouse populations and habitat prompted unprecedented large-scale efforts in Idaho and other western states to conserve the species while continuing predicable levels of land-use activities. In May 2015, the BLM and USFS released their Final Idaho and Southwestern Montana Sub-Regional Greater Sage-Grouse Land Use Plan Amendment and EIS (Sage-grouse Final EIS; BLM and USFS 2015) for sage-grouse management, including conservation measures and required design features to preserve sage-grouse and its habitat throughout the region. In September 2015, the USFWS determined that ongoing conservation efforts had significantly reduced threats to the point where sage-grouse was no longer warranted for protection under the ESA.

GRSG depend on sagebrush, particularly big sagebrush and silver sagebrush, for food and cover year-round. GRSG utilize riparian and upland meadows and sagebrush grasslands during summer, sagebrush dominated rangelands with herbaceous cover during breeding (lekking, nesting, and early brood-rearing), and upland meadows, riparian areas, greasewood bottoms, and agricultural fields in addition to sagebrush during autumn (Connelly et al. 2004). GRSG in southeastern Idaho have moved as far as 50 miles from breeding and nesting to summer ranges (Connelly et al. 2004). In addition, female GRSG have shown fidelity to nesting areas over consecutive years in southeastern Idaho (Fischer et al. 1993).

Breeding occurs on "leks" or openings surrounded by sagebrush in broad valleys, ridges, benches, and plateaus or mesas. Lek sites generally have good visibility (for predator detection), acoustical qualities (so mating sounds will carry), and an abundance of sagebrush within about 300 to 660 feet (for escape cover). Hens build nests at the base of a live sagebrush plant and remain in sagebrush vegetation with chicks until conditions are too dry, at which point hens with broods move towards wet meadow or riparian areas. Preferred nest habitats are those with live sagebrush along the periphery for escape cover and generally is considered contiguous sagebrush patches of at least 200-acres in size within 6.2 miles of an occupied lek. Early brood-rearing habitat is generally identified as sagebrush habitat surrounding each lek (1.8 miles or more).

Based on data from the GRSG Final EIS (BLM and USFS 2015) and IFWIS (2022), there are no known leks or Priority Habitat Management Areas (PHMAs) on NFS land within the study area (**Figure 3.3-1**). However, there are known active leks on private land near Montpelier (less than one mile south of the study area) and the same area is designated as Important Habitat Management Areas (IHMAs) in BLM and USFS (2015) as shown on **Figure 3.3-1**. The closest occupied lek occurs less than one mile (approximately 0.8 mile) south of the Project on private land and six occupied leks occur within 6.2 miles of the Project in Idaho (**Figure 3.3-1**). Along the Wyoming portion of the Proposed Action, there are no occupied or historic leks within 10 miles of the Project. Regarding population viability, IDFG and CNF trend data indicates a declining trend for GRSG on the six leks closest to the CNF boundary (monitored annually) (IFWIS 2022); however, GRSG populations across Idaho were generally stable for the last decade until recently (around 2018-2019), based primarily on habitat loss and fragmentation as a result of wildfires, drought, changes in land use, and spread of invasive species. However, habitat loss as a result of these factors has

not occurred on USFS lands in and around the Project. Nonetheless, as of 2019, GRSG populations in southeastern Idaho (Southern Conservation Area) have declined (based on lek counts [number of males]) and triggers have been tripped and now habitat formerly classified as IHMA is now considered PHMA and managed accordingly, including portions of the Project located in PHMA (approximately 22 acres) outside USFS lands (**Figure 3.3-1**). Approximately 3.7 miles and 22 acres of the Proposed Action would be within PHMA in this area. In addition, the Proposed Action would pass through approximately 2.4 miles and approximately 14 acres of WGFD's current range designation for GRSG but only crosses potential habitat (i.e., sagebrush vegetation) and developed habitat (not currently considered suitable for GRSG due primarily to human-caused changes in vegetation composition and features such as existing houses [e.g., Afton Subdivision, etc.], agricultural areas, and roads) (**Figure 3.3-1**).

Harlequin Duck

Harlequin ducks are sea ducks that migrate inland to breed. Breeding occurs along clear, swiftly-flowing streams. In Idaho, harlequin ducks feed primarily on benthic macroinvertebrates and use 2nd order or larger streams containing reaches with an average one to seven percent gradient, riffle habitat, clear water, gravel- to boulder-sized substrate, and forested bank vegetation (IDFG 2005). Harlequin ducks are not expected to occur on the CNF (USFS 2003b) and were not observed during the various surveys in 2017 or 2018 (Stantec 2018b).

Northern Goshawk

Northern goshawks inhabit montane coniferous and deciduous forests, forest edges, and open woodland stands. In Idaho, northern goshawks nest in coniferous and aspen forests, and spend winter in riparian or agricultural areas (Groves et al. 1997). Published descriptions of goshawk nests suggest that nest-site selection is predictable. In a western Montana and northern Idaho study, northern goshawks nested in mature conifer forest with a closed canopy (75-85 percent cover); on a moderate (15-35 percent), north facing slope; and at or near the bottom of a hillside, with a relatively open understory to allow flight below the canopy; and with water and a large forest opening generally within 0.3 mile of the nest (Hayward and Escano 1989). Stands of mature, closed-canopy Douglas fir, lodgepole pine, and aspen occurring in patches on north or easterly facing slopes within the study area may be suitable nesting habitat. In Idaho, the USFS has documented two goshawk territories that are either crossed (Preuss Creek) or immediately adjacent (Clear Creek Guard Station) to the study area (USFS 2023). Within the Preuss Creek territory, approximately 0.5 miles of the post-fledging family area is crossed by the Project and the territory's nest area is immediately east of the study area. This territory was last occupied in 2009 and most recently surveyed in 2017 (USFS 2023). The Clear Creek Guard Station territory is not crossed by the Project but occurs approximately 150 feet west of the study area. This territory was last occupied and surveyed in 2019 (USFS 2023). Surveys conducted in 2018 (Stantec 2018) did not locate any goshawks and additional surveys are planned in 2023.

Peregrine Falcon

Peregrine falcons occupy a wide range of habitats but are typically found in open country near rivers, marshes, lakes, and coasts. Foraging habitat includes wetlands and riparian habitats, meadows and parklands, croplands and orchards, gorges, mountain valleys, and lakes that support good populations of small- to medium-sized terrestrial birds, shorebirds, and waterfowl. Cliffs are

preferred nesting sites, although reintroduced birds now regularly nest on man-made structures such as towers and high-rise buildings (USFS 2003b). There is no suitable nesting habitat for peregrine falcons in the study area, and none were observed during various surveys in 2017 or 2018 (Stantec 2018b).

Three-toed Woodpecker

American three-toed woodpeckers are year-round residents of high-elevation, spruce fir forests, with populations increasing in response to spruce bark beetle outbreaks (Hill 2002 as cited in JBR 2012; Koplin 1969). The highest densities of woodpeckers tend to occur in freshly burned areas (zero to three years post-burn), and generally in areas with a high density of lightly burned trees (IDFG 2005). American three-toed woodpeckers typically nest in snags, where they excavate cavities, and may return to the same territory in succeeding years (Hill 2002 as cited in JBR 2012). Suitable habitat for this species occurs in forested habitats in and around the study area and the species was found during surveys in 2018 (Stantec 2018b).

Trumpeter Swan

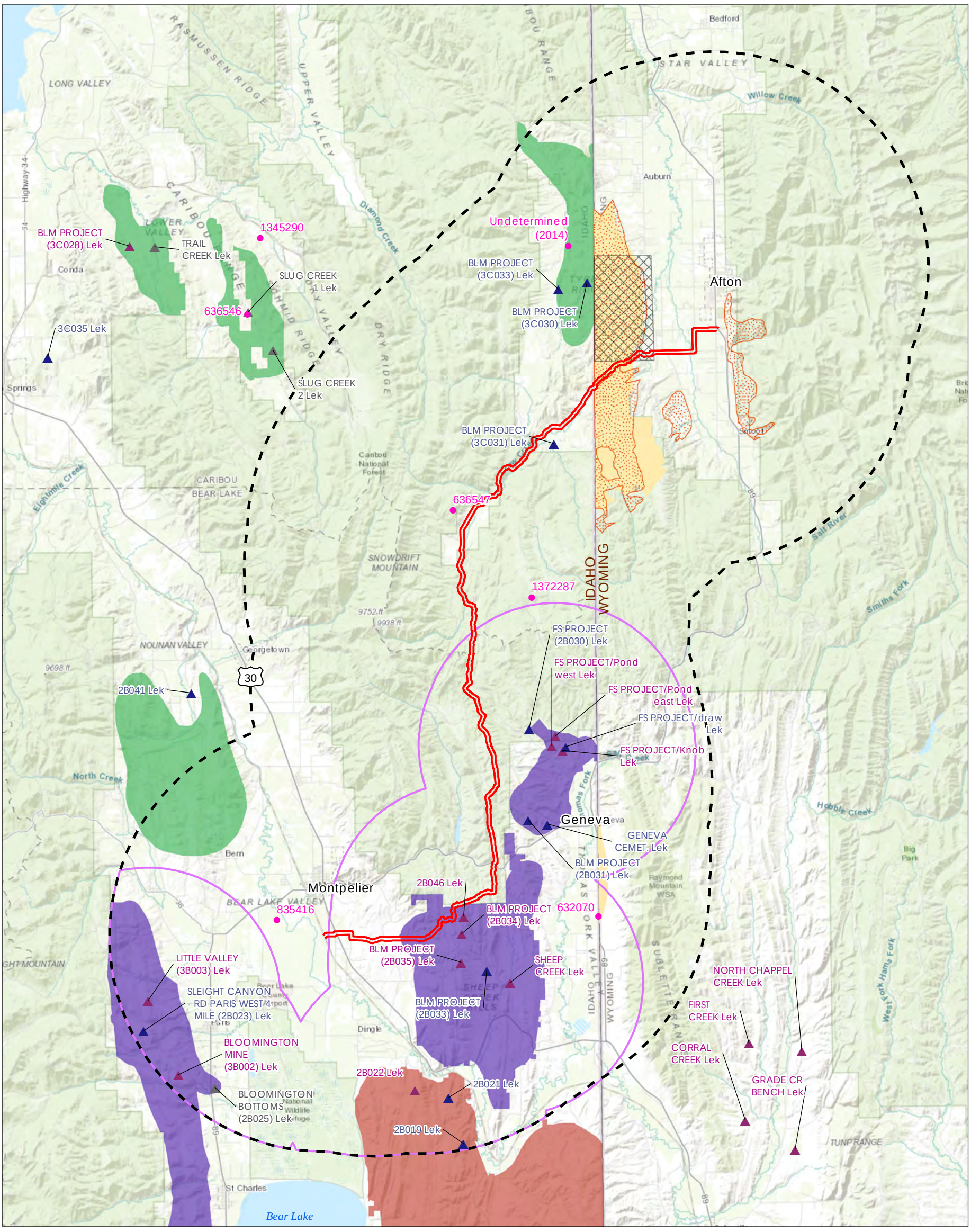
In Idaho, trumpeter swans breed on marshes, lakes, and beaver ponds, and wintering occurs along shallow, slow-moving waters. Trumpeter swans forage on submerged and emergent vegetation and aquatic insects (Groves et al. 1997). There are typically 100 adult birds in southeast and south-central Idaho during the breeding season, and they may nest at or near Grays Lake (20 plus miles north of the Study Area), Soda Springs (20 miles northwest of the Study Area), or Bear Lake National Wildlife Refuge (10 miles south of the Study Area) (IDFG 2005). The study area does not provide suitable habitat for trumpeter swans and none were observed during the various surveys conducted in 2017 or 2018 (Stantec 2018b).

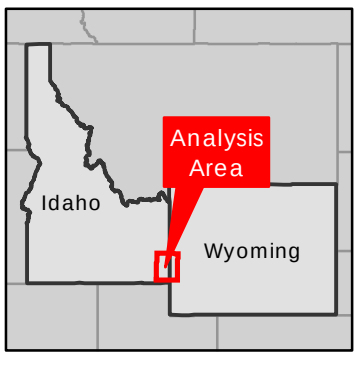
Columbia Spotted Frog

Columbia spotted frogs require habitat components for hibernation (water-flooded burrows), breeding (pooled water), foraging (e.g., shallow pond margins), and migrating between breeding and hibernation sites (corridors containing water and vegetative cover, e.g., wet meadows) (USFWS 2006). Suitable habitat, montane wetland habitat, is present on the CTNF and in the study area. Southeast Idaho, however, is outside the range of the Columbia spotted frog.

Boreal Toad

Boreal toads are found in a variety of habitats such as desert springs and streams, meadows, and woodlands, and in and around ponds, lakes, reservoirs, and slow-moving waterways (Keinath and McGee 2005; Groves et al. 1997). Breeding areas are typically shallow water areas at the edges of ponds, or lakes, stream, or river edges with slow-moving water, or other flooded or ponded areas. After breeding, boreal toads move to more terrestrial habitats. During the winter boreal toads hibernate in habitats that may be up to 1.5 miles from aquatic breeding habitat (Keinath and McGee 2005).





Legend

- Proposed Action
- 10-Mile Buffer
- 6.2-Mile Buffer
- Greater Sage-grouse Observation Location

Greater Sage-grouse Lek

- Occupied
- Unoccupied
- Undetermined Status

- Greater Sage-grouse Developed Habitat (WY)
- Greater Sage-grouse Potential Habitat (WY)
- Greater Sage-grouse Current Range 2015 (WY)

Idaho and Southwestern Montana Sub Regional Greater Sage-grouse Data

- General Habitat Management Area (currently managed as Priority Habitat Management Area)
- Important Habitat Management Area (currently managed as Priority Habitat Management Area)
- Priority Habitat Management Area

Notes

1. Coordinate System: NAD 1983 StatePlane Idaho East FIPS 1101 Feet
2. Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
3. ID Sage-grouse data: Idaho and Southwestern Montana Sub Regional Sage-Grouse FEIS (2015)
4. WY Sage-grouse data: Wyoming Game and Fish Department

0 3 6
Miles

1:300,000 (at original document size of 11x17)

N

Figure 3.3-1
Greater Sage-grouse Habitat
Lower Valley Energy
Crow Creek Pipeline Project

Boreal toads occupy relatively high elevation habitats compared to other western amphibians, ranging from 5,000 to 10,000 feet above sea level. Occupied wetlands are surrounded by a variety of upland vegetation communities, including sagebrush and grasslands, pinyon-juniper, mountain shrubs, and coniferous forest (Hogrefe et al. 2005). Boreal toad tadpoles were observed near South Fork Sage Creek, several miles northwest of the study area, in June 2003 (Maxim 2004). However, follow up surveys did not find any boreal toads. The study area provides suitable habitat in shallow water along the margins of streams, particularly those with areas of beaver ponds. Ponded areas were observed along Snowslide Creek downstream of where the alignment would cross and along Preuss Creek upstream and downstream of where the alignment would cross (Stantec 2018b).

State Species of Greatest Conservation Need and Species of Concern

Bobolink

As described in IDFG (2018), the bobolink breeds across a large part of southern Canada and the northern United States. This species is a long-distance migrant, wintering in southern South America. In summer, bobolinks breed in grasslands, prairie, and, more recently, agricultural fields. bobolinks primarily eat seeds, grains, and insects. This species is relatively easy to observe during the summer months as it forages for food on the ground below tall grasses or on the grass stalks themselves. Bobolinks are most active during the day. The Project Area contains potential habitat only in the agricultural areas adjacent to the project that may extend some distance up the Crow Creek drainage from Afton and along private agricultural fields south of Montpelier. No bobolinks were observed during field surveys (Stantec 2018b).

Brewer's Sparrow

Brewer's sparrows are considered sagebrush obligates. The species is tightly associated with sagebrush shrublands that have abundant, scattered shrubs and short grass. Brewer's sparrows breed in high densities and tend to be the most abundant bird species where they occur. They typically build open, cup-shaped nests in a large sagebrush plant. One Idaho study found that Brewer's sparrows select taller shrubs ranging from 16-41 inches (Ritter 2000). This species may occur in the study area within sagebrush habitats during spring or summer, although none were heard or observed in the study area (Stantec 2018b).

Golden Eagle

As described in IDFG (2018), in North America, this species breeds primarily in the mountain west from Alaska to central Mexico. In winter, golden eagles breeding in Canada and Alaska move south, while those in the Rocky Mountains move to lower altitudes. Small numbers of golden eagles breed in eastern Canada and winter locally in the northeastern U.S. and Mid-Atlantic region. In summer, the golden eagle breeds in a variety of habitats, including tundra, grasslands, and coniferous forests. Winter habitats are similar to breeding habitats but may also include wetlands. Golden eagles primarily hunt small mammals, including rabbits, hares, and squirrels, and marmots, but may scavenge carrion when available. Golden eagles are primarily active during the day. Potential golden eagle habitat exists in the Project Area; however, no golden eagles were observed in the Project Area during field surveys (Stantec 2018b).

Grasshopper Sparrow

As described in IDFG (2018), the grasshopper sparrow breeds across a large portion of the eastern United States and the Great Plains from the Canada border well into the Deep South. Despite its wide distribution, the grasshopper sparrow is an uncommon breeder throughout most of its breeding range due to specific habitat requirements. Grasshopper sparrows migrate south to Mexico for the winter. The grasshopper sparrow inhabits grassland habitats in its breeding and winter ranges. This species prefers grasslands that are drier and more open, with less ground-covering grass litter. In summer, grasshopper sparrows eat insects (coincidentally, grasshoppers make up a significant portion of their diet), while in winter, they primarily eat seeds. grasshopper sparrows forage on the ground. No grasshopper sparrows were identified in the study area during field surveys (Stantec 2018a); however, apparent suitable habitat would occur in the agricultural and open areas of the Project.

Olive-sided Flycatcher

Olive-sided flycatchers are found in forests and woodlands, especially in burned over areas with standing dead trees, such as taiga, subalpine coniferous forests, mixed forests, boreal bogs, muskeg, and borders of lakes and streams. Females build cup-shaped nests in trees (coniferous or deciduous) and hunt from a perch (Groves et al. 1997). This species may occur in the study area in woodland habitats, although none were heard or observed in the study area (Stantec 2018b).

Prairie Falcon

In general, prairie falcons nest on cliffs (Groves et al. 1997) and there is no suitable habitat within the study area (Stantec 2018b).

Sage Sparrow

Sage sparrows are found in sagebrush, saltbush brushlands, and chaparral. During migration and winter, sage sparrows are also found in arid plains with sparse bushes, in grasslands, and in open space with scattered brush (Groves et al. 1997). Sage sparrows build a cup-shaped nest, usually in a sagebrush plant. Suitable habitat for this species is present within the study area and this species was observed during surveys in 2017 (Stantec 2018b).

Short-eared Owl

As described in IDFG (2018), in North America, the short-eared owl breeds across Canada, Alaska, and the northern tier of the United States. Populations breeding in colder regions migrate south for the winter, while warmer parts of the short-eared owl's breeding range host this species all year. In winter, short-eared owls may be found across much of the United States and south to central Mexico. Short-eared owls breed primarily in open, treeless habitats such as tundra, grassland, and prairie. This species also frequents open habitats in winter when it may be found in fields and marshes. Typical for an owl, the short-eared owl eats small mammals, such as mice, voles, and shrews, and may be found in greater numbers where prey is plentiful. The short-eared owl is an adept night hunter; however, this species frequently hunts during the day as well. No short-eared owls were observed during field surveys (Stantec 2018b); however, due to habitat presence, especially in the agricultural areas of the project, short-eared owls could use portions of the Project Area at times, but most likely would be transient.

Willow Flycatcher

Willow flycatchers are present in the region of the study area spring through fall. Willow flycatchers breed in riparian habitat that has a mid-story of willows or alders and an intact lower layer (Ritter 2000; Douglas et al. 1992). In the greater Yellowstone region, willow flycatchers prefer nesting in willows with more dense and tall structure (Olechnowski and Debinski 2008). This species may occur in the study area in riparian habitat, especially along willow thickets surrounding Preuss Creek and Crow Creek. However, no incidental observations were made during survey efforts in 2017 (Stantec 2018b).

Common Garter Snake

Garter snakes are found in a variety of habitats such as grasslands, shrublands, woodlands, and open areas in forests. In Idaho, they are generally associated with marshes and wet areas (Groves et al. 1997). This species is likely to occur within the study area, although none were observed during surveys (Stantec 2018b).

Northern Leopard Frog

Northern leopard frogs are associated with a variety of wetland situations, including marshes, pond margins, and slow-moving sections of streams and rivers. In southern Idaho, northern leopard frog populations have been reported in the Snake River (and its tributaries), the Portneuf River, Bear River, and Marsh Valley in the southeast. Shive and Peterson reported that the northern leopard frog was the second most abundant species found in their study area in south-central Idaho (Shive and Peterson 2002). Northern leopard frogs have been observed in nearby areas of the Smoky Canyon Mine (Stantec 2016) and were observed in the study area in the Wood Canyon area (Stantec 2018b).

3.3.4 Environmental Consequences

For the analysis of impacts to wildlife resources, the following indicators were used:

- Acres of wildlife habitat physically disturbed and the proximity of that disturbed habitat to similar habitat; and
- Disruption and displacement of wildlife from high value and sensitive species habitat, such as leks, nest, or roost sites; wetlands, and seeps and spring areas.

3.3.4.1 No Action Alternative

Under the No Action Alternative, the pipeline would not be constructed, LNG would continue to be trucked to Afton, there would be no disturbance in the Project Area, and therefore no impacts to special status wildlife species from the Project.

3.3.4.2 Proposed Action

Construction and Reclamation

The Proposed Action would result in the removal of vegetation and wildlife habitat. The impacts of habitat loss on special status species would include: 1) immediate, direct effects in terms of wildlife mortality, disturbance, and displacement; and 2) changes in wildlife behavior and composition associated with long-term changes in land cover and reclamation. Construction that

takes place along existing ROWs would result in less impacts, since those areas may already see reduced usage from species due to increased human activity and presence.

Construction would involve ground disturbance and heavy equipment. Smaller less mobile wildlife (i.e., small mammals, amphibians, etc.) may be killed during ground clearing activities. Given the narrow linear nature of the disturbance, the potential for these mortalities is expected to occur on an individual and localized scale (i.e., not all individuals of a population would be killed) and the impact of these mortalities at the population or community level is expected to be negligible and short-term. Larger, more mobile wildlife are expected to disperse into adjacent habitat prior to disturbance and mortality is not expected. However, this forced dispersal would potentially lead to short-term stress and behavior modifications. As construction proceeds, wildlife may also displace into adjacent areas to establish temporary or long-term territories and home ranges. Displacement into already occupied habitats would result in increased competition for available resources. However, any increased competition is likely to be negligible given that 1) the amount of habitat disturbed is small relative to what is available; and 2) the type of habitats disturbed are common in the area. Impacts would be short term as all areas to be disturbed would be reclaimed at the end of construction. Impacts to nesting birds would be negligible as surveys would occur if construction would take place during the nesting season to ensure no nests would be destroyed.

Construction of the pipeline would result in some habitat fragmentation: the division of blocks of contiguous habitat into smaller, isolated patches. The effects of habitat fragmentation on wildlife communities may depend on the scale of analysis (Fahrig 2003). On a landscape scale, fragmentation of shrub steppe habitat in the Intermountain West has been linked to range-wide declines in several bird species. However, on a more localized scale, such as the study area, vegetation within a habitat tends to have a larger influence on the productivity and survival of individuals compared to the same habitat at a landscape scale (Knick and Rotenberry 2002). Additionally, species that are adapted to breeding in naturally fragmented landscape may be relatively tolerant of anthropogenic habitat fragmentation (Berry and Bock 1998). The habitats within the study area are naturally patchy, therefore, the effects from additional anthropogenic fragmentation resulting from the Proposed Action are anticipated to be minor. Additionally, the potential impacts from habitat fragmentation would be reduced as over half of the Project route follows existing roads or trails and would occur in an existing transportation corridor. Finally, reclamation of the pipeline would ensure that the habitat fragmentation would only be a temporary impact. Overall, habitat fragmentation is anticipated to be a minor impact to special status species.

Following construction, reclamation would re-establish vegetation in disturbed areas. However, the vegetation community would likely be different, at least initially. For example, initial reclamation would involve a seed mix of grasses, with shrubs such as sagebrush and riparian vegetation taking longer to recover. Forested habitat would not be allowed to recover due to the need to keep trees from affecting the buried pipeline. Further, any noxious weed and invasive plant introductions would reduce habitat quality. However, impacts from noxious weeds are anticipated to be minimal because of the use of Design Features/EMPs and BMPs to control them. Because impacts from noxious weeds are expected to be minimal, and because the amount of habitat to be disturbed is small and common relative to what is available in the area, any long-term impacts to special status species associated with changes in vegetation community are expected to be negligible. This is due to over half of the Project being placed along existing ROWs thereby

reducing impacts to species, reclamation of the disturbed areas (except for approximately 30 acres of forested habitat), and implementation of the Design Features/EMPs/BMPs.

Impacts specific to each special status species is discussed below in **Section 3.3.4.3**.

Operation and Maintenance

Operation and maintenance of the pipeline would not likely result in adverse impacts to special status species. Unless necessary due to a malfunction, no regular maintenance is anticipated along the course of the pipeline other than periodic tree removal. If any additional maintenance is required, it would take place in previously disturbed areas and would occur for a short period of time. Any future disturbance would be subject to the same reclamation requirements as during the initial installation of the pipeline. A beneficial impact of the Project would be the reduction of trucks on established roadways, delivering LNG to Afton, this would benefit wildlife species, including potential special status wildlife species, by reducing the potential for wildlife/vehicle collisions.

3.3.4.3 Species Specific Impacts

Federally Listed Species

Canada Lynx

The Lynx Conservation Assessment and Strategy identifies activities that impact Canada lynx via direct mortality or impacts to their snowshoe hare prey base as being primary drivers of impacts to the species. Roads and utility corridors are judged to have less impact on Canada lynx and their habitat. Documented mortalities on low-use forest roads is generally low (Ruediger et al. 2000). The Project would use existing roads and would not measurably increase traffic volume, particularly during winter months, thereby, minimizing direct mortality as a result of vehicle collisions.

In relation to potential habitat for Canada lynx, the Project would alter approximately 13 acres of forested habitat by removing trees during construction and periodically over the lifetime of the Project. The changes would be minor as only deep-rooted trees directly over the pipeline would be permanently removed (other trees would be allowed to reestablish). Although minor, this impact would be long-term. However, this loss of habitat represents approximately five percent of the Project ROW. In the remainder of the Project ROW, reclamation and natural re-vegetation would occur and the Project ROW would return to match existing vegetation. Because the amount of forested habitat to be disturbed is low, impacts to snowshoe hare populations (which are low in the area anyway due to a lack of high-quality habitat) are also unlikely. In addition, Canada lynx have been shown to move and disperse across shrub-steppe habitats and a reduction in cover of a small amount of forested habitat would likely not result in any decrease in the study area's ability to serve as habitat for Canada lynx.

In areas where the Project ROW would not be constructed along existing roads (approximately 60 percent of the Project would occur within or immediately adjacent to an existing transportation corridor), there is the potential for habitat fragmentation (i.e., the division of blocks of contiguous habitat into smaller, isolated patches). The effects of habitat fragmentation on wildlife communities may depend on the scale of analysis (Fahrig 2003). In the case of the Project, the habitats within the study area are naturally patchy, therefore, the effects from additional

anthropogenic fragmentation, resulting from the Project, are anticipated to be negligible and mostly temporary. Also, as previously stated, studies have found that Canada lynx tend not to avoid gravel forest roads and forest trails (Ruediger et al. 2000; Ruggiero et al. 2000). Prior to reclamation, the ROW would have a disturbance area similar to a typical road or forest trail (i.e., narrow, linear), and since avoidance of these types of features has not been shown, any fragmentation of the linkage habitat present in the study area would be discountable. Additionally, following reclamation, the Project ROW is expected to return to pre-construction conditions.

In regard to potential indirect impacts, the disturbance associated with the construction (i.e., noise, light, human presence) has the potential to displace Canada lynx from the study area (i.e., noise and light pollution would influence Canada lynx to travel around the periphery of the study area rather than travel directly through it). It is unknown where (i.e., at what distance from construction disturbance) the level of human disturbance (including noise and light) Canada lynx would tolerate. In Colorado, Canada lynx used areas of motorized recreation, but they altered their behavior to spend less time in these areas or used these areas at night when there was less human use (Olson et al. 2018). These results suggest that construction activity associated with the Project is unlikely to prevent the movement of Canada lynx through the study area but may alter their behavior while in the area. However, as the Project is located along or in close proximity to existing roads and recreation, any Canada lynx that do disperse through the study area are likely already modifying their behavior (i.e., may travel at night when there is less human use). As a result, any disruption in behavior as a result of the Project, is likely to be discountable relative to current baseline conditions. Furthermore, if disturbance did displace Canada lynx into adjacent habitat, suitable habitat is available in the Project vicinity, and the displacement would not prevent Canada lynx movement through the region. Therefore, the Project would result in a "may affect, not likely to adversely affect" for the Canada lynx and would result in "no effect" for Canada lynx critical habitat.

Grizzly Bear

The study area is outside known grizzly bear distribution and the species is highly unlikely to occur in the study area during construction. As a result, any potential effects to the species from construction activities (e.g., avoidance due to noise and light) are anticipated to be negligible. The Project would disturb approximately 300 acres of suitable grizzly bear habitat, which doesn't include security habitat as these areas are typically away from human disturbance and use (Sellenger 2016). However, except for approximately 13 acres of forested habitat, the proposed disturbance areas would return to pre-construction conditions following reclamation. If grizzly bear distribution expands into the study area in the future, the reclaimed disturbance would provide suitable habitat for the species. The alteration of 13 acres of forested habitat may reduce the area providing cover, but the impact is not anticipated to have a measurable effect to the species due to: 1) changes to cover would be minor as only deep-rooted trees directly over the pipeline would be permanently removed (other trees would be allowed to reestablish), and 2) suitable habitat is present adjacent to the proposed disturbance areas. Further, because maintenance would occur along existing roads or by foot travel where cross-country access is required, maintenance activities are not expected to impact security habitat (defined as suitable habitat away from human disturbance or use [Sullenger 2016]) or have a measurable impact on the species. Therefore, the Project would result in a "may affect, not likely to adversely affect" determination for the grizzly bear.

Monarch Butterfly

No breeding habitat (dense milkweed stands) is known to occur within the study area and therefore would not be removed or otherwise affected by the Project. A limited amount of foraging habitat (nectar plants) would be removed, decreasing the quality of migration habitat. However, because the amount and type of habitat to be disturbed is both negligible relative to what is available in adjacent areas and of limited value to the species, any impacts are expected to discountable (i.e., migrating monarchs could simply choose similar habitat adjacent to the study area). In addition, the probability of migrant butterflies occurring in the study area is low enough that any impacts to individual monarchs are anticipated to be negligible. Therefore, the Project would result in a "not likely to jeopardize" determination for the monarch butterfly.

Wolverine

Under the Proposed Action, the construction of the pipeline would disturb approximately 13 acres of forested habitat. This impact would limit the amount of suitable habitat available for use by the wolverine. Additionally, this impact would be long-term as the trees removed would not be reclaimed and any trees naturally returning to the area would be removed to preserve the integrity of the pipeline. This long-term direct loss of habitat would be negligible as suitable habitat is available in areas outside the study area for wolverines to use. Construction of the Project would also have the potential to disturb wolverines or their prey base from an increase in noise and human presence. While this impact would be moderate for any individuals near the construction area, it would be short-term as construction moves through the area. Following reclamation, wolverines and their prey base would generally move back into the areas. Overall, impacts to the wolverine would generally be the same as described above for Canada lynx and would be long-term and negligible. Therefore, the Project would result in a "not likely to jeopardize" determination for the wolverine.

Yellow-billed Cuckoo

The study area does not contain suitable nesting habitat for the species and therefore, there would be no impacts to nesting individuals. Riparian areas would be avoided to the extent possible, but a small amount of riparian vegetation would be temporarily disturbed during construction of the Project. Removal of vegetation and associated noise, light, and human presence during construction has the potential to affect any individual birds moving through the area. However, because the probability of migrant, vagrant, or transient, yellow-billed cuckoos occurring in the study area is so low, any impacts are anticipated to be negligible. Therefore, the Project would result in a "may affect, not likely to adversely affect" determination for the yellow-billed cuckoo.

Forest Service Sensitive Species

Gray Wolf

Under the Proposed Action, potential impacts to gray wolf would occur primarily through the loss of foraging habitat during construction and avoidance due to construction activity. A total of approximately 300 acres would be disturbed that gray wolf may potentially use. However, given the amount of similar habitat outside of the study area, this impact would be negligible and short-term as foraging habitat would return following reclamation. Disturbance to ungulates and other potential gray wolf prey species would occur during the construction phase. However, once reclamation is completed, those species are anticipated to return and indirect impacts to wolves

would therefore be temporary. No denning sites are known to occur within the vicinity of the study area. Any temporary disturbance of gray wolves due to noise associated with operation and maintenance would have negligible effects as individuals could disperse into nearby, undisturbed habitat. Therefore, the Project may impact individuals or habitat, but will not likely contribute to a trend towards federal listing or cause a loss of viability to the population or species.

Pygmy Rabbit

There would be no effects to pygmy rabbit, as they are not present within the study area.

Spotted Bat

Spotted bats are unlikely to be present within the study area and no effects are expected because of the Proposed Action.

Townsend's Big-eared Bat

Under the Proposed Action, there would be approximately 5 acres of disturbance to riparian areas used as foraging areas. Impacts to foraging would likely occur only during construction due to noise, as impacts to riparian areas are small enough that bats could use adjacent habitat for foraging as soon as construction and reclamation activities are complete (i.e., even before the areas have successfully revegetated). As a result, impacts are expected to be temporary and negligible. Impacts from maintenance would also be negligible (limited to noise and small loss of forested habitat). The loss of the forested habitat would be long-term but negligible. Therefore, the Project may impact individuals or habitat, but will not likely contribute to a trend towards federal listing or cause a loss of viability to the population or species.

Bald Eagle

Under the Proposed Action, potential impacts to bald eagle would occur primarily through the loss of foraging habitat. A total of approximately 300 acres would be disturbed that bald eagles may potentially use. However, given the amount of similar habitat outside of the study area, this impact would be negligible and short-term as foraging habitat would return following reclamation. No nest sites are known to occur within the vicinity of the study area and as construction is not expected during winter, no disturbance to roosting birds along Crow Creek would occur. The section of the pipeline along Crow Creek would be adjacent to an existing road, that is currently used as a snowmobile route in the winter which would already present some noise disturbance to wintering bald eagles, if present. Were maintenance required during winter, effects should be limited to temporary disturbance due to noise, the effects of which are likely to be negligible. Therefore, the Project may impact individuals or habitat, but will not likely contribute to a trend towards federal listing or cause a loss of viability to the population or species.

Boreal Owl

Under the Proposed Action, construction would disturb approximately 13 acres of forested habitat. This impact would be long term as no trees would be planted as part of the reclamation process and would be prevented from growing along the path of the pipeline to preserve its structural integrity from damage from roots. However, given the amount of available habitat outside of the study area, impacts to the boreal owl would be negligible, particularly since the species has not been document in the study area (or nearby) and is unlikely to be present. Were maintenance required, effects should be limited to temporary disturbance due to noise, the effects of which are

likely to be negligible. Therefore, the Project may impact individuals or habitat, but will not likely contribute to a trend towards federal listing or cause a loss of viability to the population or species.

Columbian Sharp-tailed Grouse

Under the Proposed Action, construction would disturb approximately 270 acres of shrublands and grasslands. This impact would be short-term as the disturbed areas would be reclaimed with a mixture of shrubs and grasses, which would allow the Columbian sharp-tailed grouse to use the disturbed areas in the future. As a result, impacts would be negligible. Were maintenance required, effects should be limited to temporary disturbance due to noise, the effects of which are likely to be negligible. Disturbance to leks is not anticipated from this project as none are known to occur. Therefore, the Project may impact individuals or habitat, but will not likely contribute to a trend towards federal listing or cause a loss of viability to the population or species.

Flammulated Owl

Under the Proposed Action, construction would disturb approximately 13 acres of forested habitat. This impact would be long-term as no trees would be planted as part of the reclamation process and would be prevented from growing along the path of the pipeline to preserve its structural integrity from damage from roots. However, given the amount available habitat outside of the study area, impacts to the flammulated owl would be negligible. Were maintenance required, effects should be limited to temporary disturbance due to noise, the effects of which are likely to be negligible. In addition, even though the path of the pipeline would be kept clear of larger vegetation, it would serve as foraging habitat/habitat for prey species (small mammals/insects). Therefore, the Project may impact individuals or habitat, but will not likely contribute to a trend towards federal listing or cause a loss of viability to the population or species.

Great Gray Owl

Impacts to great gray owl would be the same as described above for flammulated owl. Therefore, the Project may impact individuals or habitat, but will not likely contribute to a trend towards federal listing or cause a loss of viability to the population or species.

Greater Sage-Grouse

Under the Proposed Action, construction would disturb approximately 270 acres of shrubland and grassland vegetation that may provide habitat, primarily breeding and nesting (generally considered contiguous sagebrush patches of at least 200-acres in size within 6.2 miles of an occupied lek) and winter habitat with limited brood-rearing/summer habitat along drainages and springs/wetlands. This impact would be short term as the disturbed areas would be reclaimed and revegetation efforts (including reseeding/planting sagebrush and other desired vegetation species for GRSG habitat as required by the USFS and State of Idaho) following construction of the Project would be monitored to ensure successful reclamation, which would allow GRSG to use the disturbed areas in the future. The Proposed Action would also temporarily impact approximately 22 acres of PHMA on private and State of Idaho land. This impact to PHMA is anticipated to be minor given the fact that the area disturbed is less than one percent of the block of PHMA, the impacts would occur at the edge of the mapped PHMA, and impacts would be short term as reclamation would occur soon after the disturbance.

In order to minimize potential impacts to nearby leks in the PHMA area, additional design features would be in place as described below.

For portions of the Project located on State of Idaho endowment trust lands, required design features listed in a Project-specific letter (State of Idaho 2023) would be implemented while within IHMAs (currently managed as PHMAs).

If a lek is identified on NFS lands, USFS guidelines for GRSG would be implemented within 6.2 miles of an occupied lek as required, specifically GRSG-GEN-ST-006-Standard, and GRSG-GEN-ST-007-Standard (USFS 2015):

GRSG-GEN-ST-006-Standard - Do not authorize new surface disturbing and disruptive activities that create noise at 10 decibels above ambient measured at the perimeter of an occupied lek during lekking (from March 1 to April 30) from 6 p.m. to 9 a.m. Do not include noise resulting from human activities that have been authorized and initiated within the past 10 years in the ambient baseline measurement.

GRSG-GEN-ST-007-Standard - During breeding and nesting (from March 1 to June 15), surface disturbing and disruptive activities to nesting birds should be avoided.

Where construction takes place in Wyoming and within the WGFD's current range designation for GRSG, the Project crosses potential habitat (i.e., sagebrush vegetation) and developed habitat (not currently considered suitable for GRSG due primarily to human-caused changes in vegetation composition and features such as existing houses [e.g., Afton Subdivision, etc.], agricultural areas, and roads) (approximately 2.2 miles, **Figure 3.3-1**). Therefore, the additional presence of humans and vehicles for a short period would have a minor impact to GRSG that might be in the area at the time of construction.

Overall, construction and reclamation impacts would be short-term and minor and the limited amount of GRSG habitat to be impacted by the Project is not expected to contribute to a loss of viability for the species. In areas where maintenance activities may be required, impacts would be temporary (primarily due to human presence and noise), and the impacts are likely to be negligible. Therefore, the Project may impact individuals or habitat, but will not likely contribute to a trend towards federal listing or cause a loss of viability to the population or species.

Harlequin Duck

Harlequin ducks are not expected to be present in the study area and no effects are expected because of the Proposed Action.

Northern Goshawk

Impacts to northern goshawk would be the same as described above for flammulated owl. However, if the two known territories (Preuss Creek and Clear Creek Guard Station) or a new territory become active during implementation of the Proposed Action, USFS-required mitigation measures such as timing restrictions and protection buffers would be adhered to in order to limit disturbance to breeding northern goshawks. Therefore, the Project may impact individuals or habitat, but will not likely contribute to a trend towards federal listing or cause a loss of viability to the population or species.

Peregrine Falcon

Under the Proposed Action, potential impacts to peregrine falcon would occur primarily through the loss of foraging habitat. A total of approximately 300 acres would be disturbed during construction activities that peregrine falcons may potentially use for foraging. However, given the amount of similar habitat outside of the study area, this impact would be negligible and short term as reclamation would restore foraging habitat. No nest sites occur within the study area. Were maintenance required, effects should be limited to temporary disturbance due to noise, the effects of which are likely to be negligible. Therefore, the Project may impact individuals or habitat, but will not likely contribute to a trend towards federal listing or cause a loss of viability to the population or species.

Three-toed Woodpecker

Impacts to three-toed woodpecker would be the same as described above for flammulated owl. Therefore, the Project may impact individuals or habitat, but will not likely contribute to a trend towards federal listing or cause a loss of viability to the population or species.

Trumpeter Swan

Trumpeter swan are not expected to occur within the study area and no impacts are expected from the Proposed Action.

Columbia Spotted Frog

Columbia spotted frog are not expected to occur within the study area and no impacts are expected from the Proposed Action.

Boreal Toad

The Proposed Action would disturb approximately 5 acres within riparian areas. Any boreal toads present within the construction ROW could be killed by heavy equipment during construction. The magnitude of this impact is difficult to determine as the distribution of this species is poorly understood. If construction were to impact the few individuals present at a site, the impact could be moderate on a population scale (i.e., large enough to be measurable). However, if there are many individuals at a site, the impact could be minor or even negligible. Overall, mortality is unlikely as the species has not been detected at crossing locations. Impacts due to habitat loss would be temporary, as the disturbed areas would be reclaimed with a mixture of species that would allow the boreal toad to move back into the area. Impacts are not expected during operation and maintenance. Therefore, the Project may impact individuals or habitat, but will not likely contribute to a trend towards federal listing or cause a loss of viability to the population or species.

State Species of Greatest Conservation Need and Species of Concern

Bobolink

The Proposed Action would disturb less than five acres of potentially suitable habitat mainly associated with areas already developed for agricultural purposes near both ends of the project. The impacts would be short term and negligible as the areas of potentially suitable habitat are likely infrequently used already by this species due to human activity and past disturbance, plus areas disturbed by the project would be reclaimed with a mixture of species that would allow the bobolink to move back into the area, if it is desirable. Overall, impacts would be short-term and

negligible due to the limited amount of disturbance, the likely infrequent use of the potentially suitable habitat within the study area, and the presence of similar potentially suitable habitat in the general area. Were maintenance required, effects should be limited to temporary disturbance due to noise, the effects of which are likely to be negligible.

Brewer's Sparrow

The Proposed Action would disturb approximately 270 acres of disturbance to shrublands and grasslands. This impact would be short term as the disturbed areas would be reclaimed with a mixture of shrubs and grasses, which would allow the Brewer's sparrow to use the disturbed areas in the future. Overall, construction and reclamation impacts would be short-term and negligible. When maintenance is required, effects should be limited to temporary disturbance due to noise, the effects of which are likely to be negligible.

Golden Eagle

Impacts to golden eagle would be the same as described above for peregrine falcon.

Grasshopper Sparrow

Impacts to the grasshopper sparrow would be the same as described above for Brewer's sparrow.

Olive-sided Flycatcher

Impacts to olive-sided flycatcher would be the same as described above for flammulated owl.

Prairie Falcon

Impacts to prairie falcon would be the same as described above for peregrine falcon.

Sage Sparrow

Impacts to sage sparrow would be the same as described above for Brewer's sparrow.

Short-eared Owl

Impacts to short-eared owl would be the same as described above for the bobolink.

Willow Flycatcher

The Proposed Action would disturb approximately 5 acres of riparian areas during construction. This impact would be short term as the disturbed areas would be reclaimed with a mixture of species that would allow the willow flycatcher to move back into the area. Overall, impacts would be short-term and negligible due to the abundance of similar habitat in the general area. Were maintenance required, effects should be limited to temporary disturbance due to noise, the effects of which are likely to be negligible.

Common Gartersnake

Impacts to common gartersnake would be the same as described above for boreal toad.

Northern Leopard Frog

Impacts to northern leopard frog would be the same as described above for boreal toad.

Design Features/Environmental Protection Measures to Avoid or Minimize Impacts

In addition to implementing the design features/EMPs described in **Section 2.2.2.10** for vegetation resources which would minimize impacts to wildlife habitat, to minimize potential impacts to nesting birds, LVE would plan ground-clearing activities outside of the nesting season for birds (May 15 to August 15). If construction within the nesting season is required, surveys for special status bird species would be conducted in areas planned for disturbance to identify any active nests. If nests are found, they would either be avoided until fledging occurs according to direction provided by the authorized officer or avoidance plans would be developed as necessary before these areas are disturbed.

In addition, the GRSG Conversation Measures for activities on State of Idaho endowment trust lands (IDL 2017) would need to be implemented within the IHMAs, which are now being managed as PHMAs.

3.3.4.4 Cumulative Effects

Special status wildlife species would be cumulatively impacted by past and present actions, reasonably foreseeable future actions, and the Project. However, in many cases, surveys for special status species are required in potential or known habitats and these surveys help determine the presence of any special status wildlife species or the extent of potential habitat, and protective measures would be taken to avoid or minimize direct disturbance in these species and their habitat.

The CIAA for special status wildlife species encompasses 12 HUCs at the HUC-12 level (also known as 6th level hydrological units) (**Figure 3.1-1**), as some level of surface disturbance and human presence and noise from the Project would occur within this area. The individual HUCs were used because they have a definitive boundary based on watersheds and encompass the Project activities. The total area of the CIAA is approximately 297,495 acres and approximately 300 acres are estimated to be disturbed, although temporarily. The CIAA encompasses several habitats and known ranges of special status wildlife species including:

- Canada lynx critical habitat – 28,223 acres
- Grizzly bear occurrence – 8 acres but a large amount of habitat is immediately adjacent to the CIAA in Wyoming.
- Northern goshawk territories
    - Clear Creek Guard Station – 207 acres (nest area) and 630 acres (post fledging area)
    - Preuss Creek – 215 acres (nest area) and 621 acres (post fledging area)
- GRSG habitat
    - Potential habitat (WY only) – 16,239 acres
    - GHMA (currently managed as PHMA) – 476 acres
    - IHMA (currently managed as PHMA) – 34,771 acres
    - PHMA – 4,195
    - Number of occupied leks - 7

Most impacts to special status wildlife species, particularly GRSG and northern goshawk, would occur within or immediately adjacent to the Project and would affect individuals with home ranges overlapping or immediately adjacent to the Project. The watershed area surrounding the Project is large enough to encompass the home ranges of most special status wildlife individuals

along the Project. Impacts to special status wildlife species within the CEA include loss of habitat; displacement; and fragmentation as a result of wildfires, mining and exploration, timber harvesting, roads, private land development, livestock grazing, ranching, other agriculture, and recreation. Other impacts that are not quantified include the effects of noise on special status wildlife species, habitat fragmentation, and displacement from mining and exploration, roads, and recreational activities. Additionally, small, less mobile special status wildlife species that cannot relocate outside of disturbance areas are subject to direct mortality and localized population reductions from ground-disturbing activities.

In general, displacement of larger, more mobile species from habitat disturbance decreases survival rates of affected individuals to some degree and increases competition. Mine construction and operation could temporarily cause some wildlife, such as carnivores (e.g., Canada lynx and grizzly bear), raptors (e.g., northern goshawk), and GRSG, which generally prefer areas free from anthropogenic noise and activity, to avoid the portion of the CIAA close to human disturbance. Implementing the Proposed Action may result in the displacement of mobile special status wildlife species from the immediate area surrounding the Proposed Action and into adjacent undisturbed areas, where competition in already-occupied habitats may increase.

It is unknown to what extent special status wildlife individuals would be displaced and what the impacts of displacement on resident populations would be; however, given the scale of the Proposed Action, it is unlikely that any short- or long-term adverse impacts to special status wildlife species would occur beyond the identified CIAA. In addition, ongoing conservation or recovery efforts for the GRSG in the area by private landowners, IDFG, or other agencies would likely continue and provide a beneficial impact to the species.

3.4 CULTURAL RESOURCES

The analysis area for Cultural Resources is based on a review of known cultural information gathered from federal, state, and other databases, agency personnel and archaeologists with an understanding of the areas cultural resources.

3.4.1 Introduction

3.4.1.1 Data Sources

For this Project, Commonwealth Heritage Group Inc. (CHG) was contracted to conduct a Class III cultural resource inventory of public, non-private lands or approximately 50 percent of the Project length. The Area of Potential Effects (APE) consists of a 200-foot buffer centered on the Project Area. The pre-field research included: The National Register of Historic Places (NRHP), archeological site records/maps, architectural site records/maps, previous survey records, Historical records/maps, Idaho and Wyoming State Historic Preservation Office (SHPO) files, and the Star Valley Historical Society.

3.4.1.2 Regulatory Framework

The National Historic Preservation Act (NHPA) of 1966 (54 USC 300101 et seq.), as amended, the Archaeological Resources Protection Act (ARPA) of 1979, the American Indian Religious Freedom Act (AIRFA) of 1978, and the Native American Graves Protection and Repatriation Act (NAGPRA) of 1990 are the primary laws regulating preservation of cultural resources. Federal regulations obligate federal agencies to protect and manage cultural resource properties. Section

106 of the NHPA, requires federal agencies to consider any action that may adversely affect any structure or object that is, or can be, included in the NRHP.

To be eligible for the NRHP (36 CFR 60), properties must be 50 years old (unless they are exceptionally important) and have national, state, or local significance in American history, architecture, archaeology, engineering, or culture. Historic properties may include places of traditional, religious, and cultural importance. They also must possess integrity of location, design, setting, materials, workmanship, feeling, and association, and meet at least one of four criteria:

- Criterion A: be associated with significant historical events or trends;
- Criterion B: be associated with historically significant people;
- Criterion C: have distinctive characteristics of a style or type, or have artistic value, or represent a significant entity whose components may lack individual distinction; and
- Criterion D: have yielded or have potential to yield important information.

The purpose of the ARPA of 1979 is to secure the protection of archaeological resources and sites that are on public lands and Indian lands and to foster increased cooperation and exchange of information between governmental authorities, the professional archaeological community, and private individuals having collections of archaeological resources.

The AIRFA was passed in 1978 to "protect and preserve for American Indians their inherent right to freedom to believe, express, and exercise the traditional religions of the American Indian, Eskimo, Aleut, and Native Hawaiians, including but not limited to access to sites, use and possession of sacred objects, and the freedom to worship through ceremonial and traditional rites."

The NAGPRA became law in 1990; the regulations implementing the statute were completed and went into effect in January 1996. This law formally affirms the rights of Indian tribes, Native Alaskan entities, and Native Hawaiian organizations to custody of Native American human remains, funerary objects, sacred objects, and objects of cultural patrimony with which they have a relationship of cultural affiliation. In addition, the law and regulations describe procedures designed to ensure that all Americans can derive educational, historical, and scientific value from the remains and objects covered by the statute through public interpretation, documentation, and study.

A Traditional Cultural Property (TCP) is a property associated with cultural practices or beliefs of a living community that: (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community (Parker & King 1998). This property type may be determined eligible for the NRHP if it meets criteria found in 36 CFR 60.4.

The term "Heritage Resources", used by the USFS, encompasses not only cultural resources but also traditional and historic use areas by all groups (Native Americans, Euro- Americans, etc.). Heritage resources include lifeways, or the way humans interact and survive within an ecosystem (USFS 2003b). Objects, buildings, places, and their uses become recognized as "heritage" through conscious decisions and unspoken values of people, for reasons that are strongly shaped by social contexts and processes (Avrami et al. 2000).

Heritage resources define the characteristics of a social group (i.e., community, families, ethnic group, disciplines, or professional groups). Places and objects are transformed into "heritage" through values that give them significance.

3.4.2 Affected Environment

3.4.2.1 Cultural Context

Evidence of 11,000 years of prehistoric occupation and use of the CTNF has been documented through rock shelters, stone circles, hunting blinds, bison kill sites, and projectile points (USFS 2003b). The prehistory of southeastern Idaho and the northeastern Great Basin has been previously detailed (e.g., BLM 1981; BLM and USFS 1998; Butler 1978, 1986; Carambelas et al. 1994; Gehr et al. 1982; Lohse 1993; Madsen 1982; Meatte 1990; Ringe et al. 1987; Swanson 1972, 1974). Overviews specific to the history of southeastern Idaho have been written to address the needs of cultural resources management (e.g., BLM 1981; Fiori 1981; Sommers and Fiori 1981) and to identify a number of significant themes for the region. These prehistories are based on archaeological research and may differ from the perspective of local Indian tribes.

The following brief prehistoric overview was summarized from the Final EIS for the CNF Phosphate Leasing Proposal (BLM and USFS 1998).

Prehistory

The prehistory of southeastern Idaho can be divided into at least three periods; Paleo-Indian (ca. 10,000 to 7,000 before present [B.P.]), Archaic (7,000 to 300 B.P.), and Protohistoric (300 B.P. to present). These periods are generally defined by distinct artifact types and characterized by different settlement and subsistence patterns.

Paleo-Indian Period

The Paleo-Indian period largely is defined by three projectile point types: Clovis, Folsom, and Plano. Paleo-Indian groups who occupied the region focused their subsistence efforts on large, migratory animals as indicated by the association of Folsom spear points and large animal remains. It may be reasonable to assume that Paleo-Indian groups in southeastern Idaho also traveled over large annual ranges (Goodyear 1979; Letourneau 1992) and exhibited a high degree of residential mobility (Binford 1980; Kelly and Todd 1988).

Archaic Period

The Archaic period is generally defined by the introduction of stemmed (Pinto series) and notched (Northern Side-notched and Elko series) projectile points and the apparent broadening of the resource base. The shift from large, lanceolate-shaped points to small, stemmed and notched points is believed to be related to the introduction of the atlatl and dart from two separate regions, the Great Basin and the Plains (Gruhn 1961). Although data indicates that large mammals were the primary food resource of Archaic groups, the exploitation of a wider array of resources is evidenced in ground stone artifacts and small mammal remains at some sites (Sant and Douglas 1992). The Archaic Period can be subdivided into three subperiods based on variation in artifact assemblages and settlement and subsistence practices (Sant and Douglas 1992). These subperiods are the Early Archaic (7,000 to 4,500 B.P.), Middle Archaic (4,500 B.P. to 1,300 B.P.), and the Late Archaic (1,300 to 300 B.P.).

Subsistence and settlement patterns in southeastern Idaho remained fairly consistent between the Early and Middle Archaic (Gruhn 1961; Ranere 1971; Swanson 1972), although artifact assemblages differ. The Late Archaic is defined by the introduction of ceramics and small triangular and side-notched points. These artifact classes, particularly the ceramics, indicate the occupation of at least two groups or "cultural manifestations" (Butler 1986) in southeastern Idaho: the Fremont (ca. 1300 to 650 B.P.) and the Shoshonean (ca. 700 B.P. to present). The Fremont are typically thought of as horticulturalists. Evidence for horticulture has not been found in southeastern Idaho (Holmer 1986; Ringe et al. 1987); therefore, the presence of Fremont artifacts has been problematic to some. Sant and Douglas (1992) suggest that Fremont artifacts arrived in southeastern Idaho through trade. Some have argued that northern Fremont populations were primarily hunters and gatherers, rather than horticulturalists (Madsen 1982; Simms 1990); if that is the case, then the presence of Fremont artifacts in southeastern Idaho would likely be a consequence of Fremont hunter-gatherers occupying the area.

Occupation of southeastern Idaho by the Shoshone and Bannock coincides with the expansion of Numic speaking people from the southwestern Great Basin to the north and east. Brown-ware ceramics and Desert Side-notched and Cottonwood triangular projectile points are thought to be temporally and ethnically sensitive artifacts. Artifacts recovered from the Wahmuza site, in southeastern Idaho, indicate continuous Shoshonean occupation since 700 B.P. (Geminis 1986 as cited in Sant and Douglas 1992). The Shoshone and Bannock groups are characterized as relatively mobile hunter-gatherers.

The Shoshone-Bannock Tribes state that the ancestors of the Shoshone and Bannock peoples have an extensive history in southeastern Idaho and the Project Area. Their ancestors used present-day southeastern Idaho for subsistence hunting, fishing, gathering, medicinal and ceremonial purposes, warfare, transportation, and social purposes.

Protohistoric

Existing research and records indicate two horse-owning groups may have passed through the Manning Creek Tract (south of the Project Area) during their annual forays. According to Stewart (1938), the Cache Valley Shoshone hunted and gathered along the Bear River and crossed the Wasatch Mountains (south of the Project Area) during bison hunting excursions to Wyoming. Bannock and Shoshone groups living at Fort Hall also may have passed through the area while hunting elk, deer, and mountain sheep, and gathering berries along the Bear River (Murphy and Murphy 1986), or when traveling to Wyoming to hunt bison (Stewart 1938). These hunting and gathering forays began to change during the nineteenth century, when westward expansion and increasing conflicts with Euro-Americans eventually forced most of the Shoshone and Bannock into the reservation system. Mixed bands of Shoshoni or the Western Shoshone signed a treaty with the United States Government at Soda Springs, Idaho on October 14, 1863 (Kappler 1941), which set aside large tracts of Indian land in Idaho, Nevada, Oregon, Utah, and Wyoming (Manning and Deaver 1992). Unbeknownst to the Shoshone people, this treaty was not ratified by the United States Government. In 1867 and 1868, the Fort Hall and Wind River Valley Reservations, respectively, were established, and by 1868, the Shoshone had relinquished all their lands in Idaho and Wyoming except for lands specifically set aside as reserves (Clements and Forbush 1970). The Bannock were assigned to the Fort Hall Reservation in 1869, and between 1879 and 1907, a number of other Native American groups were relocated to Fort Hall (Manning and Deaver 1992).

Sacred sites, such as burials, rock art, monumental rock features and formations, rock structures or rings, sweat lodges, timber and brush structures, eagle catching pits, and prayer and offering locales, are located throughout the region (Manning and Deaver 1992). Much of the landscape in southeastern Idaho also is sacred to local Native American groups and, thus, is not defined by archaeological remains.

Euro-American History

Fur trappers and explorers were the first non-native Americans to pass through the region (Fiori 1981) and are documented as early as the early 1800s. In the early-1800s, under the command of Robert Stuart, one group of Astorians made their way from the Bear River to the Salt River and thence to the Snake River, a route which likely took them through Georgetown Canyon, Crow Creek, and Star Valley. During the early 1840s, great numbers of emigrants began moving westward. In Idaho, emigrants could follow the Oregon Trail, via Fort Hall and Fort Boise, or the California Trail at Soda Springs, Fort Hall, or Raft River (Fiori 1981). Brigham Young led Mormon pioneers into the Salt Lake Valley in 1847, and by early-1860, had dispatched settlers into southeastern Idaho (Fiori 1981). The general area surrounding the Project Area, including the town of Soda Springs (the County seat), was along the routes of the earliest explorers, fur trappers, and emigrants.

Soda Springs was an early transportation hub (ISHS 1981a) with open valley connections to Bear Lake and Wyoming, with the Blackfoot River north to Montana, with Portneuf Valley used by Oregon Trail emigrants to Fort Hall, with Hudspeth's Cutoff west to California, and down Bear River to Cache Valley and Salt Lake.

Between the 1860s and 1890s, miners and railroad workers came to southeastern Idaho. Cariboo Fairchild, who had taken part in the gold rush in the Cariboo region of British Columbia in 1860, discovered gold in this region two years later (IMNH 2017). A modest gold rush began in the Caribou Mountain area in 1870 and ended in the early 1900s (USFS 2003b). During this time, Keenan and Caribou City became thriving boomtowns. Sulfur mining commenced in the early 1880s.

The mines in the Cariboo District depended on distant sources for supplies. The miners' needs provided an enticement for settlers to develop the surrounding country at a time when not too many other economic attractions were available to encourage settlement of southeastern Idaho (ISHS 1981b).

Livestock

As necessitated by the mining boom, small herds of cattle were driven into the region during the 1860s. Crowding on the plains prompted cattlemen to locate larger herds in southeastern Idaho during the 1870s and 1880s (Fiori 1981). Sheep were brought into the area as early as the 1830s-1840s by missionaries and emigrants (Fiori 1981), with larger herds brought in during the mining boom. Large herds of sheep were established in Caribou County during the late 1890s and early1900s (Barnard et al. 1958 as cited in BLM and USFS 1998). Basque sheep herders moved to the area after 1925 (Carambelas et al. 1994). Evidence of historic and modern livestock grazing is present within the Project Area in the form of arborglyphs, livestock trails, and temporary campsites. Arborglyphs are etchings or carvings of art and words in aspen trees that over time turn

black against the white trunk, becoming more apparent. Recent studies (Mallea-Olaetxe 2000) indicate the relevance of tree carvings in depicting livestock usage/trailways, range boundaries, sheep herder lifeways, cultural affiliations, periods of use, and transportation routes.

Roads

Freighting was the original mode of mass transportation of goods in southeastern Idaho. The discovery of gold and the explosive growth of mining towns in Idaho and Montana resulted in a surge of freighting activities along the trade routes to the mines. By the 1860s, freight and stage roads passed through southeastern Idaho and contributed to its settlement (BLM 1981; ISHS 1971). Large scale freighting occurred between 1864 and 1884. There were two main routes in this region: the Montana Road (from Corrine, Utah to western Montana) and the Kelton Road (from Kelton, Utah to Boise, Idaho). Approximately 1,000 freighters hauled between Idaho and Montana on the Montana Road in 1873 (BLM 1981). One early report states that the only "direct and safe route [to Cariboo Mountain gold deposits] is to go up the regular Montana road to Ross Fork…" (ISHS 1981b). Road conditions were poor, and tolls were often charged to obtain funding for improvements. Railroads diminished the need for freighting except in the areas not served by railroads.

Early settlers developed the Crow Creek Road, in the Project Area, as a path of commerce from Fairview, Wyoming to Montpelier, Idaho (Druss et al. 1979). This road is still well traveled and is known as the Crow Creek Road. It runs southwest and south to Montpelier Canyon and west to the town of Montpelier. It appears on historic General Land Office (GLO) maps (1901, 1902) of the area as *Montpelier to Star Valley Road.*

The Fairview Cutoff was a route from Fairview, Wyoming to Soda Springs, Idaho. The route cut off from Crow Creek at Hardmans Hollow, ran north to Tygee Creek, then southwest through Smoky Canyon to Soda Springs (Druss et al. 1980). Located north of the Project Area, this road is known currently as the Smoky Canyon Road.

Timber

Timber resources in southeastern Idaho are not as abundant as in other parts of the state, but still played a role in the development of the area. As communities were established, lumber was harvested locally through primitive means such as the pit saw (BLM 1981). As the demand for lumber grew, other means of lumbering were needed. A water-powered sawmill was the next technology introduced into the region, built by Samuel Parkinson and Thomas Smart in 1863 in Franklin. In response to railroad construction in the West, Majors Tie Camp was established in 1868 by Alexander Majors, who directed the cutting of thousands of trees along the Bear River. Majors floated the resulting ties down the Bear River to Corrine, Utah, where they were used for the Transcontinental Railroad. A steam sawmill was brought into the area in 1871. Approximately 30 sawmills were operating in southeastern Idaho by 1883. Historic sites associated with sawmills and lumbering activities have been recorded in the general Project Area.

3.4.2.2 Cultural Resource Sites

Cultural resource inventories for previous exploration projects, mine expansions, land exchange, livestock improvements, and habitat improvement projects have recorded prehistoric and historic sites in and around the current Project Area. Site types in the general vicinity include prehistoric sites, historic roads, trails, a cabin, a guard station, and livestock/ranching sites. Prehistoric sites found in the area are generally considered significant due to the paucity of prehistoric sites in this high elevation environment.

As a result of the Project-specific cultural resource inventory (Corbeil 2018), five previously recorded sites intersect the current APE in the Idaho portion (**Table 3.4-1**). No sites were observed within the current APE in Wyoming.

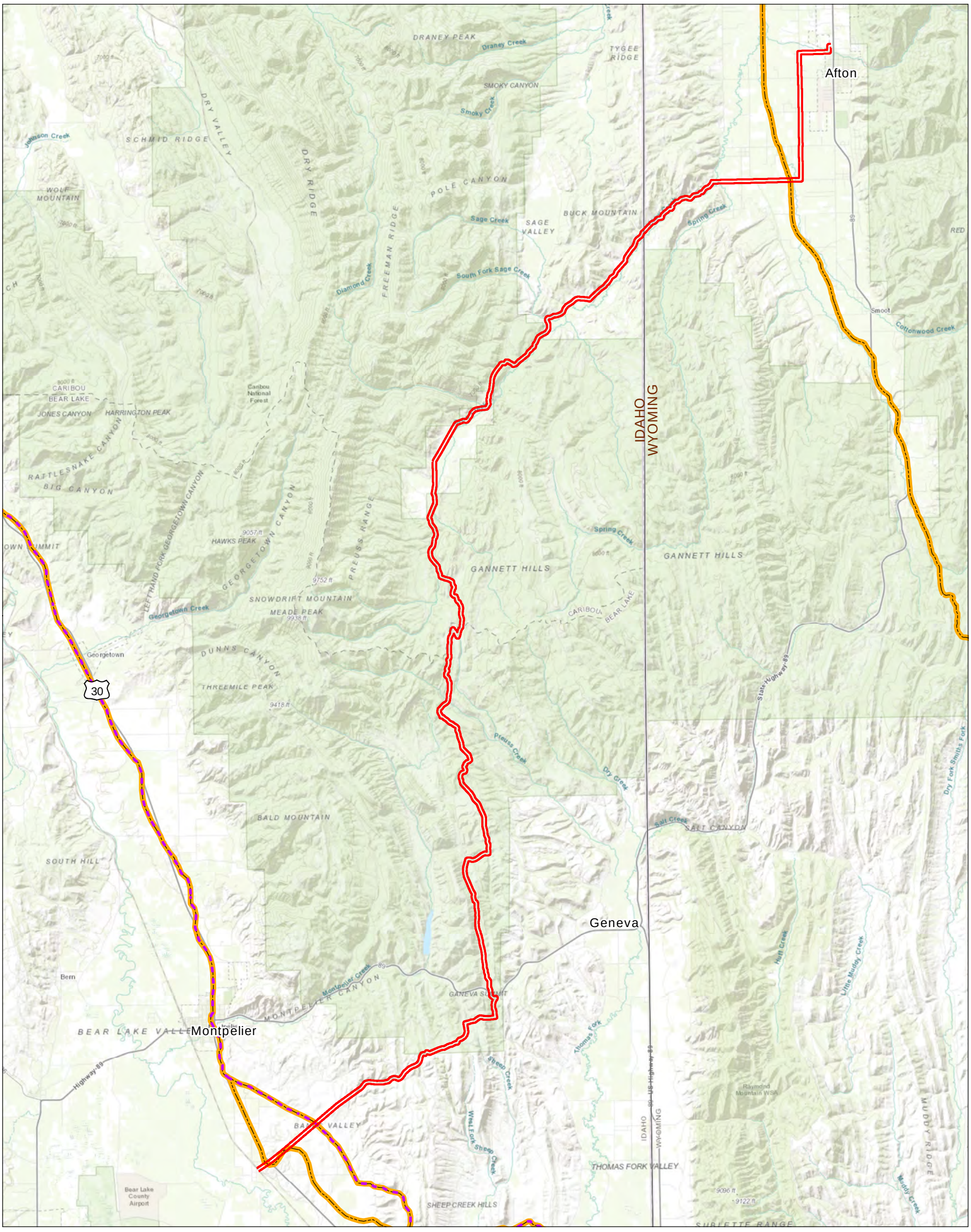
Table 3.4-1 Cultural Resources within the Project Area

SITE NUMBER	SITE DESCRIPTION	LOCATED	NRHP STATUS	RECOMMENDATION
10BL127	Historic roadside dump	Yes	Undetermined	Not Eligible
10BL192	Prehistoric site	Yes	Eligible, Criterion D	Eligible
10CU272	Old Crow Creek Road/ Montpelier and Star Valley Road/ Crow Creek Freight Trail	Yes	Ineligible	Eligible, Criterion A
CB-671	Arborglyph	Yes	Undetermined	Not eligible
CB-672	Arborglyph	Yes	Undetermined	Not eligible

Southeastern Idaho has been traditionally utilized by the Shoshone-Bannock Tribes for subsistence and ceremonial uses. The Fort Bridger Treaty of 1868 reserved the Tribes' rights to hunt, gather, and fish on all unoccupied federal lands. Physical remains of prehistoric lifeways on the CTNF include campsites and associated artifacts (USFS 2003b). According to the RFP (USFS 2003a), representations of historic lifeways on the Forest include wagon trails, homesteads, mining sites, and Civilian Conservation Corps camps.

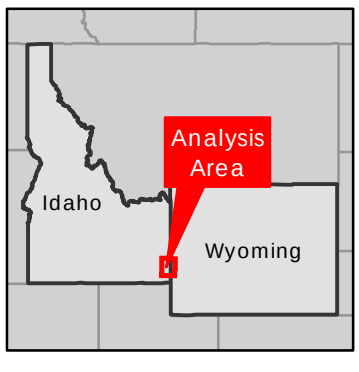
Heritage resources in or adjacent to the Project Area also include the historic uses of livestock trailing and grazing. This is in part evidenced in the arborglyphs (tree carvings) present in and around the Project Area, as well as the livestock driveway (10CU413).

Additionally, two National Historic Trails (NHTs), the California NHT and the Oregon NHT, occur in the vicinity of the Project. The mapped location of the California and Oregon NHTs do not cross onto the Montpelier Ranger District or other CTNF lands. The Proposed Action, where located on CTNF lands, lies about 3 miles northeast of the historic trails as mapped within Bear Lake County (**Figure 3.4-1**). These two short segments of the NHTs have been highly disturbed and have essentially been removed from the landscape due to road construction, farming, and other activities. In correspondence with SHPO, it was determined that these segments would not retain integrity and would therefore not be considered eligible/contributing elements to the larger NHT



Legend

- Proposed Action
- Oregon National Historic Trail
- California National Historic Trail



Notes
1. Coordinate System: NAD 1983 StatePlane Idaho East FIPS 1101 Feet
2. Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

0 3 6
Miles

1:190,080 (at original document size of 11x17)

N

Figure 3.4-1
National Historic Trails
Lower Valley Energy
Crow Creek Pipeline Project

systems. Given that the historic trails do not occur on this portion of the CTNF where the Project is located and they would not be considered eligible/contributing elements to the larger NHT systems, there would be a "no adverse effect" to these historic trail systems from implementing the Project and they will not be carried forward in the document.

3.4.3 Environmental Consequences

3.4.3.1 Methods of Analysis

For the analysis of impacts to Cultural Resources, the indicator is:

- Number of historic properties (i.e., cultural resource sites eligible for the NRHP) impacted by the Project.

3.4.3.2 No Action Alternative

Under the No Action Alternative, the Project would not be constructed and there would be no effect to known historic properties. Cultural resources would not be affected by the Project from any forms of ground disturbance. Because no access improvements would be made, the risk of damage to cultural resources associated with vehicular access to areas currently without roads would not change. Current cultural resources conditions in the APE would continue under the No Action Alternative and there would be no changes that would alter cultural resources beyond current conditions. The APE would remain undisturbed unless unrelated actions occur.

3.4.3.3 Proposed Action

The entire APE has been inventoried for the presence of cultural resources. As discussed in **Section 3.4.2.2**, five cultural resources have been identified within the APE. Of these, two sites have been recommended or determined eligible for the NRHP and three sites are not eligible. Therefore, two historic properties (i.e., cultural sites eligible for the NRHP) have been identified in the cultural resources survey area (**Table 3.4-2**). Under the Proposed Action, two historic properties, one prehistoric site, and one segment of the Old Crow Creek Road/Montpelier and Star Valley Road/Crow Creek Freight Trail (**Table 3.4-2**), would be within the area of proposed disturbance.

Regulations implementing Section 106 of the NHPA require that impacts to historic properties be considered for federal undertakings.

Indirect effects to historic properties could occur in areas where the Project would provide improved access into previously inaccessible areas. Motorized access during construction would consist of drive and crush within the ROW, so new access roads would not be constructed. However, the ROW itself may appear as a thorough fare until reclamation is successful. If used as access, it could lead to site damage by off-road vehicles and recreational use of these areas. Such damage could consist of vehicular damage to surface archaeological sites, and vandalism or illegal artifact collection. No motorized access to the corridor would be permitted following construction. Another potential indirect effect includes changes in erosion patterns due to construction activities.

The anticipated operations and maintenance duration is at least 50 years. The pipeline would be inspected annually or as required. Maintenance vehicles would generally require access to the ROW, again simply as drive and crush, once yearly. The maintenance and operation activities would have the potential to affect historic properties if they take place in or near these sites.

Design Features/Environmental Protection Measures to Avoid or Minimize Impacts

Design Features/EMPs and BMPs pertaining to cultural resources are included as part of the Proposed Action. These include:

- All historic properties (i.e., NRHP-eligible cultural resource sites) would be avoided if practicable.
- Known NRHP-eligible sites 10BL192 and 10CU272 (historic freighter route) would be avoided.
- Using route markers/signage, boulders, gates, etc. to block and indicate the pipeline corridor is not open to OHV use.
- A 200-foot buffer of avoidance around historic properties would be maintained during construction, operation, and maintenance of the Project.
- If unanticipated cultural materials, historic sites, or human remains are encountered during construction, LVE would immediately notify the USFS authorized officer, and operations would be halted in the vicinity of the discovery until inspected by the USFS or an agency-approved archaeologist, and a mitigation plan developed, if necessary. Cultural resources would be avoided until the USFS or an agency-approved archaeologist conducts investigations as needed to determine the significance of the finding. No work would be conducted in that area until a notice to proceed is issued by the USFS authorized officer. USFS does not have jurisdiction over non-NFS lands. However, were unanticipated cultural materials encountered on non-NFS lands, LVE would be encouraged to notify the appropriate state agency.
- All persons associated with the Project would be informed that knowingly disturbing cultural resources or collecting artifacts is illegal.

Historic properties would be avoided by final design and construction (**Table 3.4-2**). However, if avoidance is not possible, general measures to resolve potential adverse direct and indirect effects to historic properties as a result of Project construction would be contained in a Memorandum of Agreement, and site-specific measures would be outlined in an Historic Properties Treatment Plan (HPTP) that would need to be prepared for this Project.

Table 3.4-2 Protection Measures for Known NRHP-Eligible Sites

STATE TRINOMIAL	CARIBOU-TARGHEE FOREST NO.	ELIGIBILITY	SITE TYPE	PRIMARY MEASURE	SECONDARY MEASURE
10BL192	CB-549	Eligible, Criterion D	Prehistoric site	Avoidance	Mitigation per HPTP
10CU272	CB-318	Eligible, Criterion A	Old Crow Creek Road/ Montpelier and Star Valley Road/ Crow Creek Freight Trail	Avoidance	Mitigation per HPTP

In consultation with the Idaho and Wyoming SHPOs and with implementation of the primary protection measures, the USFS determined, and both SHPOs agreed, that construction and operation of the Project would have no adverse effect on any historic properties (ISHPO 2018 and WSHPO 2018). The Idaho SHPO explicitly limited their determination to only those lands inventoried which did not include private property. However, if the primary protection measure of avoidance is not able to be implemented and the USFS determines that a historic property would be adversely affected, measures to avoid, minimize, or mitigate such effects would be proposed in accordance with the Memorandum of Agreement that would need to be prepared. Measures to avoid, minimize, or mitigate effects may include, but would not be limited to, one or more of the following:

- Avoidance through changes in the construction or operational design;
- Data recovery, which might include the systematic professional excavation and removal of archaeological resources;
- The use of landscaping or other techniques that would minimize or eliminate visual effects on a historic property's setting;
- Development of site-specific interpretive materials (e.g., leaflets, brochures); or
- Other mitigation determined by the USFS through consultation with SHPO.

3.4.3.4 Cumulative Effects

Introduction

Over sixty cultural resource inventories have been conducted within the CIAA. These inventories were conducted in association with phosphate mine expansion and exploration, timber sales, utilities, land exchange, grazing activities, and stock pond development (Corbeil 2018). These inventories were completed between 1974 and 2017. The previous inventory information for the CIAA was compiled from data collected from the Idaho and Wyoming SHPOs and is likely not all-inclusive; even so, this information indicates the general site types and site density found in the CIAA.

The previous inventories indicate that at least 16 known cultural resource sites are located within the CIAA. Prehistoric archaeology sites include lithic and fire-cracked rock scatters. Historic archaeology sites include linear sites that are generally associated to the themes of transportation, communication, and commerce, and other sites related to the themes of agriculture and public land management/conservation. The prehistoric sites are generally eligible for the NRHP due to the paucity of prehistoric sites in this high elevation area.

Past and Present Disturbances

Past and present ground disturbances in the CIAA that potentially affected cultural resources include timber sales, mine expansion and exploration, utilities, land exchange, road construction, and other developments**.** It is not possible to quantify potential impacts to unknown cultural resource sites in areas that have not been inventoried within the CIAA. Recorded sites that are ineligible for the NRHP do not have to be avoided and therefore have likely been impacted by activities requiring the inventory (i.e., timber sales, mine expansion, utilities, etc.).

Reasonably Foreseeable Future Disturbances

There are no reasonably foreseeable disturbances in the CIAA with the potential to impact cultural resources other than the project. Changes to private agricultural lands near the CIAA are likely as some of these lands are converted in the future from traditional agricultural utilization (ranching) to more residential and recreational utilization. However, no specific plans are known, and these cannot be evaluated for this cumulative effects analysis.

Cumulative Disturbances

Past, present, and reasonably foreseeable disturbance to cultural resources in the CIAA have been and would be the result of mining activities, utility infrastructure, timber harvesting, road development, archaeological excavation, livestock grazing, private development, and likely vandalism and artifact collection. Private development and vandalism/artifact collection are not quantifiable.

Past and present disturbance has impacted cultural resources. However, in the case of ineligible sites, the sites are not considered important resources, require no additional management, and avoidance is not required. National Register of Historic Places eligible sites within disturbance areas were subject to data recovery (excavation); therefore, the loss of the resource was mitigated.

Cumulative Effects

Section 106 of the NHPA requires consideration of the effects of federal actions to historic properties. If historic properties cannot be avoided by the Proposed Action, these sites would be subject to mitigation such as data recovery. If historic properties are not avoided, the Project would contribute to cumulative impacts to historic properties in combination with past, present, and reasonably foreseeable future activities in the CIAA.

3.5 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

Section 1502.16 of NEPA requires the environmental document to include a discussion of "any irreversible and irretrievable commitments of resources which would be involved in the Proposed Action should it be implemented." An irreversible commitment of resources occurs when resources are used, consumed, destroyed, or degraded during project construction and operation and cannot be reused or recovered. An irreversible commitment effectively removes the option of future resource use. Irretrievable commitments of resources occur when there are long-term losses of resource production or use. These losses are not permanent and can be reversed in the long term if project facilities or land uses change.

The irreversible and irretrievable commitments of resources resulting from the Project are presented in **Table 3.5-1**.

Table 3.5-1 Irreversible and Irretrievable Commitments of Resources

RESOURCE	IRREVERSIBLE COMMITMENTS	IRRETRIEVABLE COMMITMENTS	EXPLANATION
Special Status Plants	No	No	No irreversible or irretrievable commitments of special status plant populations or individuals would be anticipated.
Special Status Wildlife	No	No	No irreversible or irretrievable commitments of special status wildlife populations or individuals would be anticipated.
Cultural Resources	No	No	No irreversible or irretrievable commitments to cultural resources would be anticipated, unless the sites could not be avoided, and treatment is required.

In addition to the resource commitments identified in **Table 3.5-1**, construction and maintenance of the Project would require an irreversible commitment of energy as it relates to the fossil fuels needed for construction and maintenance equipment and vehicles. However, energy consumption to manufacture the construction materials would not be anticipated because these materials would continue to be produced regardless of implementation of the Proposed Action.

3.6 CONFORMANCE WITH APPLICABLE LAWS, REGULATIONS, POLICIES AND EXECUTIVE ORDERS

This DSEIS has been prepared in accordance with the applicable laws, regulations, policies, and executive orders listed in **Table 3.6-1**. A brief explanation or statement of conformance is provided in the table.

Table 3.6-1 Applicable Laws, Regulations, Policies, and Executive Orders

LAW, REGULATION, POLICY OR EXECUTIVE ORDER	STATEMENT OF CONFORMANCE
American Antiquities Act of 1906 (as amended)	Design features have been developed to prohibit the collection or disturbance of archeological sites encountered during construction. All prior cultural resource surveys and any potential future cultural resource surveys for the Project would be conducted by qualified archaeologists under a permit issued by the USFS.
American Indian Religious Freedom Act of 1978	Consultation with Native American Tribes was conducted and no areas or sites of traditional religious and cultural importance within the analysis area have been identified (USFS 2019). The Project would not restrict or otherwise limit access to any potential religious sites outside of the analysis area.

LAW, REGULATION, POLICY OR EXECUTIVE ORDER	STATEMENT OF CONFORMANCE
Archeological Resource Protection Act of 1979	Design features have been developed to prohibit the unauthorized collection or disturbance of previously unidentified archeological sites encountered during construction or maintenance of the Project. Collection or disturbance of archeological resources would require preparation of a Memorandum of Agreement and an HPTP pursuant to the National Historic Preservation Act.
Bald and Golden Eagle Protection Act of 1940 (as amended)	The Project would not result in the "take" of bald eagles or golden eagles. The Project would be in conformance with the Bald and Golden Eagle Protection Act of 1940, as amended.
BLM Manual 6500: Wildlife and Fisheries Management (1988)	Design features have been incorporated into the Project to avoid or minimize impacts to wildlife and fisheries as much as feasible.
Caribou Targhee National Forest, Revised Forest Plan (2003a)	Design features have been incorporated into the Project to remain in compliance with the standards and guidelines within the RFP.
Clean Air Act of 1979 (as amended)	The Project would be compliant with the CAA of 1979, as amended, because emissions of criteria pollutants would not be expected to be above the applicable standards.
Clean Water Act of 1977 (as amended)	The discharge of pollutants from a point source would not occur under. All impacts to WOTUS would be permitted under Section 404 of the Clean Water Act.
Endangered Species Act of 1973 (as amended)	The Project would not jeopardize the continued existence of any listed species or result in the destruction or adverse modification of designated critical habitat of such species. The Project would result in negligible impacts.
Executive Order 11593 (cultural)	Compliant with Executive Order 11593, a cultural resource inventory was completed within the potential APE for the Project. Design features have been developed to minimize adverse effects on cultural sites recommended as eligible for listing and sites currently listed on the NRHP.
Executive Order 11988 (floodplains)	The Project would not require occupancy within the 100-year floodplain. The Project would not modify the flood flow retention capability of the 100-year floodplain.
Executive Order 11990 (wetlands)	Compliant with Executive Order 11990, design features have been developed to minimize impacts to wetlands on NFS land.
Executive Order 12898 (environmental justice)	No segments of the [population subject to ES 12898] exist in the Project Area.
Executive Order 13007 (American Indian sacred sites)	Consultation with Native American Tribes was conducted in accordance with Executive Order 13007. No areas of traditional religious and cultural importance or specific areas of cultural and/or geographical interest (i.e., sacred sites) within the analysis area have been identified (USFS 2019).

LAW, REGULATION, POLICY OR EXECUTIVE ORDER	STATEMENT OF CONFORMANCE
Executive Order 13175 (consultation and coordination with Indian Tribal Governments)	Consultation with Native American Tribes was conducted in accordance with Executive Order 13175. See USFS 2019.
Executive Order 13186 (Migratory Bird Treaty)	Pursuant to Executive Order 13186, the potential effects of the Project on migratory birds were evaluated in the 2019 FEIS. Design features have been developed to avoid impacting nesting migratory birds during construction.
Historic Sites Act of 1935	The potential effects of the Project on historic properties listed on the NRHP or eligible for such listing have been evaluated.
Memorandum of Understanding to Promote the Conservation of Migratory Birds (BLM and USFWS 2010)	Pursuant to the Memorandum of Understanding to Promote the Conservation of Migratory Birds (BLM and USFWS 2010), the potential effects of the Project on migratory birds were evaluated in the 2019 FEIS. Design features have been developed to avoid impacting nesting migratory birds during construction.
Migratory Bird Treaty Act of 1918 (as amended)	Design features have been incorporated into the Project requiring pre-disturbance migratory bird nesting surveys if surface disturbance is unavoidable during the migratory bird nesting season. Design features would be implemented to prevent the take of migratory birds to the extent feasible.
National Bald Eagle Management Guidelines (USFWS 2007)	The Project would not result in the "take" of bald eagles or impact bald eagles. The Proposed Action would be in conformance with the guidelines.
National Forest Management Act of 1976	In accordance with the National Forest Management Act of 1976, the 2019 FEIS and this SEIS evaluates the Project in terms of its conformity with the RFP (USFS 2003a) and its potential effects on the various resources contributing to the multiple uses for which the NFS land in the Project Area is managed.
National Historic Preservation Act of 1966 (as amended)	In accordance with Section 106 of the National Historic Preservation Act of 1966, as amended, the potential effects of the Project on historic properties listed on the NRHP or eligible for such listing have been evaluated.
Native American Graves Protection and Repatriation Act of 1990	Design features require the procedures of the Native American Graves Protection and Repatriation Act of 1990 be implemented in the event that Native American human remains are encountered during construction. Consultation with Native American Tribes has not identified any sacred sites within the analysis area. If sites are found during construction, avoidance would be required until protection measures are developed.

CHAPTER 4 CONSULTATION AND COORDINATION

This section presents a summary of public participation in the NEPA process and drafting of the 2019 FEIS; the criteria and methods by which public input is evaluated; a list of the persons, groups, agencies, or tribes consulted in the preparation of the EIS, a list of preparers; and the distribution list. This consultation and coordination was carried forward as part of the DSEIS.

4.1 PREPARERS AND CONTRIBUTORS

The USFS consulted the following individuals, federal, state, and local agencies, tribes, and non-USFS persons during the development of the 2019 FEIS and the USFS Interdisciplinary Team (IDT) members for both the 2019 FEIS and this SEIS are also provided:

4.1.1 2019 USFS IDT Members

Name	IDT Role
Bryan Fuell	Point of Contact
Tom Brown	Engineer
Devon Green	Wildlife
Corey Lyman	Fish
Kara Green	Soils
Jim Laprevote	Hydrology
Kevin Parker	Range, noxious weeds
Dell Transtrum	Recreation, primarily trails
Rose Lehman	Rare and Sensitive plants
Ali Abusaidi	Heritage Resources
Doug Herzog	NEPA/Planning/IRAs

4.1.2 2023 SEIS IDT Members

Name	IDT Role
Rob Mickelsen	Point of Contact; Ecosystem Branch Chief
David Marr	Soil Scientist
Mel Bolling	Forest Supervisor
Michael Duncan	Montpelier District Ranger
Ashly Kula	Forest Planner
Nate Yorgason	Wildlife Program Manager
Lisa Baker	Realty Specialist
Steve Armstrong	Heritage/Cultural Resources Program Manager
Ben Swaner	Recreation Program Manager

Name	IDT Role
Louis Wasniewski	Forest Hydrologist & Watershed Program Manager
Sarah Wheeler	Branch Chief – Recreation, Heritage, Lands, Minerals and GIS
Rose Lehman	Rare and Sensitive plants

4.1.3 Federal, State, and Local Agencies

Caribou County Commissioners (Idaho)
Energy and Environmental Readiness Division, Chief of Naval Operations (N45)
Federal Energy Regulatory Commission
Fremont County Clerk (Idaho)
Fremont County Commissioners (Idaho)
Fremont County Planning and Building (Idaho)
Greater Yellowstone Coordinating Committee
IDEQ
IDFG
ID Department of Lands
ID Department of Parks and Recreation
ID Office of Energy and Mineral Resources
ID State Department of Agriculture
ID State Historic Preservation Office
Lincoln County Commissioners (WY)
National Agricultural Library. Acquisitions & Serials Branch
National Park Service
Natural Resources Conservation Service, National Environmental Coordinator
NOAA Fisheries Service Northwest Region, Habitat Conservation Division
NOAA Office of Policy and Strategic Planning, NEPA Coordinator
Regional Director-Congressman Mike Simpson
Teton County Commissioners (Wyoming)
US Army Corps of Engineers
US Army Corps of Engineers, Northwestern Division
US Coast Guard, Commandant CG-47, Office of Environmental Management
US Department of Agriculture, Animal and Plant Health
US Department of Energy, Director of NEPA Policy & Compliance
US Environmental Protection Agency
US Environmental Protection Agency, Region 10, EIS Review Coordinator
WY Department of Agriculture
WY Department of Environmental Quality, Administration
WY Department of Environmental Quality, Air Quality

WY Department of Environmental Quality, Land Quality
WY Department of Environmental Quality, Water Quality
WY Department of Revenue
WY Department of Transportation
WY Geological Survey
WY Livestock Board
WY Office of State Lands and Investments
WY Office of the Governor
WY Office of Tourism
WY State Engineers Office
WY State Forestry Division
WY State Historic Preservation Office
WY State Parks, Historic Sites, and Trails
WY Water Development Commission

4.1.4 Tribes

Shoshone-Bannock Tribes

4.1.5 Others

Alliance for the Wild Rockies
American Forest Resource Council, Eastern Oregon/SW Idaho
Associated Logging Contractors
Bear Lake Regional Commission
Blue Ribbon Coalition
Caribou Cattle Association
Caribou County Road and Bridge
Center for Biological Diversity
Columbia Helicopters, Inc., Logging Dept
Defenders of Wildlife
Dry Creek Irrigation District
Eagle Rock OHV Inc.
Fairview Cemetery District
Forest Service Employees for Environmental Ethics
Gallatin Wildlife Association
Greater Yellowstone Coalition
ID Conservation League
ID Wool Growers Association
J.R. Simplot Company
Little Valley Farms/Steve's Sports Center
Native Ecosystems Council
Over the Hill Gang ATV Club
Preston Citizen
Rocky Mountain Elk Foundation
Teton Regional Land Trust
Trout Unlimited
Vegetation Supervisor, Rocky Mountain Power
Western Lands Project
Western Watersheds Project
WildLands Defense
Wyoming Wool Growers Association
Yellowstone Log Homes
Yellowstone to Uintas Connection
Yellowstone to Yukon Conservation Initiative

4.2 PUBLIC PARTICIPATION SUMMARY

To allow an early and open process for establishing the scope of substantive issues related to the Project (40 CFR 1501.7), a public scoping period was provided to the public for the 2019 FEIS (USFS 2019). A Notice of Intent (NOI) to prepare the EIS was published on January 30, 2018 in the Federal Register (FR) (83 *FR* 4182). Publication of the NOI in the FR initiated a 30-day public scoping period for the Project that provided for acceptance of written comments.

A scoping notice was provided to the media in Idaho and Wyoming by a USFS news release, and notices were published in the legal notice sections of the *Idaho State Journal* and *Star Valley Independent* newspapers. Copies of the scoping notice were mailed to parties that have expressed previous interest in USFS projects, as well as additional parties that might be interested in the Project (e.g., adjacent landowners and land managers). In addition, scoping information was posted on the USFS project website.

Two public scoping meetings were held, each as an open house forum. The open houses included display boards and handouts illustrating and describing the project and provided the opportunity to comment on the Project.

A public mailing list was compiled, and scoping letters were sent to federal, state, tribal, and local government agencies, and members of the interested public. During the scoping period, 32 individual comments were received either by mail or electronically. While standardized comment forms were distributed during the public meetings, none were received back with comments.

4.2.1 Scoping Response

As a result of the public scoping process, potential issues or resource concerns were identified by the public as potentially affecting: IRAs; transportation; noise; water resources; fisheries and aquatic resources; socioeconomic conditions; reclamation and restoration; wildlife and vegetation; soils; threatened, endangered, and sensitive species; air quality; land use; private property values; recreation resources; visual resources; hazardous materials; cultural resources; and cumulative effects. All of these potential issues or resource concerns were analyzed in the 2019 FEIS (USFS 2019).

The scoping comments were reviewed for relevance to the Project, and those deemed relevant were analyzed in the 2019 FEIS. Detailed information regarding the public scoping process for the Project is provided in the *Crow Creek Pipeline Environmental Impact Statement Scoping Report* (Stantec 2018a).

4.2.2 Draft EIS Public Meetings and Responses to Comments

A Notice of Availability of the Draft EIS was published in the *Federal Register* on August 24, 2018 (Federal Register Volume 83, Number 165) beginning the 90-day public comment period and two public meetings were held.

During the comment period, a total of 119 comments were compiled from 23 comment letters (e.g., letters, cards, and e-mails). Additional details on public meetings and responses to comments on the Draft EIS are provided in the 2019 FEIS (USFS 2019).

4.2.3 Public Participation Opportunities

The Project has been and is listed on the USFS Schedule of Proposed Actions (SOPA). The SOPA is a list of proposals that will begin or are undergoing environmental analysis and documentation by the USFS. The SOPA listing for the Project includes a link to a project website, which the USFS created to make Project information more accessible to the public:

http://www.fs.usda.gov/project/?project=52624

The Project website includes links to the 2019 FEIS and all associated project maps, the Scoping Notice, applicable technical reports, as well as links on how to comment on this DSEIS.

CHAPTER 5 REFERENCES AND ACRONYMS

5.1 REFERENCES

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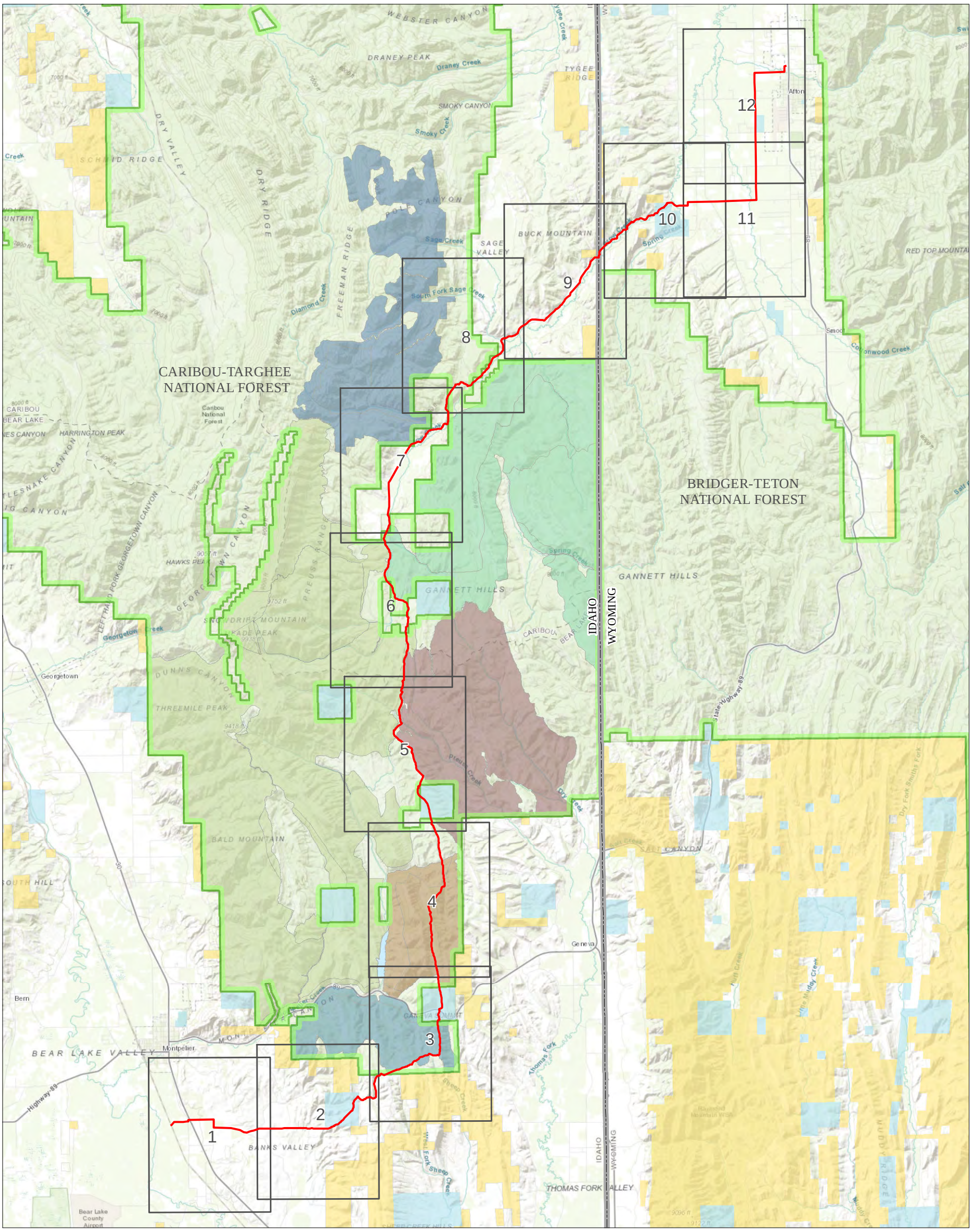
5.2 ACRONYMS AND ABBREVIATIONS

°F	Degrees Fahrenheit
AIZ	Aquatic Influence Zone
AMSL	Above mean sea level
BA	Biological Assessment
BLM	Bureau of Land Management
BCP	Bird Conservation Plan
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulation
CNF	Caribou National Forest
Court	U.S. District Court
CTNF	Caribou-Targhee National Forest
CWA	Clean Water Act
DOT	Department of Transportation
DFC	Desired Future Condition
DPS	Distinct Population Segment
eDNA	Environmental DNA
EIS	Environmental Impact Statement
EO	Executive Order
ESA	Endangered Species Act
FR	Federal Register
GHMA	General Habitat Management Areas
GIS	Geographic Information System
GRSG	Greater Sage-Grouse
HCA	High Consequence Area
HDPE	High-Density Polyethylene
HPTP	Historic Properties Treatment Plan
IDEQ	Idaho Department of Environmental Quality
IDFG	Idaho Department of Fish and Game
IDL	Idaho Department of Lands
IFWIS	Idaho Fish and Wildlife Information System
IHMA	Important Habitat Management Areas

IRA	Inventoried Roadless Area
LNG	Liquified Natural Gas
MAOP	Maximum Allowable Operating Pressure
mcf	Million Cubic Feet
mmcfd	Million Cubic Feet Per Day
MIM	Multiple Indicator Methodology
NEPA	National Environmental Policy Act
NFS	National Forest System
NOI	Notice of Intent
OHV	Off-Highway Vehicle
PHMA	Priority Habitat Management Areas
PIR	Potential Impact Radius
psig	Per Square Inch Gage
RACR	Roadless Area Conservation Rule
RFP	Revised Forest Plan
ROD	Record of Decision
ROW	Right-of-Way
SUA	Special Use Authorization
SUP	Special Use Permit
USACE	United States Army Corps of Engineers
U.S.C.	United States Code
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
WGFD	Wyoming Game and Fish Department
WOTUS	Waters of the US

APPENDIX A

Proposed Pipeline Alignment



Legend

- Proposed Pipeline Alignment
- Map Book Extents: Proposed Pipeline Alignment

Land Status

- Bureau of Land Managment
- Private
- State
- US Forest Service

Inventoried Roadless Area (IRA) in the Vicinity of the Project

- Gannett-Spring Creek
- Hell Hole
- Meade Peak
- Red Mountain
- Sage Creek
- Telephone Draw

Notes
1. Coordinate System: NAD 1983 StatePlane Idaho East FIPS 1101 Feet
2. Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

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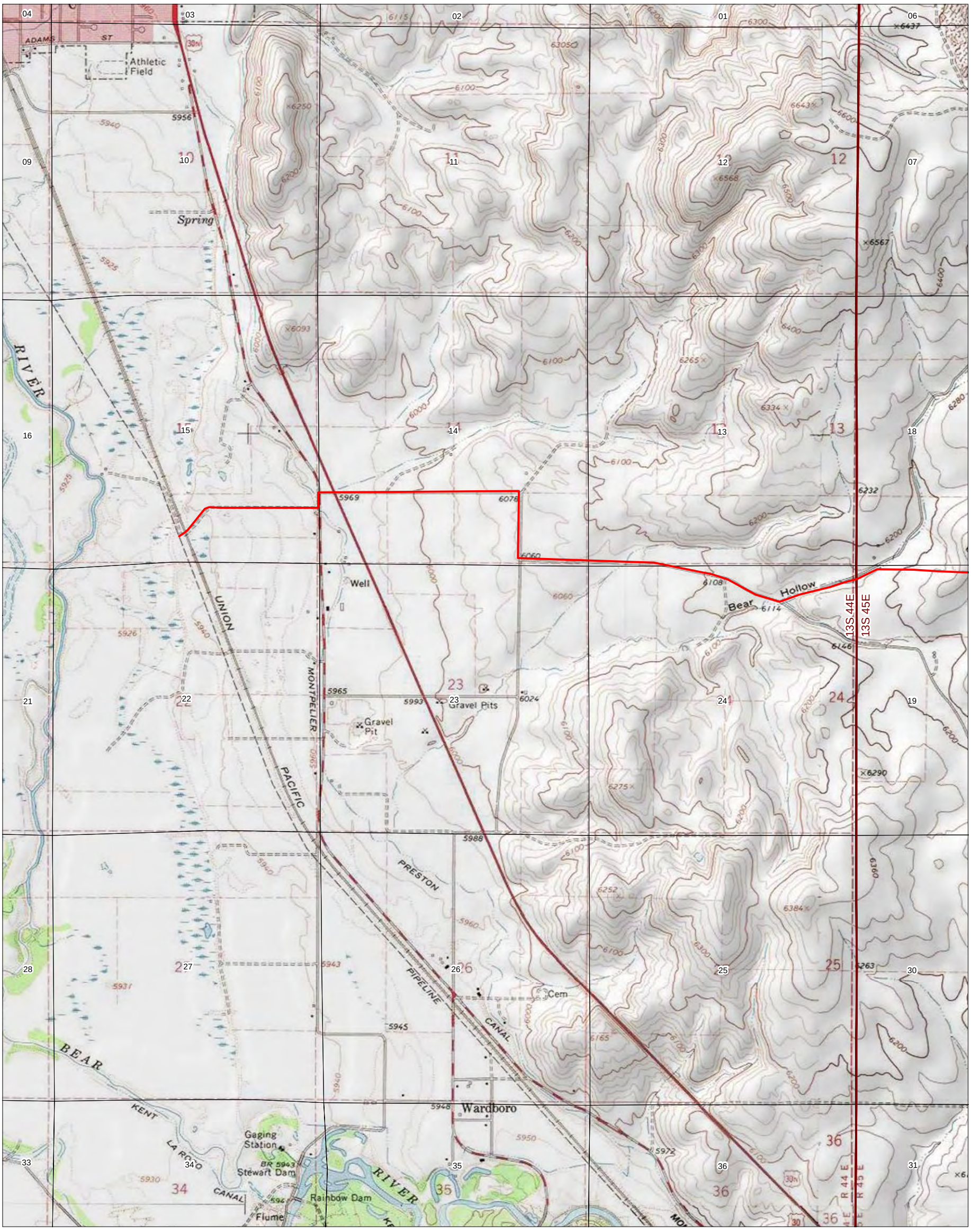
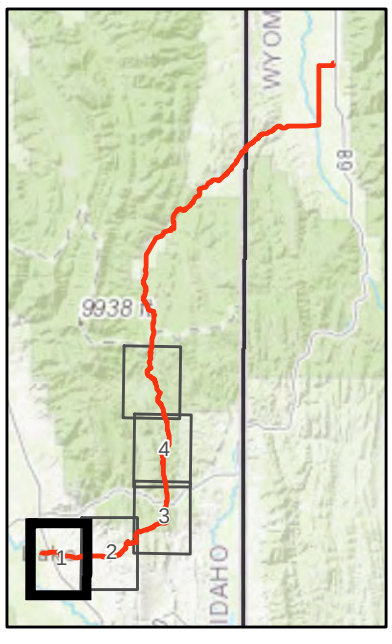
Figure A
Overview of Proposed Action
Map Book Series
Lower Valley Pipeline Project





Legend

Proposed Pipeline Alignment

Land Status

- Bureau of Land Managment
- Private
- State
- US Forest Service

Notes
1. Coordinate System: NAD 1983 UTM Zone 12N
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Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
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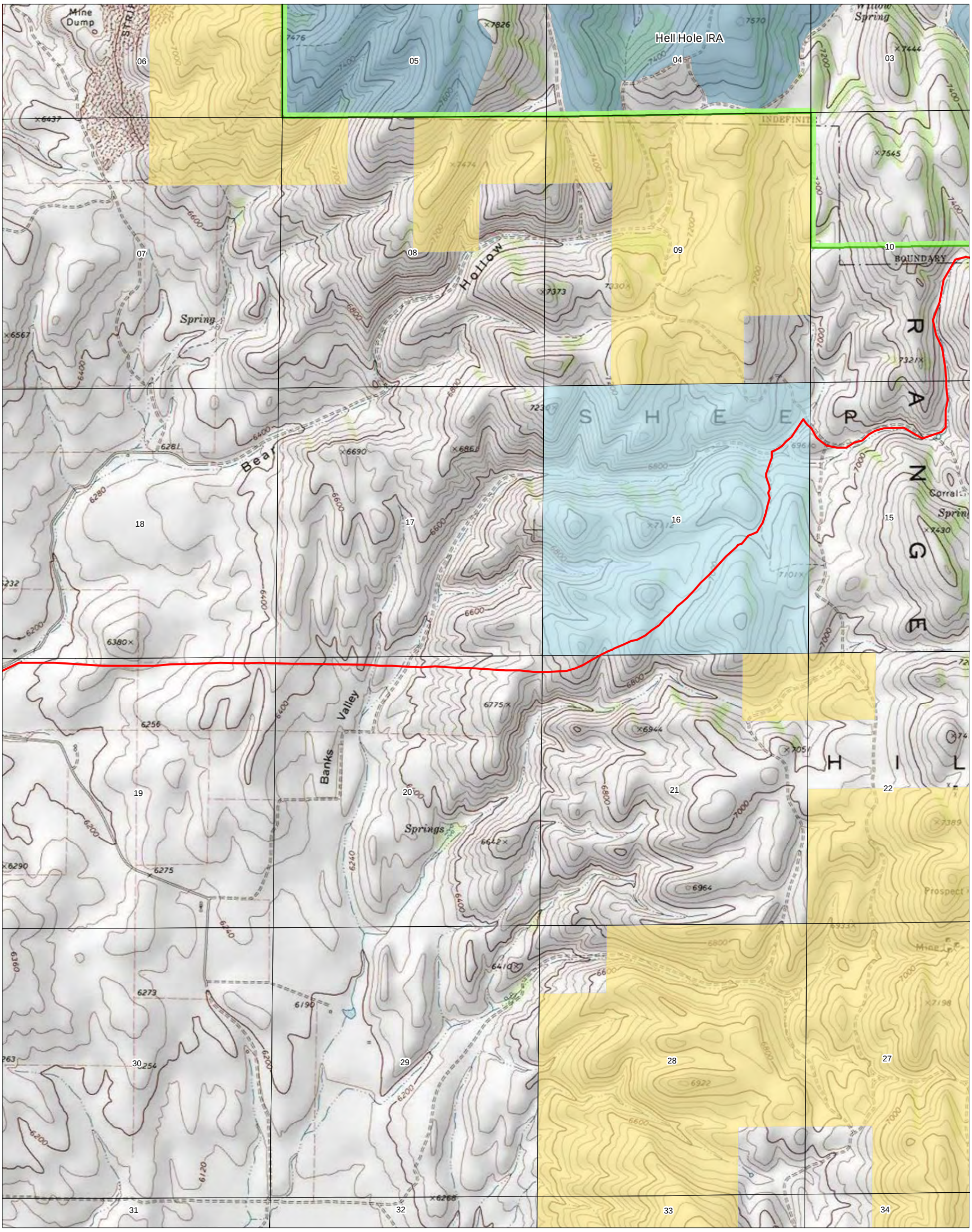
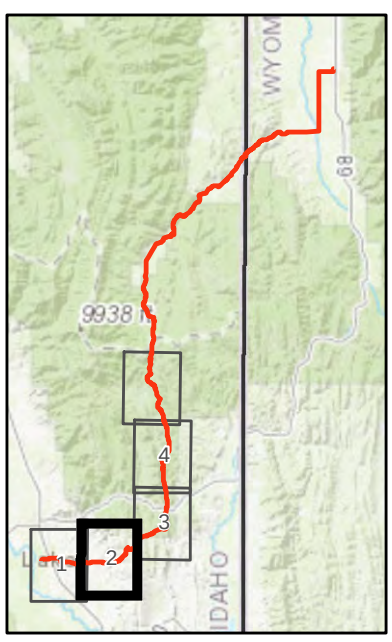
Figure 1
Proposed Action
Topographic Map Book Series
Lower Valley Pipeline Project





Legend

Proposed Pipeline Alignment

Land Status

Bureau of Land Managment

Private

State

US Forest Service

Inventoried Roadless Area (IRA) in the Vicinity of the Project

Hell Hole

Notes

1. Coordinate System: NAD 1983 UTM Zone 12N
2. Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

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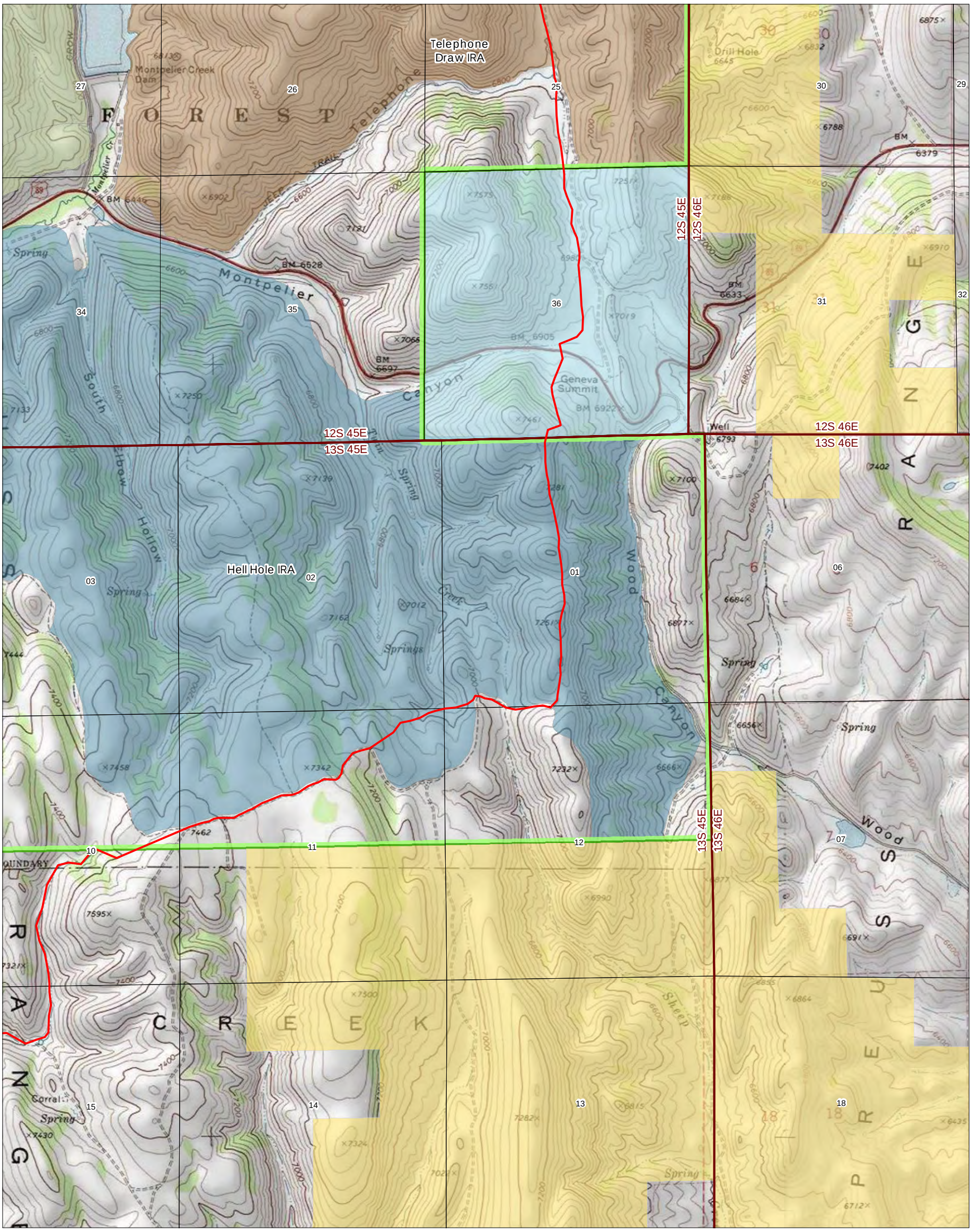
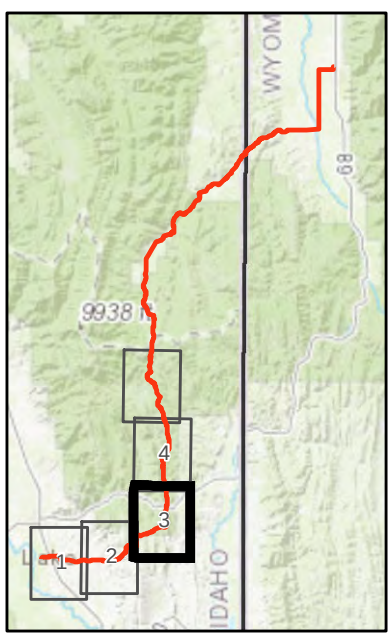
Figure 2
Proposed Action
Topographic Map Book Series
Lower Valley Pipeline Project





Legend

Proposed Pipeline Alignment

Land Status

- Bureau of Land Managment
- Private
- State
- US Forest Service

Inventoried Roadless Area (IRA) in the Vicinity of the Project

- Hell Hole
- Meade Peak
- Telephone Draw

Notes
1. Coordinate System: NAD 1983 UTM Zone 12N
2. Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

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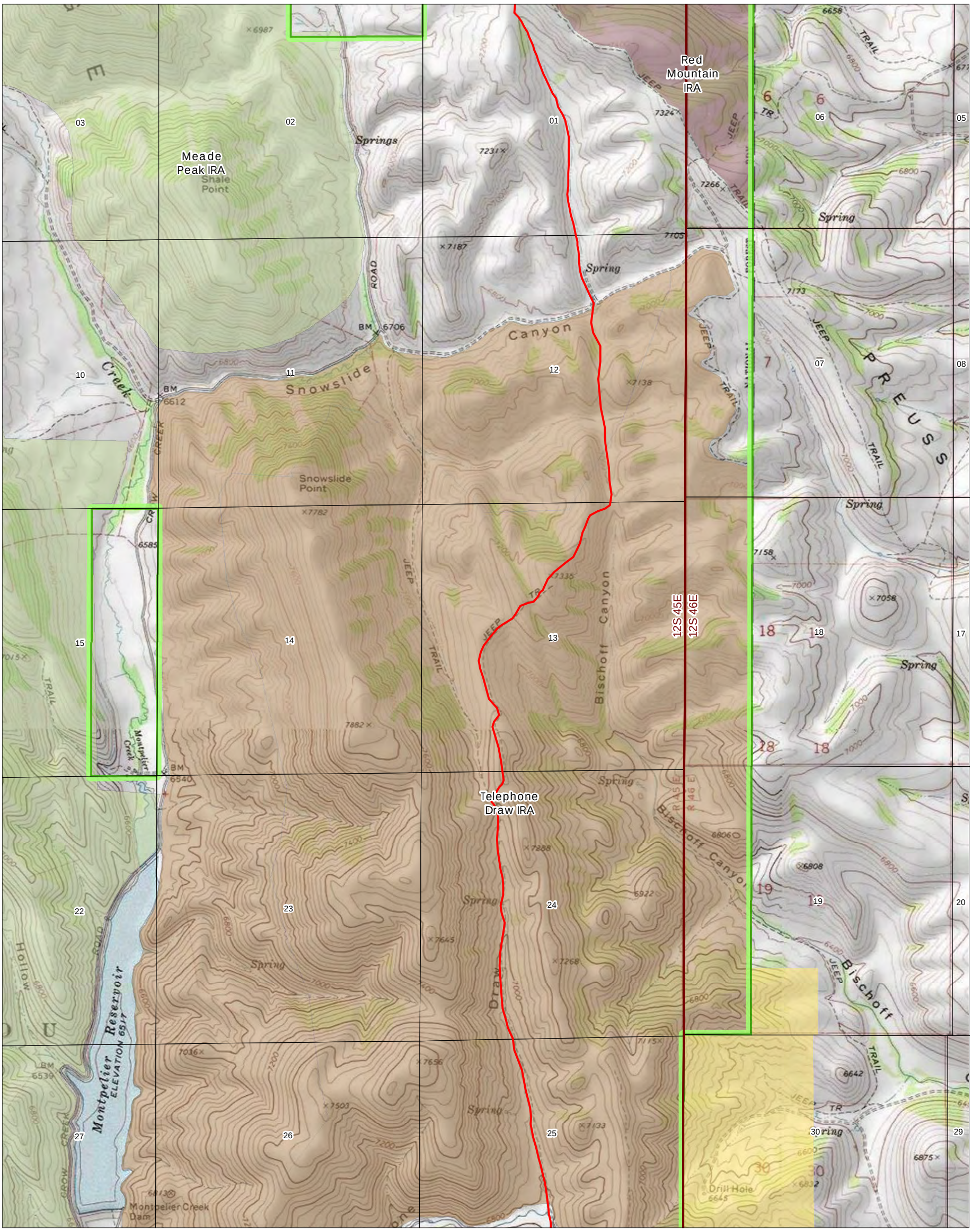
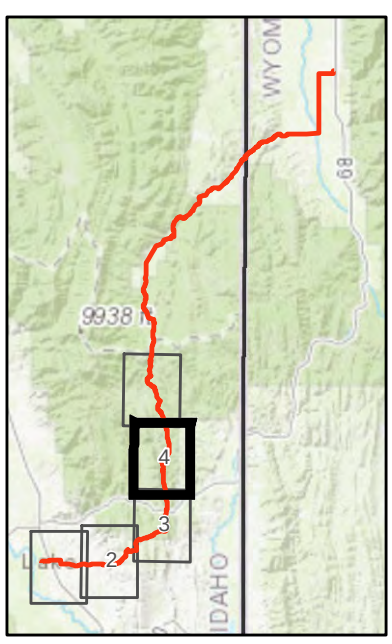
Figure 3
Proposed Action
Topographic Map Book Series
Lower Valley Pipeline Project





Legend

Proposed Pipeline Alignment

Land Status

- Bureau of Land Managment
- Private
- State
- US Forest Service

Inventoried Roadless Area (IRA) in the Vicinity of the Project

- Meade Peak
- Red Mountain
- Telephone Draw

Notes
1. Coordinate System: NAD 1983 UTM Zone 12N
2. Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

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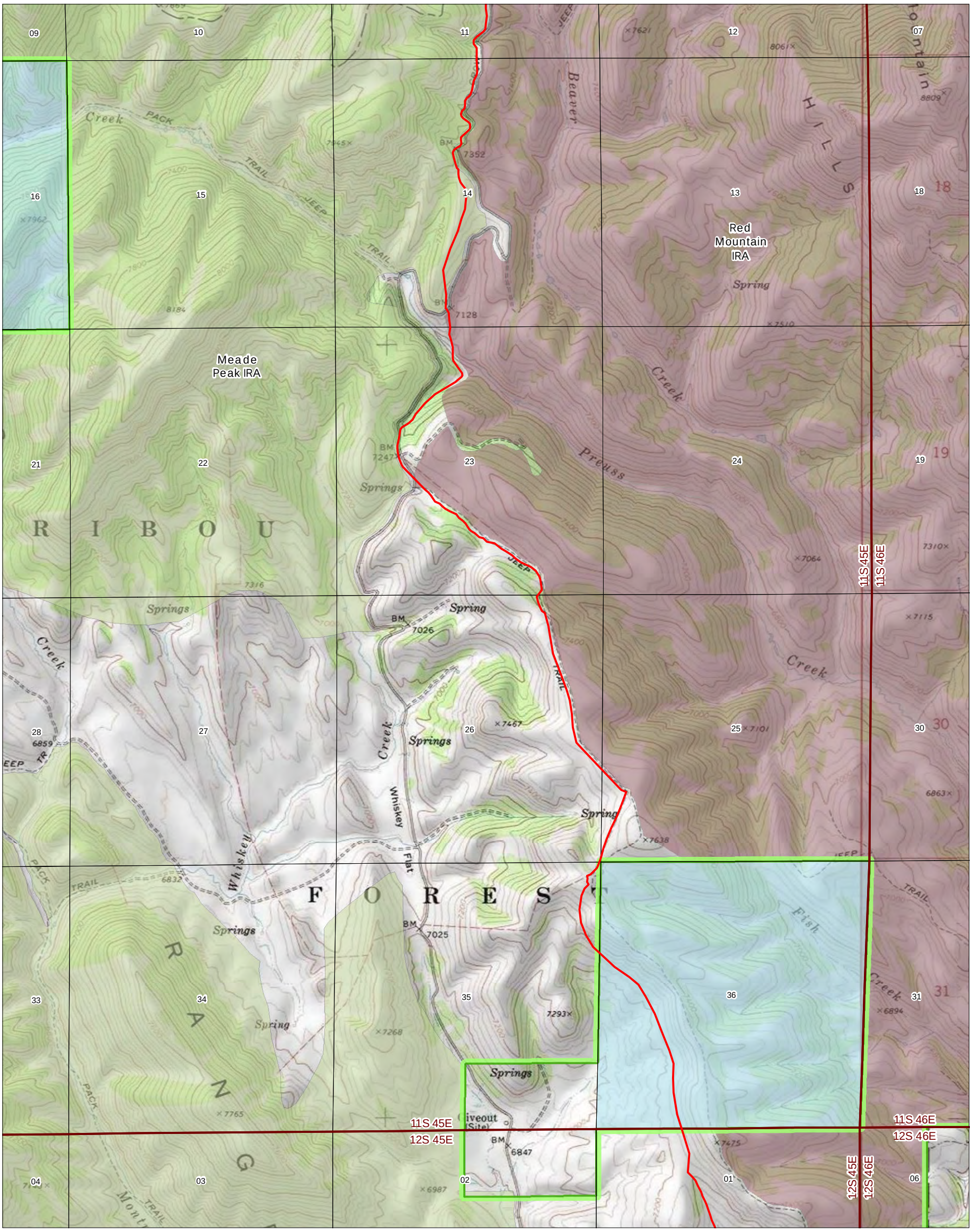
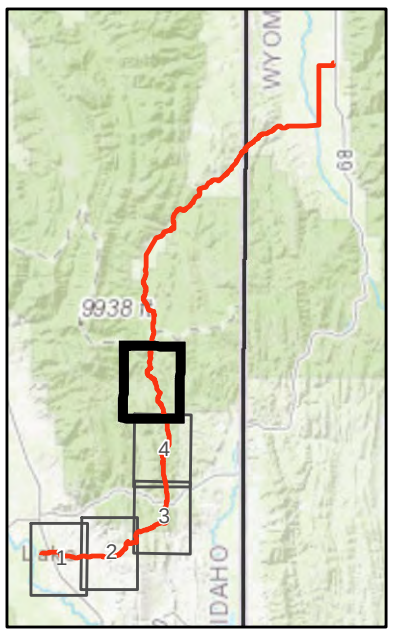
Figure 4
Proposed Action
Topographic Map Book Series
Lower Valley Pipeline Project





Legend

Proposed Pipeline Alignment

Land Status

- Bureau of Land Managment
- Private
- State
- US Forest Service

Inventoried Roadless Area (IRA) in the Vicinity of the Project

- Meade Peak
- Red Mountain

Notes
1. Coordinate System: NAD 1983 UTM Zone 12N
2. Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
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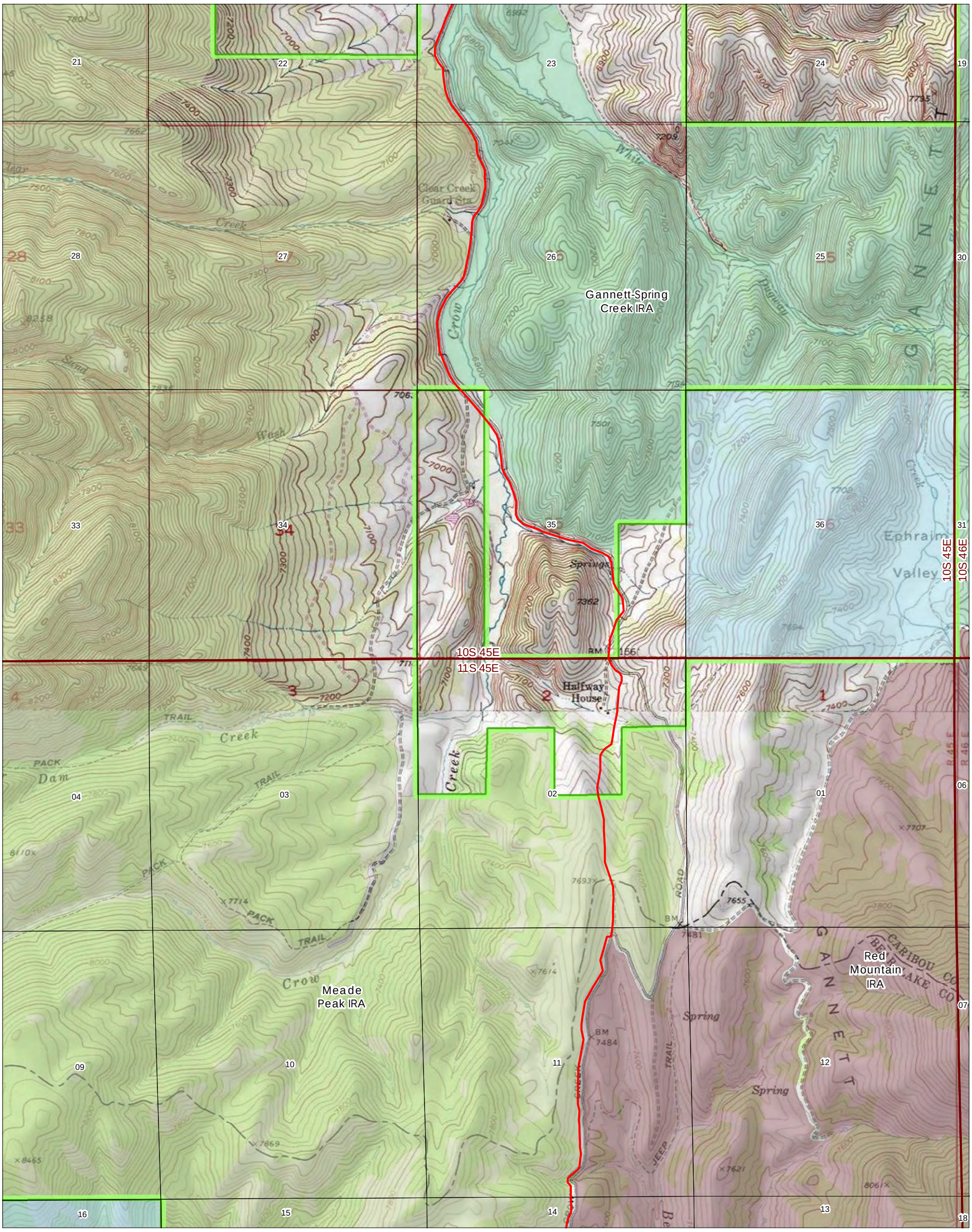
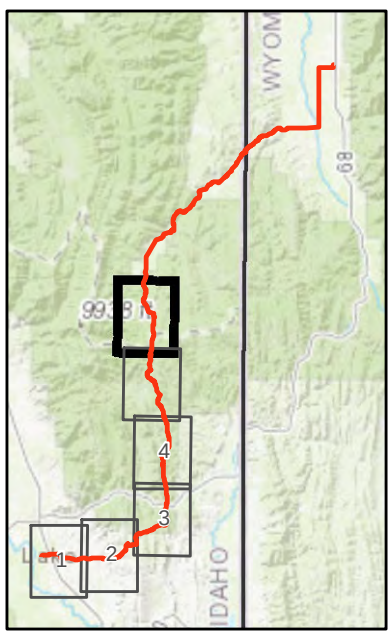
Figure 5
Proposed Action
Topographic Map Book Series
Lower Valley Pipeline Project





Legend

Proposed Pipeline Alignment

Land Status

- Bureau of Land Managment
- Private
- State
- US Forest Service

Inventoried Roadless Area (IRA) in the Vicinity of the Project

- Gannett-Spring Creek
- Meade Peak
- Red Mountain

Notes
1. Coordinate System: NAD 1983 UTM Zone 12N
2. Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
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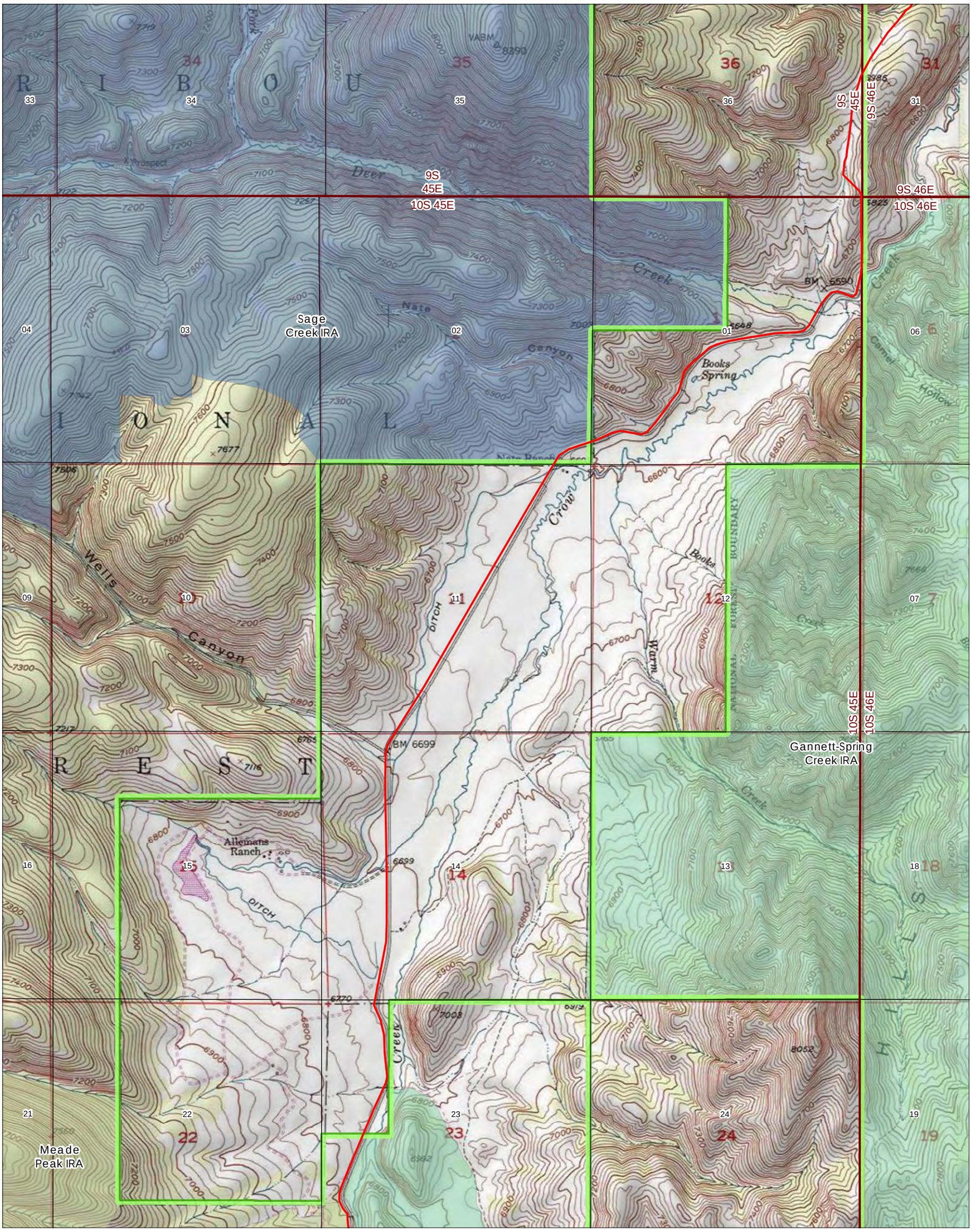
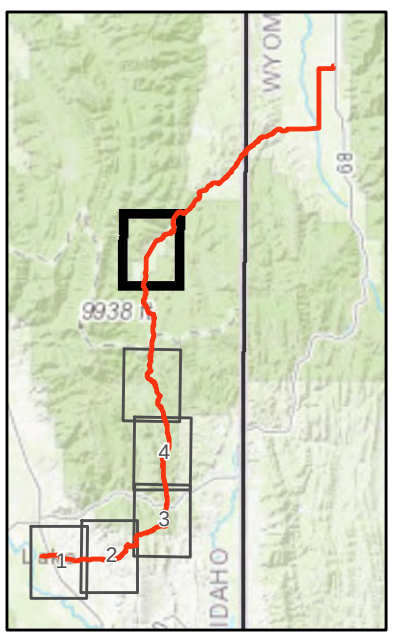
Figure 6
Proposed Action
Topographic Map Book Series
Lower Valley Pipeline Project





Legend

Proposed Pipeline Alignment

Land Status

- Bureau of Land Managment
- Private
- State
- US Forest Service

Inventoried Roadless Area (IRA) in the Vicinity of the Project

- Gannett-Spring Creek
- Meade Peak
- Sage Creek

Notes
1. Coordinate System: NAD 1983 UTM Zone 12N
2. Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

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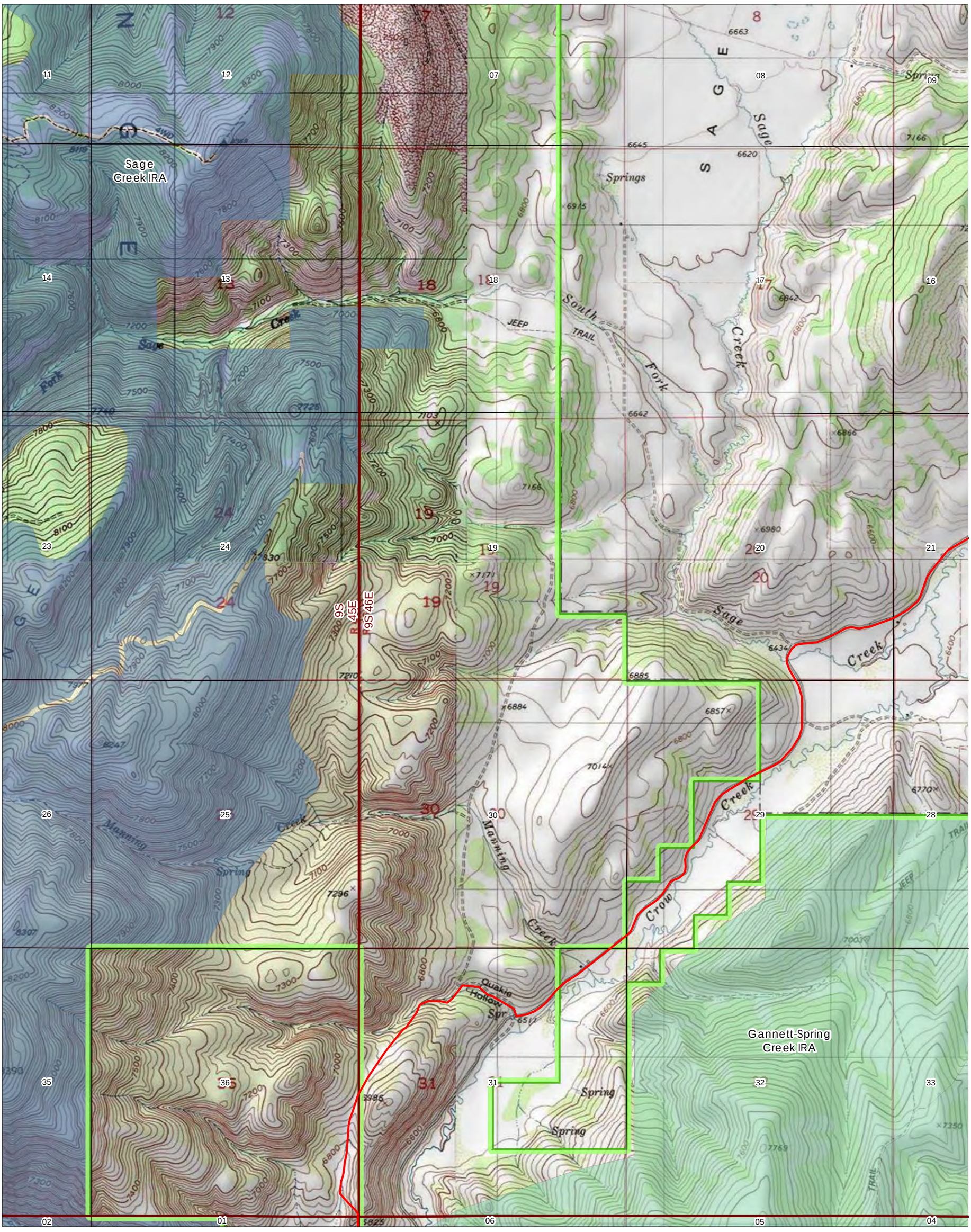
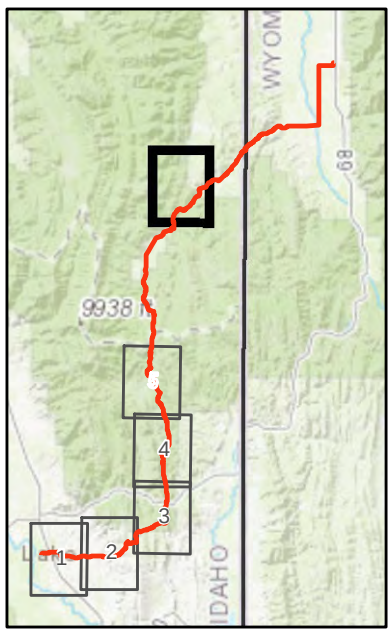
Figure 7
Proposed Action
Topographic Map Book Series
Lower Valley Pipeline Project





Legend

Proposed Pipeline Alignment

Land Status

- Bureau of Land Managment
- Private
- State
- US Forest Service

Inventoried Roadless Area (IRA) in the Vicinity of the Project

- Gannett-Spring Creek
- Sage Creek

Notes
1. Coordinate System: NAD 1983 UTM Zone 12N
2. Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
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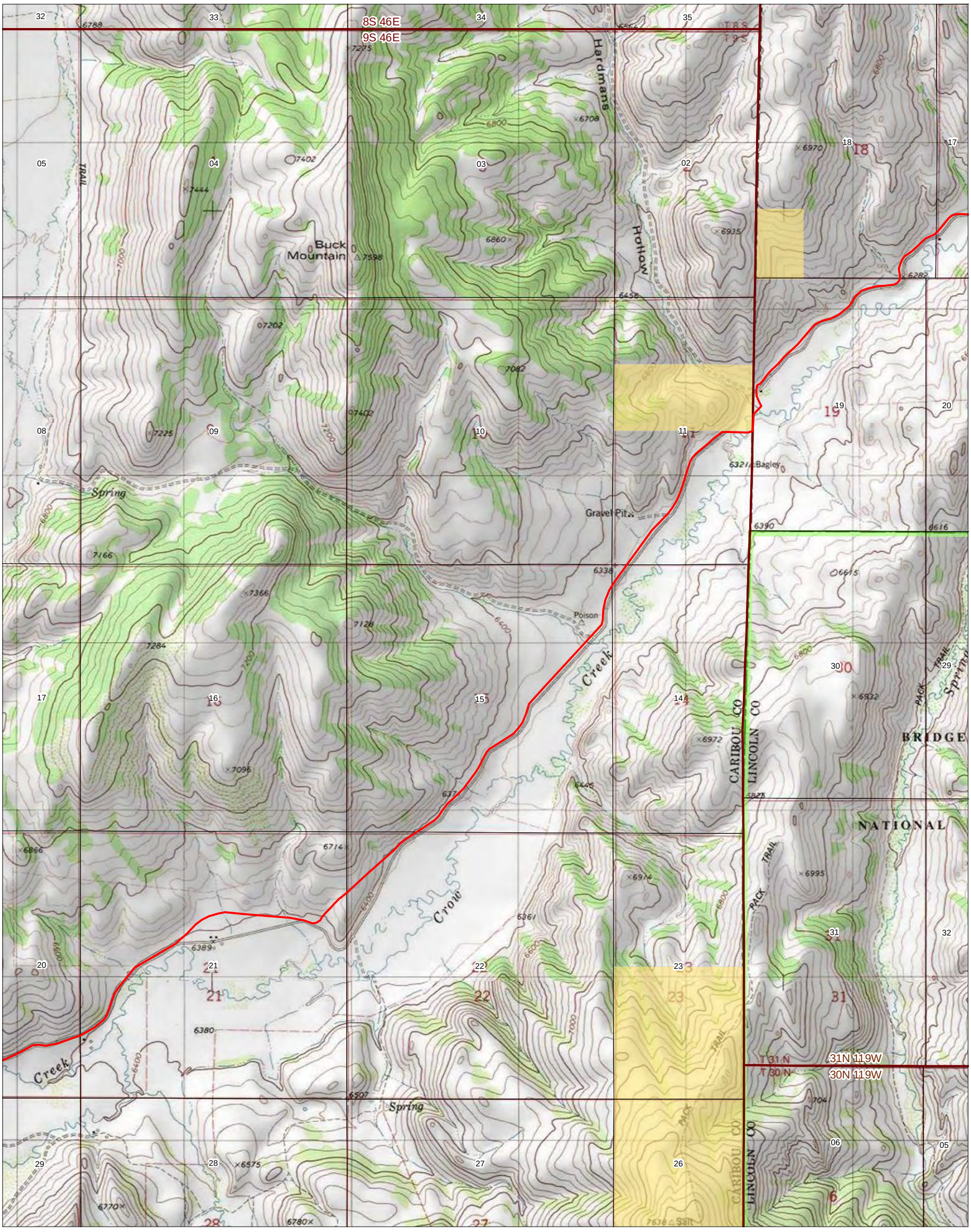
Figure 8
Proposed Action
Topographic Map Book Series
Lower Valley Pipeline Project



Legend

- Proposed Pipeline Alignment

Land Status

- Bureau of Land Managment
- Private
- State
- US Forest Service

Notes
1. Coordinate System: NAD 1983 UTM Zone 12N
2. Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

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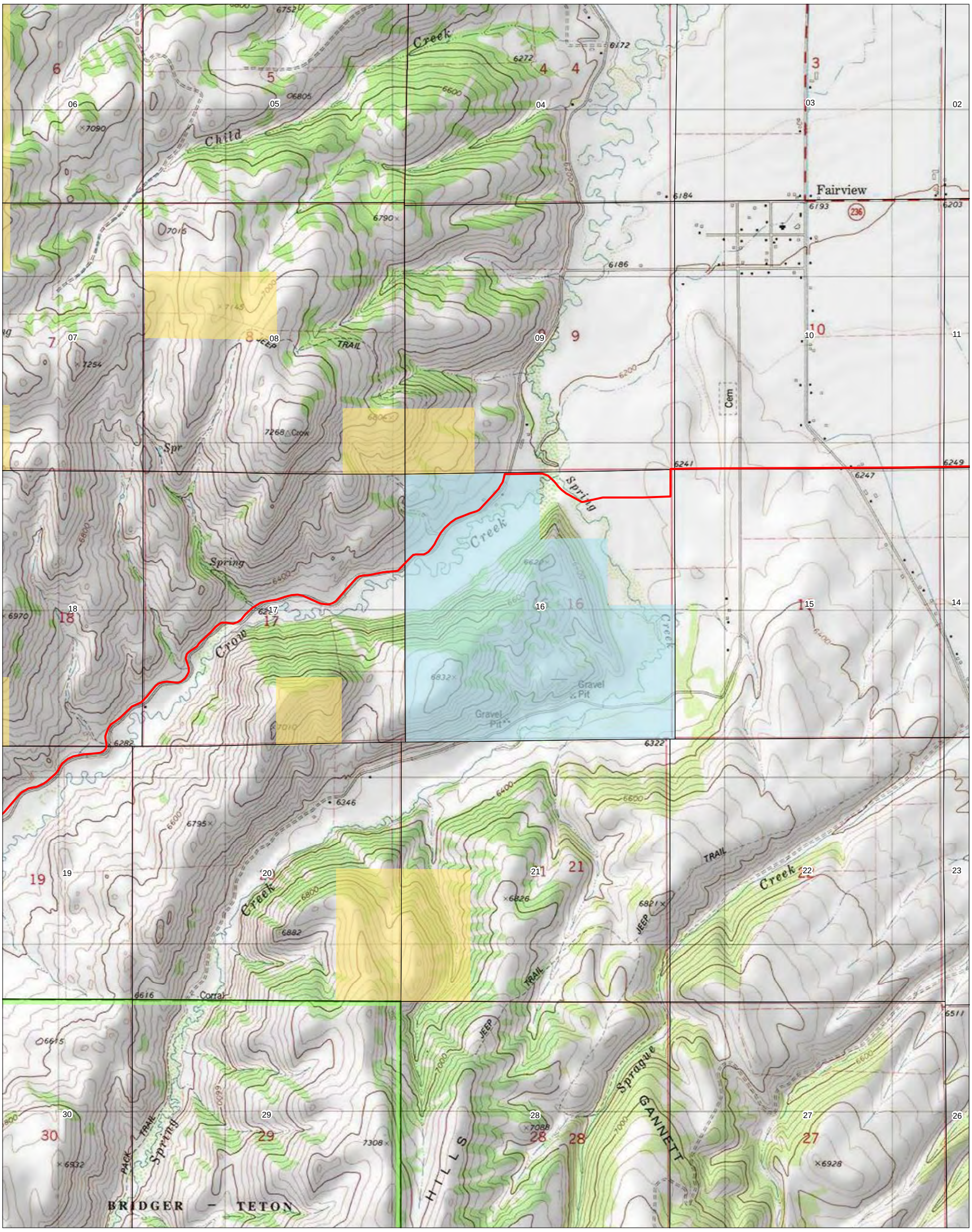
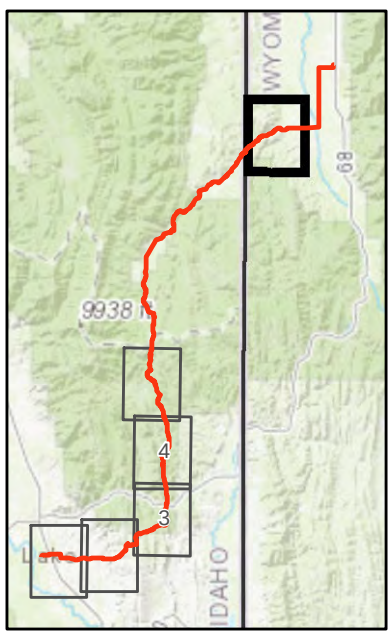
Figure 9
Proposed Action
Topographic Map Book Series
Lower Valley Pipeline Project





Legend

Proposed Pipeline Alignment

Land Status

Bureau of Land Managment

Private

State

US Forest Service

Notes
1. Coordinate System: NAD 1983 UTM Zone 12N
2. Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
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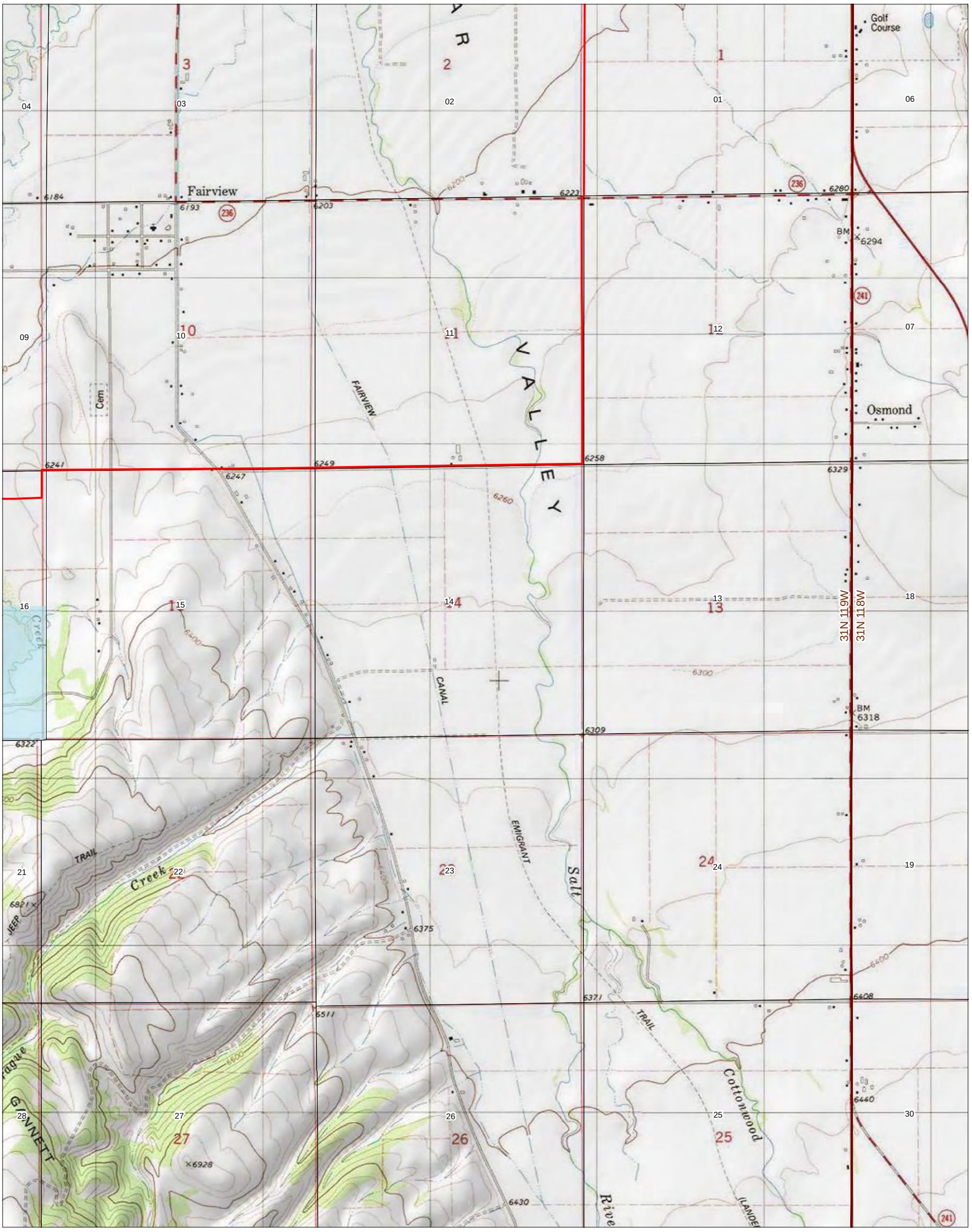
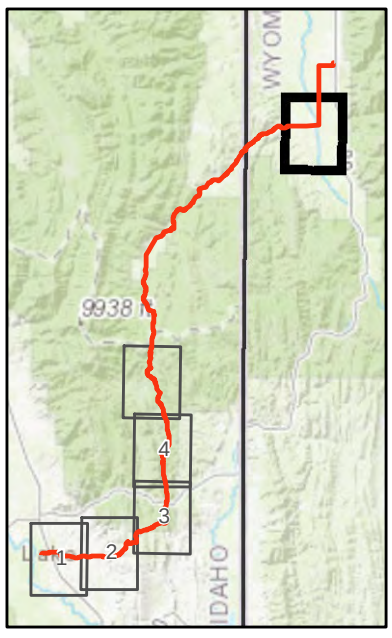
Figure 10
Proposed Action
Topographic Map Book Series
Lower Valley Pipeline Project





Legend

Proposed Pipeline Alignment

Land Status

Bureau of Land Managment

Private

State

US Forest Service

Notes
1. Coordinate System: NAD 1983 UTM Zone 12N
2. Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
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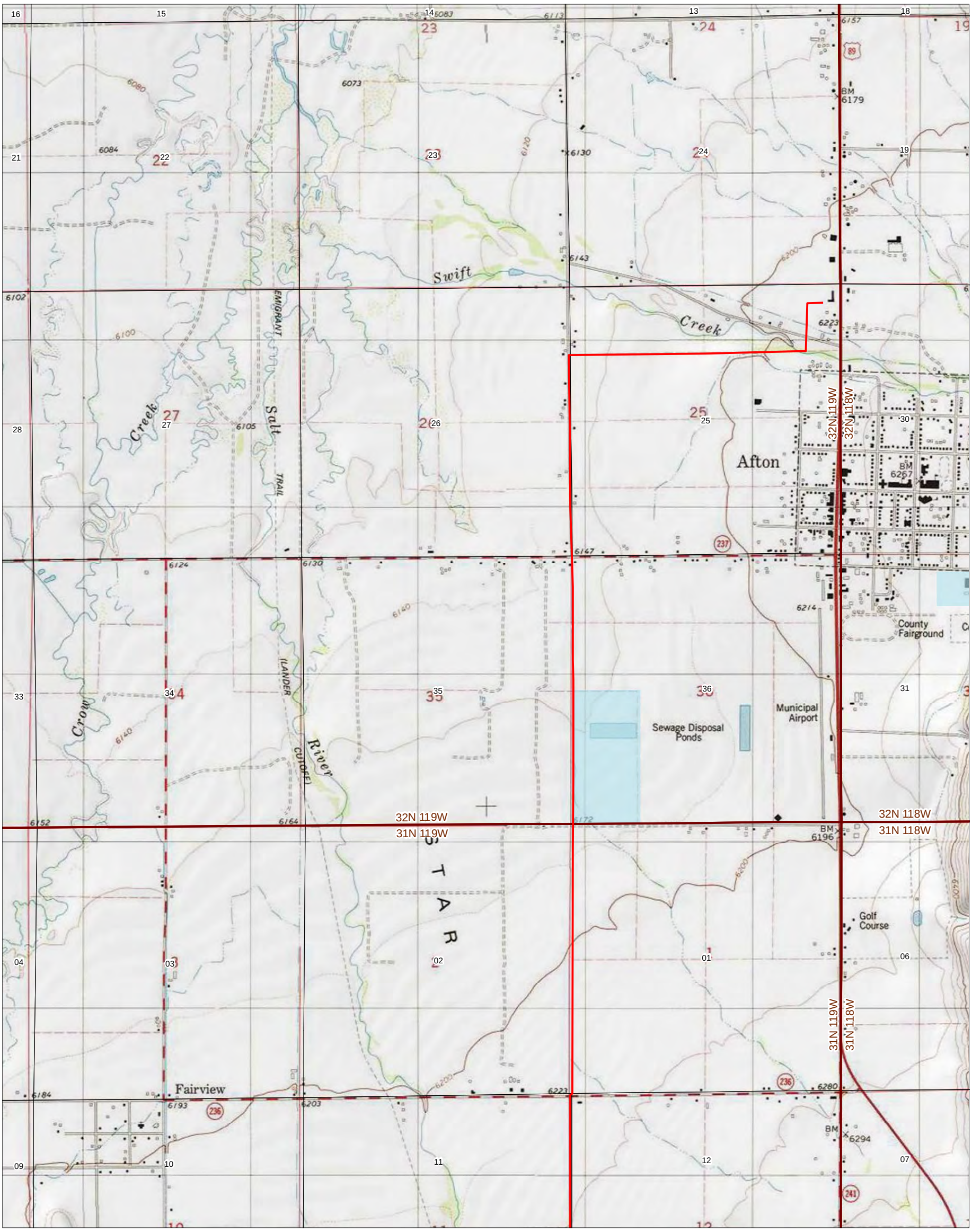
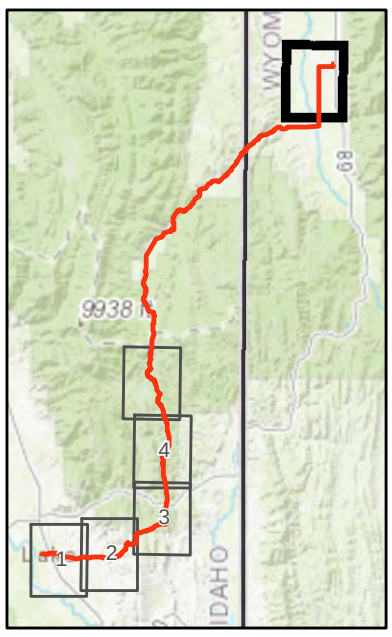
Figure 11
Proposed Action
Topographic Map Book Series
Lower Valley Pipeline Project





Legend

Proposed Pipeline Alignment

Land Status

Bureau of Land Managment

Private

State

US Forest Service

Notes
1. Coordinate System: NAD 1983 UTM Zone 12N
2. Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
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Figure 12
Proposed Action
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Lower Valley Pipeline Project