

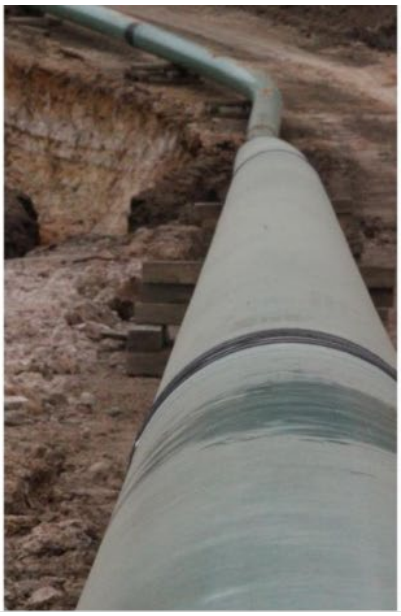
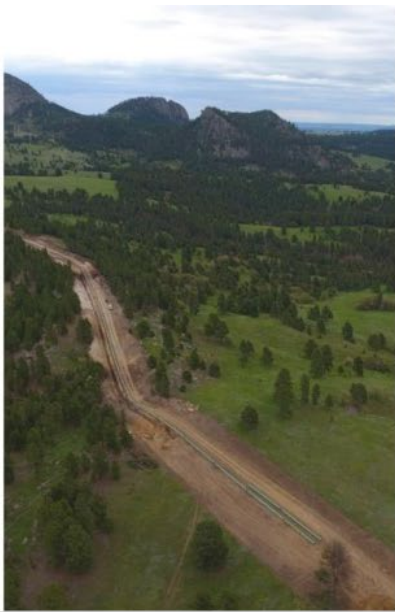

Bridger Pipeline Expansion

Montana Major Facility Siting Act

Application for a Certificate of Compliance

Submitted to:

Montana Department of Environmental Quality

Submitted by:

Bridger Pipeline Expansion, LLC

455 North Poplar Street

Casper, WY 82601

March 26, 2026

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ABBREVIATIONS AND ACRONYMS

ACEC – Area of Critical Environmental Concern

ANSI - American National Standards Institute

AOCs – abnormal operating conditions

API – American Petroleum Institute

ARM - Administrative Rules of Montana

ARMP – Approved Resource Management Plan

ASME – American Society of Mechanical Engineers

ASTM – ASTM International

ATWS – additional temporary workspace

BGEPA – Bald and Golden Eagle Protection Act

BLM – Bureau of Land Management

BMPs – best management practices

BNSF – Burlington Northern Santa Fe

BOR – Bureau of Reclamation

bpd – barrels per day

Bridger – Bridger Pipeline LLC

CAA – Clean Air Act

CFR – Code of Federal Regulations

Cfs – cubic feet per second

CMRP – Construction, Mitigation, and Reclamation Plan

CWA – Clean Water Act

EARC – Eastern Agricultural Research Center

ECOS – Environmental Conservation Online System

EIS – Environmental Impact Statement

EMS – Emergency Medical Services

ERMA – Extensive Recreation Management Area

ERP – Emergency Response Plan

ESA – Endangered Species Act

°F – degrees Fahrenheit

FBE – fusion bonded epoxy

FEMA – Federal Emergency Management Agency

FERC - Federal Energy Regulatory Commission

FIRM – Flood Insurance Rate Map

FLPMA – Federal Land Policy and Management Act

FRP – Facility Response Plan

FWP – Fish, Wildlife & Parks

GIS – Geographic Information System

HDD – horizontal directional drilling

HQT – Habitat Quantification Tool

ICS – Incident Command System

IPaC – Information for Planning and Consultation

KOP – Key Observation Point

LCNHT – Lewis and Clark National Historic Trail

LFPR – Labor Force Participation Rate

LRMP – Land Resource Management Plan

MAAQS – Montana Ambient Air Quality Standards

MCA – Montana Code Annotated

MBTA – Migratory Bird Treaty Act

MDA – Montana Department of Agriculture

MEPA – Montana Environmental Policy Act

MFSA – Major Facilities Siting Act

MLV – mainline valve

MOP – maximum operating pressure

MPDES – Montana Pollutant Discharge Elimination System

MTDEQ – Montana Department of Environmental Quality

MTNHP – Montana Natural Heritage Program

MUTES - Multiple Threat Emitter System

NEPA – National Environmental Policy Act

NAAQS – National Ambient Air Quality Standards

NFPA – National Fire Protection Association

NFS – National Forest System

NHD – National Hydrography Dataset

NHT – National Historic Trail

NHPA – National Historic Preservation Act

NPDES – National Pollutant Discharge Elimination System

NPS – National Park Service

NRCS – Natural Resources Conservation Service

NRHP – National Register of Historic Places

NSO – No Surface Occupancy

NWI – National Wetland Inventory

NWMP – Noxious Weed Management Plan

NWR – National Wildlife Refuge

OPS – Office of Pipeline Safety

OSHA – Occupational Health and Safety Act

PA – Programmatic Agreement

PFYC – Potential Fossil Yield Classification

PHMSA – Pipeline and Hazardous Materials Safety Administration

PILT - Payments in Lieu of Taxes

POD – Plan of Development

PPE – personal protective equipment

Project – Bridger Pipeline Expansion

PSD – Prevention of Significant Deterioration

psig – pounds per square inch gauge

PUP – Pesticide Use Proposal

QA/QC – Quality Assurance Quality Control

QI – Qualified Individual

RCRA – Resource Conservation and Recovery Act

RDF – Required Design Feature

RMP – Resource Management Plan

RNA – Research Natural Area

ROW – right-of-way

SCADA – Supervisory Control and Data Acquisition

SFHA – Special Flood Hazard Area

SGCP – Sage-grouse Conservation Plan

SHPO – State Historic Preservation Office

SIP – State Implementation Plan

SMYS - Specified Minimum Yield Strength

SOC – Species of Concern

SPCC – Spill Prevention, Control, and Countermeasure Plan

SRMA – Special Recreation Management Area

SWPA – Source Water Protection Area

SWPPP – Stormwater Pollution Prevention Plan

TCP – Traditional Cultural Property

TFS - Trustees' Financial Summary

TL – timing limitation

TMDL – Total Maximum Daily Load

tpy – tons per year

TSS – Total Suspended Solids

UDP – Unanticipated Discovery Plan

U.S. – United States

USACE – United States Army Corps of Engineers

USDA – United States Department of Agriculture

USDOT – United States Department of Transportation

USEPA – United States Environmental Protection Agency

USFS – United States Forest Service

USFWS – United States Fish and Wildlife Service

USGS – United States Geological Survey

VCR - Visual Contrast Ratings

VRM – Visual Resource Management

WPA – Waterfowl Production Area

WSA – Wilderness Study Area

CROSS REFERENCE INDEX (ARM 17.20.803(2))

Requirement	Reference	Section Title
An application must be submitted in an electronic format acceptable to the department.	ARM 17.20.803(1)	NA
An application must contain an index cross-referencing the material contained in the application.	ARM 17.20.803(2)	Cross Reference Index
An application must be organized according to the following general categories: (a) introductory material; (b) description of the proposed facility; (c) cost of the facility; (d) explanation of the purpose and benefits of the proposed facility; (e) explanation of the need for a linear facility; (f) analysis of alternatives to the proposed facility; (g) alternative siting study for linear facilities; (h) environmental concerns; (i) all maps must be in an electronic format acceptable to the department; (j) technical reports, reference or source documents, and other supplementary material provided by the applicant shall be presented as separate, consecutively arranged attachments, beginning with "Attachment A".	ARM 17.20.803(3)	1 Introduction 4 Description of the Proposed Facility 6.2.6 Cost 3 Purpose and Benefits of the Project 2 Need for the Project 5 Alternatives to the Proposed Facility 6 Alternative Siting Study 7 Impact Assessment Appendix B 11 Existing Studies, Reports, and Data Appendices
An application must contain a list of sources of information used in preparing the application. An application must specify when field investigations were conducted.	ARM 17.20.804(1)	12 References
An application should include only information relevant to the facility. The application requirements in these rules address a comprehensive range of issues for the wide range of facilities covered by the Act. The applicability or relevance of the requirements to a particular facility are dependent on its type, its design, how its output will be marketed, its size or length, and on the characteristics and complexity of the geographic area(s) where the facility may be located. An application shall contain the information required by subchapters 8 and 9 and 13 through 15 unless specific provisions for submitting less information are contained in the rule, or unless the department gives written permission, prior to filing the application, to omit certain information. Unless a rule provides differently, an applicant desiring to omit information it considers irrelevant to the project shall submit to the department a written request to make the omission, along with documentation justifying its request. The department shall review the applicant's request and shall make a written determination of whether the information may be omitted. If there is a substantial cost to the department to verify	ARM 17.20.804(2)	NA

Requirement	Reference	Section Title
the applicant's justification, the applicant shall contract with the department and reimburse it for expenses incurred pursuant to 75-20-106, MCA.		
Supplemental Material	ARM 17.20.805	NA
Changes in an Application	ARM 17.20.806	NA
Amendment to Application	ARM 17.20.807	NA
Related Projects	ARM 17.20.810	NA
All Facilities, Estimated Cost of Facility	ARM 17.20.811	TBD
Linear Facilities, Estimated Annual Costs	ARM 17.20.815	TBD
An application must contain a description of design capacity and expected operational characteristics of the facility.	ARM 17.20.815(6)	4.1.1 Engineering Description
Linear Facilities, Pricing Policy	ARM 17.20.817	
Pipeline Facilities, Evaluation of Alternatives	ARM 17.20.1311	5 Alternatives to the Proposed Facility 9 Identification of Proposed Project
Linear Facilities, General Requirements of the Alternative Siting Study	ARM 17.20.1426	6 Alternative Siting Study
Linear Facilities, Design Characteristics	ARM 17.20.1509	4.1 Design Characteristics
An application must contain an engineering description of the facility in detail sufficient to enable the department to assess the environmental impacts of construction, operation and maintenance and reliability of the proposed facility located on the preferred route.	ARM 17.20.1509(1)	4.1.1 Engineering Description
An application must contain a list of any reports, documents, studies, or calculations indicating that the preliminary design specifications and performance objectives for the major components of the facility are adequate and can be maintained in the continuous operation of the facility.	ARM 17.20.1509(2)	11 Existing Studies, Reports, and Data

Requirement	Reference	Section Title
An application must identify facility design features that were selected in order to reduce adverse environmental impacts.	ARM 17.20.1509(3)	4.2.1 Siting & Design Features to Reduce Adverse Environmental Impacts
For pipelines, an application must contain an engineering description of the facility, including conduit size and thickness, tensile strength, test and operating pressure, methods of joining sections of conduit, trenching depth, amount of ground cover over the pipeline, the location, size and overall plan for new or modified pumping and compressor stations, cathodic protection systems, and other safety features. Facility design specifications or criteria must also be provided for the normal and maximum transmitting or pumping capacity and pressure of compressor stations and pump stations.	ARM 17.20.1509(8)	4.1.1 Engineering Description 4.1.2 Major Facility Components
For pipelines, an application must contain a description of quality control and testing procedures and the information necessary to demonstrate that the facility can meet industry and US Department of Transportation pipeline standards.	ARM 17.20.1509(9)	4.1.4 Quality Control and Testing Procedures
For pipelines, an application must contain a description of the source of power for pump and compressor stations and indicate on maps, in electronic format acceptable to the department, the proposed and alternative location of power supply lines for these stations.	ARM 17.20.1509(10)	4.1.5 Source of Power for Pump and Compressor Stations
An application must contain a description of communication facilities that will be used to control and monitor operation of the facility and their location, including, but not limited to ratio, microwave, or satellite antennas, and any fiber optic cables. If fiber optic cables are used, the application must describe the use of any excess communication capacity.	ARM 17.20.1509(11)	4.1.6 Control and Monitoring Communication Facilities
An application must contain a specific engineering or design explanation of the opportunities and constraints for paralleling or sharing existing utility or transportation rights-of-way, or portions thereof, and if such opportunities were not chosen for part of the preferred route, an explanation of the reasons, including sufficient right-of-way and/or other land use constraints.	ARM 17.20.1509(12)	4.2.2 Paralleling Opportunities and Constraints
Linear Facilities, Pipeline Facilities, Construction Description	ARM 17.20.1511	4.2 Avoidance and Minimization 4.3 Construction Description
An application must contain a preliminary construction schedule, a description of typical construction equipment to be used, an estimate of total equipment needs and a description of sequential construction operations, such as right-of-way clearing, trenching, pipe installation and backfilling, including estimates of the duration and length in miles of each operation and a description of plans for and use of staging areas.	ARM 17.20.1511(1)	4.3.1 Preliminary Construction Schedule 4.3.2 Typical Construction Equipment 4.3.3 Sequence of

Requirement	Reference	Section Title
		Major Construction Activities
An application must contain an estimate and discussion of the width of the level work pad needed for construction operations.	ARM 17.20.1511(2)	4.3.6 Typical Work Pad
An application must contain an estimate of the area of ground disturbance resulting from construction activities, including an estimate of mileage of flat terrain where no cut and fill excavation would be needed and estimates of mileage of terrain where cut and fill excavation to construct a level work pad would be required.	ARM 17.20.1511(3)	4.3.7 Construction Ground Disturbance
An application must contain a description of the methods that will be used to salvage topsoil, including: (a) the width of the construction right-of-way where topsoil will be salvaged; (b) the depth to which topsoil would be salvaged; (c) the locations where alternative methods of topsoil salvage would be implemented; and (d) the methods to be employed to remove coarse rock from surface soils following construction.	ARM 17.20.1511(4)	4.3.8 Treatment of Topsoil
An application must contain a description of the types and sizes of roads needed to build and maintain the facility, an estimate of the road mileage and preliminary road locations required in addition to the right-of-way, if any, in order to construct the facility on the applicant's preferred route or proposed location for an associated pipeline, and an estimate of how much the roads will be used.	ARM 17.20.1511(5)	4.3.9 Temporary and Permanent Access Roads
An application must contain a description of the minimum and maximum construction right-of-way widths and the widths of permanent easements, a description of the criteria used to determine the widths, and a description of any land use restrictions that would be placed on the permanent easement.	ARM 17.20.1511(6)	4.3.5 Right-of-Way and Construction Easements
An application must contain a discussion of the proposed and alternative methods of stream crossings, including: (a) specification of equipment types; (b) estimates of the width and depth of trenching; and (c) estimates of the scour depth supported by a discussion of the methods and calculations used to make the estimates; and (d) amount of ground disturbance adjacent to stream crossings.	ARM 17.20.1511(7)	4.3.3 Sequence of Major Construction Activities Horizontal Directional Drilling
An application must contain a discussion of the proposed and alternative methods of and conceptual designs for overhead stream crossings, if any.	ARM 17.20.1511(8)	4.3.3 Sequence of Major Construction Activities

Requirement	Reference	Section Title
		Horizontal Directional Drilling
An application must contain a description of the reclamation methods that will be used to restore the right-of-way on sidehills and over the ditch, and the measures that will be implemented to address subsidence of soils over the trench after construction is completed.	ARM 17.20.1511(9)	4.2.1 Siting and Design Features to Reduce Adverse Environmental Impacts Reclamation Methods and Timing
An application must contain a description of methods the applicant will use for fire control.	ARM 17.20.1511(10)	4.3.11 Fire Control
Linear Facilities, Operation and Maintenance Description	ARM 17.20.1512	4.4 Operations and Maintenance
An application must include a description of operation and maintenance procedures for the proposed facility under normal and emergency conditions, including types and scheduling of anticipated maintenance and inspections. For electric transmission facilities, an application must contain a description of methods the applicant will employ to resolve complaints from nearby residents regarding noise and radio and television interference.	ARM 17.20.1512(1)	4.4.2 Operations and Maintenance Procedures Under Normal and Emergency Conditions
An application must contain a discussion of the ability of the proposed facility to withstand destructive natural phenomena such as mass movement, earthquakes, floods, icing conditions and high winds or accidents, a description of the environmental impacts and/or public safety problems resulting from facility failure due to natural phenomena and accidents, and a general discussion of measures proposed to reduce the problems.	ARM 17.20.1512(2)	4.4.3 Resiliency and Public Safety
An application must contain a description of the methods the applicant will employ to control land uses on the right-of-way, including encroachment of buildings.	ARM 17.20.1512(3)	4.4.4 Right-of-Way Control
An application must contain a description of the right-of-way management procedures that will be used, including vegetation and weed control, herbicide use, and the scheduled timing of the proposed management activities.	ARM 17.20.1512(4)	4.4.5 Right-of-Way Management
For pipelines, an application must describe the size and frequency of leaks that can be expected over the life of the proposed project.	ARM 17.20.1512(5)	4.4.6 Expected Leaks and Leak Detection Systems Leak Size and Frequency
For pipelines, an application must describe leak detection systems to be employed during operations including sensitivity of the leak detection system, the time necessary to shut down the facility in the event of a leak, and expected time necessary to respond to a leak.	ARM 17.20.1512(6)	4.4.6 Expected Leaks and Leak Detection Systems Leak Detection Systems

Requirement	Reference	Section Title
For liquid pipelines, an application must include a detailed spill contingency plan describing: (a) immediate notification procedures; (b) the type and location of emergency response personnel and equipment; (c) any mutual aid agreements to supply personnel and equipment and respond in the event of a spill; (d) response procedures; (e) equipment testing procedures; (f) frequency of field training exercises; and (g) plan update procedures. The plan shall be sufficiently detailed so that the department can determine the likely environmental effects resulting from a spill.	ARM 17.20.1512(7)	4.4.7 Detailed Spill Contingency Plan
Linear Facilities, Public Interest Standard	ARM 17.20.1604	3 Purpose and Benefits of the Project
Linear Facilities, Need Standard	ARM 17.20.1606	2 Need for the Project
Linear Facilities, Minimum Impact Standard	ARM 17.20.1607	7 Impact Assessment 9 Identification of Proposed Project
General Requirements for the Alternative Siting Study and Baseline Study	Circular MFSA-2 Section 3.0	6 Alternative Siting Study
An application must contain a summary of the results of consultation with government agencies to identify their concerns over the proposed facility's possible locations or effects on the environment, including any mitigation measures suggested by those agencies, and the way the applicant considered these concerns in identifying preferred and alternative locations for the facility.	3.0(4)	10.1 Federal Approval 10.2 State and Local Policies, Plans, and Programs 11 Existing Studies, Reports, and Data
Preferred Location Criteria	3.1(1)(a,b,e,f,g,l,j,k) and (2)(b))	6.1 Preferred Location Criteria
Identification of the Study Area	3.2(1)(a-c)	6.2 Considerations for Study Area Delineation
Identification of Avoidance Areas	3.2(1)(d and e)	6.2 Considerations for Study Area Delineation
Agency permission	3.2(1)(f)	6.2.5 Grants of Permission
Factors used to determine study area boundaries	3.2(2)	6.2 Considerations for Study Area Delineation
An application must identify the factors used to determine the boundaries of the study area including: cost.	3.2(2)(c)	6.2.6 Cost
Base map	3.2(3)	Appendix B
Methods used to incorporate factors from 3.2(2) to establish study area boundaries	3.2(4)	6.3 Development of Facility Locations Options

Requirement	Reference	Section Title
Conduct public meeting	3.3(2)	6.3.1 Summary of Public Input
Base maps	3.3(3)	Appendix B
Justification for impacts to Avoidance Areas	3.3(5)	6.3.4 Justification for Impacts to Avoidance Areas
Areas crossed by Project Impact Assessments	3.3(6)	7 Impact Assessment
Factors used to determine alternative locations	3.3(7)	6.3.2 Factors Used to Develop Alternatives
Delineate alternatives on Base Map	3.3(8)	Appendix B
Methods used to determine alternative locations	3.3(9)	6.3.2 Factors Used to Develop Alternatives Appendix B
Electronic map of environmental constraints	3.4(1)	Appendix B
Electronic map of environmental constraints (plus pipeline)	3.4(2)	Appendix B
Electronic map of built environment and land use constraints	3.4(3)	Appendix B
Electronic map of public / tribal lands	3.4(4)	Appendix B
Electronic map of slopes	3.4(5)	Appendix B
Estimate of population	3.4(6)	7.1 Socioeconomic
Narrative description of social characteristics and econ conditions	3.4(7)	7.1 Socioeconomic
Characterization of public concerns	3.4(8)	7.2 Public Attitudes and Concerns
Overview of landscape aesthetics	3.4(9)	7.3.6 Visual
Overview of history and prehistory of study area	3.4(10)	7.3.4 Historic, Archaeological, and Paleontological
Identify Three Reasonable Alternatives	3.5(1)	6.3 Development of Facility Locations Options
Explanation of methods used to select alternative facility locations	3.5(2)	6.3.2 Factors Used to Develop Alternatives 6.3.3 Description of Route Options
Mapping of alternative facility locations	3.6(1-4)	Appendix B
Narrative information and calculations to inform permitting decisions	3.6(5-6)	7 Impact Assessment
Avoidance and Minimization to reduce or eliminate significant adverse impacts	3.6(7)	4.2 Avoidance and Minimization
Impact Assessment (select sections for pipelines)	3.7	7 Impact Assessment

Requirement	Reference	Section Title
Electronic Map of built environment and land uses	3.7(2)	Appendix B
Description of construction and operation crews	3.7(3)	4.3 Construction Description
Assessment of impact on land uses	3.7(4)	7.3 Built Environment
Assessment of social impacts	3.7(5)	7.1 Socioeconomic
Assessment of public attitudes	3.7(6)	7.2 Public Attitudes and Concerns
Description of access road requirements	3.7(7)	4.3.9 Temporary and Permanent Access Roads
Assessment of impacts on earth resources	3.7(8)	7.4 Natural Environment
Problems posed by poor or seasonally restricted access	3.7(9)(c)	4.3.10 Problems Posed by Poor or Seasonally Restricted Access
Electronic map of 100-year floodplains	3.7(9)(f)	Appendix B
Assessment of visual resource impacts	3.7(11)	7.3.6 Visual
Description of existing biological resources and an assessment of potential impacts	3.7(12)	7.4.4 Wildlife and Fisheries
Assessment of cultural, historical and paleontological resource impacts	3.7(13 and 14)	7.3.4 Historic, Archaeological, and Paleontological
Assessment of impacts on recreation areas	3.7(16)	7.3.3 Recreational Facilities
Noise conditions near residential development	3.7(19)(a)	7.3.5 Noise
EMF discussion	3.7(19)(e)	7.3.5 Noise
Impact Assessment for Pipelines (see 3.7(2) through (8), (9)(c) and (f), (11), (13), (14) and (16)	3.8	See references to Circular Section 3.7 above
Mitigation measures	3.8(1)	8 Mitigation Measures
Engineering differences and ability to accommodate future facilities	3.8(1)(a)(i)	6.3.5 Engineering Differences Among Alternative Facility Locations
Description and drawings of alternative facility designs and technologies	3.8(1)(a)(ii)	5.1 Design Alternatives Appendix B
Map of alternative facility locations and tabulation of impacts in rugged terrain	3.8(1)(a)(iii)	Appendix B
Visual resource information	3.8(1)(b)	7.3.6 Visual
Biological resource information	3.8(1)(c)	7.4 Natural Environment

Requirement	Reference	Section Title
Noxious weeds	3.8(1)(d)	Noxious Weed Presence, Dispersion, and Control
Recreation sites	3.8(1)(e)	7.3.3 Recreational Facilities
Stream crossings	3.8(1)(f)	7.4.3 Water Resources
Water resources	3.8(1)(g)	7.4.3 Water Resources
Potential noise	3.8(1)(h)	7.3.5 Noise
Groundwater discharge	3.8(1)(i)	7.4.6 Spills and Water Discharge
Discharge of hydrostatic test water	3.8(1)(j)	7.4.6 Spills and Water Discharge
Summary of most important impacts of the proposed facility	3.9(1)(a)	9 Identification of Proposed Project
Degree to which most important adverse impacts can be mitigated	3.9(1)(b)	9 Identification of Proposed Project
Ranking of alternative facility locations among given categories	3.9(1)(c)	9 Identification of Proposed Project
Rationale for selection of Proposed Facility Location based on applicant's selection criteria	3.10(1)(a)	9 Identification of Proposed Project
Explanation of how Preferred Location Criteria were applied	3.10(1)(b)	9 Identification of Proposed Project
Relative importance of Preferred Location Criteria, Avoidance Areas and cost in selecting the Proposed Facility Location	3.10(1)(c)	9 Identification of Proposed Project
Explanation of how the Avoidance Areas were considered in selecting the Proposed Facility Location	3.10(1)(d)	9 Identification of Proposed Project
Explanation of how other resource impacts were considered in selecting the Proposed Facility Location	3.10(1)(e)	9 Identification of Proposed Project

1 INTRODUCTION (ARM 17.20.803(3)(a))

1.1 Project Introduction

The applicant, Bridger Pipeline Expansion LLC ("Bridger" or "Applicant"), proposes to develop and operate the Bridger Pipeline Expansion crude oil transmission project (the "Project"). Bridger's principal office is located at PO Box 2360, Casper, Wyoming 82601. Bridger is a wholly owned subsidiary of Bridger Pipeline LLC and operates under its ownership and management structure. Bridger currently operates crude oil pipeline systems in North Dakota, eastern Montana, and Wyoming. Bridger has maintained a long-standing presence in Montana, where they have operated pipeline infrastructure for nearly 50 years, supported in-state employment, and contributed millions of dollars in state and local tax revenue.

Bridger proposes to construct a 36-inch diameter steel crude oil pipeline beginning near the United States (U.S.) -Canada border in Phillips County, Montana and terminating at an existing facility near Guernsey, Wyoming. The Project is expected to cross Phillips, Valley, Daniels, Sheridan, Roosevelt, Richland, Wibaux, Fallon, and Carter counties. Because of Briger's existing operational presence in the State and region, 43 percent of the proposed route is sited parallel to existing linear infrastructure.

Bridger will seek a Presidential Permit, issued by the Office of the President, to authorize construction, connection, operation and maintenance of facilities at the U.S.-Canada border in Phillips County, Montana. Because portions of the Project would cross lands administered by the Bureau of Land Management (BLM) and U.S. Forest Service (USFS), the Project is expected to undergo review under the National Environmental Policy Act (NEPA), including preparation of an Environmental Impact Statement (EIS) by the appropriate federal lead agency.

This application provides the Montana Department of Environmental Quality (MTDEQ) with the information required to evaluate the Project under the Major Facility Siting Act (MFSA), including the findings set forth in Mont. Code Ann. § 75-20-301. The materials in this application are provided in accordance with the standards set by the Montana Code Annotated (MCA), the Administrative Rules of Montana (ARM) and Circular MFSA-2.

1.2 Proof of Public Notice (§ 75-2—211(4), MCA)

In accordance with § 75-20-211 (4), MCA, the Applicant has provided public notice of the filing of this MFSA application for the proposed Bridger Pipeline Expansion Project. Proof of public notice, including publisher affidavits and copies of the legal notice as published, is provided in ***Appendix A – Proof of Public Notice.*** In addition to newspaper publication, Bridger mailed postcards to landowners near the Project to ensure individual notification is consistent with MFSA requirements.

This documentation demonstrates that notice was published in newspapers of general circulation within the affected Montana counties and that required notification procedures were completed consistent with § 75-20-211(3), MCA.

2 NEED FOR THE PROJECT (ARM 17.20.803(3)(e); ARM 17.20.1606)

2.1 Overview

The Project is necessary to provide additional crude oil transportation capacity from the U.S.–Canada border in northern Montana to the Guernsey, Wyoming hub, an established regional crude oil aggregation and distribution point. The Project responds to demand for reliable pipeline transportation connecting upstream supply to downstream markets in the Rocky Mountain region.

Under MFSA, the MTDEQ must determine whether the record establishes a reasonable basis for the need for the facility. Mont. Code Ann. § 75-20-301(1). The need factors listed in ARM 17.20.1606 are nonexclusive and guide MTDEQ's evaluation.

The Project's need is supported primarily by transportation capacity considerations and the value of providing additional firm crude oil transportation capability into the Guernsey market. These considerations correspond most directly to ARM 17.20.1606(1)(c) and ARM 17.20.1606(1)(i).

2.2 Relief of Transportation Constraints (ARM 17.20.1606(1)(c))

The Project is intended to increase crude oil takeaway capacity into the Guernsey, Wyoming market area. Pipeline takeaway limitations can arise when available transportation capacity is constrained relative to production levels and shipper demand. Available industry analysis indicates that pipeline capacity in the northern Rockies and Western Canada can periodically approach full utilization, creating conditions in which additional takeaway capacity may support system reliability and market access. Industry analysts have recognized that crude oil markets in the northern Rockies and Western Canada are sensitive to available pipeline capacity and hub connectivity. See RBN Energy LLC, Crude Differentials Tighten as Guernsey Demand Rises (2024).

The Guernsey hub functions as a key crude oil trading, storage, and distribution center serving regional refining markets. Additional pipeline capacity into Guernsey can improve system flexibility and market access for upstream producers and marketers. The Project will be capable of providing 1.13 million barrels per day of incremental transportation capacity into the Guernsey market area but is expected to provide approximately 550,000 barrels per day under current operating assumptions.

Based on these considerations, the Project supports the criterion identified in ARM 17.20.1606(1)(c).

2.3 Provision of Additional Firm Transportation Capacity (ARM 17.20.1606(1)(i))

The Project would establish a new large-diameter crude oil pipeline path between the international border in northern Montana and the Guernsey, Wyoming hub. There is currently no single, large diameter pipeline providing firm transportation service directly from the international border in northern Montana to the Guernsey hub, and the Project would establish a new service path along this corridor.

Although other pipelines operate within the broader region, the Project would provide additional cross-border transportation capacity and a new firm delivery path into the Guernsey market. By adding incremental

firm pipeline capacity along this corridor, the Project is expected to improve routing flexibility within the regional crude oil network and support long-term transportation reliability for shippers. The Project is intended to offer both committed and uncommitted transportation service consistent with standard industry practice. Based on these considerations, the Project supports the criterion identified in ARM 17.20.1606(1)(i).

2.4 Commercial Support and Market Interest

Evidence of commercial demand and shipper interest is relevant to MTDEQ's evaluation of need. Bridger is engaged in ongoing commercial discussions regarding transportation service on the Project. Although detailed shipper commitments are confidential, the Project is being developed in response to identified market interest in expanded pipeline takeaway capacity serving the northern Rockies and Guernsey markets.

2.5 Common Carrier Considerations (ARM 17.20.1606(1)(b))

Bridger Pipeline LLC currently operates interstate crude oil pipelines as a common carrier subject to the Interstate Commerce Act, as reflected in its active Federal Energy Regulatory Commission (FERC) oil tariffs governing crude petroleum transportation. *See* Bridger Pipeline LLC Tariffs (FERC Interstate Commerce Act Oil Tariffs). Federal law requires interstate oil pipelines providing transportation service for hire to comply with common carrier obligations, including nondiscriminatory service upon reasonable request. 49 U.S.C. § 60502. To the extent the Project provides crude oil transportation service to the public for hire consistent with this model, it supports the consideration identified in ARM 17.20.1606(1)(b).

2.6 Supplemental Policy Context (ARM 17.20.1606(1)(e))

Federal policy statements have recently emphasized the importance of maintaining reliable domestic energy transportation infrastructure and improving permitting efficiency for major energy projects (Executive Order No. 14156, 2025). These policy statements provide general context regarding national energy infrastructure priorities. The Project is consistent with these policy objectives to the extent it would expand crude oil transportation capability and enhance connectivity between supply sources and established market hubs.

3 PURPOSE AND BENEFITS OF THE PROJECT (ARM 17.20.803(3)(d); ARM 17.20.1604)

The purpose of the Project is to provide additional crude oil transportation capability from production areas in Canada to established pipeline infrastructure at the Guernsey, Wyoming hub. The Project is intended to enhance the efficiency and reliability of crude oil movements between upstream supply sources and existing infrastructure accessible at Guernsey.

The Project would add pipeline capacity between upstream supply areas and existing infrastructure at Guernsey and would provide transportation service on a for-hire basis consistent with established industry practice. These operational characteristics relate to MTDEQ's evaluation of public interest under ARM 17.20.1604.

Recent federal policy statements have emphasized the importance of maintaining reliable domestic energy transportation infrastructure. While not required for MFSA purposes, these statements are generally consistent with the Project's operational objectives. The Project's benefits, however, are grounded primarily in the operational, economic, and infrastructure considerations described below.

In addition, the Project is expected to provide economic benefits such as tax revenue generation, construction employment, and ongoing operations activity, and to facilitate the transportation of crude oil through pipeline infrastructure designed and operated in accordance with applicable federal safety standards.

3.1 Economic and Employment Benefits

Construction and operation of the Project are expected to generate economic activity in Montana and the surrounding region. Pipeline construction projects of this scale typically require a substantial temporary workforce, utilize local goods and services where available, and result in associated spending in affected communities. Bridger will provide updated construction workforce and expenditure estimates as engineering and contracting activities progress.

Once in service, the Project may support ongoing operations, inspection, and maintenance activities along the Montana route. These activities typically include periodic integrity assessments, right-of-way maintenance, and facility monitoring consistent with federal pipeline safety requirements.

The Project will also contribute to state and local tax bases through property and other applicable taxes associated with pipeline facilities located in Montana. The magnitude of these effects will depend on final design, valuation, and applicable tax treatment.

These economic and employment effects are relevant to MTDEQ's public interest evaluation under ARM 17.20.1604.

3.2 Infrastructure Reliability and Safety Considerations

The transportation of crude oil by pipeline is a standard method for moving this product between supply areas and existing infrastructure, and the Project's design reflects applicable federal requirements for constructing and operating such facilities.

The Project is designed and will be constructed and operated in accordance with applicable federal pipeline safety standards administered by the U.S. Department of Transportation's (USDOT) Pipeline and Hazardous Materials Safety Administration (PHMSA). *See* 49 C.F.R. Parts 194 and 195. These regulations establish requirements governing pipeline design, construction, operation, integrity management, and emergency response planning.

Pipeline transportation is a well-established method for the movement of crude oil over long distances and is subject to comprehensive federal safety oversight. PHMSA's regulatory framework is intended to reduce the likelihood of releases and to ensure prompt detection and response should an incident occur.

During final design and permitting, Bridger will continue to coordinate with applicable federal and state agencies regarding safety, spill prevention, and emergency response planning for the Project. These

regulatory requirements inform MTDEQ's evaluation of potential effects on public health, welfare, and safety under ARM 17.20.1604, but do not constitute a project-specific enhancement of those conditions.

4 DESCRIPTION OF THE PROPOSED FACILITY (ARM 17.20.803(3)(b)(d))

4.1 Design Characteristics (ARM 17.20.1509)

The design characteristics described in this section represent preliminary engineering assumptions that are expected to be generally consistent across all route options evaluated for the Project. Where specific facilities, quantities, or locations are described, such information is provided for Proposed Route Option 1 and is intended to support review under ARM 17.20.1509. Final design details may vary among route options based on site-specific conditions identified during detailed engineering and permitting.

The Project will be designed, constructed, tested, operated, and maintained in accordance with applicable federal pipeline safety regulations administered by the PHMSA. Examples of other relevant standards include American Petroleum Institute (API), American Society of Mechanical Engineers (ASME), and ASTM International (ASTM) standards.

Seventy-two mainline valves (MLVs) will be installed along the project, including 51 in Montana. MLVs function as critical safety components of the overpressure protection and leak detection system, enabling remote or automatic isolation of discrete pipeline segments in compliance with federal hazardous liquid pipeline regulations. Final valve spacing and configuration will be established during final design consistent with applicable PHMSA requirements and site-specific considerations.

The Project has been designed to accommodate up to eight (8) pump station locations along the pipeline corridor, with six (6) in Montana as shown on the ***Project Overview*** figure in ***Appendix B***. These locations reflect preliminary hydraulic design assumptions and have undergone desktop review to support identification of potentially suitable sites.

Pump stations provide the hydraulic energy necessary to maintain designed operating pressures and throughput capacity across long-distance segments of the pipeline. Each facility will include pumps, motors, control systems, and associated infrastructure designed to ensure safe and reliable operation in accordance with applicable federal pipeline safety regulations. Final pump station design, horsepower, and configuration will be established during final design consistent with applicable PHMSA requirements.

Temporary pipe storage sites, contractor yards, and staging areas may be required to support construction activities; however, at this stage of Project development, the specific locations, dimensions, and associated workspace requirements for these facilities have not yet been determined. These temporary facilities form part of the overall Project description required under ARM 17.20.1509(1). Final locations will be identified during detailed construction planning and evaluated through applicable environmental review and permitting processes.

Electric power may be required for pump stations, remotely operated mainline valves, and associated facilities. Any new power lines or upgrades to existing electric infrastructure would be constructed by the applicable utility provider and would be subject to additional utility planning processes and permitting

requirements. A more detailed description of potential electrical supply needs and associated permitting considerations is provided in Section 4.1.5 consistent with ARM 17.20.1509(10).

4.1.1 Engineering Description (ARM 17.20.1509(1))

Upon completion, the Project's proposed route will be approximately 647 miles in length, with approximately 435 miles located in Montana. Based on the currently proposed pump station configuration, the Project is expected to transport approximately 550,000 barrels per day. The pipeline diameter and hydraulic design allow for the potential to increase throughput up to approximately 1.13 million barrels per day, if additional pump stations are installed in the future subject to any required regulatory approvals. See ***Appendix B, Project Overview*** *and* ***Aerial Overview*** for more information.

The pipeline will be installed in accordance with federal regulations for hazardous liquid pipelines, including meeting the minimum depth of cover requirements outlined in 49 CFR 195.248. The trench is typically excavated to a depth that ensures a minimum of 48 inches of cover above the pipe. All aspects of the pipeline's design, construction, and operation will adhere to applicable USDOT standards. Specifically, the Project will comply with standards outlined in 49 CFR Part 195 for hazardous liquids and 49 CFR Part 194 for onshore oil pipeline response plans. These regulations cover a broad range of requirements including general safety, incident reporting, design and construction standards, pressure testing, operational protocols, personnel qualifications, and corrosion prevention.

The Project will require the development of various associated facilities along the pipeline corridor, including MLVs, pump stations, pipe yards, and access roads, as summarized in ***Table 1: Pipeline Design Parameters.***

Table 1: Pipeline Design Parameters

Parameter	Value
Pipe Specifications	Line Pipe: 36-inch outside diameter high-strength steel (API 5L X70 PSL-2) Horizontal Directional Drilling (HDD)/Bore Pipe: 36-inch outside diameter high-strength steel (API 5L X70 PSL-2)
Coating	Line Pipe: 14-16 Mils Fusion Bonded Epoxy (FBE) coating (minimum) HDD/Bore Pipe: 14-16 Mils FBE coating and 30 Mils Abrasion Resistant Overcoating (minimum)
Maximum Operating Pressure	1,440 psig
Depth of Cover	Typically 48 inches of cover

Parameter	Value
Pipe Wall Thickness	Line Pipe: 0.500 - 0.600-inch wall thickness HDD/Bore Pipe: 0.625 – 0.750-inch wall thickness, or as HDD crossing design requires
Mainline Valves	72 MLVs would be installed along the entire route, 51 MLVs will be located in Montana.
Pump Stations	Eight pump stations would be installed, six of which are in Montana.
Leak Prevention Program	Multiple overlapping and redundant systems, including: • Epoxy pipe coating • Cathodic protection • One-Call Damage Prevention Program • Supervisory Control and Data Acquisition (SCADA) monitoring • Computational Pipeline Monitoring Leak Detection • InLine inspection (smart pigs) • Periodic ROW patrols
Telemetry for remote Monitoring and Control	Telemetry and communications equipment will be installed to allow for 24/7/365 monitoring and control of the pipeline via SCADA network.

4.1.2 Major Facility Components (ARM 17.20.1509(8))

Major facility components such as tensile strength, test pressure, methods of joining sections of conduit, facility design specifications, maximum pumping capacity, and maximum pressure ratings for pump stations are designed to comply with industry standard and all applicable regulations and design criteria.

Mainline Valves

The Project will include 72 above-ground MLVs, 51 of which will be located in Montana. All MLV locations will be situated within the permanent ROW. MLVs will be spaced at intervals not exceeding approximately 20 miles and positioned on both sides of major water crossings to ensure operational safety and environmental protection. Valve sites will occupy approximately 40-foot by 200-foot areas within the permanent ROW and will be situated atop gravel pads, enclosed by a perimeter fence to ensure security and regulatory compliance. All gravel used for MLV installation will be sourced from approved commercial locations. These measures are intended to minimize visual impacts, enhance site safety, and comply with applicable federal land management requirements. Refer to ***Figure 1: Typical Mainline Valve***.

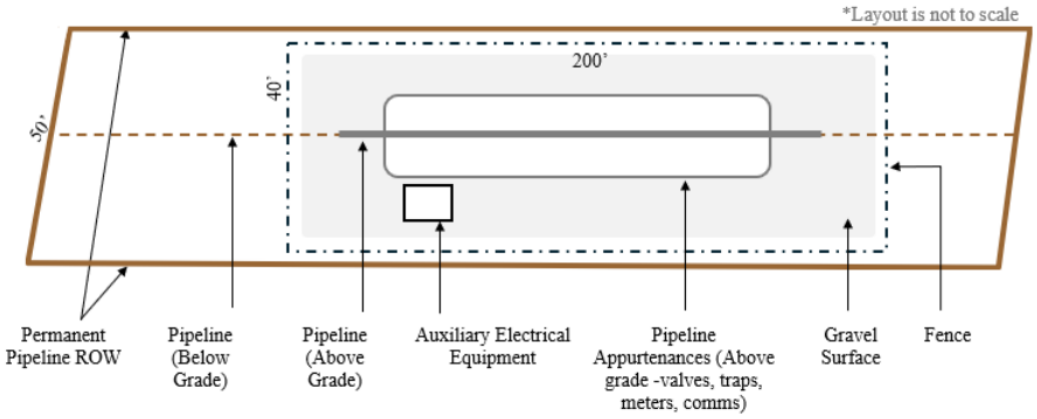


Figure 1: Typical Mainline Valve

Conduit Size and Thickness

Pipe wall thickness is anticipated to be approximately 0.500-inch for standard line pipe segments, with increased thickness (approximately 0.625-inch to 0.750-inch) at HDD or bore crossings to address installation stresses and site-specific conditions.

Pipe Strength

Specified Minimum Yield Strength (SMYS) is the minimum yield strength assigned to steel pipe by the material standard under which it is manufactured, API 5L. SMYS is the minimum yield strength stated in that standard. For this project, the pipeline will use API 5L X70 line pipe, which has a SMYS of 70,000 pounds per square inch (psi). This SMYS value demonstrates that the pipe material has sufficient strength to safely withstand the maximum operating pressure calculated by using appropriate safety factors as defined by the design standard ASME B31.4 and complies with applicable federal pipeline safety regulations.

Test and Operating Pressure

Typical operating temperatures are expected to be approximately 60°F, with operating pressures generally ranging from approximately 150 to 1,375 pounds per square inch gauge (psig). The maximum operating pressure will not exceed 1,440 psig, and the pipeline will be designed for a maximum temperature rating of 250°F. The pipeline will be hydrostatically tested in accordance with 49 CFR Part 195 requirements prior to being placed into service.

Methods of Joining Sections of Conduit

Each pipe segment is bent as necessary using mechanical bending equipment to match terrain conditions. Pipe sections are then aligned and joined using qualified welders and/or automated welding systems in accordance with approved welding procedures. All welds are inspected using non-destructive examination (NDE) methods, including radiographic (x-ray) testing. Any welds not meeting quality standards are repaired or cut out and re-welded to ensure integrity.

Trenching Depth and Amount of Ground Cover Over the Pipeline

To meet regulatory requirements, the trench will typically be excavated to a depth that ensures a minimum of 48 inches of cover over the pipe. Construction will avoid known existing buried facilities and subsurface infrastructure. At HDD crossings, depending on site-specific design, the minimum depth of cover will typically be increased to approximately 20 feet or greater.

Pump Stations

Eight pump stations are planned along the Proposed Route Option 1, six of which are in Montana. Pump stations provide the hydraulic energy necessary to maintain product flow through the pipeline. Each pump station will require a relatively flat pad surface approximately 600 feet by 600 feet in size and be situated immediately adjacent to the proposed pipeline ROW. Additional disturbance beyond the pad footprint will be required to accommodate fill slopes and site-specific topographic conditions, which will be determined following completion of detailed topographic surveys.

For the Proposed Route Option 1, one pump station is located on federally managed land; the remaining stations are on state or private lands. Site selection has prioritized areas adjacent to existing infrastructure where possible to minimize habitat fragmentation, reduce the need for new access roads, and limit environmental impacts. All gravel used for construction will be sourced from approved commercial locations. Refer to for more details.

Table 2: Montana Pump Station Locations

Pump Station	Legal Location	State/County	Ownership/Management
1	Sec. 5, T37N, R32E	Montana/Phillips	Federal - BLM
2	Sec. 25, T35N, R44E	Montana/Daniels	State – Montana Trust Lands
3	Sec. 35, T32N, R58E	Montana/Sheridan	Private
4	Sec. 26, T20N, R59E	Montana/Richland	Private
5	Sec. 11, T8N, R58E	Montana/Fallon	Private
6	Sec. 34, T5S, R57E	Montana/Carter	Private

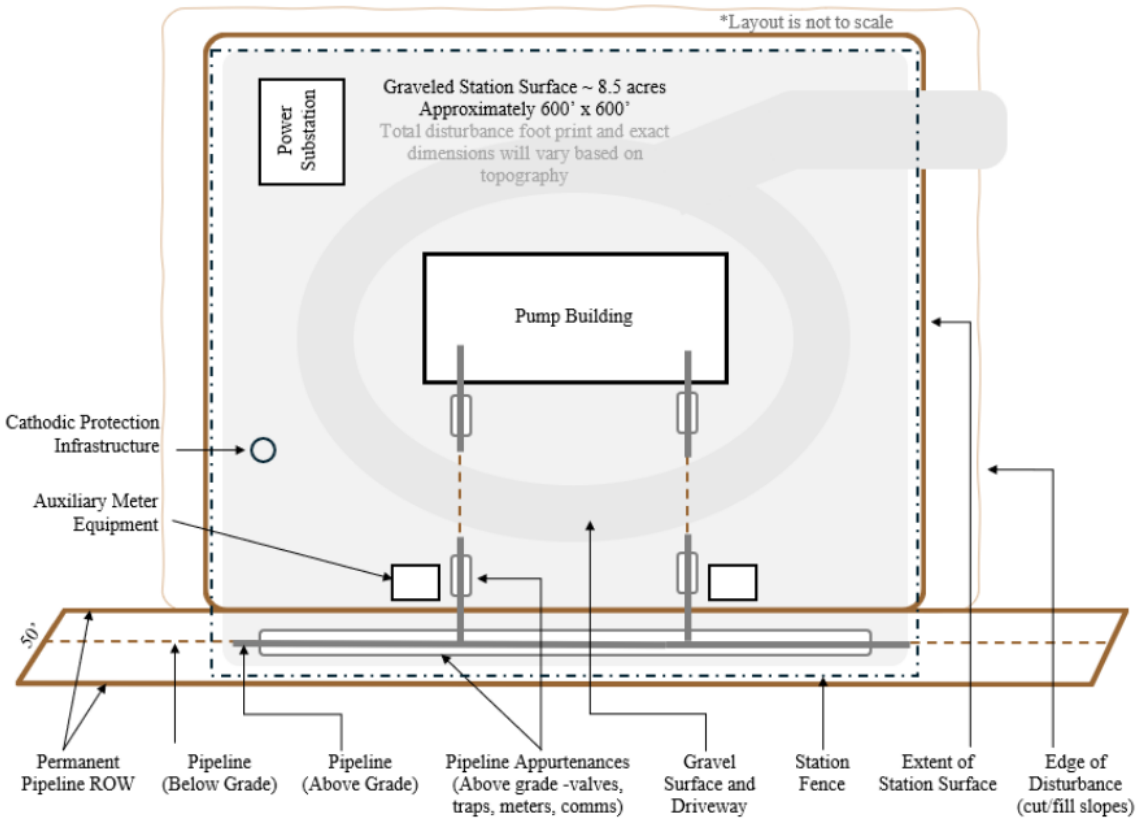


Figure 2: Typical Pump Station

Cathodic Protection Systems

The pipeline will employ protective coatings and cathodic protection systems to prevent corrosion. Rectifiers and deep-well anodes will be installed along the pipeline and inspected on a regular basis.

Other Safety Features

Operations and maintenance manuals will be maintained and reviewed annually. Staff will receive annual emergency response training, and proper waste management practices will be implemented to maintain safety and regulatory compliance.

Routine inspections include biweekly ground patrols and aerial patrols, typically using fixed-wing aircraft operating above 300 feet. All flights will utilize existing public or private airfields, and no new runways will be constructed for these activities.

4.1.3 Adequacy of Design Specifications and Performance Objectives (ARM 17.20.1509(2))

Adequacy of Design Specifications

The Project has been designed to comply with applicable federal pipeline safety regulations, including 49 CFR Part 195, and relevant industry standards, including API and ASME. Pipeline diameter, wall thickness,

grade material, SMYS, and maximum operating pressure have been selected to ensure structural integrity and safe operation in compliance with ASME B31.4 design requirements and associated safety factors.

The pipeline will be constructed of API 5L X70 line pipe, which has a SMYS of 70,000 psi. Maximum operating pressure will be established such that stresses remain within allowable limits prescribed by ASME B31.4, incorporating conservative design margins to prevent yielding under normal, upset, and test conditions. Final engineering design will confirm that operating pressures, including surge pressures, do not exceed regulatory limits and that all safety factors required by applicable codes and regulations are satisfied.

Corrosion protection systems, including FBE coatings and cathodic protection, will be implemented to maintain long-term pipeline integrity. The Project design also incorporates mainline valves, pump stations, leak detection systems, and overpressure protection equipment to ensure safe and reliable operation and to mitigate the potential consequences of abnormal operating conditions.

Performance Objectives

The primary performance objectives of the Project are to achieve the following:

- Safely transport crude oil at a nominal capacity of approximately 550,000 bpd;
- Maintain operating pressures within established regulatory limits;
- Detect and respond to abnormal operating conditions in a timely manner through automated and operator-assisted systems;
- Reduce environmental risk through corrosion prevention, monitoring, and emergency response systems; and
- Support long-term operational reliability through routine inspection, maintenance, and regulatory compliance.

4.1.4 Quality Control and Testing Procedures (ARM 17.20.1509(9))

The Project's quality control program will be implemented in accordance with USDOT PHMSA requirements and other applicable standards, including 49 CFR Part 195 for hazardous liquids and 49 CFR Part 194 for onshore oil pipeline response plans. Materials, construction activities, and operational systems will be monitored to ensure compliance with all design specifications, regulatory requirements, and industry standards (API, ASME, ASTM).

Pipe and all related materials will be procured from pre-qualified vendors. During manufacturing, line pipe, fittings, coatings, and other components will undergo mill-level testing and certification to verify material strength, wall thickness, coating integrity, and conformance with approved specifications. Welds will be executed by qualified welders or automated welding systems in accordance with approved welding procedure specifications and inspected using non-destructive testing methods, including radiography and ultrasonic testing. Any deficiencies detected during inspection will be corrected promptly and fully documented in accordance with project quality assurance and quality control (QA/QC) procedures.

During construction, qualified inspectors will oversee all activities, including pipe transportation, stringing, bending, trench preparation, welding, lowering-in, backfilling, coating, and alignment, to ensure installation consistent with approved design specifications and quality control standards. Hydrostatic pressure testing will be conducted on all pipeline segments prior to operation, in accordance with 49 CFR Part 195. Routine field inspections, verification of backfill compaction, and alignment checks will be performed to maintain construction quality.

Upon completion of construction, a complete as-built record set, mill test reports, inspection documentation, and nonconformance records will be compiled and retained for the life of the facility in accordance with 49 CFR 195.266. These measures collectively ensure that the Project is constructed and documented in accordance with applicable federal safety requirements and industry standards.

4.1.5 Source of Power for Pump and Compressor Stations (ARM 17.20.1509(10))

Some Project pump stations may require installation of temporary or permanent utility lines to provide electrical or other infrastructure support. When necessary, the design, fabrication, and connection of these utility lines will be performed by qualified external utility providers. The specific scope and timing of utility connections will be determined during final design and utility coordination, and all installation will be conducted to minimize impacts to the surrounding land and existing infrastructure.

4.1.6 Control and Monitoring Communication Facilities (ARM 17.20.1509(11))

The Project will utilize a centralized SCADA system to support continuous monitoring and control of pipeline operations, in compliance with applicable federal regulations (49 CFR Part 195). The SCADA system will provide real-time operational data and enable rapid detection of leaks or other abnormal operating conditions. The system will also allow for automatic or remote closure of MLVs, as necessary, to maintain safe and reliable operation of the pipeline. Communication methods supporting the SCADA system will be designed with redundancy to ensure continuous operation and reliability, utilizing existing infrastructure where feasible to minimize additional impacts.

Communication signals will be conveyed primarily via fiber-optic cable, with microwave radio and satellite systems available for redundancy. The communication system will be designed to meet the operational requirements of the SCADA system. The Applicant does not anticipate excess communication capacity; however, if excess capacity is identified during final design, its use would be evaluated consistent with ARM 17.20.1509(11).

4.2 Avoidance and Minimization (ARM 17.20.1509 and 17.20.1511; and Circular MFSA-2 Section 3.6(7))

Bridger developed three largescale route options to prioritize avoidance and minimization of environmental and sensitive land-use impacts. Following comparative evaluation, the proposed route was selected because it is expected to minimize environmental effects, reduce land use conflicts, and address constructability and permitting feasibility more effectively than the other options. The two remaining route options were less favorable due to constructability constraints, ROW acquisition or duration considerations, permitting challenges, environmental sensitivities, and compatibility with existing land uses. Criteria used to inform selection of the proposed route are further described in ***Section 9.***

In addition to major route options, Bridger has applied minor route adjustments along the proposed alignment to avoid existing landowner infrastructure or other site-specific constraints. Minor refinements may continue as coordination with landowners and land managing agencies progresses during Project development. These decisions are documented in project routing evaluations to support regulatory review.

4.2.1 Design Features to Reduce Adverse Environmental Impacts (ARM 17.20.1509(3))

This section describes engineering and construction design features incorporated to reduce environmental impacts during construction and operation. These design measures function independently of corridor siting decisions.

Steep Terrain

In areas where steep terrain is present along the corridor, the Project will implement design and construction methods to provide stable working surfaces and reduce erosion risks. These methods may include temporary benches or terraces to support safe equipment operation, as well as the use of trench boxes, shoring, or other stabilization techniques to prevent trench collapse. Erosion control features such as trench breakers, slope drains, and permanent slope breakers may be incorporated to protect soils and water resources. Refer to ***Appendix B*** for a depiction of topography along the route. Refer to ***Figure 3: Typical Trench Breaker,*** and ***Figure 4: Permanent Slope Breakers***.

Temporary slope breakers (interceptor dikes, diversion berms, or water bars) may be constructed using mounded soil, sandbags, silt fence, or staked hay or straw bales. Design and placement of all temporary and permanent erosion controls will be based on site-specific conditions and standard construction practices. Refer to ***Table 3: Trench Breaker Spacing Requirements***.

Table 3: Trench Breaker Spacing Requirements

Slope	Spacing (ft)
5 to 15%	300
15.1 to 30%	200
>30%	100

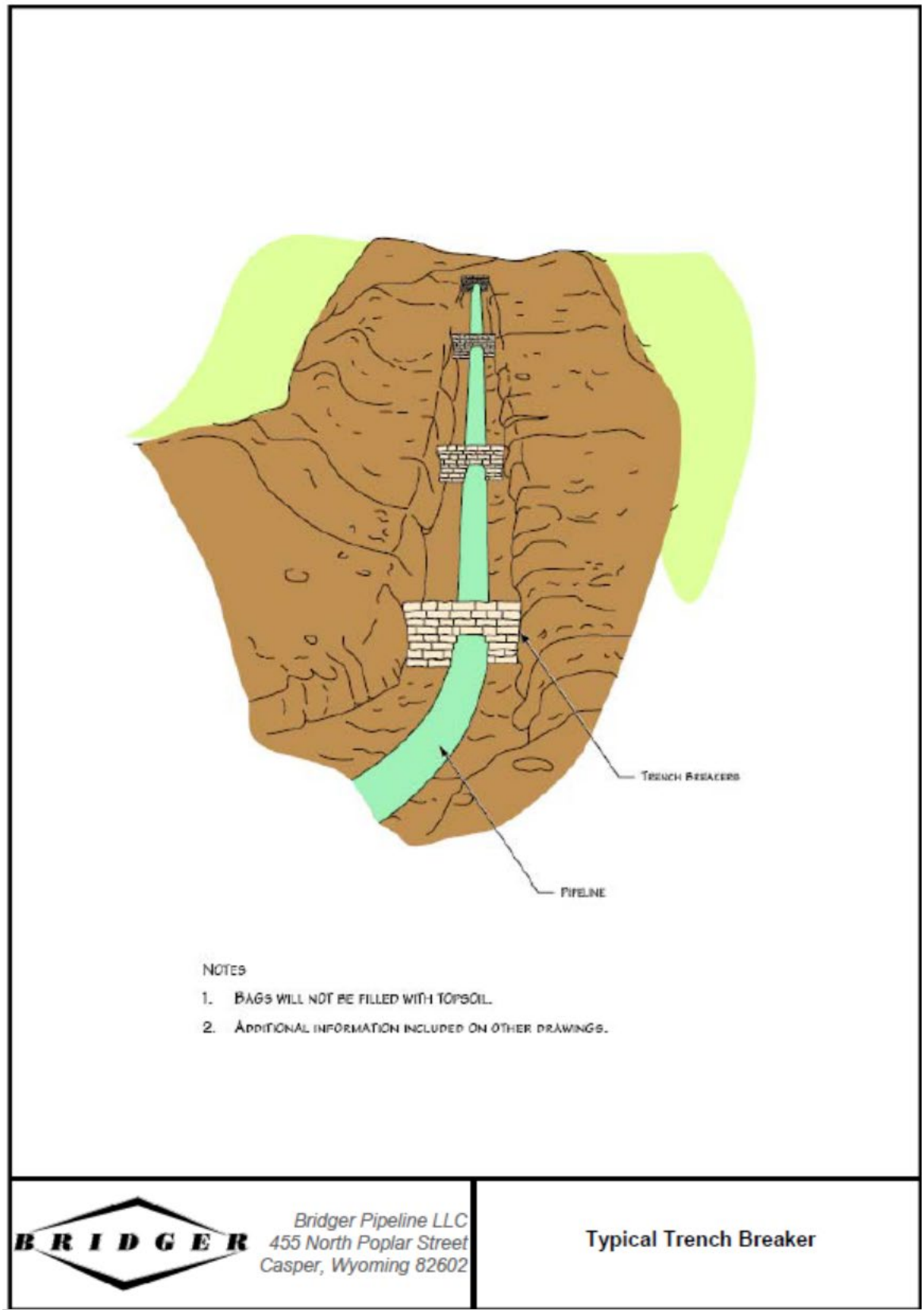


Figure 3: Typical Trench Breaker

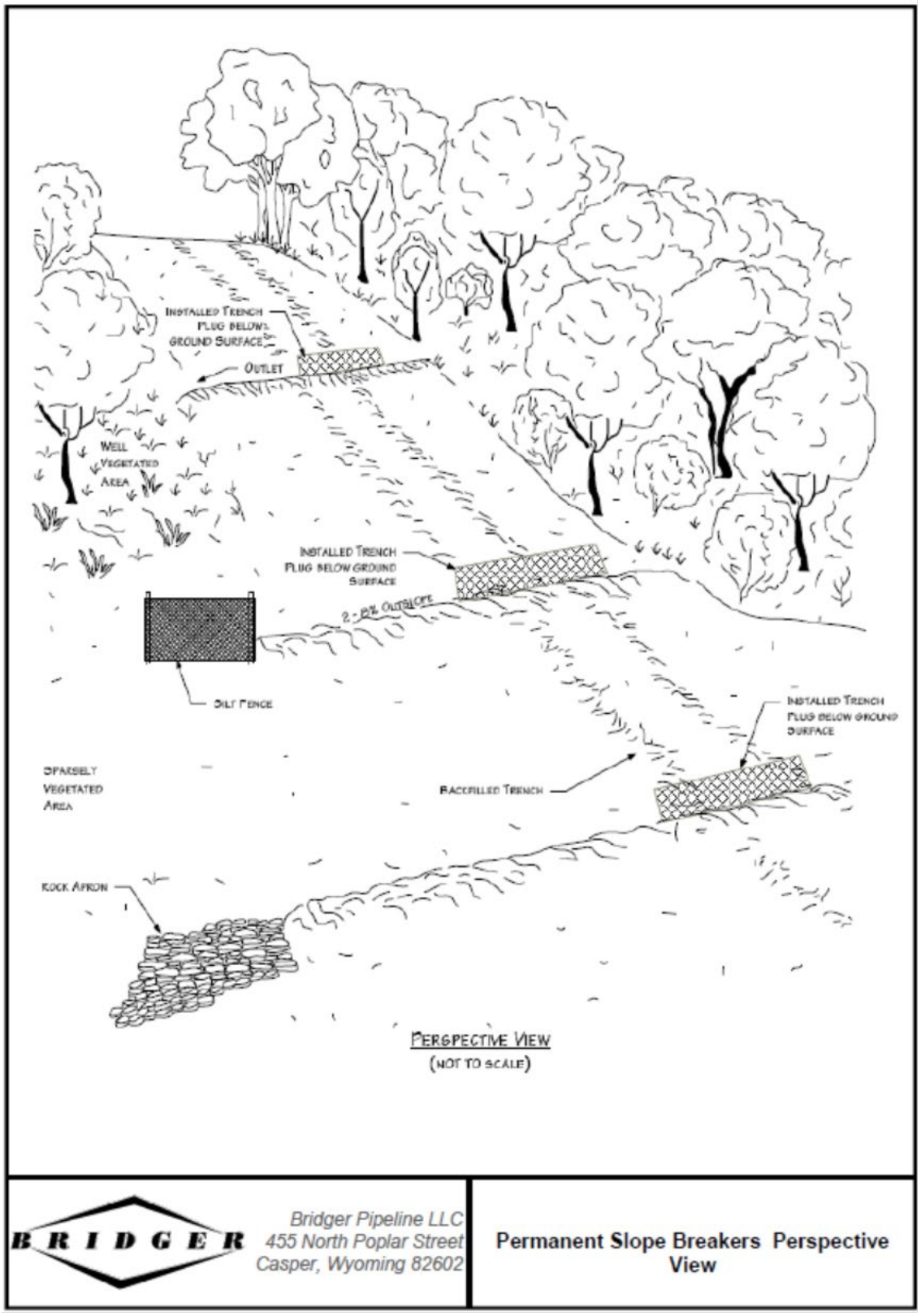


Figure 4: Permanent Slope Breakers

Reclamation Methods and Timing (ARM 17.20.1511(9); Circular MFSA-2 Section 3.6(7)(b))

Reclamation will begin following initial ground disturbance and continue through post-construction monitoring, operations and maintenance, and rehabilitation. All reclamation methods are designed to prevent erosion, protect soil stability, reestablish vegetation, and meet agency- and/or landowner-approved success criteria, whichever is most stringent.

Construction debris will be removed, and the ROW and additional temporary workspace (ATWS) will be regraded to approximate pre-construction contours. Permanent erosion control measures, such as trench breakers, slope drains, and diversion berms, will be installed where appropriate. Spoil material from trenching will be replaced and compacted to prevent ditch line subsidence, and the ROW will be re-contoured to maintain natural topography. Temporary access roads and ATWS will be restored, with all fencing, exclusion zones, or other protective measures used during construction removed unless otherwise required by landowners or agencies. Materials and debris removed from roads and workspaces will be disposed of in accordance with applicable federal, state, and local regulations.

Disturbed areas will be stabilized and reseeded with appropriate vegetation. Seed mixes will be determined in consultation with landowners and land-managing agencies and will use certified, weed-free seed applied at rates tailored to local conditions and soil stability. Drill seeding will be the preferred method, except in wet, rocky, or steep areas where broadcast seeding or hydroseeding may be used. Temporary cover crops may be applied if approved, with seeding rates adjusted accordingly to promote revegetation success. Mulch used for temporary erosion control will be removed prior to final seedbed preparation, although it may be reapplied after seeding if appropriate. Bare broadcast seed will be incorporated into the soil using a harrow, cultipacker, or similar equipment to achieve the specified depth and firmness of the seedbed. Livestock grazing will be discouraged during the first growing season to protect newly established vegetation. Herbicide and pesticide use will be coordinated with county, state, or federal agencies and comply with U.S. Environmental Protection Agency (USEPA) label requirements. Only licensed or certified applicators will apply these products, targeting specific weed species while minimizing impacts on wildlife, including avian species.

Best management practices (BMPs) for vegetation management will be implemented before, during, and after construction. Reclaimed areas will be monitored periodically to assess revegetation success, including plant cover, species diversity, and soil stability. If monitoring indicates that reclamation goals are not met, corrective actions such as reseeding, soil amendments, or additional erosion control measures will be implemented. This adaptive management approach will continue until landowners or managing agencies determine that reclamation objectives have been achieved. All reclamation activities will adhere to applicable federal, state, and local requirements, as well as BMPs and landowner or agency stipulations. Reclamation plans, including final seed mixes, methods, and timing, will be coordinated and approved by the relevant landowners or land-managing entities prior to implementation. Soil amendments, such as fertilizers or pH modifiers, will only be applied following agency approval.

4.2.2 Paralleling Opportunities and Constraints (ARM 17.20.1509(12))

The Project has been developed to co-locate with and parallel existing linear infrastructure corridors where practicable, including existing pipelines, to reduce the potential for landscape fragmentation and consolidate, where feasible, new construction within areas already influenced by prior development.

For purposes of this discussion, the terms *parallel* and *co-located* describe the spatial relationship to nearby infrastructure and do not imply use of previously disturbed ground. In Montana, approximately 188 miles of the proposed route runs parallel to existing pipeline infrastructure, of which roughly 121 miles are adjacent to Bridger-owned pipelines. *Parallel* segments are defined as those located within 1,000 feet of existing infrastructure without occupying the same ROW. This approach provides operational efficiencies by enabling multiple lines to be monitored together over the life of the pipeline, including through aerial patrols, valve inspections, and general maintenance.

The distance between the proposed route and existing infrastructure varies depending on engineering requirements, property boundaries, safety considerations, and avoidance of sensitive environmental, cultural, or tribal resources. While some previously disturbed land may remain between the Project and existing infrastructure, the Project does not establish an entirely new utility corridor.

Approximately 84 miles of the proposed route is co-located with existing pipeline infrastructure, including roughly 43 miles adjacent to Bridger-owned pipelines. *Co-location* refers to placement of the proposed pipeline within 150 feet of an existing pipeline centerline, not including access roads, transmission lines, or other infrastructure. Deviations from existing centerlines occur where necessary to accommodate land ownership boundaries, environmental or cultural resource avoidance, engineering constraints, safety considerations, or regulatory requirements. As a result, some segments may traverse previously undisturbed areas even where the route generally parallels existing infrastructure.

Paralleling and co-locating the pipeline with existing infrastructure reduces disturbance to undisturbed areas, limits habitat fragmentation, and optimizes operational monitoring and maintenance. Refer to ***Figure 5: Co-Located ROW*** for a visual depiction of parallel and co-located segments along the Montana route.

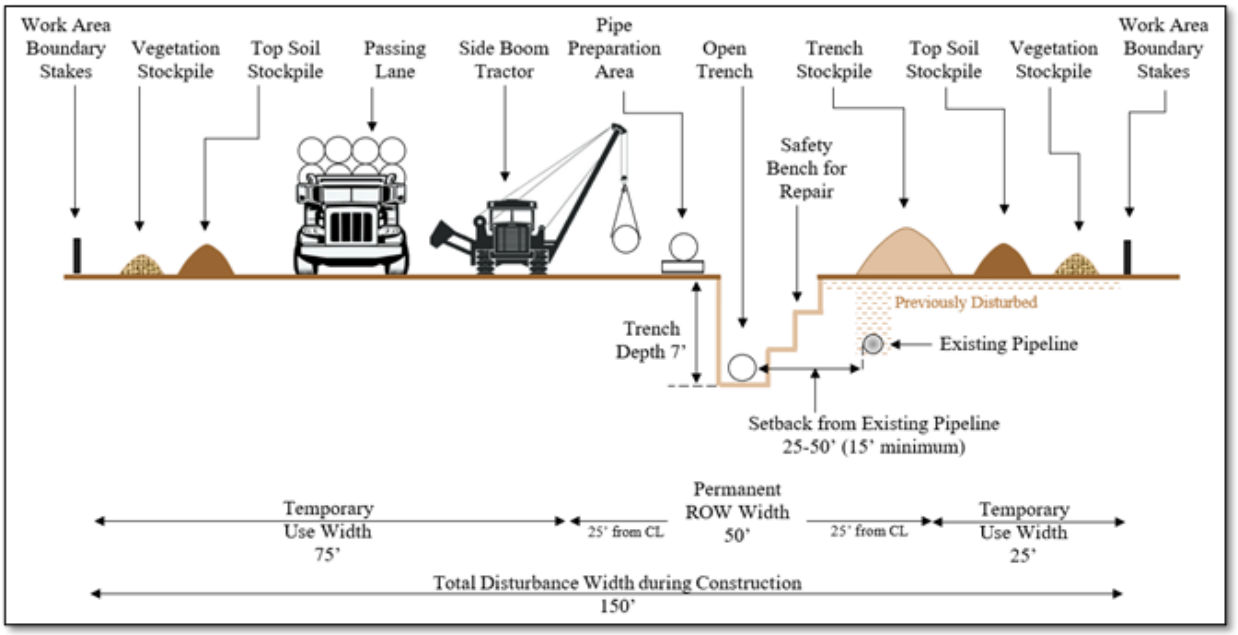


Figure 5: Co-Located ROW

4.2.3 Construction Methods, Techniques, and Equipment

Bridger considered a range of construction methods, techniques, and equipment to minimize environmental and landowner impacts along the Project corridor. Where practicable, measures will be applied to reduce soil disturbance, prevent erosion, protect water resources, and limit impacts to sensitive habitats. Construction timing may be modified, as appropriate, to avoid environmentally sensitive periods, including fish spawning, migratory bird nesting, and periods of high-water flow or wet soil conditions. Seasonal restrictions will be implemented, as required, in coordination with landowners, Tribes, and land-managing agencies. Where possible, construction in sensitive areas will be scheduled during periods that minimize ecological or land-use impacts. Where site-specific conditions require, construction techniques and equipment may be adapted to reduce impacts. For example:

- Trenchless crossing methods (e.g., HDD) may be used at sensitive waterbodies or wetlands instead of open-cut methods.
- Reduced footprint construction techniques, including narrower temporary workspaces, staged pipe delivery, and specialized equipment, may be implemented in areas with steep slopes, sensitive soils, or cultural resources.
- Temporary access roads and laydown areas may be minimized or altered in design to limit disturbance.

Bridger will continue to evaluate construction approaches throughout Project development in consultation with landowners, Tribes, and applicable regulatory agencies. These measures are intended to support avoidance and minimization of potential impacts while maintaining safe and efficient construction operations. Refer to ***Section 8: Mitigation Measures*** for additional mitigation measures, commitments, and BMPs.

4.2.4 Reclamation and Facility Maintenance Methods (Circular MFSA-2 Section 3.6(7)(b))

Bridger considered a range of reclamation and ongoing facility maintenance options to minimize long-term impacts on soils, vegetation, water resources, and sensitive habitats. Where site-specific conditions warrant, alternative construction or reclamation methods will be applied as practicable to restore temporarily disturbed areas, reduce soil erosion, and maintain the operational integrity of pipeline facilities.

Reclamation methods include:

- Vegetation Establishment – Multiple approaches for re-vegetation may be used, including drill seeding, broadcast seeding, hydroseeding, and temporary cover crops, depending on soil type, slope, ROW conditions, and seasonal timing. Seed mixes will be selected in consultation with landowners or land-managing agencies and will prioritize native, site-adapted species where practicable to restore ecosystem function.
- Soil Stabilization – Depending on site conditions, temporary or permanent erosion control measures may be implemented, such as slope breakers, diversion berms, silt fences, or mulch. Stabilization methods will be adapted to steep slopes, sensitive soils, or high-erosion areas, as appropriate based on site-specific conditions.

- Adaptive Management – Reclaimed areas will be monitored for plant establishment, soil stability, and erosion control effectiveness. If monitoring indicates that reclamation goals are not met, corrective actions, such as additional seeding, soil amendments, or regrading, may be implemented as appropriate and in coordination with applicable landowners or land-managing agencies until objectives are achieved.

Detailed mitigation measures, Project commitments, and BMPs are identified in ***Section 8: Mitigation Measures,*** which governs reclamation and maintenance practices for the Project.

4.2.5 Localized Facility and Structure Adjustments (Circular MFSA-2 Section 3.6(7))

Throughout the design and planning process, Bridger, in coordination with applicable government agencies, Tribal representatives, and private landowners, will evaluate localized route, facility, and structure location adjustments. Although a proposed Project route has been identified, refinement of the alignment is expected to continue as additional engineering analyses, environmental reviews, field surveys, and landowner coordination are completed.

Because detailed site-specific investigations have not yet been finalized, localized constraints, such as wetlands, waterbodies, cultural or paleontological resources, sensitive habitats, existing infrastructure, property boundaries, or constructability considerations, may necessitate minor realignments of the pipeline centerline, access roads, or associated aboveground facilities. Where practicable, Bridger will incorporate localized adjustments to avoid or minimize impacts to identified resources while maintaining Project safety, reliability, and constructability.

Any such adjustments are expected to be limited in scope and localized in nature and would not materially alter the overall Project corridor. Rather, these refinements represent standard engineering and environmental practices intended to reduce impacts, improve construction feasibility, and enhance long-term operational safety.

4.2.6 Facility Design Options (Circular MFSA-2 Section 3.6(7)(e-f); Section 3.8)

Methods of Crossing Streams (ARM 17.20.1511(7))

Bridger evaluated a range of stream crossing design options at a planning level to minimize potential impacts to water resources, aquatic habitat, channel stability, and water quality during construction and operation. Crossing methods were considered based on waterbody classification, general channel characteristics, anticipated hydrologic conditions, constructability, and applicable regulatory requirements. Final stream crossing methods will be selected during the 310 permit process, following completion of detailed environmental surveys, geotechnical investigations, hydraulic analyses, and coordination with applicable agencies.

Major perennial river crossings, including the Yellowstone River, Missouri River, Poplar River, and other similarly sized or sensitive waterbodies, will be constructed using HDD. HDD is the preferred and committed crossing method for these major rivers because it avoids direct in-channel disturbance, maintains bed and bank stability, and minimizes potential impacts to aquatic resources and water quality. HDD crossings will be designed to provide adequate depth of cover beneath the channel in accordance with site-specific conditions and applicable engineering standards.

Smaller perennial, intermittent, and seasonal streams, plus permanent or seasonally flooded wetlands will be crossed using HDD. Ephemeral drainages, and temporary wetlands may use open trench or HDD, determined on a case-by-case basis. Open-cut crossings would only be implemented where permitted and where mitigation measures can effectively minimize temporary disturbance. Applicable mitigation measures are described in ***Section 8: Mitigation Measures***.

Representative construction equipment may include hydraulic excavators, side booms, support trucks, pumps for isolated crossings, and HDD drilling rigs, as applicable. Temporary construction workspace is anticipated to be generally consistent with the proposed construction right-of-way width, with additional workspace at select crossings where required to safely support HDD activities. Trench dimensions will be finalized during detailed design to support safe pipe installation and proper backfill. Where required, site-specific hydraulic evaluations will be conducted to estimate potential scour depth, and pipeline cover will be designed to meet or exceed applicable engineering and regulatory standards.

Ground disturbance adjacent to streams will be limited to approved construction workspace and necessary access areas. Erosion and sediment control measures will be implemented in accordance with permit requirements and best management practices. Overhead stream crossings will not be utilized.

Final crossing methods, trench dimensions, scour depth calculations, and workspace requirements will be determined following completion of detailed environmental surveys, hydraulic analyses, geotechnical investigations, and coordination with applicable agencies. Bridger will select crossing methods that balance constructability, safety, environmental protection, and regulatory compliance.

4.3 Construction Description (ARM 17.20.1511 and Circular MFSA-2 Section 3.7(2), (3) and (9))

Construction activities for the Project will commence following receipt of federal, state, and local permits, authorizations, and approvals. Based on the current schedule, construction is anticipated to begin in July 2027, subject to permitting, commercial, and construction planning considerations.

Prior to initiating ground-disturbing activities, Bridger will complete environmental and engineering surveys for the approved ROW, centerline, access roads, and associated temporary workspaces. Easement acquisition and landowner coordination will be completed in advance of construction. Pre-construction activities will also include utility locates, cultural and biological resource surveys (as required), staking of approved disturbance limits, and installation of initial erosion and sediment control measures.

As outlined in the Construction, Mitigation, and Reclamation Plan (CMRP) for federal land and in applicable leasing agreements governing non-federal land, mitigation measures will be implemented in accordance with the requirements and procedures set forth in those documents.

Pipeline construction will generally occur in a sequential manner and may include the following primary phases:

- Surveying and staking
- Clearing and grading within the approved construction workspace
- Topsoil segregation (where applicable)
- Trenching

- Pipe stringing, bending, and welding
- Coating and inspection
- Lowering-in and backfilling
- Installation of aboveground facilities and appurtenances
- Hydrostatic testing
- Final grading and reclamation

Construction spreads may operate concurrently along different segments of the route to improve efficiency and reduce the overall construction timeline. Temporary workspaces and access roads will be used as necessary to safely complete installation activities.

Bridger will implement applicable BMPs throughout construction to control erosion, manage stormwater, maintain site safety, and minimize impacts to adjacent properties.

4.3.1 Preliminary Construction Schedule (ARM 17.20.1511(1))

Construction of the Project is anticipated to occur over an approximately 12- to 18-month period following receipt of all required permits and approvals. The schedule presented herein is preliminary and will be refined as engineering design advances and contractor planning is completed.

Bridger anticipates that construction crews will complete approximately 20 miles of pipeline per month per spread, which serves as a general planning assumption for overall Project scheduling. To achieve this production rate, construction activities will be sequenced and overlapped within each spread.

Typical work schedules are anticipated to be six days per week, with start and end times generally dependent upon daylight hours and local requirements. However, certain activities, such as HDD, may require continuous 24-hour operations for the duration of each bore. Daily and weekly schedules may be adjusted based on weather conditions, seasonal constraints, and overall construction progress.

Within each construction spread, activities will generally occur in the following sequence:

1. **Site Preparation**
   Activities include mobilization of equipment and personnel, surveying and staking, clearing, grading, topsoil segregation (where required), pipe stringing, and trenching. Production rates are anticipated to average approximately five miles per week per spread, although actual progress may vary depending on terrain and site-specific constraints.
2. **Pipeline Assembly**
   Following pipe stringing, welding, non-destructive testing, field coating, and inspection will occur. These activities typically progress in sequence behind trenching operations and are anticipated to advance at a similar average rate of approximately five miles per week per spread.
3. **Installation and Backfill**
   This phase includes lowering the pipeline into the trench, tie-ins, padding (if required), backfilling, and initial grading. Installation activities generally follow welding and inspection operations and are anticipated to progress at approximately five miles per week per spread.

4. **Testing**
   Hydrostatic testing will be conducted in discrete segments, typically between MLVs. The duration of hydrostatic testing is variable and depends on the length of the test segment, water availability, and site-specific conditions.
5. **Reclamation**
   Reclamation includes final grading, removal of temporary erosion controls (as appropriate), reseeding of temporarily disturbed areas, and ROW cleanup. Initial reclamation will occur promptly following backfilling; however, final seeding and stabilization may be influenced by seasonal timing and weather conditions.
6. **Demobilization**
   Upon completion of construction and restoration activities within each spread, contractors will remove equipment and temporary facilities. Demobilization is anticipated to require approximately four work weeks per spread.

The Project is currently anticipated to utilize approximately three concurrent construction spreads, each operating independently with dedicated crews and equipment, in Montana. Final spread lengths, sequencing, and durations will be refined during detailed engineering and contractor planning. A preliminary summary of anticipated spread sequencing is provided in ***Table 4: Construction Spreads***.

Table 4: Construction Spreads

Spread	Approximate Length	Estimated Production Rate	Estimated Area (Acres)	Concurrent Operation
1	160 miles	~ 20miles/month	Subject to Final Engineering	Yes
2	160 miles	~ 20miles/month	Subject to Final Engineering	Yes
3	135 miles	~ 20miles/month	Subject to Final Engineering	Yes

4.3.2 Typical Construction Equipment (ARM 17.20.1511(1))

Equipment needs will vary by terrain and spread configuration but are expected to include excavators, side booms, welding rigs, pipe layers, HDD drilling rigs, and support vehicles (e.g., crew trucks, material transport vehicles). Final equipment types and quantities will be determined during detailed engineering and construction planning and will be consistent with the representative equipment types described above. All equipment will be operated in accordance with applicable federal, state, and local regulations.

4.3.3 Sequence of Major Construction Activities (ARM 17.20.1511(1))

Survey and Staking

Construction begins with survey and staking of the pipeline ROW, centerline, aboveground facilities, MLV sites, ATWS, and avoidance areas (e.g., cultural, biological or wetland resources). These markers guide clearing, grading, and trenching to ensure construction disturbances remain within permitted boundaries.

Staging Areas

Temporary staging areas and material storage sites will be required during construction. Their locations and layouts will be refined as project planning advances, considering proximity to spreads, access to infrastructure, and minimizing impacts to environmental, cultural, and Tribally identified resources, in compliance with all applicable regulations.

Clearing and Grading

Clearing and grading will remove vegetation, rocks, and topsoil from the ROW. Larger woody debris may be left on site or mulched per landowner request. Topsoil will be segregated for later use in reclamation, and the ROW will be graded to provide a suitable surface for construction. Clearing may be paused during excessively wet conditions, with limited activity continuing as appropriate.

Erosion control measures (e.g., silt fences, wattles, fiber matting, water bars, diversion ditches) will be installed and monitored throughout construction. Environmental inspectors will routinely evaluate site conditions, recommend maintenance or remediation, and document follow-up actions.

Access Road Construction

The Project will utilize existing roads, pipeline ROW's and two-track trails to minimize new ground disturbance whenever feasible. Construction of concrete or asphalt roads is not anticipated; however, permanent improved access roads may be required to reach certain Project facilities. These permanent roads will be designed to provide safe, reliable year-round access for operations and maintenance. Routine grading and snow removal will be performed as needed to maintain safe travel conditions.

Additional temporary and permanent access routes will be identified and refined as the Project design advances. Temporary roads and workspaces will be restored following construction in accordance with the Project's reclamation plan, with surfaces graded to match natural contours and vegetation re-established where required.

Trenching

Trench construction for pipeline installation will involve trenching machines, bulldozers and backhoes. To meet regulatory requirements, the trench is typically excavated to a depth that ensures a minimum of 48 inches of cover over the pipe though depths may be adjusted for site-specific conditions such as HDD crossings, wetlands, or other environmental or engineering constraints. All trenching activities will be conducted in accordance with Occupational Health and Safety Act (OSHA), state, and company safety standards, as well as applicable federal pipeline regulations.

To minimize open-trench exposure, only limited sections will remain open at any given time. The duration of open-trench exposure will be determined based on safety considerations, weather conditions, permit requirements, and coordination with landowners.

Trenches will be dewatered as necessary to allow for safe and reliable working conditions. Discharge water will be filtered through hay bales, straw bales, or silt bags before being returned to the soil and will be managed to avoid contamination of nearby waterbodies. All dewatering activities will comply with applicable federal, state, and local permits.

Prior to lowering the pipeline into the trench, padding material is placed along the trench bottom to protect the pipe and its coating. This padding typically consists of screened, fine-grained soil or sand that is free of rocks and other debris. This practice reduces the risk of abrasion or puncture during installation and ensures long-term pipeline integrity.

Horizontal Directional Drilling (ARM 17.20.1511(7) & (8))

Sensitive areas such as rivers, roads, railroads, wetlands, and other features deemed unsuitable for conventional trenching will be crossed using HDD. This method minimizes surface disturbance by limiting ground-breaking construction impacts to entry and exit points, leaving the intervening land undisturbed.

The HDD process consists of three main stages:

1. Drilling a pilot hole along the planned path;
2. Enlarging the bore with progressively larger reamers; and
3. Pulling the welded and coated pipeline through the completed bore

Accurate instrumentation will be used throughout drilling to monitor the pilot hole's position and drilling parameters. During installation, the pipeline is supported to avoid ground contact and subjected to pressure tests. The contractor would manage tensile and bending stresses and restore all excavated areas using approved materials. For HDD crossings, pipe wall thickness will generally increase from the mainline 0.500–0.600 inch to 0.625–0.750 inch to accommodate drilling stresses.

Following completion of aquatic resource delineations, Bridger will select the appropriate crossing method for each wetland and waterbody. Required bores will be identified, and locations and types of erosion control devices will be determined. Major perennial streams, streams with defined flow, sensitive aquatic habitats, and permanent or seasonally flooded wetlands will typically be crossed using HDD. Ephemeral drainages, low-gradient streams, and temporary wetlands may use open trench or HDD methods on a case-by-case basis. HDD operations will use environmentally safe drilling fluids, ensure fluid containment and disposal per regulations, and provide prompt response to any issues.

Site-specific BMPs, including straw wattles and silt fences, will be implemented near waterbodies or wetlands to limit erosion and sediment runoff. Timber matting will be used for vehicle crossings, with no maintenance or refueling within 500 feet of aquatic resources. No overhead stream crossings are anticipated. HDD operations may require ATWS of varying dimensions at entry and exit points, as well as pipe string staging when not parallel to the ROW (refer to ***Table 5: Typical ATWS***. Minimum pipe depth of cover at HDD crossings may increase to 20 feet or greater, depending on site-specific design requirements.

Pipe Stringing, Bending, and Welding

After the ROW is prepared, pipeline joints will be transported from storage to the ROW using specialized trucks. Pipe joints will be bent to match site conditions, staged along the ROW, and welded in sequence to support efficient construction progress.

Welds will be inspected with non-destructive examination methods, including radiographic (x-ray), phased array ultrasonic testing, or other equivalent techniques consistent with applicable standards. Any flawed welds will be cut out and re-welded in accordance with applicable quality control procedures to ensure integrity.

Pipe coatings will be inspected thoroughly prior to lowering the pipe into the trench. For open-trench installations, segments will be coated with FBE before delivery. Pipeline segments intended for HDD crossings will receive an additional abrasion-resistant coating layer prior to delivery.

These activities will require coordinated crews and equipment including welding rigs, side booms, bending machines, non-destructive testing units, and support vehicles operated in accordance with applicable safety and quality requirements, to ensure safe and efficient assembly of the pipeline.

Pipe Lowering-In and Backfilling

After welding, coating, and inspecting pipeline sections, side booms will be used to carefully lower the pipe into the prepared trench. Flexible, non-metallic slings will protect the pipeline coating during placement, and bedding material may be added to the trench base as needed. Water encountered in the trench will be pumped out, with discharge filtered through hay, straw bales, or silt bags before returning to the soil where appropriate and consistent with applicable permits. If water is suspected to contain contaminants, it will be removed from the site and disposed of at an approved facility. Trench breakers will be installed on slopes where necessary to minimize water movement and erosion.

Following pipeline installation, the trench will be backfilled using the original native soils, where appropriate. Subsoil will be replaced and compacted prior to topsoil replacement to ensure proper structural support, protect the pipeline coating, and maintain long-term site stability.

Backfill operations will proceed as follows:

- Subsoil shall be replaced and compacted prior to restoring topsoil; topsoil will not be used for pipe padding.
- Spoil will be replaced and compacted using backhoe buckets or equipment tracks to minimize ditch line subsidence.
- Rocks in backfill shall not exceed the size or concentration present prior to construction.

All backfilling activities will be conducted promptly following pipe installation to reduce exposure of open trenches and restore the ROW to stable conditions consistent with regulatory requirements.

Hydrostatic Testing

Hydrostatic testing will be performed to confirm the integrity of the pipeline before it is placed into service. Individual pipeline segments will be tested between MLV sets. The anticipated water volume per hydrotest section is approximately 5,280,000 gallons, though the exact volume may vary depending on segment length.

Water for testing will be sourced from landowners, commercial reservoirs or wells, or municipal supplies. Fresh water may be reused from one segment to the next and pumped through the pipeline in sequence.

After testing, hydrostatic test water will be discharged at approved locations near the source or back into the source waterbody (in compliance with National Pollutant Discharge Elimination System (NPDES) permit conditions). Discharges will be managed using Bridger-approved energy dissipation devices and erosion control measures (e.g., rock aprons, diffusers, or vegetated filters) to reduce velocity and minimize potential

erosion or sedimentation. Water will be allowed to infiltrate into the soil or evaporate naturally within the approved discharge area.

No chemical additives, detergents, or biocides will be introduced into hydrostatic test water. All test water will be visually inspected prior to discharge to ensure it is free of visible oil, grease, or other contaminants. If water quality issues are identified, additional treatment or containment measures will be implemented in accordance with permit conditions.

All hydrostatic test water withdrawal, and discharge activities, will comply with applicable NPDES and state issued discharge permits. Implementation of these measures will ensure that potential impacts to surface water quality, aquatic organisms, and riparian habitats are temporary and minor in magnitude.

Final Tie-Ins

Upon completion and approval of the hydrostatic testing, the north end of the project will be tied into existing pipeline infrastructure at the U.S.-Canada border in Montana, while the south end of the project will be tied into the existing oil storage and transportation hub at Gurnsey, Wyoming.

Commissioning

Following successful hydrostatic testing and final tie-ins, Bridger will conduct a commissioning "proving" procedure. This process, which may involve compressed air or mechanical pigs, is designed to verify the mechanical integrity and internal condition of each pipeline segment, as well as the functionality of associated monitoring systems.

Once pipeline segments successfully pass the proving phase, they will be gradually filled with crude oil in a controlled manner. Pressure and flow rates will be closely monitored throughout the filling process to identify any irregularities.

After all commissioning steps are completed and documentation is reviewed, the pipeline is officially placed into service. Ongoing monitoring and maintenance routines will ensure the pipeline operates safely, reliably, and in an environmentally responsible manner from the first day of service.

4.3.4 Construction Crew (Circular MFSA-2 Section 3.7(3))

The Project will require a substantial workforce and equipment base. Initial estimates indicate approximately 400 personnel per construction spread, including operators, welders, inspectors, laborers, and support staff.

Construction crews will be organized to maximize efficiency while maintaining safe and environmentally responsible operations. Supervisory personnel and field inspectors will oversee work activities, ensuring compliance with Project specifications, regulatory requirements, and approved environmental protection measures. Safety protocols, including training, personal protective equipment (PPE), and emergency response procedures, will be implemented across all construction spreads in accordance with applicable federal and state safety requirements.

Workforce projections, including final crew sizes, skill levels, wage ranges, and adjustments related to the construction schedule, will be further defined following award of construction contracts and as Project

design advances. Environmental compliance responsibilities will include monitoring for potential impacts to soil, water, vegetation, and cultural resources, and implementing mitigation measures as outlined in applicable permit conditions.

4.3.5 Right-of-Way and Construction Easements (ARM 17.20.1511(6))

In Montana, the Project will require a 50-foot-wide permanent ROW to support long-term operation and maintenance (O&M) of the pipeline and associated facilities.

During construction, a temporary construction workspace will generally expand the working area to an overall construction corridor approximately 150 feet wide. This temporary workspace is used for equipment staging, spoil management, trench excavation, pipe assembly, and safe construction maneuvering. The temporary workspace may be located on one or both sides of the permanent ROW depending on site-specific engineering, landownership, safety, or environmental constraints.

The anticipated 150-foot construction corridor represents the typical upper limit of routine disturbance. Actual construction widths may be reduced in environmentally or culturally sensitive areas or adjusted as necessary to accommodate topography, access limitations, or permitting conditions.

In locations where sensitive environmental or cultural resources, Tribally identified resources, topographical features, or regulatory constraints are present, such as rivers, wetlands, protected habitats, or cultural sites, the configuration and/or width of the temporary construction workspace may be modified or reduced to minimize disturbance. Where feasible and safe, temporary narrowing of the construction corridor to a minimum width of approximately 75 feet may be implemented for short segments of up to 500 feet.

Most construction activities are anticipated to remain within the permanent ROW and temporary workspace; however, ATWS may be required for staging areas, HDD operations, temporary access roads, or difficult terrain. Where possible, the pipeline ROW will be used, but additional space may be needed depending on alignment and direction of the approach to the bore site. For example, wetland and waterbody crossings completed by HDD will require ATWS measuring approximately 250 feet by 150 feet at the entry point and 150 feet by 150 feet at the exit points, in addition to HDD pipe string staging areas where staging is not parallel to the ROW.

Beyond HDD sites, ATWS may also be needed for equipment laydown areas in locations where topographical or environmental constraints limit standard workspace, at road or utility crossings, or where additional room is required for safe maneuvering of construction vehicles and materials. These areas are essential for efficient and safe construction operations while helping to minimize impacts to surrounding land/resources. The frequency and extent of ATWS will be minimized to the extent practicable and in coordination with applicable land-managing agencies and landowners. Refer to ***Table 5: Typical ATWS*** for further details.

Table 5: Typical ATWS

Feature	Size	
	Typical Dimensions (Feet)	Acres
HDD: Waterbodies	HDD entrance 250 x 150, HDD exit 150 x 150.	1.4
HDD: U.S./State Highway and Railroads	175 x 25 on working and spoil sides or 150 x 50 on working side only	0.2
HDD: Private, Township, or County Roads	125 x 25 on working and spoil sides or 125 x 50 on working side only	0.1
HDD: Buried Utilities	125 x 50	0.1
HDD: Pipe String Staging	TBD	TBD
Mobilization and Demobilization Areas	470 x 470	5.1
Vehicle Turnaround Areas	200 x 80	0.4
Temporary Access Roads	30-foot-wide; variable length	Variable based on length

Temporary and permanent access roads shall be constructed only when necessary to support safe construction, operation, and maintenance activities, and only in locations where use of existing two-track trails or other roadways is not practicable. New access roads will be designed and developed in accordance with BLM Gold Book standards or other applicable federal, state, or local requirements, where such standards are feasible and appropriate. Where practicable, existing access routes will be utilized to minimize new surface disturbance.

Temporary access roads will be reclaimed to pre-construction conditions during the reclamation phase of the Project, unless a landowner or applicable land-managing agency requests that a temporary access route remain in place for future use. Any such retention would be subject to safety, engineering, environmental, and permitting considerations.

All areas temporarily disturbed by construction activities will be reclaimed to their pre-construction conditions, as practicable, following completion of work in accordance with applicable permit conditions. Permanent ROW associated with the pipeline, pump stations, MLVs, and permanent access roads will be maintained for the operational life of the Project. Upon decommissioning, all permanent above-ground facilities will be removed and disturbed areas reclaimed in accordance with applicable land use plans, regulatory requirements, and landowner preferences.

4.3.6 Typical Work Pad (ARM 17.20.1511(2))

The typical work pad for the Project will consist of a construction workspace totaling up to approximately 150 feet in width, which includes the 50-foot permanent ROW and up to 100-foot temporary construction easement. This area supports pipe stringing, welding, trenching, bending, coating, lowering-in operations, and safe maneuvering of construction equipment. ATWS may be required at HDD sites, areas with steep or rough terrain, or locations with limited equipment accessibility and will be identified during detailed engineering and agency coordination.

In environmentally sensitive, topographically constrained, or agency-restricted areas, the work pad may be temporarily narrowed to approximately 75 feet for short segments (up to 500 feet), where safe and feasible. Temporary narrowing is intended to reduce disturbance while maintaining adequate room for construction and safety operations consistent with applicable safety standards and permit conditions.

4.3.7 Construction Ground Disturbance (ARM 17.20.1511(3))

A comprehensive discussion and tabulation of ground disturbance across the Montana segment of the Project is being developed and will be provided in a subsequent application update or information filing, in coordination with MTDEQ and consistent with ARM 17.20.1511(3). This information will include estimated areas of temporary and permanent disturbance associated with:

- The permanent ROW
- Temporary construction easements
- ATWS and staging areas
- HDD entry and exit sites
- Access roads
- Other construction-related activities

Estimates will account for variations in terrain, land use type, and environmentally or culturally sensitive areas. The actual disturbance may be less than the maximum anticipated construction workspace width in certain locations, particularly in environmentally sensitive or otherwise constrained areas, and adaptive measures will be implemented to minimize impacts wherever feasible. Bridger will update disturbance acreages as routing, facility siting, and workspace requirements are refined through detailed engineering and environmental review.

4.3.8 Treatment of Topsoil (ARM 17.20.1511(4))

Topsoil management is essential to successful reclamation and long-term land productivity. The Project will employ practices designed to preserve soil quality and biological integrity while minimizing degradation from compaction, rutting, organic matter loss, or mixing with subsoil.

Key Topsoil Handling Practices:

- Removal Depth: Topsoil will be stripped to its actual depth where practicable, segregated from subsoil, and stockpiled on opposite sides of the permanent ROW within the temporary construction workspace. Depths may vary along the corridor depending on soil type and landscape position, ranging from minimal to over a foot deep based on site-specific soil conditions.
- Stockpiling: Stockpiles will be placed in windrows along the ROW edge with gaps to allow drainage. Subsoil and topsoil will remain separated, and topsoil will not be used to fill low areas or build ramps at road, railway, or waterbody crossings unless otherwise approved by the applicable land-managing agency or landowner.
- Cultivated and Improved Lands: On agricultural or improved lands, topsoil stripping will occur to actual depth or up to a maximum of 12 inches unless otherwise directed by landowners, the land managing entity, or required by permit conditions. Stockpiles will be positioned to avoid blocking natural drainage and to prevent water retention. Equipment used for topsoil stripping will be selected based on site-specific conditions.
- Backfill and Reclamation**:** After trench excavation, base or fill material will be installed as needed to provide a stable pipe bed. Subgrade and base materials will be compacted, with water applied as necessary to prevent soil displacement. Once the pipeline is in place, subsoil and topsoil will be returned in proper order to maintain soil structure and fertility. In frozen conditions, best practices will be implemented to protect the pipeline, preserve coating integrity, and ensure stable trench In frozen conditions, best practices will be implemented to protect the pipeline, preserve coating integrity, and ensure stable trench backfilling to prevent subsidence.

Topsoil handling practices will directly support subsequent reclamation efforts, including reseeding, erosion control, and post-construction monitoring, consistent with ARM 17.20.1511(4), ensuring that disturbed areas are returned to functional and stable conditions.

4.3.9 Temporary and Permanent Access Roads (ARM 17.20.1511(5); Circular MFSA-2 Section 3.7(7))

The Project will utilize existing roads, pipeline ROWs, and two-track trails whenever feasible to minimize new ground disturbance. Construction of concrete or asphalt roads is not anticipated; however, permanent improved access roads may be required to reach certain Project facilities, including MLV sites and pump stations. These permanent roads will be designed to provide safe, reliable, year-round access for operations, maintenance, and emergency response. Routine grading and snow removal will be performed as needed to maintain safe travel conditions.

Permanent access roads will be surfaced with gravel sourced from approved commercial locations to provide durability while minimizing environmental impacts. Gravel is expected to consist of a mixture of coarse crushed rock or stone combined with fine sand and clay, with the larger crushed rock or stone ranging from approximately 0.25 to 2.0 inches in diameter. Materials containing naturally occurring hazardous minerals, such as erionite, will not be used.

Permanent access roads are anticipated to have a typical running surface width of approximately 24 feet, with a total ground disturbance width of approximately 30 feet. These dimensions may vary based on site-specific engineering, landowner requirements, and environmental considerations. Road locations and designs will be coordinated with landowners and land-managing agencies to minimize environmental

disturbance while ensuring safe access for construction, operations, and maintenance consistent with ARM 17.20.1511(5).

Additional temporary and permanent access routes will be identified and refined as the Project design advances. Temporary roads and workspaces will be restored following construction in accordance with the Project's reclamation plan, with surfaces graded to match natural contours and vegetation reestablished where required.

4.3.10 Seasonally Restricted Access and Construction Timing Considerations (Circular MFSA-2 Sections 3.6(7)(d) and 3.7(9)(c))

Project construction activities could be affected by seasonal limitations that restrict access to certain areas of the ROW or ATWS. These limitations may be related to road conditions, snowpack, saturated soils, or wildlife timing limitations (TLs). Seasonal constraints could temporarily limit equipment mobility, extend construction durations, or necessitate schedule adjustments to maintain compliance with environmental protection requirements and applicable permit conditions.

Spring thaw and wet-weather periods can render native-surface or two-track roads impassable, increase the risk of rutting and soil compaction, and limit the ability to safely transport heavy construction equipment. Similarly, winter conditions may restrict access to steep or remote locations and require specialized equipment for snow removal. In environmentally sensitive areas, access may be further limited to avoid soil displacement, rutting, or damage to fragile vegetation or wetlands during wet conditions.

Regulatory and land-managing agencies commonly implement TLs to protect wildlife, such as big-game winter range, raptor nesting territories, sage-grouse lekking and brood-rearing habitat, or migratory bird nesting seasons. Construction in these areas will follow TL requirements, and timing adjustments may be necessary to avoid impacts to sensitive species and habitats. Where TLs apply, Bridger will coordinate with the relevant regulatory or land-managing agency to incorporate required timing restrictions into the final construction schedule. Refer to ***Section 8: Mitigation Measures*** for additional details on environmental and wildlife protections.

Where seasonally restricted access or timing limitations are identified, alternative seasonal timing of construction will be implemented as a mitigation measure, consistent with Circular MFSA-2 Section 3.6(7)(d), to avoid or minimize environmental impacts, protect sensitive resources, and maintain compliance with permit conditions and regulatory requirements.

4.3.11 Fire Control (ARM 17.20.1511(10))

Fire prevention and control measures during construction will be implemented using industry-standard practices and adapted to site-specific conditions as appropriate. All fire-related activities will comply with applicable regulations, including the National Fire Protection Association (NFPA), PHMSA, and local authorities.

Trained fire watch personnel will monitor all hot work activities (welding, cutting, grinding) throughout construction where required by applicable safety standards or permit conditions. These personnel remain on site during and for the appropriate monitoring period following hot work completion to watch for flare-ups or

smoldering materials. Fire watch staff will be furnished with suitable PPE and will follow established emergency procedures.

Fire control equipment, including extinguishers, fire blankets, flame-retardant tarps, and fire boxes, will be deployed consistent with applicable safety standards and site conditions. Flammable liquids will be stored and transported in approved containers with appropriate safety features as required by applicable regulations and manufacturer specifications. Hot work areas will be isolated using fire blankets or barriers to prevent sparks or heat from affecting adjacent combustible materials.

These measures are intended to reduce fire risk during construction and to support safe and environmentally responsible Project implementation.

4.4 Operations and Maintenance (ARM 17.20.1512; Circular MFSA-2 Section 3.7(3))

Following construction and reclamation, the Project will transition into the O&M phase. Pipeline operations and maintenance will be conducted by trained and qualified personnel in accordance with PHMSA requirements and Bridger's O&M procedures developed pursuant to 49 C.F.R. Part 195. Routine maintenance activities are not expected to require removal or addition of pipeline segments. Maintenance activities will generally consist of inspection, monitoring, testing, and repair activities conducted in accordance with applicable federal pipeline safety regulations. If maintenance or integrity activities require temporary workspace outside the permanent ROW, Bridger will obtain any required landowner permissions or agency authorizations prior to disturbance. Maintenance activities will occur within the permanent ROW or previously disturbed areas.

4.4.1 Permanent Project Staff (Circular MFSA-2 Section 3.7(3))

Bridger will maintain staffing and contractor support levels appropriate to support continuous monitoring, routine inspections, maintenance activities, and emergency response. Staff will include field operators, maintenance technicians, and inspection personnel. Personnel assignments and operational coverage will be further defined prior to commencement of operations and may be adjusted over the life of the Project based on operational needs and regulatory requirements.

4.4.2 Operations and Maintenance Procedures Under Normal and Emergency Conditions (ARM 17.20.1512(1))

Normal Operations and Routine Maintenance

Once the pipeline is in service, the operator will conduct daily operations, ongoing inspections, and routine maintenance in accordance with applicable federal pipeline safety requirements. These activities will be implemented pursuant to Bridger's operations and maintenance procedures, integrity management program, and emergency response planning developed in compliance with 49 CFR Part 195.

Monitoring will be performed using a centralized SCADA system and other instrumentation along the pipeline to identify leaks or operational anomalies, with the capability to automatically or remotely close MLVs if necessary. The pipeline is designed for internal cleaning and inspection using pigs and smart pigs, and regular aerial and ground patrols are conducted to check for leaks, ROW encroachment, and other maintenance needs. No new airfields will be constructed for inspection purposes.

Protective measures, including specialized coatings and cathodic protection systems, will be employed to prevent corrosion, and rectifiers and deep-well anodes will be installed and monitored in accordance with applicable corrosion control requirements. Operations manuals will be maintained and reviewed annually, and staff will receive training in emergency response, waste management, and regulatory compliance consistent with applicable PHMSA requirements.

Abnormal and Emergency Operations

Abnormal Operating Conditions (AOCs) refer to deviations from normal pipeline operations that may indicate potential safety hazards, environmental risks, or operational failures. These conditions can include pressure deviations, flow irregularities, temperature anomalies, leak detection alarms, equipment malfunctions, corrosion or structural damage, and the presence of odor or visual indicators. All AOCs will be evaluated and addressed in accordance with Bridger's procedures and applicable PHMSA requirements. The response to an abnormal condition may require an emergency shutdown or other corrective actions, inspection of pumps, piping, relief valves, pressure transmitters, and associated safety systems before resuming operations. Equipment will be returned to service in accordance with established restart procedures and applicable safety requirements. All AOCs and repair activities will be documented and filed. Bridger maintains a comprehensive Facility Response Plan (FRP) for its crude-oil pipelines and associated facilities in North Dakota, Montana, and Wyoming. Further details on spill contingencies are provided in ***Section 4.4.7: Detailed Spill Contingency Plan.***

4.4.3 Resiliency and Public Safety (ARM 17.20.1512(2))

The pipeline corridor has been routed and designed to minimize risks to public health and safety. Factors such as pipeline material, thickness, pressure rating, burial depth, soil type, vegetation, topography, proximity to structures and roads, and the potential for leaks, fire, or explosion were considered in the design. The pipeline will incorporate features for internal cleaning and inspection and visual monitoring to identify leaks or maintenance issues at intervals consistent with applicable PHMSA patrol and inspection requirements, either via aerial patrols or on-the-ground surveys.

Natural Disasters and Phenomena

The Project may be exposed to natural hazards such as minor seismic activity, localized flooding, high winds, icing conditions, and freeze-thaw cycles. Flooding from seasonal snowmelt or heavy rainfall may erode soils near waterways, so erosion control measures and proper cover depth will be implemented. Aboveground facilities, including MLVs and pump stations, will be engineered to withstand high winds and icing conditions through structural reinforcement and weatherproofing. Frost heave and soil instability are mitigated by installing the pipeline below frost depth in stable soils where feasible. These design and operational measures ensure continued safe operation under natural hazard conditions.

Public Safety

Public safety is prioritized during all phases of operation. Operations and maintenance personnel will follow Bridger's safety programs and applicable occupational safety requirements, including use of appropriate personal protective equipment (PPE) and stop-work authority where unsafe conditions are identified.

Safety barriers, signage, fencing, and flagmen will be used where appropriate to protect the public, livestock, and third-party property. All ground-disturbing activities are coordinated through the Montana

One Call System consistent with applicable state requirements. Pipeline markers are installed along the ROW and at crossings, maintained according to PHMSA and state specifications, and locks on MLVs and fencing around aboveground facilities will be used to prevent unauthorized access and reduce risk of accidental damage or contamination.

4.4.4 Right-of-Way Control (ARM 17.20.1512(3))

Building Encroachment

To prevent building encroachment on the ROW, Bridger will maintain clear signage and markers and conduct aerial and ground patrols consistent with applicable PHMSA patrol requirements. Bridger will coordinate with affected landowners and, where appropriate, local authorities to address potential encroachments identified during routine monitoring.

Unauthorized Surface Use

Bridger will monitor unauthorized surface use, including unapproved excavation, utility installation, placement of materials, informal access routes, or planting of deep-rooted vegetation incompatible with pipeline infrastructure. Identified issues will be promptly addressed with landowners or agencies, and affected areas will be restored.

Unauthorized Off-Road Vehicle Use

Unauthorized vehicle traffic can cause rutting, soil compaction, vegetation loss, and erosion, particularly during wet conditions or in sensitive habitats. Bridger will implement reasonable measures to discourage unauthorized off-road vehicle use on the ROW including installation of gates or barriers at key entry points, placement of clear signage identifying restricted areas, and coordination with landowners to maintain perimeter fencing.

Project personnel will be briefed on approved route compliance and control measures. Observed unauthorized off-road vehicle use will be documented and addressed in accordance with Bridger's right-of-way management procedures.

4.4.5 Right-of-Way Management (ARM 17.20.1512(4))

The Project ROW will undergo continuous management and monitoring to ensure the integrity of the pipeline in service, in accordance with Bridger's plans and federal regulations, including 49 CFR Part 195. Upon completion of construction, disturbed areas will be restored consistent with approved reclamation objectives, while permanent features such as valve sites, pump stations, and access roads will be maintained with appropriate surface treatment (such as vegetative cover or gravel) consistent with operational and land management requirements.

Right-of-Way Accessibility

ROW accessibility will be maintained throughout the year through grading, vegetation management, snow removal, and other upkeep activities, coordinated with landowners and land-managing agencies. Specialized equipment may be used during winter or adverse weather conditions where necessary to support safe access. These efforts will be coordinated with landowners and land-managing agencies. Maintaining

adequate access supports timely response to AOCs, and for required inspections and maintenance activities.

Vegetation

Vegetation impacts on the ROW are expected to be minimal during inspections. During routine inspections, field staff will traverse the ROW by foot or by vehicle. Any vehicle use on the ROW during inspection may result in minor, localized disturbance to vegetation, particularly in areas where access roads cross grasslands or other sensitive plant communities.

Woody plant encroachment onto the ROW will be actively monitored to maintain clear visibility for routine inspections. Where woody vegetation interferes with inspection visibility or pipeline integrity, mechanical clearing within the ROW may be performed in accordance with applicable requirements.

Efforts will be made to prevent noxious weed infestations on the reclaimed ROW. Where noxious weeds are present on the ROW, control methods will be applied in accordance with applicable federal, state, and local requirements to prevent further growth and spread of noxious and invasive weeds. For more information on vegetation resource management on the ROW, refer to ***Section 7.***

4.4.6 Expected Leaks and Leak Detection Systems

2015 Yellowstone River Spill Response

In 2015 a failure occurred on a pipeline owned and operated by Bridger in the state of Montana. The pipeline involved was purchased in 2004 and was originally constructed by another company in the 1960s. The river crossing was installed via a direct burial method. Although several inspections conducted prior to the incident indicated the pipeline depth still met all regulatory requirements, a significant warming event occurred in January 2015, creating significant runoff into the Yellowstone River which was still frozen over. The increased flow rate created historic scouring impacts which exposed and compromised the pipeline that ultimately led to a spill. The Bridger control room quickly identified the failure and shut down the pipeline to minimize impacts.

Internal and external response resources were immediately deployed to the spill site to investigate and mitigate impacts to people, the environment, and property. Throughout the response Bridger worked closely with Federal and State partners to minimize any impacts and Bridger was applauded by its partners at all levels on the swiftness, efficiency and effectiveness of the response.

Once the response was completed, Bridger replaced the crossing by utilizing HDD to place the pipeline significantly deeper under the river. Bridger also used geotechnical studies to enhance its water crossings throughout the entire Bridger system and replaced many of them with HDD. Furthermore, Bridger contracted with an affiliate company to research and develop a state of the art artificial intelligence leak detection system that is now being utilized by Bridger on the vast majority of its pipeline system.

Leak Size and Frequency (ARM 17.20.1512(5))

Based on industry data and historical performance of similar 36-inch steel crude oil pipelines, leaks are rare and typically result from third-party damage, corrosion, or equipment failure. Modern design standards, including high-strength steel, protective external coatings, cathodic protection systems, integrity

management programs, and continuous monitoring, significantly reduce both the likelihood and potential severity of a release.

If a leak were to occur, it would most likely be limited in volume due the pipeline's design, operating controls, and leak detection capabilities. The Project incorporates remotely operable mainline valves and pump station controls that allow operators to respond promptly to abnormal operating conditions. Large-scale releases are considered highly unlikely under normal operating conditions and in compliance with applicable federal pipeline safety regulations. Consistent with industry experience for modern hazardous liquid pipelines, the expected incident frequency is extremely low, and proactive integrity management measures are implemented to further minimize risk and maintain system reliability.

Leak Detection Systems (ARM 17.20.1512(6))

A centralized SCADA system will be used to monitor and control pipeline operations in real time. The SCADA system operates 24 hours a day, seven days a week. Operators use SCADA to monitor pressure, flow rates, and valve positions throughout the pipeline network. The system provides immediate alerts for abnormal conditions, such as pressure drops or flow imbalances that may indicate a potential operational anomaly or release.

SCADA operations are conducted remotely from an existing control facility. Upon receipt of an alarm, trained personnel initiate established response procedures, including investigation of the alarm condition and evaluation of operating data to determine the appropriate corrective action. Shutdown procedures may be initiated if operating parameters indicate a potential leak or other safety-related condition. Field personnel and the Qualified Individual (QI) are notified as appropriate to support investigation and response actions.

SCADA data provides accurate, time-stamped operational information that supports rapid decision-making during abnormal events and emergencies. The system maintains historical data logs that are used for post-incident analysis, regulatory reporting, and ongoing system performance evaluation. The SCADA system is routinely tested, maintained, and verified to ensure reliability, cybersecurity protection, and compliance with applicable federal pipeline safety regulations.

In addition to SCADA-based monitoring, Bridger employs several complementary, non-SCADA leak detection methods. Visual monitoring of the pipeline ROW occurs at regular intervals consistent with PHMSA patrol requirements and may be conducted through aerial patrols or ground-based surveys. Field personnel also perform routine inspections during maintenance activities, valve checks, and facility visits. These inspections enable crews to identify abnormal conditions such as petroleum odors, stressed or dead vegetation, soil discoloration, pooling liquids, or other visual indicators that could suggest a release.

Bridger also relies on third-party notifications from landowners, contractors, and members of the public. The company maintains a 24-hour emergency contact number to facilitate prompt reporting and response to suspicious activity or potential leak conditions. These monitoring practices, when combined with continuous SCADA surveillance and integrity management programs, provide multiple layers of leak detection capability and enhance the company's ability to identify and respond to pipeline incidents in a timely and effective manner.

4.4.7 Detailed Spill Contingency Plan (ARM 17.20.1512(7))

The Project will comply with protocols described in applicable federal regulations, including 40 CFR Part 112 for oil spill prevention, as well as relevant state requirements, including applicable NPDES standards for spills that may occur during construction or operations. Spill prevention and containment measures will be implemented for all hazardous materials used or managed within the Project ROW and associated work areas, including equipment refueling and servicing activities involving diesel, gasoline, lubricants, grease, hydraulic fluids, and similar substances. All wastes, chemicals, lubricants, and hazardous materials will be stored in designated containers, support vehicles, and approved storage locations. Whenever feasible, these storage areas will be located in upland settings and set back from aquatic resources to the extent practicable and consistent with site conditions to minimize environmental risk.

Immediate Notification Procedures

To ensure safety and preparedness, Bridger maintains a comprehensive FRP covering its crude oil pipelines and associated facilities. Upon discovery of a release, personnel promptly notify the designated QI, who then assumes the role of Incident Commander. The role of the QI is to assess the situation, initiate containment measures, and mobilize both in-house and contracted response resources, as necessary.

Multiple methods for spill detection are employed, as discussed in ***Section 4.4.6: Expected Leaks and Leak Detection Systems***. If a spill is confirmed, responders will take appropriate actions, which may include closing additional valves, isolating affected segments, constructing containment dikes, and deploying spill response trailers equipped with containment booms, skimmers, and other recovery equipment. Priority is given to containing released material to prevent impacts to navigable waters and other environmentally sensitive areas.

Emergency Response Personnel and Equipment

Bridger has organized its pipeline system into three response zones that extend across portions of Montana, North Dakota, and Wyoming. Each response zone includes QIs and backup personnel who are on call 24 hours per day. Notification procedures support timely communication with internal response teams and external agencies, including the National Response Center and applicable local and state authorities. For the Project, the Montana response zones will encompass the following counties: Sheridan, Roosevelt, Richland, Dawson, Prairie, Fallon, Carter, Powder River, Phillips, Valley, Daniels, and Wibaux.

Containment equipment used at a spill site may include containment booms, absorbent booms or socks, or other materials appropriate to site-specific conditions. Recovery equipment may include oil skimmers, vacuum units, pumps, and oil-sorbent recovery kits. The type and extent of equipment deployed will be determined based on site characteristics, weather conditions, terrain, and the volume and type of material released. Additional details will be provided in the Project-specific Spill Prevention, Control, and Countermeasure (SPCC) Plan.

Mutual Aid Agreements

To ensure clear command, control, and coordination during an incident, the Bridger's response plan outlines roles and responsibilities consistent with the Incident Command System (ICS). To ensure timely response capability, Bridger contracts with several oil spill response agencies and upholds mutual aid agreements that

provide additional staff and equipment when needed. All personnel participate in routine drills and training exercises, and response equipment is maintained and inventoried regularly to ensure readiness.

Response Procedures

Bridger will initiate remediation efforts immediately after identifying, controlling, and recovering a release. Company personnel are deployed to determine the extent of contamination and identify appropriate cleanup strategies. Field crews may remove free product, excavate impacted soil, and manage contaminated materials in accordance with state and federal regulations. Additional technical specialists or contractors will be engaged as needed to address site-specific conditions.

Soil and water sampling will be conducted, as appropriate, to evaluate residual impacts and guide remediation efforts. Where necessary, long-term corrective measures such as bioremediation or monitored natural attenuation may be implemented to restore affected areas. All remediation activities will be conducted in accordance with guidance from the USEPA and relevant state regulatory agencies.

Unanticipated Discovery Plans (UDPs) for paleontological and cultural resources are addressed separately in ***Section 7.3.4 Historic, Archaeological, and Paleontological*** and will be implemented, as applicable, during emergency response activities.

Bridger will document all cleanup activities, maintain communication with regulatory agencies, and ensure that remediation meets applicable cleanup standards prior to incident closure. Additional details regarding response procedures will be included in the Project-specific SPCC Plan.

Equipment Testing Procedures

Detailed equipment testing procedures, inspection protocols, and testing frequencies will be established as Project planning and design advance. Testing requirements will be developed in accordance with applicable federal and state regulations, manufacturer specifications, and industry standards to ensure operational reliability and emergency response readiness. Documentation of inspection and testing activities will be maintained in accordance with regulatory recordkeeping requirements and incorporated into the Project-specific plans, as appropriate.

Frequency of Field Training Exercises

All personnel involved in Project operations will complete comprehensive training programs prior to commencing work. Training will cover multiple areas, including occupational safety, equipment operation, and environmental/cultural compliance. Safety training will address hazard recognition, emergency response procedures, and adherence to OSHA standards; Personnel will complete required safety training prior to entering the right-of-way. Project personnel will complete environmental training focused on erosion control, spill prevention, and natural resource protection. Frequency of field training for spill response and remediation will be determined as Project planning progresses and will be included in a subsequent submittal, as well as in the Project-specific SPCC plan.

Plan Update Procedures

Bridger reviews and revises its response plan at least every five years, or sooner if operating conditions change, regulatory revisions, or lessons learned from drills or incidents warrant modification. Plan revisions

are documented and distributed to appropriate personnel to ensure continued effectiveness and regulatory compliance.

Bridger affirms its commitment to minimizing environmental impacts through implementation of rigorous notification, containment, and recovery procedures, and by ensuring that all personnel are properly trained and equipped to respond effectively to oil spills and other emergency situations.

5 ALTERNATIVES TO THE PROPOSED FACILITY (ARM 17.20.803(3)(f))

5.1 Non-Construction Alternatives (ARM 17.20.1311)

No-Build Alternative

Under the No-Build Alternative, the proposed pipeline would not be constructed, and crude oil transportation would continue to rely on existing infrastructure, including rail and truck transport. This alternative would avoid construction-related ground disturbance within the proposed ROW but would not provide additional pipeline transportation capacity.

Consistent with ARM 17.20.1311, the No-Build Alternative is evaluated as a baseline for comparison of environmental and socioeconomic effects. However, because the No-Build Alternative would not meet the Project's purpose and need and would not provide a similar level of long-term, firm transportation capability, it is not considered a reasonable or feasible alternative under the MFSA.

Alternative Transportation Modes

Bridger evaluated expanded use of rail and truck transportation as alternatives to constructing a new pipeline. These modes were assessed to determine whether they could reasonably meet the Project's purpose and need and provide comparable long-term, high-volume crude oil transportation capability.

Rail transportation would require frequent unit-train movements to transport volumes equivalent to those proposed for the Project. These movements would result in ongoing operational impacts along existing rail corridors, including increased locomotive emissions, noise, and traffic interactions at grade crossings. Publicly available hazardous materials transportation data indicate that rail has higher reported incident frequencies on a per-ton-mile basis than pipelines. Rail incidents may involve derailments or releases that require emergency response and can result in localized environmental effects. Rail transportation also relies on third-party network operators, creating operational dependencies and potential scheduling constraints that may limit reliable, continuous throughput.

Truck transportation would require substantial numbers of tanker truck trips to transport comparable crude oil volumes. High truck frequencies would increase roadway congestion, diesel emissions, noise, and wear on public roads. Publicly available transportation safety data indicate that hazardous materials transport by truck has higher reported incident frequencies on a per-ton-mile basis relative to pipelines. Truck incidents may result in spills or fires that require emergency response and may occur across dispersed roadway segments. Long-distance trucking of crude oil also results in comparatively higher fuel consumption and operational inefficiencies at the scale required.

Pipeline transportation consolidates surface disturbance primarily within a defined Construction ROW and generates minimal long-term operational emissions once in service. Pipelines provide continuous, high-volume throughput using remotely monitored and controlled systems that are subject to federal design, operation, and integrity management standards. For these reasons, pipeline transportation generally offers more consistent, dedicated long-term capacity than rail or truck alternatives.

Based on these considerations, expanded rail or truck transportation does not provide an equivalent means of meeting the Project's long-term transportation objectives and therefore does not represent a practicable alternative under ARM 17.20.1311.

5.2 Design Alternatives (ARM 17.20.1311)

All aspects of the pipeline's design, construction, testing, and operation will adhere to applicable USDOT standards. The Project will meet the requirements of 49 CFR Part 195, which governs transportation of hazardous liquids by pipeline, and 49 CFR Part 194, which establishes response plan requirements for onshore oil pipelines. These regulations address, among other topics, design and construction standards, materials specifications, pressure testing, operational controls, integrity management, corrosion prevention, personnel qualification, and incident reporting.

In addition, the Project will conform to applicable consensus industry standards, including those developed by the API, the ASME, and the ASTM. Adherence to these standards ensures that the pipeline is designed and constructed using widely accepted engineering practices and materials specifications. The selected mainline design consists of a 36-inch outside diameter crude oil pipeline constructed of API 5L X70 steel with a nominal wall thickness of 0.514 inches. Wall thickness and material grade were determined using ASME B31.4 design calculations to accommodate a maximum operating pressure (MOP) of 1,440 psig, with appropriate design factors applied to all class locations along the route. These calculations incorporate safety margins required by federal regulation and industry standards.

Alternative pipe diameters were evaluated through hydraulic modeling to assess throughput capability, pressure profile, friction losses, surge characteristics, and pump horsepower requirements. Modeling demonstrated that a 36-inch diameter pipeline provides an appropriate balance between hydraulic efficiency, operating pressure control, and long-term reliability. Smaller diameters would require higher operating pressures and increased pump horsepower to achieve the required throughput, resulting in greater energy demand and reduced operational flexibility. Larger diameters would marginally reduce friction losses but would increase material quantities, construction disturbance, and overall project footprint without commensurate operational or environmental benefit. These diameter alternatives were screened using standard engineering and economic criteria and were determined to be either technically inferior or environmentally less favorable than the selected design.

Hydraulic analyses were also used to determine pump station sizing, spacing, and total installed horsepower necessary to meet delivery requirements while maintaining operating pressures and transient conditions within the 1,440-psig design envelope. The studies concluded that electric motor-driven pump units supplied by the regional electrical grid represent the most practical and reliable drive option. Compared to gas turbine or reciprocating engine-driven alternatives, electric motors reduce on-site combustion emissions, lower spill and fire risk associated with fuel storage, and generally result in reduced localized air quality and noise impacts.

Based on these engineering evaluations, the selected design represents a technically feasible and operationally reliable configuration that complies with applicable federal safety regulations while minimizing environmental disturbance to the extent practicable under ARM 17.20.803(3)(f).

5.2.1 Alternative Starting Points or Destination Points (ARM 17.20.1311)

Within Montana, the Project's origin at the U.S. - Canada border and the point of entry into Wyoming have remained consistent throughout route development. These termini are dictated by the need to interconnect with existing pipeline infrastructure and established delivery systems. As such, the start and end points are functionally constrained by system integration requirements, existing ROW corridors, and contractual delivery obligations.

Locating the Project to interconnect with existing pipeline and terminal infrastructure avoids the need for construction of duplicative downstream facilities, reduces additional land disturbance, and improves overall system efficiency and reliability. Accordingly, alternative termini that do not utilize existing infrastructure would introduce additional environmental impacts and operational inefficiencies without providing commensurate benefit. Modifying the endpoints would also alter hydraulic design parameters and operational performance, potentially reducing the Project's ability to meet its stated purpose and need.

Consistent with ARM 17.20.1311, Bridger evaluated whether alternative termini could reasonably meet the Project purpose and need and determined that such alternatives would not be technically or economically practicable.

Although the endpoints have remained fixed, multiple route options between these termini were evaluated to address engineering constraints, environmental resources, landownership patterns, and constructability considerations. These route variations are discussed in detail in ***Section 6: Alternative Siting Study*** and ***Section 9: Identification of Proposed Project***.

6 ALTERNATIVE SITING STUDY (ARM 17.20.803(3)(g) and ARM 17.20.1426; Circular MFSA-2 Section 3)

Evaluation of routing options is a required component of the Project's siting analysis. Consistent with this requirement, Bridger conducted a reconnaissance level evaluation of major corridor-scale routing options to identify a technically feasible corridor that would minimize environmental impacts, avoid or reduce conflicts with sensitive resources, and maximize use of existing infrastructure corridors where practicable, while maintaining constructability and operational reliability.

The Project is designed to interconnect Canadian pipeline infrastructure at the U.S.-Canada border with established crude oil transmission systems in eastern Montana and routes that ultimately continue toward Wyoming. Existing regional crude oil pipeline infrastructure extends from the vicinity of Sidney, Montana, south to the Baker hub area and onward toward Guernsey, Wyoming. Because the functional endpoints of the Project are defined by these interconnections, the alternative siting analysis focused on identifying and comparing reasonable corridor options between the anticipated border crossing and the Wyoming state line near Alzada, Montana that could meet the Project's purpose and need while addressing relevant engineering, environmental, and land use considerations.

Use of MTDEQ's Approved Waiver

In correspondence dated January 28, 2026, Bridger requested that the MTDEQ approve a limited waiver from certain informational requirements in MFSA Circular MFSA-2 relating to the level of detail required for alternative location analysis. Specifically, Bridger requested approval to omit certain detailed baseline information for alternative routes at the time of application submittal, while committing to provide such information as requested during the review process. By letter dated February 24, 2026, MTDEQ approved this request. MTDEQ indicated that the omission of certain detailed information at the application stage is acceptable provided that Bridger supplies necessary baseline data and other relevant information as alternative routes are evaluated and if additional alternatives are identified during the environmental review conducted pursuant to the Montana Environmental Policy Act ("MEPA").Consistent with that approval, this Application relies on MTDEQ's waiver with respect to the level of detail provided for certain alternative locations. Bridger has prepared a reconnaissance-level comparison of the principal corridor options sufficient for MFSA application submittal. Additional information regarding Options 2 and 3—including baseline data, engineering considerations, and environmental information—will be developed and provided as requested by MTDEQ during the MEPA review process.

Bridger's Intent to Provide Additional Information During MEPA Review

MTDEQ indicated that providing necessary baseline information and data for alternatives identified during MEPA review would assist the Department and help avoid shifting the burden of developing those analyses entirely to MTDEQ or its contractor. Accordingly, Bridger intends to provide supplemental information regarding routing options—including engineering feasibility, constructability considerations, and potential environmental effects—during the Application review process. This commitment is intended to support MTDEQ's evaluation while allowing routing alternatives to be developed within the general corridor framework identified in this Application. This approach is consistent with MTDEQ's direction and is intended to ensure that any further routing analysis remains informed by Bridger's project design parameters, endpoint requirements, and available technical information.

Major Corridor Options Evaluated

Three routing options (referenced in MFSA as alternatives), described below, were identified and evaluated at a reconnaissance-level screening consistent with ARM 17.20.1426 requirements. The ***Route Options*** map in ***Appendix B*** provides a depiction of these route options. ***Table 6: Mileage Summary for Major Route Alternatives*** presents a comparison of approximate total mileage and mileage within Montana for each option.

Table 6: Mileage Summary for Major Route Alternatives

Route Option	Approx. Total Mileage	Mileage in Montana
Option 1	646.8	435.2
Option 2	552.7	342.4
Option 3	599.4	389.1

6.1 Preferred Location Criteria (Circular MFSA-2 Section 3.1(2))

Consistent with Circular MFSA-2 Section 3.1, Bridger evaluated multiple corridor options using a set of preferred location criteria intended to identify practicable routing that minimizes potential environmental, land use, and social conflicts while maintaining engineering and operational feasibility. These criteria were applied during corridor screening and route refinement to compare routing options on a consistent basis using available spatial data, land use information, and site-specific constraints. The subsections below describe how each preferred location criterion was considered during route development.

6.1.1 General Local Acceptance (Circular MFSA-2 Section 3.1(2)(a))

General local acceptance was considered an important siting criterion consistent with Circular MFSA-2 Section 3.1(2)(a). In evaluating routing options, the Project prioritized areas where existing energy infrastructure, agricultural operations, or historic resource development have established linear facilities as part of the landscape. Co-locating with existing pipeline or utility corridors reduces the introduction of new land use conflicts and is generally more compatible with established land use patterns.

The routing process also considered proximity to residences, towns, and other areas of concentrated development. Alignments were adjusted, where practicable, to maintain appropriate separation from homes and community centers and to minimize disruption to agricultural operations and access routes while maintaining engineering feasibility.

Public engagement is also an element of assessing general local acceptance. Bridger has initiated early outreach with landowners, local officials, and Tribal representatives to introduce the Project, describe routing considerations, and identify preliminary concerns. Additional public meetings will be held consistent with MFSA requirements to present routing information and receive input from landowners, local governments, Tribes, and other stakeholders.

Feedback received through these engagement efforts will continue to inform route refinement, and site-specific adjustments may be incorporated to address reasonable concerns while maintaining engineering, environmental, and safety requirements.

6.1.2 Paralleling with Existing Infrastructure (Circular MFSA-2 Section 3.1(2)(b))

Opportunities to parallel existing infrastructure**,** such as pipelines, transmission lines, and established transportation corridors**,** were substantially emphasized during corridor development to reduce the introduction of new linear disturbance and to consolidate routing within areas already influenced by prior development where practicable. This emphasis is consistent with the preferred-location criteria outlined in Circular MFSA-2 Section 3.1, which encourage applicants to consider routing options that make use of, or remain proximate to, existing infrastructure corridors.

GIS analysis was used to identify potential corridors for co-location and parallel routing, supporting identification of routing options that maintain consistency with existing land-use patterns and minimize the need to introduce additional linear features. As further described in ***Section 4.2.2,*** parallel and co-located segments are identified based on their spatial relationship to existing pipeline centerlines and do not imply use of existing rights-of-way or previously disturbed ground.

Where complete co-location was not feasible, the routing process evaluated parallel alignments that maintain reasonable proximity to existing infrastructure while avoiding sensitive environmental, cultural, or land-use constraints and ensuring engineering feasibility.

6.1.3 Prioritization of Logged Areas Rather Than Undisturbed Forest (Circular MFSA-2 Section 3.1(2)(e))

Route development considered land cover and vegetation conditions, with a preference for previously logged or otherwise disturbed areas over undisturbed forested lands, where practicable and consistent with engineering, environmental, and landownership constraints. GIS mapping of forest cover and land disturbance history was used to identify such areas within the study corridor.

Prioritizing disturbed areas reduces impacts to sensitive wildlife habitat, reduces the potential for fragmentation of intact forest ecosystems, and consolidates development within lands already influenced by human activity. Where avoidance of undisturbed forest was not feasible, route refinements or mitigation measures will be incorporated, as appropriate, to minimize potential environmental impacts while maintaining engineering and constructability requirements. This approach is consistent with the routing objectives described in Circular MFSA-2, which encourage applicants to consider opportunities to utilize previously disturbed areas where practicable.

6.1.4 Prioritization of Geologically Stable Areas (Circular MFSA-2 Section 3.1(2)(f))

Geologic stability was a key factor in route evaluation. Bridger prioritized areas with low susceptibility to slope failure, erosion, or other geotechnical hazards, using available geologic, soil, and topographic data incorporated into GIS analyses.

Selecting geologically stable terrain reduces construction and long-term operational risks, minimizes maintenance needs, and ensures safe, reliable pipeline operation. Where complete avoidance of areas with potential geotechnical constraints was not feasible, route refinements or standard engineering design measures (e.g., site-specific grading, trench stabilization, and erosion control) may be implemented, as appropriate, to minimize risk while maintaining compliance with project objectives and applicable regulatory requirements.

6.1.5 Prioritization of Roaded Areas (Circular MFSA-2 Section 3.1(2)(g))

The Project prioritized routing in proximity to existing roaded areas, including forest roads, service roads, and other established access routes, to reduce the need for constructing new access and minimize associated ground disturbance. GIS mapping of existing transportation and access networks was used to identify opportunities for co-location during corridor screening and route refinement.

Prioritizing roaded areas helps limit impacts to previously undisturbed lands, reduces fragmentation of wildlife habitat, and supports efficient construction and maintenance activities. Where avoidance of new access routes was not feasible, alignment refinements or standard construction and reclamation measures may be implemented, as appropriate, to minimize environmental impacts while maintaining engineering feasibility.

6.1.6 Project Location to Minimize Visual Impact (Circular MFSA-2 Section 3.1(2)(i))

Potential visual effects were evaluated during route development to minimize the Project's visual footprint, particularly when crossing BLM lands or areas near sensitive viewpoints, recreational areas, or scenic landscapes. GIS-based publicly available land management and recreational data were used to identify areas of high visual sensitivity.

Route alignments were designed, where practicable, to reduce visibility from key observation points (KOPs), maintain consistency with existing linear infrastructure, and avoid introducing prominent new features to the landscape. Where avoidance of visually sensitive areas is not practicable, site-specific design and reclamation measures (e.g., facility siting adjustments, color treatments for aboveground facilities, and restoration of disturbed areas) may be implemented, as appropriate to minimize potential visual impacts in coordination with applicable land-managing agencies.

6.1.7 Project Location a Safe Distance from Residences and Areas of Human Concentration (Circular MFSA-2 Section 3.1(2)(j))

Route selection prioritized avoidance of communities and areas of concentrated human population while recognizing that rural residences are dispersed throughout portions of the Project area. The proposed route generally avoids cities, towns, and residential clusters and traverses predominantly rural and agricultural landscapes characterized by isolated residences. Refer to ***Appendix B*** for a depiction of urban and rural development**.**

GIS data, including parcel-level residential locations, were used to identify individual residences and areas where increased separation distances were warranted. This information informed route screening and alignment refinement to minimize potential safety risks, noise effects, and land use conflicts while maintaining compatibility with existing rural land uses.

In areas where the route occurs in proximity to isolated rural residences, refinements were considered and implemented where practicable to maximize separation distances while taking into account engineering feasibility, land ownership, environmental resources, and constructability. Mitigation measures, such as construction timing restrictions and noise control practices may be implemented, as appropriate, to minimize temporary construction-related effects to nearby residences.

6.1.8 Project Location in Accordance with Public Land Management Plans (Circular MFSA-2 Section 3.1(2)(k))

All route options were evaluated at a planning level for consistency with applicable public land management plans, including relevant BLM Resource Management Plans (RMPs), state, and local plans where applicable. Pipeline alignments were reviewed against land use designations, stipulations, and resource protection requirements to assess compatibility with approved management objectives.

Where potential conflicts with public land management goals were identified, route refinements or site-specific mitigation measures may be implemented, as appropriate to maintain consistency with plan objectives while supporting project engineering and constructability requirements. GIS mapping and overlay analyses were used during corridor screening and route refinement to verify alignment consistency with designated land uses and sensitive resource areas and to inform ongoing agency coordination. Final plan

consistency determinations will be verified in coordination with the applicable land-managing agencies during subsequent federal and state permitting processes.

6.1.9 Project Location in Areas That Can Be Returned to Original Condition (Circular MFSA-2 Section 3.1(2)(l))

Route planning considered the long-term recovery potential of disturbed areas, prioritizing locations where construction impacts are expected to be capable of reclamation consistent with applicable agency and landowner requirements. Assessment included evaluation of soil characteristics, vegetation communities, topography, and overall feasibility of meeting agency-approved reclamation objectives.

Where areas with limited reclamation potential could not be fully avoided, route refinements or site-specific reclamation and erosion control measures (e.g., topsoil management, erosion control installation, and revegetation planning) may be implemented, as appropriate, to maximize post-construction recovery while maintaining compliance with environmental and engineering requirements and applicable regulatory standards.

6.2 Considerations for Study Area Delineation (ARM 17.20.1311; Circular MFSA-2 Section 3.2)

The Montana study area was delineated as a five-mile buffer on either side of the centerline for each route option, resulting in a 10-mile-wide corridor encompassing Route Options 1, 2, and 3. This buffer width was selected as a reasonable screening distance to ensure adequate coverage for environmental, land use, and engineering assessments, consistent with Circular MFSA-2 Section 3.2. The study area width reflects the linear nature of the Project and the geographic constraints associated with the fixed pipeline termini.

Within the study area, Exclusion and Avoidance Areas, as defined in Circular MFSA-2 Sections 3.2(d) and (e), were mapped and incorporated into GIS-based analyses. While complete avoidance of all sensitive features was not feasible due to the size and extent of the study corridor, the proposed Project route has been designed to minimize impacts where crossings of these areas are necessary. Mitigation measures are described to reduce potential cumulative adverse effects; refer to ***Section 8: Mitigation Measures*** for mitigation details and ***Section 9: Identification of Proposed Project*** for the proposed route description.

In accordance with Circular MFSA-2 Section 3.3(3), maps of the Project study area along with associated metadata, have been prepared and are provided in ***Appendix B.*** These maps incorporate GIS analyses of topography, land cover, sensitive resources, and other data used to inform route selection and corridor evaluation.

6.2.1 Reasonable End Points for the Facility Within or Outside Montana (Circular MFSA-2 Section 3.2(1)(a))

The Project will extend from the U.S.-Canada border in Phillips County, Montana, to an existing crude oil terminal near Guernsey in Platte County, Wyoming. The selection of these endpoints reflects the Project's intended function of providing transportation connectivity between existing upstream supply infrastructure in Canada and established downstream pipeline and terminal facilities in the U.S. Rocky Mountain region.

These endpoints were considered reasonable based on operational efficiency, constructability, and system connectivity, and the route development process was guided by the objective of providing a continuous transportation link between Canadian production sources and the existing U.S. pipeline network while minimizing additional mileage, avoiding unnecessary crossings of sensitive resources, and aligning with existing corridors to the extent practicable.

6.2.2 Reasonable Points for Exiting Montana (Circular MFSA-2 Section 3.2(1)(b))

The proposed route and the two route options generally parallel or co-locate with existing linear infrastructure corridors from the Sidney, Montana area to the point where the Project exits the state, approximately 16 miles west of Alzada, Montana. This exit location was selected based on routing analyses indicating it would minimize new ground disturbance, reduce landscape fragmentation, and take advantage of previously disturbed or reclaimed corridors. This exit location also reflects the geographic and system connectivity considerations associated with the downstream tie-in in Wyoming.

Routing decisions considered engineering feasibility, constructability, environmental sensitivity, and land use compatibility. Where alignment adjustments were necessary to address site-specific constraints, refinements were incorporated within the evaluated study corridor to maintain consistency with the preferred location criteria while minimizing potential impacts.

6.2.3 Delineation of a Geographical Area Sufficient for Viable Alternative Routes (Circular MFSA-2 Section 3.2(1)(c))

The study area encompasses all lands within a five-mile buffer on either side of each route option centerline, resulting in a 10-mile-wide corridor. This width was selected to provide a reasonable planning envelope to accommodate the proposed route and potential minor or localized adjustments necessary to avoid sensitive environmental features, cultural resources, and landowner-identified areas of concern that may arise during Project planning and design.

The delineated study area was used to support evaluation of viable routing options while maintaining consistency with Circular MFSA-2 criteria. GIS analyses incorporating topography, land use, environmental resources, and cultural constraints were used to verify that the corridor contains sufficient routing flexibility and minimizes the need for off-corridor alignments to meet Project objectives.

6.2.4 Identification of Avoidance Areas (Circular MFSA-2 Section 3.2(d)(e))

To support route development and minimize potential impacts, the study area delineation process incorporated environmental, engineering, and land use considerations consistent with Circular MFSA-2 Section 3.2. As part of this process, the Applicant distinguished between MFSA-defined avoidance areas, which are subject to a regulatory presumption of avoidance, and additional internal planning categories used to support siting decisions. Internal categories (e.g., constraint or opportunity areas) are planning tools and do not represent approvals, permits, or formal land use designations by federal, state, Tribal, or local agencies.

MFSA Avoidance Areas

In accordance with Circular MFSA-2 Section 3.2(1)(d)–(e), the Project is required to avoid the areas listed below unless the Bridger can demonstrate that:

1. No significant adverse impacts are likely, or
2. Mitigation of significant adverse impacts is possible, or
3. Routing through the area would result in less cumulative adverse environmental impact and economic cost than feasible alternative locations.

These MFSA defined avoidance areas include:

- National wilderness areas
- National primitive areas
- National wildlife refuges and ranges
- State wildlife management areas and wildlife habitat protection areas
- National parks and monuments
- State parks
- National recreation areas
- Rivers designated under the National Wild and Scenic Rivers System and rivers eligible for inclusion
- Roadless areas ≥5,000 acres managed to retain roadless character
- Rugged topography defined as slopes greater than 30 percent
- Specially managed buffer areas surrounding national wilderness and primitive areas
- Active faults

These areas form the baseline regulatory avoidance framework used in evaluating corridor options and refining the proposed alignment.

Internal Siting Categories

To supplement regulatory requirements and guide route refinement at a practical level, the Applicant also applied internal siting categories that reflect environmental sensitivity, constructability, and landowner/agency considerations.

Avoidance Areas (Internal Planning Category)

These represent sensitive locations where routing is possible but may require additional refinement or mitigation. Examples include:

- USFWS wetland and grassland easements
- Designated critical habitat and grouse lek buffers
- Irrigated croplands and woodland blocks
- NRHP-listed or eligible properties and Tribal cultural properties
- Waterfowl production areas
- Areas with unstable soils or moderate slopes
- Crucial wildlife winter range

Constraint Areas

These are locations where routing is feasible but may require additional engineering or resource-specific mitigation, such as:

- BLM or USFS multiple-use lands
- Floodplains
- Areas with shallow bedrock or limited reclamation potential
- Proximity to state or federal roadways

Opportunity Areas

These represent locations generally most suitable for routing, including:

- Areas near existing linear infrastructure such as pipelines or transmission lines
- Flat or gently rolling terrain
- Deep, well-drained soils
- Previously disturbed or non-forested areas

Application of Avoidance Requirements in Route Development

Using available GIS datasets, the Project identified areas where the preliminary routes intersected MFSA avoidance areas or internal planning constraints. Where practicable, route refinements were incorporated to avoid or reduce conflicts. Where route intersections remain due to geographic limitations or system

connectivity requirements, the Project will evaluate site-specific conditions and identify mitigation measures during subsequent environmental review, engineering design, agency coordination, and landowner outreach.

Public, Tribal, and agency input will continue to inform route refinement consistent with Circular MFSA-2 Sections 3.2(1)(d)–(e).

6.2.5 Grants of Permission (Circular MFSA-2 Section 3.2(1)(d-f))

As required under Circular MFSA-2 Section 3.2(1)(d) through (f), Bridger evaluated whether construction or operation of the Project would require any grants of permission from federal or state agencies with jurisdiction over wilderness areas, primitive areas, National Wildlife Refuges, or other specially managed lands.

The proposed route does not cross any national wilderness areas or designated primitive areas. The proposed route also does not cross any Indian Reservations or Tribal Trust lands. These areas were identified during Study Area development and avoided during iterative routing.

Where the proposed route crosses federally managed lands, including BLM parcels, Project-specific federal authorizations—such as rights-of-way, temporary use permits, or construction approvals—will be obtained pursuant to applicable federal regulations. These authorizations are standard permitting requirements and not "wilderness-type" grants of permission under Circular MFSA-2 Section 3.2(1)(f).

Based on current routing, no separate grant of permission under Circular MFSA-2 Section 3.2(1)(f) has been identified as necessary for the proposed route or Option 2. Option 3 would require approval and ROW from the Bureau of Indian Affairs and the Fort Peck Indian Reservation.

6.2.6 Cost (Circular MFSA-2 Section 3.2(2)(c))

In accordance with ARM 17.20.811, 17.20.815, and 17.20.817, Bridger provides the following planning-level discussion of anticipated construction and operational costs for the Project. These estimates are preliminary and will be refined as detailed engineering, procurement planning, and environmental review progress. As noted in the MTDEQ-approved waiver, the information provided in this section is intended to satisfy the cost-related requirements applicable to the Alternative Siting Study under Circular MFSA-2 Section 3.2(2)(c).

Based on current planning-level engineering and cost estimates, the installed cost of the pipeline is approximately $4.5 million per mile. With approximately 435.2 miles of pipeline located within Montana, the total estimated installed construction cost within the state is approximately $1.96 billion. These estimates are preliminary and will be refined as engineering design, procurement planning, and environmental review progress.

The planning-level cost estimate reflects the major cost components typically associated with construction and operation of a large-diameter crude oil transmission pipeline, including:

- Line pipe materials;
- Pumps and electrical equipment;

- ROW acquisition, survey, permitting, and mitigation costs;
- Pipeline construction labor and engineering costs; and
- Operations and maintenance expenses, estimated using standard industry practices for inspections, vegetation management, and routine maintenance.

Based on these planning-level estimates, the Project is expected to be economically feasible and consistent with costs for comparable long-distance hazardous liquid pipeline facilities. More detailed cost information, including refined capital and projected operational costs, will be provided to the MTDEQ in supporting materials as the Project advances through detailed engineering and environmental review.

6.2.7 Reliability and Engineering Concerns (Circular MFSA-2 Section 3.2(2)(d))

Preliminary reliability and engineering considerations were incorporated into the delineation of the study area. The corridor was identified to accommodate the general requirements of a pipeline system, with attention to factors that could influence routing feasibility, constructability, and long-term operational reliability.

Key preliminary considerations include:

- **Pipeline specifications**: preliminary assumptions regarding pipeline diameter, operating pressure, and throughput were used to inform corridor screening and routing feasibility.
- **Facility placement**: conceptual locations for aboveground facilities including MLVs, pump stations, and interconnects were considered.
- **Access and maintenance**: the corridor was delineated to provide reasonable access for future inspection, maintenance, and emergency response activities consistent with standard pipeline operating practices.
- **Environmental and terrain considerations**: desktop analyses of topography, soils, and sensitive environmental features were used to identify potential engineering or constructability constraints and to maintain routing flexibility where practicable.

Detailed engineering and environmental studies, including field surveys, geotechnical assessments, and site-specific design evaluations, will be conducted during subsequent project phases in coordination with MTDEQ. These studies will further refine the alignment within the study corridor, inform final facility siting, and ensure compliance with all applicable regulations and industry standards.

6.2.8 Other Factors Important to the Applicant (Circular MFSA-2 Section 3.2(2)(e))

In addition to the MFSA siting considerations described in Sections 6.2.1 through 6.2.7, Bridger identified several factors important to Project planning and development that informed delineation of the study area. These factors relate to implementation feasibility, permitting efficiency, and coordination with affected landowners and agencies.

From a Project delivery perspective, Bridger considered schedule predictability and the ability to complete permitting, design, and construction in a manner consistent with anticipated commercial timelines. Accordingly, the study area was delineated to prioritize corridors where environmental review and land rights acquisition are expected to be more practicable based on existing land use patterns and prior disturbance.

Bridger also placed high value on identifying routing opportunities that parallel or co-locate with existing linear infrastructure. Locating new facilities within or adjacent to previously disturbed corridors may reduce constructability uncertainties and allow for more efficient integration of engineering, environmental, and access planning.

These specific factors were considered alongside MFSA siting criteria to delineate a study area that provides routing flexibility, supports efficient permitting and engineering review, and facilitates collaborative coordination with affected landowners and agencies.

6.3 Development of Facility Locations Options (Circular MFSA-2 Sections 3.3, 3.5, 3.6, and 3.8(1)(a))

6.3.1 Summary of Public Input (Circular MFSA-2 Section 3.3(2))

Public input was a key factor in the development of the Study Area and in establishing routing flexibility consistent with Circular MFSA-2 Section 3.3(2). Early outreach to county governments, Tribal governments, and landowners began in October 2025. These activities were conducted to identify local land use considerations, areas of concern, and opportunities to refine potential routing corridors.

Initial outreach letters were sent to county commissions in October 2025, including Carter, Daniels, Fallon, Phillips, Richland, Roosevelt, Sheridan, Valley, and Wibaux Counties. Tribal governments were likewise notified beginning in December 2025, with letters sent to the Northern Cheyenne Tribe, Fort Peck Assiniboine & Sioux Tribes, Mandan, Hidatsa & Arikara Nation, Standing Rock Sioux Tribe, Crow Tribe, Cheyenne River Sioux Tribe, and numerous others.

Bridger also initiated informal consultation with Tribal Historic Preservation Offices (THPOs) in February–March 2026 through virtual and in-person meetings. These meetings were held with the Fort Peck Assiniboine & Sioux Tribes, Mandan, Hidatsa & Arikara Nation, Standing Rock Sioux Tribe, Crow Tribe, Eastern Shoshone, Northern Arapaho, and additional Tribal Nations.

Bridger will participate in BLM and MTDEQ combined public scoping meetings in multiple cities including Glasgow, Miles City, and Newcastle, as well as a virtual meeting. Input received during these meetings will contribute to preliminary identification of routing opportunities, avoidance areas, and land use considerations relevant to development of the study area.

Feedback received to date has been primarily focused on agricultural operations, grazing access, potential land fragmentation, and interest in using existing utility corridors where feasible. These concerns were incorporated at a planning level into study area development to support continued refinement based on additional consultation, environmental review, and field investigations.

6.3.2 Factors Used to Develop Alternatives (Circular MFSA-2 Sections 3.3(7) and (9); 3.5(2))

Developing the proposed route and alternatives for the Project was guided by an iterative, multidisciplinary planning process. Preliminary factors considered in developing and screening route alternatives included Project objectives, conceptual control points, existing infrastructure, desktop analyses of environmental and cultural resources, and stakeholder considerations. These factors were used to develop and comparatively evaluate preliminary route alternatives and will continue to guide adjustments as additional data, including field surveys and engineering evaluations become available.

Major route options, design options, and transportation alternatives were reviewed as part of preliminary Project planning. The route-selection process was guided by an integrated evaluation of environmental resources, engineering feasibility, and existing land-use conditions.

For preliminary planning and analysis, Bridger classified areas within the Project study corridor into categories based on their relative suitability for construction and long-term operation. This framework helped systematically identify areas to avoid or minimize where practicable and to prioritize locations most suitable for development to balance constructability, environmental protection, and regulatory compliance.

In developing route options and ultimately the proposed route, the routing analysis prioritized paralleling existing linear infrastructure where practicable, minimizing fragmentation of previously undisturbed lands, avoiding or reducing crossings of major waterbodies and wetlands, maintaining appropriate separation from residences and areas of human concentration, and selecting geologically stable terrain suitable for long-term operation where feasible. These routing priorities were applied across all preliminary alternatives to maintain system connectivity, support constructability, and remain aligned with the preferred-location criteria in Circular MFSA-2.

Detailed descriptions of major route options are provided in ***Section 6.3.6*** through ***Section 6.3.8.*** Categorization of areas within the study corridor is described in ***Section 6.2***, and non-construction or design options are described in ***Section 5.1.*** These preliminary categorizations will continue to be refined through detailed environmental review, field investigations and engineering design.

6.3.3 Description of Route Options (Circular MFSA-2 Sections 3.5(1) and (2))

Corridor options were developed and evaluated using a systematic routing methodology consistent with Circular MFSA-2 Section 3.1. The evaluation process included identification of routing objectives, establishment of control points (including fixed interconnection locations), compilation of publicly available environmental and land use data, identification of sensitive resources and communities, and iterative comparison and refinement of routing alternatives through a GIS-supported corridor screening process.

Bridger utilized publicly available federal, state, and local datasets to identify Avoidance Areas, as defined in Circular MFSA-2 Sections 3.2(1)(e) and 3.4. These areas were mapped and incorporated into a geographic information system (GIS)-based routing model to inform corridor development. The routing options were then comparatively assessed using this screening framework to determine the alignment that best balances environmental protection, engineering feasibility, constructability, land use compatibility, and system integration requirements.

MTDEQ-Approved Waiver of Circular MFSA-2 Three-Alternative Requirement

In a January 28, 2026, correspondence, Bridger requested approval from the MTDEQ to omit the requirement in Circular MFSA-2 for identification and full baseline-level analysis of at least three alternative locations. MTDEQ approved this request on February 24, 2026, allowing Bridger to provide a reconnaissance-level corridor comparison in this Application so long as Bridger supplies necessary baseline information and data if additional alternatives are suggested by MTDEQ or its third-party contractor during MEPA review.

Accordingly, the descriptions below provide a corridor-scale characterization consistent with the MTDEQ-approved waiver. Bridger recognizes that MEPA review may result in the identification of additional technically and economically feasible routing alternatives. If such alternatives are identified, Bridger intends to provide supplemental information to support MTDEQ's evaluation, consistent with the conditions described in MTDEQ's waiver letter.

Description of Route Options

Option 1 begins at the anticipated U.S. border crossing near existing and planned Canadian infrastructure. From this point, the route proceeds generally south for approximately 25 miles, avoiding known sensitive resource areas to the extent practicable. The alignment then shifts east toward existing pipeline infrastructure near the Montana Highway 5 and Montana Highway 16 corridor. From there, the route turns south and generally parallels existing pipeline corridors along or near the Montana–North Dakota border before entering Wyoming near the community of Alzada in Carter County, Montana.

This option emphasizes co-location with existing linear infrastructure where practicable, which helps reduce fragmentation of previously undisturbed lands, consolidate long-term maintenance access, and minimize incremental surface disturbance relative to establishing a new corridor.

Option 2 originates at the same anticipated U.S. border crossing and proceeds in a generally south-to-southeasterly direction along a more direct alignment to an established pipeline hub near Baker, Montana. From Baker, the route continues south toward Wyoming, entering near Alzada. This option represents a comparatively direct route between the border crossing and the Baker hub but would require development of new corridor segments in areas without existing pipeline alignments. As a result, this option may result in greater greenfield disturbance depending on final micro-siting.

Option 3 also begins at the anticipated U.S. border crossing and proceeds south-southeast toward major pipeline infrastructure located north of Sidney, Montana. From that interconnection point, the route turns south and extends toward Wyoming, entering near Alzada. This option focuses on tying into northern infrastructure nodes before proceeding south; however, it may involve additional routing complexity depending on terrain, landownership patterns, and environmental considerations. This option would cross the Fort Peck Indian Reservation, and some segments may require development of new corridor areas where existing linear infrastructure is limited.

Routing Approach Applied Across All Options

During development of the proposed route, the analysis prioritized paralleling existing linear infrastructure where practicable, minimizing fragmentation of previously undisturbed lands, avoiding or reducing crossings of major waterbodies and wetlands, limiting encroachment into Tribal Trust lands, maintaining appropriate

separation from residences and areas of human concentration, and selecting geologically stable terrain suitable for long-term operation, while maintaining system connectivity and constructability.

Following comparative evaluation and ranking of corridors, the proposed route was identified as the alignment that best satisfies the preferred-location criteria outlined in Section 3.1 of Circular MFSA-2 while minimizing impacts to Avoidance Areas. Where complete avoidance was not feasible, route refinements and mitigation measures were incorporated consistent with the mitigation hierarchy outlined in Circular MFSA-2.

Route development is an iterative process. Although a proposed alignment has been identified for purposes of this Application, minor adjustments may occur during final engineering, landowner coordination, agency consultation, and detailed environmental review. Any such refinements will remain within the evaluated study corridors unless otherwise modified through the applicable MFSA review process. Additional detail regarding the proposed route is provided in ***Section 9: Identification of Proposed Project***.

6.3.4 Justification for Impacts to Avoidance Areas (Circular MFSA-2 Section 3.3(5))

Avoidance areas, as defined in Section 3.2(1)(e) and Section 3.4(2) (Circular MFSA-2), were considered routing constraints in the preliminary evaluation of major route options. Where the proposed route intersects these areas, initial analyses were conducted to identify potential impacts and assess whether other routes could reduce cumulative environmental or economic effects.

Based on desktop evaluations and preliminary planning, impacts within Avoidance Areas are anticipated to be capable of being addressed through standard BMPs, agency-required stipulations, and post-construction reclamation measures. Alternative micro-routing adjustments were evaluated to avoid these areas; however, in several locations, preliminary assessments indicate that limited crossings of Avoidance Areas may result in fewer overall environmental or land use impacts than available reroute options.

Detailed field surveys, geotechnical evaluations, and refined engineering analyses will be completed in future project phases. These studies will further characterize potential impacts and inform final mitigation measures. Conceptual mitigation approaches and BMPs are discussed in ***Section 8: Mitigation Measures.***

6.3.5 Engineering Differences Among Alternative Facility Locations (Circular MFSA-2 Section 3.8(1)(a)(i))

Alternative route engineering considerations for this Project indicate that the Proposed Route, Option 1, can be constructed using standard methods and materials, while Options 2 and 3 would require more extensive new corridor development, more complex designs, and greater earth disturbance. Engineering constraints and design requirements differ among the three route options in ways that affect constructability, risk, and the scale and distribution of environmental and land use impacts. These differences inform route selection from an engineering standpoint. Across all three options, the project would use conventional cross-country pipeline construction techniques; clearing, grading, trenching, pipe lay and weld, backfill, and restoration. However, when compared to Proposed Route Option 1, Options 2 and 3 are more likely to require:

- Additional or more robust slope stabilization measures due to steeper slopes or less favorable soils, resulting in increased grading, or benching.
- Longer or more numerous crossings of floodplains, waterbodies, or transportation corridors.

- Additional temporary and permanent access roads in areas with limited existing road networks.
- Additional needs for thicker-wall pipe or higher-grade steel, and additional block valves or aboveground appurtenances to manage elevation changes and interconnections.
- Expanded workspaces and access roads in areas without existing corridors, potentially requiring temporary bridges, matting, or ground improvement in soft or poorly drained areas.
- Increased use of specialized erosion control and drainage features in segments where the route must navigate around existing infrastructure, topographic constraints, or sensitive resources.

In contrast, Proposed Route Option 1 more consistently parallels established pipeline corridors and road infrastructure, which generally improves constructability and reduces the need for specialized construction methods. While all options are technically feasible, Proposed Route Option 1 is the most reasonable from an engineering standpoint. These engineering factors support the selection of Proposed Route Option 1 over the other major corridor options.

6.3.6 Routing Viability Analysis

Major Route Options

See ***Section 6: Alternative Siting Study*** for detailed descriptions of route options and ***Appendix B*** for a map representing each Project route configuration.

The routing viability analysis evaluated each major route option based on comparative environmental constraints, permitting requirements, engineering feasibility, land use compatibility, constructability, and potential socioeconomic considerations, consistent with the evaluation framework set forth in the MFSA and Circular MFSA-2.

As part of this analysis, preliminary micro-routing adjustments were evaluated within each major route option to reduce interactions with MFSA-defined Avoidance Areas and other sensitive resources where practicable. In several locations, preliminary assessments indicate that limited crossings of certain Avoidance Areas may result in fewer overall environmental or land use impacts than available reroute options, particularly where avoidance would require substantial deviations that introduce additional disturbance, longer alignments, or additional major waterbody crossings. These locations have been identified for further evaluation during subsequent engineering and environmental review. Proposed Route Option 1 had the highest total mileage across the entire Project and in Montana, however, Options 2 and 3 had greater mileages across federal lands in Montana. Total mileage, land ownership patterns, and resource constraints were considered collectively to assess overall feasibility rather than as independent determining factors. Constructability concerns with all three options include rugged terrain in southeast Montana; however, these terrain-related challenges are localized and are considered manageable through conventional construction techniques and mitigation measures.

Similar to Proposed Route Option 1, Option 2 crosses BLM–administered lands. While the alignment does not directly intersect USFWS National Wildlife Refuges or designated critical habitat, it is located in close proximity to the Charles M. Russell National Wildlife Refuge and the Fort Peck Indian Reservation. Constructability considerations include rugged terrain in portions of southeastern Montana and limited existing access roads, which may require additional temporary access and result in increased surface

disturbance and cost. Collectively, these factors contribute to environmental sensitivities and construction challenges comparable to Proposed Route Option 1, though with fewer permitting and coordination complexities associated with Tribal and USFWS-administered lands.

Option 3 crosses BLM–administered lands and the Fort Peck Indian Reservation, resulting in substantial Tribal land involvement and associated federal and Tribal permitting and coordination requirements. From a constructability perspective, Option 3 would traverse areas characterized by steep slopes and locally unstable soils, necessitating additional grading, specialized construction techniques, and enhanced erosion and sediment control measures. The combination of extensive Tribal land crossings, federal land involvement, and challenging geotechnical conditions results in comparatively greater environmental impact potential and more complex permitting requirements than Proposed Route Option 1.

Design Options

Project design options are laid out and discussed in ***Section 5.2: Design Alternatives.*** Design options were screened based on safety standards, constructability, environmental footprint, regulatory compliance, and consistency with the Project's purpose and need. Any design options discussed therein that were determined during preliminary evaluation to be less feasible or less effective in meeting Project objectives were eliminated early in the design process.

6.3.7 Ranking of Options and Alternatives (Circular MFSA-2 Section 3.9)

Major Route Options

Proposed Route Option 1 is ranked as the proposed route option because, although it has the greatest total mileage, it avoids a greater number of sensitive and constrained areas. Proposed Route Option 1 also maximizes opportunities to parallel or co-locate with existing pipeline corridors, which reduces incremental land disturbance and construction-related surface impacts. The route requires federal authorization; however, the areas of federal involvement occur in locations where coordination is expected to be comparatively straightforward. Constructability constraints in southeastern Montana, including areas of rugged terrain, were identified, but these constraints are anticipated to be addressable through standard engineering and construction practices.

Option 2 is ranked lower due to a combination of routing and constructability constraints. While the route does not cross Tribal Trust lands or lands administered by the U.S. Fish and Wildlife Service, it does cross BLM–administered lands, similar to Proposed Route Option 1, and is located in close proximity to the Charles M. Russell National Wildlife Refuge and the Fort Peck Indian Reservation. These land ownership and proximity considerations would require careful resource avoidance during project development. In addition, limited existing access infrastructure and rugged terrain along portions of the route would necessitate additional temporary access construction, increasing surface disturbance and contributing to greater construction complexity relative to other options.

Option 3 is ranked lower due to its extensive interaction with sensitive resources, including significant crossing of the Fort Peck Indian Reservation and crossings of Bureau of Land Management–administered lands. These land ownership considerations would require additional federal and Tribal authorizations and coordination compared to Proposed Route Option 1. Collectively, these factors increase permitting complexity, engineering considerations, and the potential for environmental impacts. In addition, steep slopes and areas of unstable soils along portions of the alignment would require increased grading and

enhanced erosion and sediment control measures, resulting in greater construction disturbance and potential long-term maintenance challenges.

6.3.8 Alternatives Considered but Eliminated

Major Route Options

During the route selection process, Options 2 and 3 were reviewed to determine whether they met the Project purpose and need and whether they presented fewer environmental or land-use constraints relative to Proposed Route Option 1. Option 2 crosses BLM-administered lands and is located adjacent to the Charles M. Russell National Wildlife Refuge and the Fort Peck Indian Reservation, which would require careful resource avoidance and coordination. Option 3 crosses directly through the Fort Peck Indian Reservation and BLM-administered lands, resulting in additional Tribal authorizations and increased interagency coordination. These factors could result in longer review timelines and increased permitting complexity.

Design Alternatives

Design alternatives discussed in ***Section 5.2: Design Alternatives*** were determined during preliminary engineering. Alternatives that did not effectively meet Project objectives, did not improve constructability, or would not reduce environmental or land-use impacts were removed from further consideration early in the design process based on technical feasibility and performance.

7 IMPACT ASSESSMENT (ARM 17.20.803(h) and 1607; Circular MFSA-2 Sections 3.4(6), 3.6(5-6). 3.7)

Each resource section that follows presents baseline information that is common to all three route options, consistent with Circular MFSA-2 requirements. At this stage of Project development, Route Options 2 and 3 have been developed, but the most complete route-specific impact assessment is currently available for Proposed Route Option 1, which is being evaluated as the proposed route for analysis purposes. Preliminary information for Route Options 2 and 3 is included where available, and additional impact assessment for these alternatives will be supplemented in future submittals once remaining analyses are completed.

Project temporary and permanent access road routes have not been developed at this point in Project design. Per Project design standards and the consideration of the sensitive areas outlined in ***Section 6.2*** (Circular MFSA-2 Sections 3.2(1)(d) and 3.4(1)), it is anticipated that these access roads would be sited, to the extent practicable, to avoid or minimize impacts to these areas and resources. In areas where avoidance is not possible, mitigation measures and BMPs would be implemented to minimize adverse impacts. All temporary access roads will be reclaimed to conditions consistent with applicable reclamation standards and landowner requirements upon the completion of the construction phase.

Upon completion of Project access road design and routing, an assessment of impacts to the areas identified in ***Section 6.2*** (Circular MFSA-2 Sections 3.2(1)(d) and 3.4(1)) will be incorporated into the impact analyses presented in the following sections.

Refer to ***Sections 6.3.6*** through ***6.3.8*** for routing viability analysis, ranking of alternatives, and the identification of alternatives eliminated from further analysis.

7.1 Socioeconomic (Circular MFSA-2 Section 3.4(6) and (7), 3.7(5))

A discussion on access road and Project-related powerline impacts to socioeconomic resources is based on planning-level information currently available and will be further refined as design and routing of these facilities continue to advance during Project development. The socioeconomic impact zone is characterized by a 150-foot buffer centered on the Project centerline (75 feet on either side of the centerline). The Project study areas consist of a 10-mile buffer centered on the Project centerline (5 miles on each side of the centerline).

7.1.1 Existing Social and Local Economy Characteristics

Social Characteristics

The route options are anticipated to traverse primarily through rural regions, cities, towns, unincorporated communities, and areas of limited residential development. The communities within the study areas are largely characterized by sparse populations, relatively older median age profiles, and modest household incomes. Residents tend to maintain close-knit social structures, strong community identities, and values centered on self-reliance, land stewardship, and long-standing agricultural traditions. Public infrastructure and community services in these counties are generally limited in density and geographically dispersed, reflecting both the region's low population density and its largely rural character. Access to utilities, emergency services, health care, and broadband connectivity varies considerably across the region. These social characteristics collectively influence community priorities, land-use patterns, and expectations regarding development and resource management.

Public utilities and services in the study areas are characterized by relatively limited infrastructure, and reliance on rural cooperatives and municipal systems; refer to the ***Existing Infrastructure and Industrial Facilities Maps*** in ***Appendix B***. Electricity is primarily provided through rural electric cooperatives and Montana-Dakota Utilities, with service areas dispersed and limited system redundancy. Municipal water and sewer systems exist in larger towns such as Plentywood, Baker, and Sidney, while rural residents depend on private wells and septic systems. Solid waste management is handled through county-operated landfills or transfer stations, with Roosevelt County also maintaining tribal facilities.

Transportation infrastructure is dominated by county-maintained gravel and paved roads, supplemented by state highways such as U.S. Highway 2 and U.S. Highway 12. Emergency services are provided by county sheriff's offices, volunteer fire departments, and tribal emergency services, though response times are often extended due to geographic isolation. Broadband and communications access remain limited, particularly in rural and tribal areas, where connectivity gaps persist.

Local Economy of Communities Within the Study Area

The study areas are largely characterized by modest household incomes; refer to ***Table 7: Study Area Population and Demographic Characteristics***, which includes a summary of current economic and demographic conditions applicable to Proposed Route Option 1.

The communities within the study areas are predominantly rural and grounded in agriculture, resource extraction, and small-business enterprise. These localities maintain modest median household incomes and generally small labor forces, with many residents employed in farming, ranching, transportation, and support

services tied to natural resource development. Across the region, economic conditions are shaped by fluctuating commodity markets, limited economic diversification, and the availability of essential community services, with rural health assessments noting persistent challenges related to employment stability, housing burden, and access to services in several counties including Daniels, Phillips, Roosevelt, and Valley (Frances Mahon Deaconess Hospital, 2025). Collectively, these characteristics contribute to an economic landscape defined by agricultural dependence, low population density, and resilience strategies rooted in strong local networks and resource-based livelihoods. Construction of the Project is expected to result in short-term increases in economic activity within predominantly rural, agricultural communities. Temporary workforce spending may provide minor, localized economic benefits, while construction-related traffic and activity may briefly alter typical rural social conditions. These effects will be temporary and limited in scope. During operations, the Project will require minimal staffing and will not alter long-standing social characteristics or the agricultural foundation of the local economy, resulting in negligible long-term impacts on community structure or economic conditions.

7.1.2 No-Build Alternative Projection on Future Social and Economic Conditions

Future Social Conditions

Under the No-Build Alternative, future social conditions within the impact zone would largely remain consistent with existing trends, characterized by sparse populations, relatively older median age profile, and modest household incomes. The No-Build Alternative serves as a baseline for comparison. Without the temporary influx of construction-related employment and associated economic activity, these areas would continue to rely heavily on long-established agricultural and resource-based livelihoods, which are subject to pressures from fluctuating commodity markets and limited economic diversification. Existing challenges such as variable access to public services, limited infrastructure, and variable availability of utilities, health care, and broadband would persist, reinforcing ongoing patterns of geographic isolation and reliance on local networks and cooperative systems. Overall, social conditions in the impact zone would be expected to remain generally consistent with existing community structures and land use patterns in the absence of Project-related construction activity. Under the No-Build Alternative, no Project-related changes to social conditions would occur.

Future Economic Conditions

Under the No-Build Alternative, the impact zone communities would continue to reflect existing trends of modest household incomes, small labor forces, and limited economic diversification. Without the temporary economic stimulus associated with Project construction—such as direct construction employment, demand for local services, and short-term increases in regional spending—these communities would remain heavily dependent on agriculture, resource extraction, transportation, and small-business enterprises, sectors already vulnerable to fluctuating commodity markets and variable economic cycles. Persistent challenges identified in recent regional assessments, including employment instability, housing burden, and limited access to essential community services, would likely continue under existing economic conditions. Overall, long-term economic conditions under the No-Build Alternative would be expected to remain generally consistent with existing regional trends.

7.1.3 Relationship Between Current Land Use and Social and Economic Activities (Circular MFSA-2 Section 3.4(7)(a)

Land Use

Current land use within the study areas is closely tied to the region's agriculture, rangeland, and resource-based economy, which serves as the foundation for most local employment and community identity. These areas are dominated by agricultural production, grazing lands, and low-density rural development, and economic activities, including farming, ranching, transportation, and small agricultural support industries, are largely influenced by the availability and use of large, open tracts of land.

Social and Economic Activities

The connection between land use and livelihood is further reflected in the region's social structure, where longstanding agricultural traditions, land stewardship values, and strong community networks inform local land use patterns and community priorities. Public infrastructure, community services, and development patterns remain relatively limited and geographically dispersed, mirroring the rural land base and reinforcing a lifestyle centered on self-reliance, local resource use, and community-driven land management. Moreover, land use planning across these counties prioritizes compatibility with existing agricultural and grazing operations. Public land management frameworks governing federal and state lands in the region emphasize compatibility with grazing, recreation, wildlife habitat, and other established land uses—further linking economic activity and social patterns directly to the underlying landscape.

Construction of the Project may result in direct, indirect and cumulative impacts, causing brief, localized disruptions to agricultural and rangeland activities where temporary workspaces intersect active land uses, but these effects will be limited in duration and scope. Because social and economic conditions in the region are closely tied to agriculture and grazing, maintaining access and minimizing disturbance will help ensure these land-based livelihoods remain largely unaffected. During operation, the pipeline will not constrain ongoing agricultural uses or alter existing rural development patterns, resulting in minimal long-term impacts on the relationship between land use and community social or economic conditions.

7.1.4 Population and Demographic Characteristics

No cities, towns, unincorporated communities, or residential clusters have been identified within the impact zone of the Proposed Route Option 1. Within the study area, there are 13 unincorporated communities without census data, four towns with available census data, and one city with available census data. Refer to ***Table 7: Study Area Population and Demographic Characteristics*** and the ***Urban and Rural Development Maps*** in ***Appendix B.***

Table 7: Study Area Population and Demographic Characteristics

Location	Classification	Population	Median Age (years)	Race	Median Household Income
Opheim	Town	86	50.8	97% white	$ 46,500
Sidney	City	6,171	37.3	84% white	$ 62,538
Plevna	Town	209	31.4	82% white	$ 103,750
Wibaux	Town	672	51.3	90% white	$ 66,856
Ekalaka	Town	428	67.8	92% white	$ 30,000

Source: U.S. Census Bureau (2024)

7.1.5 Affected Social Structures, Values, Lifestyles

Social Structures

Construction and operation of the Project may temporarily influence social structures and community dynamics in localized portions of the rural study area crossed by the pipeline. Based on review of county demographic data and existing land use patterns, many communities in eastern Montana rely on agriculture, grazing, and resource-based livelihoods. Temporary changes such as increased traffic, noise, and the presence of an outside construction workforce could result in short-term changes to daily routines and agricultural operations in areas near active construction spreads. In some areas, short-term population influx during construction may place additional demands on limited local services including lodging, emergency response, and transportation infrastructure particularly in smaller communities with limited existing service capacity.

Over the long term, continued pipeline operations are not expected to substantially alter community lifestyles, though maintenance activities and ongoing ROW access needs may periodically intersect with agricultural or recreational land uses. Under the No-Build Alternative, these social structures would remain consistent with existing conditions, providing a baseline for comparison.

Values and Lifestyles

Landowners who place a high value on uninterrupted agricultural production, quiet rural living, or maintaining the visual character of their property perceive Project-related effects differently depending on individual land use priorities and proximity to construction activities. The presence of above ground facilities such as MLV sites and pump stations may also influence local perceptions of landscape change, particularly in areas where existing infrastructure is limited.

Certain subgroups may experience the impacts of construction and operation differently based on their social, economic, or cultural characteristics. Agricultural producers and ranchers may be uniquely affected due to temporary disruptions to field access, grazing patterns, or seasonal operations, especially during peak construction periods. Residents living near the ROW or near aboveground facilities may be more

sensitive to noise, dust, traffic, and visual changes than those located farther away. Additionally, low-income households and residents of small rural towns could experience relatively greater sensitivity if temporary population increases place pressure on housing availability or local services that already operate with limited capacity.

Construction of the Project may temporarily influence social structures, values, and lifestyles in nearby rural communities due to increased workforce presence, traffic, and temporary changes in local activity levels. These effects are expected to be localized and temporary, as work crews will be transient and construction activities will occur within established transportation and utility corridors. The Project is not expected to alter long-standing community values, cultural practices, or lifestyle patterns, given the dispersed population and the linear, subsurface nature of the facility. During operations, the Project will have a low visual profile and require limited on-site staffing, and is therefore expected to have minimal long-term impacts on social cohesion, community identity, or daily life in the affected counties.

7.1.6 Local Economy and Labor Force Characteristics

The study areas' economy is predominantly rural and resource-based (agriculture, grazing, and energy support services), with small trade and service hubs such as Sidney, MT providing regional retail, health care, and logistics functions. Household incomes vary across communities and counties, with town-level medians spanning roughly $30,000 (Ekalaka) to $103,750 (Plevna), reflecting differences in industry mix and age structure. County-level medians across the nine affected counties generally cluster in the low-$50,000s to low-$70,000s, consistent with rural Montana patterns.

Labor force participation in the eastern counties typically trails the statewide average; for example, Phillips County's Labor Force Participation Rate (LFPR) is ~60.4% versus ~63% statewide (prime-age LFPR 76.1% vs. 84.2%) (Montana Department of Labor and Industry, n.d.), indicating modest headroom but also demographic drag from aging populations. At the same time, Montana's labor market remains tight with record-high labor force levels in 2024 and nearly two job openings per unemployed person, which constrains immediate availability of skilled and semi-skilled labor for large projects. State analyses also identify a substantial pool of non-participants who could be re-engaged (e.g., barriers tied to childcare, health, or credentials), suggesting targeted recruiting, training, and apprenticeship pathways can help meet near-term craft and operator needs (MT Department of Labor and Industry, 2025a, 2025b).

In wage terms, small Montana counties' average weekly wages are generally below the national average, reflecting their industry mix and rural cost structure. Occupational pay for construction, extraction, transportation, and maintenance roles in the East-Central/other nonmetropolitan Montana areas follows the state's Occupational Employment and Wage Statistics regional structure and provides current "going rates" for skilled and semi-skilled trades that sponsors typically reference when planning recruiting and bid packages (U.S. Bureau of Labor Statistics, 2025).

Recent county data indicates broadly low unemployment across counties intersected by the Project study areas, typically in the ~2.3%–3.1% range, with a higher rate in Roosevelt County (~3.9%). These rates are consistent with the statewide trend of low joblessness at ~3.4% in December 2025 (Federal Reserve Bank of St. Louis, 2025) (U.S. Bureau of Labor Statistics, 2026).

Construction of the Project may result in direct, indirect, and cumulative impacts on local labor force conditions due to temporary increases in labor demand, primarily benefiting skilled construction trades,

equipment operators, inspection personnel, and support services. While some specialized workers may be sourced from outside the region, opportunities for local employment are anticipated where skill sets align with Project needs. These temporary demands are not expected to exceed local labor capacity and are limited in duration, resulting in negligible long-term disruptions in regional workforce availability.

During operation, the Project will require only a small number of permanent staff for monitoring and maintenance activities, resulting in minimal long-term impacts on local labor force conditions.

7.1.7 Public Services Characteristics and Availability, Adequacy and Capacity (Circular MFSA-2 Section 3.4(7)(e) and (f)

Across the local communities, public services are typical of sparsely populated eastern Montana counties. Public infrastructure and community services are limited and widely dispersed, with service redundancy constrained by geography and low population density. Electricity is provided largely by rural electric cooperatives and Montana-Dakota Utilities; municipal water and sewer service is available in larger towns (e.g., Sidney and nearby regional centers such as Baker and Plentywood), while most rural residents rely on private wells and septic systems; solid waste is managed by county landfills or transfer stations. Emergency services are provided by county sheriff's offices, volunteer fire departments, and tribal emergency services, with response times that may be extended due to distance and isolation. Transportation infrastructure is dominated by county-maintained gravel/paved roads and state highways, and broadband/communications access remains limited particularly in rural and tribal areas. The route options intersect multiple state and federal highways, requiring coordination to maintain safe traffic operations during construction.

In terms of adequacy and capacity, these services generally meet baseline community needs, but coverage, redundancy, and surge capacity are limited, especially for emergency medical services (EMS), fire response, and specialty health care that are concentrated in regional hubs such as Sidney. Staffing and operating capacity for public services in the affected counties reflect the characteristics of small rural jurisdictions, where agencies often maintain limited personnel and equipment relative to large regional centers. With most unincorporated communities relying on household-level sanitary systems and county solid-waste facilities, the cost-of-service provision is largely borne at the household or county level, while municipal user charges (where present) vary by jurisdiction and system scale typical of low-density service areas.

Construction of the Project may result in direct, indirect, and cumulative short-term, localized increases in demand for local public services and infrastructure. These impacts are expected to be limited due to contractor-provided on-site safety and medical support and the rural setting of most construction activities. During operation, the buried, remotely monitored pipeline will require minimal local service involvement, resulting in negligible long-term impacts on public services.

Overall, both construction and operation are not expected to materially affect the availability or performance of public services in the affected counties.

7.1.8 Fiscal Characteristics of Local Governments and School Districts

The communities near the Project are served primarily by county governments for general services such as roads, sheriff and detention, public health and social services, and solid waste/sanitation. Municipal services are provided for the few incorporated communities. K–12 education is funded and administered by

independent school districts that often span large rural catchments and include the same communities (Montana Office of Public Instruction, 2026).

Local Governments

For counties and municipalities, recurring revenues include a mix of property taxes (mill levies), state entitlement share distributions, fees and charges for services, and state and federal intergovernmental aid. The Montana Department of Revenue publishes entitlement share payment reports that document state revenue distributions to local governments, while the Montana Association of Counties provides additional budget and federal payment resources for counties.

On the expenditure side, rural counties allocate large shares to roads/bridges, public safety, public health and social services, solid waste/sanitation, and general government. City and town budgets emphasize water and wastewater utilities, streets, police/fire (municipal), and sanitation, with user fees and assessments frequently supporting enterprise-fund operations. Statewide comparisons from the U.S. Census Bureau's Annual Survey of State & Local Government Finances show Montana local governments' spending patterns consistent with rural service mixes; recent tables (2023 data released July 2025) provide benchmarks for revenues and expenditures by function (U.S. Census Bureau, 2025a, 2025b).

School Districts

K–12 school districts rely on the statutory state aid formula, statewide equalization mills, locally voted levies where applicable, and federal funds. The Montana Office of Public Instruction's Finance Data portal publishes Trustees' Financial Summary (TFS) datasets—reported revenues, expenditures, and fund balances—by district, along with county finance reports and per-pupil trends. A representative district in the study areas, Plentywood K-12 (Sheridan County), reports General Fund revenue and expenditures as well as transportation, retirement, technology, and debt service in its TFS materials, illustrating how small rural districts structure funds and spending (Montana Office of Public Instruction, 2026; Plentywood Schools, 2025).

A specific feature of Montana's fiscal framework is the statewide school equalization mills. In November 2023, the Montana Supreme Court confirmed counties must levy the full statewide 95 mills for school equalization, with the Department of Revenue determining the mills each year to meet constitutional equalization requirements; the topic has continued to be addressed in subsequent policy guidance and legislative materials (Daily Montanan, 2023; Montana Legislative Fiscal Division, 2025).

During construction, the Project could create a short-term, localized surge in spending and service demand, which Bridger would manage through coordinated traffic/safety plans, fire-prevention protocols, and prompt reclamation to minimize draw on county and municipal services. Due to the temporary nature of pipeline construction, school districts within the study area are not expected to experience increased attendance rates because of Project construction.

During operations, the pipeline could impose minimal ongoing demand on public services because the system is remotely monitored by a SCADA system, designed for rapid isolation, and supported by a standing FRP and mutual-aid agreements. Operators will often consist of local employees and it is not expected that local school districts will face sudden or permanent increases in school enrollment as a result of Project operation.

Under the No-Build Alternative, fiscal conditions for local governments and school districts would remain consistent with existing revenue, expenditure, and service patterns, providing a baseline for comparison.

7.1.9 Housing and Health Services

Housing

Housing availability is generally limited and uneven, with small inventories and variable vacancy that can shift quickly with project-related demand. Recent statewide indicators show rising housing cost burdens and constrained affordability in rural Montana, conditions that extend to eastern counties where rental supply is thin and for-sale inventory turns slowly (Federal Reserve Bank of Minneapolis, 2024; Montana Department of Commerce, n.d.). While rental assistance programs exist, recent funding and wait-list dynamics illustrate that subsidized options are capacity-constrained and not a near-term solution for large, short-duration demand spikes (Montana Department of Commerce, 2026; NBC Montana, 2025).

To support workforce needs, the Project's contractors and subcontractors will prioritize hiring temporary construction staff from local communities, whenever possible. It is assumed that a traveling construction workforce would utilize hotels and short-term rentals in adjacent communities such as Malta, Scobey, Plentywood, Culbertson, Sidney, Glendive, Wibaux, Baker, or Broadus, MT; Williston or Beach, ND; or nearby communities in Wyoming or South Dakota. Use of existing lodging inventory would distribute demand across multiple regional hubs. It is not expected that temporary Project construction would exceed available short-term lodging capacity. Bridger is not proposing to construct or operate any workforce housing for the proposed Project. The contractor(s) would be responsible for their workforce housing needs.

Health Services

Private-sector health services are anchored by small regional hubs and a limited network of clinics and pharmacies. Several communities within the affected counties are designated as Health Professional Shortage Areas (HPSAs) for primary care, reflecting limited provider availability and constrained appointment capacity.

In Richland County, medical services are centered in Sidney and include Sidney Health Center, a non-profit critical access hospital, with affiliated outpatient clinics providing emergency, primary, and specialty care services. While these facilities provide comprehensive services for a rural area, surge capacity is limited and referrals to larger regional medical centers are common for advanced or specialized care.

In Roosevelt County, residents are served by Northeast Montana Health Services, including hospitals and clinics located in communities such as Culbertson and Wolf Point. Health care coverage is dispersed across large geographic distances typical of frontier counties, resulting in extended travel times for some residents.

Under normal operating conditions, existing private-sector facilities are capable of meeting routine community health care demands; however, staffing limitations and frontier service distribution reduce flexibility during periods of elevated demand.

During construction, a temporary workforce influx could increase demand for urgent or occupational care services, emergency department visits, diagnostic services, and pharmacy services. Given the HPSA designations and limited surge capacity within frontier health systems, this temporary increase in demand

could modestly lengthen wait times or increase referrals to larger regional facilities. The magnitude of this impact is expected to be minor and temporary, primarily affecting regional service hubs such as Sidney and Wolf Point.

During operations, routine health care demand associated with the Project is expected to be minimal due to the limited number of permanent operations personnel. Occasional incident response needs could require coordination with local EMS or hospital emergency departments; however, such events would be infrequent.

With implementation of standard contractor health and safety protocols, coordination with local EMS providers, and utilization of occupational health resources when feasible, Project-related effects on private-sector health services are expected to be temporary during construction and negligible during operations.

7.2 Public Attitudes and Concerns (Circular MFSA-2 Section 3.4(8), 3.7(6))

To identify and address public attitudes and concerns, Bridger will conduct a series of public meetings during which the Project will be presented and public input solicited. These meetings will provide opportunities for discussion regarding resources potentially affected by the proposed route, suggested route locations or refinements, alternatives to the Project, and proposed mitigation measures. Meetings will be accessible to landowners, as well as other interested stakeholders, including land- and utility-managing entities.

Bridger recognizes the importance of early and meaningful stakeholder engagement and has begun incorporating public and stakeholder input into the Project's planning and design process, with additional engagement ongoing. Although public meetings have not yet been held at the time of this submittal, four public meetings are scheduled for April 2026 within the affected counties of route Alternative 1. Information regarding meeting dates, times, and locations will be provided in advance through appropriate public notice channels.

Public attitudes, concerns, and feedback gathered during these meetings will be documented and submitted to MTDEQ. Because public meetings have not yet taken place, information required under Circular MFSA-2 Section 3.4(8)—including alternatives to the proposed facility suggested by the public, mitigation measures proposed by the public, and resources identified by the public as potentially affected—will be compiled following the scheduled meetings and provided to MTDEQ when available. This information will be considered as Project development continues.

7.3 Landscape Aesthetics (Circular MFSA-2 Section 3.4)

Built environment discussions evaluate existing conditions and potential Project-related impacts within the impact zone and/or analysis area for the routes. The impact zone is defined as a 150-foot-wide buffer centered on the Project centerline (75 feet on either side), representing the area of direct disturbance. The study area consists of a 10-mile-wide buffer centered on the Project centerline (5 miles on either side), representing the area for evaluation of indirect and cumulative effects.

Maps depicting built environment features and infrastructure in relation to the route options are included in ***Appendix B***. These maps illustrate route alignments relative to existing residential structures, commercial and industrial facilities, public buildings, transportation infrastructure, utilities, and other developed features within the impact zone and study area.

Access road routing and design are continuing to be refined. Updated impact discussions associated with access road routing and design will be provided as the refinement process continues.

7.3.1 General Land Use or Special Designations

Federal, State, and Local Land Use Plans

Federal Land Use Plans

Proposed Route Option 1 has been sited predominantly on private lands; however, approximately 52.5 miles of the underground pipeline is expected to cross lands administered by the BLM in Montana. Additional ROW may be required to accommodate temporary and permanent access roads. Federally managed lands are distributed along the entire route; however, a greater concentration of crossings is observed within Phillips, Valley, Fallon, and Carter Counties in Montana.

BLM-administered lands crossed by the Project are located within the Malta, Glasgow (which are combined under the HiLine Resource Management Plan (RMP)), and Miles City Field Offices. ROW authorization across BLM lands requires conformance with BLM's applicable ROW regulations and applicable RMPs. The Project has been sited to generally conform to applicable land use designations and management direction in the align with management direction in current RMPs. Refer to ***Table 8: Montana Federal Crossings*** for more information.

To facilitate construction and future maintenance, the Project would establish a 50-foot-wide permanent ROW and 100-foot-wide Temporary Use Permit corridor across BLM-administered lands, resulting in a total construction corridor width of up to 150 feet. This corridor width will provide adequate space for safe and efficient installation and maintenance of the pipeline and related facilities. Placement of the pipeline within the permanent ROW would be adjusted according to factors such as terrain, existing infrastructure, landowner preferences, and environmentally sensitive areas. Where possible, the Project will align with existing pipeline ROWs or easements. For staging at road or water crossings, etc., ATWS, (i.e., easements) may be obtained, if needed.

Table 8: Montana Federal Crossings

Federal Owner	RMP	Distance (Miles)
BLM	HiLine	21.5
BLM	Miles City	31.0

Proposed Route Option 1 is expected to cross irrigation canals managed by the Bureau of Reclamation (BOR). Canal crossings under the jurisdiction of the BOR in Montana typically span approximately 50 feet in width. These crossings are not included in the Project's mileage or acreage calculations, as the BOR generally holds easements for the canal facilities rather than owning the underlying land. Coordination with BOR will occur to identify applicable authorization requirements, design standards, and construction stipulations associated with these crossings, as required under federal law and agency policy.

State of Montana Land Use Plans

Route Alternative 1 primarily traverses private lands; however, where state-owned lands are present, they are managed under policies administered by the Montana Department of Natural Resources and Conservation (DNRC). State trust lands are managed in accordance with DNRC land management policies and applicable administrative rules governing easements and surface use authorizations.

Where state lands are crossed, the Project will obtain necessary easements or authorizations and comply with applicable DNRC land use requirements. No separate statewide land use plan designations affecting Project siting have been identified beyond standard state land management requirements.

County and Local Land Use Plans

Proposed Route Option 1 crosses portions of Phillips, Valley, Fallon, Carter, Richland, Roosevelt, Sheridan, Wibaux, and Daniels Counties in Montana. With the exception of Wibaux County, which has not yet adopted a growth policy, each county maintains adopted growth policies and land use regulations that guide development within their respective jurisdictions.

- Phillips County Growth Policy-2023
- Valley County Growth Policy-Update 2021
- Fallon County Growth Policy-2017
- Carter County Resource Use Plan-2025
- Richland County Growth Policy-Update 2020
- Roosevelt County Growth Plan-2021
- Sheridan County Growth Policy-2013
- Daniels County Growth Policy-2025

These growth policies generally emphasize protection of agricultural land uses, compatibility with existing ranching and farming operations, orderly development, infrastructure coordination, and preservation of rural character. Proposed Route Option 1 is sited predominantly on agricultural and rangeland areas outside incorporated municipal boundaries and is not expected to conflict with adopted county growth objectives.

Where required, the Project will comply with applicable subdivision, floodplain, road crossing, and local permitting requirements administered at the county level.

Please refer to the ***Land Ownership Maps*** in ***Appendix B*** for a visual representation of these lands.

Special Designations

Areas of Critical Concern, Wilderness Study Areas

Areas of Critical Environmental Concern (ACEC) are a BLM designation applied to public lands requiring special management to protect important scenic, ecological, cultural, or hazard related values, as directed under the Federal Land Policy and Management Act (FLPMA), 43 U.S.C. §§ 1701–1787, including § 1702(a) (definition of ACECs) and § 1712(c)(3) (planning requirements). Wilderness Study Areas (WSA) are places that have wilderness characteristics; that is a minimum size, naturalness, and outstanding opportunities for recreation which make them eligible for designation as wilderness.

Project activities in or near ACECs, WSAs, or other special management designations have the potential to introduce temporary visual, noise, or dust-related impacts, which could affect visitor experience, recreation, and ecological resources. All route options extend through the Frenchman Breaks ACEC. Bitter Creek ACEC and WSA is approximately 0.5 miles south of the study areas but would not be impacted directly. Indirect effects, if any, would be temporary and minimized through standard construction BMPs, dust suppression, and compliance with applicable BLM stipulations. The natural character, ecological integrity, and recreational values of these areas are expected to be maintained following construction and reclamation.

The Project does not intersect research natural areas, national natural landmarks, national natural areas, or outstanding natural areas within the study area. Based on current alignment data, no direct disturbance to these designated areas is anticipated.

Special management areas, including Extensive Recreation Management Areas (ERMAs), may also be present near the Project alignment. Evaluation of potential impacts to these areas will be refined and further addressed during the NEPA/MEPA process in coordination with the appropriate managing agencies.

Conservation Easements Grassland and wetland easements administered by the USFWS are widespread throughout the Prairie Pothole Region, including within the Project study area and impact zone. The region contains extensive shallow wetlands and native grasslands that provide critical habitat for migratory birds and breeding waterfowl, making it a national priority area for permanent conservation easements. Wetland easements help protect, restore, and enhance wetland functions, improve water quality, support groundwater recharge, reduce flooding, and provide habitat for migratory birds and other wildlife species (USFWS, n.d. -a).

USFWS grassland easements compensate landowners for maintaining permanent grass cover and prohibit cultivation, with additional restrictions on haying and mowing to protect nesting species. Collectively, these easements form a patchwork of protected habitat that preserves native prairie, maintain hydrologic functions, and sustain long standing agricultural land uses.

USFWS grassland easements were designated as Avoidance Areas, which are defined as areas containing important and sensitive resources or areas otherwise afforded special protection status. While not necessarily prohibited, development in these areas could conflict with current or planned land uses and present construction challenges or risks. The Project has been sited to avoid and minimize crossings of USFW grassland easements to the extent practicable; therefore, impacts to these features are not expected. However, where complete avoidance is not feasible, the easements prohibit cultivation and require maintenance of permanent vegetative cover. As a result, ground disturbance within an easement

boundary could conflict with easement protections and may require additional agency coordination and site-specific mitigation.

USFWS wetland easements were not designated as Avoidance Areas nor Exclusion Areas, but instead as areas that may present siting sensitivities but generally provide feasible options for Project placement without significant conflicts with existing or planned land uses. These areas generally offer adequate construction access, manageable terrain, and reasonable opportunities for maintenance. Specialized crossing techniques would be employed where the Project crosses wetland easements to avoid water quality or hydrology impacts.

Long term pipeline operations are not expected to degrade easement purposes, provided that the pipeline remains buried, stable, and monitored, and that access, vegetation management, and maintenance activities comply with easement restrictions and USFWS requirements. Please refer to the ***Land Ownership Maps*** in ***Appendix B*** for a visual representation of these easements.

Waterfowl Production Areas

The Prairie Pothole Region, which includes portions of the Project study area and impact zone, contain Waterfowl Production Areas (WPAs). WPAs protect small but ecologically significant wetland and grassland tracts that provide critical breeding, nesting, and migration habitat for waterfowl, shorebirds, and grassland birds. WPAs are part of the National Wildlife Refuge System and are managed by the USFWS through designated Wetland Management Districts, which frequently span multiple counties and involve coordination with numerous local landowners.

Federal WPAs were considered Avoidance Areas during the Project planning and siting process. These areas are defined as those containing important and valued resources or those assigned special protection status. While not prohibited, development in these areas could result in conflicts with current or planned land uses and present construction challenges or risks. The Project route was designed to avoid or minimize crossings and surface disturbance within WPAs to the extent practicable.

WPAs exist within the Project impact zone and study area (U.S. Fish and Wildlife Service, 2025). Where crossings cannot be avoided, the Project would implement BMPs, including agency coordination and use of HDD, where feasible, to minimize surface disturbance and hydrologic impacts. With implementation of these measures, impacts to WPAs are expected to be temporary and minor in nature. See ***Section 8: Mitigation Measures*** for more information on mitigation strategies and commitments. Please refer to the ***Biological Resources Map*** in ***Appendix B*** for a visual representation of the WPAs.

National Trails

The Lewis and Clark National Historic Trail traverses portions of Montana along the Missouri River corridor. The Trail preserves significant expedition sites and interpretive locations across the state. The National Historic Trail generally follows portions of the Missouri and Yellowstone Rivers. While the National Park Service serves as the lead administrative agency for this National Historic Trail (NHT), the BLM assists with management and administration of the trail within certain Field Offices. Recreational use of these river corridors contributes to the NHT visitor experience and is subject to applicable trail management objectives.

Proposed Route Option 1 crosses or runs adjacent to the Lewis and Clark National Historic Trail (LCNHT) corridor and the Lewis and Clark Special Recreation Management Area (SRMA). The official analysis area for

the LCNHT includes the ½-mile corridor on both sides of the trail centerline, as determined by the National Park Service.

Proposed Route Option 1 has been sited to avoid direct impacts to the designated trail tread where practicable. Detailed evaluation of recreation settings, access routes, outfitter operations, and potential impacts, particularly within the Lewis and Clark SRMA and the LCNHT analysis corridor, will be further refined during the NEPA/MEPA process. Preliminary commitments to avoid and minimize impacts, where avoidance is not feasible, are described in **Section 8: Mitigation Measures**.

Cropland, Prime or Unique Farmland, and Orchards

Cropland is a major land use within the study areas (Montana Natural Heritage Program, n.d.-b) as agriculture remains a central component of the regional economy and landscape.

Prime farmland soils are defined by the U.S. Department of Agriculture (USDA) as soils possessing the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops. Prime farmland is identified based on factors such as adequate moisture availability, favorable temperature regimes, acceptable soil reaction, and permeability to water and air. These soils do not need to be actively cultivated to qualify and may occur within pastureland, rangeland, or other land cover types (USDA NRCS, n.d.).

Farmland of statewide importance is also present within portions of the study areas. These soils are highly productive for agricultural use but may not meet all criteria required for prime farmland designation. These lands are important to Montana's agricultural economy and are often managed under long-term cropping or grazing systems. Their identification reflects agricultural value at the state level (USDA NRCS, n.d.).

Croplands and prime farmlands would likely be crossed where unavoidable due to their prevalence along the Project route (USDA NRCS, n.d.). Disturbance is necessary in these areas; however, it will be limited to the construction corridor, with soils and vegetation reclaimed in accordance with landowner preferences and applicable requirements to maintain soil productivity and stability. Additional BMPs and stipulations are provided in ***Section 8: Mitigation Measures.***

Irrigated cropland was identified as an Avoidance Area during the Project siting process due to the presence of irrigation infrastructure and the high agricultural productivity associated with these lands. The Project has been designed to avoid irrigated cropland. Please refer to ***Agricultural Land Use*** in ***Appendix B.***

Developed Areas and Municipal Resources

Intermediate developed areas include residential, industrial, and commercial areas adjoining cities, towns, and unincorporated communities

Developed residential, commercial, and industrial areas within and around the study areas and impact zone are generally concentrated within established municipal boundaries or clustered near major transportation routes. Residential development typically consists of low-density neighborhoods surrounding small town centers, while commercial uses, such as retail, service establishments, and local businesses, are located along primary streets and highway corridors. Industrial development is limited and generally associated with agriculture, oil and gas, other energy resources, or transportation support facilities positioned at the

periphery of these communities. Outside these developed nodes, land use transitions quickly to rural agricultural and open rangeland with minimal built infrastructure (USGS, 2024).

Construction and operation of the Project are not expected to directly affect developed residential, commercial, or industrial areas, as the pipeline alignment would be sited to avoid municipal centers and is expected to be routed primarily through rural, undeveloped land. Temporary construction activities may increase short term traffic on local roadways and contribute to minor noise or visual disturbances near community edges but these effects are expected to be temporary and minor in magnitude. Long term operations are not expected to alter community land use patterns or interfere with ongoing residential, commercial, or industrial activities given the separation between the pipeline ROW and developed areas.

No municipalities within the study areas maintain formally designated residential growth areas. Most small Montana jurisdictions either lack zoning entirely or administer only limited zoning districts. Residential development patterns around these communities are predominantly low density and market driven rather than guided by formal municipal growth management designations.

Because Proposed Route Option 1 avoids incorporated areas and is routed primarily through rural lands, the Project is not expected to conflict with municipal residential expansion planning.

Municipal watersheds within the study areas primarily consist of small public water systems, community wells, and surface water supply zones that support domestic, commercial, and emergency service needs. These watersheds provide treated drinking water, support local businesses and public facilities, and sustain essential community services. Source water protection areas associated with these systems generally occur near municipal boundaries or in proximity to community wellfields, making them important local assets.

Proposed Route Option 1 is not expected to directly affect municipal watersheds within the study area or the impact zone, as the buried pipeline is sited outside community water supply intakes, wellhead protection zones, and surface water source areas. Construction activities may result in short term, localized increases in sediment or turbidity near stream crossings; however, implementation of BMPs and HDD where appropriate will minimize the potential for downstream transport to municipal sources.

During operations, the Project will utilize measures that reduce the likelihood of an incident that could affect municipal water quality. With these measures in place, long term impacts to municipal watersheds and community drinking water systems are expected to be negligible. See ***Section 8: Mitigation Measures*** for detailed mitigation commitments.

Mines

Based on available mapping, the Proposed Route Option 1 does not intersect active or historical mining operations within the study area. Therefore, direct impacts to mining operations are not anticipated.

Platted Subdivisions

Platted subdivisions are generally limited in the study areas. Sidney has experienced comparatively higher levels of subdivision activity; however, most surrounding landscapes consist of large-parcel agricultural tracts, dispersed rural residences, and undeveloped open space.

Pipeline construction is expected to have minimal direct effects on platted subdivisions due to their limited presence. In areas where subdivisions do occur—primarily near Sidney for Proposed Route Option 1—temporary construction activities may result in short-term noise, traffic, and visual disturbance, all of which will be reduced through established mitigation measures. During long-term operation, the 50-foot permanent ROW and associated facilities would impose only minor land use restrictions, and the buried pipeline and associated monitoring and safety systems are expected to remain compatible with surrounding residential and agricultural uses.

Agricultural Experiment Stations

The Eastern Agricultural Research Center (EARC), located just northeast of Sidney, Montana, is a critical component of the Montana Agricultural Experiment Station system and serves as the primary agricultural research hub for eastern Montana. The center conducts research on approximately 120 acres of irrigated cropland and an additional 40 acres of dryland plots, supported by multiple off station field trials across neighboring counties to address the region's diverse production systems. EARC plays an essential role in advancing agronomic science for crops such as wheat, barley, pulses, oilseeds, and alternative crops, while also collaborating closely with producers and the USDA ARS Northern Plains Agricultural Research Laboratory located directly across the road. By providing locally relevant research, field trials, and outreach, the EARC supports long term agricultural productivity, crop adaptability, and resource stewardship across eastern Montana's expansive farming landscapes (Montana State University Agriculture Research, 2024; Eastern Agricultural Research Center, n.d.).

Pipeline construction near the EARC could result in short-term noise, dust, and traffic that may temporarily disrupt nearby field activities, but these effects are expected to be minor and manageable. Proposed Route Option 1 is sited approximately 6.7 miles west of EARC. Because EARC's research spans irrigated and dryland plots and off station trials across the region, it is well positioned to remain operational, and long-term pipeline operation is not anticipated to interfere with its ongoing agricultural research programs.

7.3.2 Infrastructure

Infrastructure discussions analyze the current conditions and potential Project-related impacts within the study areas.

Highways, Roads, or Scenic Byways/Routes

Interstate 94, a major east–west interstate crossing eastern Montana, passes through Wibaux, linking the area to larger regional travel and freight networks. This interstate, together with highways and smaller state and county roads, form the principal transportation framework serving the rural communities surrounding the Project corridor.

Proposed Route Option 1 crosses federal, state, and county highways, local roads, and private access roads. No designated scenic byways or routes are crossed by Proposed Route Option 1. Refer to ***Table 9: State and Federal Highway Crossings*** for details.

Construction activities may temporarily affect transportation resources due to increased traffic, equipment transport, and construction-related road use. Many roadways would be crossed using standard or specialized construction methods, as appropriate, and Bridger would implement a detailed traffic control

plan for roadway crossings. Long-term Project operations are not expected to cause major impacts on public roadways.

Table 9: State and Federal Highway Crossings

Name	State or Federal	Crossing LLD	County
State Highway 24	State	35N 40E, sec 12, SENE	Valley
State Highway 13	State	34N, 48E, sec 21, NWNE	Daniels
State Highway 16	State	34N, 56E, sec 30 SESW 24N, 58E, sec 27, NESW 21N, 58E, sec 32, NWNE	Sheridan, Richland (2x)
US Highway 2	Federal	28N, 59E, sec 30, SESW	Roosevelt
State Highway 200	State	22N, 58E, sec 8, NWNE	Richland
US Highway 12	Federal	7N, 58E, sec 4, SENE	Fallon
US Highway 212	Federal	8S, 57E, sec 10 SESE	Carter
Interstate 94	Federal	14N 59E, sec 3, Lot 1	Wibaux

Railroads and Railroad Rights-of-Way

The study area is served by the Burlington Northern Santa Fe (BNSF) Railway, Montana's main Class I rail carrier, which operates more than 2,600 miles of track across the state. BNSF mainlines and branch connections provide the principal rail transportation framework in proximity to the Project corridor and its surrounding communities.

Five crossings of the BNSF Railway occur along Proposed Route Option 1, located in Sheridan, Richland, Roosevelt, Wibaux, and Fallon Counties. Project construction will intersect existing railroad corridors at designated crossing points. All crossings would be installed in coordination with the railroad operators and in compliance with applicable federal safety regulations and railroad engineering standards. Refer to ***Table 10: Project Railroad Crossings*** for details of each crossing.

Table 10: Project Railroad Crossings

Name	County	Crossing LLD
Burlington Northern Santa Fe Railway	Sheridan	34N, 56E, sec 30, Lot 4
	Roosevelt	27N, 59E, sec 30, SENW
	Richland	21N, 58E, sec 33, NESW
	Wibaux	14N, 59E, sec 10, NENE
	Fallon	8N, 58E, sec 27, NWSE

Transmission Lines

High-voltage electric transmission infrastructure is present throughout the Project study area. Most overhead AC transmission lines are owned and operated by major utility companies such as Montana-Dakota Utilities, along with several rural electric cooperatives that serve the eastern Montana counties. While transmission line density is generally higher near population centers and substation nodes, long-distance corridors traverse portions of eastern Montana to support regional power distribution and interconnection, making transmission infrastructure a common feature near many of these rural areas.

Pipeline construction and operation are not expected to result in significant impacts on existing transmission lines. Construction may require coordination where the pipeline corridor intersects or parallels overhead lines to ensure safe equipment clearance and access, but these effects are temporary and manageable. Because the pipeline is buried, long-term operation will not interfere with transmission structures or routine utility access, and routine pipeline maintenance can occur independently of electrical infrastructure. Overall, no significant conflicts with regional transmission lines are anticipated.

Communication Facilities

Communication facilities, including broadcast towers, microwave relay sites, and emergency service networks—are distributed throughout eastern Montana. These systems support everyday broadcasting, public safety communication, and regional coordination across large, sparsely populated areas, making them important infrastructure elements for residents and emergency responders.

Available GIS data and desktop review have been used to identify major communication facilities within the study area and impact zone, with additional site-specific verification continuing as engineering progresses. Temporary, localized disruptions could occur during construction if work is conducted near buried communication lines or access routes, but these impacts would be minimized through coordination with utility providers and adherence to one-call procedures. Once operational, the pipeline is not expected to interfere with broadcast signals, emergency communications, or microwave systems, and long-term impacts are anticipated to be negligible.

Military Installations

Only two military radar installations are located near the Project corridor; however, they are not inside the study area. The former Opheim Air Force Station in Valley County is the only other installation associated with the region but is no longer active. No major bases, training centers, or large-scale military operations are present in or immediately adjacent to these communities.

The Ekalaka Mini-Multiple Threat Emitter System (MUTES) Radar Site and Hammond Mini-MUTES Radar Site, both located in Carter County, are the only active installations near the Project corridor, but they are situated outside the Project impact zone and study area and would not be directly affected by ground-disturbing activities. Because these facilities operate independently of local land uses and do not overlap the construction corridor, the Project is not expected to interfere with radar function, communication systems, or installation access. Overall, impacts to military installations would be minimal and limited to standard coordination measures, with no long-term operational effects anticipated.

Airports and Airspace

Three airports are located within the Project study area: Ekalaka Airport, Laird Ranch Airport, and Lanning Ranch Airport. Ekalaka Airport is a publicly owned, open-to-the-public facility located about two miles southeast of Ekalaka, featuring a 3,798-foot asphalt runway. Laird Ranch Airport, located southwest of Ekalaka, is a privately owned, private-use turf-runway airport with a 2,600-foot grass strip primarily supporting small private aircraft operations. Lanning Ranch Airport near Alzada is also a privately owned, private-use facility with a 3,000-foot turf runway and minimal infrastructure, serving private ranch-related aviation needs in this rural part of Carter County.

These airports are each located between two and five miles from the Project centerline in the study area, no airports are located within the impact zone. Because none of these facilities are adjacent to the construction corridor, no direct impacts to runway operations, airport access, or aviation safety are expected during construction. Pipeline operations would similarly not affect airport functions, as flight paths, navigation, and airport activity occur well outside the pipeline ROW and do not interact with ground-based pipeline infrastructure. Any aerial surveys conducted by Bridger during operations would be coordinated in advance so interferences with private and public airfields do not occur.

Major Public Buildings

Because the Project is sited primarily through rural and undeveloped lands, no major public buildings occur within the impact zone. Direct impacts to major public buildings are not anticipated.

Pipelines

Eastern Montana and more specifically, the areas within the Project study area, are crossed by multiple oil and gas transmission pipelines. This region has long served as an important corridor for interstate oil and gas transportation. A variety of corporations and companies own and operate these buried pipelines, including Bridger. Many existing pipeline infrastructure parallel or are co-located with one another to limit new ground disturbance and prevent further fragmentation of large, undeveloped landscapes.

The Proposed Route Option 1 impact zone and study area intersect with existing pipeline infrastructure; therefore, Bridger would avoid disturbance to existing pipelines and, where feasible, would parallel or co-locate within existing corridors to minimize new ground disturbance. Working in these areas of paralleling or co-locating would require coordination with current pipeline operators to maintain safe excavation distances, avoid interference with cathodic protection systems, and follow one call protocols. Construction impacts would remain localized, and the use of established corridors would reduce fragmentation and new disturbance. During operations, the Project would not affect the function of existing pipelines because each line operates independently within its own ROW, and co-located segments are designed to maintain safe separation, consistent monitoring, and compatible maintenance access. Overall, impacts on existing pipeline infrastructure would be minimal and effectively managed through standard engineering controls and operator coordination.

Schools and School Board Lands

While a certain number of schools occur within the Project study area, none are located within the impact zone. Minor increases in traffic may occur within municipal boundaries or on roadways connecting to schools resulting from Project staff commutes, however, these impacts would be temporary. Dust management efforts would be in place to mitigate the impacts on schools and other developed areas in and near municipalities and other communities. Long-term Project operations are not expected to have any impact on schools or school board lands.

Isolated Residences and Farm Support Buildings

Rural Montana is characterized by isolated residences, homesteads, ranches, and farms. Many of these features operate far from towns or clustered development, reflecting the area's low population density and dependence on land-based livelihoods.

By siting the Proposed Route Option 1 primarily through rural and undeveloped lands, potential conflicts with residences, commercial structures, or other buildings will be minimized. Bridger will continue to coordinate with landowners to make localized route adjustments to avoid and minimize impacts to existing residences, farm or ranch support buildings, and any other relevant infrastructure. Pipeline construction across private agricultural lands may temporarily disrupt normal ranching and farming operations through short term restrictions on access, equipment movement, and grazing or cropping activities. Where construction activities occur near structures such as outbuildings, standard construction methods and BMPs would be implemented to reduce potential impacts. During operations, the buried pipeline will not interfere with routine agricultural use, and landowners will retain the ability to cultivate crops, graze livestock, and access their property and buildings with only minor limitations on deep excavation within the permanent ROW. Construction- and operation-related impacts to buildings located on private property are not expected.

Fence Lines

Detailed, site-specific fence line discussions would occur directly with individual landowners during ROW negotiations and final design refinement. These discussions will allow landowners to identify concerns and preferences related to fence locations, construction sequencing, temporary or permanent fence modifications, livestock control measures, access requirements, and post-construction restoration consistent with landowner preferences and operational needs. Outcomes of these landowner-specific discussions, including agreed-upon measures for fence protection and restoration, will be documented in ROW agreements and incorporated into Project construction and reclamation plans.

7.3.3 Recreational Facilities (Circular MFSA-2 Section 3.7(16), 3.8(1)(e))

Public lands crossed by or adjacent to the Project are used for a variety of dispersed and developed recreational activities. Recreation settings within the Project area are generally rural and open in character and support activities including hunting, fishing, hiking, wildlife viewing, camping, horseback riding, boating, sightseeing, and outfitted recreational use. Designated recreational areas located near the Proposed Route Option 1 are discussed below. Please refer to the ***Recreation and Sensitive Natural Areas Map*** in ***Appendix B*** for a visual representation of these areas.

Project temporary and permanent access road routes are continuing to be refined; associated recreation impact discussions will be updated, as appropriate.

A detailed evaluation of recreation settings, access routes, outfitter operations, and potential impacts to nearby designated recreation areas will be conducted during the NEPA/MEPA process in coordination with the appropriate land management agencies.

Consistent with Circular MFSA-2 requirements to evaluate potential effects on recreational resources, available GIS data and desktop review have been used to identify recreational settings and nearby designated recreation areas within the study area. Additional site-specific evaluation of recreation settings, access routes, outfitter operations, and potential impacts, particularly where the route approaches designated recreation areas, will be further refined during the NEPA/MEPA process in coordination with the appropriate land management agencies.

Lewis and Clark Special Resource Management Area and Lewis and Clark National Historic Trail

The Project crosses or runs adjacent to the Lewis and Clark SRMA, managed in accordance with applicable BLM land use plan direction to support recreational use and protect scenic and natural resource values, including opportunities for both land- and water-based recreation.

The Project also crosses river corridors associated with the LCNHT. The LCNHT generally follows portions of the Missouri and Yellowstone Rivers. While the National Park Service serves as the lead administrative agency for the NHT, the BLM assists with management and administration of the trail within certain Field Offices. The LCNHT is considered a historic resource under the National Trails System Act and may also qualify as a historic property for the purposes of Section 106 of the National Historic Preservation Act (NHPA). Recreation along these river corridors contributes to the NHT visitor experience and is subject to applicable trail management objectives.

Recreation Area Access

Temporary access restrictions may occur for safety during construction. Bridger would coordinate with BLM and NPS to maintain trail integrity, access where feasible, and provide advance notice of closures. NEPA/MEPA review will further evaluate access and outfitter use impacts.

Aesthetic Impacts to Recreation Areas

The Lewis and Clark SRMA is classified as a Class II VRM area by the BLM (Miles City Field Office Approved Resource Management Plan, 2015). The management objective of these areas is to retain the landscape's existing character, but some light modifications are allowed. BMPs will be employed in accordance with BLM guidance and the VRM handbook to maintain the SRMA's natural landscape.

While no aboveground facilities are proposed within the SRMA and LCNHT corridor, and river crossing is planned to be completed by HDD, the temporary staging and use of construction equipment could result in short-term visual disturbance. Any ground disturbance near the SRMA and LCNHT would be reclaimed following construction in accordance with applicable permit requirements.

Project Location Relative to Recreation Areas

The Project route options cross both the Lewis and Clark SRMA and the LCNHT Missouri and Yellowstone River corridors.

Recreation Area Activities

Visitors can travel the LCNHT by car, bicycle, or boat, following roads and river routes that parallel the Expedition's original path. The Trail and SRMA offer hiking, wildlife viewing, photography, picnicking, and interpretive/historical sites, among other activities.

Recreation Area Uniqueness and Opportunity

The LCNHT and Lewis and Clark SRMA follow the Missouri and Yellowstone River corridors in and are valued for their prairie vistas, river scenery, and historic sense of place.

Recreation Management Agency Consultation

Consistent with Circular MFSA-2, available GIS data and desktop review have been used to preliminarily evaluate the Project's relationship to the LCNHT and SRMA. Additional detailed evaluation, including effects on historic integrity (setting, feeling, and association), visitor experience, and interpretive opportunities, will be further refined during the NEPA/MEPA process in coordination with the BLM, NPS, and SHPO.

This evaluation is expected to include identification of character-defining features within the official ½-mile corridor, quantification of temporary disturbance and permanent ROW within the SRMA, and assessment of visual impacts consistent with BLM VRM Class II objectives.

Custer National Forest

The Project route options would not cross or directly affect units of the Custer National Forest. The closest portion of the Project is located approximately 0.6 miles from the Custer National Forest, and no National Forest System lands would be crossed or used for construction, operation, or maintenance of the Project.

Brush Lake State Park

In Sheridan County, Brush Lake State Park is within the study area of Proposed Route Option 1, but is not crossed by Proposed Route Option 1, nor is it situated within the impact zone. The state park is home to a remote, highly alkaline lake surrounded by grasslands in northeastern Montana, offering quiet recreation opportunities.

Recreation Area Access

Brush Lake State Park is reached by a combination of paved state highways and a short county road. It is unlikely that the Project will require use of the county road, however paved state highways may be utilized and/or crossed by Proposed Route Option 1, likely causing brief traffic disruptions for visitors approaching or leaving the recreation area.

Aesthetic Impacts to the Recreation Area

Because Proposed Route Option 1 does not cross Brush Lake State Park and remains outside the impact zone, measurable visual effects on park recreation settings are not expected. Any temporary visibility of construction activities from distant viewpoints would be limited in duration and reduced through standard construction controls and prompt reclamation.

Project Location Relative to the Recreation Area

At the closest point, Brush Lake State Park is within two and a half miles from the Proposed Route Option 1 centerline. The state park lies within the Project study area; however, it is not within the impact zone, nor does the Proposed Route Option 1 corridor intersect the park.

Recreation Area Activities

Brush Lake State Park offers a range of recreation opportunities centered around its namesake lake. Swimming, motorized boating, watersports, picnicking, hiking, and wildlife/bird watching are the Park's

primary recreation activities. The park offers a day-use area with a boat ramp, dock, and picnic facilities. Brush Lake State Park also provides camping, including electric sites.

Recreation Area Uniqueness and Opportunity

Brush Lake State Park contains a 65-foot-deep alkaline lake with white sand beaches set amid grasslands and spring wheat. The lake's unusual chemistry supports a specialized habitat and recreational backdrop.

Recreation Management Agency Consultation

Bridger will consult with Montana Fish, Wildlife & Parks (FWP) as appropriate to determine whether implementation of BMPs is required.

Medicine Rocks State Park

In Carter County, Medicine Rocks State Park is located within the Project study area but is not crossed by any of the route options and is outside the impact zone. Medicine Rocks State Park features sandstone formations, creating a distinct landscape amid the rolling prairie.

Recreation Area Access

Medicine Rocks State Park is accessed primarily via Montana Highway 7, which runs between the towns of Baker and Ekalaka. During construction, short-term use of existing state highways or increased traffic near Medicine Rocks State Park could result in brief, localized traffic control near routes used by park visitors. These interruptions are expected to be short-term and localized.

Aesthetic Impacts to the Recreation Area

Because the Proposed Route Option 1 does not cross Medicine Rocks State Park and remains outside the impact zone, it is not anticipated that there will be any adverse aesthetic impacts to the recreation area.

Project Location Relative to the Recreation Area

Medicine Rocks State Park is located approximately three miles east of the Proposed Route Option 1. The park is within the Project study area, outside of the impact zone, and will not be intersected by the Project in any capacity.

Recreation Area Activities

Medicine Rocks State Park offers hiking, biking, camping, and wildlife viewing.

Recreation Area Uniqueness and Opportunity

Medicine Rocks State Park is best known for its sandstone pillars. These formations also contain Native American rock art.

Recreation Management Agency Consultation

Bridger would consult with Montana Department of Fish, Wildlife, and Parks as appropriate to determine whether implementation of BMPs required before construction near Medicine Rocks State Park begins.

Class I or II Waters

Class I waters are navigable rivers capable of supporting commercial activity. Within the Project area, the Missouri and Yellowstone Rivers are designated as Class I waters. The Missouri River will be crossed approximately 1.8 miles southeast of Lakeside, Montana, where the river is roughly 1,000 feet wide. The Yellowstone River will be crossed approximately 2.8 miles south of Crane, Montana, where the river is roughly 1,100 feet wide. Both river crossings are located adjacent to privately owned lands.

The utilization of HDD for both Class I crossings will avoid any impacts to commercial activities.

As defined in MCA (23-2-301(3), MCA), Class II waters include all surface waters that are not classified as Class I, excluding lakes. For purposes of this application, Class II waters are identified using the USGS National Hydrography Dataset (NHD) and mapped features along the Project corridor. This includes both natural stream channels and certain constructed waterways. The Project route crosses several Class II waters. Please refer to the ***Water Resources Map*** in ***Appendix B*** for a visual representation of these water bodies.

Pipeline crossings of Class II waters will use HDD or bore methods wherever feasible, avoiding disturbance to the stream channel and immediate banks. Overall, long-term impacts to Class II waters, including seasonal or low-flow streams, are expected to be low, localized, and largely unnoticeable, with temporary construction impacts minimized through the use of BMPs, erosion control measures, and reclamation practices.

7.3.4 Historic, Archaeological, and Paleontological (Circular MFSA-2 Section 3.4(10a), 3.7(13 and 14))

Historic and Archaeological Resources

Prehistoric and Historic Overview of the Study Area

Eastern Montana contains a rich and varied cultural history which can be categorized into four prehistoric periods and the later historic period. Of the prehistoric periods, these four divisions can be further broken down into a multitude of human complexes associated with different food procurement strategies and technological advances. While very valid for a professional archaeological perspective, further analysis of the five periods of time is unwarranted for the purpose of overview and will be omitted from this document.

Prehistory in regard to human occupation in Montana begins with the Paleoindian Period, which ranges from 12,000 Before Present and continues until 8,000 Before Present. During this time span, humans residing on the Plains led a highly migratory lifestyle. This was in great part to the necessity of these populations to follow and exploit late Pleistocene animals and harvest associated plant life.

Of these populations the most well recognized Paleoindian group for this period is referred to as the Clovis complex. Clovis is categorized by a distinct, basally fluted projectile point; these points, along with associated material, are the earliest unequivocal evidence of a Paleoindian complex in North America. Clovis projectiles have been best known from areas such as the Colby mammoth kill site in Wyoming. Other

complexes include, but are not limited to, Goshen, Folsom, Agate Basin, Hell Gap, Alberta, and Cody. All previously mentioned Paleoindian complexes mark technological or style changes which can be followed throughout time.

Directly following the Paleoindian Period is the Archaic Period. This period ranges from 8,000 Before Present to 1,500 Before Present and is marked by a shift from stemmed lanceolate projectiles to the use of large side notched forms. This indicates a drastic change in technology, where the emphasis in the Archaic Period changes from that of utilizing hand thrown spears toward the use of a propelled dart or atlatl. Not only is there a severe technological shift but a drastic climate change as well. This paleoclimatic change in turn triggered differing subsistence strategies, which may have emphasized an increased dependence on floral resources throughout the Plains.

The invention of the bow and arrow reflects a technological innovation which marks the Late Prehistoric Period that ranged from 1,500 Before Present to 250 Before Present. During this time human populations increased dramatically across the region which is evident from an increase in radiocarbon dating localities. Subsistence strategies carried along the same routes as the two earlier periods in the form of migratory hunting strategies and limited horticulture. The late prehistoric period also offers a diverse palate of rock art examples. This art ranges from fertility representations to grandiose depictions of bison hunts strewn across rock shelter walls.

The Protohistoric Period (250 to 130 Before Present), which is poorly represented in material remains in eastern Montana is categorized by major population migrations as well as significant changes involved with material culture. Native populations acquired the horse and increasing numbers of firearms and respectively began to utilize both, perhaps no other introduction was as significant a catalyst to the mobile ethnohistoric cultures of the Plains. Trade goods became very common during this period as did the introduction of metal tools, glass beads, and textiles.

Historical context in relation to this area is well documented, ranging from early expansion and the fur trade to Euro American settlement in the form of Homesteads and the expanse of agriculture. Railroads and collaborative highway efforts all shaped the area, as did the interactions between the native populations and the expanding Euro American groups. These interactions directly resulted in multiple treaties between the US government and various tribal entities, which in a way, now shape the manner in which some 12,000 years of history must now be addressed.

Cultural Resources

Protection of cultural resources is controlled by federal statutes and regulations that govern identification and protection of cultural resources potentially affected by federally authorized activities. These laws include the Antiquities Act of 1906, Historic Sites Act of 1935, Executive Order 13007, Executive Order 11593, Archaeological and Historic Preservation Act of 1974, Archaeological Resources Protection Act of 1979, and Section 106 of the NHPA of 1966, as amended. Together, these authorities establish the framework for cultural resource identification, evaluation, and consultation.

The Project crosses river corridors associated with the LCNHT a federally designated National Historic Trail administered by the National Park Service in coordination with other federal land management agencies. The LCNHT is considered a historic resource under the National Trails System Act and may also qualify as a historic property for the purposes of Section 106 of the NHPA.

Consistent with Circular MFSA-2, available GIS data and desktop cultural resource information have been reviewed to identify the Project's relationship to the LCNHT. Additional site-specific evaluation of potential effects—including effects on historic integrity (setting, feeling, and association), visitor experience, and interpretive opportunities—will be further refined during the NEPA process in coordination with the BLM, NPS, and SHPOs. This evaluation will include identification of character-defining features within the official ½-mile corridor, quantification of temporary disturbance and permanent ROW within the SRMA, and assessment of visual impacts.

Cultural resource consultation with the Montana SHPO will be conducted consistent with applicable federal and state requirements, including the Section 106 review process, to identify and resolve potential effects to historic and archaeological properties. The BLM, in coordination with the Montana SHPO, other federal and state agencies, Bridger, and affected Tribal Nations, is developing a Programmatic Agreement (PA) to establish the framework for resource identification, management, and consultation on cultural and tribal resources. The BLM will initiate early communication with the appropriate SHPOs and Tribal Historic Preservation Offices (THPOs) to share project details and identify areas of potential concern.

The BLM will serve as the lead federal agency for NHPA compliance. Following approval of the PA, the BLM will initiate consultation with MT SHPO, which will include review of cultural resource surveys, evaluation of potential impacts to historic properties, and consideration of measures to avoid, minimize, or mitigate adverse effects to known cultural resources. The BLM and Bridger will document consultation activities and findings, incorporate SHPO recommendations into Project planning as appropriate, and implement the requirements of the NHPA, the PA, and applicable state regulations. Refer to Section 8 for mitigation.

Paleontological Resources

Bridger has applied the Potential Fossil Yield Classification (PFYC) system to geologic units within the Project area based on an analysis of existing paleontological data (BLM, 2025).

Occurrences of paleontological resources are closely tied to the geologic units (i.e., formations, members, or beds) that contain them. The probability of finding paleontological resources can be broadly predicted from the geologic units present at or near the surface. Therefore, geologic mapping can be used for assessing the potential for the occurrence of paleontological resources.

Using the PFYC system, geologic units are classified based on the relative abundance of vertebrate fossils or scientifically significant invertebrate or plant fossils and their sensitivity to adverse impacts, with a higher class number indicating a higher potential (U.S. Department of the Interior, Bureau of Land Management , 2016). This classification is applied to the geologic formation, member, or other distinguishable unit, preferably at the most detailed mappable level. It is not intended to be applied to specific paleontological localities or small areas within units. Although significant localities may occasionally occur in a geologic unit, a few widely scattered important fossils or localities do not necessarily indicate a higher class; instead, the relative abundance of significant localities is intended to be the major determinant for the class assignment.

The PFYC system is meant to provide baseline guidance for predicting, assessing, and mitigating paleontological resources. The classification should be considered at an intermediate point in the analysis and should be used to assist in determining the need for further mitigation assessment or actions.

Class	Description	Characteristics
		• Unit is frequently the focus of illegal collecting activities.
U	**Unknown Potential:** Geologic units that cannot receive an informed PFYC assignment.	• Geological units may exhibit features or preservational conditions that suggest significant paleontological resources could be present, but little information is known. • Geological units represented on a map are based on lithologic character or basis of origin, but have not been studied in detail. • Scientific literature does not exist or does not reveal the nature of paleontological resources. • Reports of paleontological resources are anecdotal or have not been verified. • Area or geologic unit is poorly or under-studied. • BLM staff has not yet been able to assess the nature of the geologic unit.
I	**Ice:** Includes any area that is mapped as ice or snow. Receding glaciers, including exposed lateral and terminal moraines should be considered for their potential to reveal recently exposed paleontological resources. Other considerations include melting snow fields that may contain paleontological resources with possible soft-tissue preservation.	• None
W	**Water:** Includes any surface area that is mapped as water. Most bodies of water do not normally contain paleontological resources. However, shorelines should be carefully considered for uncovered or transported paleontological resources. Reservoirs are a special concern because important paleontological resources are often exposed during low water intervals. In karst areas sinkholes and cenotes may trap animals and contain paleontological resources. Dredging river systems may result in the disturbance of sediments that contain paleontological resources.	• None

Source: BLM, 2016.

7.3.6 Visual (Circular MFSA-2 Section 3.4(9), 3.7(11), 3.8(1)(b))

The following areas (identified through GIS review consistent with Circular MFSA-2 Section 3.7(10)(h)), are either crossed by the Proposed Route Option 1 or are located within ¾ mile:

- Bitter creek WSA (~¾ mile)
- Medicine Lake NWR (within 1,000 feet)
- Custer National Forest (~¾ mile)
- LCNHT/SRMA
- Class I and Class II Rivers and Streams

These resources were considered during route selection to avoid or minimize potential visual effects where practicable. Please refer to ***Table 15*** for descriptions of VRM BLM classifications and to the ***Montana Visual Resource Areas Map*** found in ***Appendix B***.

Table 15: VRM BLM Classifications

VRM Class	Management Objective	Description
Class I	Preserve the existing character of the landscape.	The objective is to preserve the existing character of the landscape. This class provides for natural ecological changes; however, it does not preclude very limited management activity. The level of change to the characteristic landscape should be very low and must not attract attention.
Class II	Retain the existing character of the landscape.	The objective is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.
Class III	Partially retain the existing character of the landscape.	The object is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention, but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.
Class IV	Allow major modification of the existing character of the landscape.	The objective is to provide for management activities which require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high. Management activities may dominate the view and may be the major focus of viewer attention. However, the impact of these activities should be minimized through careful siting, minimal disturbance, and repeating the basic elements of form, line, color, and texture within the existing setting.

Source: BLM, n.d. Study Area Landscape Description

Bitter Creek WSA

The Bitter Creek WSA is managed by the BLM and spans roughly 59,000 acres. Its terrain is broadly flat to gently rolling, with only modest elevation variation. Bitter Creek WSA is identified by the BLM as a Class I VRM area.

The northernmost point of the WSA is about ¾ mile from the Project Proposed Route Option 1; the Project does not traverse into the WSA at any point. The pipeline will be buried, and one mainline valve is sited near the WSA, thus creating minimal impact to the visual character and integrity of the area. All construction, operation, and maintenance associated with the Project will follow BLM VRM specifications where necessary. Active construction activities may be visible from the northernmost point of the WSA, however the presence of construction equipment and personnel on the permanent ROW will be temporary and brief. Surface disturbance would be limited to the minimum necessary, and construction activities would be coordinated to reduce both the duration and extent of visual disruption. The natural character, ecological integrity, and recreational values of the area are expected to be maintained during construction and operations.

If and where necessary, consultation with the BLM may occur to determine effective BMPs and other stipulations when traversing near the WSA.

Medicine Lake National Wildlife Refuge

The easternmost point of the NWR is within 1,000 feet of the Proposed Route Option 1; the Project does not intersect the refuge. Temporary construction visibility may occur, but the buried pipeline and minimal aboveground features will maintain the area's visual integrity. HDD installation will further reduce surface disturbance. Coordination with USFWS will occur as needed for BMPs.

Custer National Forest

The Project routes pass approximately ¾ mile west of Custer National Forest parcels. These units feature isolated ponderosa pine stands, sandstone formations, and scenic badlands. The pipeline will be buried, and no aboveground facilities will be constructed within the forest. Consultation with USFS may occur to identify BMPs or stipulations to preserve visual integrity.

Lewis and Clark National Historic Trail and Special Recreation Management Area

The LCNHT and SRMA along the Yellowstone and Missouri River corridors provide broad prairie river valleys, sandstone bluffs, and undeveloped vistas with high scenic integrity. The Project crosses these areas at two points using HDD or bore methods, ensuring no ground disturbance within the corridors. Visual impacts will be limited to two small MLVs placed outside ordinary high-water marks, painted in neutral earthtone colors to minimize contrast. KOPs and Visual Contrast Ratings (VCRs) will be completed during the NEPA/MEPA process to evaluate potential changes in form, line, color, and texture. Coordination with the BLM and NPS will occur to ensure effective mitigation measures are applied. Consultation with the NPS and BLM may occur to determine BMPs and stipulations that ensure the Project avoids impacts on the LCNHT and SRMA.

All construction will employ BMPs, minimize surface disturbance, and maintain the scenic, cultural, and ecological integrity of sensitive areas. Long-term visual impacts are expected to be low and localized, with the buried pipeline preserving the expansive, undeveloped character of the study area.

Class I Waters

The Project crosses both the Missouri and Yellowstone River at one point along the Proposed Route Option 1. The Project's underground pipeline crossings of the Missouri and Yellowstone Rivers are designed to minimize long-term visual impacts. The pipeline will be installed beneath these features using HDD or other trenchless methods, eliminating surface disturbance within the ordinary high-water mark and maintaining the natural appearance of the stream banks and adjacent riparian areas. The aboveground mainline valves located on either side of both crossings would represent the primary long-term visible features; however, these facilities are limited in scale, would be finished in neutral tones, and are set back from the river corridors, which reduces visual contrast and limits the geographic extent of visibility. Temporary construction-phase visibility such as equipment or workspaces would be temporary and would end following completion of construction and reclamation. Overall, the Project's visual effects on Class I waters are expected to be localized and predominately associated with short-term construction activity.

Bridger will coordinate with applicable federal and state agencies to confirm appropriate BMPs and stipulations for the Missouri and Yellowstone River crossings.

Class II Waters

Under Montana's Stream Access Law, Class II waters are defined as all surface waters that are not Class I waters, except lakes (Mont. Code Ann. § 23-2-301(3), 2025). These waters are typically narrow, intermittently flowing channels set within broad prairie and badland landscapes. Overall, scenic attractiveness is moderate, characterized by quiet, intact prairie waterways that enhance the visual texture of eastern Montana's working rural landscape.

Cultural influences along Class II streams are present but diffuse, often tied to historic ranching, early settlement patterns, and long-standing agricultural use of adjacent uplands, while the streambeds themselves remain undeveloped due to private ownership and limited navigability.

The Proposed Route Option 1 crosses several Class II waters. Because the pipeline will be installed beneath these features using HDD or bore methods, no ground disturbance will occur within the stream channel or its immediate banks, preserving the natural appearance of these corridors. The only visible long-term elements would be the two mainline valves placed outside the ordinary high-water mark on either side of each crossing; these installations are small in scale, painted with neutral earthtone colors, and would introduce only minor, localized contrast within otherwise intact prairie or shrub grassland settings. Given that Class II streambeds are privately owned and generally undeveloped, the buried alignment and limited aboveground infrastructure are expected to result in low, localized, and largely unnoticeable visual impacts.

Bridger will coordinate with applicable federal and state agencies to confirm appropriate BMPs and stipulations for the Missouri and Yellowstone River crossings.

Facility Incompatibility with Agency Visual Management Plans

Based on the Project's design, siting, and distance from visually sensitive resources, the facility is expected to be consistent with applicable agency visual management objectives. For features intersected by the Proposed Route Option 1 —such as designated river corridors, the Lewis and Clark SRMA, and Class I and II waters—Bridger plans to use HDD or other trenchless methods, as appropriate, to install the pipeline beneath these areas, avoiding ground disturbance within their boundaries. Because HDD installation places

the pipeline at substantial depth and limits surface activity to discrete entry and exit points, long term visual changes will be minimal, and no incompatibility with relevant visual management requirements is anticipated. Bridger will coordinate with applicable land management agencies to confirm compliance with visual resource management requirements and associated permit conditions.

Please refer to the ***Recreation and Sensitive Natural Areas Map*** and the ***Water Resources Map*** in ***Appendix B*** for a visual representation of these resources.

7.3.7 Air Quality

Baseline Data and Description

The air quality section in this document describes the applicable federal and state (Montana) air quality regulatory programs and also presents a summary of the emissions from the proposed facilities to be located in Montana.

Construction emissions will occur during the construction of the proposed pipeline. Operational emissions will be limited to the proposed pump stations to be located along the pipeline. The proposed pump stations are to be electrically driven, with electricity to be provided by local electric utilities. The pump stations will not include a source of backup power supply; therefore, operational emissions from each of the pump stations will consist only of fugitive emissions.

National Ambient Air Quality Standards

The EPA has established National Ambient Air Quality Standards (NAAQS) for six common air pollutants, commonly referred to as criteria pollutants:

- Ozone (O_3);
- Nitrogen dioxide (NO_2);
- Carbon monoxide (CO);
- Sulfur dioxide (SO_2);
- Lead (Pb); and
- Particulate matter (PM) including particulate matter with an aerodynamic diameter less than or equal to 10 microns (PM_{10}) and particulate matter with an aerodynamic diameter less than or equal to 2.5 microns ($PM_{2.5}$).

NAAQS include primary standards, which are designed to protect public health with an adequate margin of safety, and secondary standards, which are intended to protect public welfare, including visibility, vegetation, crops, animals, and materials. The standards reflect the relationship between pollutant concentrations and health and welfare effects and are based on scientific assessments of air quality impacts. *See* 40 CFR Part 50.

Under the Clean Air Act (CAA), each state is required to implement and enforce the NAAQS through State Implementation Plans (SIPs) that are subject to EPA approval. SIPs contain the rules, monitoring requirements, and permitting programs necessary to ensure attainment and maintenance of the NAAQS.

Areas that do not meet one or more NAAQS are designated as nonattainment areas. For ozone, nonattainment areas are classified as marginal, moderate, serious, severe, or extreme depending on the severity of the violation. These classifications establish deadlines and emission control requirements necessary to achieve compliance with the applicable standards.

Montana has adopted Montana Ambient Air Quality Standards (MAAQS), which generally incorporate the federal NAAQS and also include several state-specific ambient air standards. *See* ARM Subchapter 17.8.2.

Prevention of Significant Deterioration

The Prevention of Significant Deterioration (PSD) program is designed to prevent significant deterioration of air quality in areas that meet the NAAQS. PSD review applies to proposed new major stationary sources or major modifications to existing sources that have the potential to emit regulated air pollutants above specified thresholds.

PSD regulations establish maximum allowable increases in ambient pollutant concentrations, known as PSD increments, above established baseline levels. These increments vary depending on the classification of the area in which a project is located. Class I areas, which include certain national parks and wilderness areas, allow only very small increases in air pollutant concentrations in order to preserve air quality in these sensitive environments. Class II areas, which include most areas of Montana, allow moderate increases associated with controlled economic growth and industrial development.

Under the PSD program, a facility is considered a major stationary source if it belongs to one of the listed source categories under Section 169 of the CAA and has the potential to emit 100 tons per year (tpy) or more of any regulated pollutant, or if it is another stationary source with the potential to emit 250 tpy or more of any regulated pollutant.

The Project will not have stationary sources that are included as one of the named source types listed in Section 169 of the Act; therefore, 250 tpy is the threshold for major source status. Based on preliminary design, potential emissions from operation of the pipeline and its associated facilities are not expected to have the potential to emit regulated pollutants above the applicable major source thresholds. Accordingly, the proposed facilities are not expected to qualify as major stationary sources under the PSD program, and PSD permitting requirements would not apply.

7.4 Natural Environment (Circular MFSA-2 Section 3.7(8), 3.8(1)(c))

Electronic maps associated with the natural environment surrounding the Project are in ***Appendix B.*** Temporary and permanent access road routes continue to be refined; as additional natural resource considerations associated with finalized access routes are further refined, Bridger will update MTDEQ and all other relevant agencies . The following analysis reflects current route development and available environmental data. As engineering design advances, the analysis will be refined to incorporate site-specific information consistent with Circular MFSA-2 requirements.

7.4.1 Vegetation

Vegetation communities within the proposed route study areas were identified using interpretation of aerial imagery and existing land cover datasets. Four primary vegetation types were identified: agriculture, forest, grassland, and wetlands/riparian areas. Distribution of these vegetation types is influenced by local variations in topography, elevation, slope aspect, moisture availability, and soil type.

Agriculture

Agricultural lands occur throughout the majority of the study areas are largely associated with gently rolling plains. These lands include hay fields composed of grasses, legumes, or mixed grass–legume species, as well as cultivated cropland used for annual crop production. Current crop presence will be updated based on the most recent USDA Cropland Data Layer (Boryan et al., 2014; Boryan et al., 2011).

Agricultural vegetation within the study area primarily consists of actively managed herbaceous cover subject to seasonal disturbance through tillage, harvest, mowing, and crop rotations.

Construction activities would result in short-term disturbance to agricultural vegetation within the construction corridor through clearing, grading, trench excavation, and temporary loss of vegetative cover. Long-term operational impacts are expected to be minor because agricultural land uses typically return to pre-construction practices following reclamation and stabilization, provided topsoil handling and revegetation commitments are implemented in accordance with landowner agreements and agency-approved plans.

Forest

Forest land within the Project region is characterized by natural or semi-natural woody vegetation generally exceeding 5 meters in height, with canopy cover ranging from 25 to 100 percent (USEPA 2026). Forest cover in the regional landscape is limited and occurs primarily as riparian or gallery forests along rivers and larger drainages rather than extensive upland woodlands.

Consistent with the Montana Field Guide (MTNHP, n.d.) and the National Land Cover Database (USGS, 2024), riparian forests in the area commonly include plains cottonwood (Populus deltoides) and associated deciduous woody species. Junipers (Juniperus spp.) may occur in localized upland settings, though upland forests are sparse.

During route development, forested lands were considered an avoidance resource. Forest cover is not present within one-half mile of the six proposed Montana pump station locations. At Class I and Class II waterbody crossings, forested vegetation is typically limited to narrow riparian zones adjacent to channels.

Pipeline construction could result in minor, localized vegetation clearing where forested areas cannot be avoided. Any clearing would represent a direct, short-term impact; long-term impacts would be reduced through reclamation of trench and work areas. Because all Class I and II crossings are proposed to be completed using horizontal directional drilling (HDD) or bore methods, tree and shrub clearing adjacent to major streams is expected to be minimal.

Grassland

Grasslands and rangelands represent the predominant land cover type across much of the Project region. These areas consist of native and introduced herbaceous vegetation, typically with minimal tree cover.

Within one-half mile of the six Montana pump stations, grassland and rangeland are the dominant cover types, with cropland and hay land present in lesser extents. At Class I and II waterbody crossings, the proportion of grassland decreases locally, with riparian forests and wetlands occupying the immediate corridor adjacent to the stream channel.

Construction will temporarily alter grassland communities within the ROW through clearing, trenching, soil stockpiling, and equipment traffic. Disturbed areas will be reclaimed and reseeded using agency-approved or landowner-approved seed mixes. Grassland vegetation is expected to return toward pre-construction conditions within standard monitoring timeframes, consistent with permit and landowner requirements.

Because HDD or bore methods will be used at all Class I and II crossings, long-term grassland impacts near major waterbodies are expected to be limited.

Wetlands and Riparian Areas

Within the Project region, wetlands and riparian areas occur primarily along drainages, floodplains, depressions, and other locations influenced by shallow groundwater or periodic inundation. NRCS defines riparian areas as transitional zones between terrestrial and aquatic ecosystems with distinct soil and vegetation characteristics shaped by the presence of free or unbound water in the soil. These areas often overlap with wetlands and constitute important ecological components that contribute to water quality, bank stabilization, flood attenuation, habitat, and movement corridors.

Wetlands and riparian areas in the Project region are limited in overall extent relative to surrounding uplands. Riparian vegetation may include cottonwood stands, willow species, emergent marsh vegetation, herbaceous wetland plants, and hydric soil communities.

Where wetlands or riparian areas are present within the ROW, construction could result in short-term direct impacts caused by vegetation clearing, ground disturbance, and temporary alteration of hydrologic conditions. Mitigation measures—including compliance with applicable permitting requirements, restoration of hydrology, minimization of heavy-equipment impacts, and use of agency-approved wetland revegetation practices—will reduce long-term impacts. HDD or bore methods at all Class I and II water crossings greatly limit direct disturbance to riparian vegetation at major streams.

Noxious Weed Presence, Dispersion, and Control (Circular MFSA-2 Section 3.8(1)(d))

Project-level noxious weed surveys are being completed in coordination with final routing and access planning. Survey results will be incorporated into subsequent filings and used to inform site-specific mitigation, as appropriate. Refer to ***Table 16: State and County-Listed Noxious Weeds*** for a list of noxious weeds regulated along the project corridor.

Surface disturbances from pipeline construction and operation can create conditions that increase the potential for the introduction and spread of noxious and invasive plant species, particularly through ground disturbance, soil movement, equipment tracking, and newly exposed surfaces. To minimize favorable

conditions, Bridger will implement the practices and commitments outlined in ***Section 8*** of this application, and in the Bridger Pipeline Expansion Noxious Weed Management Plan (NWMP). The NWMP is designed to prevent, detect, and control noxious and invasive weed species consistent with State, regulatory, and local requirements.

Table 16: State and County-Listed Noxious Weeds

Common Name	Scientific Name	Listing Agency	Priority Status	Native/ Non-native
Blueweed	*Echium vulgare*	State	1B	Non-native
Bohemian Knotweed	*Polygonum x bohemicum*	State	1B	Non-native
Brazillian Waterweed	*Egeria densa*	State	3	Non-native
Canada Thistle	*Cirsium arvense*	State	2B	Non-native
Cheatgrass	*Bromus tectorum*	State	3	Non-native
Common Buckthorn	*Rhamnus cathartica*	State	2A	Non-native
Common Burdock	*Arctium minus*	Carter County; Fallon County	NA	Non-native
Common Hound's-tongue	*Cynoglossum officinale*	State	2B	Non-native
Common Mullein	*Verbascum thapsus*	Carter County	NA	Non-native
Common St. John's-wort	*Hypericum perforatum*	State	2B	Non-native
Common Tansy	*Tanacetum vulgare*	State	2B	Non-native
Curly-leaf Pondweed	*Potamogeton crispus*	State	2B	Non-native
Dalmatian Toadflax	*Linaria dalmatica*	State	2B	Non-native
Diffuse Knapweed	*Centaurea diffusa*	State	2B	Non-native
Dyer's Woad	*Isatis tinctoria*	State	1A	Non-native
Eurasian Water-milfoil	*Myriophyllum spicatum*	State	2A	Non-native
European Common Reed	*Phragmites australis ssp. australis*	State	1A	Non-native
Field Bindweed	*Convolvulus arvensis*	State	2B	Non-native
Flowering-rush	*Butomus umbellatus*	State	2A	Non-native
Giant Knotweed	*Polygonum sachalinense*	State	1B	Non-native
Hoary False-alyssum	*Berteroa incana*	State	2B	Non-native
Hydrilla	*Hydrilla verticillata*	State	3	Non-native
Japanese Knotweed	*Polygonum cuspidatum*	State	1B	Non-native
Kingdevil Hawkweed	*Hieracium praealtum*	State	2A	Non-native
Leafy spurge	*Euphorbia virgata*	State	2B	Non-native
Meadow Hawkweed	*Hieracium caespitosum*	State	2A	Non-native
Medusahead	*Taeniatherum caput-medusae*	State	1A	Non-native
Orange Hawkweed	*Hieracium aurantiacum*	State	2A	Non-native
Oxeye Daisy	*Leucanthemum vulgare*	State	2B	Non-native
Parrot Feather Water-milfoil	*Myriophyllum aquaticum*	State	3	Non-native
Perennial Pepperweed	*Lepidium latifolium*	State	2A	Non-native
Poison Hemlock	*Conium maculatum*	Carter County; Fallon County	NA	Non-native
Russian Knapweed	*Acroptilon repens*	State	2B	Non-native

Common Name	Scientific Name	Listing Agency	Priority Status	Native/ Non-native
Russian Olive	*Elaeagnus angustifolia*	State	3	Non-native
Salt Cedar	*Tamarix ramosissima*	State	2B	Non-native
Scotch Broom	*Cytisus scoparius*	State	1B	Non-native
Scotch Thistle	*Onopordum acanthium*	Carter County	NA	Non-native
Spotted Knapweed	*Centaurea stoebe*	State	2B	Non-native
Sulphur Cinquefoil	*Potentilla recta*	State	2B	Non-native
Tall Baby's-breath	*Gypsophila paniculata*	Daniels County; Richland County; Roosevelt County; Sheridan County; Valley County	NA	Non-native
Tall Buttercup	*Ranunculus acris*	State	2A	Non-native
Tall Hawkweed	*Hieracium piloselloides*	State	2A	Non-native
Ventenata	*Ventenata dubia*	State	2A	Non-native
Whitetop	*Lepidium draba*	State	2B	Non-native
Yellow Starthistle	*Centaurea solstitalis*	State	1A	Non-native
Yellow Toadflax	*Linaria vulgaris*	State	2B	Non-native

Noxious weeds are categorized by priority as follows: 1A weeds are not present or have very limited presence in Montana and require eradication/containment, 1B weeds have limited presence in Montana and require eradication/containment, 2A weeds are common in isolated areas in Montana and management is prioritized by local districts, 2B weeds are abundant in Montana and management is prioritized by local districts, 3 weeds are regulated and have the potential to have significant negative impacts. Source: MNHP, n.d.-c

Pipeline construction and operation could increase the risk of noxious weed introduction and spread through ground disturbance, soil movement, equipment tracking, and the creation of exposed surfaces that can be colonized by invasive species. Without appropriate controls, construction traffic, topsoil handling, and the movement of materials could transport weed seeds between work areas or into previously uninvested lands. With implementation of standard BMPs, the Project is expected to minimize the potential for noxious weed establishment and dispersal. Long term weed risks will be further reduced through post construction monitoring and ongoing vegetation and weed management measures conducted over the life of the pipeline and consistent with State, regulatory, and local requirements.

Impact Summary

Construction of the Project would result in temporary and permanent alterations to upland vegetation communities within the construction corridor. Vegetation would be cleared to accommodate workspace needs, trench excavation, spoil storage, equipment access, and safety buffers. Following construction, vegetation would be reestablished in disturbed areas except where long-term vegetation management is required for pipeline operation (e.g., within the permanent ROW). ***Table 17: Land Use Type Crossed by Routes (Acres)*** identifies the acreages of disturbance within each land use type, while ***Table 18: Vegetation Type Crossed in Montana*** displays the approximate extent of disturbance within each vegetation cover type. In addition, please refer to the ***Agricultural Land Use Maps*** and the ***Land Cover Maps*** in ***Appendix B*** for a visual representation of the vegetation cover.

Agricultural lands, including cropland, hay land, and pasture, experience recurring soil and vegetation disturbance associated with annual management practices. Construction disturbance in these areas is therefore expected to be temporary, provided topsoil is segregated and returned, and revegetation occurs consistent with landowner requirements. Agricultural areas would be rehabilitated and maintained to support vegetative cover similar to pre-construction conditions, and long-term changes in agricultural productivity are not anticipated once reclamation is complete.

In grassland and rangeland communities, disturbance would include clearing of herbaceous vegetation, localized soil compaction, and short-term reduction in vegetative cover. These communities consist of native prairie and seeded pasturelands that generally respond well to reclamation when soils are restored and appropriate seed mixes are applied. Reestablishment of herbaceous cover is expected to occur within approximately 1 to 5 years under typical precipitation conditions. Recovery rates depend on soil preparation, season of seeding, and post-construction moisture availability. Vegetation within temporary workspaces is expected to trend toward pre-construction composition during post-construction monitoring periods, subject to natural variation and grazing regimes.

Pipeline construction would also temporarily and permanently affect woody vegetation in areas where shrubs or trees are present. Clearing activities would remove shrubs and trees within the construction corridor, resulting in conversion to early-successional herbaceous communities. Research indicates that shrub canopy cover in western rangeland and shrubland systems often requires 10 to more than 50 years to recover to pre-disturbance conditions, depending on species and environmental conditions (Ziegenhagen and Miller, 2009). Tree and large-shrub reestablishment along pipeline rights-of-way is further constrained because these corridors are typically maintained to prevent tree growth for operational safety (Gundy et al., 2018). Outside the permanently maintained corridor, natural reestablishment of woody species is a long-term process and may require multiple decades to progress toward pre-construction structure and composition. Within the 50-foot-wide permanent ROW, woody vegetation will be managed for operational safety and access.

Following construction, reclaimed areas would be stabilized, seeded, and monitored to assess revegetation success. Under normal to above normal precipitation conditions, herbaceous species typically dominate reclaimed areas within the first 1 to 3 years. Reclamation success will be evaluated through visual comparison of vegetative density and cover with adjacent undisturbed areas. In agricultural fields, success will be evaluated based on the restoration of crop productivity to levels similar to undisturbed portions of the same field. Seed mixtures will be selected in coordination with the Natural Resources Conservation Service (NRCS) for each affected county. On federal lands, seed mixtures will be approved by the appropriate managing agency.

Without appropriate management, failure to establish desirable plants in disturbed areas could result in localized increases in erosion, susceptibility to weed colonization, or reduced forage production. Bridger will monitor revegetation progress and implement reseeding or adaptive management where needed to achieve reclamation standards and minimize long-term impacts on upland vegetation communities.

Table 17: Land Use Type Crossed by Routes (Acres)

Land Use Type (acres)	Option 1	Option 2	Option 3
Agricultural Land	1949.98	1125.74	1614.37
Barren	2.49	0.73	4.07
Rangeland/Grassland	5680.28	5014.82	5216.64
Developed	124.64	38.46	62.64
Forest	46.12	9.7	58.36
Wetland/Riparian	90.17	26.45	105.98
Waterbody	8.05	7.69	10.86
Total	7901.73	6223.59	7072.92

Table 18: Vegetation Type Crossed in Montana

Cover Type		Miles Crossed
Option 1		
Agriculture		108.28
Forest		2.56
Grassland		313.54
Wetland	Emergent Wetlands	3.68
	Woody Wetlands	1.34
Total		**429.4**
Cover Type		**Miles Crossed**
Option 2		
Agriculture		62.13
Forest		0.51
Grassland		275.73
Wetland	Emergent Wetlands	1.01
	Woody Wetlands	0.43
Total		**339.81**
Cover Type		**Miles Crossed**
Option 3		
Agriculture		88.85
Forest		3.23
Grassland		286.86
Wetland	Emergent Wetlands	4.89
	Woody Wetlands	1.00
Total		**384.83**

7.4.2 Soils, Geology, Geotechnical

The study areas are delineated by a 10-mile-wide corridor centered on the Project route options' centerlines (five miles on either side). The impact zones consist of the area within a 150-foot buffer centered on each of route options' centerline (75 feet on either side).

Highly Erodible Soils and Areas with Severe Reclamation Constraints

The Project crosses a diverse range of soil conditions with varying erosion susceptibility; along the Project study area, soils generally consist of silty loams and sandy loams in rolling plains and river valleys, with localized clay-rich soils in low-lying areas (NRCS, n.d.). These soil conditions inform the need for location-specific design, construction timing, and erosion control measures to maintain soil stability, prevent sedimentation, and support successful reclamation across the Project footprint. Areas with significant erosion potential may be subject to agency stipulations or permit conditions. As the Proposed Route Option 1 continues south toward Wyoming, it crosses areas of sensitive soils that are more susceptible to degradation from surface disturbance.

Construction of the Project could temporarily affect highly erodible soils and areas with severe reclamation constraints because it will involve ground disturbance, vegetation clearing, grading, and trench excavation. These activities may increase the risk of erosion and sediment movement, particularly on steeper slopes or in areas with loose or fine-textured soils. Soil productivity could also be reduced in localized areas if soils become compacted, rutted, or mixed during equipment operation, topsoil handling, or backfilling, which could make reclamation more challenging.

During operations, soil disturbance is expected to be limited because the pipeline will be buried and routine activities will be minimal. Some disturbance could occur during periodic maintenance or in response to abnormal operating conditions. Detailed mitigation measures, including erosion controls, topsoil management procedures, and reclamation strategies, are provided in ***Section 8: Mitigation Measures*** of this application.

The Project was routed to consider the location of soils poorly suited for reclamation to avoid or minimize potential impacts where practicable. Reclamation suitability is a rating of the soils restoration potential following disturbance and is based on factors such as water capacity, salinity, root-restricting material depth, and wind and water erosion potential (NRCS, 2026). Areas with a higher restoration potential are more easily reclaimed closely to a natural or pre-disturbance state. Bridger will continue to refine Proposed Route Option 1 alignment as design progresses, and coordination with the applicable managing agencies will assist in siting decisions and the avoidance of significant soil-related issues. Where required, the final pipeline route will comply with applicable RMPs and stipulations; and reclamation plans will be developed, submitted, and approved by the appropriate offices prior to construction.

Slope Instability

The Project traverses diverse terrain in Montana, including river valleys, foothills, and sedimentary basins. Landslide hazards arise primarily in areas with steep slopes, unconsolidated soils, and regions subject to significant precipitation or rapid snowmelt. The routes cross several river valleys, such as the Yellowstone and Missouri Rivers, where slopes adjacent to watercourses can exhibit localized instability.

Geological formations along the corridor include shale, sandstone, and glacial deposits, which can become saturated and lose cohesion during heavy rainfall events. The presence of these can contribute to shallow slope movement under certain conditions, especially on cut slopes and embankments created during construction. In addition, the foothills of the Rocky Mountains and the margins of sedimentary basins present areas of variable landslide susceptibility due to historical slope failures and ongoing erosional processes. Refer to the ***Slope Instability Map*** in ***Appendix B*** for an overview of slope instability within the study area.

To address potential soil instability and minimize the risk of landslides in the Project ROW, mitigation measures will be implemented as appropriate. These measures could include the installation of trench breakers to prevent water from channeling along pipeline trenches, which can undermine soil structure and promote erosion. Additionally, benching and terracing techniques could be used on slopes to reduce surface runoff velocity, enhance slope stability, and decrease the likelihood of soil movement. Various other types of erosion control devices could be deployed in accordance with the Project's erosion and sediment control plans to stabilize any loose soils areas.

In areas with a documented history of slope instability, the Project may incorporate a monitoring program to observe and track ground movement over time. Monitoring methods could include inclinometers, surface markers, or periodic visual inspections to detect early indications of slope movement. This monitoring would support timely evaluation of changing conditions and, where warranted, implementation of appropriate corrective measures, such as localized drainage improvements or slope stabilization. These measures would help maintain the safety and integrity of the pipeline in areas of known or potential instability.

Undeveloped Areas Containing Unusual or Significant Natural Features

No undeveloped areas containing unusual scientific, educational, or recreational significance have been identified within the Project route options.

Geological Units or Formations with Probability of Containing Paleontological Resources

Several geologic formations within the Project study area have a high potential to contain paleontological resources. The Hell Creek, Judith River, Cloverly, and Morrison Formations are considered the most sensitive units as they are classified as PFYC Class 5 (BLM, 2025). These formations have historically produced scientifically significant fossil resources, including remains of numerous dinosaur taxa, as well as other vertebrate, invertebrate, and plant fossils. In addition, the Fort Union Formation, which underlies a substantial portion of the Project route in eastern Montana, has a historically high occurrence of paleontological resources and is classified as PFYC Class 4. Please refer to the ***Paleontological Resources Map*** in ***Appendix B.***

Pre-construction paleontological resource surveys will be conducted in areas identified as PFYC Classes 3, 4, and 5 with moderate to very high paleontological potential. In PFYC Class 5 areas, which are known for relatively abundant fossil occurrences, there is potential for previously unidentified surface or subsurface fossils to be encountered during construction. Pre-construction surveys will allow Bridger to revise the Project route as appropriate to minimize adverse impacts to scientifically significant paleontological resources on federal lands. Detailed mitigation measures are described in ***Section 8: Mitigation Measures*** of this application.

7.4.3 Water Resources

Surface Water (Circular MFSA-2, Section 3.7(12)(b)(vi))

Surface water resources that occur along the Proposed Route Option 1 are located in the Missouri River water resource region, as identified by its major river systems (Seaber et al. 1994). Primary drainages along all alternatives are depicted in ***Appendix B***.

Waterbody crossings were identified utilizing GIS analysis of the USGS National Hydrographic Dataset (NHD). The NHD classifies waterbodies according to the hydrologic characteristics of each stream reach or waterbody. The features classified as "Artificial Path" reflect a waterbody that is too wide to be represented by a single line feature. In the case of this classification, each instance was analyzed on USGS maps was either assigned the classification of perennial stream/river or reservoir. This was done under the assumption that streams large enough to receive the "Artificial Path" designation are in fact perennial in nature and that the vast majority of impounded waterbodies in this area are man-made reservoirs. Detailed tabulations of the stream crossings associated with each of the route options are included in ***Table 19***, ***Table 20***, and ***Table 21***.

Table 19: Number and Type of Waterbodies Crossed (Option 1)

County	Perennial	Intermittent	Canal/Ditch	Reservoir/Lake
Phillips	0	4	0	0
Valley	2	25	0	0
Daniels	2	12	0	0
Sheridan	4	13	0	0
Roosevelt	0	8	0	0
Richland	4	17	0	0
Wibaux	0	17	0	0
Fallon	0	21	0	0
Carter	1	57	0	0
Total	13	174	0	0

Source: USGS (2019)

Table 20: Number and Type of Waterbodies Crossed (Option 2)

County	Perennial	Intermittent	Canal/Ditch	Reservoir/Lake
Phillips	1	4	0	0
Valley	5	26	0	0
McCone	0	24	0	0
Dawson	2	10	0	0
Prairie	0	8	0	0
Fallon	1	21	0	0
Carter	1	58	0	0
Total	10	151	0	0

Source: USGS (2019)

Table 21: Number and Type of Waterbodies Crossed (Option 3)

County	Perennial	Intermittent	Canal/Ditch	Reservoir/Lake
Phillips	0	6	0	0
Valley	4	37	0	0
Daniels	0	0	0	0
Sheridan	0	0	0	0
Roosevelt	3	26	0	0
Richland	3	15	0	0
Wibaux	0	16	0	0
Fallon	1	20	0	0
Carter	1	58	0	0
Total	12	178	0	0

Source: USGS (2019)

Analysis is ongoing to identify major waterbodies within 10 stream miles through a two-part process. GIS analysis of the NHD will be utilized to identify all feature types of lake/pond or reservoir that are greater than 10 acres in surface area and within 10 miles of the centerline. Each of these features will then be investigated using desktop analysis to determine the hydrologic connectivity and up- or down-stream location. These identified waterbodies will be provided in a table and/or map.

The National Park Service (NPS), National Center for Recreation and Conservation's Nationwide Rivers Inventory was consulted regarding Wild and Scenic Rivers designation. No river corridors in the Wild and Scenic Rivers system or those that may be eligible for inclusion in the system are crossed by any of the route options.

Water Quality

The Clean Water Act (CWA), Section 303(c), requires each state to review, establish, and revise water quality standards for all surface waters within the state. To comply with this requirement, Montana has developed its own beneficial use classification system to describe state-designated use(s). Regulatory programs for water quality standards include default narrative standards, non-degradation provisions, a Total Maximum Daily Load (TMDL) regulatory process for impaired waters and associated minimum water quality requirements for the designated uses of listed surface waterbodies within the state.

The State of Montana's water quality classifications for all impaired streams crossed by each option can be found in ***Table 23, Table 24,*** and ***Table 25***. The MFWP assigned fisheries value classes of I and II which are discussed in ***Section 7.4.4 Wildlife and Fisheries***, and listed in ***Table 29, Table 31***, and ***Table 33***.

Pollution due to storm water runoff during construction and reclamation will be controlled in accordance with the Storm Water Pollution Prevention Plan (SWPPP) that will be developed prior to permitting. The SWPPP will include descriptions of storm water management controls and BMPs to be implemented.

Sediment discharges are the major pollutant of concern from storm water due to increased erosion from the disturbed areas during construction activities and prior to final stabilization through completed reclamation. These discharges will be controlled throughout the entire project, with special attention committed at any

wetland or waterbody crossings. Discharges will be controlled through measures such as vegetative buffers, silt fences, straw bale barriers, and permanent slope breakers (water bars), among others.

Other pollutants of concern are fuels, lubricants, and other hazardous materials. The control and containment of these pollutants will be detailed in the Spill Prevention, Containment, and Countermeasures (SPCC) Plan, which will be developed for each construction spread and submitted prior to construction.

Table 22: Impaired Water Categories

Category	Description
1	All designated uses are supported
2	Some uses are supported, others not assessed
3	Insufficient data
4	Impaired, but TMDL not required
5	Impaired, TMDL required

Table 23: Impaired Waterbodies Crossed by Route Option 1

Waterbody Name	State Water Quality Classification	Supports Use Designation	Impairment Category	Impairment
Frenchman Creek	Aquatic Life	Not fully supporting	4	Alteration in stream-side or littoral vegetative covers; Flow regime modification; Excess Agal growth
	Agricultural	Not fully supporting		Flow regime modification
	Drinking Water	Fully supporting		
	Recreation	Not assessed		
Poplar River	Aquatic Life	Not fully supporting	5	Sedimentation/Siltation; Temperature
	Agricultural	Fully supporting		
	Drinking Water	Fully supporting		
	Recreation	Not fully supporting		Escherichia coli (E. Coli)
Big Muddy Creek	Aquatic Life	Not fully supporting	5	Alteration in stream-side or littoral vegetative covers; Copper; Lead; Mercury; Zinc; Nitrogen; Phosphorus; Organic enrichment
	Agricultural	Not assessed		
	Drinking Water	Not assessed		
	Recreation	Fully supporting		
Missouri River	Aquatic Life	Not fully supporting	5	Temperature; Flow regime modification
	Agricultural	Fully supporting		
	Drinking Water	Fully supporting		
	Recreation	Not assessed		

Fourmile Creek	Aquatic Life	Not fully supporting	5	Chlorophyll-a; Excess algal growth; Total dissolved solids; Nitrate/Nitrite (Nitrite + Nitrate as N); Nitrogen; Flow regime modification
	Agricultural	Not assessed		
	Drinking Water	Not assessed		
	Recreation	Not fully supporting		Chlorophyll-a; Excess algal growth; Nitrate/Nitrite (Nitrite + Nitrate as N)
First Hay Creek	Aquatic Life	Not fully supporting	5	Copper; Fish passage barrier; Iron; Lead; Total dissolved solids; Nitrate/Nitrite (Nitrite + Nitrate as N); Nitrogen; Phosphorus; Flow regime modification; Sediment
	Agricultural	Not assessed		
	Drinking Water	Not assessed		
	Recreation	Insufficient information		
Lone Tree Creek	Aquatic Life	Not fully supporting	5	Alteration in stream-side or littoral vegetative covers; Chlorophyll-a; Excess algal growth; Iron; Nitrate/Nitrite (Nitrite + Nitrate as N); Flow regime modification; Sediment
	Agricultural	Not assessed		
	Drinking Water	Not assessed		
	Recreation	Not fully supporting		Chlorophyll-a; Excess algal growth
North Fork Fox Creek & Fox Creek	Aquatic Life	Not fully supporting	5	Iron; Physical substrate habitat alterations; Nitrogen; Phosphorus; Flow regime modification; Sediment
	Agricultural	Not fully supporting		Sulfate; Total dissolved solids
	Drinking Water	Not fully supporting		Arsenic; Lead; Mercury
	Recreation	Not fully supporting		Excess algal growth; Algae
Crane Creek	Aquatic Life	Not fully supporting	5	Alteration in stream-side or littoral vegetative covers; Sedimentation/Siltation; Flow regime modification
	Agricultural	Not assessed		
	Drinking Water	Not assessed		
	Recreation	Fully supporting		
Sears Creek	Aquatic Life	Not fully supporting	5	Alteration in stream-side or littoral vegetative covers; Copper; Excess algal growth; Fish passage barrier; Iron; Lead; Algae; Flow regime modification; Sediment
	Agricultural	Not assessed		
	Drinking Water	Not assessed		
	Recreation	Not fully supporting		Excess algal growth; Algae

Yellowstone River	Aquatic Life	Not fully supporting	5	Alteration in stream-side or littoral vegetative covers; Copper; Fish passage barrier; Iron; Lead; Sedimentation/siltation; Total dissolved solids; pH; Nitrogen; Phosphorus
	Agricultural	Fully supporting		
	Drinking Water	Not fully supporting		Arsenic; Lead
	Recreation	Fully supporting		
Smith Creek	Aquatic Life	Not fully supporting	4	Fish passage barrier
	Agricultural	Not assessed		
	Drinking Water	Not assessed		
	Recreation	Fully supporting		
Cabin Creek	Aquatic Life	Not fully supporting	5	Dissolved oxygen; Sedimentation/siltation; Nitrogen
	Agricultural	Not assessed		
	Drinking Water	Not assessed		
	Recreation	Fully supporting		
Split Creek	Aquatic Life	Not fully supporting	5	Total dissolved solids
	Agricultural	Not assessed		
	Drinking Water	Not assessed		
	Recreation	Fully supporting		
Sandstone Creek	Aquatic Life	Not fully supporting	5	Nitrate/Nitrite (Nitrite + Nitrate as N); Nitrogen
	Agricultural	Not assessed		
	Drinking Water	Not assessed		
	Recreation	Fully supporting		

Table 24: Impaired Waterbodies Crossed by Route Option 2

Waterbody Name	State Water Quality Classification	Supports Use Designation	Impairment Category	Impairment
Frenchman Creek	Aquatic Life	Not fully supporting	4	Alteration in stream-side or littoral vegetative covers; Chlorophyll-a; Flow regime modification; Excess Agal growth
	Agricultural	Not fully supporting		Flow regime modification
	Drinking Water	Fully supporting		
	Recreation	Not assessed		
Buggy Creek	Aquatic Life	Not fully supporting	5	Iron
	Agricultural	Fully supporting		
	Drinking Water	Fully supporting		
	Recreation	Fully supporting		
Milk River	Aquatic Life	Not assessed	5	
	Agricultural	Fully supporting		
	Drinking Water	Not fully supporting		Lead; Mercury
	Recreation	Not fully supporting		Escherichia coli (E. Coli)

Missouri River	Aquatic Life	Not fully supporting	5	Alteration in stream-side or littoral vegetative covers; Temperature; Flow regime modification
	Agricultural	Fully supporting		
	Drinking Water	Fully supporting		
	Recreation	Fully supporting		
Yellowstone River	Aquatic Life	Not fully supporting	4	Fish passage barrier; Iron; Lead
	Agricultural	Fully supporting		
	Drinking Water	Fully supporting		
	Recreation	Not assessed		
Pennel Creek	Aquatic Life	Not fully supporting	5	Total dissolved solids
	Agricultural	Not assessed		
	Drinking Water	Not assessed		
	Recreation	Fully supporting		
Sandstone Creek	Aquatic Life	Not fully supporting	5	Nitrate/Nitrite (Nitrite + Nitrate as N); Nitrogen
	Agricultural	Not assessed		
	Drinking Water	Not assessed		
	Recreation	Fully supporting		

Table 25: Impaired Waterbodies Crossed by Route Option 3

Waterbody Name	State Water Quality Classification	Supports Use Designation	Impairment Category	Impairment
Frenchman Creek	Aquatic Life	Not fully supporting	4	Alteration in stream-side or littoral vegetative covers; Flow regime modification; Excess Agal growth
	Agricultural	Not fully supporting		Flow regime modification
	Drinking Water	Fully supporting		
	Recreation	Not assessed		
Buggy Creek	Aquatic Life	Not fully supporting	5	Iron
	Agricultural	Fully supporting		
	Drinking Water	Fully supporting		
	Recreation	Fully supporting		
Big Muddy Creek	Aquatic Life	Not fully supporting	5	Alteration in stream-side or littoral vegetative covers; Sedimentation/siltation; Nitrogen; Phosphorus; Flow regime modification
	Agricultural	Not assessed		
	Drinking Water	Not assessed		
	Recreation	Not assessed		
Missouri River	Aquatic Life	Not fully supporting	5	Temperature; Flow regime modification
	Agricultural	Fully supporting		
	Drinking Water	Fully supporting		
	Recreation	Not assessed		

First Hay Creek	Aquatic Life	Not fully supporting	5	Copper; Fish passage barrier; Iron; Lead; Total dissolved solids; Nitrate/Nitrite (Nitrite + Nitrate as N); Nitrogen; Phosphorus; Flow regime modification; Sediment
	Agricultural	Not assessed		
	Drinking Water	Not assessed		
	Recreation	Insufficient information		
Lone Tree Creek	Aquatic Life	Not fully supporting	5	Alteration in stream-side or littoral vegetative covers; Chlorophyll-a; Excess algal growth; Iron; Nitrate/Nitrite (Nitrite + Nitrate as N); Flow regime modification; Sediment
	Agricultural	Not assessed		
	Drinking Water	Not assessed		
	Recreation	Not fully supporting		Chlorophyll-a; Excess algal growth
North Fork Fox Creek & Fox Creek	Aquatic Life	Not fully supporting	5	Iron; Physical substrate habitat alterations; Nitrogen; Phosphorus; Flow regime modification; Sediment
	Agricultural	Not fully supporting		Sulfate; Total dissolved solids
	Drinking Water	Not fully supporting		Arsenic; Lead; Mercury
	Recreation	Not fully supporting		Excess algal growth; Algae
Crane Creek	Aquatic Life	Not fully supporting	5	Alteration in stream-side or littoral vegetative covers; Sedimentation/Siltation; Flow regime modification
	Agricultural	Not assessed		
	Drinking Water	Not assessed		
	Recreation	Fully supporting		
Sears Creek	Aquatic Life	Not fully supporting	5	Alteration in stream-side or littoral vegetative covers; Copper; Excess algal growth; Fish passage barrier; Iron; Lead; Algae; Flow regime modification; Sediment
	Agricultural	Not assessed		
	Drinking Water	Not assessed		
	Recreation	Not fully supporting		Excess algal growth; Algae
Yellowstone River	Aquatic Life	Not fully supporting	5	Alteration in stream-side or littoral vegetative covers; Copper; Fish passage barrier; Iron; Lead; Sedimentation/siltation; Total dissolved solids; pH; Nitrogen; Phosphorus
	Agricultural	Fully supporting		
	Drinking Water	Not fully supporting		Arsenic; Lead
	Recreation	Fully supporting		

Smith Creek	Aquatic Life	Not fully supporting	4	Fish passage barrier
	Agricultural	Not assessed		
	Drinking Water	Not assessed		
	Recreation	Fully supporting		
Cabin Creek	Aquatic Life	Not fully supporting	5	Dissolved oxygen; Sedimentation/siltation; Nitrogen
	Agricultural	Not assessed		
	Drinking Water	Not assessed		
	Recreation	Fully supporting		
Split Creek	Aquatic Life	Not fully supporting	5	Total dissolved solids
	Agricultural	Not assessed		
	Drinking Water	Not assessed		
	Recreation	Fully supporting		
Sandstone Creek	Aquatic Life	Not fully supporting	5	Nitrate/Nitrite (Nitrite + Nitrate as N); Nitrogen
	Agricultural	Not assessed		
	Drinking Water	Not assessed		
	Recreation	Fully supporting		

Groundwater

Existing literature on the geology and groundwater hydrogeology of the counties in Montana affected by the Project were reviewed. Availability of existing literature and published studies of the aquifers in this region vary. In areas where the level of detail is low, a considerable degree of uncertainty exists relative to groundwater resources. These locations include areas where estimates of the depth to the water table are based on regional groundwater elevation contours, and where water quality estimates are a general estimate of water quality based on regional or sometimes county-wide evaluations. Generally, areas where aquifers are heavily used or are potentially sensitive to contamination have more complete and available information. These areas may include shallow alluvial aquifers along major river drainages where the river alluvium is a major source of domestic and irrigation water supply.

Continental glaciation during the Pleistocene covered most of northern Montana with a complex array of glacial drift and glacial outwash. This glacial material covers the bedrock aquifers in many areas and provides shallow alluvial groundwater for domestic and agricultural use in both current stream valleys and also from buried glacial paleochannels. In many cases, the buried paleochannels are not continuous, and serve as major sources of groundwater only for local use. In many areas of northern Montana, the glacial drift is fine-grained and relatively impermeable, thus it acts as a "confining layer" above the bedrock aquifers. Within this fine-grained drift, local paleochannels can be found, which can provide groundwater for ranches and small communities.

The most sensitive aquifers are the shallow alluvial aquifers found in unconsolidated alluvial and glacial sediments along major drainages. Sensitive groundwater resources are defined as those shallow groundwater areas that occur in permeable rock units or unconsolidated alluvium, or where the groundwater is used for domestic or irrigation purposes (Smith et al. 2000). Locations where the proposed pipeline alternative routes will either cross or be within a few miles of an identified sensitive groundwater resource. Please refer to the ***Montana Aquifers Map*** in ***Appendix B*** for a visual representation of these groundwater

resources. Bridger will provide further information defining which groundwater resources may be considered sensitive groundwater resources when its analysis is complete.

Water Supplies and Wells (Circular MFSA-2, Section 3.4(1)(v))

Along all the alternative routes within Montana, the municipal water supply systems identified are dependent on withdrawals from groundwater sources. These sources are often alluvial aquifers associated with streams and rivers. Private wells also are likely located along each of the alternatives. The Proposed Route, Option 1, was reviewed for potential intersections with designated Source Water Protection Areas (SWPAs), including municipal wellhead protection zones and surface-water source protection areas. Based on available state and local source-water protection maps, no SWPAs are crossed or directly impacted by the Project, and no source water will be used.

Refer to ***Table 26***, ***Table 27***, and ***Table 28*** for a list of perennial stream crossings and relevant details, including estimated flow rates in cubic feet per second (cfs).

Table 26: Perennial Stream Crossing Characteristics for Option 1

Stream Name	Hydrologic Classification	Estimated Flow Rate	Crossing Method
Frenchman Creek	Perennial	Reservoir spillway capacity ~36,000 cfs	Bore/HDD
Rock Creek	Perennial	~230–308 cfs (USGS gage near Clinton)	Bore/HDD
Deep Creek	Perennial	Data not available	Bore/HDD
Bitter Creek	Perennial	Data not available	Bore/HDD
Willow Creek	Perennial	~2 cfs (range 1–4 cfs)	Bore/HDD
Middle Fork Porcupine Creek	Perennial	Data not available	Bore/HDD
Poplar River	Perennial	Overall avg. 174 cfs	Bore/HDD
Big Muddy Creek	Perennial	~14 cfs (gage near Antelope)	Bore/HDD
Antelope Creek	Seasonal/Perennial	Data not available	Bore/HDD
Cottonwood Creek	Perennial	~1 cfs (historic USGS gage)	Bore/HDD

Stream Name	Hydrologic Classification	Estimated Flow Rate	Crossing Method
Missouri River	Perennial	Overall avg. 10,700 cfs	Bore/HDD
Main Canal	Canal/Ditch	Operational flow only	Bore/HDD
Yellowstone River	Perennial	Overall avg. 8,400 cfs	Bore/HDD
Sandstone Creek	Perennial/Intermittent	Data not available	Bore/HDD
Spring Creek	Perennial	Data not available	Bore/HDD
Little Beaver Creek	Perennial/Intermittent	Data not available	Bore/HDD

Source: MTDEQ, n.d-a,b., USGS, n.d.

Table 27: Perennial Stream Crossing Characteristics for Option 2

Stream Name	Hydrologic Classification	Estimated Flow Rate	Crossing Method
Frenchman Creek	Perennial	Data Not Available	Bore/HDD
Little Beaver Creek	Perennial/Intermittent	Data not available	Bore/HDD
Milk River	Artificial Path	Overall Avg. 184 cfs	Bore/HDD
Missouri River	Perennial	Overall Avg. 5,100 cfs at Wolf Point	Bore/HDD
Yellowstone River	Perennial	Overall Avg. 5,100 cfs at Miles City	Bore/HDD

Source: MTDEQ, n.d-a,b., USGS, n.d.

Table 28: Perennial Stream Crossing Characteristics for Option 3

Stream Name	Hydrologic Classification	Estimated Flow Rate	Crossing Method
Fox Creek	Perennial	Data not available	Bore/HDD
Little Beaver Creek	Perennial	Data not available	Bore/HDD
Lone Tree Creek	Perennial	Data not available	Bore/HDD
Sandstone Creek	Perennial	Data not available	Bore/HDD
Poplar River	Perennial	Overall Avg. 174 cfs	Bore/HDD
Frenchman Creek	Perennial	Data not available	Bore/HDD
Big Muddy Creek	Perennial	Overall Avg. 177 cfs	Bore/HDD
Yellowstone River	Perennial	Overall Avg. 5,720 cfs	Bore/HDD
Missouri River	Seasonal/Perennial	Overall Avg. 10,700 cfs	Bore/HDD
Willow Creek	Perennial	Data not available	Bore/HDD
Tomcat Creek	Perennial	Data not available	Bore/HDD
Sage Creek	Perennial	Data not available	Bore/HDD
Rawhide Creek	Perennial/Intermittent	Data not available	Bore/HDD
Little Missouri River	Perennial	Data not available	Bore/HDD
Cabin Creek	Perennial	Data not available	Bore/HDD
Bush Creek	Perennial	Data not available	Bore/HDD
Beaver Creek	Perennial	Data not available	Bore/HDD
Arch Creek	Perennial	Data not available	Bore/HDD

Source: MTDEQ, n.d-a,b., USGS, n.d.

Floodplains

From a geomorphic perspective, floodplains are relatively low, flat areas of land that surround waterbodies and hold overflows during flood events. Floodplains are often associated with rivers and streams, where they consist of stream deposited sediments forming levels (or "terraces") deposited at different times along the watercourse.

From a policy perspective, the Federal Emergency Management Agency (FEMA) defines a floodplain as being any land area that is subject to flooding (FEMA 2024b). Much of the basic inventory, regulation, and mitigation efforts for floodplains and flood mitigation (including the National Flood Insurance Program) have been led by FEMA. Executive Order 11988, Floodplain Management, states that actions by federal agencies shall avoid to the extent possible the long- and short-term adverse impacts associated with the occupancy and modification of floodplain development wherever there is a practicable alternative.

Each agency shall provide leadership and shall take action to reduce the risk of flood loss, to minimize the impact of floods on human safety, health and welfare, and to restore and preserve the natural and beneficial values served by floodplains in carrying out its responsibilities for: 1) acquiring, managing, and disposing of federal lands, and facilities; 2) providing federally undertaken, financed, or assisted construction and improvements; and 3) conducting federal activities and programs affecting land use, including but not limited to water and related land resources planning, regulating, and licensing activities.

Where the Proposed Route Option 1 crosses floodplains, coordination with local, state, and federal agencies is required to ensure compliance with floodplain management regulations and permit conditions. The permit process includes identification of regulated floodplain areas using FEMA Flood Insurance Rate Maps (FIRMS) and county resources. In Richland County, for example, the project crosses eleven FEMA Special Flood Hazard Areas (SFHA). No floodplain SFHAs are crossed in the remaining counties (Federal Emergency Management Agency, 2024).

Bridger will submit a floodplain permit application to Richland County's Floodplain Administrator. The application will include engineering plans, construction details, and documentation demonstrating compliance with local floodplain regulations. Richland County may require additional engineering analyses, such as hydraulic modeling, "no-rise" certifications, and/or scour analysis. Permit review requirements, including any public notice provisions, will be determined by Richland County consistent with its floodplain regulations. Following the permit process, the county would issue a floodplain development permit with conditions applicable to construction, erosion control, and restoration of the affected area.

Pump stations will not be located within the FEMA-defined 100-year floodplain.

Along all alternative routes through Montana, low terraces occur at the majority of stream crossings. For smaller intermittent and ephemeral drainages, these are typically narrow and infrequently flooded. At crossings of rivers and larger perennial streams, floodplains are wider and may be more frequently flooded to a particular elevation depending on the magnitude of a given flood. Please refer to ***Table 29, Table 30,*** and ***Table 31*** for the locations of floodplains along the proposed route options.

Table 29: Floodplains Along Option 1

PLSS Location	Watercourse Associated with Floodplain
Sec. 15 & 23, T20N, R59E	Shadwell Creek
Sec. 21, 27, 28, 34, & 35, T21N, R58E	Yellowstone River
Se. 20 & 29, T22N, R58E	Fox Creek
Se. 28, T23N, R58E	Lone Tree Creek
Sec. 15, T23N, R58E	Bronson Creek
Sec. 26, T24N, R58E	First Hay Creek
Sec. 31, T26N, R59E	North Fork Fourmile Creek
Sec. 31, T26N, R59E; Sec. 6, T27N R59E	Missouri River
Sec. 25 & 30, T34N, R56E	Antelope Creek

Table 30: Floodplains Along Option 2

PLSS Location	Watercourse Associated with Floodplain
Sec. 14 & 23, T13N, R53E	Yellowstone River
Sec. 1, 2, 11, & 12, T27N R41E; Sec. 32, T27N R42E	Missouri River

Table 31: Floodplains Along Option 3

PLSS Location	Watercourse Associated with Floodplain
Sec. 8, T20N, R59E	Shadwell Creek
Sec. 8, 33, & 34, T21N, R58E	Yellowstone River
Se. 20 & 29, T22N, R58E	Fox Creek
Se. 29, T23N, R58E	Lone Tree Creek
Sec. 15, T23N, R58E	South Fork Cherry Creek
Sec. 30, T26N, R57E	First Hay Creek
Sec. 3 & 10, T27N, R56E	Missouri River
Sec. 3, 4, & 5, T29N R54E	Big Muddy Creek
Sec. 33, T30N, R53E	Spring Creek
Sec. 17 & 18, T30N, R51E	Poplar River
Sec. 1, T32N, R41E; Sec. 31, 33, & 34, T33N, R41E; Sec. 27, 28, & 36, T33N, R40E	Middle Fork Porcupine Creek

Water Resource Impact Assessment – Proposed Route Option 1, Option 2 and Option 3

Surface Water Issues

- Water quality degradation from temporary increases in suspended solids concentrations during in-stream construction activities or erosion from disturbed lands;
- Increased sedimentation in streams resulting from in-stream construction or nearby activities;
- Channel and bank modifications that affect channel morphology and stability;
- Reduced flows in streams where water is withdrawn for hydrostatic testing; and
- Water quality degradation in streams, lakes, impoundments, or surface water-based public water supplies from pipeline spills or leaks, or from spills or leaks of fuel, lubricants, or hazardous materials during construction or operation.

Waterbody Crossings (Circular MFSA-2, Section 3.8(1)(g))

Depending upon the construction technique used, the installation of the pipeline across waterbodies can cause the following impacts: Temporary degradation of water quality in the form of increased suspended solids concentrations; Sedimentation (deposition of solids introduced into suspension by construction activities); and Channel and bank modifications. Bridger will implement the HDD technique for most water crossings. Since HDD does not involve any intended direct contact with the waterbody, channel bed, or banks, no impact is expected at these crossings. It is possible that an inadvertent return of drilling lubricant could enter the waterbody. HDD or dry crossing procedures will be utilized at some crossings pending determination of crossing-specific resources (aquatic life), which may warrant extraordinary mitigation. Bridger will comply with the MPDES construction storm water permit process with respect to pipeline construction and operation. Bridger will also develop and file a SWPPP as part of the MPDES construction stormwater permitting effort. This plan will include BMPs to minimize soil erosion and sedimentation.

Hydrostatic Test Water Withdrawal and Discharge

Depending on locations, state requirements, and availability, water will be obtained and withdrawn from nearby streams or privately owned reservoirs. Recycling water between test sections will reduce withdrawal volumes. Water used for hydrostatic testing of the pipeline may be obtained from surface water resources. Withdrawal rates and volumes will be designed to avoid impacts to aquatic life and downstream water users. Hydrostatic test water will be discharged to the land surface at an approved location to the same source from which it was removed. Discharged water may evaporate or infiltrate into the soil or drainage where the water is released. If water is withdrawn from a sensitive surface water source during a low-flow period or at a time when particular flow is needed for other uses, habitat reductions for water-dependent resources (e.g., fisheries, aquatic invertebrates) could occur. A similar effect on surface water resources could occur if large withdrawals are made from aquifer zones that provide late season baseflows to streams. Hydrostatic test water withdrawals from surface waterbodies will be made at controlled rates and with equipment that will minimize impacts on stream beds and aquatic life. Bridger will coordinate with federal and state agencies to further identify such water sources and seasonal concerns. Similarly, discharges of hydrostatic testing waters will be made such that water quality requirements are met. Discharge controls will include restrictions on pipeline dewatering rates, velocity control devices (such as splash pups or diffusers), and/or temporary synthetic channel linings. Water quality will not be reduced by pipe cleaning or hydrostatic test waters because discharged water will be required to meet water quality standards imposed by the discharge permits issued by Montana DEQ for the permitted discharge locations. Water discharge rates will not exceed the daily discharge criteria referenced in the permits.

Spill Prevention

Refueling and lubricating of most construction equipment will be restricted to upland areas at least 100 feet away from the edge of any streams, wetlands, ditches, and other waterbodies and at least 150 feet away from groundwater wells. Wheeled and tracked construction equipment will be moved to an upland area more than 100 feet away from streams, wetlands, ditches, and other waterbodies for refueling when necessary. Fuels and lubricants will be stored in designated areas and in appropriate service vehicles. Whenever possible, storage sites for fuels, other petroleum products, chemicals, and hazardous materials, including wastes, will be located in uplands or at least 100 feet from waterbodies and wetlands. SPCC procedures will be implemented in compliance with 40 CFR Part 112 (for oil spills) and corresponding state regulations. In a

few cases, such as for pumps or directional drill equipment located within or near a waterbody or wetland, refueling will be necessary within or near a waterbody or wetland. In these situations, protective measures will be followed.

Operation

Normal operations will not adversely affect water resources. Minor surface disturbance activities from pipeline inspection and maintenance may occur infrequently and at widely spaced locations. Bridger will employ multiple safeguards to prevent a pipeline release. The chance of a spill occurring is very low and if a spill occurred, the volume is likely to be limited in size. In the unlikely event of a pipeline release, Bridger would initiate its Emergency Response Plan (ERP) and emergency response teams would contain and clean up the spill. To minimize impacts to surface water resources, appropriate remedial measures will be implemented to meet federal and state standards designed to ensure protection of human health and environmental quality. To reduce the amount of product that could enter surface waters, federal regulation (49 CFR Part 195.260(3)) stipulates that new pipelines must have valves installed on both sides of any waterbody that has at least a 100-foot width between ordinary high-water marks. According to the PHMSA, intermittent and ephemeral streams are not considered waterbodies. In general, wetlands are not considered by the Office of Pipeline Safety (OPS) to be waterbodies. Consequently, valves are required by OPS on both sides of the larger perennial streams. Bridger will comply with these OPS requirements. Valve locations, in addition to those required for major waterbody crossings, will be incorporated into the final design based upon the outcome of the risk assessment. These additional valves will further aid in minimizing the amount of material that could be released into other waterbodies in the unlikely event of a spill. The location of valves, spill containment measures, and Bridger's ERP will minimize adverse effects to perennial, intermittent, and ephemeral waterbodies, as well as to groundwater. Groundwater Issues Groundwater quality degradation during or after construction from disposal of materials, pipeline spills, or leaks that seep into shallow aquifers used for domestic, agricultural, or public water supplies. Construction Reductions in groundwater quality from spills, leaks, or disposal practices are not anticipated during construction. Most of the aquifers along the route will be at least temporarily isolated from any spills on the land surface and attending personnel will be able to respond to an incident before contaminants migrate into groundwater. In areas with near-surface groundwater or in areas adjacent to surface waterbodies, additional procedures and measures will be implemented.

Operation

While routine operation of the Project will not affect groundwater resources, there is the possibility that a crude oil release could migrate through near-surface materials and enter a water-bearing zone or system Bridger will employ multiple safeguards to prevent a pipeline release. The chance of a spill occurring is very low and if a spill occurs, the volume is likely to be limited in size. In the unlikely event of a pipeline release, Bridger would initiate its ERP and emergency response teams would contain and clean up the spill. To minimize impacts to groundwater resources, appropriate remedial measures will be implemented to meet federal and state standards designed to ensure protection of human health and environmental quality.

Wetland Issues

Potential modifications in wetland productivity because of modifications to surface and subsurface flow patterns from pipeline construction;

- Temporary and permanent modifications in wetland vegetation community composition and structure from clearing and operational maintenance;
- Loss of wetlands due to backfilling or draining;
- Wetland soil disturbance;
- A temporary increase in turbidity and fluctuations in wetland hydrology; and
- Construction through prairie pothole areas could affect the water retaining substrate in these wetlands and result in permanent alterations to their water holding capacity.

Construction

Based on GIS analysis of the digitized land use layer, approximately 5 miles of Proposed Route Option 1 will cross herbaceous or woody wetlands. Effects on wetland vegetation will be greatest during and immediately following construction.

Bridger will restore or mitigate impacts to wetlands affected by construction activities, to the extent practicable. Pipeline construction through wetlands must comply, at a minimum, with USACE Section 404 Nationwide Permit (NWP) conditions.

For rivers that are crossed by the HDD method, streamside wetlands or floodplain forests will not be affected. Ephemeral or intermittent drainages will likely be open cut and wetlands located in these areas will be crossed by trenching. No permanent loss of wetlands will occur as a result of this Project.

Specific construction techniques will be used to retain the hydrological and vegetation characteristics of wetlands that will be disturbed by construction. These techniques will include segregation and replacement of wetland soils (except in areas of standing water, saturated wetlands, or where no topsoil is evident) so that soil profiles and native vegetation seed and rootstock will be reestablished to help ensure successful restoration and reestablishment of local drainage patterns to restore existing surface and subsurface water flow patterns.

Operation

Woody vegetation in forested wetlands may be removed periodically above the pipeline to maintain visibility of the area above the pipeline for aerial pipeline observation and to permit access to all areas along the pipeline in the event of an emergency.

7.4.4 Wildlife and Fisheries

Baseline Data and Description – Proposed Route (Option 1), Option 2, and Option 3

Terrestrial Wildlife (Circular MFSA-2, Section 3.7(12)(a);(b)(i); (ii); (xviii))

Wildlife habitats along the proposed route consists of cropland, native prairie, sagebrush grasslands, range or pastureland, forest lands, riparian woodland, wetlands, and aquatic and riverine habitats. Descriptions of vegetative communities that will be crossed by the routes are discussed in ***7.4.1 Vegetation.***

The route options are dominated by rangeland/grassland and agricultural land. ***Table 17: Land Use Type Crossed by Routes (Acres)*** and ***Table 18: Vegetation Type Crossed in Montana*** list the acreage impacts to land uses and vegetation types, respectively. Various bird species and small mammals rely on cultivated cropland for food sources and vegetative cover during the growing season. When out of the growing season, any crop residue remaining after harvest provides a food source for migratory bird species, waterfowl, and small mammals (Montana Field Guide, n.d.).

Undeveloped natural areas such as riparian river bottoms, wetlands and aquatic habitat, grasslands, and native prairie, play an important role in sustaining native wildlife populations. Wetlands are considered a significant habitat for waterfowl and waterbird production, as well as resting, and foraging habitat for other wildlife species. Both upland and riparian woodlands provide important cover and habitat for game species, nesting areas for songbirds, and migratory stopover areas for forest-associated neotropical migrants. Native prairie habitat also provides important habitat for wildlife species. Important undeveloped wildlife habitats that will be crossed by the proposed route, as discussed below, include forests, wetlands, grasslands, and surface water features.

Although the route options were selected to minimize environmental impacts, a few sensitive wildlife habitat areas are crossed. Frenchman Creek ACEC and Bitter Creek ACEC and WSA are present within the study areas of all route options; however, Options 1 and 2 do not cross directly through. Option 3 crosses the Bitter Creek ACEC and WSA. In each instance if the route were to be chosen, preconstruction planning and mitigation measures would be discussed with the appropriate agency in order to cross the area in the best way possible. At this time, no specially managed buffer areas surrounding national wilderness areas and national primitive areas have been identified.

Big Game Species (Circular MFSA-2 Section 3.7(12)(b)(xv)(xvi)(xvii))

Big game species that could occur along all three route options include mule deer, white-tailed deer, and pronghorn since all three routes cross winter range for these species. Elk winter range habitat is not crossed by any of the three routes. In addition, mountain goat and bighorn sheep seasonal ranges are not crossed by the proposed route Options (Appendix B).

Winter Distribution for Large Ungulates

Portions of the Project study area supports mapped winter ranges for several large ungulate species, including elk, mule deer, white-tailed deer, pronghorn, and, to a lesser extent, moose, bighorn sheep, and mountain goats (Montana Fish, Wildlife and Parks, n.d.-c). Please refer the ***Biological Resources Map*** in ***Appendix B.*** Winter use is generally concentrated in lower-elevation areas where open rangelands, sagebrush steppe, prairie grasslands, and riparian corridors that provide forage exist. Elk and deer winter ranges are commonly located outside forested high elevations and adjacent to agricultural lands and river valleys. Pronghorn winter distribution is typically associated with expansive open grasslands and sagebrush habitats that allow for movement during snow events. Moose are more localized and generally associated with riparian woodlands and shrub-dominated drainages. Refer to ***Table 32***, ***Table 34,*** and ***Table 36***.

Elk Summer Habitat and Range

Elk summer use within the broader Project study area is associated with forested and transitional habitats that provide cover, forage, and reduced human disturbance. Major elk summering areas are generally defined by FWP and federal land managers as large blocks of forested habitat-generally greater than

one-half mile in radius, located more than one-half mile from existing roads. These areas are typically found in foothill and mountainous landscapes, including portions of the Rocky Mountains and the Missouri River Breaks.

Available agency mapping was reviewed to evaluate the presence of mapped elk summer distribution within the Project study area (Montana Fish, Wildlife and Parks, n.d.-b). Identification of elk summer distribution areas potentially intersected or influenced by the Project has been initiated and will continue through coordination with the BLM and FWP and review of available elk summer range mapping. Project planning has considered the spatial relationship between proposed facilities, access routes, and identified elk summer range to minimize disturbance where practicable and consistent with applicable agency guidance and timing recommendations.

Bighorn Sheep and Mountain Goat Habitat and Range

Bighorn sheep and mountain goats occur at lower densities in western Montana and in relatively isolated pockets in the Rocky Mountains south of the Peace River to Mexico, primarily occupying rugged, steep, and rocky terrain in foothill and mountainous areas. Seasonal use is typically limited to localized winter and summer habitats that allow for easy escape and where suitable forage is available. These species generally exhibit limited long-distance movement compared to elk, deer, and pronghorn (Innes, 2011; Tesky, 1993).

Seasonally occupied habitats and range distribution for bighorn sheep and mountain goats were preliminarily evaluated through review of available FWP species mapping and other publicly available information (Montana Fish, Wildlife and Parks, n.d.-b). Based on desktop review of available mapping, it is not anticipated that these species would occur within the study areas as their range occurs throughout the Rocky Mountains in the western part of the state. Additionally, terrain within the Project study areas, identified as predominately prairie and rolling plains, does not represent suitable habitat.

Small Game Species

Small game species that could occur along the alternative routes include upland gamebirds, waterfowl, furbearers, and small mammals. Specific species could include mourning dove, ring-necked pheasant, greater sage-grouse, sharp-tailed grouse, ruffed grouse, gray partridge, wild turkey, eastern fox squirrel, eastern gray squirrel, red squirrel, eastern cottontail, sandhill crane, and a number of migratory waterfowl. Furbearers include beaver, bobcat, red fox, gray fox, swift fox, raccoon, badger, ermine, least weasel, long-tailed weasel, and mink.

Greater Sage-Grouse/Sharp-tailed Grouse (Circular MFSA-2 Section 3.7(12)(b)(xviii))

The greater sage-grouse is considered the most sensitive small game species along all three route options and is discussed further as a special status species in **7.4.5 Special Status Species**. The distribution of sage-grouse and sharp-tailed grouse is found in the ***Biological Resources Map*** in ***Appendix B***.

Waterfowl (Circular MFSA-2 Section 3.7(12)(b)(xix); Section 3.8 (1)(c)(v))

Areas with High Waterfowl Population Densities and Prime Waterfowl Locations

Areas of high waterfowl population density typically occur along large river corridors such as the Missouri and Yellowstone rivers, as well as within floodplain wetlands, backwaters, and managed waterfowl areas.

Waterfowl are most abundant during spring and fall migration periods. Major rivers, reservoirs, wetlands, and associated riparian habitats within the Project region provide important seasonal habitat for migratory and resident waterfowl, such as the Missouri River, Yellowstone River, and Frenchman Reservoir, which are within all route options' study areas. No Project route options cross directly through Frenchman Reservoir. Waterfowl Production Areas and National Wildlife Refuges have been mapped on a regional scale and are located in the ***Recreation and Sensitive Natural Areas Map*** in ***Appendix B***. Available agency mapping and National Wetlands Inventory data will be reviewed during preliminary siting to identify areas of higher potential waterfowl use along the study corridor. Site-specific identification of waterfowl concentration areas in the vicinity of Project waterbody crossings will continue to be refined through coordination with FWP and USFWS, and review of updated spatial data as Project design advances.

Nongame Species

The three options cross through various regions that support a diversity of nongame species including small mammals, raptors, songbirds, amphibians, and reptiles. Small-mammal diversity in this region typically includes shrews, bats, ground squirrels and prairie dogs, pocket gophers, pocket mice, voles, and deer mice. These small mammals are a critical prey base for generalist predators such as coyotes, badgers, and skunks, and for a raptor guild that includes eagles, buteos, accipiters, and owls, as well as several snake species.

Many of the songbirds inhabiting the region, particularly in woodland areas, are neotropical migrants. These are birds that breed in North America but winter in the neotropical region of Central and South America. Examples of neotropical migrants that potentially could occur in the area of the proposed route include lark buntings, kingbirds, and various vireos and warbler species. Eastern kingbirds, American crows, western and eastern meadowlarks, horned larks, and sparrows are common open-country inhabitants, while woodpeckers, blue jays, chickadees, wrens, vireos, warblers, and cardinals are typical summer or year-long residents of shrublands and woodlands.

Surveys (Circular MFSA-2 Section 3.7(12)(b)(xxiv))

Aerial surveys were completed to collect eagle winter roost sites and large ungulate occurrence information along Proposed Route Option 1 on January 23, February 5, and February 12. Large ungulate aerial surveys recorded herds or groups of ungulates by species, age classification, and counts. All aerial surveys were conducted at a minimum of one week apart from a fixed wing aircraft with a pilot and a two-person survey team.

Upcoming aerial survey work includes sharp-tailed and sage grouse lek surveys, raptor surveys, and raptor nest surveys. Pedestrian wetland delineations, sensitive plant surveys, and noxious weed inventories will occur at a later date.

Aquatic Resources

Aquatic resources are defined in this study as fish and invertebrate communities that inhabit perennial rivers, streams, and pond/lake environments. The description of aquatic communities focuses on important fisheries, which are defined as species with recreational or commercial value or threatened, endangered, or sensitive status (i.e., special status). This section describes recreationally or commercially important fisheries that occur at or immediately downstream of the proposed crossings. Special status aquatic species are discussed in **7.4.5 Special Status Species**. The study area for aquatic resources includes the perennial streams, rivers, reservoirs, and ponds/lakes that will be crossed by all route options.

Invertebrate communities that could occur in waterbodies along the proposed route include worms, immature and adult insect groups, shellfish, and other forms of aquatic life. The composition can vary depending on flowing or standing water and other physical characteristics of the waterbody. Invertebrates function in the aquatic environment through their food web dynamics and are valued as indicators of water quality. For the purpose of describing aquatic resources, it is assumed that invertebrates are present in all Project area waterbodies.

Major waterways such as the Missouri and Yellowstone rivers support fish species including walleye, catfish, northern pike, and smallmouth bass, and provide recreational angling opportunities through established fishing access sites. Recreationally important fishery classifications that occur within waterbodies crossed by each route Option are listed in ***Table 33, Table 35,*** and ***Table 37***.

The Missouri and Yellowstone rivers are the only rivers listed as having fisheries values of Class I or II by FWP.

Aquatic habitat evaluations have focused and will continue to focus on stream reaches and water bodies that could be affected by pipeline construction activities or operational releases, including areas where siltation, sedimentation, or increased turbidity may occur adjacent to perennial streams. These aquatic systems support important ecological functions, including fish spawning, rearing, and foraging, and also provide recreational angling opportunities. The Project has been designed to minimize in-water disturbance by using HDD or bore methods at major waterbody crossings and by implementing standard erosion and sediment control BMPs. As Project design advances and additional site-specific information becomes available, aquatic habitat conditions, fish populations, special use areas such as spawning reaches, and patterns of angler use will be further characterized in coordination with FWP and other appropriate agencies. The Project will incorporate mitigation measures to minimize potential impacts to aquatic resources.

Baseline Data and Description of Routes – Proposed Route Option 1

Wildlife Habitats and Special Interest Areas

Proposed Route Option 1 primarily traverses grassland and agricultural lands, which represent the dominant and most widespread wildlife habitat types within the study area. Forested and wetland crossings under Proposed Route Option 1 are limited. Refer to ***Table 17*** for more information.

Proposed Route Option 1 would intersect multiple wetland easements administered by USFWS. Wetland easements are legal conservation agreements with landowners to protect qualifying wetlands by restricting draining, filling, leveling, or burning wetlands. When wetlands naturally dry out, compatible agricultural uses are allowed (USFWS, n.d.-c). Wetland crossing methods will be determined on a case-by-case basis dependent on site conditions.

Proposed Route Option 1 would not intersect any WPAs administered by the USFWS, which are federally owned conservation lands acquired in fee title and managed as units of the National Wildlife Refuge System to preserve key wetland and grassland habitats. No NWRs are crossed by Proposed Route Option 1.The Bitter Creek ACEC and WSA are BLM public lands in northern Valley County where special management attention is required to protect important historic, cultural, or scenic values, fish and wildlife resources, or other natural systems, and to protect life from natural hazards (BLM n.d.). Proposed Route Option 1 does not directly cross through Bitter Creek, however it is within study area boundaries.

Big Game, Small Game, and Nongame (Circular MFSA-2 Section 3.7(12)(xv))

Big game species occurring along Proposed Route Option 1 are similar to those mentioned for all routes. Based on GIS analysis from the MFWP and MTNHP, ***Table 32*** lists the length and affected acreage of winter game ranges crossed by Proposed Route Option 1.

Small game species occurring along Proposed Route Option 1 are similar to those mentioned for all routes. Sharp-tailed grouse and greater sage grouse lek aerial surveys will occur at a later date to determine their prevalence surrounding Proposed Route Option 1.

Nongame species occurring along Proposed Route Option 1 are similar to those mentioned for all routes. Additional raptor and raptor nest surveys will occur in the spring of 2026. Surveys for black-tailed prairie dogs will occur at a later date.

Table 32: Big Game Winter Ranges Crossed by Proposed Route Option 1

Game Type	County	Miles	Acres
White-tailed deer winter range	Sheridan County	12.9	236.2
	Roosevelt County	9.4	170.3
	Richland County	4.6	83.5
	Wibaux County	2.2	39.4
	Fallon County	0.4	7.3
	Daniels County	0.5	8.8
	Valley County	1.0	18.7
	Carter County	4.9	89.3
	Total	35.8	653.5
Mule deer winter range	Richland, Roosevelt County	6.3	114.1
	Roosevelt County	3.0	54.5
	Sheridan County	5.1	93.6
	Wibaux County	1.8	32.7
	Richland County	5.4	97.7
	Wibaux, Fallon County	23.6	423.7

	Fallon County	5.9	107.2
	Valley County	23.6	423.7
	Phillips, Valley County	18.4	334.1
	Carter County	36.0	654.8
	Total	116.6	2117.0
Antelope winter range	Fallon, Wibaux County	10.1	183.1
	Valley County	22.6	410.3
	Phillps County	7.2	130.4
	Phillips, Valley County	7.3	132.3
	Carter County	25.9	471.5
	Carter, Fallon County	23.3	424.4
	Total	96.3	1752.1

Aquatic Resources

The Proposed Route Option 1 will cross 13 perennial streams; see ***Table 26***. The Proposed Route Option 1 crosses Class I and Class II fisheries. A list of game fisheries crossed or downstream of Proposed Route Option 1 is found in ***Table 33***.

Table 33: Game Fisheries in Waterbodies Crossed by or Downstream of the Proposed Route Option 1

Waterbody	County	Stream Type	Fishery Class1	Number of Crossings
Antelope Creek	Sheridan	Antelope Creek Mainstem	Non-salmonid Fishery	1

[1] Non salmonid fishery – Waters that do not provide habitat for trout and salmon species. Non-salmonid species include sturgeons, suckers, minnows, etc. Blue Ribbon – Class I: Recreational fishery of outstanding value. Red Ribbon fishery – Class II: Recreational fishery of high value.

Waterbody	County	Stream Type	Fishery Class1	Number of Crossings
Big Muddy Creek	Sheridan	Missouri Drainage from Milk River to ND Border	Non-salmonid Fishery	1
Boxelder Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
Brorson Creek	Richland	Non-Exception Stream	Non-salmonid Fishery	1
Buffalo Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
Cabin Creek	Fallon	Non-Exception Stream	Non-salmonid Fishery	1
Cabin Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
Chito Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
Clear Fork	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
Coon Creek	Fallon	Non-Exception Stream	Non-salmonid Fishery	1
Corral Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
Deep Creek	Valley	Milk River Drainage Between Canada and Missouri	Non-salmonid Fishery	1
Dry Creek	Wibaux	Non-Exception Stream	Non-salmonid Fishery	1
Dugan Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
East Fork O'Fallon Creek	Carter	Non-Exception Stream	Non-salmonid Fishery	1
East Fork T L Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1

Waterbody	County	Stream Type	Fishery Class1	Number of Crossings
East Fork Whitewater Creek	Phillips	Milk River Drainage Between Canada and Missouri	Non-salmonid Fishery	1
First Hay Creek	Richland	Non-Exception Stream	Non-salmonid Fishery	1
Flat Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
Fox Creek	Richland	Fox Creek Drainage Near Sidney	Marginal Salmonid Fishery	1
Freeman Creek	Wibaux	Non-Exception Stream	Non-salmonid Fishery	1
Jack Creek	Valley	Milk River Drainage Between Canada and Missouri	Non-salmonid Fishery	1
Lake Creek	Sheridan	Missouri Drainage from Milk River to ND Border	Non-salmonid Fishery	1
Lame Jones Creek	Fallon	Non-Exception Stream	Non-salmonid Fishery	1
Little Beaver Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	2
Little Muddy Creek	Roosevelt	Missouri Drainage from Milk River to ND Border	Non-salmonid Fishery	1
Little Snake Creek	Valley	Milk River Drainage Between Canada and Missouri	Non-salmonid Fishery	1
Main Canal	Richland	Non-Exception Stream	Non-salmonid Fishery	1
Middle Fork Cabin Creek	Fallon	Non-Exception Stream	Non-salmonid Fishery	1
Middle Fork Porcupine Creek	Valley	Milk River Drainage Between Canada and Missouri	Non-salmonid Fishery	1
Middle Fork Willow Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1

Waterbody	County	Stream Type	Fishery Class1	Number of Crossings
Milk Creek	Fallon	Non-Exception Stream	Non-salmonid Fishery	1
Missouri River	Roosevelt	Mainstem	Non-salmonid Fishery	1
Muskrat Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
North Fork Cabin Creek	Fallon	Non-Exception Stream	Non-salmonid Fishery	1
North Fork Cottonwood Creek	Wibaux	Non-Exception Stream	Non-salmonid Fishery	1
North Fork First Hay Creek	Richland	Non-Exception Stream	Non-salmonid Fishery	1
North Fork Fourmile Creek	Richland	Non-Exception Stream	Non-salmonid Fishery	1
North Fork Fox Creek	Richland	Fox Creek Drainage Near Sidney	Marginal Salmonid Fishery	1
North Fork Willow Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
Otter Creek	Sheridan	Missouri Drainage from Milk River to ND Border	Non-salmonid Fishery	1
Pennel Creek	Fallon	Non-Exception Stream	Non-salmonid Fishery	1
Pine Creek	Fallon	Non-Exception Stream	Non-salmonid Fishery	1
Police Creek	Daniels	Poplar River Drainage	Marginal Salmonid Fishery	1
Poplar River	Daniels	Mainstem or Fork of Poplar River	Marginal Salmonid Fishery	1
Red Bank Creek	Roosevelt	Missouri Drainage from Milk River to ND Border	Non-salmonid Fishery	1

Waterbody	County	Stream Type	Fishery Class1	Number of Crossings
Rock Creek	Valley	Milk River Drainage Between Canada and Missouri	Non-salmonid Fishery	1
Sand Creek	Roosevelt	Missouri Drainage from Milk River to ND Border	Non-salmonid Fishery	1
Sandstone Creek	Fallon	Non-Exception Stream	Non-salmonid Fishery	1
Second Hay Creek	Richland	Non-Exception Stream	Non-salmonid Fishery	1
Shadwell Creek	Richland	Non-Exception Stream	Non-salmonid Fishery	1
Smith Creek	Richland	Non-Exception Stream	Non-salmonid Fishery	1
Smoke Creek	Daniels	Missouri Drainage from Milk River to ND Border	Non-salmonid Fishery	1
Snake Creek	Valley	Milk River Drainage Between Canada and Missouri	Non-salmonid Fishery	1
South Cottonwood Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
South Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
South Fork Corral Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
South Fork Cottonwood Creek	Wibaux	Non-Exception Stream	Non-salmonid Fishery	1
South Fork Milk Creek	Carter	Non-Exception Stream	Non-salmonid Fishery	1
South Fork Sandstone Creek	Fallon	Non-Exception Stream	Non-salmonid Fishery	1
South Fork Willow Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1

Waterbody	County	Stream Type	Fishery Class1	Number of Crossings
Spring Creek	Carter	Non-Exception Stream	Non-salmonid Fishery	1
Spring Creek	Wibaux	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
Trough Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
West Fork Poplar River	Daniels	Mainstem or Fork of Poplar River	Marginal Salmonid Fishery	1
West Fork Willow Creek	Valley	Milk River Drainage Between Canada and Missouri	Non-salmonid Fishery	1
Whitetail Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
Willow Creek	Valley	Milk River Drainage Between Canada and Missouri	Non-salmonid Fishery	1
Wills Creek	Fallon	Non-Exception Stream	Non-salmonid Fishery	1
Wolf Creek	Sheridan	Missouri Drainage from Milk River to ND Border	Non-salmonid Fishery	1
Yellowstone River	Richland	Mainstem, meander, or flood plain reach	Non-salmonid Fishery	1
Total				72

Source: MTDEQ (2024)

Baseline Data and Description of Routes – Option 2

Wildlife Habitats and Special Interest Areas

Option 2 represents the shortest route option and includes the lowest mileage across all land cover categories. Grasslands are intersected most often by Option 2; these ecosystems are relied upon by many wildlife species for habitat and forage. Refer to ***Table 17*** for more information.

Option 2 would intersect one or more wetland easements administered by USFWS. Wetland easements are legal conservation agreements with landowners to protect qualifying wetlands by restricting draining, filling,

leveling, or burning wetlands. When wetlands naturally dry out, compatible agricultural uses are allowed (USFWS, n.d.-c).

Option 2 would intersect one or more WPAs administered by the USFWS, which are federally owned conservation lands acquired in fee title and managed as units of the National Wildlife Refuge System to preserve key wetland and grassland habitats. WPAs are established primarily to protect, restore, and enhance breeding, nesting, and migratory habitat for waterfowl, shorebirds, grassland birds, and other wildlife, while also supporting important ecological functions such as flood attenuation and water quality improvement (USFWS, n.d.-b). No NWRs are crossed by Option 2.

The Bitter Creek ACEC and WSA are BLM public lands in northern Valley County where special management attention is required. Option 2 does not directly cross through Bitter Creek, however it is within study area boundaries.

Big Game, Small Game, and Nongame (Circular MFSA-2 Section 3.7(12)(xv))

Big game species occurring along Option 2 are similar to those mentioned for all routes. Based on GIS analysis from the MFWP and MTNHP, ***Table 34*** lists the length and affected acreage of winter game ranges crossed by Option 2.

Small game species occurring along Option 2 are similar to those mentioned for all routes. Nongame species occurring along Option 2 are similar to those mentioned for all routes.

Table 34: Big Game Winter Ranges Crossed by Option 2

Game Type	County	Miles	Acres
White-tailed deer winter range	Dawson County	18.2	331.5
	Fallon County	0.4	7.3
	McCone County	12.9	234.4
	Valley County	8.5	154.8
	McCone, Valley County	3.5	64.4
	Carter County	5.0	91.6
	Total	48.6	883.9
Mule deer winter range	McCone County	41.1	748.1
	Dawson, McCone County	7.9	144.0
	Prairie County	1.1	20.1

	Fallon County	5.3	95.7
	Prairie, Fallon County	13.5	245.6
	Valley County	36.1	655.7
	Phillips, Valley County	18.8	334.7
	Carter County	35.5	645.6
	Total	159.3	2889.6
Antelope winter range	McCone County	17.7	322.4
	Dawson County	1.4	25.6
	Valley County	36.5	663.3
	Phillps County	7.2	130.4
	Phillips, Valley County	7.4	133.9
	Carter County	25.9	471.2
	Carter, Fallon County	23.3	424.4
	Fallon County	0.3	5.2
	Total	119.6	2175.1

Aquatic Resources

Option 2 will cross 10 perennial streams, see ***Table 27***. Option 2 crosses Class I and Class II fisheries. A list of game fisheries crossed by route Option 2 is found in ***Table 35***.

Table 35: Game Fisheries in Waterbodies Crossed by Option 2

Waterbody	County	Stream Type[2]	Fishery Class	Number of Crossings
Bear Creek	McCone	Middle Missouri River Drainage	Non-salmonid Fishery	1
Bear Creek	Valley	Milk River Drainage Between Canada and Missouri	Non-salmonid Fishery	1
Boxelder Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
Brush Fork	Valley	Milk River Drainage Between Canada and Missouri	Non-salmonid Fishery	1
Buffalo Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
Buggy Creek	Valley	Milk River Drainage Between Canada and Missouri	Non-salmonid Fishery	1
Cabin Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
Cheer Creek	McCone	Missouri Drainage from Milk River to ND Border	Non-salmonid Fishery	1
Cherry Creek	Valley	Milk River Drainage Between Canada and Missouri	Non-salmonid Fishery	1
Chito Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
Clear Creek	Dawson	Non-Exception Stream	Non-salmonid Fishery	1
Clear Fork	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1

[2] Non salmonid fishery – Waters that do not provide habitat for trout and salmon species. Non-salmonid species include sturgeons, suckers, minnows, etc. Blue Ribbon – Class I: Recreational fishery of outstanding value. Red Ribbon fishery – Class II: Recreational fishery of high value.

Waterbody	County	Stream Type[2]	Fishery Class	Number of Crossings
Coon Creek	Fallon	Non-Exception Stream	Non-salmonid Fishery	1
Corral Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
Cottonwood Creek	Dawson	Missouri Drainage from Milk River to ND Border	Non-salmonid Fishery	1
Cup Creek	McCone	Missouri Drainage from Milk River to ND Border	Non-salmonid Fishery	1
Dry Fork Creek	Fallon	Non-Exception Stream	Non-salmonid Fishery	1
Dugan Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
East Fork Cash Creek	Valley	Milk River Drainage Between Canada and Missouri	Non-salmonid Fishery	1
East Fork Cherry Creek	Valley	Milk River Drainage Between Canada and Missouri	Non-salmonid Fishery	1
East Fork O'Fallon Creek	Carter	Non-Exception Stream	Non-salmonid Fishery	1
East Fork Prairie Elk Creek	McCone	Missouri Drainage from Milk River to ND Border	Non-salmonid Fishery	1
East Fork T L Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
East Fork Whitewater Creek	Phillips	Milk River Drainage Between Canada and Missouri	Non-salmonid Fishery	1
Figure Eight Creek	McCone	Missouri Drainage from Milk River to ND Border	Non-salmonid Fishery	1
Flat Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
Flying V Creek	McCone	Missouri Drainage from Milk River to ND Border	Non-salmonid Fishery	1

Waterbody	County	Stream Type[2]	Fishery Class	Number of Crossings
Hay Creek	Prairie	Non-Exception Stream	Non-salmonid Fishery	1
Lame Jones Creek	Fallon	Non-Exception Stream	Non-salmonid Fishery	1
Lawrence Creek	Fallon	Non-Exception Stream	Non-salmonid Fishery	1
Lime Creek	Valley	Milk River Drainage Between Canada and Missouri	Non-salmonid Fishery	1
Little Beaver Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	2
Lost Creek	McCone	Missouri Drainage from Milk River to ND Border	Non-salmonid Fishery	1
McNaney Creek	Prairie	Non-Exception Stream	Non-salmonid Fishery	1
Middle Fork Prairie Elk Creek	McCone	Missouri Drainage from Milk River to ND Border	Non-salmonid Fishery	1
Middle Fork Willow Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
Milk Creek	Fallon	Non-Exception Stream	Non-salmonid Fishery	1
Milk River	Valley	Milk River Drainage Between Canada and Missouri	Non-salmonid Fishery	1
Missouri River	Valley	Mainstem between Ft. Peck Dam and Milk River	Marginal Salmonid Fishery	1
Muskrat Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
North Fork Willow Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
North Prong Shade Creek	McCone	Missouri Drainage from Milk River to ND Border	Non-salmonid Fishery	1

Waterbody	County	Stream Type[2]	Fishery Class	Number of Crossings
Pennel Creek	Fallon	Non-Exception Stream	Non-salmonid Fishery	1
Pine Creek	Fallon	Non-Exception Stream	Non-salmonid Fishery	1
Redwater River	McCone	Missouri Drainage from Milk River to ND Border	Non-salmonid Fishery	1
Rock Creek	Valley	Milk River Drainage Between Canada and Missouri	Non-salmonid Fishery	1
Sandstone Creek	Fallon	Non-Exception Stream	Non-salmonid Fishery	1
Shade Creek	McCone	Missouri Drainage from Milk River to ND Border	Non-salmonid Fishery	1
South Cottonwood Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
South Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
South Fork Corral Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
South Fork Milk Creek	Carter	Non-Exception Stream	Non-salmonid Fishery	1
South Fork Sandstone Creek	Fallon	Non-Exception Stream	Non-salmonid Fishery	1
South Fork Shade Creek	McCone	Missouri Drainage from Milk River to ND Border	Non-salmonid Fishery	1
South Fork Willow Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
Spring Creek	Valley	Milk River Drainage Between Canada and Missouri	Non-salmonid Fishery	1
Spring Creek	Prairie	Non-Exception Stream	Non-salmonid Fishery	1

Waterbody	County	Stream Type[2]	Fishery Class	Number of Crossings
Spring Creek	Carter	Non-Exception Stream	Non-salmonid Fishery	1
Trough Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
West Fork Hay Creek	Prairie	Non-Exception Stream	Non-salmonid Fishery	1
West Fork Hungry Creek	McCone	Missouri Drainage from Milk River to ND Border	Non-salmonid Fishery	1
West Fork Lost Creek	McCone	Missouri Drainage from Milk River to ND Border	Non-salmonid Fishery	2
Whitetail Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
Willow Creek	Valley	Milk River Drainage Between Canada and Missouri	Non-salmonid Fishery	1
Yellowstone River	Dawson	Mainstem, meander, or flood plain reach	Non-salmonid Fishery	1
Total				66

Source: MTDEQ (2024)

Baseline Data and Description of Routes – Option 3

Wildlife Habitats and Special Interest Areas

Relative to the other route Options, Option 3 includes higher crossing mileages of forested habitats, as well as emergent and woody wetland habitats, with 3.13, 4.89 and 1.00 miles, respectively. Refer to ***Table 17*** for more information.

Option 3 would intersect one or more wetland easements administered by USFWS. Wetland easements are legal conservation agreements with landowners to protect qualifying wetlands by restricting draining, filling, leveling, or burning wetlands. When wetlands naturally dry out, compatible agricultural uses are allowed (USFWS, n.d.-c).

Option 3 would intersect one or more WPAs administered by the USFWS, which are federally owned conservation lands acquired in fee title and managed as units of the National Wildlife Refuge System to preserve key wetland and grassland habitats. WPAs are established primarily to protect, restore, and enhance breeding, nesting, and migratory habitat for waterfowl, shorebirds, grassland birds, and other

wildlife, while also supporting important ecological functions such as flood attenuation and water quality improvement (USFWS, n.d.-b). No NWRs are crossed by Option 3.

The Bitter Creek ACEC and WSA are BLM public lands in northern Valley County where special management attention is required to protect important historic, cultural, or scenic values, fish and wildlife resources, or other natural systems, and to protect life and safety from natural hazards (BLM n.d.-a). Option 3 crosses through Bitter Creek.

Big Game, Small Game, and Nongame (Circular MFSA-2 Section 3.7(12)(xv))

Big game species occurring along Option 3 are similar to those mentioned for all routes. Based on GIS analysis from the MFWP and MTNHP, ***Table 36*** lists the length and affected acreage of winter game ranges crossed by Option 3.

Small game species occurring along route Option 3 are similar to those mentioned for all routes. Nongame species occurring along Option 3 are similar to those mentioned for all routes.

Table 36: Big Game Winter Ranges Crossed by Option 3

Game Type	County	Miles	Acres
White-tailed deer winter range	Roosevelt County	6.3	114.5
	Richland County	7.3	132.9
	Roosevelt, Richland County	5.1	93.3
	Wibaux County	2.2	39.4
	Fallon County	0.4	7.3
	Carter County	5.0	91.6
	Total	26.3	479.0
Mule deer winter range	Wibaux County	1.3	22.5
	Fallon County	5.3	95.7
	Wibaux, Fallon County	11.2	204.1
	Richland, Wibaux County	14.3	260.6
	Roosevelt, Richland County	13.7	249.6
	Valley County	21.6	392.1

	Phillips, Valley County	18.4	341.1
	Carter County	35.5	645.6
	Total	121.4	2211.4
Antelope winter range	Valley County	12.7	231.7
	Phillps County	8.6	156.7
	Phillips, Valley County	5.7	104.1
	Carter County	25.9	471.2
	Carter, Fallon County	23.3	424.2
	Fallon, Wibaux County	10.0	182.5
	Total	86.4	1570.3

Aquatic Resources

Route Option 3 will cross 12 perennial streams, see ***Table 28***. Option 3 crosses Class I and Class II fisheries. A list of game fisheries crossed by route Option 3 is found in ***Table 37***.

Table 37: Game Fisheries in Waterbodies Crossed by Option 3

Waterbody	County	Stream Type	Fishery Class	Number of Crossings
Big Muddy Creek	Roosevelt	Missouri Drainage from Milk River to ND Border	Non-salmonid Fishery	1
Boxelder Creek	Roosevelt	Poplar River Drainage	Marginal Salmonid Fishery	1
Boxelder Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
Buffalo Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
Buggy Creek	Valley	Milk River Drainage Between Canada and Missouri	Non-salmonid Fishery	1

Burnett Creek	Valley	Milk River Drainage Between Canada and Missouri	Non-salmonid Fishery	1
Cabin Creek	Fallon	Non-Exception Stream	Non-salmonid Fishery	1
Cabin Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
Canyon Creek	Valley	Milk River Drainage Between Canada and Missouri	Non-salmonid Fishery	1
Cherry Creek	Richland	Missouri Drainage from Milk River to ND Border	Non-salmonid Fishery	1
Chisholm Creek	Valley	Milk River Drainage Between Canada and Missouri	Non-salmonid Fishery	1
Chito Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
Clear Fork	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
Clover Creek	Roosevelt	Missouri Drainage from Milk River to ND Border	Non-salmonid Fishery	1
Collins Creek	Valley	Milk River Drainage Between Canada and Missouri	Non-salmonid Fishery	3
Coon Creek	Fallon	Non-Exception Stream	Non-salmonid Fishery	1
Corral Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
Cottonwood Creek	Valley	Poplar River Drainage	Marginal Salmonid Fishery	2
Dry Creek	Wibaux	Non-Exception Stream	Non-salmonid Fishery	1
Dugan Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
Eagles Nest Coulee	Valley	Milk River Drainage Between Canada and Missouri	Non-salmonid Fishery	1

East Fork Collins Creek	Valley	Milk River Drainage Between Canada and Missouri	Non-salmonid Fishery	1
East Fork Little Porcupine Creek	Valley	Missouri Drainage from Milk River to ND Border	Non-salmonid Fishery	1
East Fork Little Porcupine Creek	Valley	Missouri Drainage from Milk River to ND Border	Non-salmonid Fishery	1
East Fork O'Fallon Creek	Carter	Non-Exception Stream	Non-salmonid Fishery	1
East Fork Porcupine Creek	Valley	Milk River Drainage Between Canada and Missouri	Non-salmonid Fishery	1
East Fork T L Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
East Fork Whitewater Creek	Phillips	Milk River Drainage Between Canada and Missouri	Non-salmonid Fishery	1
First Hay Creek	Richland	Non-Exception Stream	Non-salmonid Fishery	1
Flat Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	2
Fox Creek	Richland	Fox Creek Drainage Near Sidney	Marginal Salmonid Fishery	1
Freeman Creek	Wibaux	Non-Exception Stream	Non-salmonid Fishery	1
Lame Jones Creek	Fallon	Non-Exception Stream	Non-salmonid Fishery	1
Little Beaver Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	2
Long Creek	Roosevelt	Poplar River Drainage	Marginal Salmonid Fishery	2
Main Canal	Richland	Non-Exception Stream	Non-salmonid Fishery	1
Middle Fork Cabin Creek	Fallon	Non-Exception Stream	Non-salmonid Fishery	1

Middle Fork Porcupine Creek	Valley	Milk River Drainage Between Canada and Missouri	Non-salmonid Fishery	1
Middle Fork Willow Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
Milk Creek	Fallon	Non-Exception Stream	Non-salmonid Fishery	1
Missouri River	Richland	Mainstem	Non-salmonid Fishery	1
Muskrat Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
North Fork Cabin Creek	Fallon	Non-Exception Stream	Non-salmonid Fishery	1
North Fork Cottonwood Creek	Wibaux	Non-Exception Stream	Non-salmonid Fishery	1
North Fork First Hay Creek	Richland	Non-Exception Stream	Non-salmonid Fishery	1
North Fork Fox Creek	Richland	Fox Creek Drainage Near Sidney	Marginal Salmonid Fishery	1
North Fork Willow Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
Pennel Creek	Fallon	Non-Exception Stream	Non-salmonid Fishery	1
Pine Creek	Fallon	Non-Exception Stream	Non-salmonid Fishery	1
Poplar River	Roosevelt	Mainstem or Fork of Poplar River	Marginal Salmonid Fishery	1
Rock Creek	Valley	Milk River Drainage Between Canada and Missouri	Non-salmonid Fishery	1
Sand Creek	Roosevelt	Missouri Drainage from Milk River to ND Border	Non-salmonid Fishery	1
Sandstone Creek	Fallon	Non-Exception Stream	Non-salmonid Fishery	1

Shadwell Creek	Richland	Non-Exception Stream	Non-salmonid Fishery	1
Smith Creek	Richland	Non-Exception Stream	Non-salmonid Fishery	1
South Cottonwood Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
South Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
South Fork Cherry Creek	Richland	Missouri Drainage from Milk River to ND Border	Non-salmonid Fishery	2
South Fork Corral Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
South Fork Cottonwood Creek	Wibaux	Non-Exception Stream	Non-salmonid Fishery	1
South Fork Milk Creek	Carter	Non-Exception Stream	Non-salmonid Fishery	1
South Fork Sandstone Creek	Fallon	Non-Exception Stream	Non-salmonid Fishery	1
South Fork Willow Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
Spring Creek	Roosevelt	Missouri Drainage from Milk River to ND Border	Non-salmonid Fishery	2
Spring Creek	Carter	Non-Exception Stream	Non-salmonid Fishery	1
Spring Creek	Wibaux	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
Trough Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
Tule Creek	Roosevelt	Missouri Drainage from Milk River to ND Border	Non-salmonid Fishery	1
West Fork Little Porcupine Creek	Valley	Missouri Drainage from Milk River to ND Border	Non-salmonid Fishery	1

West Fork Porcupine Creek	Valley	Milk River Drainage Between Canada and Missouri	Non-salmonid Fishery	1
Whitetail Creek	Carter	Little Missouri - Belle Fourche Drainages	Non-salmonid Fishery	1
Willow Creek	Valley	Milk River Drainage Between Canada and Missouri	Non-salmonid Fishery	1
Wills Creek	Fallon	Non-Exception Stream	Non-salmonid Fishery	1
Yellowstone River	Richland	Mainstem, meander, or flood plain reach	Non-salmonid Fishery	1
Total				80

Source: MTDEQ (2024)

Impact Assessment

Terrestrial Wildlife

Issues

- Habitat loss or alteration and incremental habitat fragmentation;
- Loss of breeding success from exposure to construction and operational noise and from higher levels of human activity;
- Limited direct mortalities from Project construction and operation; and
- The potential loss of individuals from exposures to accidental crude oil releases.

Construction

Wildlife Habitat

Potential impacts to terrestrial wildlife species from the Project can be classified as short-term, long-term, and permanent. Short-term impacts consist of activities associated with Project construction and changes in wildlife habitats lasting less than five years. This would include impacts to species dependent on herbaceous habitats. Long-term impacts would consist of changes to wildlife habitats lasting five years or more and would include wildlife dependent on habitats with woody species components. Permanent impacts would result from construction of aboveground facilities that convert natural habitat to an industrial site. The severity of both short- and long-term impacts would depend on factors such as the sensitivity of the species impacted, seasonal use patterns, type and timing of construction activities, and physical parameters (e.g., topography, cover, forage, and climate).

Less mobile or burrowing species may be lost to construction vehicles and equipment. Other potential impacts include habitat loss or alteration, habitat fragmentation, and animal displacement. Individuals may be permanently displaced and perish due to increased competition or other effects of being forced into sub-optimal habitat. Indirect impacts from increased noise and additional human presence also could lead to displacement and lowered fitness. However, the habitat adjacent to the construction zone would support displaced animals due to the small-scale amount of disturbance compared to the surrounding available habitat.

Habitat fragmentation is frequently a concern when clearing ROWs. In general, fragmentation results in an altered wildlife community as species more adaptable to edge habitats establish themselves, while species requiring undisturbed habitats are subject to more negative effects. These effects would result in overall changes in habitat quality, habitat loss, increased animal displacement, reductions in local wildlife and migratory bird numbers, and changes in species composition. The severity of these effects on migratory birds depends on factors such as sensitivity of the species, seasonal use, type and timing of construction activities, and physical parameters (e.g., topography, cover, forage, and climate). The effects of fragmentation on native wildlife populations would be relatively small since the majority of the Project would cross relatively open habitat types (e.g., shrubland, grassland, and cultivated land).

Due to the linear nature of the Project over a large geographic area (approximately 435 linear miles of new pipe), the area impacted will represent a small percentage of available wildlife habitat on a regional basis. The effects of short- and long-term habitat loss on native wildlife populations will be relatively small since the majority of disturbed habitat will be restored to pre-disturbance conditions. Agricultural lands will continue to be used for pre-construction uses while rangeland/grassland habitats will be reclaimed to primarily herbaceous communities using appropriate seed mixes prescribed by local, state, and federal agencies. Loss of shrub communities will be long-term (5 to 20 years or more) within reclaimed areas of the construction ROW since these communities will become reestablished through the natural reinvasion of woody species. Loss of woodland vegetation will be permanent since trees will not be allowed to reestablish within 15 feet of either side of the pipeline centerline. Habitat losses also will be long-term at permanent aboveground pipeline facility locations such as pump stations and access roads.

Construction of every route option will result in the short-term disturbance and long-term habitat modification of one or more USFWS wetland easements, with additional disturbances anticipated on state and federal lands. Long-term conversion of wooded habitats to herbaceous communities will result in an increase in habitat fragmentation in these areas but habitat conversion also could increase habitat diversity, depending on the extent of habitats affected and the extent and distribution of undisturbed habitats remaining in the state wildlife areas. Construction during the fall hunting seasons will create conflicts with hunter use of these areas.

Big Game Species

Construction impacts to primary big game species (white-tailed deer, mule deer, and antelope) will include the short-term loss of potential forage and will result in a temporary increase in habitat fragmentation within the proposed surface disturbance areas. These losses of vegetation will represent only a small percentage of the overall available habitat within the broader Project region. The loss of shrubland vegetation would be long-term (greater than 5 years and, in some cases, more than 20 years). In the interim, herbaceous species will become established within three to five years, depending on future weather conditions and grazing management practices that would affect reclamation success in the Project region. In most instances,

suitable habitat adjacent to the disturbed areas would be available for wildlife species until grasses and woody vegetation were reestablished within the disturbance areas.

Indirect short-term impacts will result from increased noise levels and human presence during surface disturbance activities. Big game animals (especially antelope and mule deer) would decrease their use within 0.5 miles of surface disturbance activities due to increased noise levels (Ward et al. 1980; Ward 1976). This displacement would be short term, and animals would return to the disturbance area following construction activities.

Small Game Species

Potential impacts to small game from the Project will result in the temporary loss of habitat and short-term habitat fragmentation until vegetation is reestablished.

Indirect impacts could include the temporary displacement of small game from the disturbance areas as a result of increased noise and human presence. Although habitats adjacent to the Project and other disturbance areas may support some displaced animals, species that are at or near carrying capacity could suffer some increased mortalities due to displacement. Displacement or loss of small game animals from disturbance areas will be short-term because of their generally high reproductive potentials and the fact that animals will return to the disturbance areas following completion of construction and reclamation activities. Potential direct impacts to small game species could include nest or burrow abandonment, loss of eggs or young where construction occurs during the breeding season. Of greatest concern is the potential for loss of lekking grounds and other greater sage-grouse and sharp-tailed grouse habitat (e.g., nesting habitat). Although the Project would not result in a permanent loss of habitat along the pipeline ROW, the regeneration of sagebrush would likely be slow. A 30-year interval represents the approximate recovery period for a stand of Wyoming big sagebrush. A 20-year interval represents the approximate recovery time for a stand of mountain sagebrush (Connelly et al. 2000). The potential impacts on sage-grouse habitat would be minimized by locating the proposed ROW within previously disturbed areas (i.e., adjacent to existing pipelines and/or roads) to the extent possible. Given the abundant suitable habitat in the general area, it is not likely that the minor, yet long-term, loss of habitat along the pipeline ROW would affect sage-grouse populations in the vicinity of the Project.

Depending on the timing of construction, the Project could potentially impact sage-grouse and sharp-tailed grouse during lekking activities or brood rearing. Bridger will continue to consult with MTFWP, BLM, and USFWS regarding recommended avoidance and minimization measures in order to address sage-grouse lek buffers, sites and breeding areas.

Non-game Species

Direct impacts to nongame species from surface disturbance activities will result from the temporary loss of habitat and increased fragmentation until vegetation is reestablished. Potential impacts also will result in mortalities of less mobile or burrowing nongame species (e.g., small mammals, birds, reptiles, amphibians, invertebrates) due to exposure to vehicles and construction equipment traffic. Potential direct impacts also could include nest or burrow abandonment or loss of eggs or young where construction occurs during the breeding season. Other impacts will include the short-term displacement of some of the more mobile species (e.g., medium-sized mammals, adult birds) as a result of surface disturbance. Although the habitats adjacent to the proposed disturbance area may support some displaced animals, species that are at or near carrying capacity could suffer some increased mortalities. Displacement or loss of nongame species from

disturbance areas will be short-term because of their generally high reproductive potentials and the fact that animals will return to the disturbance areas following completion of construction and reclamation activities.

If surface disturbance activities occur during the breeding season for passerines, raptors, and other summer avian residents (approximately March 1 through August 31), nest or territory abandonment or the loss of eggs or young (loss of productivity) for the breeding season could result. Impacts to nesting birds will depend on the nest location relative to the proposed disturbance area, the phase of the breeding period, and the level and duration of the disturbance. Bridger will continue to work with the agencies to determine a mutually agreeable strategy for minimizing potential impacts, while still allowing for a feasible construction schedule.

Operation

Normal pipeline operations will have negligible effects on terrestrial wildlife resources. Direct impacts to wildlife species populations and habitats from maintenance activities such as physical pipe inspections or ROW repair will be the same as those discussed above for construction. In order to reduce potential impacts to important wildlife resources as a result of maintenance activities, Bridger will consult with the appropriate wildlife agencies prior to the initiation of maintenance activities beyond standard inspection measures.

Bridger will employ multiple safeguards to prevent a pipeline release. The chance of a spill occurring is very low and if a spill occurred, the volume is likely to be limited in size. In the unlikely event of a pipeline release, Bridger would initiate its ERP and emergency response teams would contain and clean up the spill. To minimize impacts to wildlife, appropriate remedial measures will be implemented to meet federal and state standards designed to ensure protection of human health and environmental quality.

Aquatic Resources

Bridger is currently developing alternative route alignments for evaluation in accordance with Circular MFSA-2 Section 3.8. At this time, detailed aquatic resource data specific to individual alternative routes are not yet available. Once alternative route locations are finalized, Bridger will provide MTDEQ with route-specific baseline aquatic resource information and corresponding impact assessments and comparisons unique to each route. This process is consistent with MTDEQ's approval of Bridger's waiver request, which outlines the timing and sequence for providing alternative-route data.

Issues

- Short-term physical disturbance to stream channels;
- Short-term increases in suspended solids concentrations from in-stream activities and erosion from adjacent disturbed lands;
- One-time increases in downstream sedimentation from in-stream activities and erosion from adjacent disturbed lands;
- Potential fuel spills from equipment and toxicity to aquatic biota if fuel reached a waterbody;

- Local short-term reductions in habitat if surface water is used for hydrostatic testing and loss of individuals during pumping; and

- Loss of individuals as a result of acute and chronic toxicity from exposure to accidental crude oil releases.

Construction

Crossings

Proposed Route Option 1 intersects at least 16 waterbodies that are planned to be crossed using the HDD method (see ***Table 19***). Where HDD is used, direct impacts to aquatic habitat, channel form, and benthic communities will be minimized. Drilling at these rivers will aid in minimizing impacts to important game, commercial, and special status species. It is possible that mud from the directional drilling could inadvertently enter the active stream along the drilling route. If drilling fluid reaches an active channel, it may temporarily increase turbidity or impact the covering substrate. These effects are typically short lived (less than one day) and localized. An inadvertent return contingency plan will describe preventative, monitoring, containment, and response procedures.

Where open cut trenching is required for smaller perennial or seasonal streams, direct disturbance of bed and banks may occur. Trenching and backfilling can result in alteration of in-stream habitat and the mortality of benthic invertebrates inhabiting that reach of the watercourse. Peer reviewed studies indicate that benthic communities generally reestablish to near preconstruction levels within the following spring or summer (Tsui and McCart, 1981; Schubert and Vinikour, 1987). Backfilling the in-stream trench can either improve or lessen the quality of habitat available. This habitat quality change will depend largely on the nature of the soil materials from the lower depths of the trench with respect to those near the surface. If backfilling results in a different material on the stream bed surface than the adjacent areas, a local habitat modification may have occurred. However, the limited extent of the disturbed area and the active bottom substrate sorting by a river suggest any such habitat modification will be small and of short duration in most stream environments.

In-stream Habitat

In the vicinity of the trenchline, trenching and backfilling can result in alteration of in-stream habitat and the mortality of benthic invertebrates inhabiting that reach of the watercourse. Studies done to monitor the effects on benthic invertebrates have indicated that the impacts are short-term. The disturbed area typically is recolonized by benthic invertebrates to near pre-construction levels by the spring or summer following construction (Tsui and McCart 1981; Schubert and Vinikour 1987). Backfilling the in-stream trench can either improve or lessen the quality of habitat available. This habitat quality change will depend largely on the nature of the soil materials from the lower depths of the trench with respect to those near the surface. If backfilling results in a different material on the stream bed surface than the adjacent areas, a local habitat modification may have occurred. However, the limited extent of the disturbed area and the active bottom substrate sorting by a river suggest any such habitat modification will be small and of short duration in most stream environments.

Bank Cover and Riparian Conditions

Vegetative cover along the stream banks of a waterbody provides cover for fish, shading, bank stability, erosion control, and an increased food and nutrient supply due to the deposition of insects and vegetative matter into the watercourse. Loss of bank cover may result in increased water temperatures, reduced food supply, impaired aesthetics, and reduced productivity. The potential for channel migration also can be increased since the removal of vegetation destabilizes the banks at discrete locations. The limited width of the construction ROW and the application of reclamation measures, including replanting of woody species where appropriate, are expected to support bank stabilization and vegetative recovery.

Fish Movement

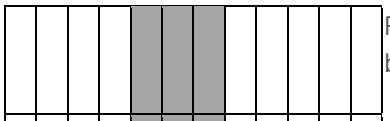
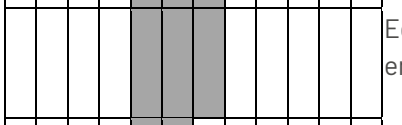
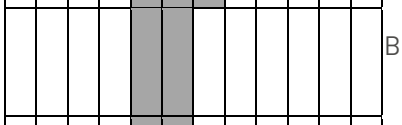
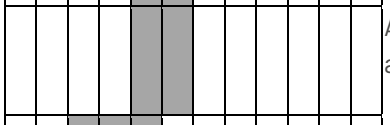
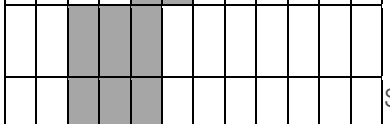
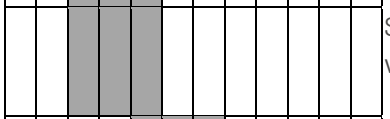
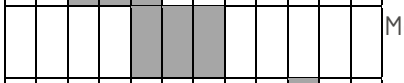
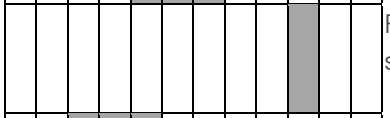
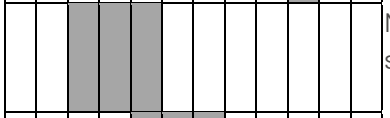
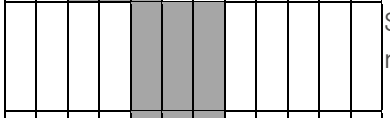
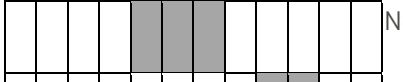
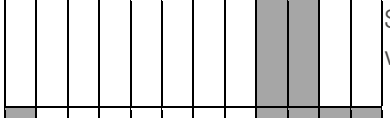
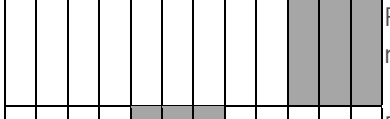
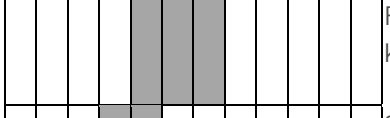
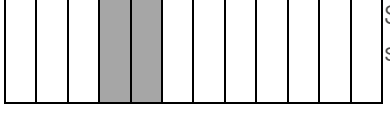
Most construction methods allow continued movement of fish. Dry crossing or other isolation methods may temporarily impede movement for short durations. Available literature indicates that delays of less than three days generally do not adversely affect spawning migrations (Dryden and Stein, 1975). Construction scheduling will avoid spawning periods to the extent practicable and will comply with agency recommended timing restrictions.

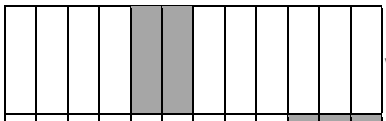
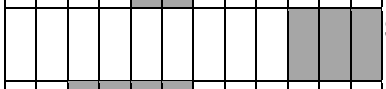
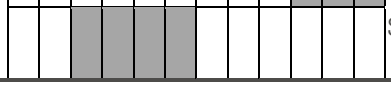
Spawning Habitat Disturbance

In stream construction during spawning periods could displace fish from preferred habitat or reduce spawning success. Construction in streams supporting documented spawning activity will be scheduled outside agency identified sensitive periods. As shown in ***Table 38*** spawning periods for most fish species extend from April through June.

Table 38: Fish Spawning Periods

Species or Group	Spawning Periods Months J F M A M J J A S O N D	Habitat
Burbot		Eggs are scattered over sand or gravel substrates.
Bass		Shallow areas over clean gravel and sand bottoms.
Bullhead		Usually spawn in weedy or muddy shallow areas by building nests
Buffalo Fish		Spawn at depths of 4 to 10 feet over gravel or sand substrates.
Carp		Adhesive eggs scattered in shallow water over vegetation, debris, logs, or rocks.

Channel Catfish		Prefers areas with structures such as rock ledges, undercut banks, or logs.
Crappie		Eggs deposited in depressions on bottom in cove or embayments.
Freshwater Drum		Buoyant eggs drift in river currents during development.
Shortnose Gar		Adhesive eggs are deposited in quiet, shallow water over aquatic plants or other submerged objects.
Goldeneye		Spawns in schools, eggs semi-buoyant.
Muskellunge		Spawn in tributary streams and shallow lake channels.
Northern Pike		Small streams or margins of lakes over submerged vegetation.
Paddlefish		Moves into rivers and spawns over flooded gravel bars.
Chinook Salmon		Freshwater rivers and streams, gravelly habitats with stones.
Sauger		Moves into tributary streams or backwaters where they spawn over rock substrates.
Sturgeon		Spawning occurs in open water channels of large rivers over rocky or gravelly bottoms.
Sunfish		Nest builders in diverse substrates and shallow depths.
Brook Trout		Spring-fed streams and ponds with gravel bottoms and vegetation, known as redds.
Brown Trout		Clean, loose gravel beds, known as redds.
Lake Trout		Rocky habitats with boulder or rubble bottoms, known as redds.
Rainbow Trout		Fast-flowing waters with gravel or cobblestone bottoms, known as redds.
Walleye		Spawn in lakes and streams in shallow water over rock substrates.

White Bass		Egg masses deposited over sand bars, submerged vegetation, or other instream debris.
Lake Whitefish		Shallow, rocky areas along shores of lakes and rivers.
Yellow Perch		Shallow open water over weedy areas.

Source: MTDEQ (2001), FWP (n.d.)

Water Quality

In stream excavation can generate short term increases in total suspended solids (TSS). The magnitude and duration of TSS increases are affected by flow velocity, sediment size, and construction duration. In most cases, elevated turbidity is limited to the active construction period and decreases rapidly downstream as particles settle. The waterbodies in the Project area normally experience wide ranges in seasonal flow rates (large peak flows due to precipitation events) and drain through areas with relatively fine-grained soils. These factors cause sudden natural peaks in suspended solids concentrations. The aquatic systems supported by these waterbodies are adapted to such increases. BMPs will reduce the duration and magnitude of suspended sediment during construction.

Sedimentation

Solids introduced into suspension in a waterbody ultimately will settle on the stream bed downstream of the crossing. The distance from the crossing is dependent upon the depth of flow, flow velocity, particle diameter, and flow characteristics. Coarser materials (sand and gravel) tend to settle relatively close to the crossing location and tend to be distributed uniformly across the stream section. Fine silts and clays can stay in suspension for considerable periods of time and will tend to settle in natural depositional areas downstream of the crossing. The channel substrates of the streams and rivers that will be crossed by the Project consist primarily of fine-grained materials (clay, silt, and sand). Fine-grained excavated material that is deposited downstream is expected to be similar to the existing substrate. Stream flows will suspend and re-deposit excavated materials during higher flow periods. Young and Mackie (1991) found that benthic invertebrates inhabiting the upper surface of the substrate may be more adaptable to sedimentation than are taxa occupying the interstitial spaces of the substrate. Post construction studies have shown that benthic invertebrate populations generally have recovered to normal within 1 to 2 months of construction. Tsui and McCart (1981) reported benthic invertebrate populations downstream of a water crossing had recovered to near pre-construction levels shortly after construction. The BMPs adopted for the Project will mitigate the short-term effects of downstream sedimentation, as discussed under Water Quality Effects.

Hydrostatic Testing

Streams or rivers to be used as potential water sources for hydrostatic testing for the Proposed Route Option 1 are being determined. The water sources will be located throughout the length of the Proposed Route Option 1. The water is likely to be withdrawn from water sources during summer and fall months. Relatively small, one-time withdrawals will occur from the streams or rivers designated for hydrostatic test water in accordance with withdrawal permits.

Withdrawal rates and volumes will be designed to avoid impacts to aquatic life and downstream water users. Hydrostatic test water will be discharged to the land surface at an approved location or be returned to the

source with an approved energy dissipation device. Discharged water may evaporate or infiltrate into the soil or drainage where the water is released. Hydrostatic test water will be withdrawn and returned to the same water source.

Water withdrawal could entrain small fish and drifting macroinvertebrates. The expected numbers of organisms removed during entrainment is considered to be relatively small in relation to the overall numbers in the stream or river. In summary, hydrostatic testing will result in minor impacts to aquatic biota. The discharge of hydrostatic test water will follow DEQ permit requirements, which will reduce potential effects on water quality or aquatic organisms. Energy dissipaters also will be used to prevent erosion at discharge locations.

Operational Impacts

Routine operation and maintenance activities include periodic tree and brush removal within the ROW. Vegetation clearing near waterbodies will be limited, and maintenance activities are not expected to alter aquatic biota or habitat.

Bridger will employ multiple safeguards to prevent a pipeline release. The chance of a spill occurring is very low and if a spill occurred, the volume is likely to be limited in size. In the unlikely event of a pipeline release, Bridger would initiate its ERP and emergency response teams would contain and clean up the spill. To minimize impacts to aquatic resources, appropriate remedial measures will be implemented to meet federal and state standards designed to ensure protection of human health and environmental quality. Additional information on potential impacts to aquatic resources resulting from a crude oil spill will be provided in the Risk Assessment at a later date.

7.4.5 Special Status Species

Baseline Data and Description – Proposed Route Option 1, Option 2 and Option 3

Special status species are those in which federal and/or state agencies provide protection by law, regulation, or policy. This includes federally listed and federally proposed for listing species with designated critical habitat that are protected under the ESA, and species listed as sensitive or special status by the BLM. The BLM special status species are protected by law, regulation, or policy on lands owned by the BLM only. Other species of concern analyzed in this document include those species that have been designated as Species of Concern by the MFWP and the MTNHP. This designation is not a regulatory or statutory classification, instead, it allows resource managers and decision makers to direct limited resources to priority data collection and proactively address conservation needs (MTNHP and MFWP, 2006).

Special status species analysis was focused on wildlife and plant species and habitats that may be affected by construction and operation of the proposed Project. The process considered federal laws and state statutes. The ESA is administered by the USFWS and provides broad national protection for fish, wildlife, and plants that are listed as endangered, threatened or proposed for listing. The ESA outlines procedures for federal agencies to follow when a listed species or designated habitat may be affected by an action they authorize, fund, or permit.

Special status wildlife and aquatic species potentially occurring within suitable habitat along the Proposed Route Option 1 are discussed under the appropriate route analysis below.

Bridger is currently developing alternative route alignments for evaluation in accordance with Circular MFSA-2 Section 3.8. At this time, detailed special status species data specific to some individual alternative routes are not yet available. Once alternative route locations are finalized, Bridger will provide MTDEQ with route-specific baseline special status species information and corresponding impact assessments and comparisons unique to each route. This process is consistent with MTDEQ's approval of Bridger's waiver request, which outlines the timing and sequence for providing alternative-route data.

Consultation (Circular MFSA-2 Section 3.0(4); Section 3.7(12)(d))

Potential occurrence data for sensitive terrestrial and aquatic species was obtained from MFWP, MTNHP, USFWS websites. In addition, the USFWS, MFWP, and MTNHP publicly available databases and resources were used to gather occurrence data. Methods for establishing a baseline of status, occurrence, and associated habitat of wildlife that may occur within the proposed Project study area include review of published literature, natural heritage database information, internet websites, agency correspondence, and field surveys. Biologists with the USFWS, MFWP, and MTNHP will be contacted for information about the status of wildlife species, habitat, special wildlife features, and habitats in the proposed Project study area. Aerial biological surveys were conducted in January and February 2026 to identify eagle winter roost sites and large game (see **Surveys** for more information).

Endangered Species Act (Circular MFSA-2 Sections 3.7(1)(e)) and 3.7 (12)(b)(x))

Federally protected wildlife species potentially occurring near Proposed Route Option 1 were identified through the USFWS ECOS/IPaC database (February 23, 2026) along a 300-foot corridor from the Proposed Route Option 1 centerline and are as follows:

- Northern Long-eared Bat (*Myotis septentrionalis*) - Endangered**:** The northern long-eared bat is a listed endangered species with no designated critical habitat. It is a medium-sized bat found across much of the eastern and north-central U.S. and all Canadian provinces. The predominant threat to this bat is white-nose syndrome, a deadly disease affecting cave-dwelling bats across the continent.

- Whooping Crane (*Grus americana*) - Endangered: The Project study area does not overlap identified critical habitat for the whooping crane.

- Pallid Sturgeon (*Scaphirhynchus albus*) - Endangered: The pallid sturgeon is a listed endangered species with no designated critical habitat.

- Piping Plover (*Charadrius melodus*) - Threatened: The piping plover is a small, pale shorebird that nests on sandy beaches, alkali flats, and river sandbars across North America. It requires open, sparsely vegetated habitats near water for breeding and foraging.

- Suckley's Cuckoo Bumble Bee (*Bombus Suckleyi*) – Proposed Endangered: Suckley's cuckoo bumble bee is a social parasitic bumble bee found historically across western North America.

- Monarch Butterfly (*Danaus Plexippus*) – Proposed Threatened: The monarch butterfly is a large, orange-and-black migratory butterfly found across North America. Monarchs require open habitats with abundant milkweed species for larval development and diverse nectar plants for adults. There

is not proposed or designated critical habitat for the Monarch butterfly near the Project (USFWS, 2024-a).

- Western Regal Fritillary (*Argynnis Idalia occidentalis*) – Proposed Threatened: The western regal fritillary is a large, orange-and-black butterfly historically found in tallgrass and mixed-grass prairies across western North America. It requires native prairie habitats with abundant violets for its larvae and diverse nectar plants for adults. The USFWS has not yet determined designated critical habitat for the western regal fritillary (USFWS, 2024-b).

Habitats Occupied by Threatened or Endangered Species

Federally protected wildlife species potentially occurring within the Proposed Route Option 1 corridor were identified through the USFWS ECOS IPaC system on February 23, 2026, along a 300-foot corridor from the centerline. These include ESA-listed endangered, threatened, proposed endangered, and proposed threatened species.

Habitats used seasonally or year-round by these species in the Proposed Route Option 1 study area include:

- Forested and riparian corridors (e.g., northern long-eared bat),
- Wetlands and river corridors (e.g., whooping crane migratory/foraging habitat),
- Large river systems (e.g., pallid sturgeon aquatic habitat),
- Open, sparsely vegetated sandbars and shorelines (e.g., piping plover breeding and foraging habitat), and
- Native grasslands and prairie remnants supporting pollinator species (e.g., Suckley's cuckoo bumble bee, monarch butterfly, western regal fritillary).

The presence, seasonal use, and habitat requirements of these species, as well as designated critical habitat, are further described below. Evaluation of potential Project interactions with ESA listed-species, their habitats, and applicable avoidance and mitigation measures, will be refined through continued coordination with the USFWS and the lead federal agency as Project design and construction planning progresses.

Designated Critical Habitat

Critical habitat refers to specific geographic areas, occupied by the species at the time it was listed, that contain the physical or biological features essential to the conservation of endangered and threatened species and that may require special management or protection (USFWS, 2017).

Each Project route option crosses areas designated by the USFWS as critical habitat for the piping plover (USFWS, 2026). Please refer to ***Table 39*** for locations of piping plover critical habitat within the study areas.

Table 39: Piping Plover Critical Habitat within the Study Areas

Counties	Location Comments
Roosevelt/Richland	Missouri River
Sheridan	Alkali Lakes and Wetlands including Medicine Lake National Wildlife Refuge
McCone/Garfield/Valley	Fort Peck Reservoir/Charles M. Russell National Wildlife Refuge
Phillips	Bowdoin National Refuge

Source: USFWS, 2001.

Project planning and implementation will consider the sensitivity of critical habitat and the life-history requirements of the piping plover, particularly during the breeding season. Avoidance, minimization, and timing measures will be applied to reduce potential impacts and support compliance with ESA requirements and USFWS conservation objectives. Habitats for special status species are similar to those discussed in this section, above.

Endangered Species Act Impact Assessment

Based on currently available information, including desktop review of USFWS IPaC data, MTNHP records, and other regional species datasets, Project-related impacts to federally listed, proposed, and candidate species are expected to be limited, temporary, and localized, with no adverse effects expected where construction activities avoid direct disturbance of occupied habitats or critical resources.

Potential impacts may include short-term disturbance, habitat modification, or displacement during construction activities; however, these effects are expected to be minimized through Project design, construction practices, and adherence to applicable regulatory requirements. The Project has been sited to avoid designated critical habitat where practicable and to minimize disturbance to sensitive habitats. Further review, site-specific field studies, agency coordination, and incorporation of updated data will support refinement of the impact assessment and inform the development of species-specific avoidance, minimization, and mitigation measures. Commitments and BMPs will be finalized through continued coordination with the USFWS and other relevant agencies to ensure compliance with the ESA and protection of listed species and their habitats.

Other Special Status Species (Circular MFSA-2 Sections 3.7(1)(e)) and 3.7 (12)(b)(x))

Bald and Golden Eagles and Migratory Bird Treaty Act

Protection for bald eagles (*Haliaeetus leucocephalus*) and golden eagles (*Aquila chrysaetos*) is provided through the Bald and Golden Eagle Protection Act (BGEPA) of 1940 (16 USC 668-668d). The BGEPA, as amended, prohibits the "take" of bald or golden eagles, including their parts, nests, or eggs, without a permit issued by the Secretary of the Interior. "Take" includes pursuing, shooting, wounding, killing, capturing, trapping, collecting, molesting, or disturbing eagles. Disturbance is defined as actions that agitate or bother eagles to a degree likely to cause injury, reduce productivity by substantially interfering with breeding, feeding, or sheltering, or result in nest abandonment.

The Migratory Bird Treaty Act (MBTA) (916 U.S. Code (USC) 703-712), provides protection for over 1,100 migratory bird species. Under the MBTA it is illegal to "take" protected species without a permit from the

USFWS. "Take" is defined as any means or matter to hunt, pursue, wound, kill, possess, or transport any migratory bird, nest, egg, or part thereof.

Bald eagles are generally associated with large water bodies (such as rivers, lakes, and reservoirs, where they forage for fish). Golden Eagles and other raptors typically inhabit open landscapes, including rangelands, grasslands, shrub-steppe areas, and forested edges, preying primarily on small mammals. Raptor nests are often large and long-lived, with eagles often returning to the same nest and nesting territory each year (Cornell Lab of Ornithology, n.d.; Stewards of the Upper Mississippi River Refuge, n.d.).

Migratory birds utilize a variety of habitats such as grasslands, wetlands, shrublands, forests, and even developed areas. Nesting sites range from ground scrapes and concealed vegetation to tree branches and cliffs, with some species returning to the same locations year after year. Some of these species rely on intact habitats and minimal disturbance during the breeding season (U.S. Fish and Wildlife Service, n.d.-a).

Migratory bird survey results will guide the Project siting, design, construction scheduling, and implementation of avoidance and minimization measures to reduce disturbance to eagles and migratory birds. Additionally, Bridger will coordinate with the BLM and USFWS to ensure compliance with all applicable federal regulations and any required consultation processes. These measures are intended to minimize potential impacts eagles and migratory birds while allowing construction activities to proceed safely and responsibly, consistent with MFSA and other applicable regulatory standards.

Greater Sage Grouse

The Project intersects certain habitat areas for the greater sage-grouse. Montana issued an executive order and implemented conservation programs to protect sage-grouse habitat, particularly within designated "core areas" that support the highest densities of breeding leks and nesting grounds. Montana's Sage-Grouse Habitat Conservation Program requires consultation and mitigation for projects within mapped habitats.

If residual impacts remain after avoidance and minimization, compensatory mitigation will be required under Montana's Habitat Quantification Tool (HQT). The HQT is used to calculate the number of mitigation units required by comparing quantified functional losses at the impact site with functional gains at a mitigation site. Credits are the quantified units of verified habitat benefit generated at approved mitigation sites; these credits are used to offset the calculated impacts on a one-for-one basis while supporting habitat restoration or protection elsewhere in the landscape (Montana Sage Grouse Habitat Conservation Program, 2023).

Additionally, the Project will comply with BLM Approved Resource Management Plan (ARMP) Required Design Features (RDFs) for greater sage-grouse habitat on BLM lands within the Malta and Miles City Field Office Districts (following the HiLine RMP, 2015 and Miles City RMP, 2015, respectively). The Project will design and locate roads and pipelines to avoid important sage-grouse areas (where feasible), minimize new surface disturbance, and use existing utility corridors wherever possible. Construction would employ use of HDD or other trenchless methods as appropriate and restrict tall structures and fences to the minimum necessary. Where avoidance is not feasible, the Project may be rerouted, necked down to minimize the disturbance footprint, and use reclamation practices to promote vegetation recovery. Bridger is preparing a Sage Grouse Conservation Plan (SGCP) in coordination with FWP and will provide the Plan to all appropriate agencies when finalized.

Montana Species of Concern and Rating Criteria

The MTNHP identifies species of concern (SOC) using a ranking system that evaluates global and state conservation status. The system incorporates NatureServe's G-rank and S-rank metrics, which assess rarity, population trends, and threats. FWP and other agencies contribute to these assessments, ensuring that the SOC list reflects current ecological conditions and is appropriate for use in Project-level environmental review (MTNHP & MFWP, 2024).

Montana's SOC list includes a wide range of taxa (e.g. endangered pallid sturgeon, the black swift, and the greater sage-grouse). These species are prioritized based on vulnerability and conservation urgency. For example, Level I birds of concern, such as the whooping crane, face imminent threats and require immediate conservation action. Level II species, like the mountain plover, are monitored closely due to declining trends or habitat pressures.

Based on a desktop review of currently available MTNHP data, species identified by MTNHP as SOC are anticipated to occur within the broader Project regions. Potential Project-related effects on SOC would most likely consist of temporary disturbance, limited habitat modification within the construction ROW, or short-term displacement during active construction. At this stage of Project development, impacts to SOC are expected to be limited and temporary. Additional review, field surveys, agency coordination, and incorporation of updated MTNHP data will be used to further refine where SOCs are located. As Project development progresses, this information will support refinement of the impact assessment and the identification of appropriate avoidance, minimization, and mitigation measures. Any new information would be documented in subsequent application updates.

Baseline Data and Description – Proposed Route Option 1

A total of 61 special status wildlife and aquatic species as well as 37 non-cave bat roosts could potentially occur within suitable habitat along the Proposed Route Option 1. Of the 61 species, four (pallid sturgeon, black-footed ferret, whooping crane, and piping plover) are federally listed. Thirty-seven are identified as BLM species of concern and 58 are listed as MFWP SOC.

Terrestrial and Aquatic Species

A total of 49 special status terrestrial wildlife species could potentially occur within suitable habitat along the Proposed Route Option 1. Of the 49, three (black-footed ferret, whooping crane, and piping plover) are federally listed. The remaining 46 are identified as MFWP SOC and/or BLM species of concern.

A total of 12 special status aquatic species could potentially occur within suitable habitat along the Proposed Route Option 1. Eight of these species are considered BLM and MFWP SOC.

Baseline Data and Description –Route Option 2

The number of special status terrestrial and aquatic species that could potentially occur within suitable habitat along Route Option 2 is currently unknown. As Project design progresses, baseline data and an impact assessment for Route Option 2 will be provided to the DEQ

Baseline Data and Description –Route Option 3

The number of special status terrestrial and aquatic species that could potentially occur within suitable habitat along Route Option 3 is currently unknown. As Project design progresses, baseline data and an impact assessment for Route Option 3 will be provided to the DEQ.

Impact Assessment

Issues

- The issues are the same as those for general wildlife species in **7.4.4 Wildlife Habitat and Fisheries**.

Construction

Terrestrial Wildlife Species

Potential impacts to sensitive wildlife resources are similar to those discussed in **7.4.4 Wildlife Habitat and Fisheries**. Direct impacts to sensitive species from surface disturbance activities include the loss or alteration of potential breeding and/or foraging habitats and short-term habitat fragmentation until native vegetation has become reestablished. Potential impacts could also include mortalities of less mobile species as the result of exposure to vehicle and construction equipment traffic, and the potential abandonment of a nest site or territory, including the loss of eggs or young. Other impacts will include short-term displacement of some of the more mobile species from the disturbance areas as a result of increased noise and human presence.

Aquatic Species

The types of impacts that could affect sensitive fish species are similar to those discussed for game fish species. Construction-related impacts on sensitive species living in streams that will be crossed by the Project using HDD will be minor, since directional drilling will eliminate disturbance within the channel. In contrast, open-cut trenching at other streams listed above will result in alteration of bottom substrates, temporary increased sedimentation, and possible removal of riparian vegetation. The degree of impact will depend upon whether important fish spawning or rearing habitat is altered. Adult fish are likely to move away from the construction area. Generally, impacts could range from several weeks to several years, depending on the life stages that are affected and whether future spawning will be affected.

MTNHP Inventory information indicates that special status species are found almost exclusively in large rivers and their tributaries including the Missouri and the Yellowstone, both of which will be crossed using HDD, resulting in minimal to no impacts. Other waterbodies with special status species include, but are not limited to, Beaver Creek, Little Beaver Creek, and Boxelder Creek. Crossing methods of these waterbodies will more likely be determined on a case-by-case basis depending on site conditions and time of year to avoid spawning times and conditions for special status species, however use of HDD is most likely. Bridger will continue its consultation with the appropriate agencies to determine a mutually agreeable strategy for minimizing potential impacts to special status aquatic species. Potential sources for hydrostatic testing and dust control water, as well as specific water volumes that will be withdrawn from these streams are unknown at this point in Project design, but will be determined and quantified as details of the hydrostatic test plan are finalized. Nevertheless, water use from any of these streams will result in a relatively small one-time flow reduction. Water withdrawal is expected to represent a relatively small percentage of base flow conditions.

Therefore, impacts on fish habitat will be considered minor in the mid-size to large streams. A low-level impact could occur in the smaller streams. The discharge of hydrostatic test water will follow state permit requirements, which will eliminate potential water quality effects on sensitive species. In order to reduce potential impacts to sensitive wildlife species as a result of maintenance activities, Bridger will consult with the appropriate wildlife or land management agency prior to the initiation of maintenance activities beyond standard inspection measures. Bridger will employ multiple safeguards to prevent a pipeline release. The chance of a spill occurring is very low and if a spill occurs, the volume is likely to be limited in size. In the unlikely event of a pipeline release, Bridger would initiate its ERP and emergency response teams would contain and clean up the spill. To minimize impacts to special status species, appropriate remedial measures will be implemented to meet federal and state standards designed to ensure protection of human health and environmental quality.

7.4.6 Spills and Water Discharge (Circular MFSA-2 Section 3.8(1)(i) and (j))

The Project has been designed and will be constructed and operated to minimize the potential for spills, leaks, and unauthorized discharges. Spill prevention and material management activities will be conducted consistent with applicable federal and state requirements, including the Resource Conservation and Recovery Act (RCRA), Montana regulations governing hazardous materials handling, and relevant agency guidance. Bridger is preparing a Project-specific spill prevention and response plan (the "Plan"). The Plan will be provided to the reviewing agencies once finalized and will describe procedures for spill reporting, containment, recovery, and cleanup consistent with applicable statutes, regulations, and industry standards.

If a spill or leak were to occur, the nature and extent of impacts would depend on the volume released, the location of the release, site conditions, and response timing. A release occurring upstream of a perennial waterbody could result in short-term effects on surface water quality, aquatic habitat, and downstream users. These impacts would be most likely during periods of lower flow when dilution capacity is reduced. Project design measures, including engineering controls, monitoring systems, and operational practices, are intended to reduce the likelihood of spills and to limit the geographic extent of potential impacts.

Major rivers, reservoirs, and riparian areas along the route support seasonal use by migratory and resident waterfowl, with higher use typically occurring during spring and fall migration periods. Although site-specific abundance data downstream of individual crossings is not currently available, these habitats are recognized as sensitive to changes in water quality. Seasonal use patterns will be considered when evaluating spill scenarios within the Plan.

Project construction or operation near groundwater wells or other water supply infrastructure may present a potential pathway for impacts in the event of a spill. If monitoring or investigations identify adverse effects to public or private water supplies, the Applicant would implement appropriate response measures consistent with agency requirements. Mitigation commitments are further described in ***Section 8***.Water discharges from Project activities—including hydrostatic testing, construction-related dewatering, and other temporary releases—will be managed in accordance with the Montana Pollutant Discharge Elimination System (MPDES). Discharges requiring MPDES coverage (including coverage under a general permit, where applicable) will comply with permit conditions, including limitations on discharge rates, volumes, and water quality parameters. Hydrostatic testing is expected to utilize water sourced from approved locations. Test water typically consists of source water with trace sediments or additives consistent with standard industry

practice. All discharges of hydrostatic test water will be performed under applicable MPDES authorization and consistent with permit conditions.

Accidental releases of hydrostatic test water or other materials could occur due to equipment failure, human error, or unexpected conditions. Such events are generally limited in extent and duration. Response procedures for managing these releases will be included in the Plan.

8 MITIGATION MEASURES (Circular MFSA-2 Section 3.6(7), 3.8(1))

This section identifies preliminary Project mitigation measures, commitments, and BMPs proposed by Bridger to avoid, minimize, or mitigate potential environmental, social, and land use impacts associated with construction, operation, maintenance, and reclamation of the Project. These measures are based on current Project design concepts, applicable regulatory requirements, and standard industry practices.

As Project design advances and additional engineering, environmental studies, and agency coordination are completed, these measures may be revised, refined, and expanded. Final mitigation measures, commitments, and BMPs will be incorporated into Project-specific plans, permit conditions, and approval documents, as applicable.

General

- All personnel involved in Project operations must have completed comprehensive training programs prior to commencing work. Training shall cover multiple areas, including occupational safety, equipment operation, and environmental/cultural compliance.
- All Project worksites will be maintained in a clean, organized, and professional manner throughout all phases of construction. Trash receptacles will be available, properly maintained to ensure containment, as well as removed and emptied on a regular basis.
- If any toxic or hazardous waste materials are encountered during construction, the Contractor will be required to stop work immediately and notify Bridger. Bridger will then determine how to safely and effectively mitigate the contamination with input from appropriate state and federal personnel.
- Disposal of hazardous waste will only occur through licensed and approved facilities; on-site disposal or burning is strictly prohibited.
- Non-hazardous waste generated during pipeline construction, such as scrap metal, wood, packaging materials, and general trash, will be managed in accordance with local and state regulations.
- All equipment will undergo regular maintenance to ensure engines and exhaust systems operate efficiently and quietly, and the use of manufacturer-approved mufflers will be enforced.
- Disturbed surfaces, including access roads, work pads, trenches, and soil stockpiles, will be treated with periodic applications of water or other approved dust suppressants.

- Construction activities will be scheduled to minimize disruption to rail traffic, with advance notice provided to operators and appropriate flagging or protective measures implemented where necessary.
- For railroad and highway crossings, HDD or other trenchless methods will be employed where feasible to avoid direct disturbance and to maintain uninterrupted travel.
- Nighttime work will be prohibited within designated sage-grouse winter ranges during restricted periods (December 1–March 15).
- All gravel used for the Project would be sourced from approved commercial locations. No gravel or other material potentially containing erionite would be used on the Project.
- Bridger will implement measures to limit unauthorized off-road vehicle use on the ROW including installation of gates or barriers at key entry points, placement of clear signage identifying restricted areas, and coordination with landowners to maintain perimeter fencing.
- Trench breakers will be installed, as necessary, to prevent water from channeling along pipeline trenches.
- Benching and terracing techniques will be used on slopes, as necessary, to reduce surface runoff velocity, enhance slope stability, and decrease the likelihood of soil movement.

Equipment and Fire Management

- The Project will include use of approved vehicle staging areas to prevent accidental ignition in tall grasses and untreated fuels. Staging areas will be free from grass and watered as needed to prevent vehicle fire starts.
- Equipment and vehicles will be properly maintained to prevent sparks, leaks, or overheating, and will be equipped with functional spark arrestors where required.
- All work will be completed in compliance with applicable federal, state, and local regulations relating to fire restrictions.
- All uncontrolled fires will be immediately reported to the appropriate local emergency response agency.
- All flammable liquids would be stored and/or transported in compliance with Occupational Safety and Health Administration regulation 29 CFR 1926.152.
- Trained fire watch personnel are assigned to monitor all hot work activities (welding, cutting, grinding) throughout construction.
- Smoking will be prohibited within all Project areas.

Cultural and Paleontological Resources

- All work will adhere to and be implemented consistent with NHPA Section 106 process, including consultation with the Montana SHPO, BLM, and any affected THPOs.
- A Programmatic Agreement (PA) is being developed by multiple partners, including federal and state agencies and Bridger, to define agency roles and responsibilities as well as Bridger's commitments for meeting Section 106 requirements. As development of the PA progresses, its provisions will guide Project-specific cultural resource investigations and consultation efforts and will be incorporated into future Project planning and permitting activities, as applicable.
- Avoidance of cultural resources will be the primary mitigation approach. Where avoidance is not practicable, impact minimization and data recovery will occur.
- Bridger will develop a Paleontological Resources UDP consistent with applicable regulations to address any subsurface fossils encountered during construction.
- Any recovered fossils from federal lands will be transferred to a BLM-approved paleontological resource repository for curation and permanent storage. Ownership of recovered fossils from state or private lands would automatically be assigned to the appropriate land managing agency or private landowner, respectively, of which they were found.
- If significant fossils are encountered during construction, work will halt in the immediate area, and appropriate mitigation measures will be implemented in accordance with applicable regulations.
- Bridger will develop a Cultural Resources UDP to address any subsurface cultural resources encountered during construction.

Aquatic Resources

- Major river systems would be crossed via HDD to avoid direct disturbance to aquatic resources, sensitive scenic resources, and historic features.
- Impacts to banks, shorelines, or basin margins will be reduced through workspace minimization, site appropriate construction methods, and post construction reclamation.
- Stream bank stability and reclamation at waterbody crossings will be monitored on federal lands (and on state or private lands, where requested) following construction until reclamation is deemed complete by the appropriate land-managing agency.
- Overnight parking of equipment and vehicles will be limited to at least 100 feet away from the waterbody or riparian boundary.
- All equipment and vehicles must be free of noxious weeds, excessive dirt, or mud before entering the crossing area.
- Temporary crossing structures (e.g., timber mats, prefabricated bridges) will be installed where necessary prior to equipment entry and removed after use.

- Segregation of topsoil and subsoil will be implemented during excavation and stockpiles will be stored outside riparian boundaries with perimeter controls. Water Resources

- Equipment and vehicles will be restricted within the designated crossing corridor to only those necessary for construction activities.

- Equipment maintenance, refueling, and cleaning, and storage of fuels, lubricants, and other hazardous materials will occur at least 500 feet away from waterbodies, or at designated staging areas equipped with secondary containment. An exception will be made for refueling of drilling rigs during HDD operations.

- Construction activities will be conducted in compliance with applicable stormwater permitting requirements, including the MPDES stormwater permit. Bridger will develop and implement a Stormwater Pollution Prevention Plan (SWPPP) to prevent and control erosion, sedimentation, and stormwater-related discharges during construction.

- Erosion and sediment control measures will be implemented upslope of waterbodies prior to construction and maintained until successful reclamation is achieved.

- Spill prevention and response kits will be located on-site, and personnel must be trained in spill response procedures.

- All drilling fluids will be environmentally safe, and containment systems will be implemented to prevent inadvertent returns. In case of an inadvertent return, Bridger will prepare a plan to address inadvertent returns of drilling fluid should the situation arise during construction.

- Bridger will obtain any necessary water quality decision, opinion, order, certification, or permit prior to construction.

Noxious Weeds

- Bridger will implement targeted herbicide treatments for noxious weed infestations within the ROW during the growing season and in advance of ground-disturbing activities, including clearing, grading, and trenching, where necessary.

- All herbicide applications will be performed by state-licensed applicators.

- All construction equipment, vehicles, and timber mats will be cleaned, to the best extent practicable, of soil, plant debris, and weed seeds before entering the Project site for the first time.

- All equipment that may have come in contact with ventenata seed or plant material must be cleaned immediately upon leaving ventenata-infested areas.

- Only certified weed-seed-free mulch, straw, and erosion control materials will be used for temporary stabilization and sediment control, as well as permanent ROW reclamation after completion of construction.

- Post-construction reclamation monitoring of the Project ROW will occur annually on federal lands until reclamation and noxious weed removal are deemed successful by the appropriate land managing agency. Monitoring efforts will involve mapping and identification of noxious weeds, with corrective action to follow as necessary.

Wildlife Resources

- Bridger will conduct migratory bird surveys, avian nest surveys, and raptor surveys prior to construction. In lieu of surveys for ground nesting migratory birds, Bridger may mow and grub portions of the Project corridor prior to the migratory bird breeding and nesting season.

- Where active nests are identified, construction will comply with seasonal restrictions and buffer distances recommended by the USFWS—including measures to protect breeding and fledgling raptors.

- Bridger will train personnel to recognize, and avoid nests, and maintain buffers around identified nesting sites.

- The Project will design and locate roads and pipelines to avoid important sage-grouse areas (where feasible), minimize new surface disturbance, and use existing utility corridors wherever possible. Construction would employ use of HDD, when necessary, and restrict tall structures and fences to the minimum necessary.

- Bridger will comply with all timing limitations/restrictions implemented by land managing agencies to protect wildlife, such as big game winter range, raptor nesting territories, sage grouse lekking and brood rearing habitat, or migratory bird nesting seasons. Bridger will comply with the applicable BLM ARMPs and RDFs and participate in consultation and consistency review during federal ROW authorization.

Spill Prevention Measures

- In accordance with 40 CFR Part 112, as applicable, Bridger will prepare and implement a SPCC plan prior to construction with information specific to the Project.

- Fuels, lubricants, and chemicals must be stored in designated, secure areas at least 500 feet away from aquatic features and resources and accompanied by secondary containment such as lined berms or spill pallets.

- All secondary containment must have at least 110% containment capacity to prevent overflow when washing, or in case of a spill or leak.

- All hazardous materials located on-site will be clearly labeled at all times and stored in containers appropriate for their specific properties.

- Bulk fuel and storage tanks will be located off of federal surfaces and be situated at staging areas on private lands. Tank truck drivers are responsible for spill prevention when unloading fuel tanks. Protocols for unloading tanks shall comply with those set by state and federal regulations.

- Fueling and maintenance for Project vehicles and equipment will occur at least 500 feet from aquatic resources and equipped with portable secondary containment, except when pumps or HDD equipment must operate within or near aquatic resources.
- Prior to unloading any chemical, fuel, lubricant, or other potentially hazardous material, vehicle wheels must be chocked, and the park/emergency brake must be activated.
- Spill response and cleanup kits must be easily accessible, fully stocked, and regularly maintained at each staging area.
- The appropriate Project personnel will be trained in spill prevention, identification, response, and control.
- Staging areas and their components will be subject to regular inspection by the environmental inspector. The Contractor shall be responsible for assigning personnel to conduct corrective action.
- Visible leaks will be reported to the designated contact and Bridger will ensure all required reporting is completed in a timely manner.
- If any toxic or hazardous waste materials are encountered during construction, the Contractor will be required to stop work immediately and notify Bridger. Bridger will then determine how to safely and effectively mitigate the contamination with input from appropriate state and federal personnel.

Reclamation and Revegetation

- Project disturbance will be limited to only areas necessary for construction.
- All temporarily disturbed areas will be restored to approximate pre-construction conditions in compliance with applicable permits and Project specifications.
- Disturbance to prime and unique farmland will be limited to the construction corridor, with soils and vegetation reclaimed in accordance with landowner preferences and applicable requirements to maintain soil productivity and stability.
- Reclamation will stabilize soils, reestablish natural contours, and promote vegetation recovery consistent with original land use and ecological site conditions.
- Subsoil surfaces shall be graded smooth and clumps broken up to prevent mixing with topsoil.
- Topsoil shall be replaced to pre-existing depths, up to a maximum of 12 inches, following subsoil preparation.
- Restoration seed mixes will be developed using pure live seed (PLS) and will be selected to restore pre-disturbance conditions or, where requested, reseeded in accordance with landowner preferences, subject to seed availability at the time of reclamation.
- Certificates of seed analysis will be required for all seed mixes to limit the introduction of noxious weeds.

- Seeding will occur as soon as possible following cleanup and topsoil replacement, and will be applied to all disturbed surfaces, unless otherwise requested by the landowner or land managing agency.

- Bridger will monitor for erosion and settling through aerial patrols and other physical pipeline monitoring activities.

9 IDENTIFICATION OF PROPOSED PROJECT (ARM 17.20.1311; ARM 17.20.1607; Circular MFSA-2 Section 3.9(1)(a), (b), (c) and 3.10(1)(a), (b), (c), (d), and (e))

Bridger proposes to construct, operate, and maintain a 36-inch-diameter crude oil pipeline to enhance regional crude oil transportation capacity and reliability. The Project would consist of new pipeline facilities, associated aboveground and underground facilities, and temporary construction features necessary to support the safe, efficient, and environmentally responsible movement of crude oil.

The proposed Project is located in eastern Montana and would traverse multiple counties and land ownerships, including private lands and lands managed by federal, state, and local agencies. The Project has been sited to avoid or minimize conflicts with existing land uses, communities, and environmentally sensitive resources to the extent practicable. The Project includes crossings of major river systems, including the Missouri and Yellowstone rivers, which are proposed to be constructed using methods designed to avoid direct disturbance to the waterbodies.

Major components of the Project include the 36-inch-diameter crude oil pipeline mainline, six pump stations, and 51 MLVs located within Montana, along with associated appurtenances such as access roads and temporary workspaces required for construction and maintenance activities. Temporary facilities may include construction yards, staging areas, and access improvements which will be reclaimed following construction in accordance with landowner agreements, regulatory permits, and Project-specific BMPs. Permanent aboveground facilities will be limited to those required for safe operation, monitoring, and system integrity.

Construction of the Project would involve standard pipeline construction techniques, including clearing, grading, trenching, pipe installation, backfilling, testing, and reclamation. Trenchless construction methods, such as HDD, would be employed at select locations where avoidance of surface disturbance is necessary or practicable, including at major waterbody crossings. Disturbed areas will be reclaimed and stabilized following construction to restore soils, vegetation, and hydrologic function.

Once operational, the 36-inch-diameter crude oil pipeline would be maintained through routine inspections, monitoring, and maintenance activities consistent with applicable federal and state safety and environmental regulations. The Project is intended to operate over a long-term service life, with ongoing maintenance activities designed to ensure system reliability, environmental protection, and public safety.

Construction and operation schedules are anticipated to be phased and coordinated with permitting, landowner agreements, sensitive seasons, and agency guidance. Specific timing and sequencing will be refined as Project design advances and regulatory approvals are obtained.

Additional detail regarding Project design, alternatives, environmental impacts, and mitigation measures is provided in prior sections of this application and will continue to be refined through ongoing engineering, environmental review, and agency coordination, consistent with MFSA requirements.

10 AGENCY COORDINATION (Circular MFSA-2 Section 3.0(4))

The Project team recognizes that early, proactive, and ongoing consultation with regulatory agencies and stakeholders is essential to compliance with the Montana Facility Siting Act (MFSA) and other applicable federal, state, and local requirements. From the outset, the team will prioritize timely engagement and structured coordination with relevant agencies to establish clear communication channels, identify applicable permitting requirements, and address potential environmental and land use concerns.

Coordination efforts will include consultation with federal agencies (e.g., BLM, USFS, USFWS, U.S. Army Corps of Engineers (USACE)), state agencies (e.g., MTDEQ, FWP), and affected counties and local jurisdictions, as applicable. Agency coordination will address siting, environmental review, cultural and biological resource considerations, water resources, construction methods, and mitigation measures.

These efforts will continue throughout the planning, environmental review, permitting, construction, and early operational phases of the Project. Input received from agencies will be incorporated into Project design refinements, avoidance and minimization measures, and development of BMPs, as appropriate. The Project team is committed to maintaining transparent communication, documenting coordination efforts, and responding to agency comments in a timely manner, consistent with MFSA procedural requirements. This ongoing collaboration will help ensure that Project design, construction, and operation align with regulatory standards, environmental protection goals, and community interests.

10.1 Federal Approval (Circular MFSA-2 Section 3.0(4))

The Project is in its early stages of development, and formal federal consultation under applicable statutes has not yet been initiated beyond preliminary coordination activities. As the Project advances, Bridger will initiate and participate in formal consultation, permitting, and review processes with applicable federal agencies to ensure compliance with federal laws and regulations.

Federal coordination is anticipated to involve agencies such as the BLM, USFS, USFWS, and USACE, depending on jurisdictional triggers. Engagement will include formal consultation meetings, technical data submittals, environmental review documentation, and agency review of Project design and mitigation measures, as required.

In addition, BLM is in the process of developing a PA in coordination with appropriate federal agencies and Bridger. Tribal entities have been invited to participate in the development and execution of the PA. The PA is intended to define roles, responsibilities, and procedures for cultural resource identification, Tribal engagement, resource surveys, consultation, and approvals in accordance with applicable federal requirements, including the National Historic Preservation Act. As development of the PA progresses, its provisions will guide Project-specific cultural resource investigations and consultation efforts and will be incorporated into future Project planning and permitting activities, as applicable.

10.2 State and Local Policies, Plans, and Programs (Circular MFSA-2 Section 3.0(4))

The Project team has initiated outreach to relevant state agencies and affected county governments to introduce the Project and establish early communication channels. These initial efforts have focused on providing an overview of the proposed facilities, identifying applicable regulatory and permitting programs, confirming agency and county points of contact, and soliciting preliminary input regarding local land use plans, growth policies, and environmental considerations.

As the Project progresses, the team will maintain ongoing coordination to ensure compliance with applicable statutes and permitting requirements. Agency and county input will be considered in the refinement of Project siting, design, construction sequencing, and mitigation measures, as appropriate.

11 EXISTING STUDIES, REPORTS, AND DATA (ARM 17.20.1803(h) and 17.20.1509(2); Circular MFSA-2 Section 3.0 and 3.0(4))

Bridger will design, construct, and operate the Project in compliance with Title 49 of the CFR, Part 195, which governs the transportation of hazardous liquids by pipeline, as well as all other applicable federal and state statutes, rules, and regulations. Where appropriate, Bridger may seek variances, modifications, or exceptions, subject to review and approval by the applicable regulatory authorities.

Title 49 CFR Part 195 incorporates industry standards that establish requirements for pipeline materials, components, fabrication, testing, construction, operation, and maintenance. Section 195.3 identifies reference standards and publications adopted by regulation and, in some cases, modified or supplemented by the provisions of Part 195. These standards are issued by recognized professional and standards-setting organizations, including the following:

- AASME
- API
- American National Standards Institute (ANSI)
- ASTM
- OSHA
- PHMSA.

Among these standards, ASME/ANSI B31.4, Pipeline Transportation Systems for Liquids and Slurries, serves as the primary industry standard governing the design, construction, testing, and operation of crude oil pipeline systems. Bridger will apply ASME/ANSI B31.4 in conjunction with the requirements of 49 CFR Part 195 to ensure the Project meets or exceeds applicable safety and performance standards.

At the time of this application, a comprehensive list of finalized, Project-specific engineering reports and calculations is not yet available due to the current stage of design development. These materials will be

prepared during detailed engineering and will demonstrate the adequacy, reliability, durability, and operational integrity of major Project components. Applicable reports and supporting documentation will be provided in appendices, compliance filings, or subsequent submittals, as required under MFSA and other regulatory processes. GIS data and associated metadata supporting this application are submitted with this application and have been used to identify environmental features, jurisdictional boundaries, land ownership, and resource constraints relevant to Project siting and impact analysis.

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APPENDICES

APPENDIX A: PROOF OF PUBLIC NOTICE

APPENDIX B: PROJECT MAPS