



— BUREAU OF —  
RECLAMATION

# Environmental Assessment and Finding of No New Significant Impact for Reaches 10.1, 10.1.1, 10.2, 10.2.1, 10.3, and 10.3.1 (Beacon Bisti Route N9 [BBN9] Lateral)

WCAO-DUR-EA-2022-02

Navajo-Gallup Water Supply Project

New Mexico - Arizona

Interior Region 7, Upper Colorado Basin



## **Mission Statements**

The Department of the Interior (DOI) conserves and manages the Nation's natural resources and cultural heritage for the benefit and enjoyment of the American people, provides scientific and other information about natural resources and natural hazards to address societal challenges and create opportunities for the American people, and honors the Nation's trust responsibilities or special commitments to American Indians, Alaska Natives, and affiliated island communities to help them prosper.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

The Bureau of Indian Affairs' mission is to enhance the quality of life, to promote economic opportunity, and to carry out the responsibility to protect and improve the trust assets of American Indians, Indian tribes and Alaska Natives.

# **FINDING OF NO NEW SIGNIFICANT IMPACT**

for

## **Reaches 10.1, 10.1.1, 10.2, 10.2.1, 10.3, and 10.3.1 (Beacon Bisti Route N9 [BBN9] Lateral) Navajo-Gallup Water Supply Project**

**WCAO-DUR-FONNSI-2022-02**

United States Department of the Interior  
Bureau of Reclamation  
Interior Region 7: Upper Colorado Basin  
Western Colorado Area Office  
Durango, Colorado

### **Introduction**

The Bureau of Reclamation (Reclamation), in conjunction with the Bureau of Indian Affairs (BIA) Navajo Region and in coordination with Navajo-Gallup Water Supply Project (NGWSP) cooperating agencies including the Navajo Nation has completed an environmental assessment (EA) for the Reaches 10.1, 10.1.1, 10.2, 10.2.1, 10.3, and 10.3.1 (Beacon Bisti Route N9 [BBN9] Lateral) project of the Navajo-Gallup Water Supply Project (NGWSP). The EA was developed in compliance with the National Environmental Policy Act (NEPA) of 1969, as amended, and the Council on Environmental Quality's (CEQ) NEPA regulations at 40 Code of Federal Regulations (CFR) Parts 1500 – 1508 (2022).

The following proposed federal actions are evaluated in the EA.

- The provision of federal funds by Reclamation to the Navajo Nation (through Financial Assistance Agreement No. R18AC00045) to design and construct the Proposed Action.
- Acquisition of rights-of-way (ROW) from the BIA for the realignment and construction of the BBN9 Lateral pipeline as well as its associated pumping plants (12, 13, and 14), a booster pump facility, surge tanks, chlorinators, and tank taps, along with upgrades to the existing Coyote Canyon, Standing Rock 1, Standing Rock 2/3, and Crownpoint tank sites.
- Connection of pumping plants and water storage facilities to nearby transmission lines for project power.

Under the authority of 40 CFR Section 1501.7, Reclamation is the lead federal agency for the purposes of compliance with NEPA. The BIA Navajo Region/Navajo Nation are cooperating

agencies on the project and are responsible for responding to ROW applications for pieces of the project on Navajo Nation lands.

The EA was prepared to address the potential impacts to the human environment from the Proposed Action. The EA tiers to and incorporates by reference information from the July 2009 NGWSP Planning Report and Final Environmental Impact Statement (PR/FEIS) (<https://www.usbr.gov/uc/envdocs/eis/navgallup/FEIS/index.html>).

Reclamation's NGWSP design and coordination efforts with project partners includes day to day correspondence, biweekly and monthly coordination and design meetings, quarterly Project Construction Committee meetings, a quarterly newsletter that is posted on the NGWSP website and distributed to Chapter Houses and others on the Navajo Nation, and a Project Issue Notice system that documents major project decisions. Tribal outreach and Navajo Chapter House visits are frequently conducted by Reclamation's Navajo Outreach Coordinator and various staff members during planning periods and before major project activities and construction. Souder Miller and Associates, the Navajo Nation's construction contractor for the project, also facilitated meetings with the Tohatchi, Twin Lakes, Coyote Canyon, Nahodishgish, Crownpoint, and Standing Rock chapters of the Navajo Nation that would be affected by the Proposed Action. The draft EA was posted on Reclamation's website (<https://www.usbr.gov/uc/DocLibrary/ea.html>) for public comment, and notice of the EA's availability and how to comment was provided to project partners during planning and other meetings. The project's EA is included in this document and is incorporated by reference in this Finding of No New Significant Impact (FONNSI) for the Proposed Action that found no new significant impacts from the 2009 NGWSP PR/FEIS.

## **Alternatives**

The EA analyzed the No Action Alternative (construct the NGWSP project features along Navajo Route 9 as described in the Preferred Alternative of the 2009 NGWSP PR/FEIS) and the Proposed Action.

## **Decision and Finding of No New Significant Impact**

Reclamation's decision is to implement the Proposed Action. Based upon a review of the 2009 NGWSP PR/FEIS and this EA with supporting documents, Reclamation has determined that implementation of the Proposed Action will not produce any new significant effects to the quality of the human environment, individually or cumulatively with other actions in the area, as defined in 40 CFR 1508.27 and that are not already described in the 2009 NGWSP PR/FEIS. Therefore, neither a supplemental EIS nor further NEPA analysis is needed. This finding is based on consideration of the degree of effects of the Proposed Action on the potentially affected environment, as analyzed in the EA. The BIA Navajo Region will prepare a separate decision document for the project.

## **Context**

The affected locality is within McKinley County, New Mexico, and the eastern portion of the Navajo Nation between the communities of Twin Lakes/Tohatchi and Crownpoint. Affected

interests include Reclamation, the Navajo Nation, BIA Navajo Region, other NGWSP partners, and adjacent residences along the project's alignment. The NGWSP is an important project to the Navajo Nation and State of New Mexico as it provides a source of potable water to underserved residents and communities of the Navajo Nation, City of Gallup, and Jicarilla Apache Nation.

## **Intensity**

The following discussion is organized around the 10 significance criteria described in 40 CFR 1508.27. These criteria were incorporated into the resource analysis and issues concerned in the EA and were considered in determining whether the Proposed Action would induce new significant impacts not already described in the 2009 NGWSP PR/FEIS.

### **1. Impacts that may be both beneficial and adverse.**

As described in the EA, the Proposed Action will incur both beneficial and adverse impacts. Best Management Practices (BMPs), design features, and environmental commitments are incorporated into the design of the Proposed Action to reduce impacts. Implementation of the Proposed Action will result in beneficial effects by providing a safe and reliable source of drinking water to underserved regions of the Navajo Nation extending into the community of Crownpoint, New Mexico. Predicted short-term impacts in the region of the Proposed Action include an increase in fugitive dust, localized wind and water erosion, additional construction related traffic, construction noise, vegetation disturbance, displacement of grazing and wildlife use, and potential establishment of noxious and invasive weeds. Potential long-term impacts include the conversion of vegetation communities to industrial use and disturbance to any unidentified cultural sites not identifiable on the ground surface. Project proponents will follow the Programmatic Agreement developed for the NGWSP with the Advisory Council on Historic Preservation, New Mexico State Historic Preservation Officer (SHPO), Navajo Nation, Bureau of Land Management, and BIA that defined the process regarding the consideration and management of effects on historic properties arising from the construction of the NGWSP. Cultural resources clearances will be obtained prior to construction. For the reasons discussed in detail in the EA, none of the site-specific environmental impacts associated with the Proposed Action are considered significant. None of the impacts from the Proposed Action, together with other past, current, and reasonably foreseeable actions, rise to a level of significant cumulative impact that is not already described in Chapter V of the 2009 NGWSP PR/FEIS.

### **2. The degree to which the proposed action affects public health or safety.**

Additional vehicle and heavy equipment traffic will be present in the project area during project construction. NGWSP and Navajo Nation construction contract specifications include sections on access and traffic control and require submittal of any relevant permits from local road entities. Construction contract specifications also include safety and health requirements in accordance with Reclamation Safety and Health Standards as well as applicable Tribal and State safety and health regulations. Contractors are required to follow a Safety Program that is in accordance with the above-mentioned standards and regulations. For the reasons above and as described in the EA, the Proposed Action will not create any new significant site-specific effects nor contribute to cumulative significant impacts to public health or safety that are not already described in Chapter V of the 2009 NGWSP PR/FEIS.

**3. Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.**

The Proposed Action is located within the Navajo Nation and is not located in an area with unique and specially managed characteristics. No wetlands, floodplains, prime farmlands, wild and scenic rivers, or other ecologically critical areas are located near or will be negatively affected by the Proposed Action. A small area within Reach 10.1.1 (Coyote Canyon Connection) is designated by the Navajo Nation Heritage Program (NNHP) as a Resource Land Clearance Policies and Procedures Zone 1 area (Highly Sensitive Areas) due to black-footed ferrets (*Mustela nigripes*) appearing on the NNHP list of potential species. Black-footed ferrets were once associated with prairie dog towns found in the Navajo Nation; however, it is extremely unlikely that ferrets are present in the absence of reintroduction efforts. For the reasons above and as described in the EA, the Proposed Action will not create any new significant site-specific effects nor contribute to cumulative significant impacts to unique characteristics of the geographic area that are not already described in Chapter V of the 2009 NGWSP PR/FEIS.

**4. The degree to which the effects on the quality of the human environment are likely to be highly controversial.**

Controversial, in this context, means a substantial dispute as to the size, nature, or effect of the action. Reclamation and project contractors contacted representatives of other Federal agencies, Tribes, state and local governments, and individuals regarding the development of the 2009 NGWSP PR/FEIS and its effects. Similarly, Reclamation contacted relevant agencies, Tribes, and individuals regarding the Proposed Action and its potential effects. The Proposed Action was designed according to regulatory standards and in coordination and consultation with associated Tribes and agencies. No scientific disputes were presented over the likely effects of the Proposed Action during the development of the project, and the Proposed Action was informed by scientific studies and site-specific information as documented in the body of the EA and references section (Chapter 6). For the reasons above and as described in the EA, the effects of the Proposed Action are not likely to be highly controversial and will not create any new significant site-specific effects nor contribute to cumulative significant impacts to the quality of the human environment that are not already described in Chapter V of the 2009 NGWSP PR/FEIS.

**5. The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.**

There are no effects on the human environment that are highly uncertain or that involve unique or unknown risks, therefore there will be no new significant site-specific effects.

**6. The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.**

Implementing the Proposed Action will not establish a precedent for future actions with significant effects and will not represent a decision in principle about a future consideration, therefore, there are no new significant site-specific impacts.

## **7. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.**

Cumulative impacts are possible when the effects of the Proposed Action are added to other past, present, and reasonably foreseeable future actions as described under related NEPA documents or approved plans. Cumulative impacts of the NGWSP were described in the 2009 NGWSP PR/FEIS. For the reasons described in the EA, the Proposed Action will not create any new significant site-specific effects nor contribute to cumulative significant impacts that are not already described in Chapter V of the 2009 NGWSP PR/FEIS.

## **8. The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.**

Reclamation developed a Programmatic Agreement for compliance with the National Historic Preservation Act between the NGWSP participants. Reclamation, the BLM, the Navajo Nation Tribal Historic Preservation Officer, the BIA, the New Mexico SHPO, and the Advisory Council on Historic Preservation are signatories to the Programmatic Agreement. Consulting parties to the Programmatic Agreement include the governments and historic preservation officials of American Indian tribes and pueblos, local municipalities, State, and Federal agencies with Section 106 responsibilities to consider the potential effect of the project on historic properties. The Proposed Action will comply with the Programmatic Agreement created for the NGWSP. Reclamation will follow the Programmatic Agreement for the NGWSP and the concurred upon mitigation measures to lessen the potential adverse insignificant site-specific effects described in the EA. Therefore, for these reasons described above and as described in the EA, the Proposed Action will not create any new significant site-specific effects nor contribute to cumulative significant impacts to resources eligible for listing in the National Register of Historic Places that are not already described in Chapter V of the 2009 NGWSP PR/FEIS. Further information on cultural resources compliance is described below.

The Navajo Nation Heritage and Historic Preservation Department (NNHHPD) issued a Cultural Resources Compliance Form (CRCF; HPD-21-1079; Appendix A of the EA) for the project on July 8, 2021. Reclamation developed a treatment plan for the Proposed Action that incorporates the following effects and conditions of compliance from the NNHHPD.

### **23 Sites**

NM-Q-11-16, NM-Q-11-33, NM-Q-12-100, NM-Q-12-102, NM-Q-12-105, NM-Q-12-109, NM-Q-12-111, NM-Q-12-98, NM-Q-13-87, NM-Q-14-191, NM-Q-19-1, NM-Q-19-139, NM-Q-19-140, NM-Q-19-143, NM-Q-22-68, NM-Q-22-70, NM-Q-22-75, NM-Q-23-121, NM-Q-23-123, NM-Q-23-124, NM-Q-23-129, NM-Q-23-133, NM-Q-23-136:

1. Sites will be avoided by all construction activities.

### **5 Sites**

NM-Q-12-104, NM-Q-12-85, NM-Q-22-72, NM-Q-23-127, NM-Q-23-135:

1. Sites will be avoided by all construction activities.
2. Site boundaries will be fenced under the direction of a qualified archaeologist before construction activities begin.

3. Sites will be monitored by a qualified archaeologist during all ground disturbing activities within 50 feet of the site boundaries.

### 13 Sites

NM-Q-12-110, NM-Q-12-25, NM-Q-12-27/NM-Q-12-28, NM-Q-13-100, NM-Q-13-102, NM-Q-13-92, NM-Q-13-93, NM-Q-13-94, NM-Q-19-138, NM-Q-19-141, NM-Q-19-142, NM-Q-19-145, NM-Q-22-44:

1. Sites will be subject to remote sensing and/or testing.
2. Site boundaries will be fenced under the direction of a qualified archaeologist before construction activities begin.
3. Sites will be monitored by a qualified archaeologist during all ground disturbing activities within 50 feet of the site boundaries.

### 5 Sites

NM-Q-23-115, NM-Q-23-116, NM-Q-23-117, NM-Q-23-125, NM-Q-23-126

1. Sites are eligible to the National Register of Historic Places, but will not be impacted by any construction.

### 36 Sites

NM-Q-13-88, NM-Q-13-89, NM-Q-13-90, NM-Q-13-91, NM-Q-13-95, NM-Q-13-96, NM-Q-13-97, NM-Q-13-98, NM-Q-13-99, NM-Q-13-101, NM-Q-13-103, NM-Q-13-104, NM-Q-14-192, NM-Q-14-194/LA 6448, NM-Q-12-97, NM-Q-12-99, NM-Q-12-101, NM-Q-12-106, NM-Q-12-107, NM-Q-12-108, NM-Q-12-103, NM-Q-22-69, NM-Q-22-74, NM-G-8-78/LA 36204, NM-Q-22-71, NM-Q-22-73, NM-Q-23-119, NM-Q-23-120, NM-Q-23-122/LA 20893, NM-Q-23-128, NM-Q-23-130, NM-Q-23-131, NM-Q-23-132, NM-Q-23-134, NM-Q-23-114, NM-Q-23-118:

1. Sites are determined not eligible to the NRHP, therefore no further work is required.

### 4 Sites:

LA6449, LA27691, NM-Q-11-15, NM-Q-12-22:

1. Sites were not re-located; no further work is required.

In the event of a discovery, (“discovery” means any previously unidentified or incorrectly identified cultural resources, including but not limited to archaeological deposits, human remains, or locations reportedly associated with Native American religious/traditional beliefs or practices), all operators in the immediate vicinity of the discovery must cease, and the NNHHPD must be notified at (928) 871-7198.

## **9. The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.**

Reclamation reinitiated formal Section 7 consultation with the U.S. Fish and Wildlife Service (USFWS) for the NGWSP in April 2022 due to modifications of the NGWSP’s San Juan Lateral that were not considered in the 2009 NGWSP PR/FEIS and associated Biological Opinion (USFWS consultation number 22420-2001-F-0532). The USFWS reissued the NGWSP Biological Opinion in September 2022 to incorporate the San Juan Lateral’s design changes. The Proposed Action was



determined to have “no effect” to federally listed threatened and endangered species, therefore, no additional Section 7 consultation is needed.

Several additional special status species listed by the Navajo Nation have the potential to occupy the project area and may be impacted by the Proposed Action if present during construction. While the project may result in habitat loss for some species and may result in temporary effects during construction and reclamation activities, for the reasons described in Section 3.5 of the EA, these effects are considered negligible and not significant for these species. The Navajo Nation Department of Fish and Wildlife issued a Biological Resources Compliance Form (BRCF; 19tttes102a; Appendix B of the EA) on May 14, 2021 that gave conditional approval of the proposed Action with the conditions of compliance to inspect all raptor and burrowing owl nests to determine if active, follow all relevant time of year restrictions for active nests and the migratory bird nest season, and reseed disturbed construction areas with native seed mixes that match the relative ecological site descriptions. These measures and conditions serve to lessen potential adverse insignificant impacts to species in the project area.

For the reasons above and as further described in the EA, the Proposed Action will not create any new significant site-specific effects nor contribute to cumulative significant impacts to threatened and endangered species and their habitats that are not already described in Chapter V of the 2009 NGWSP PR/FEIS.

#### **10. Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.**

The Proposed Action will not violate Federal, State, or local laws or requirements imposed for the protection of the environment.

### **Environmental Commitments**

- Environmental commitments to lessen the potential adverse insignificant effects of the Proposed Action shall be implemented as specified in Chapter 4 of the EA. Chapter 4 of the EA is herein incorporated by reference in this FONNSI document.

### **Approval**

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Ed Warner  
Area Manager  
Western Colorado Area Office  
Bureau of Reclamation

# **Environmental Assessment for Reaches 10.1, 10.1.1, 10.2, 10.2.1, 10.3, and 10.3.1 (Beacon Bisti Route N9 [BBN9] Lateral)**

**WCAO-DUR-EA-2022-02**

**Navajo-Gallup Water Supply Project**

**New Mexico - Arizona**

**Interior Region 7, Upper Colorado Basin**

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## Abbreviations and Acronyms

APE	Area of Potential Effect
BBN9	Beacon Bisti Route N9 Lateral
BGEPA	Bald and Golden Eagle Protection Act
BIA	Bureau of Indian Affairs
BLM	Bureau of Land Management
BMP	Best Management Practice
BRCF	Biological Resources Compliance Form
CEQ	Council on Environmental Quality
CRCF	Cultural Resources Compliance Form
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CWA	Clean Water Act
DOI	U.S. Department of the Interior
EA	Environmental Assessment
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FONNSI	Finding of No New Significant Impact
HUC	Hydrologic Unit Code
MBTA	Migratory Bird Treaty Act
MOU	Memorandum of Understanding
NEPA	National Environmental Policy Act
NESL	Navajo Endangered Species List
NGWSP	Navajo Gallup Water Supply Project
NHPA	National Historic Preservation Act
NNDA	Navajo Nation Department of Agriculture
NNDFW	Navajo Nation Department of Fish and Wildlife
NNEPA	Navajo Nation Environmental Protection Agency
NNHP	Navajo Natural Heritage Program
NNHHPD	Navajo Nation Heritage and Historic Preservation Department
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NTUA	Navajo Tribal Utility Authority
OHWM	Ordinary High-Water Mark
PL	Public Law
PR/FEIS	Planning Report and Final Environmental Impact Statement
RCP	Resource Land Clearance Policies and Procedures
Reclamation	U.S. Bureau of Reclamation
ROD	Record of Decision
ROW	Right-of-Way
SHPO	State Historic Preservation Office
SOI	Secretary of the Interior
SRI	Statistical Research Incorporated
SWPPP	Storm Water Pollution Prevention Plan
TCE	Temporary Construction Easement
THPO	Tribal Historic Preservation Office

TMDL	Total Maximum Daily Load
USACE	U.S. Army Corps of Engineers
USC	United States Code
USFWS	U.S. Fish and Wildlife Service
WAPA	Western Area Power Authority

# 1. Introduction

This Environmental Assessment (EA) has been prepared to disclose and evaluate the potential environmental effects of the United States (U.S.) Bureau of Reclamation's (Reclamation's) proposed redesign of Reaches 10.1, 10.1.1, 10.2, 10.2.1, 10.3, and 10.3.1 (Beacon Bisti Route N9 [BBN9] Lateral) of the Navajo-Gallup Water Supply Project (NGWSP). This EA was developed in conjunction with the Bureau of Indian Affairs (BIA) Navajo Region and in coordination with NGWSP cooperating agencies including the Navajo Nation. The NGWSP was authorized for construction by the Omnibus Public Land Management Act of 2009 (Public Law [PL] 111-11). Reclamation prepared a Planning Report and Final Environmental Impact Statement (PR/FEIS) for the NGWSP, and the Record of Decision (ROD) for that document was signed by the Secretary of the Interior in July 2009. The 2009 NGWSP PR/FEIS provided an analysis of the overall NGWSP and did not consider the effects of the newly designed pipeline reaches and facility infrastructure associated with the Proposed Action. This EA tiers to and incorporates by reference the information and analysis from the 2009 NGWSP PR/FEIS (Reclamation 2009).

The following proposed federal actions are evaluated in this EA.

- The provision of federal funds by Reclamation to the Navajo Nation (through Financial Assistance Agreement No. R18AC00045) to design and construct the Proposed Action.
- Acquisition of rights-of-way (ROW) from the BIA for the realignment and construction of the BBN9 Lateral pipeline as well as its associated pumping plants (12, 13, and 14), a booster pump facility, surge tanks, chlorinators, and tank taps, along with upgrades to the existing Coyote Canyon, Standing Rock 1, Standing Rock 2/3, and Crownpoint tank sites.
- Connection of pumping plants and water storage facilities to nearby transmission lines for project power.

This document has been prepared in compliance with the National Environmental Policy Act (NEPA), as amended, and the requirements of the Council on Environmental Quality's (CEQ's) implementing NEPA regulations at 40 Code of Federal Regulations (CFR) Parts 1500-1508 (2022). If potentially significant impacts on environmental resources are identified, a supplement to the 2009 NGWSP PR/FEIS will be prepared. A Finding of No New Significant Impact (FONNSI) will be issued if no new significant impacts are identified.

## 1.1 Background

The NGWSP is a planned and partially constructed regional water-supply system that will distribute and provide long-term municipal and industrial San Juan River surface water to the eastern section of the Navajo Nation, the City of Gallup, New Mexico, and the southwestern part of the Jicarilla Apache Nation. The Cutter Lateral of the NGWSP is near full completion and began delivering water to Navajo communities along the US Highway 550 corridor in 2020. The main trunk of the San Juan Lateral is being constructed south to north, with current construction activities near the Navajo communities of Little Water and Sanostee. A branch of the San Juan Lateral planned to deliver water to the community of Window Rock, Arizona is under construction and other smaller reaches near the City of Gallup are in the construction and/or planning phases of development.

The NGWSP responds to the currently underserved communities of the Navajo Nation and an ever-increasing demand for water and addresses health and safety issues related to water quality.

Existing groundwater supplies currently utilized by these communities are dwindling, are of poor quality, and/or have limited capacity. More than 40 percent of Navajo households rely on water hauling to meet daily water needs. The City of Gallup's groundwater levels have dropped approximately 200 feet over the past 10 years, and the supply is not expected to meet current water demands within the decade.

The Congressionally mandated completion date for the NGWSP is December 31, 2024 and needs to be extended to accommodate the current project construction schedule. A proposal to extend the NGWSP construction time frame to 2029 is in development with New Mexico congressional representatives. Completion extension is authorized under PL 111-11 with the approval of the Navajo San Juan River Basin in New Mexico Water Rights Settlement Agreement signatory parties (Navajo Nation, State of New Mexico, and the U.S. Department of the Interior).

The original alignment of the BBN9 Lateral started at an interconnection with Reach 10 just east of Highway 491 along Route N9 and terminated at the community of Nahodishgish. The original alignment was routed through two major Archaeological Districts (Muddy Water and Peach Springs). The 2009 NGWSP PR/FEIS alignment did not connect to Crownpoint, which is the largest population center in the region, and Reaches 10.1.1 and 10.2.1 were not included in the original alignment.

The newly proposed BBN9 Lateral alignment connects to Crownpoint and differs from the 2009 NGWSP PR/FEIS alignment due to topographical constraints, surface features, existing home sites, land status, access, and avoidance of archaeological and biological resources. The newly proposed BBN9 Lateral alignment was shifted north a few miles to avoid the Muddy Water and Peach Springs Archaeological Districts and connect with Reach 9 of the NGWSP San Juan Lateral. The BBN9 Lateral crosses Route N9 at Standing Rock and generally parallels the original alignment for several miles before heading southeastward towards its termination in Crownpoint.

## 1.2 Project Location and Legal Description

The Proposed Action is in McKinley County, New Mexico between the communities of Twin Lakes/Tohatchi and Crownpoint and is within the Chuska Lake, Coyote Canyon, Toyee, Standing Rock, Dalton Pass, Crownpoint, and Big Rock Hill U.S. Geological Survey 1:24,000 scale topographic map areas (Figure 3-3; 7.5- by 7.5-minute quadrangles). The project is located on a combination of Navajo Tribal Trust, Navajo Tribal Fee, Indian Allotment, and lands withdrawn from the public for Indian use and managed by the BIA as further described below:

- Township 17 North, Range 12 West, Sections 19, 20, and 30;
- Township 17 North, Range 13 West, Sections 17, 18, 20-24;
- Township 17 North, Range 14 West, Sections 2, 3, 11-13;
- Township 17 North, Range 17 West, Sections 5, 6, 8, 9, 15, and 16;
- Township 17 North, Range 18 West, Sections 1, 2;
- Township 18 North, Range 14 West, Sections 17, 18, 20, 21, 28, 33, and 34;
- Township 18 North, Range 15 West, Sections 3-6, 10-13, 15, 22, and 27;
- Township 18 North, Range 16 West, Sections 1-3;
- Township 18 North, Range 18 West, Sections 34 and 35;
- Township 19 North, Range 16 West, Sections 29, 30, and 32-34; and
- Township 19 North, Range 17 West, Sections 21-23, 25, and 26.



### **1.3 Purpose and Need**

Reclamation is the lead federal agency, the BIA is a federal cooperating agency with connected actions, and the Navajo Nation and other entities are non-federal cooperating agencies on the project.

Reclamation's purpose of the Proposed Action is to comply with its responsibility under the Omnibus Public Land Management Act of 2009 to construct the NGWSP as a component of the 2005 Navajo Nation San Juan River Basin Water Rights Settlement Agreement. Reclamation's need for the Proposed Action is to provide long-term supply, treatment, and transmission of municipal and industrial water to the Navajo Nation and the City of Gallup, New Mexico.

The BIA's purpose of the Proposed Action is to comply with its authority under 25 CFR Part 169 to respond to ROW applications. The BIA's need for the Proposed Action is to allow access to Navajo Nation lands to construct and operate the water pipeline and associated pumping plants, water storage facilities, and ancillary infrastructure.

### **1.4 Decisions to be Made**

Reclamation will decide whether to provide funding to the Navajo Nation to construct the BBN9 Lateral project.

The BIA Navajo Region will decide whether to approve and issue the ROWs associated with the Proposed Action and, if approved, under what terms and conditions they will issue the ROWs.

### **1.5 Relationship to Statutes, Regulations, and Other Plans**

Authority to conduct water resources planning and land and facilities acquisition activities associated with this EA is in conformance with the Act of Congress of June 17, 1902 (32 Stat. 388), and acts amendatory thereof and supplementary thereto, all of which acts are commonly known and referred to as Reclamation Laws, and particularly Section 10602 of PL 111-11, as amended.

The Navajo Nation would comply with all applicable Federal, Tribal, and State of New Mexico laws and regulations and obtain all necessary permits and approvals prior to any disturbance activities. U.S. Army Corps of Engineers (USACE) Section 404 of the Clean Water Act (CWA) permits for discharge of dredge and fill materials in Waters of the U.S. would be required. Section 401 permits would be required from the Navajo Nation Environmental Protection Agency (NNEPA) for all wash crossings on Navajo Nation Tribal Trust land and from Region 9 of the U.S. Environmental Protection Agency (EPA) for all wash crossings on Tribal Allotments. Section 402 of the Clean Water Act permits would also be required.

Reclamation reinitiated formal Section 7 consultation with the U.S. Fish and Wildlife Service (USFWS) for the NGWSP in April 2022 due to modifications of the NGWSP's San Juan Lateral design that were not considered in the 2009 NGWSP PR/FEIS and associated Biological Opinion (USFWS consultation number 22420-2001-F-0532). The USFWS reissued the NGWSP Biological Opinion in September 2022 to incorporate the San Juan Lateral's design changes. The Proposed Action was determined to have "no effect" to federally listed threatened and endangered species, therefore, no additional Section 7 consultation is needed.

The BIA/Navajo Nation regulates ROW development to minimize environmental effects to public lands as required by numerous Federal laws, including:

- The Endangered Species Act of 1973 (ESA) (PL 94-325);
- The Migratory Bird Treaty Act of 1918 (MBTA), as amended (16 United States Code [USC] 703-712);
- The Bald Eagle and Golden Eagle Protection Act of 1940 (BGEPA), as amended (16 USC 668-668d);
- The CWA of 1963, as amended (PL 88-206);
- The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) (42 U.S.C. Chapter 103);
- The Antiquities Act of 1906, as amended (PL 52-209);
- The National Historic Preservation Act of 1966, (NHPA) as amended (PL 89-665);
- The Archaeological and Historic Preservation Act of 1974 (PL 86-253);
- The Archaeological Resources Protection Act of 1979, as amended (PL 96-95);
- The American Indian Religious Freedom Act of 1978, as amended (42 USC 1996);
- The Native American Graves Protection and Repatriation Act of 1990 (PL 101-601);
- Federal contracting laws and policies; and
- The Navajo Preference in Employment Act.

The MBTA prohibits the taking, killing, or possessing of migratory birds. Executive Order (EO) 13186 was signed on January 10, 2001, directing executive departments and agencies of the Federal government to take certain actions to further implement the MBTA including developing and implementing a Memorandum of Understanding (MOU) with the USFWS that would promote the conservation of migratory bird populations.

The Navajo Nation Department of Fish and Wildlife (NNDFW) regulates ROW development on the Navajo Nation to minimize environmental effects to the biological resources as required by Navajo Nation laws and procedures including:

- Navajo Endangered Species Act;
- Resource Land Clearance Policies and Procedures (RCP); and
- BGEPA.

Reclamation developed a Programmatic Agreement for compliance with the NHPA between the NGWSP participants. Reclamation, the Bureau of Land Management (BLM), the Navajo Nation Tribal Historic Preservation Officer (THPO), the BIA, the New Mexico State Historic Preservation Office (SHPO), and the Advisory Council on Historic Preservation are signatories to the Programmatic Agreement. Consulting parties to the Programmatic Agreement include the governments and historic preservation officials of American Indian Tribes and Pueblos, local municipalities, State, and Federal agencies with Section 106 responsibilities to consider the potential effect of the project on historic or cultural properties. The Proposed Action's compliance with Section 106 responsibilities of the NHPA would be adhered to by following the NGWSP Programmatic Agreement.

This EA considers the requirements of these and other laws and regulations, as applicable. The Proposed Action, including environmentally protective measures, complies with the laws and regulations indicated above. ROW grant holders are required to obtain all necessary permits and approvals prior to any disturbance activities.

## 2. Proposed Action and Alternatives

Alternatives evaluated in this EA include the No Action Alternative (2009 NGWSP PR/FEIS preferred alternative) and Proposed Action.

### 2.1 Alternatives Considered but Not Carried Forward

No alternative project designs were considered during the conceptual design process for the Proposed Action as they were determined to be technically challenging, economically prohibitive, and/or more destructive to cultural and biological resources than the Proposed Action.

### 2.2 No Action Alternative

Under the No Action Alternative, Reclamation would construct the NGWSP's unconstructed project features along Navajo Route N9 as described in the 2009 NGWSP PR/FEIS preferred alternative (Figure 1-2). The alignment would parallel Navajo Route N9 from the community of Twin Lakes to Nahodishgish and would include three storage facilities and three pumping plants.

### 2.3 Proposed Action

The Proposed Action would fund and grant ROW for the construction and operation of approximately 46.4 miles of water pipeline associated with the BBN9 Lateral of the NGWSP (Reaches 10.1, 10.1.1, 10.2, 10.2.1, 10.3, and 10.3.1); construct three new pumping plants (12, 13, and 14), a booster pump facility, surge tanks, chlorinators, and tank taps; upgrade the existing Coyote Canyon, Standing Rock 1, Standing Rock 2/3, and Crownpoint tank sites; and connect project pumping plants and water storage facilities to nearby transmission lines for project power. Construction is anticipated to commence in 2023 and continue through 2028. The Proposed Action would interconnect with Reach 9 of the NGWSP's San Juan Lateral near the communities of Twin Lakes and Tohatchi, New Mexico, and extend eastward to its termination at an existing water storage tank facility in Crownpoint, New Mexico. Individual project reaches and associated appurtenant facilities are further described below.

#### 2.3.1 Pipeline Reaches

##### 2.3.1.1. Reach 10.1

Reach 10.1 extends eastward from Reach 9 of the NGWSP within the Tohatchi Chapter to the proposed Pumping Plant 12 in the Coyote Canyon Chapter (Figure 2-1).

##### 2.3.1.2. Reach 10.1.1

Reach 10.1.1 is the Coyote Canyon Connection Lateral and ties into Reach 11 of the NGWSP approximately three miles northeast of Twin Lakes on Tribal Trust lands. The lateral extends eastward to an existing storage-tank facility in the Coyote Canyon Chapter (Figure 2-4).

### **2.3.1.3. Reach 10.2**

Reach 10.2 begins at the proposed Pumping Plant 12 facility and extends eastward on Tribal Trust land across Route N9 in the Standing Rock Chapter and connects with Reach 10.3 at the Pumping Plant 13 location (Figure 2-2).

### **2.3.1.4. Reach 10.2.1**

Reach 10.2.1 is the Standing Rock Connection Lateral and ties into Reach 10.2 immediately south of Route N9 in the Standing Rock Chapter. The lateral extends southward for approximately one mile towards the existing Standing Rock 1 storage facility and continues southward to its termination at the existing Standing Rock 2/3 storage facility (Figure 2-2).

### **2.3.1.5. Reach 10.3**

Reach 10.3 extends eastward from the Pumping Plant 13 location and extends south-southeast towards the Nahodishgish turnout at the existing Nahodishgish water storage tank facility in the Nahodishgish Chapter (Figure 2-3).

### **2.3.1.6. Reach 10.3.1**

Reach 10.3.1 extends eastward on a combination of Tribal Trust and Indian Allotment land from the Crownpoint turnout at the existing Nahodishgish storage tank facility to proposed Pumping Plant 14 located midway along the reach to its termination point at the existing water storage tank facility in Crownpoint located on BIA managed land (Figure 2-3).

## **2.3.2 Appurtenant Facilities**

The update and/or construction of the following appurtenant facilities are part of the Proposed Action. Three new pumping plants (12, 13, and 14) would be constructed ranging from 3.1 to 10.8 acres in size. ROW for the pumping plants and additional facilities would be included with the pipeline ROW applications.

### **2.3.2.1. Pumping Plant 12**

Pumping Plant 12 is located at the beginning of Reach 10.2 located in the Coyote Canyon Chapter. Proposed new construction includes fabrication and placement of a pump station building, a surge tank building, and two 50,000- or 75,000-gallon regulating tanks. Surface water runoff as well as proposed drain lines from the tanks would all discharge to the south side of the site. The new facilities would require an additional 3.1 acres of proposed permanent easement.

### **2.3.2.2. Pumping Plant 13**

Pumping Plant 13 is located at the beginning of Reach 10.3 located in the Standing Rock Chapter. Proposed new construction includes fabrication and placement of a pump station building, a surge tank building, and two 50,000- or 75,000-gallon regulating tanks. Surface water runoff as well as proposed drain lines from the tanks would all discharge to the south side of the site. The new facilities would require an additional 10.8 acres of proposed permanent easement.

### **2.3.2.3. Pumping Plant 14**

Pumping Plant 14 is located midway along Reach 10.3.1 located in the Crownpoint Chapter. Proposed new construction includes fabrication and placement of a pump station building and a surge tank building. Two 50,000- or 75,000-gallon regulating tanks associated with Pumping Plant 14 would be constructed on the Nahodishgish tank site along with a new 125,000-gallon distribution

tank. Surface water runoff as well as proposed drain lines from the tanks would all discharge to the south side of the site. The new facilities would require an additional 8.6 acres of proposed permanent easement.

#### **2.3.2.4. Other Facilities**

A surge tank would be constructed in Reach 10.1 and a chlorinator site would be constructed in Reach 10.1.1. New chlorination stations and tank taps would be constructed at the existing Coyote Canyon, Standing Rock 1, Standing Rock 2/3, and Crownpoint tank sites. A new booster pump facility would be constructed at the Standing Rock 1 tank site, and three new storage tanks would be constructed at the Nahodishgish tank site. Additional improvements would be made to the existing Nahodishgish, Standing Rock 1 and 2/3, Coyote Canyon, and Crownpoint tank sites.

### **2.3.3 Right of Way Requirements**

Pipeline construction would require permanent ROW of 20 feet on either side of the pipeline centerline (40 feet total) and a TCE measuring 30 feet on either side of the ROW for safe and efficient pipeline construction. The total area of direct impact would not exceed 100 feet in width for the proposed pipelines. Total pipeline ROW would be approximately 572 acres, 236 of which would be permanent ROW after construction activities are completed (Table 1, below). The permanent ROW for the pipeline requires less width because work for operations, maintenance, and replacements on the pipeline is typically confined to short linear sections of excavation. These operations do not require the level of efficiency for utilization of equipment as is desired during initial construction and worker safety can be assured through alternative excavation and shoring methods.

TCE allows for heavy equipment and workers to perform initial construction safely and efficiently. The TCE generally requires space on one or both sides of the excavation to accommodate construction vehicle access, materials storage, spoil piles from trenching, and staging and heavy construction equipment (e.g., excavators, cranes, dumps) access. In some cases, the TCE would be narrowed on one or both sides of the ROW, resulting in a reduced work area. The TCE is usually narrowed to avoid disturbance of nearby cultural or environmental sites or to avoid encroachment or other interference with adjacent ROWs, roads, or other facilities not part of the Proposed Action.

During construction, the contractor would meet Occupational Safety and Health Administration (OSHA) requirements, subpart, 29 CFR 1926.650-652 for trench safety.

In addition, the associated pumping plants, booster pump sites, surge tanks and chlorinators, and the improvements to the existing tank sites would require approximately 51 acres of new permanent ROW (Table 2, below). However, the fenced area, driveways, and drains generally occupy a smaller area within this easement. The easement area outside each facility's fence would be graded for slope, drainage, and access depending on the terrain. The larger easement area allows enough area to safely maneuver the necessary heavy equipment and provide for the storage and staging of construction materials. It also allows for more flexibility if the need arises to potentially expand facilities in the future.

The completed water pipeline would be maintained and operated by the NTUA with Reclamation assisting as needed for the first 10 years.

**Table 1. Pipeline Mileage by Surface Ownership**

Pipeline Reach and Length <sup>1</sup>	Navajo Tribal Trust (Feet)	Navajo Tribal Trust (Miles)	Navajo Allotment (Feet)	Navajo Allotment (Miles)	BIA Managed Lands (Feet)	BIA Managed Lands (Miles)	Navajo Tribal Fee (Feet)	Navajo Tribal Fee (Miles)	Total (Feet)	Total (Miles)
<b>Reach 10.1</b>	57,024	10.8	-	-	-	-	-	-	57,024	10.8
<b>Reach 10.2</b>	45,408	8.6	-	-	-	-	-	-	45,408	8.6
<b>Reach 10.3</b>	39,600	7.5	-	-	-	-	-	-	39,600	7.5
<b>Reach 10.1.1</b>	36,960	7.0	-	-	-	-	-	-	36,960	7.0
<b>Reach 10.2.1</b>	20,064	3.8	-	-	-	-	-	-	20,064	3.8
<b>Reach 10.3.1</b>	10,032	1.9	30,624	5.8	2,112	0.4	3,168	0.6	45,936	8.7
<b>Total</b>	209,088	39.6	30,624	5.8	2,112	0.4	3,168	0.6	244,992	46.4

<sup>1</sup>Surface ownership approximations are based on current preliminary drafts of construction plan and profile drawings and GIS alignment data.

**Table 2. Project Feature Acreage by Surface Ownership**

Project Feature and Area <sup>1</sup>	Navajo Tribal Trust (square feet)	Navajo Tribal Trust (acres)	Navajo Allotment (square feet)	Navajo Allotment (acres)	BIA Managed Lands (square feet)	BIA Managed Lands (acres)	Navajo Tribal Fee (square feet)	Navajo Tribal Fee (acres)	Total (square feet)	Total (acres)
<b>Pipeline ROW<sup>3</sup></b>	8,755,560	201.0 <sup>2</sup>	1,263,240	29.0	87,120	2.0	174,240	4.0	10,280,160	236.0
<b>Pipeline TCE<sup>4</sup></b>	12,458,160	286.0	1,829,520	42.0	130,680	3.0	217,800	5.0	14,636,160	336.0
<b>Pumping Plant 12</b>	135,036	3.1	-	-	-	-	-	-	135,036	3.1
<b>Pumping Plant 13</b>	470,448	10.8	-	-	-	-	-	-	470,448	10.8
<b>Pumping Plant 14</b>	374,616	8.6	-	-	-	-	-	-	374,616	8.6
<b>Nahodishgish Tank Site</b>	326,700	7.5	-	-	-	-	-	-	326,700	7.5
<b>Standing Rock 1 Tank Site</b>	304,920	7.0	-	-	-	-	-	-	304,920	7.0
<b>Standing Rock 2/3 Tank Site</b>	165,528	3.8	-	-	-	-	-	-	165,528	3.8
<b>Coyote Canyon Tank Site</b>	378,972	8.7	-	-	-	-	-	-	378,972	8.7

Project Feature and Area <sup>1</sup>	Navajo Tribal Trust (square feet)	Navajo Tribal Trust (acres)	Navajo Allotment (square feet)	Navajo Allotment (acres)	BIA Managed Lands (square feet)	BIA Managed Lands (acres)	Navajo Tribal Fee (square feet)	Navajo Tribal Fee (acres)	Total (square feet)	Total (acres)
<b>Crownpoint Tank Site</b>	43,560	1.0	-	-	-	-	-	-	43,560	1.0
<b>Total ROW and TCE Acres (Rounded)</b>	23,435,280	538	3,092,760	71	217,800	5	392,040	9	27,137,880	623

<sup>1</sup>Surface ownership approximations are based on current preliminary drafts of construction plan and profile drawings and GIS alignment data.

<sup>2</sup>Reach 10.1 Surge Tank and Reach 10.1.1 Chlorinator Easement Acreages are included in the pipeline alignment ROW calculation for Navajo Tribal Trust Land.

<sup>3</sup>ROW calculation assumes a 40-foot permanent ROW.

<sup>4</sup>TCE calculation assumes a 60-foot easement.



### **2.3.4 Power Supply**

Electricity for the pumping stations, chlorination stations, and related aboveground facilities would come from existing transmission lines or from new transmission lines and connections proposed by the NTUA. Three-phase powerline extensions are planned for Pumping Plants 12, 13, 14 and the Standing Rock Tank 1 site; and single-phase transmission lines are planned for the Nahodishgish Tank site, Standing Rock 2/3 site, and the Coyote Canyon Tank site. Transmission lines associated with the NGWSP may be partially funded by Reclamation through wheeling agreement(s) with the Western Area Power Authority (WAPA). WAPA, in coordination with Reclamation, has determined that contracting with NTUA for transmission service to deliver power to the relevant project loads located on the Navajo Nation is the most reasonable, cost effective, and economical method to deliver electrical power to the project facilities. NTUA would be responsible for securing ROW and performing environmental and cultural resources reviews if located outside of the surveyed areas of the Proposed Action.

### **2.3.5 Project Construction**

The pipeline ROW and TCE would be cleared of vegetation and topsoil and large boulders would be removed. Topsoil would be stockpiled separate from general excavation material and would be respread prior to reseeding. The major portion of the excavation would be done using bulldozers, scrapers, track hoes, and possibly trenchers. A ripper would likely be used to break up sandstone, siltstone, and shale. Blasting would not be allowed.

The pipeline trench would reach a maximum depth of 20 feet in some areas but would typically average 5-6 feet in depth. The bottom width of the trench would be approximately three to four feet. Pipeline boring would involve a bore machine. The trench width for the pipeline may vary considerably depending on the diameter of piping being installed, the type of bedding and embedment requirements for the various types of pipes, and the required side slopes of the trench excavation. In some locations, the contractor may lower side slopes resulting in a much wider trench at the top to meet OSHA trench safety requirements. The contractor would provide trench safety as required by OSHA either using trench boxes or benching and/or reduction of the side slope. OSHA trench safety requirements prevent slope failures and endangering laborers during excavation and pipe installation operations and are dependent upon the types of native material encountered during excavation. Additional width is also required on one side of the excavation to accommodate the excavation material pile. However, all work related to construction would be conducted from within the 100-foot-wide combined ROW and TCE. When encountered, water that accumulates in the pipeline trench would be pumped to off-worksite areas to minimize mud and rutting from heavy equipment. Contractors would obtain all necessary permitting for such water disposal prior to commencing construction.

Construction of the pumping plants and other appurtenant facilities would include adequate ROW for safe and efficient construction without causing unacceptable impacts to surrounding environmental or cultural resources. These activities would include, but are not limited to, grading, sub-foundation earthwork, improvement or construction of driveways for access, placement of prefabricated chlorination buildings, placement and trenching of site piping, and storage of materials and equipment. Power to the sites during construction could be provided through generators. The construction activities would be confined to the easement during construction.

Vegetation (trees and shrubs) would be removed from the project area prior to construction using heavy equipment. Stumps, surface rock, and other materials would be hauled to an appropriate

disposal facility. Undergrowth and deadwood would be removed without disturbing subsoils. Approximately 5 acres (80 trees) of pinyon-juniper woodland is anticipated to be removed as part of the project. Trees larger than 3 inches in diameter would be cut, de-limbed, and left in stacks on the edge of the ROW near access points for public firewood gatherers. Firewood would be placed such that the public may gather it without creating safety hazards or additional disturbance to the public, work site, or the environment. Trees smaller than 3 inches in diameter, slash, and brush would either be chipped and spread on the ROW or hauled to an appropriate disposal site. Chipped material would be distributed so as not to interfere with successful revegetation efforts.

Regarding the 2009 NGWSP PR/FEIS commitment of fencing the NGWSP pipeline ROW; Reclamation, the BIA, and Navajo Nation determined in the 2019 Revegetation Plan for the NGWSP (Reclamation 2019) that if acceptable ground cover conditions are not achieved within 3 years, fencing may be necessary to achieve ground cover criteria identified in the site-specific revegetation plan.

### **2.3.6 Project Reclamation**

All areas disturbed during construction of the Proposed Action, except for project footprints needed for the continuous operation and maintenance of the project (e.g. fenced tank sites and chlorination stations), would be reseeded and reclaimed. Reclaimed areas would also include temporary construction easements and any areas disturbed by construction traffic. Temporary fence gates would be installed along the pipeline alignment and would be kept closed to manage the livestock in the pipeline area.

#### **2.3.6.1. Soil Testing and Amendment**

Soil testing may be completed to help determine the characteristics of disturbed soils in the project area and to help with determining the applicability of adding soil amendments in the reclamation process. Soil testing may include analysis of pH, electrical conductivity, texture, topsoil depth and overall soil depth, carbonates (reactivity), organic matter, and Sodium Absorption Ratio among others. A "soil amendment" is a material added to a soil to improve its physical properties, such as water retention, permeability, water infiltration, drainage, aeration, nutrition, and structure. Organic amendments including sphagnum peat, humate, wood chips, grass clippings, straw, compost, manure, biosolids, sawdust, and wood ash; and inorganic amendments including vermiculite, perlite, lime, gypsum, tire chunks, pea gravel, and sand may be added to help with project reclamation.

#### **2.3.6.2. Topsoil Management**

A minimum of 6 inches of topsoil, if present, would be stripped following the removal of vegetation before construction. Stripped topsoil would be stockpiled separately from subsoil or other general excavation material and would be redistributed across the disturbed project areas prior to reseeded.

#### **2.3.6.3. Seedbed Preparation**

Soil compaction would be conducted with sheepsfoot rollers, excavators, and/or jumping jack tampers. Subsoil would be prepared to eliminate uneven areas and low spots. The construction contractor would maintain lines, levels, profiles, and contours of the pre-disturbed landscape. Changes in grade would be gradual and slopes would be blended into level areas. Foreign materials, weeds and undesirable plants, and their roots would be removed from the subsoil. Any contaminated subsoil would be removed.

In areas needing reseeded, the top layer of soil would be softened by ripping and disking prior to seeding to create the soil structure necessary to allow for seed germination. The subsoil would be scarified to a depth of 6 inches where topsoil is to be placed. Cultivation in areas where equipment, used for hauling and spreading topsoil, has compacted sub-soil would be repeated.

#### **2.3.6.4. Reseeding**

Reseeding would occur in the project area as soon as possible following completion, testing, and approval of construction activities. Where possible, reseeded would be timed to coincide with Navajo Nation Department of Agriculture (NNDA) revegetation requirements and stipulations, and the NNDA would assist with seed mix prescription. Reseeding would not occur immediately following rain, snow, when the ground is frozen, or when winds are over 12 miles per hour. In general, July to November is the optimal time to reseed due to the presence of monsoonal moisture and cooler temperatures, however, reseeded may otherwise be timed to coincide with favorable moisture conditions.

Seed would be applied at rates specified by NNDA for their respective seed mixtures. A seed drill would be used followed by a drag packer over the reclaimed area to incorporate seed approximately ½ inch deep. Seed drilling rows would run perpendicular to the down slope in steep areas to prevent the formation of erosional gullies and rills. Some hand or broadcast seeding may be needed along steep slopes where equipment is difficult to use. Hydroseeding would be allowed where it is physically unfeasible to drill seed, and the seed rate would be double the rate of drill seeding. Hydroseeding would not be performed without prior written authorization by Reclamation and the Navajo Nation. Water would be applied with a fine spray immediately after each area has been seeded and up to 4 inches of soil would be saturated. Fertilizer and seeded slurry, if used, would be applied with a hydraulic seeder at an approved rate evenly in one pass.

Three NNDA seed mixtures (Tables 2, 3, and 4) may be used for the Proposed Action depending on existing vegetation and soil types. The construction contractor would coordinate with Reclamation and the Navajo Nation prior to purchasing seed to determine how much of each seed mixture is needed and the locations of where each seed mixture should be used. Mulch is not proposed for use in the project area, unless otherwise required by the BIA Navajo Region or Navajo Nation.

**Table 3. NNDA Seed Mix 1**

<sup>1</sup> Species	Cultivar	Pounds Pure Live Seed (PLS)/Acre
Western wheatgrass	Arriba	3.0
Streambank wheatgrass	-	2.0
Intermediate wheatgrass	Oahe	3.0
Indian ricegrass	Paloma	2.0
Blue grama	-	2.0
Sideoats grama	-	2.0
Little bluestem	-	2.0
Rocky Mountain penstemon	-	1.0

<sup>1</sup> Species	Cultivar	Pounds Pure Live Seed (PLS)/Acre
<b>Total</b>	-	16.0

<sup>1</sup>Seed Mix 1: **Grasses and Grasslike:** blue grama, western wheatgrass, needle and thread, bottlebrush squirreltail; etc. **Shrubs and Trees:** Pinyon, juniper, sagebrush, rabbitbrush. **Soils:** Loam, clay loam, sandy loam, sandy clay loam.

**Table 4. NNDA Seed Mix 2**

<sup>1</sup> Species	Cultivar	Pounds Pure Live Seed (PLS)/Acre
Western wheatgrass	Arriba	3.0
Streambank wheatgrass	-	2.0
Intermediate wheatgrass	Oahe	3.0
Indian ricegrass	Paloma	2.0
Blue grama	-	2.0
Sideoats grama	-	2.0
Little bluestem	-	2.0
Rocky Mountain penstemon	-	1.0
<b>Total</b>	-	16.0

<sup>1</sup>Seed Mix 2: **Grasses and Grasslike:** blue grama, western wheatgrass. **Shrubs and Trees:** Ponderosa pine, Douglas-fir, blue spruce. **Soils:** Loam, clay, clay loam.

**Table 5. NNDA Seed Mix 3**

<sup>1</sup> Species	Cultivar	Pounds Pure Live Seed (PLS)/Acre
Alkali sacaton	Arriba	1.5
Indian ricegrass	Paloma	2.0
Galleta	Viva	1.5
Sand dropseed	-	2.0
Fourwing saltbush	-	2.0
Shadscale	-	2.0
Western wheatgrass	Arriba	3.0
Rocky Mountain penstemon	-	1.5
<b>Total</b>	-	15.0

<sup>1</sup>Seed Mix 3: **Grasses and Grasslike:** alkali sacaton, galleta, sand dropseed, purple threeawn. **Shrubs and Trees:** Fourwing saltbush, shadscale, greasewood. **Soils:** Sand, sandy loam.

### **2.3.6.5. Seed Protection and ROW Maintenance**

In areas needing protective erosion control fabric, slopes would be lightly dressed with topsoil to ensure close contact between the soil and fabric. Traffic on reseeded areas would be limited using protective measures such as warning signs, fence post barricades, earthen berms, or other measures at intersections of the seeded ROW and existing roadways and driveways and at other locations experiencing unauthorized access. Protective measures would extend across the length of the ROW.

Maintenance of the ROW would include the reseeded of areas showing bare spots, the repair of erosional issues like washouts or gullies, and the control of noxious and annual weed species. Vegetation management may include mowing, spraying, targeted grazing, or reseeded. Temporary Best Management Practices (BMPs) would be installed along areas where sediment is being transported out of the construction area. Fiber rolls (mulch socks), rip rap blankets, rip rap check dams, soil cement, soil berms, surface roughening, or other appropriate BMPs would be used in these areas. Such BMPs would be included in the Storm Water Pollution Prevention Plan(s) (SWPPP) provided and implemented by the Contractor for the Proposed Action.

## **3. Affected Environment and Environmental Consequences**

This section discusses resources that may be affected by the Action Alternatives. For each resource, the potentially affected area and/or interests are identified, existing conditions described, and potential environmental consequences analyzed under the Action Alternatives.

The 2009 NGWSP PR/FEIS analyzed the affected environment and environmental consequences from the No Action Alternative to the resources described in this chapter and is incorporated by reference throughout.

### **3.1 Methods**

This chapter characterizes the resources and uses that have the potential to be affected by the action alternatives, followed by an analysis of the impacts. For each resource, the potentially affected area and/or interests are identified; existing conditions described; past, present, and reasonably foreseeable actions identified; and potential impacts are analyzed. Impacts can include those that are caused by the action and occur at the same time and place, or that are caused by the action and are later in time or farther removed in distance but are still reasonably foreseeable. BMPs or other protective measures described below are considered part of the Proposed Action and are taken into consideration when predicting environmental consequences.

#### **3.1.1 Related Past, Present, and Reasonably Foreseeable Actions**

Human caused and natural events have had varying levels of impacts on the resources and values affected by the proposed water pipeline alignment and associated infrastructure. Past and present actions include livestock grazing, ranching operations, and infrastructure development.

Reasonably foreseeable actions include the following:

- A 115-kilovolt electrical transmission line is planned between Highway 491 and State Route 371 by the NTUA generally following Route N9 (Figure 1-2).

- An invasive plant management plan that has been proposed on Navajo Nation lands in several New Mexico counties, including Sandoval, McKinley, and San Juan;
- Future water pipeline reaches to be developed for the NGWSP (Figure 3-1); and
- Livestock grazing and ranching operations.

The region of influence would vary depending on the resource. It could range from as small as the Proposed Action area to a much larger area, e.g., an Air Quality Control Region (ACQR). Although these actions would not account for all of the impacts that have, or are likely to occur, in the Proposed Action area, geographic information system analysis, agency records, and professional judgment suggest that they have contributed to the vast majority of impacts that have occurred in the Proposed Action area.

### 3.2 Resources Eliminated from Further Study

The following resources were determined to be previously analyzed in the 2009 NGWSP PR/FEIS with no further changes from the Proposed Action or are not applicable. These resources are not analyzed in greater detail within this EA. Resources determined to be of potential significance and requiring further analysis are further discussed in Chapter 3.

**Table 6. Resources Eliminated from Further Analysis**

Resource	Rationale for Elimination from Further Analysis
Water Uses and Resources	Effects on water uses and resources from the NGWSP were analyzed in the 2009 NGWSP PR/FEIS (pp. V5-V18). No substantial changes to the impacts previously described in the 2009 NGWSP PR/FEIS would occur from implementing the Proposed Action. No further analysis is needed.
Indian Trust Assets	Effects on Indian trust assets from the NGWSP were analyzed in the 2009 NGWSP PR/FEIS (pp. V18-V32). No substantial changes to Indian trust assets previously described in the 2009 NGWSP PR/FEIS would occur from implementing the Proposed Action. No further analysis is needed.
Vegetation Resources	Effects on vegetation resources from the NGWSP were analyzed in the 2009 NGWSP PR/FEIS (pp. V42-V50). No substantial changes to the impacts previously described in the 2009 NGWSP PR/FEIS would occur from implementing the Proposed Action; no further analysis is needed.
Wildlife Resources	Effects on wildlife from the NGWSP were analyzed in the 2009 NGWSP PR/FEIS (pp. V50-V56). No substantial changes to the impacts previously described in the 2009 NGWSP PR/FEIS would occur from implementing the Proposed Action. There would be no permanent loss of key wildlife habitats beyond what was identified in the PR/FEIS, and no further analysis is needed. Effects on special status species are analyzed in Section 3.5.
Special Status Species (Black-footed Ferret, Burrowing Owl, Ferruginous Hawk, Golden Eagle, Kit	Effects on special status species from the NGWSP were analyzed in the 2009 NGWSP PR/FEIS (pp. V70-V93). No substantial changes to the impacts previously described in the 2009 NGWSP PR/FEIS for the black-footed ferret, burrowing owl, ferruginous hawk, golden eagle, kit fox, mountain plover, northern leopard frog, Sivinski's fleabane, and southwestern willow flycatcher would occur from implementing the Proposed Action, therefore, no further analysis is needed for

Resource	Rationale for Elimination from Further Analysis
Fox, Mountain Plover, Northern Leopard Frog, Sivinski's fleabane, and Southwestern Willow Flycatcher)	these species. Reclamation and their contractors will follow the NNDFW's conditions of compliance for the project (Appendix B). Effects on special status species not listed here are further analyzed in Section 3.5.
Federally Listed Threatened and Endangered Species	The Proposed Action would have "no effect" on federally listed threatened and endangered species, therefore, no further analysis is needed.
Aquatic Resources	Effects on aquatic resources from the NGWSP were analyzed in the 2009 NGWSP PR/FEIS (pp. V56-V70). The FEIS evaluated the effects on hydrology in the San Juan River, change in the native fish community, and deterioration of trout habitat from Navajo Dam to Blanco, New Mexico. No substantial changes to the impacts previously described in the 2009 NGWSP PR/FEIS would occur from implementing the Proposed Action; no further analysis is needed.
Recreation	Effects on recreation from the NGWSP were analyzed in Chapter 5 of the 2009 NGWSP PR/FEIS (pp. V93-V104). General recreation on the Navajo Nation is managed by the Navajo Nation Parks and Recreation Department, and most recreational use of the Proposed Action area is related to hunting. No developed recreation sites or other opportunities exist near the Proposed Action area and dispersed recreation is limited. No substantial changes to the impacts previously described in the 2009 NGWSP PR/FEIS would occur from implementing the Proposed Action, therefore, no further analysis is needed.
Hazardous Materials	Effects on hazardous materials from the NGWSP were analyzed in the 2009 NGWSP PR/FEIS (pp. V111-V114). No substantial changes to the impacts previously described in the 2009 NGWSP PR/FEIS would occur from implementing the Proposed Action; no further analysis is needed.
Soils	Effects on soils from the NGWSP were analyzed in the 2009 NGWSP PR/FEIS (pp. V114-V119). Soils within the realigned portions of the project area are like other soils throughout the NGWSP analysis area and are erosive, nutrient limited, and require special care during construction and reclamation activities. Best management practices (BMPs) were discussed in the 2009 NGWSP PR/FEIS and incorporated into the NGWSP's environmental commitments to avoid or limit potential effects on soils. No substantial changes to the impacts previously described in the 2009 NGWSP PR/FEIS would occur from implementing the Proposed Action; no further analysis is needed.
Geology	As described in the 2009 NGWSP PR/FEIS (pp. V119-V122), the NGWSP would have no effect on geology. No substantial changes would occur from the Proposed Action; no further analysis is needed.
Paleontology	Effects on paleontology resources from the NGWSP were analyzed in the 2009 NGWSP PR/FEIS (pp. V122-V125). New areas of disturbance associated with the Proposed Action are not documented as known areas of paleontological resources,

Resource	Rationale for Elimination from Further Analysis
	and no substantial changes to the impacts previously described in the 2009 NGWSP PR/FEIS would occur from implementing the Proposed Action. No further analysis is needed.
Air Quality and Noise	Effects on air quality and noise from the NGWSP were analyzed in the 2009 NGWSP PR/FEIS (pp. V125-V128). No substantial changes to the impacts previously described in the 2009 NGWSP PR/FEIS would occur from implementing the Proposed Action. No further analysis is needed.
Socioeconomics	Effects on socioeconomics from the NGWSP were analyzed in the 2009 NGWSP PR/FEIS (pp. V128-V133). While the construction phase may extend beyond the timeline analyzed in the FEIS, no substantial changes to the impacts previously described in the 2009 NGWSP PR/FEIS would occur from implementing the Proposed Action; no further analysis is needed.
Environmental Justice	Effects on environmental justice from the NGWSP were analyzed in the 2009 NGWSP PR/FEIS (pp. V133-134). While census data has been updated for the region since the data used analyzed in the FEIS, no substantial changes to the impacts previously described in the 2009 NGWSP PR/FEIS would occur from implementing the Proposed Action; no further analysis is needed.
Hydrologic Variability and Climate Change	Potential effects of climate change on the hydrology of the San Juan Basin and NGWSP were discussed in the 2009 NGWSP PR/FEIS (pp. V144-145). Conservation measures regarding climate change impacts to threatened and endangered fish were incorporated into the NGWSP's Biological Opinion (USFWS 2009) and environmental commitments. No substantial changes to the impacts previously described in the 2009 NGWSP PR/FEIS would occur from implementing the Proposed Action; no further analysis is needed.

### 3.3 Water Quality

#### 3.3.1 Affected Environment

Chapter 5 of the 2009 NGWSP PR/FEIS described the affected environment of the NGWSP with water quality outlined on pages V32-V42.

The Proposed Action area lies in the San Juan River basin. Surface water is the primary source of water (approximately 99%) in the region with the San Juan River and its tributaries (Animas River, Canon Largo, Chaco River, and La Plata River) as the primary surface water source. Navajo Reservoir spans both New Mexico and Colorado and impounds the San Juan River in the upper portion of the basin.

The only major intermittent stream in the vicinity of the Proposed Action area is Standing Rock Wash (New Mexico Commission of Public Records 2016). The San Juan Basin planning region includes seven watersheds with the Proposed Action area located within the Chaco subbasin (Hydrologic Unit Code [HUC] 8 14080106). The Chaco subbasin covers 2,931,265 total acres across San Juan, McKinley, Sandoval, and Rio Arriba County in northwestern New Mexico and Apache County in northeastern Arizona (Natural Resources Conservation Service [NRCS] n.d.). The Chaco watershed has no reaches listed as 303(d) Impaired Surface Waters (NRCS n.d.).



The Proposed Action area runs across the South Chaco Slope, through areas drained by north- and northeast-trending tributaries of the Chaco River. These drainage systems are depicted in more detail in Figure 3-2. Going from east to west the major watersheds crossed by the Proposed Action include the upper Kim-me-ni-oli Wash, Indian Creek, Standing Rock Wash, Coyote Wash, and Dye Brush Wash—all of which flow northward, toward the Chaco Wash, from the northern edge of Lobo Mesa—and Figueredo and Red Willow Washes—which flow northeastward from relatively high-elevation sources in the southernmost reaches of the Chuska Mountains (SRI 2020).

McIntyre Environmental reviewed USFWS National Wetland Inventory maps and aerial images as well as completed wetland delineation fieldwork to identify potentially jurisdictional Waters of the U.S. in the proposed project area. Work was completed in accordance with the USACE Wetland Delineation Manual, the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Version 2.0) (USACE 2008a), *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States: A Delineation Manual* (USACE 2008b), *Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the United States* (USACE 2010), and USACE regulatory guidance letters and joint (USACE and U.S. EPA) regulations, policies, references, and guidance. The proposed BBN9 Lateral pipeline would cross 102 ephemeral drainages that are potentially jurisdictional Waters of the U.S. regulated by the USACE under Section 404 of the Clean Water Act. Of these, 101 are crossed by the pipeline alignment and one is located solely within the TCE. Four (4) of the 101 drainages crossed by the BBN9 Lateral pipeline would be avoided through the use of directional drilling and therefore not impacted while 97 drainages would be trenched across. No wetlands or riparian areas were documented in the proposed project area.

### **3.3.2 Environmental Consequences from the No Action Alternative**

Chapter 5 of the PR/FEIS described the environmental consequences of the NGWSP with water quality outlined on pages V32-V42.

### **3.3.3 Environmental Consequences from the Proposed Action**

Environmental consequences on water quality from the Proposed Action would not create any new significant site-specific effects nor contribute to cumulative significant impacts not already described in the PR/FEIS. San Juan River water quality and groundwater would not be impacted by the Proposed Action.

Construction of the proposed BBN9 Lateral pipeline would cross 102 ephemeral washes and drainages that are potentially jurisdictional Waters of the U.S. regulated by the USACE under Section 404 of the Clean Water Act. The majority of the proposed water pipeline crossings of ephemeral watercourses would be trenched and approximately 2.7 acres of construction-related disturbance within the permanent ROW and an additional 7.2 acres of construction-related disturbance within the TCE would occur.

Construction within and adjacent to ephemeral watercourses and vegetation clearing and the stripping of topsoil in the proposed project area would expose soils to wind and water erosion and would increase the potential for erosion and sedimentation of ephemeral watercourses. Impacts would be temporary and insignificant because design features, BMPs, and the reestablishment of vegetation through reseeding would be implemented during construction to avoid and/or limit erosion and sedimentation. Reclamation, the Navajo Nation, and/or the project contractor would acquire and comply with applicable USACE Nationwide and/or Regional General Permits and National Pollutant Discharge Elimination System (NPDES) permit(s). The development and

maintenance of a SWPPP(s) would also be required and followed for the project. Future operations and maintenance activities would continue to implement BMPs and design measures and acquire and comply with any necessary permits. Based on the measures described above, impacts to water quality would be temporary and not significant.

## **3.4 Transportation and Access**

### **3.4.1 Affected Environment**

The major transportation route in the vicinity of the Proposed Action area is U.S. Highway 491 which runs from Gallup north to Shiprock, New Mexico, and provides access to the west end of the Proposed Action (Figure 2-1). New Mexico State Road 371 is located at the eastern end of the Proposed Action Area and provides access to the community of Crownpoint. The BBN9 Lateral generally parallels Route N9 which runs from the community of Twin Lakes to Crownpoint. Based on visual observations, traffic on these roads is light with no backups or traffic delays during the morning and evening commuting hours.

Numerous improved and unimproved dirt roads and two tracks provide access and mobility for local residents to different parts of the Proposed Action area off Route N9 and U.S. Highway 491.

### **3.4.2 Environmental Consequences from the No Action Alternative**

Transportation and access were not explicitly analyzed in detail in the 2009 NGWSP PR/FEIS. Construction crews and equipment would access the project area from either U.S. Highway 491 or State Route 371. Route N9 would be used to provide access to the project reaches as well as a network of improved and unimproved dirt roads. Existing traffic along these roads is light. The initial transport of construction equipment and workers to the project area would have short term and minimal (not significant) effects on local traffic conditions. Some activities may require operating equipment on the edge or shoulder of dirt roads within the project area, especially during excavation of pipelines. Such activities may interfere with local traffic, but the effects would be minimal due to no anticipated closures and low traffic volumes on roadways. Construction activity would increase traffic on local roads within the project area; however, traffic would continue to be light on regional roadways; increases in traffic would be temporary and not significant.

### **3.4.3 Environmental Consequences from the Proposed Action**

Environmental consequences from the Proposed Action would be substantially similar to those previously described in the above section, however, less overall traffic impacts are anticipated because the Proposed Action would only directly parallel Route N9 for a few miles. Project construction would start near both the community of Tohatchi and Twin Lakes with the main lateral extending to Crownpoint.

Reasonably foreseeable future projects that would have a similar effect on traffic and access would be the construction of powerlines for the pumping stations and other water pipeline reaches that may be developed on the Navajo Nation. Given that they would occur on other parts of the Navajo Nation and may not overlap temporally with the Proposed Action, the short-term and minor effects from the development of Reaches 10.1, 10.1.1, 10.2, 10.2.1, 10.3, and 10.3.1 of the Proposed Action would not contribute to cumulative significant and adverse effects on transportation and access in the region.

## 3.5 Special Status Species

### 3.5.1 Affected Environment

Chapter 5 of the 2009 NGWSP PR/FEIS described the affected environment of the NGWSP with special status species outlined on pages V70-V93. Special status species include federally listed threatened, endangered, or proposed species and those listed as threatened or endangered by the Navajo Nation.

A Biological Assessment was prepared in 2005 to analyze the effects of the NGWSP (Keller-Bliesner Engineering and Ecosystems Research Institute 2005) and documented the presence of a kit fox near Crownpoint. A Biological Evaluation was prepared for the Proposed Action and incorporated special status species lists from the Navajo Nation and USFWS. Raptor and sensitive species surveys were conducted during April and May 2019 in a 400-foot APE to verify if species of concern or their habitats were present in the project area. Additional surveys were performed in September 2019 after the route was realigned to the north of Crownpoint. An additional sensitive plant survey was performed in May 2020. Three special status species were observed in or adjacent to the action area during biological surveys including the burrowing owl (*Athene cunicularia*), ferruginous hawk (*Buteo regalis*), and peregrine falcon (*Falco peregrinus*). Burrowing owl burrows were identified in Reach 10.1.1 and Reach 10.2 and the alignment was rerouted to avoid them. In addition to the species listed below, red-tailed hawks (*Buteo jamaicensis*) were observed in Reaches 10.1.1, 10.2 and 10.3.1. Turkey vultures (*Cathartes aura*) were observed in Reach 10.3.1. Greater detail on the results of these surveys can be found in the BBN9 Biological Resources reports on file with Reclamation.

The Navajo Natural Heritage Program (NNHP) provided a data report including a list of species of concern to the NNDFW, which is inclusive of USFWS species listed under the ESA. These species lists are geographically broad in that they report species known or projected to occur in a general area around a project. The NNHP report provides information on Known and Potential species of concern within 1 and 3 miles of the Proposed Action area. According to the NNDFW, for any Known species, “planning for avoidance of these species is expected.” Potential Species are species potentially occurring near or in a proposed project area that need to be evaluated for presence/absence.

The below tables present lists of Known and Potential Species of concern within the BBN9 Proposed Action area. The list is updated from that acquired during the 2009 NGWSP PR/FEIS effort. Seven (7) Known and twelve (12) Potential species were listed that could occur along the route of the Proposed Action. The NNHP data report describes areas designated as RCP 1 along the route of the Proposed Action near the Coyote Canyon Connection. This is because black-footed ferrets (*Mustela nigripes*) appeared on the NNHP list of species. Black-footed ferrets are associated with prairie dog towns, however, it is unlikely that ferrets would be present in the absence of reintroduction. Surveys were determined to not be necessary (Personal communication between C. Fordham and C. Smith, 2019).

**Table 7. NNHP Known Species of Concern**

Species	Status	Habitat	Potential to occur within the project area.
Golden Eagle ( <i>Aquila chrysaetos canadensis</i> )	NESL G-3	Nest on steep cliffs, typically >30 m (98 ft) high, although shorter cliffs (>10 m [33 ft]) infrequently used. Nesting cliffs are normally directly adjacent to foraging habitat of desert grasslands or desert scrub, with only sparse shrubs if present, that provides primary prey of cottontail and jackrabbits. Nests usually placed in middle to upper parts of cliffs in sheltered ledges, potholes, or small caves which provide protection from the elements.	No golden eagles were observed; however, potentially active raptor nests were observed in Reach 10.1 and Reach 10.2.1 and an active nest was observed in Reach 10.1.1 0.75 miles from the alignment.
Naturita Milkvetch ( <i>Astragalus naturitensis</i> )	NESL G-3	Sand filled pockets of sandstone slickrock and rimrock pavement along canyons in the pinyon-juniper zone. Known populations occur at 5,000 – 7,000 ft elevation. Known in Pinetree Canyon area, McKinley County, NM.	Suitable habitat for the Naturita milkvetch was present in Reach 10.1.1, 10.2.1, and 10.3, but no Naturita milkvetch was observed. Focused plant surveys were conducted In Reach 10.3.1 but none were found.
Heil's Milkvetch ( <i>Astragalus heilii</i> )	NESL G-4	Rocky ledges of the Mesa Verde Group in pinyon-juniper communities at 7,200 feet.	Heil's milkvetch is known from southeast of Crownpoint near Borrego Pass, however, the elevation throughout the Proposed Action area is mostly lower than what this plant typically prefers. Focused plant surveys were conducted in Reach 10.3.1. but none were found.
Burrowing owl ( <i>Athene cucularia</i> )	NESL G-3	Nests in ground burrow (often deserted prairie-dog burrow) typically in dry, open grasslands or desertscrub, but grasslands with sparse junipers may also be used on the Navajo Nation;	Owl burrows were found on Reach 10.1.1 and 10.2 and the alignment was relocated to avoid them. The revised route area was surveyed, and no owls were found on the new alignment.

Species	Status	Habitat	Potential to occur within the project area.
		presence of suitable nest burrow is critical requisite.	
Ferruginous hawk ( <i>Buteo regalis</i> )	NESL G-3	Ferruginous hawks nest in badlands, flat or rolling desert grasslands, and desertscrub. Most nests on Navajo Nation are on clay or rock pinnacles, small buttes, or short cliffs (< 30 m height); fewer are placed in top of juniper trees or on the ground, and there is one record of a nest on the crossarm of a transmission-line tower. Habitat surrounding nest site must support populations of their preferred prey items of cottontail and jackrabbits, prairie dogs, ground squirrels and gophers.	No ferruginous hawks were observed; however, potentially active raptor nests were observed in Reach 10.1 and Reach 10.2.1 and an active nest was observed in Reach 10.1.1 0.75 miles from the alignment.
Black-footed ferret ( <i>Mustela nigripes</i> )	NESL G-2 FE	Medium to large active prairie dog towns (>80 ha, and ≥20 burrows/ha) or complex of towns (two or more towns within 7 km). No known wild ferrets on the Navajo Nation except for those associated with the Arizona Game & Fish Department reintroduction on Tribal Ranch lands of Big Boquillas in Aubrey Valley, Coconino County.	NNDFW confirmed black-footed ferrets not present.
Kit fox ( <i>Vulpes macrotis</i> )	NESL G-4	Dens excavated in desertscrub or desert grasslands with soft, alluvial or silty-clay soils, and often with sparse saltbush, shadscale, greasewood, or sagebrush, and grasses. Dens have 2-25 key-hole shaped entrances (average of 3) that are 20-25 cm (8-10 inches) in height and < 20-cm wide.	One large keyhole shaped burrow was found and surveyed in Reach 10.1. A trail camera was placed on the burrow, but no animal activity was detected. No canid tracks or scat was found. This burrow was resurveyed and was found to be abandoned and collapsed.

Notes:

ESA – Endangered Species Act

FE – Listed as endangered under the ESA

NESL – Navajo Endangered Species List

G2 – Species or subspecies whose survival or recruitment are in jeopardy

G3- Species or subspecies whose survival or recruitment are likely to be in jeopardy in the foreseeable future

G4 – Species or subspecies for which information is lacking to list as G2 or G3, but the NNDFW has reason to consider them.

**Table 8. NNHP Potentially Occurring Species of Concern**

Species	Status	Habitat	Potential to occur within the project area.
Golden Eagle ( <i>Aquila chrysaetos canadensis</i> )	NESL G-3	See discussion above	See discussion above.
Naturita Milkvetch ( <i>Astragalus naturitensis</i> )	NESL G-3	See discussion above	See discussion above.
Heil's Milkvetch ( <i>Astragalus tephrodes v. tephrodes</i> )	NESL G-4	See discussion above	See discussion above.
Burrowing owl ( <i>Athene cunicularia</i> )	NESL G-3	See discussion above	See discussion above.
Ferruginous hawk ( <i>Buteo regalis</i> )	NESL G-3	See discussion above	See discussion above.
Black-footed ferret ( <i>Mustela nigripes</i> )	NESL G-2 FE	See discussion above	See discussion above.
Kit fox ( <i>Vulpes macrotis</i> )	NESL G-4	See discussion above	See discussion above.
Mountain plover ( <i>Charadrius montanus</i> )	NESL G-4, MBTA	Typically nests in flat ( $\leq 2^\circ$ slope) to slightly rolling expanses of grassland, semi-desert, or badland, in an area with short, sparse vegetation, large bare areas (often $> 1/3$ of total area), and that is typically disturbed (e.g., grazed); may also nest in plowed or fallow cultivation fields. Nest is a scrape in dirt often next to a grass clump or old cow manure pile. Migration habitat is similar to breeding habitat.	Potential habitat is found in Reach 10.1, 10.1.1, and 10.2

Species	Status	Habitat	Potential to occur within the project area.
Southwestern willow flycatcher ( <i>Empidonax traillii extimus</i> )	NESL G-2, FE	Nesting is in dense riparian vegetation near surface water or saturated soil; either in monotypic or mixed stands of native (e.g., willow) and/or exotic (e.g., tamarisk or Russian olive) species, with or without an over-story. Vegetation is typically $\geq 3$ m high, dense (i.e., a thicket) with a closed canopy, although the understory may be dispersed or clumped (especially when tamarisk or Russian olive). Nesting habitat greatly varies in size and shape, may be as small as 0.8 ha, but does not include linear riparian zones <10 m (33 ft) wide. Migrant flycatchers may use riparian habitats unsuitable for breeding and non-riparian areas. Migrant flycatchers have been found in less dense or abundant riparian habitat across Navajo Nation.	Habitat not present in the Proposed Action Area.
Sivinski's fleabane ( <i>Erigeron sivinskii</i> )	NESL G-4	Steep, barren, shale slopes of the Chinle Formation, in pinyon-juniper woodland and Great Basin Desert Scrub communities. Known populations occur at 6,100 to 7,400 ft elevation. Known from McKinley County, NM, near Crazy Woman Canyon.	Suitable habitat for Sivinski's fleabane was not found along any of the reaches within the Proposed Action area.
Peregrine Falcon ( <i>Falco peregrinus</i> )	NESL G-4	Nests on steep cliffs >30 m tall (typically >45 m [148 ft]) in a scrape on sheltered ledges or potholes. Foraging habitat quality is an important factor; often, but not always, extensive wetland and/or forest habitat is within the falcon's hunting range of <12 km (7.5 mi). Variability in topographic features, such as elevation and slope, may also indicate the availability of prey.	Two peregrine falcons in flight were observed in Reach 10.1. Potentially active raptor nests were observed in Reach 10.1 and Reach 10.2.1 and an active nest was observed in Reach 10.1.1 0.75 miles from the alignment.

Species	Status	Habitat	Potential to occur within the project area.
Northern Leopard Frog ( <i>Rana pipiens</i> )	NESL G-2	Breeds in wetlands usually with permanent water and aquatic vegetation (especially cattails), ranging from irrigation ditches and small streams to rivers, and small ponds and marshes to lakes or reservoirs.	Habitat not present in the Proposed Action Area.

Notes: NESL – Navajo Endangered Species List

ESA – Endangered Species Act

FE – Listed as endangered under the ESA

G2 – Species or subspecies whose survival or recruitment are in jeopardy

G3- Species or subspecies whose survival or recruitment are likely to be in jeopardy in the foreseeable future

G4 – Species or subspecies for which information is lacking to list as G2 or G3, but the NNDFW has reason to consider them

### 3.5.2 Environmental Consequences from the No Action Alternative

Chapter 5 of the 2009 NGWSP PR/FEIS described the environmental consequences of the NGWSP with special status species outlined on pages V70-V93.

### 3.5.3 Environmental Consequences from the Proposed Action

Environmental consequences from the Proposed Action related to special status species would not create any new significant site-specific effects nor contribute to cumulative significant impacts not already described in the PR/FEIS.

Environmental consequences from the Proposed Action were deemed similar to those described in the 2009 NGWSP PR/FEIS for the black-footed ferret, burrowing owl, ferruginous hawk, golden eagle, kit fox, mountain plover, northern leopard frog, Sivinski's fleabane, and southwestern willow flycatcher (listed in Table 6). Other special status species potentially located within the project area that were not included or not analyzed in detail in the 2009 NGWSP PR/FEIS are listed below.

#### 3.5.3.1. *Naturita Milkvetch*

This is a NESL Group 3 species found in sand filled pockets of sandstone slickrock and rimrock pavement along canyons in the piñon-juniper zone between 5,000 and 7,000 feet in elevation. The 2009 NGWSP PR/FEIS did not discuss this species in detail because it determined a lack of potentially suitable habitat, however, the proposed project area was found to potentially provide habitat for this species during a more recent biological review. Biological surveys were completed in the proposed project area and survey results were negative, therefore there would be no impact on the species.



### **3.5.3.2. Heil's Milkvetch**

Heil's milkvetch is a NESL Group 4 species found on rocky ledges of the Mesa Verde Group in pinyon-juniper vegetation communities at approximately 7,200 feet in elevation. A known location of this species is found southeast of Crownpoint near Borrego Pass. The 2009 NGWSP PR/FEIS did not include analysis for this species. Biological surveys were completed in the proposed project area and survey results were negative, therefore there would be no impact on the species.

### **3.5.3.3. Peregrine Falcon**

The peregrine falcon is NESL Group 2 species that nests on steep cliffs. The 2009 NGWSP PR/FEIS did not discuss this species in detail because it determined a lack of potentially suitable habitat, however, peregrine falcons were documented near the proposed project area (Reach 10.1) during biological surveys. An unidentified raptor nest was noted 0.75 mile from the proposed project area, however, no peregrine falcon nests were documented in or adjacent to the project area. Because of the distance of the project to the unidentified nest and complying with the MBTA, impacts to peregrine falcons would not be significant.

## **3.6 Cultural Resources**

### **3.6.1 Affected Environment**

Chapter 5 of the 2009 NGWSP PR/FEIS described the affected environment of the NGWSP with cultural resources outlined on pages V134-V142. Cultural resources are defined as physical or other expressions of human activity or occupation. Such resources include culturally significant landscapes, prehistoric and historic archaeological sites, isolated artifacts or features, traditional cultural properties, Native American and other sacred places, and artifacts and documents of cultural and historical significance.

Federal legislation mandates that Federal agencies such as Reclamation are responsible for the identification and protection of cultural resources. In compliance with Section 106 of the NHPA of 1966, as amended, and its implementing legislation, CFR, Title 36, Part 800, Reclamation is required to conduct an assessment of cultural resources that could potentially be affected by the Proposed Action. A Programmatic Agreement executed among Reclamation, the New Mexico SHPO, the Navajo Nation, the BLM, and the BIA defined the process regarding the consideration and management of effects on historic properties arising from construction of the NGWSP.

Records searches for the Proposed Action were conducted with the Navajo Nation Heritage and Historic Preservation Department (NNHHPD) in Window Rock on December 27, 2018, and January 9, 2019. Statistical Research Incorporated (SRI) conducted research using the New Mexico Cultural Resources Information System at the Laboratory of Anthropology between December 2018 and January 2019 and with the BLM-Farmington Field Office in October 2019. The archaeological fieldwork was conducted between April and December of 2019 and cultural surveys for the pumping plant footprints were completed in March of 2021. The ethnographic fieldwork was conducted between April and November of 2019. The ethnographic studies provided additional information regarding Navajo sites; the results of the ethnographic studies are provided as a Confidential Appendix to the archaeological report.

The majority of the cultural manifestations encountered in the Proposed Action area are associated with Anasazi and/or Navajo use of the landscape. Of the 82 documented sites, 78.0 percent (n = 64) contain Anasazi components, compared to 31.7 percent (n = 26) that contain Navajo

components. Archaic sites are much rarer, comprising only 2.4 percent ( $n = 2$ ) of the sites. Multicomponent sites containing a combination of Archaic, Anasazi, and/or Navajo components comprise 20.7 percent ( $n = 17$ ) of the documented sites.

The Anasazi components reflect a mix of limited-activity and residential locales, as well as a number of artifact scatters that presumably represent specialized-activity sites. Components interpreted as limited activity locales include those containing small numbers of logistical features, such as extramural thermal features, upright slabs, rock piles, and other features of indeterminate function, accompanied by relatively low-density artifact scatters suggesting short-term occupation and a limited set of activities. The limited activity sites generally lack evidence of architecture but are likely related to some type of resource-procurement and/or -processing activities associated with nearby residential sites.

The recorded Anasazi residential sites mostly consist of small, isolated structural mounds that likely represent unit pueblos, each of which would have consisted of a single room block composed of fewer than six rooms and occupied by a single household. Many of these small residential sites cluster near known precolonial communities, such as the Muddy Water Archaeological District, the Standing Rock Chacoan community, or the Upper Dye Brush Wash Cluster.

Several Anasazi multiple-residence sites were documented including Dzil Nda Kai Pueblo (NM-Q-13-93/LA 51138) on the northeastern slopes of Dzil Nda Kai Mountain. Numerous Anasazi residential sites within 3 km of the great-house structure at that site likely constituted components of a Chacoan community occupied during the Pueblo II period. A handful of field houses scattered across the landscape were also recorded. These field houses contain similar ceramic assemblages as those found at most of the small residential sites and are therefore likely extensions of communities. The field houses signify seasonal occupations of cultivated land by one or a few persons, for easy access when tending crops.

Numerous precolonial ceramic types were also documented across the Proposed Action area with production dates ranging from the Basketmaker III period through the Pueblo III period. The vast majority of the identified ceramic types date to the Pueblo II period. This pattern of later Pueblo II and early Pueblo III period ceramic types at larger sites fits a pattern—of movement out of isolated single-household sites and increased population aggregation. An increase in nonlocal ceramic wares at sites dating to the late Pueblo II period provides evidence of a rise in regional interaction at that time. Along with the wide occurrence of Zuni spotted chert, the presence of this ceramic type reflects an emphasis on Pueblo II period exchange with groups to the south. Nonlocal wares only observed at the larger residential sites included Tusayan White Wares, Mesa Verde White Wares, Mogollon Brown Wares, and Little Colorado Wares. The presence of these wares with relatively far-flung production centers attests to the scale and importance of exchange systems and broad-scale interactions during the late Pueblo II period on the South Chaco Slope.

The range of documented Navajo components included residences, logistical camps, artifact scatters that presumably represent specialized-activity sites, and a few ceremonial sites. It is likely that Navajo specialized-activity sites are logistical locales related to nearby residences. The Navajo residential sites mostly consist of masonry and cribbed log hogans; some sites also include corrals, thermal features, and features of indeterminate function, such as rock alignments or rock piles. All of the documented hogans are no longer in use, and most appeared to have been dismantled upon or following their disuse. The artifact scatters and the sites with a few small stains apiece probably represent short-term campsites or limited-/specialized-activity locales. The temporal periods represented among the Navajo components appear to be predominantly associated with the late

1800s and early 1900s. The documented historical-period ceramics produced by native potters included Navajo Gray and Zuni Polychrome. However, we primarily dated the Navajo components through relative sequencing of mass-produced objects, such as cans, bottles, and other domestic items.

### **3.6.2 Environmental Consequences from the No Action Alternative**

Chapter 5 of the PR/FEIS described the environmental consequences of the NGWSP with cultural resources outlined on pages V134-V142.

### **3.6.3 Environmental consequences from the Proposed Action**

Environmental consequences from the Proposed Action related to cultural resources would not create any new significant site-specific effects nor contribute to cumulative significant effects that are not already described in the 2009 NGWSP PR/FEIS. The BBN9 pipeline alignment was realigned to avoid the Muddy Water and Peach Springs Archaeological Districts. Reclamation would obtain cultural resources clearance prior to construction on the Navajo Nation.

Reclamation developed a Programmatic Agreement with the Advisory Council on Historic Preservation, New Mexico SHPO, Navajo Nation, BLM, and BIA that defined the process regarding the consideration and management of effects on historic properties arising from the construction of the NGWSP (Reclamation 2011). Reclamation and the Programmatic Agreement work group's preferred approach to the mitigation of adverse effects resulting from the construction of the NGWSP to historic properties and TCPs within the project ROW is through avoidance. Invasive archaeological investigations are proposed only if there is no other way to avoid direct effects on identified sites. Reclamation would have contracts in place for archaeological monitoring and discovery mitigation during construction. Pursuant to Reclamation's Programmatic Agreement, the area of potential effect for direct physical effects on historic properties includes all lands within 125 feet of the initially planned 150-foot construction ROW for a total width of 400 feet.

Following stipulations in Sections IV and V of Reclamation's Programmatic Agreement, historic properties and TCPs would be, to the extent possible, avoided with the implementation of design features such as but not limited to reduction of construction areas, avoidance fencing, temporary barriers, archaeological site monitoring, and potential unanticipated discovery mitigation during all NGWSP ground-disturbing activities. Per the NGWSP Programmatic Agreement, Reclamation developed a site-specific treatment plan for the Proposed Action consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties and with the Advisory Council on Historic Preservation's guidelines that limits testing and data recovery efforts while requiring site protection measures. The NNHHPD issued a Cultural Resources Compliance Form (CRCF; HPD-21-1079; Appendix A) for the project on July 8, 2021. Therefore, for the reasons described above, impacts to cultural resources would not be significant.

**Table 9. NRHP Evaluation and Treatment Recommendations for Sites Documented in the Project Area**

<b>NNHHPD Site No./LA Site No.</b>	<b>Field Site No (SRI)</b>	<b>Cultural Affiliation</b>	<b>Temporal Context</b>	<b>Site Type</b>	<b>NRHP–Eligibility Recommendation, criterion</b>	<b>Distance to Area of Impacts</b>	<b>Treatment Recommendation</b>
<b>Reach 10.1</b>	-	-	-	-	-	-	-
NM-Q-12-98	1016	Anasazi	Pueblo I–III	limited activity	eligible, d	30 m (100 feet)	avoidance
NM-Q-13-87	1037	Anasazi	late Pueblo II/early Pueblo III	field house	eligible, d	30 m (100 feet)	avoidance
NM-Q-13-88	1042	Anasazi	late Pueblo II or early Pueblo III	artifact scatter	not eligible	6 m (20 feet)	no further treatment
NM-Q-13-89	1047	Anasazi	Pueblo II	artifact scatter	not eligible	11 m (37 feet)	no further treatment
NM-Q-13-90	1050	Anasazi	Pueblo II	limited activity	not eligible	7 m (24 feet)	no further treatment
NM-Q-13-91	1052	Anasazi	Pueblo I/II	limited activity	not eligible	intersects	no further treatment
NM-Q-13-92	1056	Anasazi	multicomponent: Pueblo I; Pueblo II	field house	eligible, d	intersects	remote sensing, testing, fencing, and monitoring
NM-Q-13-93/ LA 51138	1057	Anasazi	multicomponent: Basketmaker III/ Pueblo I; Pueblo II/III	multiple residence (room blocks)	eligible, d	1 m (4 feet)	remote sensing, testing, fencing, and monitoring
NM-Q-13-94	1058	Anasazi	multicomponent: Basketmaker III/ Pueblo I; Pueblo II/III	multiple residence (room blocks)	eligible, d	18 m (60 feet)	remote sensing and avoidance
NM-Q-13-95	2607	Anasazi	Pueblo II	limited activity	not eligible	intersects	no further treatment
NM-Q-13-96	2627	Anasazi	Pueblo II	artifact scatter	not eligible	intersects	no further treatment
NM-Q-13-97	2632	Anasazi	Pueblo II	artifact scatter	not eligible	intersects	no further treatment
NM-Q-13-98	2640	Anasazi	Pueblo II/III	limited activity	not eligible	intersects	no further treatment
NM-Q-13-99	2650	Anasazi	Pueblo II/III	limited activity	not eligible	3.5 m (12 feet)	no further treatment
NM-Q-13-100	4035	Anasazi; Navajo	multicomponent: Pueblo II; recent historical	residence (room block);	eligible, d	intersects	remote sensing, testing, fencing, and monitoring

<b>NNHHPD Site No./LA Site No.</b>	<b>Field Site No (SRI)</b>	<b>Cultural Affiliation</b>	<b>Temporal Context</b>	<b>Site Type</b>	<b>NRHP–Eligibility Recommendation, criterion</b>	<b>Distance to Area of Impacts</b>	<b>Treatment Recommendation</b>
				residence (hogans)			
NM-Q-13-101	4037	Anasazi	Pueblo II	artifact scatter	not eligible	intersects	no further treatment
NM-Q-13-102	4047	Anasazi	Pueblo II	residence (room block)	eligible, d	15 m (50 feet)	remote sensing and avoidance
NM-Q-13-103	5002	Anasazi	Pueblo II/III	artifact scatter	not eligible	3 m (10 feet)	no further treatment
NM-Q-13-104	5010	Anasazi	Pueblo II/III	artifact scatter	not eligible	10 m (35 feet)	no further treatment
NM-Q-14-191	2595	Navajo	recent historical	residence (hogan)	eligible, d	21 m (69 feet)	avoidance
NM-Q-14-192	4053	Anasazi	Pueblo II	limited activity	not eligible	3.5 m (12 feet)	no further treatment
<b>Reach 10.1.1</b>	-	-	-	-	-	-	-
NM-Q-19-1/ LA 71311	2350	Anasazi	Pueblo II	residence (room block)	eligible, d	30 m (100 feet)	avoidance
NM-Q-19-138	2360	Anasazi; Navajo	multicomponent: Pueblo I/II; recent historical	limited activity; residence (hogan)	eligible, d	0.3 m (1 feet)	remote sensing, testing, fencing, and monitoring
NM-Q-19-139	2372	Anasazi	Pueblo I–III	field house	eligible, d	22 m (72 feet)	avoidance
NM-Q-19-140	2400	Anasazi	late Pueblo II	field house	eligible, d	55 m (182 feet)	avoidance
NM-Q-19-141/ LA 77375	2409	Anasazi	late Pueblo II/III	residence (room block)	eligible, d	6 m (20 feet)	remote sensing, fencing, and monitoring
NM-Q-19-142/ LA 77378	2422	Anasazi	late Pueblo II/III	residence (room block)	eligible, d	Intersects	remote sensing, testing, fencing, and monitoring
NM-Q-19-143	2444	Archaic; Anasazi	multicomponent: Late Archaic; Pueblo II/III	limited activity	eligible, d	22 m (75 feet)	avoidance
NM-Q-19-144/ LA 6448	2490	Archaic	Late Archaic	limited activity	not eligible	49 m (164 feet)	no further treatment
NM-Q-19-145	2680	Anasazi	Pueblo II/III	limited activity	eligible, d	12 m (42 feet)	remote sensing, fencing, and monitoring
<b>Reach 10.2</b>	-	-	-	-	-	-	-
NM-Q-12-25/ LA 83930/ LA 2597	2320	Anasazi; Navajo	multicomponent: Pueblo II; recent historical	residence (unknown); residence (hogan)	eligible, d	intersects	remote sensing, testing, fencing, and monitoring
NM-Q-12-105	2338	Navajo	recent historical	sheepherding	eligible, d	27 m (89 feet)	avoidance
NM-Q-12-111	2014	Anasazi	Pueblo II	artifact scatter	eligible, d	18.5 m (61.5 feet)	avoidance

<b>NNHHPD Site No./LA Site No.</b>	<b>Field Site No (SRI)</b>	<b>Cultural Affiliation</b>	<b>Temporal Context</b>	<b>Site Type</b>	<b>NRHP–Eligibility Recommendation, criterion</b>	<b>Distance to Area of Impacts</b>	<b>Treatment Recommendation</b>
<b>Standing Rock Tank 1 Site</b>	-	-	-	-	-	-	-
NM-Q-12-103	1092	Anasazi	Basketmaker III–Pueblo III	artifact scatter	not eligible	intersects	no further treatment
NM-Q-12-104	1096	Navajo	recent historical	residence (hogan)	eligible, d	8.8 m (29 feet)	fencing and monitoring
<b>Reach 10.3</b>	-	-	-	-	-	-	-
NM-Q-11-16/ LA 105381	2150	Navajo	recent historical	residence (hogans)	eligible, d	17 m (57 feet)	avoidance
NM-Q-11-33	2107	Anasazi; Navajo	multicomponent: Basketmaker III–Pueblo III; recent historical	limited activity; shepherding	eligible, d	17 m (57 feet)	avoidance
NM-Q-22-44/ LA 105383	2458	Anasazi	Basketmaker III–Pueblo II/III	multiple residence (room blocks)	eligible, d	intersects	remote sensing, testing, fencing, and monitoring
NM-Q-22-68	2125	Anasazi; Navajo	multicomponent: Pueblo II; recent historical	limited activity; shepherding	eligible, d	18 m (61 feet)	avoidance
NM-Q-22-69	2140	unknown	recent historical	mining	not eligible	11 m (37 feet)	no further treatment
NM-Q-22-74	2200	Anasazi	Pueblo II	artifact scatter	not eligible	intersects	no further treatment
NM-Q-22-75	2205	Navajo	recent historical	residence (hogan)	eligible, d	22 m (75 feet)	avoidance
<b>Reach 10.3.1</b>	-	-	-	-	-	-	-
NM-G-8-78/ LA 36204	2346	Anasazi	Pueblo II	artifact scatter	not eligible	intersects	no further treatment
NM-Q-22-70	2162	Navajo	recent historical	shepherding	eligible, d	22 m (75 feet)	avoidance
NM-Q-22-71	2173	Anasazi	Pueblo II	artifact scatter	not eligible	26.5 m (88 feet)	no further treatment
NM-Q-22-72/ LA 99961	2180	Navajo	recent historical	residence (hogans)	eligible, d	12.3 m (40.5 feet)	fencing and monitoring
NM-Q-22-73	2193	Anasazi	unspecified Anasazi	artifact scatter	not eligible	intersects	no further treatment
NM-Q-23-119	2232	Anasazi	multicomponent: Basketmaker III; Pueblo II	artifact scatter	not eligible	11 m (36.5 feet)	no further treatment
NM-Q-23-120	2239	Anasazi	Pueblo II	artifact scatter	not eligible	13 m (42.5 feet)	no further treatment

<b>NNHHPD Site No./LA Site No.</b>	<b>Field Site No (SRI)</b>	<b>Cultural Affiliation</b>	<b>Temporal Context</b>	<b>Site Type</b>	<b>NRHP–Eligibility Recommendation, criterion</b>	<b>Distance to Area of Impacts</b>	<b>Treatment Recommendation</b>
NM-Q-23-121	2247	Anasazi	multicomponent: Pueblo I; Pueblo II/III	residence (room block)	eligible, d	19 m (62.5 feet)	avoidance
NM-Q-23-122/ LA 20893	2252	Anasazi	Pueblo II	limited activity	not eligible	intersects	no further treatment
NM-Q-23-123/ LA 20890	2267	Anasazi	Pueblo II/III	residence (room block)	eligible, d	31 m (104 feet)	avoidance
NM-Q-23-124	2275	Navajo	recent historical	residence (hogan)	eligible, d	33.5 m (110 feet)	avoidance
NM-Q-23-127	2687	Anasazi	Pueblo II	limited activity	eligible, d	14 m (46 feet)	monitoring; site is located on the opposite side of the wash
NM-Q-23-128	2691	Anasazi	Pueblo II/III	artifact scatter	not eligible	2 m (7 feet)	no further treatment
NM-Q-23-129	2695	Anasazi; Navajo	multicomponent: Pueblo II; recent historical	artifact scatter; sweat lodge	eligible, d	31 m (102 feet)	avoidance
NM-Q-23-130	2705	Navajo	recent historical	artifact scatter	not eligible	intersects	no further treatment
NM-Q-23-131	2711	Navajo	Unknown	sheepherding	not eligible	18 m (62 feet)	no further treatment
NM-Q-23-132	2719	Anasazi	Pueblo II/III	limited activity	not eligible	18 m (60 feet)	no further treatment
NM-Q-23-133	2727	Navajo	recent historical	residence (hogan)	eligible, d	32 m (107 feet)	avoidance
NM-Q-23-134	2733	Anasazi	Pueblo II	artifact scatter	not eligible	intersects	no further treatment
NM-Q-23-135	2737	Navajo	recent historical	residence (hogan)	eligible, d	intersects	monitoring
NM-Q-23-136	2743	Navajo	recent historical	residence (hogan)	eligible, d	35 m (116 feet)	avoidance
<b>Abandoned Reach 10.3.1 Alignment</b>	-	-	-	-	-	-	-
NM-Q-23-114	1501	Anasazi	Pueblo II	limited activity	not eligible	site not located in the APE	site will not be impacted
NM-Q-23-115	1509	Navajo	recent historical	sweat lodge	eligible, d	site not located in the APE	site will not be impacted
NM-Q-23-116	1518	Anasazi	Pueblo II	field house	eligible, d	site not located in the APE	site will not be impacted
NM-Q-23-117	1526	Anasazi	Pueblo II	limited activity	eligible, d	site not located in the APE	site will not be impacted

<b>NNHHPD Site No./LA Site No.</b>	<b>Field Site No (SRI)</b>	<b>Cultural Affiliation</b>	<b>Temporal Context</b>	<b>Site Type</b>	<b>NRHP–Eligibility Recommendation, criterion</b>	<b>Distance to Area of Impacts</b>	<b>Treatment Recommendation</b>
NM-Q-23-118	2063	Anasazi	Basketmaker III– Pueblo III	limited activity	not eligible	site not located in the APE	site will not be impacted
NM-Q-23-125	2298	Anasazi; Navajo	multicomponent: Pueblo II; recent historical	residence; residence (hogans)	eligible, d	site not located in the APE	site will not be impacted
NM-Q-23-126	2310	Navajo	recent historical	residence (hogan)	eligible, d	site not located in the APE	site will not be impacted



## 3.7 Land Use

### 3.7.1 Affected Environment

Chapter 5 of the 2009 NGWSP PR/FEIS described the affected environment of the NGWSP with land use outlined on pages V104-V111.

The Proposed Action is located on a combination of Tribal Trust, Indian Allotment, Tribal Fee, and BIA managed lands in McKinley County, New Mexico and spans six Navajo chapters including Twin Lakes, Tohatchi, Standing Rock, Nahodishgish, Crownpoint, and Coyote Canyon. The proposed pipeline alignment terminates within the community of Crownpoint which is the largest population center near the Proposed Action (Figure 2-1). Residences are scattered throughout the proposed project area and utility infrastructure (gas pipelines, water pipelines managed by the NTUA, transmission lines) is located throughout the region. The predominant land use is open range grazing of cattle, horses, and sheep. Several barbed-wire fences cross the proposed project area and stock ponds and earthen dams have been developed to catch stormwater for livestock.

Livestock grazed on the Navajo Reservation must be covered by an authorized grazing permit. The western portion of the Proposed Action area is located within District 14 of the Fort Defiance Agency. 1,780 horses permitted and 734 total permittees along with 25,539 sheep (sheep unit yearlong) are permitted in this District (NNDA 2014). The eastern portion of the Proposed Action area is located within Districts 15 and 20 of the Eastern Agency. Within the Fort Defiance and Eastern Agencies, where the eastern portion of the Proposed Action area is located, there are 3,727 and 1,009 total livestock grazing permits respectively (BIA 2012). The NNDA is responsible for planning, coordination, and management of all programs, policies and regulatory provisions which are designed to protect and preserve Navajo rangelands, livestock, and agricultural resources. Navajo Nation ranch lands are overseen by the Tribal Ranches Program which administers and ensures all Tribal Ranch regulations and lease agreements comply with Navajo Nation Laws. Oversight and technical assistance for District Grazing Committees, Farm Boards, and Eastern Navajo Land Board members is provided by the Grazing Management Office. The Grazing Management Office also develops, reviews, and recommends policies, procedures, and regulation for grazing on trust, ranch, and leased lands.

### 3.7.2 Environmental Consequences from the No Action Alternative

Chapter 5 of the PR/FEIS described the environmental consequences of the NGWSP with land use outlined on pages V104-V111.

### 3.7.3 Environmental Consequences from the Proposed Action

Environmental consequences from the Proposed Action related to land use would not create any new significant site-specific effects nor contribute to cumulative significant effects not already described in the PR/FEIS. Environmental consequences of the NGWSP on grazing and livestock would be temporary during construction and until vegetation is reestablished and would be substantially similar to what was described on pages V104-V111 of the 2009 NGWSP PR/FEIS. No further analysis is provided.

Lands uses in the proposed project area would remain largely unchanged from current use. Pumping plants, booster pump sites, surge tanks and chlorinators, and the improvements to existing tank sites would require approximately 51 acres of new permanent ROW converted to industrial use.

Compared to the No Action Alternative, The Proposed Action would convert approximately 28

more acres of Navajo Nation land to industrial use, however, based on the scale of this acreage conversion, effects would not be significant. Grazing permittees would be contacted prior to any construction operations and temporary gates and fencing may be put in place to prevent livestock escape. Temporary fences, trench covers, and/or wildlife escape ramps would be used for all trenches left open when the Contractor is not working on-site to reduce potential for entrapment of wildlife or livestock during construction. Injury to livestock would be unlikely and livestock would be able to escape if entering a trench, therefore, impacts would not be significant.

## **3.8 Visual Resources**

### **3.8.1 Affected Environment**

Both U.S. Highway 491 and State Highway 371 are part of the Trails of the Ancients Scenic Byway (New Mexico Tourism Department 2019). There are no visual resource guidelines for the Navajo Nation lands in the project area. The region encompassing the Proposed Action has little topographic variation and vegetation consists primarily of grasslands and rangeland. Viewsheds are wide with few obstructions or large natural features.

### **3.8.2 Environmental Consequences from the No Action Alternative**

Visual resources were not explicitly analyzed in detail in the 2009 NGWSP PR/FEIS. Facilities associated with the Proposed Action would be located on the Navajo Nation. Reclamation would implement dark sky lighting specifications for the pumping plants and other facilities and use paint colors to match the surrounding environment. Impacts to the visual landscape from construction equipment and the disturbed pipeline ROW would be limited to the duration of construction and reclamation and would be temporary and insignificant. Therefore, for the reasons described above, impacts to visual resources would not be significant.

### **3.8.3 Environmental Consequences from the Proposed Action**

Under the Proposed Action, Pumping Plants 12, 13, and 14 and other facilities would be relocated to various spots on the Navajo Nation. Pumping Plants and facilities would not be visible from U.S. Highway 491 and State Highway 371 due to distance and topography. These project features would use the same lighting and paint methods as described in the No Action Alternative, and temporary impacts to the visual landscape from construction equipment and the disturbed pipeline ROW would be similar to what was previously described in the No Action Alternative. Therefore, for the reasons described above, impacts to visual resources would not be significant.

## **4. Environmental Commitments, Design Features, Stipulations, and Requirements**

This section discusses the environmental commitments developed to protect and limit impacts on resources.

## 4.1 2009 NGWSP ROD

The ROD of the NGWSP PR/FEIS designates the environmental commitments for the NGWSP that would be followed (if applicable) for the Proposed Action. These environmental commitments were also described in Chapter VI (Environmental Commitments and Mitigation Measures) of the 2009 NGWSP PR/FEIS. These environmental commitments are hereby incorporated into the Proposed Action.

## 4.2 Additional Environmental Commitments

Additional environmental commitments (in addition to those in the 2009 NGWSP ROD and PR/FEIS) were developed to lessen the potential adverse insignificant effects of the Proposed Action and are listed in the table below. This table summarizes and further details information previously mentioned or referenced in the EA.

**Table 10. Additional Environmental Commitments**

Resource Category	Commitment
General	<ul style="list-style-type: none"> <li>• Comply with all applicable federal, State of New Mexico, Navajo Nation, and local laws and regulations.</li> <li>• Obtain the necessary permits for the construction of Reaches 10.1, 10.1.1, 10.2, 10.2.1, 10.3, and 10.3.1 of the NGWSP.</li> <li>• Obtain permission to survey and written consent from the Navajo Nation prior to BIA approval.</li> </ul>
Water Quality	<ul style="list-style-type: none"> <li>• Reclamation will comply with applicable New Mexico and Navajo Nation water quality standards. Permits would be obtained as appropriate under CWA sections 401 (water quality certification), 402 (dewatering), and 404 (dredge and fill).</li> </ul>
Vegetation	<ul style="list-style-type: none"> <li>• Where tree cutting is required, usable trees shall be removed and left on the roadside for local residents to collect and use as firewood. Smaller woody plants not suitable for use as firewood shall be chipped and spread on the ROW during the revegetation process.</li> <li>• If necessary, the proponent will inventory and obtain a tree cutting permit from the BIA Navajo Region Forestry department prior to construction.</li> </ul>
Wildlife	<ul style="list-style-type: none"> <li>• To comply with the MBTA, vegetation removal will be completed outside of the migratory bird nesting season of April 1-August 15. If vegetation needs to be removed during this window, migratory bird nesting surveys will be conducted by a Reclamation approved individual(s) using approved survey protocol at a maximum of one week before scheduled removal. If nests are found, the appropriate species buffer will be applied to the nest with no disturbance allowed in the buffer zone until approved by a Reclamation biologist. Nest monitoring may be required to determine nesting status.</li> <li>• Construction would be managed to avoid intentional disturbance of dens for kit fox, as construction activities may discourage or disrupt denning activities.</li> </ul>

Resource Category	Commitment
Special Status Species	<ul style="list-style-type: none"> <li>In the event inventoried threatened or endangered species are discovered during construction, construction activities shall be halted in that area and the contractor will move work as necessary where work can begin again.</li> </ul>
Cultural Resources	<ul style="list-style-type: none"> <li>All Navajo Nation cultural resources stipulations will be followed. These stipulations may include, but are not limited to, temporary or permanent fencing or other physical barriers, monitoring of earth disturbing construction, Proposed Action area reduction and/or specific construction avoidance zones, and employee education. All employees, contractors, and sub-contractors of the project would be informed by the project proponent that cultural sites are to be avoided by all personnel, personal vehicles, and company equipment, and that it is illegal to collect, damage, or disturb cultural resources, and that such activities are punishable by criminal and or administrative penalties under the provisions of the Archaeological Resources Protection Act (16 USC 470aa-mm).</li> <li>If, in its operations, an operator/holder discovers any previously unidentified historic or prehistoric cultural resources, then work in the vicinity of the discovery would be suspended and the discovery promptly reported to Reclamation and the NNHHPD. The NNHHPD would then specify what action is to be taken in accordance with Section VIII of the cultural resources Programmatic Agreement.</li> </ul>
Land Use	<ul style="list-style-type: none"> <li>Regarding the 2009 NGWSP PR/FEIS commitment of fencing the NGWSP pipeline ROW; Reclamation, the BIA, and Navajo Nation determined in the 2019 Revegetation Plan for the NGWSP (Reclamation 2019) that if acceptable ground cover conditions are not achieved within 3 years, fencing may be necessary to achieve ground cover criteria identified in the site-specific revegetation plan.</li> </ul>
Visual Resources	<ul style="list-style-type: none"> <li>New and existing acquired facilities will be lighted following dark sky lighting techniques to minimize skyglow, glare, and light trespass.</li> <li>Aboveground facilities such as water tanks and buildings will be painted to match the color of the surrounding environment.</li> </ul>

### 4.3 NNDFW Conditions of Compliance

The NNDFW issued a Biological Resources Compliance Form (BRCF; 19ttes102a; Appendix B of the EA) on May 14, 2021 that gave conditional approval of the proposed Action with the conditions of compliance to inspect all raptor and burrowing owl nests to determine if active, follow all relevant time of year restrictions for active nests and the migratory bird nest season, and reseed disturbed construction areas with native seed mixes that match the relative ecological site descriptions. These measures and conditions serve to lessen potential adverse insignificant impacts to species in the project area.

## 4.4 NNHHPD Conditions of Compliance

The NNHHPD issued a CRCF (HPD-21-1079; Appendix A) for the project on July 8, 2021. Reclamation developed a treatment plan for the Proposed Action that incorporated the conditions of compliance from the NNHHPD.

# 5. Consultation and Coordination

Reclamation's consultation and coordination process presents other agencies, interest groups, and the general public with opportunities to obtain information about a given project and allows interested parties to participate in the project through written comments. The key objective is to facilitate a well-informed, active public that assists decision-makers throughout the process, culminating in the implementation of an alternative. This section explains consultation and coordination undertaken for the Proposed Action.

## 5.1 Agency Consultation

The following local, State, Tribal, and Federal agencies were contacted and consulted in the preparation of this EA.

- BIA Navajo Region;
- New Mexico SHPO;
- NNHHPD;
- NNDFW;
- NNEPA;
- USACE Albuquerque District Office; and
- Tohatchi, Twin Lakes, Coyote Canyon, Nahodishgish, Crownpoint, and Standing Rock Chapters of the Navajo Nation.

## 5.2 Scoping and Public Review

Reclamation conducted extensive public involvement, scoping, and formal comment opportunity in the preparation of the 2009 NGWSP PR/FEIS. Chapter 7 of the 2009 NGWSP PR/FEIS describes five public scoping meetings held specifically for the project and its consultation with state and Federal agencies, tribal governments, local governments, and interested organizations. Volume 3 of the EIS provides all comments and responses on the draft EIS. In brief, the EIS identifies social issues surrounding the need for a stable water supply, the uses of the water, and water rights. In addition, previous scoping identified protection of special status species and cultural resources as issues for the project.

Consultation with the Navajo Nation during NGWSP related meetings supported the conclusions from previous scoping and identified no new information not previously considered in the 2009 NGWSP PR/FEIS.

Reclamation's NGWSP design and coordination efforts with project partners includes day to day correspondence, biweekly and monthly coordination and design meetings, quarterly Project

Construction Committee meetings, a quarterly newsletter that is posted on the NGWSP website and distributed to Chapter Houses and others on the Navajo Nation, and a Project Issue Notice system that documents major project decisions. Tribal outreach and Navajo Chapter House visits are frequently conducted by Reclamation's Navajo Outreach Coordinator and various staff members during planning periods and before major project activities and construction.

Souder Miller and Associates, the Navajo Nation's construction design contractor for the project, also facilitated meetings with the Tohatchi, Twin Lakes, Coyote Canyon, Nahodishgish, Crownpoint, and Standing Rock chapters of the Navajo Nation that would be affected by the Proposed Action.

### **5.3 EA Review and Distribution**

The draft EA was distributed to the BIA Navajo Region for review and comments were incorporated into the final EA document. The draft EA was made available for a 30-day public comment period on Reclamation's environmental document library website (<https://www.usbr.gov/uc/DocLibrary/ea.html>) and notice of the EA's availability and how to comment was provided to project partners during planning meetings. No comments were received during the public comment period. The final EA will be posted on Reclamation's environmental document library website. Publicly available electronic versions of the EA meet the technical standards of Section 508 of the Rehabilitation Act of 1973, so that the documents can be accessed by people with disabilities using accessibility software tools.

### **5.4 List of Preparers**

#### **5.4.1 Bureau of Reclamation**

- Eric Creeden

#### **5.4.2 Bureau of Indian Affairs**

- Myles Lytle

#### **5.4.3 Souder Miller Associates**

- Tory Todano

#### **5.4.4 Statistical Resources**

- Monica Murrell – Cultural Resources
- David T. Unruh – Cultural Resources

#### **5.4.5 McIntyre Environmental**

- David McIntyre – Project Manager/NEPA Lead
- Carolyn Fordham – Biological Resources

## 6. References

- Bureau of Indian Affairs. 2012. Condition of the Land, Public Input, NN Agriculture Plan “BIA Historical Overview” Fire Rock Casino Church Rock, New Mexico July 12-14.
- Bureau of Reclamation. 2009. Planning Report and Final Environmental Impact Statement: Navajo–Gallup Water Supply Project, New Mexico–Arizona. Reclamation, Upper Colorado Region, Salt Lake City, Utah. July.
- \_\_\_\_\_. 2019. Revegetation Plan for the Navajo-Gallup Water Supply Project. Reclamation, Western Colorado Area Office, Durango, Colorado.
- Keller-Bliesner Engineering, LLC and Ecosystems Research Institute. 2005. Biological Assessment Navajo Gallup Water Supply Project. Prepared for the Bureau of Reclamation, Durango, CO. Logan, UT.
- Natural Resources Conservation Service. n.d. Chaco Watershed Rapid Watershed Assessment.
- Navajo Nation Department of Agriculture. 2014. Branch of Agriculture (Farm and Range) Bureau of Indian Affairs, Navajo Region. Window Rock, Arizona. January 14.
- New Mexico Commission of Public Records. 2016. San Juan Regional Water Plan. September.
- New Mexico Tourism Department 2019. <https://www.newmexico.org/places-to-visit/scenic-byways/trail-of-the-ancients/>. Access November 18.
- Statistical Research, Inc. 2020. Resource Survey and Inventory for the BBN9 Lateral, McKinley County, New Mexico. January.

## **7. Figures**

**Figure 1-1. Project Location**

**Figure 1-2. Reach Map**

**Figure 2-1. Reach 10.1**

**Figure 2-2. Reach 10.2 and 10.2.1**

**Figure 2-3. Reach 10.3 and 10.3.1**

**Figure 2-4. Reach 10.1.1**

**Figure 3-1. NGWSP Past, Present, and Future Actions**

**Figure 3-2. Waterbodies**



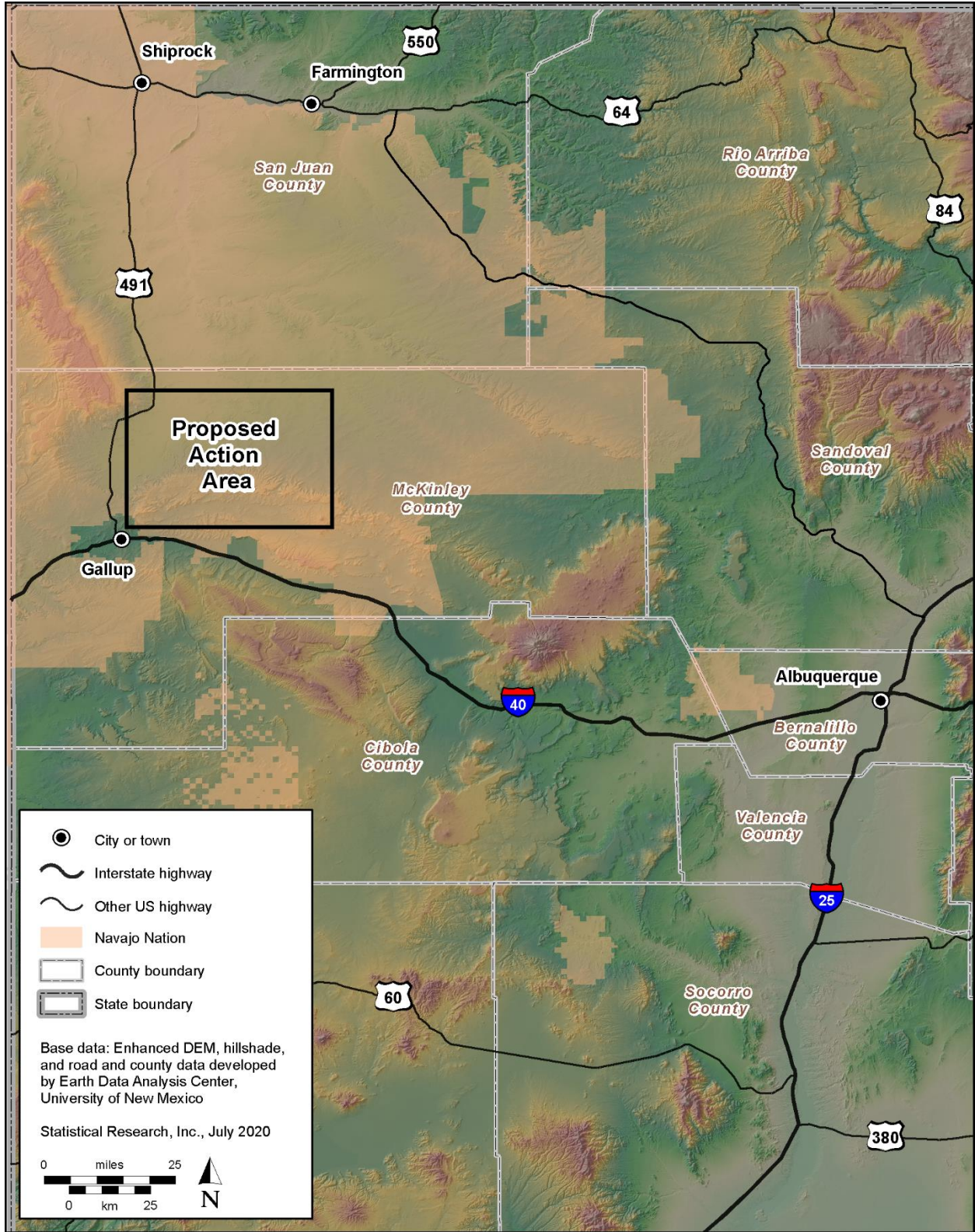


Figure 1- 1 Project Location

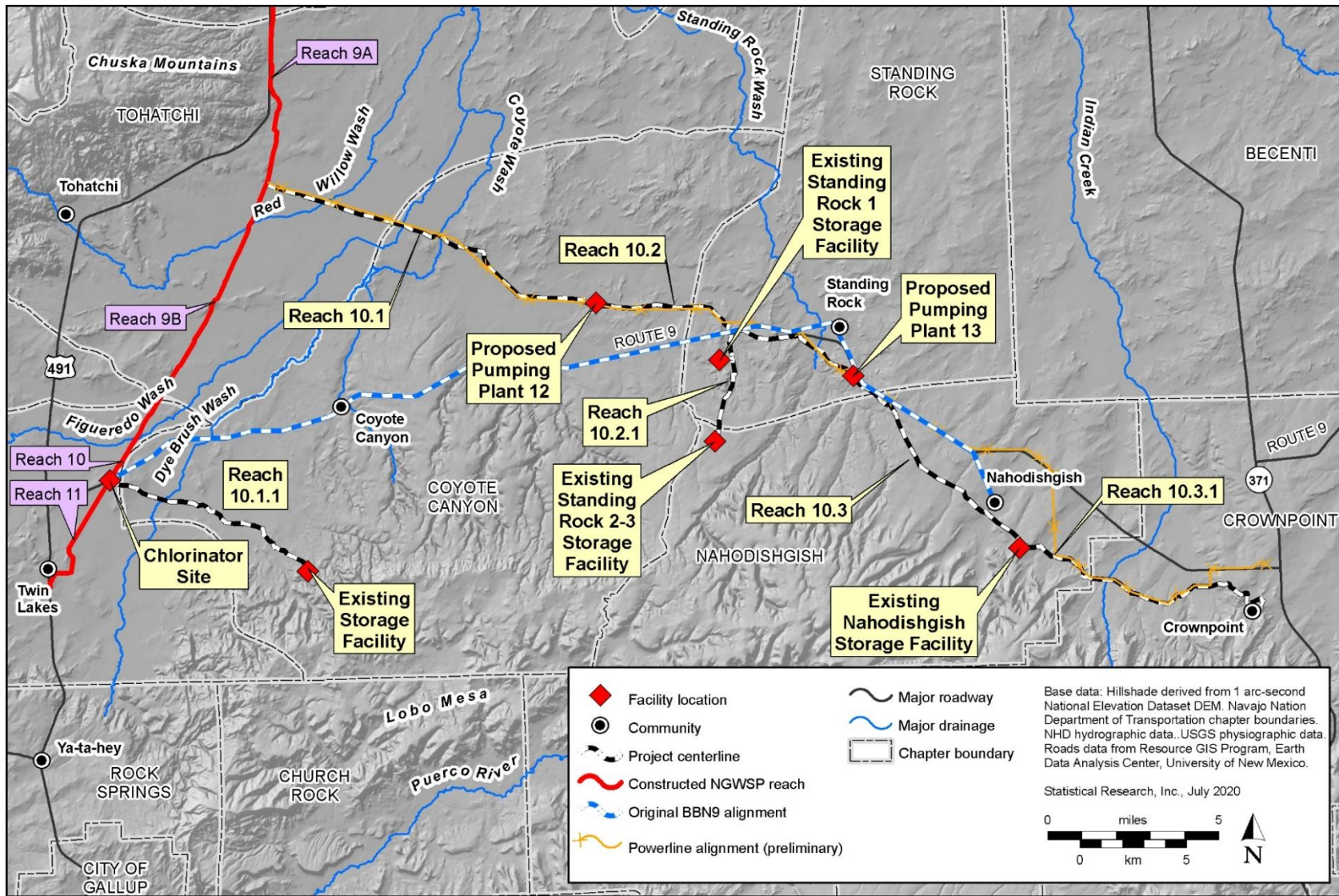


Figure 1- 2 Reach Map

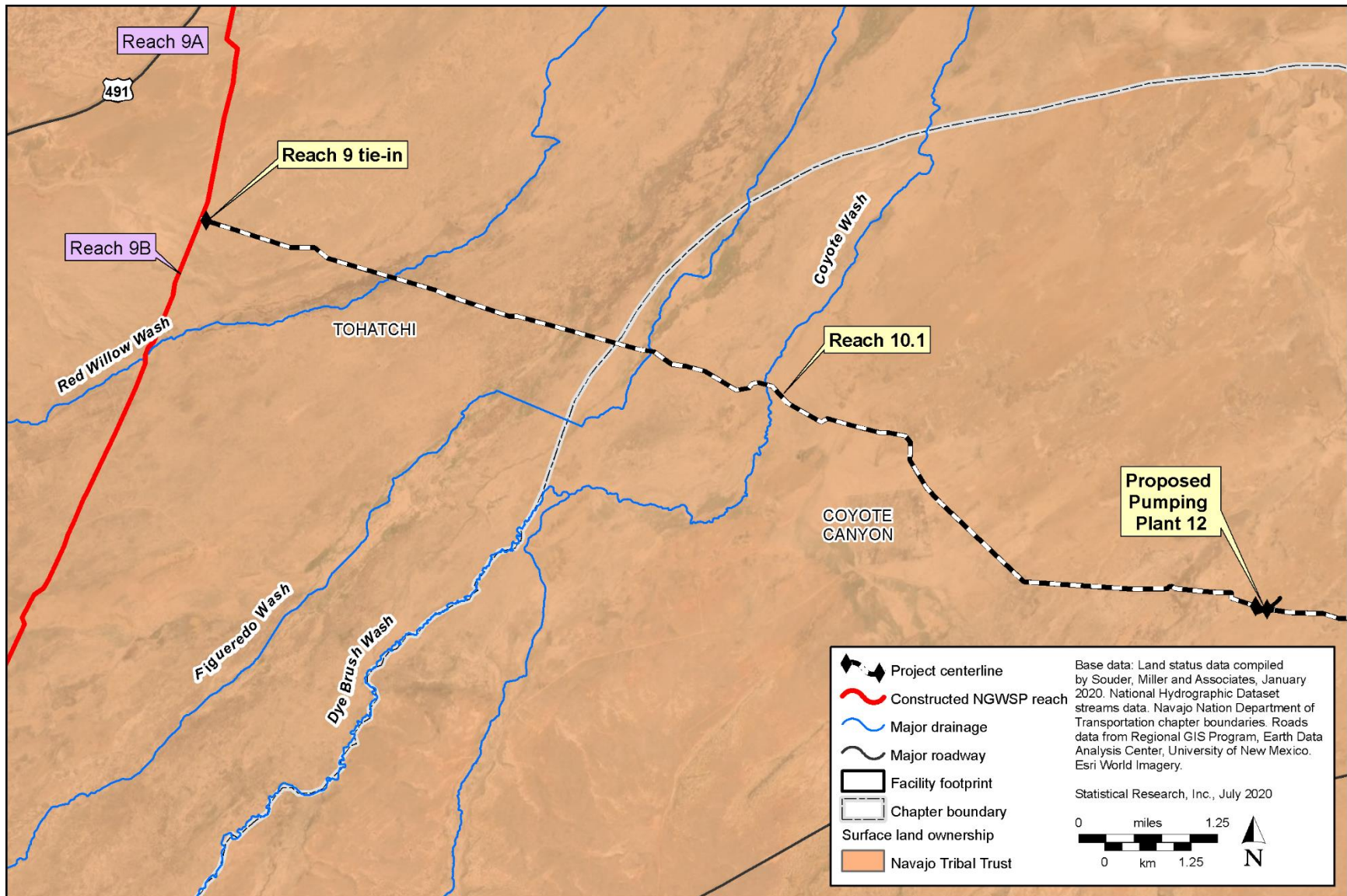


Figure 2- 1 Reach 10.1

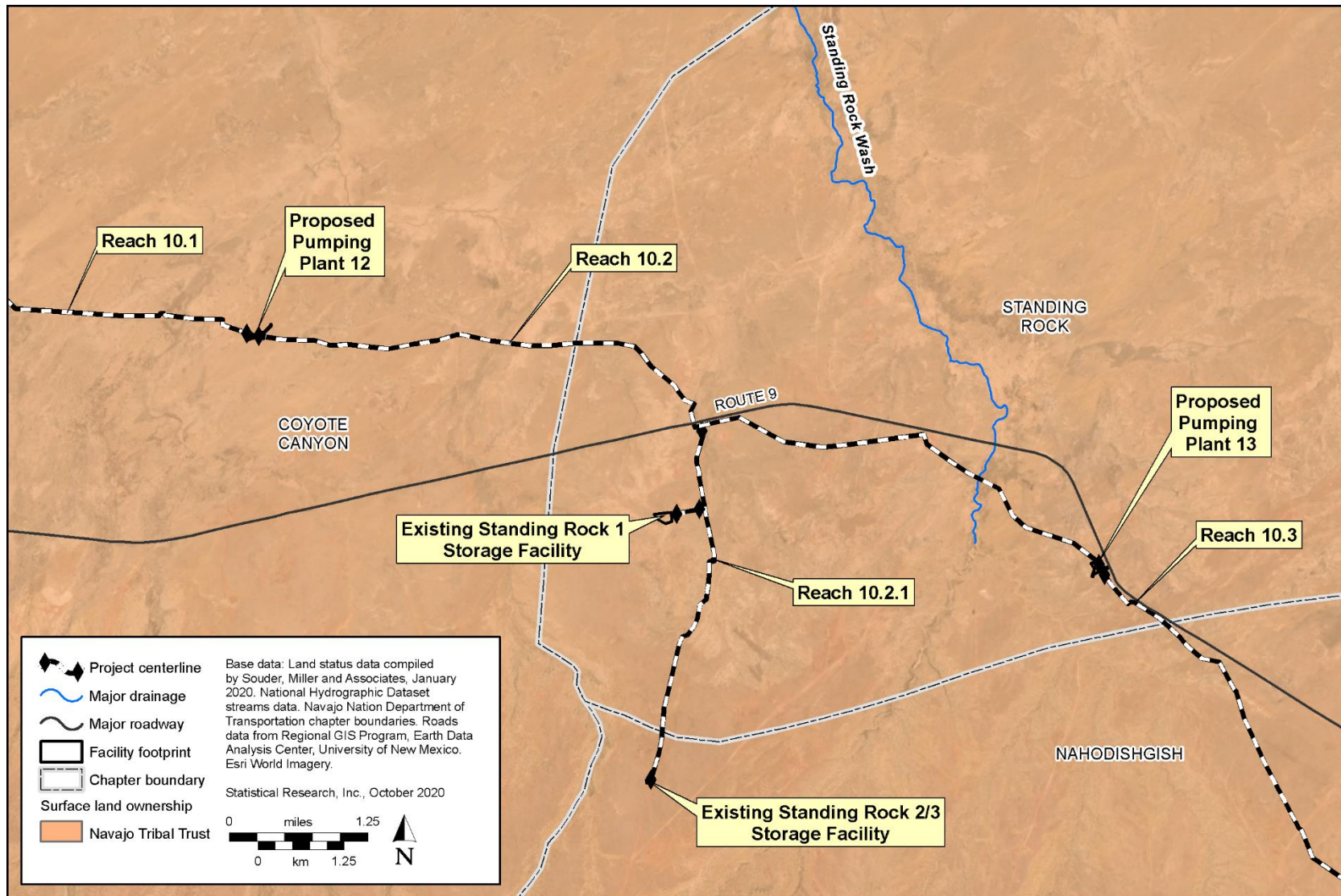


Figure 2- 2 Reach 10.2 and 10.2.1

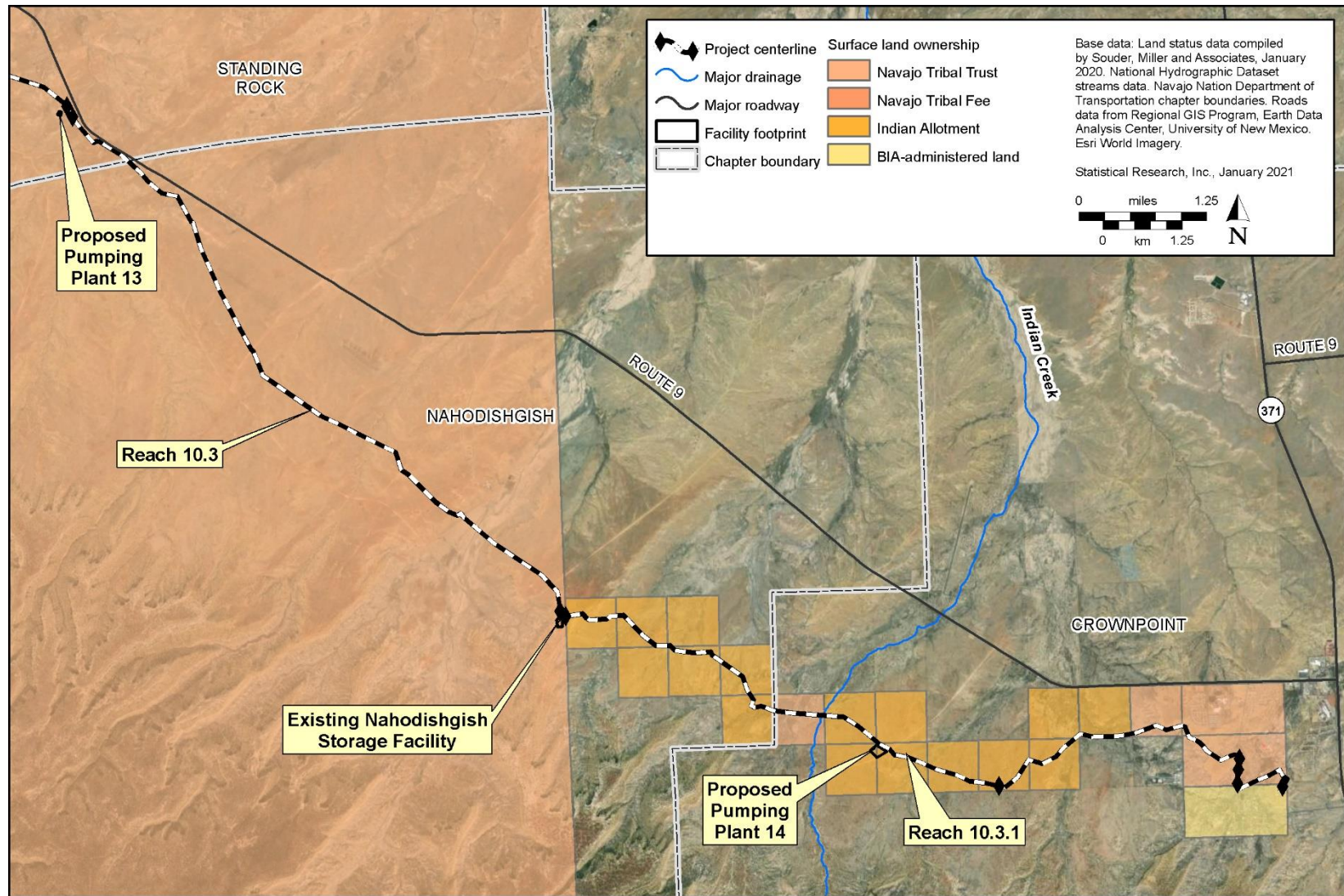


Figure 2- 3 Reach 10.3 and 10.3.1

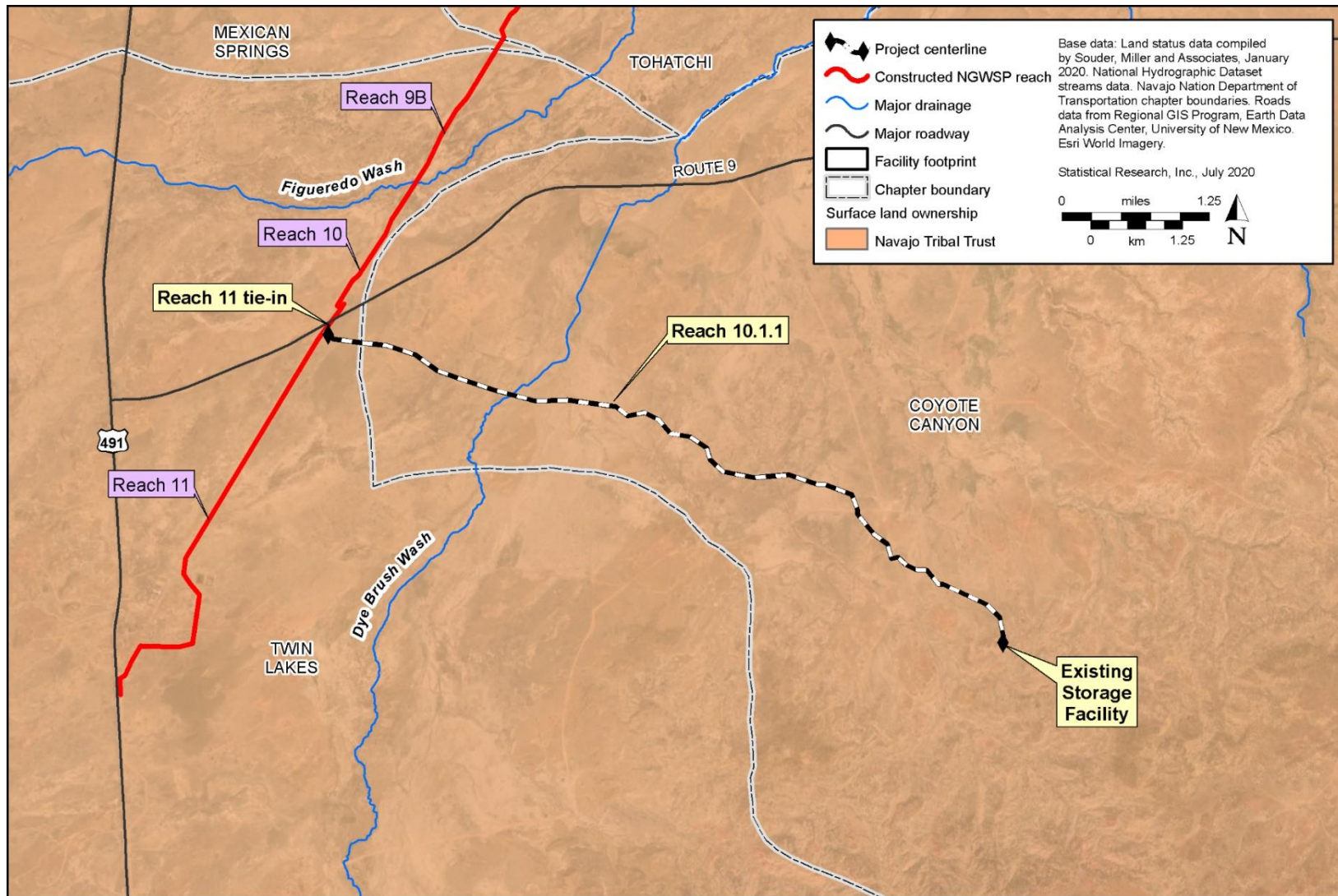


Figure 2- 4 Reach 10.1.1

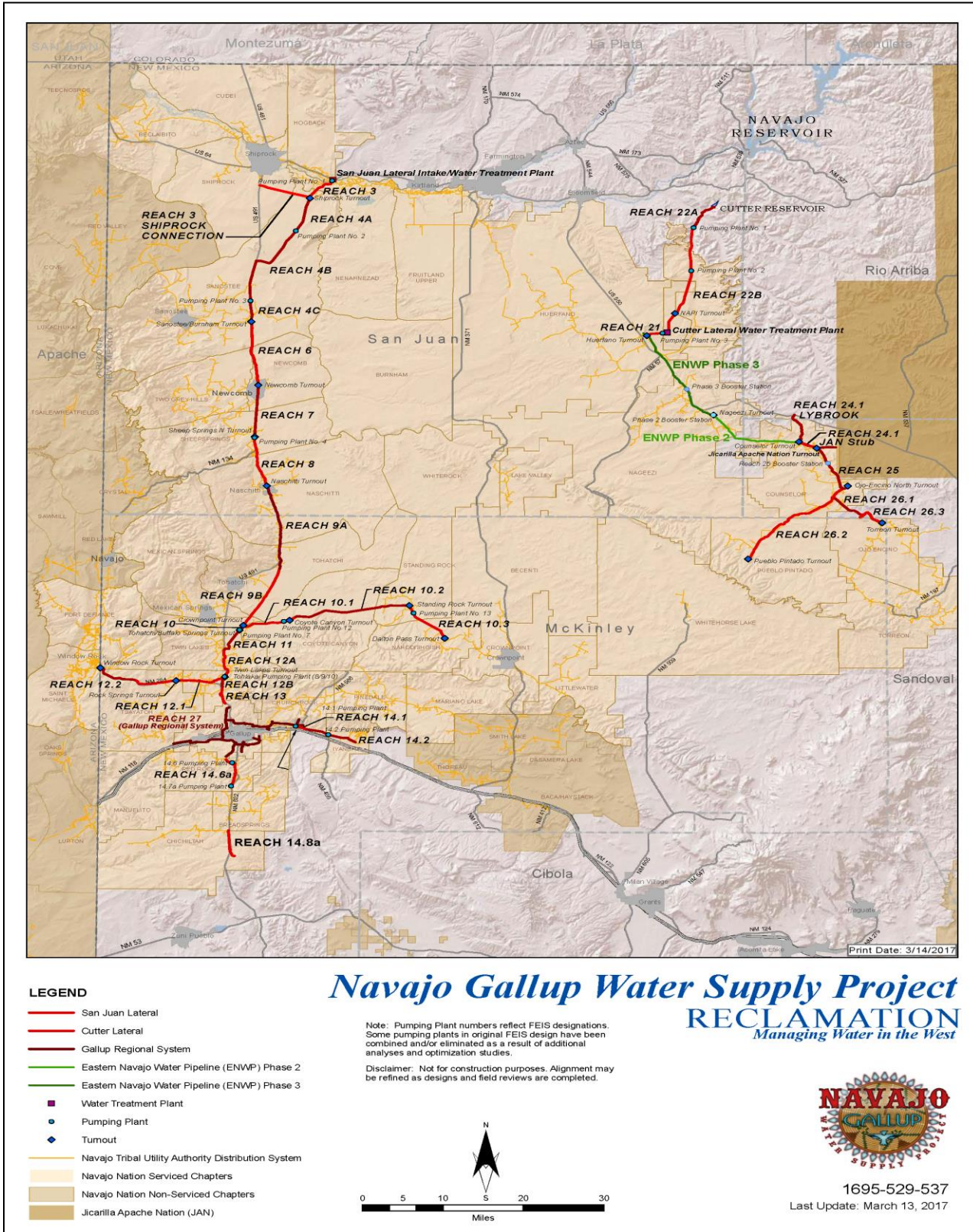


Figure 3- 1 NGWSP Past, Present, and Future Action

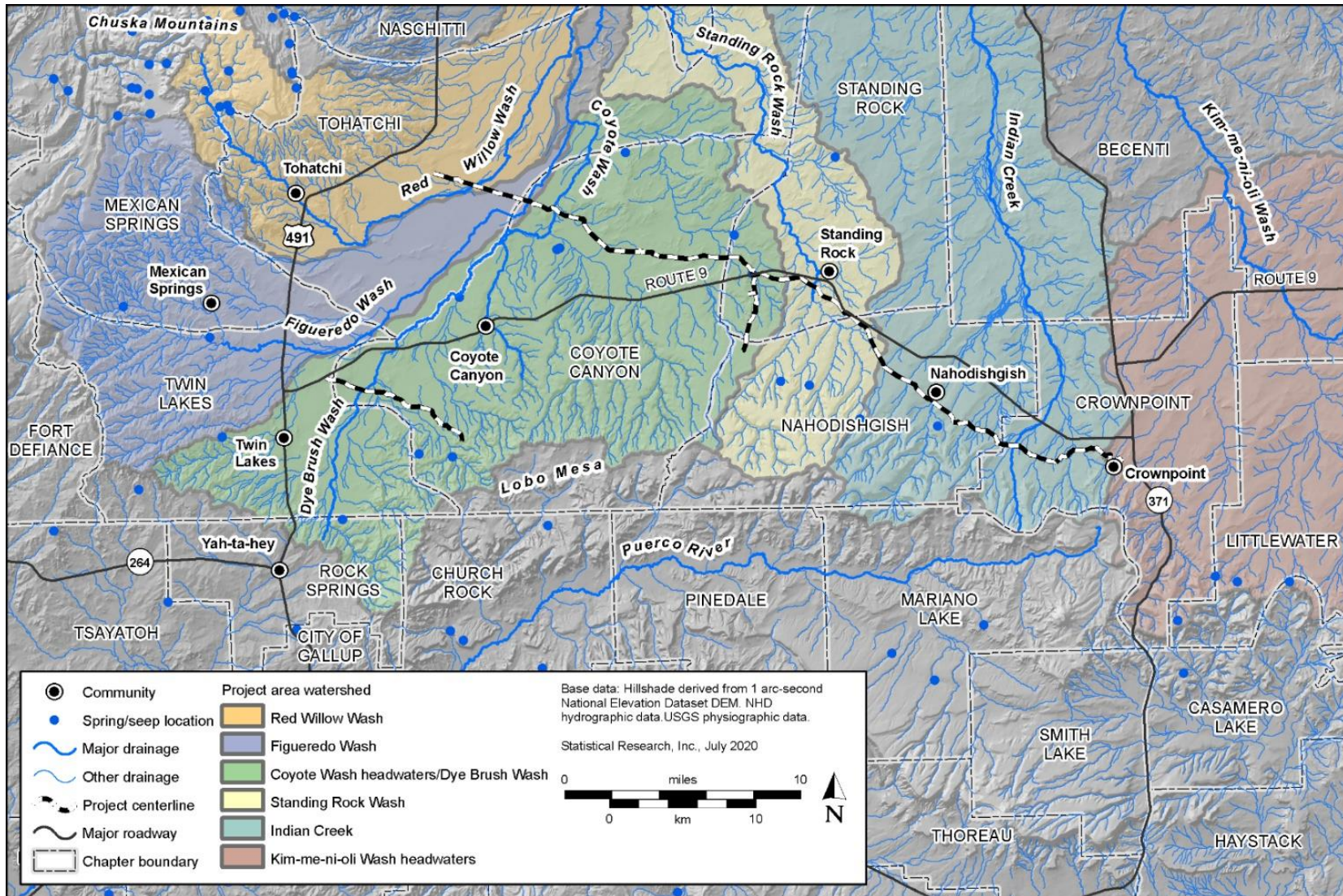


Figure 3- 2 Waterbodies



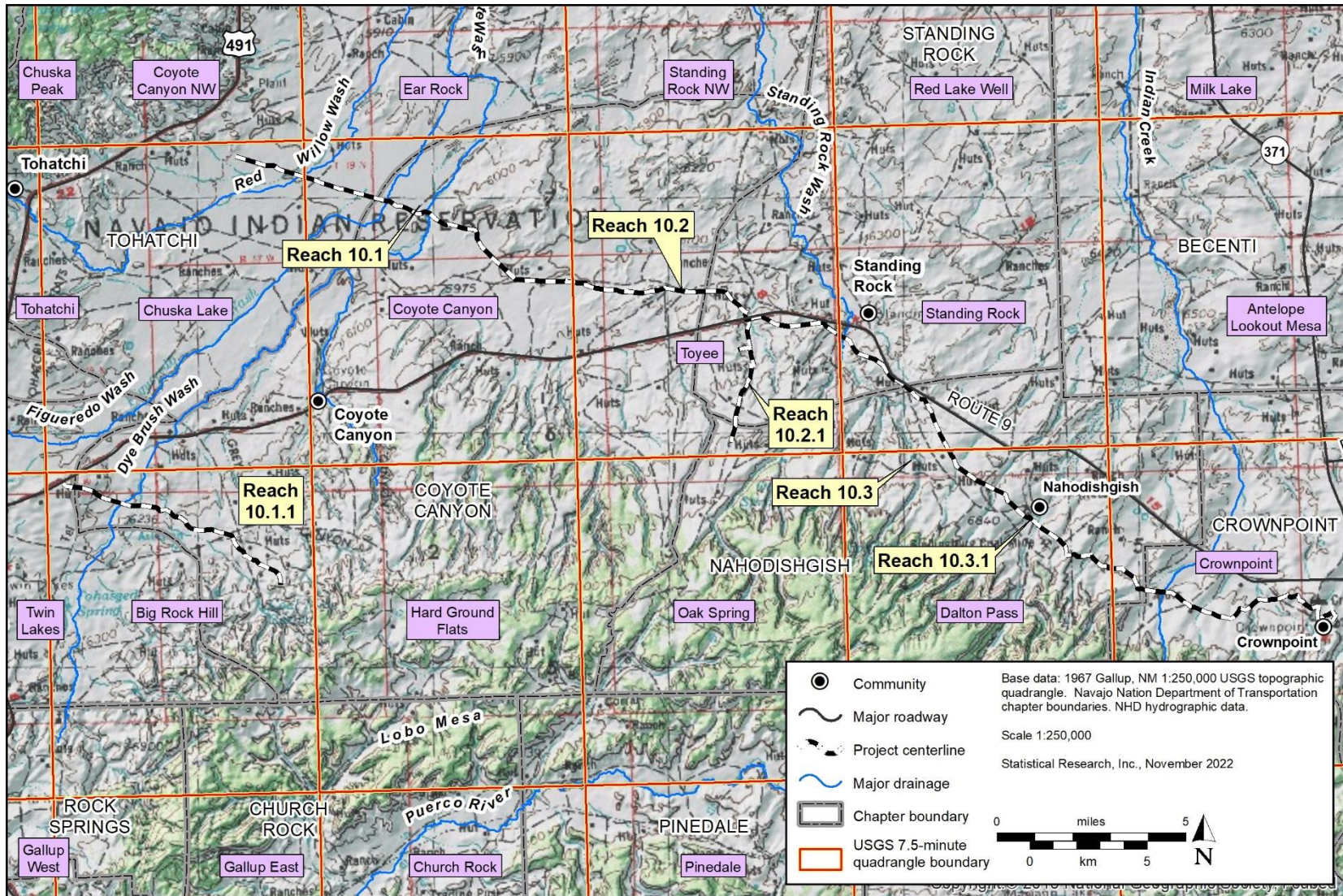


Figure 3- 3 USGS 7.5-by 7.5-Minute Quadangle Map

# **Appendix A. Cultural Resources Compliance Documentation**



**THE NAVAJO NATION**  
 Heritage & Historic Preservation Department  
 P.O. Box 4950 • Window Rock, Arizona 86515  
 (928) 871-7198 (tel) • (928) 871-7886 (fax)



## CULTURAL RESOURCES COMPLIANCE FORM

**HPD NO.:** HPD-21-1079

**CONSULTANT REPORT NO.:** SRI 20-02

**PROJECT TITLE:** Project: A Cultural Resource Survey and Inventory of the BBN9 Lateral, McKinley County, New Mexico. Navajo Gallup Water Supply Project Beacon-Bisti Route 9 Lateral

**LEAD AGENCY:** BOR, Navajo Nation Water Resources

**SPONSOR:** Tory Tadano, Souder Miller & Associates, 5454 Venice Ave NE Albuquerque, NM 87113

**PROJECT DESCRIPTION:** The Bureau of Reclamation and the Navajo Nation Water Resources are proposing to install 46.1-miles of underground water pipeline and associated minor appurtenant above ground facilities. Reaches 10.1; 10.1.1; 10.2; 10.2.1; 10.3; 10.3.1 consist of 30-inch diameter waterline and is known as the Beacon-Bisti Route 9 (BBN9) Lateral that will interconnect with Reach 9. Aboveground facilities include footprints to improve the Standing Rock, Nahodishgish, Crownpoint and Coyote Canyon Water storage tank facilities; the installation of a pump at the Standing Rock Water storage tank facility; the construction of pumping plant 12 between Reaches 10.1 and 10.2; and the construction of Pumping Plant 13 between Reaches 10.2 and 10.3. Additional infrastructure will be constructed in support of pipeline such as powerline extensions to the appurtenances. The area of potential effect is 2,441.4-acres.

**PROJECT ARCHAEOLOGIST:** David Unruh and Monica L. Murrell

**NAVAJO ANTIQUITIES PERMIT NO.:** B18925 **TOTAL ACREAGE INSPECTED:** 2441.4

**DATE INSPECTED:** 4/12/2019

**DATE OF REPORT:** 2/13/2020

**METHOD OF INVESTIGATION:** Class III pedestrian inventory with transects spaced 15 m apart

**LAND STATUS:** NN Tribal Trust Land, Indian Allotment, BIA, BLM, Private

**CHAPTER:** Coyote Canyon, Tohatchi, Standing Rock, Twin Lakes, Nahodishgish, Crownpoint

**LOCATION:** Township: T17N Range: R17W Section: 5, 6, 8, 9, 15 **QUAD:** Big Rock Hill, NM NMPM

Number of Eligible Properties: 46

Number of Non-Eligible Properties: 36

Number of Unevaluated Properties: 0

Number of Isolated Occurrences: 283

Number of In-Use Sites: 6

**EFFECT/CONDITIONS OF COMPLIANCE:** Adverse Effect

**PROCEED RECOMMENDED:** Yes

**CONDITIONS:** Yes

*To mitigate the adverse effects, BOR has drafted a NGWSP Beacon-Bisti/N9 Pipeline Treatment Plan for Reaches 10.1-10.3, Crownpoint (10.3.1), Coyote Canyon (10.1.1), and Standing Rock (10.2.1) Connections*

### 23 Sites

NM-Q-11-16, NM-Q-11-33, NM-Q-12-100, NM-Q-12-102, NM-Q-12-105, NM-Q-12-109, NM-Q-12-111, NM-Q-12-98, NM-Q-13-87, NM-Q-14-191, NM-Q-19-1, NM-Q-19-139, NM-Q-19-140, NM-Q-19-143, NM-Q-22-68, NM-Q-22-70, NM-Q-22-75, NM-Q-23-121, NM-Q-23-123, NM-Q-23-124, NM-Q-23-129, NM-Q-23-133, NM-Q-23-136:

1. Sites will be avoided by all construction activities.

### 5 Sites

NM-Q-12-104, NM-Q-12-85, NM-Q-22-72, NM-Q-23-127, NM-Q-23-135:

1. Sites will be avoided by all construction activities.
2. Sites boundaries will be fenced under the direction of a qualified archaeologist before construction activities begin.
3. Sites will be monitored by a qualified archaeologist during all ground disturbing activities within 50-ft of the site boundaries.

**~ DOCUMENT IS VOID IF ALTERED ~**



**THE NAVAJO NATION**  
Heritage & Historic Preservation Department  
P.O. Box 4950 • Window Rock, Arizona 86515  
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**13 Sites**

NM-Q-12-110, NM-Q-12-25, NM-Q-12-27/NM-Q-12-28, NM-Q-13-100, NM-Q-13-102, NM-Q-13-92, NM-Q-13-93, NM-Q-13-94, NM-Q-19-138, NM-Q-19-141, NM-Q-19-142, NM-Q-19-145, NM-Q-22-44:

1. Sites will be subject to remote sensing and/or testing.
2. Sites will be fenced under the direction of a qualified archaeologist before construction activities begin.
3. Sites will be monitored by a qualified archaeologist during all ground disturbing activities within 50-ft of the site boundaries.

**5 Sites**

NM-Q-23-115, NM-Q-23-116, NM-Q-23-117, NM-Q-23-125, NM-Q-23-126 :

1. Sites are eligible to the National Register of Historic Places, but will not be impacted by any construction.

**36 Sites**

NM-Q-13-88, NM-Q-13-89, NM-Q-13-90, NM-Q-13-91, NM-Q-13-95, NM-Q-13-96, NM-Q-13-97, NM-Q-13-98, NM-Q-13-99, NM-Q-13-101, NM-Q-13-103, NM-Q-13-104, NM-Q-14-192, NM-Q-19-144/LA 6448, NM-Q-12-97, NM-Q-12-99, NM-Q-12-101, NM-Q-12-106, NM-Q-12-107, NM-Q-12-108, NM-Q-12-103, NM-Q-22-69, NM-Q-22-74, NM-G-8-78/LA 36204, NM-Q-22-71, NM-Q-22-73, NM-Q-23-119, NM-Q-23-120, NM-Q-23-122/LA 20893, NM-Q-23-128, NM-Q-23-130, NM-Q-23-131, NM-Q-23-132, NM-Q-23-134, NM-Q-23-114, NM-Q-23-118:

1. Sites are determined not eligible to the NRHP, therefore no further work is required.

**4 Sites**

LA 6449, LA 27691, NM-Q-11-15, NM-Q-12-22:

1. Sites were not re-located. No further work is required.

*In the event of a discovery ["discovery" means any previously unidentified or incorrectly identified cultural resources including but not limited to archaeological deposits, human remains, or locations reportedly associated with Native American religious/traditional beliefs or practices], all operations in the immediate vicinity of the discovery must cease, and the Navajo Nation Historic Preservation Department must be notified at (928) 871-7198.*

Form Prepared by: Tamara Billie

**FINALIZED:** 7/8/2021

  
Richard M. Begay, Department Manager/THPO

07/08/2021  
Date

Navajo Nation Heritage and Historic Preservation Department

**~ DOCUMENT IS VOID IF ALTERED ~**

# **Appendix B. Biological Resources Compliance Documentation**

NNDFW Review No. 19ttes102\_a

**BIOLOGICAL RESOURCES COMPLIANCE FORM  
 NAVAJO NATION DEPARTMENT OF FISH AND WILDLIFE  
 P.O. BOX 1480, WINDOW ROCK, ARIZONA 86515-1480**

It is the Department's opinion the project described below, with applicable conditions, is in compliance with Tribal and Federal laws protecting biological resources including the Navajo Endangered Species and Environmental Policy Codes, U.S. Endangered Species, Migratory Bird Treaty, Eagle Protection and National Environmental Policy Acts. This form does not preclude or replace consultation with the U.S. Fish and Wildlife Service if a Federally-listed species is affected.

**PROJECT NAME & NO.:** BBN9-Navajo Gallup Water Supply Project

**DESCRIPTION:** The U.S. Department of the Interior - Bureau of Reclamation is looking to install underground pipeline and associated aboveground facilities. The pipeline will have a trench which would reach a max depth of 20ft in some areas and 5-6 ft depth for the majority of the pipeline. Width of the trench would be 3-4 ft. All project construction/ actions will stay within the 100 ft wide Right of Way and Temporary Construction Easement. BRCF is evaluating the reaches 10.1,10.1.1, 10.2.1, 10.3, 10.3.1 Beacon Bisti Route N9 Lateral Project.

**LOCATION:** Navajo Nation in McKinley County, NM. 10 miles North of Gallup, NM.

- Township 17North, Range 12West, Sections 19, 20, and 30
- Township 17North, Range 13West, Sections 17, 18, 20-24
- Township 17North, Range 14West, Sections 2, 3, 11-13
- Township 17North, Range 17West, Sections 5, 6, 8, 9, 15 and 16
- Township 17North, Range 18West, Sections 1, 2
- Township 18North, Range 14West, Sections 17, 18, 20, 21, 28, 33 and 34
- Township 18North, Range 15West, Sections 3-6, 10-13, 15, 22, and 27
- Township 18North, Range 16West, Sections 1-3
- Township 18North, Range 18West, Sections 34 and 35
- Township 19North, Range 16West, Sections 29, 30 and 32-34
- Township 19North, Range 17West, Sections 21-23 and 25 and 26

**REPRESENTATIVE:** David L McIntyre, Principal, McIntyre Environmental LLC.

**ACTION AGENCY:** U.S. Department of the Interior - Bureau of Reclamation

**B.R. REPORT TITLE / DATE / PREPARER:** Request for review & compliance/16 SEP 2019/David L McIntyre

**SIGNIFICANT BIOLOGICAL RESOURCES FOUND:** Areas 1, 3 and 4.

**POTENTIAL IMPACTS**

**NESL SPECIES POTENTIALLY IMPACTED:** NA

**FEDERALLY-LISTED SPECIES AFFECTED:** NA

**OTHER SIGNIFICANT IMPACTS TO BIOLOGICAL RESOURCES:** NA

C:\Users\NNH\AppData\Local\Temp\BBN9 water pipeline project.doc

Page 1 of 2

NNDFW -B.R.C.F.: FORM REVISED 12 NOV 2009

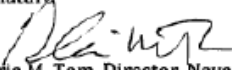
AVOIDANCE / MITIGATION MEASURES: NA

CONDITIONS OF COMPLIANCE\*: Attached memo explains conditional approval compliance measures. These conditions include active nest surveys for raptor and Burrowing Owl at the start of construction to determine if active. Additionally re-vegetation of habitat by seeding shall follow post construction.

FORM PREPARED BY / DATE: Taylor A Greene/7 MAY 2021

COPIES TO: (add categories as necessary)

\_\_\_\_\_  \_\_\_\_\_

2 NTC § 164 Recommendation:	Signature	Date
<input type="checkbox"/> Approval	 Gloria M. Tom, Director, Navajo Nation Department of Fish and Wildlife	5/14/21
<input checked="" type="checkbox"/> Conditional Approval (with memo)		
<input type="checkbox"/> Disapproval (with memo)		
<input type="checkbox"/> Categorical Exclusion (with request letter)		
<input type="checkbox"/> None (with memo)		

\*I understand and accept the conditions of compliance, and acknowledge that lack of signature may be grounds for the Department not recommending the above described project for approval to the Tribal Decision-maker.

# THE NAVAJO NATION

JONATHAN NEZ | PRESIDENT MYRON LIZER | VICE PRESIDENT



07 May 2021

David McIntyre  
McIntyre Environmental LLC.  
1900 West Desert Highlands Dr.  
Oro Valley AZ, 85737

Dear David,

The Navajo Nation Department of Fish and Wildlife (NNDFW) has reviewed your request for concurrence on the proposed **BBN9 -Gallup Water Supply Project**. The purpose of this memo is to inform you that we are granting the proposed project Conditional Approval. The undertaking shall inspect all raptor and burrowing owl nests to determine if active, If any nests are found to be active all time of year restrictions shall be followed to avoid any disturbance. Migratory Bird breeding season and their corresponding mitigations shall be followed if the project construction activities find themselves within these valued seasons. Post-construction reseeded of the disturbed construction site shall be seeded with appropriate native mixes that match the relative ecological site descriptions shall be accomplished.

If you have any questions, please contact me at [tgreene@nndfw.org](mailto:tgreene@nndfw.org) with any questions that you have concerning the review of this project.

Sincerely,

Taylor A. Greene, Wildlife Biologist  
Navajo Natural Heritage Program

CONCURRENCE

Gloria Tom, Director  
Department of Fish and Wildlife

Date

5/14/21

NAVAJO NATION OFFICE OF THE PRESIDENT AND VICE PRESIDENT  
POST OFFICE BOX 7440 · WINDOW ROCK, AZ 86515 · PHONE: (928) 871-7000 · FAX: (928) 871-4025