

RESOLUTION OF THE
RESOURCES AND DEVELOPMENT COMMITTEE
Of the 23rd Navajo Nation Council---First Year 2015

AN ACTION
RELATING TO RESOURCES AND DEVELOPMENT; APPROVING THE GRANT OF
RIGHT-OF-WAY TO JEMEZ MOUNTAIN ELECTRIC COOPERATIVE, INC. TO
CONSTRUCT, OPERATE AND MAINTAIN THE NGSWP REACH 26.2 (A.K.A.
CUTTER LATERAL) "SINGLE PHASE POWER LINE "A" AND TEMPORARY
CONSTRUCTION EASEMENT LOCATED IN THE PUEBLO PINTADO CHAPTER
VICINITY, NAVAJO NATION (MCKINLEY COUNTY, NEW MEXICO); AND
WAIVING CONSIDERATION AS THE RIGHT-OF-WAY AND TEMPORARY
CONSTRUCTION EASEMENT WILL BENEFIT NAVAJO FAMILIES

Section One. Findings

- A. Pursuant to 2 N.N.C. Section 501 (B) (2), the Resources and Development Committee of the Navajo Nation Council has authority to give final approval on right-of-ways and surface easements on Navajo Nation lands and unrestricted (fee) land; and
- B. The Jemez Mountain Electric Cooperative, Inc., P.O. Box 128, Espanola, New Mexico 87532, has submitted a right-of-way application to construct, operate and maintain the NGSWP Reach 26.2 (a.k.a. Cutter Lateral) Single Phase Power Line "A" Project and corresponding temporary construction easement on, over and across Navajo Nation Trust Lands in the Pueblo Pintado Chapter vicinity, Navajo Nation (McKinley County, New Mexico) attached hereto and incorporated herein as Exhibit "A"; and
- C. The proposed right-of-way is 420.20 feet long, 20 feet wide, consisting of 0.19 acres, more or less, located in the North-Half (N½) of the Northeast Quarter (NE¼) of Section 6, Township 19 North, Range 7 West, NMPM, Navajo Nation (McKinley County, New Mexico) attached hereto and incorporated herein as Exhibit "B"; and
- D. The Navajo Land Department Project Review Section has obtained the consent of the affected land users (i.e. grazing permittees) pursuant to a Project Review Section

memorandum dated July 27, 2015 attached hereto as Exhibit "C"; and

- E. The Jemez Mountain Electric Cooperative, Inc., requests that the Navajo Nation waives the consideration of \$2,736.00 for the right-of-way and \$100.00 for the temporary construction easement because the project will benefit Navajo families.
- F. Counselor, Ojo Encino, Torreon, Pueblo Pintado, Whitehorse Lake Chapters' resolutions and the Eastern Navajo Agency Council resolution supporting the Cutter Lateral are attached as Exhibit "F"; and
- G. The environmental and archaeological studies have been completed and are attached hereto and incorporated herein by this reference. The Biological Resources Compliance Form Exhibit "G," a memorandum from the Navajo Nation Environmental Protection Agency, Office of Environmental Review Exhibit "H," and the Environmental Assessment Exhibit "I" are attached.

Section Two. Approval

- A. Resources and Development Committee of the Navajo Nation Council hereby approves the Grant of Right-of-Way to Jemez Mountain Electric Cooperative, Inc. to construct, operate and maintain the NGSWP Reach 26.2 (a.k.a. Cutter Lateral) Single Phase Power Line "A" and Temporary Construction Easement in Pueblo Pintado Chapter vicinity, Navajo Nation (McKinley County, New Mexico). The location is more particularly described on the survey map attached hereto as Exhibit "B."
- B. The Resources and Development Committee of the Navajo Nation Council hereby approves the right-of-way and temporary construction easement subject to, but not limited to, the following terms and conditions attached hereto and incorporated herein as Exhibits "D" and "E."
- C. The Resources and Development Committee of the Navajo Nation Council hereby waives the consideration for the right-of-way and the temporary construction easement because the project will benefit Navajo families.

- D. The Resources and Development Committee of the Navajo Nation Council hereby authorizes the President of the Navajo Nation to execute any and all documents necessary to affect the intent and purpose of this resolution.

CERTIFICATION

I, hereby, certify that the foregoing resolution was duly considered by the Resources and Development Committee of the 23rd Navajo Nation Council at a duly called meeting at the Navajo Nation Council Chambers, Window Rock, (Navajo Nation) Arizona, at which quorum was present and that same was passed by a vote of 3 in favor, 0 opposed, 1 abstained this 15th day of December, 2015.

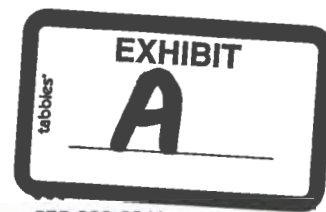


Alton Joe Shepherd, Chairperson
Resources and Development Committee
Of the 23rd Navajo Nation Council

Motion: Honorable Benjamin Bennett
Second: Honorable Davis Filfred



Phone:
Espanola 575-289-3241
Cuba 575-829-3550
Jemez Springs



November 6, 2014

Howard Draper
Project Review Section
Navajo Nation Land Department
Via Email and Fed Ex

RE: Application for consent to ROW and TCE across Navajo Tribal Trust (TNT) lands for JMEC power line extensions pertaining to NGSWP Reach 26.2 (aka. Cutter Lateral)

Dear Mr. Draper:

Jemez Mountains Electric Cooperative, Inc. (JMEC) hereby submits the enclosed application for Tribal consent to permanent Rights-of-Way (ROW) and Temporary Construction Easement (TCE) for Tribal Trust lands for a single phase power line extension pertaining to the Navajo Gallup Water Supply Project Reach 26.2 project (aka Cutter Lateral). We respectfully request the permanent ROW in perpetuity.

The proposed power line is to be constructed and operated by JMEC for the sole purpose of providing electricity to NTUA water tank and pumping facilities. Therefore, we request that the Navajo Nation waive compensation because the proposed project will benefit Navajo families.

Enclosed with this letter are the following:

1. Check # 034580 from SMA in the amount of \$500.00 as payment for filing fee.
2. Summary table of NAVAJO TRIBAL TRUST lands.
3. Project area land status map.
4. Supporting resolutions from concerned chapters and Eastern Navajo Agency Council.
5. Biological Resources Compliance Form (BRCF) from Navajo Fish and Wildlife Dept.
6. Permission to Survey Letter.
7. Easement plat map & legal descriptions for Tribal Trust lands, both ROW & TCE (signed paper copies)
8. Environmental Assessment (EA)

Please note that all information and reports needed to acquire the Cultural Resources Compliance Form (CRCF) has been submitted to the Navajo Nation Historic Preservation Department and we expect that the CRCF is forthcoming.

Should you have any questions or require any further information, please do not hesitate to contact Sheri Compton, Manager of Engineering, at (505) 550-3712, or contact our authorized agent, Andrew Robertson with Souder, Miller & Associates at (505) 264-1488. We appreciate your prompt attention in processing this application. Thanks very much for your assistance.

Sincerely,



Ernesto Gonzales
General Manager

Jemez Mountains Electric Cooperative, Inc.

CC: Leonard Tsosie, Navajo Nation Council
Jim Wiseman, Jemez Mountains Electric Cooperative, Inc.
Virgil Coriz, Jemez Mountains Electric Cooperative, Inc.
Andrew Robertson, Souder, Miller & Associates

MILLER ENGINEERS, INC. DBA SOUDER, MILLER & ASSOCIATES		COMMENT	AMOUNT	NET AMOUNT
04/28/2015	042815	Tribal consent filing fee for NGWSP R26 2 powerline R		500.00
DATE 04/29/15		VENDOR Navajo Nation Land Department	TOTAL	500.00



THIS DOCUMENT HAS AN ARTIFICIAL WATERMARK IN PAPER. SEE BACK SIDE FOR OTHER SECURITY FEATURES

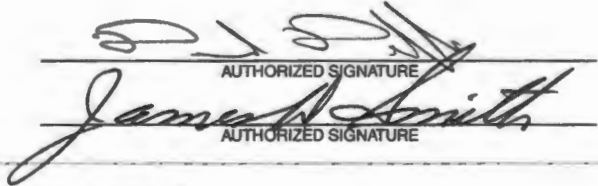
MILLER ENGINEERS, INC.
DBA SOUDER, MILLER & ASSOCIATES
 3451 CANDELARIA RD. NE, SUITE D
 ALBUQUERQUE, NM 87107
 505.256.7364
Five Hundred and no/100

WASHINGTON FEDERAL SAVINGS
 SANTA FE, NM 87501
 92-7008/3241

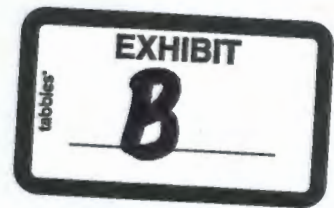
034580

DATE 04/29/15 34580 AMOUNT \$500.00

PAY TO THE ORDER OF:
NAVAJO NATION LAND DEPARTMENT
P.O. BOX 2249
WINDOW ROCK AZ 86515.2249


 AUTHORIZED SIGNATURE
 AUTHORIZED SIGNATURE

⑈034580⑈ ⑆324170085⑆ 265 7007791⑈



**REACH 26.2 PUEBLO PINTADO SINGLE PHASE POWER LINE PROJECT
MCKINLEY COUNTY, NEW MEXICO
JMEC WORK ORDER NUMBER 415063**

GUY EASEMENT DESCRIPTION

<u>GUY NO.</u>	<u>STATION</u>	<u>BEARING</u>	<u>LENGTH</u>	<u>WIDTH</u>	<u>ACREAGE</u>
LINE A					
1	3+20.02	S66°43'49"E	50'	25'	.03
2	13+70.02	S34°59'40"W	<u>50'</u>	25'	<u>.03</u>
			100'		0.06

TOTAL 2 GUYS

2 Guys X .03 acres = 0.06 ACRES

SUMMARY DESCRIPTION

<u>T19N R7W</u>	<u>LENGTH</u>	<u>MILES</u>	<u>WIDTH</u>	<u>ACREAGE</u>	<u>GUY ACREAGE</u>	<u>TOTAL ACREAGE</u>
N½NE¼ Sec. 6, TNT	420.20'	0.08	20'	0.19	0.03	0.22
S½NE¼ Sec. 6, BLM	<u>949.82'</u>	<u>0.18</u>	30'	<u>0.65</u>	<u>0.03</u>	<u>0.68</u>
SUBTOTAL	1,370.02'	0.26		0.84	0.06	0.90

Notice: This is a single page of a multi-page document. No individual page can be interpreted alone and must be considered in the context of the entire document, including but not limited to descriptions, surveyor statements, and plat

**RIGHT OF WAY EASEMENT FOR
REACH 26.2 PUEBLO PINTADO
SINGLE PHASE POWER LINE PROJECT
LINE A
MCKINLEY COUNTY, NEW MEXICO
JMEC WORK ORDER NUMBER 415063**

SURVEYORS DESCRIPTION of a right-of-way easement for Jemez Mountains Electric Cooperative, Inc.'s Reach 26.2 Pueblo Pintado Power Line Project, Line A, part of the Navajo Gallup Water Supply Project, situated within section 6, Township 19 North, Range 7 West, New Mexico Principal Meridian, Navajo Nation Tribal Trust and BLM Land, Pueblo Pintado, McKinley County, State of New Mexico and being more particularly described as follows:

A permanent easement being a strip of land, twenty (20) feet wide, laying ten (10) feet on each side of the centerline in Navajo Tribal Trust Land, and thirty (30) feet wide, laying fifteen (15) feet on each side of the centerline in BLM Land, for the following described centerline:

BEGINNING at B.O.P. Station 0+00, existing pole 50414, located in the N½NE¼ section 6, T19N, R7W, NMPM, said parcel being Tribal Trust land, and from which point the USGLO brass cap for the northeast corner of section 6, T19N, R7W, NMPM, bears N30°42'50"E a distance of 665.64 feet,

Thence S11°32'42"W a distance of 320.02 feet to P.I. Station 3+20.02,

Thence S34°59'40"W a distance of 100.18 feet to P.O.T. Station 4+20.20, at which point the centerline of the power line enters the S½NE¼ section 6, T19N, R7W, NMPM, said parcel being BLM Land, and from which point the USGLO brass cap for the northeast corner of section 6, T19N, R7W, NMPM, bears N25°29'29"E a distance of 1,072.28 feet,

Thence continuing S34°59'40"W a distance of 949.82 to E.O.P. Station 13+70.02, the terminus for the above described centerline for Line A, and from which point the USGLO brass cap for the northeast corner of section 6, T19N, R7W, NMPM, bears N29°57'16"E a distance of 2,015.18 feet, and from which point the base station having the True New Mexico State Plane West, NAD83, US Survey Feet coordinates of N1786281.772, E2787597.561, bears S68°36'18"W a distance of 76.53 feet.

The right-of-way easement is 0.26 miles in length.

Notice: This is a single page of a multi-page document. No individual page can be interpreted alone and must be considered in the context of the entire document, including but not limited to descriptions, surveyor statements, and plat

**TEMPORARY CONSTRUCTION EASEMENT FOR
REACH 26.2 PUEBLO PINTADO
SINGLE PHASE POWER LINE PROJECT
LINE A
MCKINLEY COUNTY, NEW MEXICO
JMEC WORK ORDER NUMBER 415063**

SURVEYORS DESCRIPTION of a temporary construction easement for Jemez Mountains Electric Cooperative, Inc.'s Reach 26.2 Pueblo Pintado Power Line Project, Line A, part of the Navajo Gallup Water Supply Project, situated within section 6, Township 19 North, Range 7 West, New Mexico Principal Meridian, Navajo Tribal Trust and BLM Land, Pueblo Pintado, McKinley County, State of New Mexico and being more particularly described as follows:

A temporary easement being a strip of land, twenty (20) feet wide, being ten (10) feet on each side of the permanent easement in Navajo Tribal Trust Land, and ten (10) feet wide, being five (5) feet on each side of the permanent easement in BLM Land, for the following described centerline:

BEGINNING at B.O.P. Station 0+00, existing pole 50414, in the N½NE¼ section 6, T19N, R7W, NMPM, said parcel being Navajo Tribal Trust land, and from which point the USGLO brass cap for the northeast corner of section 6, T19N, R7W, NMPM, bears N30°42'50"E a distance of 665.64 feet,

Thence S11°32'42"W a distance of 320.02 feet to P.I. Station 3+20.02,

Thence S34°59'40"W a distance of 100.18 feet to P.O.T. Station 4+20.20, at which point the centerline of the power line enters the S½NE¼ section 6, T19N, R7W, NMPM, said parcel being BLM Land, and from which point the USGLO brass cap for the northeast corner of section 6, T19N, R7W, NMPM, bears N25°29'29"E a distance of 1,072.28 feet,

Thence continuing S34°59'40"W a distance of 949.82 to E.O.P. Station 13+70.02, the terminus for the above described centerline for Line A, and from which point the USGLO brass cap for the northeast corner of section 6, T19N, R7W, NMPM, bears N29°57'16"E a distance of 2,015.18 feet, and from which point the base station having the True New Mexico State Plane West, NAD83, US Survey Feet coordinates of N1786281.772, E2787597.561, bears S68°36'18"W a distance of 76.53 feet.

The right-of-way is 0.26 miles in length.

SUMMARY DESCRIPTION

<u>T19N R7W</u>	<u>LENGTH</u>	<u>MILES</u>	<u>WIDTH</u>	<u>ACREAGE</u>
N½NE¼ Sec. 6, TNT	420.20'	0.08	20'	0.19
S½NE¼ Sec. 6, BLM	949.82'	0.18	10'	0.22
SUBTOTAL	1,370.02'	0.26		0.41

NM	MCKINLEY	
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Navajo Gallup Water Supply Project, Reach 26.2 Power Line Extension
Right of Way and Temporary Construction Easement Summary - Tribal Trust Lands

Reach	Description	County	Township	Range	Section	Quarter Section	Length (ft)	Right-of-Way		Temp Const. Easment		Total ROW+TCE
								Width (ft)	Acreage	Width (ft)	Acreage	Acreage
26.2	Pueblo Pintado Tank Site Single Phase Power Line	McKinley	19N	7W	6	(Lot 1) N1/2NE1/4	420.20	20	0.19	20	0.19	0.41
	Pueblo Pintado Tank Site Single Phase Power Line Guy Easement						50.00	25	0.03	NA	NA	
						TOTALS:	470.20		0.22		0.19	0.41

Notes:

For each powerline, two types of permanent ROW easements are requested. The first is for the actual transmission line and poles, with a ROW width of 20 feet. The second is for guy wires and anchors. Each guy requires a 50' long by 25' wide easement. The guys require no TCE.

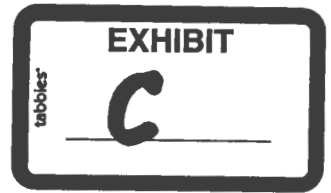
The permanent ROW easement and the TCE acreage are described in the legal descriptions. The permanent ROW acreage is also summarized on the plat map itself, for easy reference after construction. The TCE acreage is not indicated on the plat map since it will expire after construction is complete.



THE NAVAJO NATION

Navajo Land Department

P.O. Box # 2249 · Window Rock, Arizona 86515 · (928) 871-6401 · FAX: (928) 871-7039



MEMORANDUM

TO : Howard P. Draper, Supervisors
Project Review Section, NLD

FROM : *Esther Kee*
Esther Kee, R/W Agent
Project Review Section, NLD

DATE : July 27, 2015

SUBJECT: JMEC Cutter Lateral Reach 26-2 Power Line Project

Jemez Mountain Electric Cooperative, Inc., Post Office Box 128, Espanola, New Mexico 87532, submitted an application for right of way to construct, operate and maintain a single phase power line to serve NGWSP Reach 26.2 (aka Cutter Lateral) and Temporary Construction Easement on Navajo Trust Lands in Pueblo Pintado, New Mexico.

The right of way will be 420.20 feet in length, 20 feet wide, consisting of 0.19 acres, more or less, in N/2, NE/4 of Section 6, Township 19 North, Range 7 West, NMPM.

The proposed project is within District 20, Pueblo Pintado Range Unit 33, permitted to Maurice Antonio and Danny Charley for grazing. I informed the affected grazing permittees on the proposed request and obtained the affected land users consent along with the concurrence of the District 20 Land Board Member, Sherwood Willetto.

Field clearance complete, land users consent and supporting documents are all attached for your information and reference.

cc: Project file

CONSENT 3

(Waiver of compensation for damages)

**CONSENT TO USE
NAVAJO TRIBAL LANDS**

TO WHOM IT MAY CONCERN:

I, Maurice Antonio, hereby grant consent to the Navajo Tribe and the Bureau of Indian Affairs to permit **Jemez Mountain Electric Cooperative, Inc., Post Office Box 128, Espanola, New Mexico 87532**, to use a portion of my land use area for the following purpose(s): **Right of Way to construct, operate and maintain 420.20 feet long, 30 feet wide, consisting of 0.19 acres, 14.4 kV single phase power line extension for NGWSP Reach 26.2 (Cutter Lateral) on Navajo Trust land located in NE/4 Section 6, T19N, R7W, McKinley County, New Mexico, as shown on the map showing the location of the proposed project on the back of this consent form.**

I hereby waive any rights I may have to compensation for the diminish-ment in value of my land use rights as a result of the above-referenced project as proposed.

REMARKS:

<u>7-16-15</u>	<u>Maurice Antonio</u>	<u>49774</u>	<u>Pueblo Pintado</u> <u>RU-33</u>
Date	Land User Signature (or Thumbprint)	Census No.	Permit No.

WITNESS: _____

<u>7-26-15</u>	<u>Shenwood Willets Jr</u>	<u>28</u>
Date	Grazing Committee or Land Board Member	District No.

Acknowledgement of Field Agent

I acknowledge that the contents of this consent form was read// or fully explained to to the land user in Navajo to or English// (check where applicable)

Esther Kuo
Field Agent Signature

CONSENT 3

(Waiver of compensation for damages)

CONSENT TO USE
NAVAJO TRIBAL LANDS

TO WHOM IT MAY CONCERN:

I, Danny Charley, hereby grant consent to the Navajo Tribe and the Bureau of Indian Affairs to permit Jemez Mountain Electric Cooperative, Inc., Post Office Box 128, Espanola, New Mexico 87532, to use a portion of my land use area for the following purpose(s): Right of Way to construct, operate and maintain 420.20 feet long, 30 feet wide, consisting of 0.19 acres, 14.4 kV single phase power line extension for NGWSP Reach 26.2 (Cutter Lateral) on Navajo Trust land located in NE/4 Section 6, T19N, R7W, McKinley County, New Mexico, as shown on the map showing the location of the proposed project on the back of this consent form.

I hereby waive any rights I may have to compensation for the diminishment in value of my land use rights as a result of the above-referenced project as proposed.

REMARKS:

7-16-15 [Signature]
Date Land User Signature (or Thumbprint)

Pueblo Pintado
RH. 33
Census No. Permit No.

WITNESS: _____

7-21-15 [Signature]
Date Grazing Committee or Land Board Member

20
District No.

Acknowledgement of Field Agent

I acknowledge that the contents of this consent form was read// or fully explained ☒ to the land user in Navajo ☒ or English// (check where applicable)

[Signature]
Field Agent Signature



EXHIBIT "D"

NAVAJO NATION RIGHT-OF-WAY TERMS AND CONDITIONS

Jemez Mountain Electric Cooperative (GRANTEE) **[NGSWP Reach 26.2]**

1. The term of the right-of-way shall be for twenty (20) years, beginning on the date the right-of-way is granted by the Secretary of Interior.
2. Consideration for the right-of-way is assessed at \$2,736.00 and shall be paid in full to the Controller of the Navajo Nation, in lawful money of the United States, and a copy of the receipt for such payment provided to the Navajo Nation Minerals Department, or its successor, within 10 days of approval of and consents to the grant of the right-of-way by the Navajo Nation.

Consideration for the grant of the right-of-way is hereby waived.

☐ NO ☐ YES

If consideration has been waived, then the Navajo Nation contributes the amount listed above to the project because the project serves a public purpose and will benefit Navajo residents.

3. The Grantee may develop, use and occupy the right-of-way for the purpose(s) of constructing, maintaining and operating a single phase 14.4kV power line. The Grantee may not develop, use or occupy the right-of-way for any other purpose, nor allow others to use or occupy the right-of-way for any other purpose, without the prior written approval of the Navajo Nation and the Secretary of the Interior. The approval of the Navajo Nation may be granted, granted upon conditions or withheld in the sole discretion of the Navajo Nation. The Grantee may not develop, use or occupy the right-of-way for any unlawful purpose.
4. In all activities conducted by the Grantee within the Navajo Nation, the Grantee shall abide by all laws and regulations of the Navajo Nation and of the United States, now in force and effect or as hereafter may come into force and effect, including but not limited to the following:
 - a. Title 25, Code of Federal Regulations, Part 169; subject to the terms of this right-of-way.
 - b. All applicable federal and Navajo Nation antiquities laws and regulations, with the following additional condition: In the event of a discovery all operations in the immediate vicinity of the discovery must cease and the Navajo Nation Historic Preservation Department must be notified immediately. As used herein, "discovery" means any previously unidentified or incorrectly identified cultural resources, including but not limited to archaeological deposits, human remains, or location reportedly associated with Native American religious/traditional beliefs or practices;
 - c. The Navajo Preference in Employment Act, 15 N.N.C. §§ 601 et seq., and the Navajo Nation Business Opportunity Act, 5 N.N.C. §§ 201 et seq.; and
 - d. The Navajo Nation Water Code, 22 N.N.C. § 1101 et seq.. Grantee shall apply for and submit all applicable permits and information to the Navajo Nation Water Resources Department, or its successor.
5. The Grantee shall ensure that the air quality of the Navajo Nation is not jeopardized due to violation of applicable laws and regulations by its operations pursuant to the right-of-way.

6. The Grantee shall clear and keep clear the lands within the right-of-way to the extent compatible with the purpose of the right-of-way, and shall dispose of all vegetation and other materials cut, uprooted or otherwise accumulated during any surface disturbance activities.
7. The Grantee shall reclaim all surface lands disturbed related to the right-of-way, as outlined in a restoration and revegetation plan, which shall be approved by the Navajo Nation Environmental Protection Agency (NNEPA) prior to any surface disturbance. The Grantee shall comply with all provisions of such restoration and revegetation plan and shall notify the Director of the NNEPA immediately upon completion of the surface disturbance activities so that a site inspection can be made.
8. The Grantee shall at all times during the term of the right-of-way and at the Grantee's sole cost and expense, maintain the land subject to the right-of-way and all improvements located thereon and make all necessary and reasonable repairs.
9. The Grantee shall obtain prior written permission to cross existing rights-of-way, if any, from the appropriate parties.
10. The Grantee shall be responsible for and promptly pay all damages when they are sustained.
11. The Grantee shall indemnify and hold harmless the Navajo Nation and the Secretary of the Interior and their respective authorized agents, employees, landusers and occupants, against any liability for loss of life, personal injury and property damages arising from the development, use or occupancy or use of right-of-way by the Grantee.
12. The Grantee shall not assign, convey, transfer or sublet, in any manner whatsoever, the right-of-way or any interest therein, or in or to any of the improvements on the land subject to the right-of-way, without the prior written consent of the Navajo Nation and the Secretary of the Interior. Any such attempted assignment, conveyance or transfer without such prior written consent shall be void and of no effect. The consent of the Navajo Nation may be granted, granted upon conditions or withheld in the sole discretion of the Navajo Nation.
13. The Navajo Nation may terminate the right-of-way for violation of any of the terms and conditions stated herein. In addition, the right-of-way shall be terminable in whole or part by the Navajo Nation for any of the following causes:
 - a. Failure to comply with any term or condition of the grant or of applicable laws or regulations;
 - b. A non-use of the right-of-way for the purpose for which it is granted for a consecutive two year period; and
 - c. The use of the land subject to the right-of-way for any purpose inconsistent with the purpose for which the right-of-way is granted.
 - d. An abandonment of the right-of-way.
14. At the termination of this right-of-way, the Grantee shall peaceably and without legal process deliver up the possession of the premises, in good condition, usual wear and tear excepted. Upon the written request of the Navajo Nation, the Grantee shall provide the Navajo Nation, at the Grantee's sole cost and expense, with a phase 1 environmental site assessment of the premises at least sixty (60) days prior to delivery of said premises.
15. Holding over by the Grantee after the termination of the right-of-way shall not constitute a renewal or extension thereof or give the Grantee any rights hereunder or in or to the land subject to the right-of-way or to any improvements located thereon.

16. The Navajo Nation and the Secretary of the Interior shall have the right, at any reasonable time during the term of the right-of-way, to enter upon the premises, or any part thereof, to inspect the same and any improvements located thereon.
17. By acceptance of the grant of right-of-way, the Grantee consents to the full territorial legislative, executive and judicial jurisdiction of the Navajo Nation, including but not limited to the jurisdiction of the Navajo Nation, including but not limited to the jurisdiction to levy fines and to enter judgments for compensatory and punitive damages and injunctive relief, in connection with all activities conducted by the Grantee within the Navajo Nation or which have a proximate (legal) effect on persons or property within the Navajo Nation.
18. By acceptance of the grant of right-of-way, the Grantee covenants and agrees never to contest or challenge the legislative, executive or judicial jurisdiction of the Navajo Nation on the basis that such jurisdiction is inconsistent with the status of the Navajo Nation as an Indian nation, or that the Navajo Nation government is not a government of general jurisdiction, or that the Navajo Nation government does not possess full police power (i.e., the power to legislate and regulate for the general health and welfare) over all lands, persons and activities within its territorial boundaries, or on any other basis not generally applicable to a similar challenge to the jurisdiction of a state government. Nothing contained in this provision shall be construed to negate or impair federal responsibilities with respect to the land subject to the right-of-way or to the Navajo Nation.
19. Any action or proceeding brought by the Grantee against the Navajo Nation in connection with or arising out of the terms and conditions of the right-of-way shall be brought only in the Courts of the Navajo Nation, and no such action or proceeding shall be brought by the Grantee against the Navajo Nation in any court of any state.
20. Nothing contained herein shall be interpreted as constituting a waiver, express or implied, of the sovereign immunity of the Navajo Nation.
21. Except as prohibited by applicable federal law, the law of the Navajo Nation shall govern the construction, performance and enforcement of the terms and conditions contained herein.
22. The terms and conditions contained herein shall extend to and be binding upon the successors, heirs, assigns, executors, administrators, employees and agents, including all contractors and subcontractors, of the Grantee, and the term "Grantee," whenever used herein, shall be deemed to include all such successors, heirs, assigns, executors, administrators, employees and agents.
23. There is expressly reserved to the Navajo Nation full territorial legislative, executive and judicial jurisdiction over the right-of-way and all lands burdened by the right-of-way, including without limitation over all persons, including the public, and all activities conducted or otherwise occurring within the right-of-way; and the right-of-way and all lands burdened by the right-of-way shall be and forever remain Navajo Indian Country for purposes of Navajo Nation jurisdiction.
24. The Navajo Nation reserves the right to grant rights-of-way within the right-of-way referenced herein for utilities, provided that such rights-of-ways do not unreasonably interfere with the Grantee's use of the right-of-way.



EXHIBIT "E"

NAVAJO NATION TEMPORARY CONSTRUCTION EASEMENT TERMS AND CONDITIONS

Jemez Mountain Electric Cooperative (GRANTEE)

1. The term of the temporary construction easement (TCE) shall be for six (6) months, beginning on the date the TCE is granted by the Secretary of Interior.
2. Consideration for the TCE is assessed at \$100.00.

This amount shall be paid within ten (10) days of the approval of the right-of-way by the Navajo Nation.

3. The Grantee may develop, use and occupy the TCE for the purpose(s) of constructing, maintaining and operating a single phase 14.4kV power line. The Grantee may not develop, use or occupy the TCE for any other purpose, nor allow others to use or occupy the TCE for any other purpose, without the prior written approval of the Navajo Nation and the Secretary of the Interior. The approval of the Navajo Nation may be granted, granted upon conditions or withheld in the sole discretion of the Navajo Nation. The Grantee may not develop, use or occupy the TCE for any unlawful purpose.
4. In all activities conducted by the Grantee within the Navajo Nation, the Grantee shall abide by all laws and regulations of the Navajo Nation and of the United States, now in force and effect or as hereafter may come into force and effect, including but not limited to the following:
 - a. Title 25, Code of Federal Regulations, Part 169;
 - b. All applicable federal and Navajo Nation antiquities laws and regulations, with the following additional condition: In the event of a discovery all operations in the immediate vicinity of the discovery must cease and the Navajo Nation Historic Preservation Department must be notified immediately. As used herein, "discovery" means any previously unidentified or incorrectly identified cultural resources, including but not limited to archaeological deposits, human remains, or location reportedly associated with Native American religious/traditional beliefs or practices;
 - c. The Navajo Preference in Employment Act, 15 N.N.C. §§ 601 et seq., and the Navajo Nation Business Opportunity Act, 5 N.N.C. §§ 201 et seq.; and
 - d. The Navajo Nation Water Code, 22 N.N.C. § 1101 et seq. Grantee shall apply for and submit all applicable permits and information to the Navajo Nation Water Resources Department, or its successor.
5. The Grantee shall ensure that the air quality of the Navajo Nation is not jeopardized due to violation of applicable laws and regulations by its operations pursuant to the TCE.
6. The Grantee shall clear and keep clear the lands within the TCE to the extent compatible with the purpose of the TCE, and shall dispose of all vegetation and other materials cut, uprooted or otherwise accumulated during any surface disturbance activities.
7. The Grantee shall reclaim all surface lands disturbed related to the TCE, as outlined in a restoration and revegetation plan, which shall be approved by the Navajo Nation Environmental Protection Agency (NNEPA) prior to any surface disturbance. The Grantee shall comply with all provisions of such

restoration and revegetation plan and shall notify the Director of the NNEPA immediately upon completion of the surface disturbance activities so that a site inspection can be made.

8. The Grantee shall at all times during the term of the TCE and at the Grantee's sole cost and expense, maintain the land subject to the TCE and all improvements located thereon and make all necessary and reasonable repairs.
9. The Grantee shall obtain prior written permission to cross existing TCEs, if any, from the appropriate parties.
10. The Grantee shall be responsible for and promptly pay all damages when they are sustained.
11. The Grantee shall indemnify and hold harmless the Navajo Nation and the Secretary of the Interior and their respective authorized agents, employees, landusers and occupants, against any liability for loss of life, personal injury and property damages arising from the development, use or occupancy or use of TCE by the Grantee.
12. The Grantee shall not assign, convey, transfer or sublet, in any manner whatsoever, the TCE or any interest therein, or in or to any of the improvements on the land subject to TCE, without the prior written consent of the Navajo Nation and the Secretary of the Interior. Any such attempted assignment, conveyance or transfer without such prior written consent shall be void and of no effect. The consent of the Navajo Nation may be granted, granted upon conditions or withheld in the sole discretion of the Navajo Nation.
13. The Navajo Nation may terminate the TCE for violation of any of the terms and conditions stated herein. In addition, the TCE shall be terminable in whole or part by the Navajo Nation for any of the following causes:
 - a. Failure to comply with any term or condition of the grant or of applicable laws or regulations;
 - b. A non-use of the TCE for the purpose for which it is granted for a consecutive two year period; and
 - c. The use of the land subject to the TCE for any purpose inconsistent with the purpose for which the TCE is granted.
 - d. An abandonment of the TCE.
14. At the termination of this TCE, the Grantee shall peaceably and without legal process deliver up the possession of the premises, in good condition, usual wear and tear excepted. Upon the written request of the Navajo Nation, the Grantee shall provide the Navajo Nation, at the Grantee's sole cost and expense, with an environmental audit assessment of the premises at least sixty (60) days prior to delivery of said premises.
15. Holding over by the Grantee after the termination of the TCE shall not constitute a renewal or extension thereof or give the Grantee any rights hereunder or in or to the land subject to the TCE or to any improvements located thereon.
16. The Navajo Nation and the Secretary of the Interior shall have the right, at any reasonable time during the term of the TCE, to enter upon the premises, or any part thereof, to inspect the same and any improvements located thereon.

17. By acceptance of the grant of TCE, the Grantee consents to the full territorial legislative, executive and judicial jurisdiction of the Navajo Nation, including but not limited to the jurisdiction of the Navajo Nation, including but not limited to the jurisdiction to levy fines and to enter judgments for compensatory and punitive damages and injunctive relief, in connection with all activities conducted by the Grantee within the Navajo Nation or which have a proximate (legal) effect on persons or property within the Navajo Nation.
18. By acceptance of the grant of TCE, the Grantee covenants and agrees never to contest or challenge the legislative, executive or judicial jurisdiction of the Navajo Nation on the basis that such jurisdiction is inconsistent with the status of the Navajo Nation as an Indian nation, or that the Navajo Nation government is not a government of general jurisdiction, or that the Navajo Nation government does not possess full police power (i.e., the power to legislate and regulate for the general health and welfare) over all lands, persons and activities within its territorial boundaries, or on any other basis not generally applicable to a similar challenge to the jurisdiction of a state government. Nothing contained in this provision shall be construed to negate or impair federal responsibilities with respect to the land subject to the TCE or to the Navajo Nation.
19. Any action or proceeding brought by the Grantee against the Navajo Nation in connection with or arising out of the terms and conditions of the TCE shall be brought only in the Courts of the Navajo Nation, and no such action or proceeding shall be brought by the Grantee against the Navajo Nation in any court of any state.
20. Nothing contained herein shall be interpreted as constituting a waiver, express or implied, of the sovereign immunity of the Navajo Nation.
21. Except as prohibited by applicable federal law, the law of the Navajo Nation shall govern the construction, performance and enforcement of the terms and conditions contained herein.
22. The terms and conditions contained herein shall extend to and be binding upon the successors, heirs, assigns, executors, administrators, employees and agents, including all contractors and subcontractors, of the Grantee, and the term "Grantee," whenever used herein, shall be deemed to include all such successors, heirs, assigns, executors, administrators, employees and agents.
23. There is expressly reserved to the Navajo Nation full territorial legislative, executive and judicial jurisdiction over the TCE and all lands burdened by the TCE, including without limitation over all persons, including the public, and all activities conducted or otherwise occurring within the TCE; and the TCE and all lands burdened by the TCE shall be and forever remain Navajo Indian Country for purposes of Navajo Nation jurisdiction.
24. The Navajo Nation reserves the right to grant temporary construction easement within the temporary construction easement referenced herein for utilities, provided that such temporary construction easement do not interfere with the Grantee's use of the temporary construction easement.

Navajo Nation, Counselor Chapter House

P.O. Box # 209, Counselor, New Mexico, 87018
Phone: (505) 568-4311 Fax: (505) 568-4311Jameel Sage, Chapter President
Harry Domingo Sr., Vice President
Laura C. Lopez, Secretary/TreasurerHarry J. Willetts, Council Delegate
Gloria C. Lee, Community Service Coordinator
Martha A. Aragon, Office SpecialistRESOLUTION OF THE COUNSELOR CHAPTER
COUN# 2006-03-005SUPPORTING THE CUTTER LATERAL AND EASTERN CHAPTERS WATER
REGIONALIZATION PROJECT.

WHEREAS:

1. The Counselor Chapter is a certified Chapter of the Navajo Nation Government by Resolution No. CAP-34-98, Local Governance Act, 26 NNC (1), subsection 3(A); and
2. Counselor Chapter recognizes that the Eastern Navajo Chapters: Huerfano, Counselor, Ojo Encino, Torreon, Pueblo Pintado and Whitehorse Lake face immediate water emergencies due to dropping wells, poor water quality and/or lack of capacity to serve many needy families; and
3. Counselor Chapter recognizes that these chapters also face a long-term water crisis due to inadequate aquifer recharge, well draw-down and sole-reliance on groundwater; and
4. Counselor Chapter recognizes the lack of sustainable water supply endangers the public health and safety and economic livelihood of the community members; and
5. Counselor Chapter recognizes many community members are not connected to safe drinking water and basic sanitation services; and
6. Counselor Chapter recognizes the lack of water supply capacity may jeopardize funding from Federal sources to connect these low-income residents to basic water and sanitation services; and
7. Counselor Chapter recognizes regionalization of the individual chapter water systems will improve water quality, provide capacity to serve poor and isolated families and improve water security for all the chapters in the short-term; and
8. Counselor Chapter recognizes the regionalization will facilitate bringing San Juan River water as a sustainable water solution to these chapters in the long-term; and
9. Counselor Chapter recognizes a regional system will allow for a strategic approach to fund and implement capital improvements that benefit all the chapters

COPY

NOW, THEREFORE BE IT RESOLVED THAT:

1. The Counselor Chapter finds that the only solution to both of these short-term and long-term problems are cooperation between the Chapters and regionalization of the water system.
2. The Counselor Chapter supports the proposed Cutter Lateral project, consisting of five (5) phases.
3. The Counselor Chapter respectfully requests the State of New Mexico, the USDA-Rural Utilities Services, the Indian Health Service, the Navajo Nation and other agencies' assistance to implement the Cutter Lateral project as quickly as possible.
4. The Counselor Chapter offers its support and assistance, as available, to implement this project to benefit chapter members.

CERTIFICATION

We hereby certify that the foregoing resolution was duly considered by the Counselor Chapter at a duly called meeting at Counselor Chapter, Navajo Nation, at which a quorum was present and the same was passed by a vote of 30 in favor, 0 opposed, and 0 abstained this 17 day of March, 2006.

Motion: Irene George

Second: Tully Butler

Samuel Sage
Samuel Sage, President

Harry Domingo Sr.
Harry Domingo, Sr. Vice President

Laura C. Lopez
Laura C. Lopez, Sec/Treasurer

Harry Wellito
Harry Wellito, Council Delegate

ss

COPY



**THE
NAVAJO
NATION**

OJO ENCINO CHAPTER
HCR 79, BOX 1500
CUBA, NEW MEXICO 87013
PHONE: (505) 731-2263 *** FAX: (505) 731-2263

PRESIDENT
JOE SHIRLEY, Jr.
VICE PRESIDENT
FRANK J. DAYISH, Jr.

RESOLUTION OF THE OJO ENCINO CHAPTER
RESOLUTION No. OJOE-06-03-IIIIE
MARCH 10, 2006

Whereas Ojo Encino Chapter is certified local government entity of the Navajo Nation charged with the responsibility to promote and protect the interest and general welfare of the community members pursuant to Title II, Section 4001 (a) of the Navajo Tribal Code; and

Whereas the Eastern Chapters of Huerfano, Nageezi, Counselor, Ojo Encino, Torreon, Pueblo Pintado and Whitehorse Lake face immediate water emergencies due to dropping wells, poor water quality and/or lack of capacity to serve many needy families; and

Whereas these Chapters also face a long-term water crisis due to inadequate aquifer recharge, well draw-down and sole-reliance on groundwater; and

Whereas the lack of sustainable water supply endangers the public health and safety and economic livelihood of the community members; and

Whereas many community members are not connected to safe drinking water and basic sanitation services; and

Whereas the lack of water supply capacity may jeopardize funding from Federal sources to connect these low-income residents to basic water and sanitation services; and

Whereas regionalization of the individual chapter water systems will improve water quality, provide capacity to serve poor and isolated families and improve water security for all the chapters in the short-term; and

Whereas regionalization will facilitate bringing San Juan River water as a sustainable water solution to these chapters in the long-term; and

Whereas a regional system will allow for a strategic approach to fund and implement capital improvements that benefit all the chapters;

Therefore be it resolved:

The Ojo Encino Chapter finds that the only solution to both these short-term and long-term problems is cooperation between the Chapters and regionalization of the water system; and

The Ojo Encino Chapter supports the proposed Cutter Lateral project, consisting of five (5) phases;

Page Two, Ojo Encino Chapter Resolution #06-03-III


The Ojo Encino Chapter respectfully requests the State of New Mexico, the USDA - Rural Utilities Service, the Indian Health Service, the Navajo Nation and other agencies' assistance to implement the Cutter Lateral project as quickly as possible; and

The Ojo Encino Chapter offers its support and assistance, as available, to implement this project to benefit chapter members.

CERTIFICATION

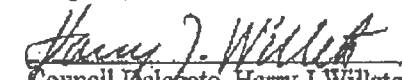
We hereby certify the foregoing resolution was duly considered and approved at the Ojo Encino Chapter meeting, Ojo Encino Navajo Nation, New Mexico, at which a quorum was present and that same was passed by a vote of 32 in favor, 0 opposed, and 2 abstained on this 10th day of March, 2006.

Motion: Tom Jim Sala Second: Elizabeth Stoney


Chapter President, Jeanette Vice


Chapter Secre./Treas., Patrick Werito


Chapter V-President, Roger Toledo


Council Delegate, Harry J Willet



THE NAVAJO NATION

TORREON/STAR LAKE CHAPTER

P.O. BOX 1024 * CUBA, NEW MEXICO 87013 * (505) 731-2336 - Fax# 505-731-1514

Dave B. Rico	LaVern Wagner	Joe L. Cayaditto, Jr.	Leo L. Charley	Evangeline Tachina	Sherwood Willetto	Wally Toledo	Alberta Ballard
Council Delegate	Council Delegate	President	Vice President	Secretary/Treasurer	Landboard	Coordinator	Office Specialist

RESOLUTION OF TORREON/STAR LAKE CHAPTER TSL 03/2006-059-

REQUESTING THE STATE OF NEW MEXICO, THE USDA - RURAL UTILITIES SERVICE, THE INDIAN HEALTH SERVICE, THE NAVAJO NATION AND OTHER AGENCIES' ASSISTANCE TO IMPLEMENT THE CUTTER LATERAL PROJECT AS QUICKLY AS POSSIBLE AND TO REQUEST ALL EASTERN CHAPTERS OF HUERFANO, NAGEEZI, COUNSELOR, OJO ENCINO, TORREON, PUEBLO PINTADO AND WHITEHORSE LAKE TO REGIONALIZE AND IMPROVE WATER QUALITY OF THE INDIVIDUAL CHAPTER WATER SYSTEM TO PROVIDE CAPACITY TO SERVE POOR AND ISOLATED FAMILIES AND IMPROVE WATER SECURITY FOR ALL EASTERN CHAPTER COMMUNITY IN THE LONG-TERM WATER CRISIS.

WHEREAS;

1. Torreon/Star Lake Chapter is certified local government entity of the Navajo Nation charged with the responsibility to promote and protect the interest and general welfare of the community members pursuant to Title II, Section 4001 (a) of the Navajo Tribal Code; and
2. The Eastern Chapters of Huerfano, Nageezi, Counselor, Ojo Encino, Torreon, Pueblo Pintado and Whitehorse Lake face immediate water emergencies due to dropping wells, poor water quality and/or lack of capacity to serve many needy families; and
3. Chapters also face a long-term water crisis due to inadequate aquifer recharge, well draw-down and sole-reliance on groundwater; and
4. The lack of sustainable water supply endangers the public health and safety and economic livelihood of the community members; and
5. Many community members are not connected to safe drinking water and basic sanitation services; and
6. Lack of water supply capacity may jeopardize funding from Federal sources to connect these low-income residents to basic water and sanitation services; and
7. Regionalization of the individual chapter water systems will improve water quality, provide capacity to serve poor and isolated families and improve water security for all chapters in the short-term; and
8. Regionalization will facilitate bringing San Juan River water as a sustainable water solution to these chapters in the long-term; and
9. Regional system will allow for a strategic approach to fund and implement capital improvements that benefit all the chapters; and

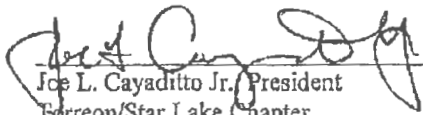
NOW THEREFORE BE IT RESOLVED THAT:


1. The Torreon/Star Lake Chapter finds that the best solution to both these short-term and long-term problems is cooperation between the Chapters and regionalization of the water system; and

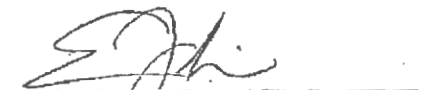
2. The Torreon/Star Lake Chapter supports the proposed Cutter Lateral project, consisting of five (5) phases;
3. The Torreon/Star Lake Chapter respectfully requests the State of New Mexico, the USDA - Rural Utilities Service, the Indian Health Service, the Navajo Nation and other agencies' assistance to implement the Cutter Lateral project as quickly as possible; and
4. The Torreon/Star Lake Chapter offers its support and assistance, as available, to implement this project to benefit chapter members.

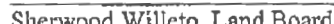
CERTIFICATION

We, hereby certify that the foregoing resolution was duly by the Torreon/Star Lake Chapter, Navajo Nation, New Mexico, at which a quorum was present and that the same was motioned by: Lita Cayaditto and seconded by: Mae Sandoval and adopted by a vote of 36 in favor, 0 opposed, this 23rd day of March, 2006.


Joe L. Cayaditto Jr., President
Torreon/Star Lake Chapter


Leo L. Charley, Vice President
Torreon/Star Lake Chapter


Evangeline Tachine, Secretary/Treasurer
Torreon/Star Lake Chapter


Sherwood Willetto, Land Board
Torreon/Star Lake Chapter

David Rico, Council Delegate
Laverne Wagner, Council Delegate
Frank Choe Willetto, President
Herbert Antonio, Vice-President
Rena Murphy, Secretary/Treasurer
Sammie Jim, Community Service Coordinator
Pauline Joe, Chapter Office Specialist

Joe Shirley, Jr., PRESIDENT



THE NAVAJO NATION
Pueblo Pintado Chapter-District #15
HCR 79 BOX 3076
Cuba, New Mexico 87013
(505) 655-1221
FAX (505) 655-3410

Frank Dayish, Jr., VICE-PRESIDENT

PPC-04-06-043

RESOLUTION OF
PUEBLO PINTADO CHAPTER
EASTERN NAVAJO AGENCY
DISTRICT #15

Supporting the Cutter Lateral and Eastern Chapters Water Regionalization Project.

WHEREAS:

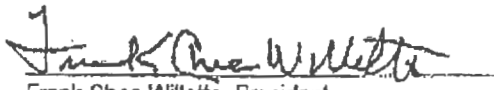
1. The Pueblo Pintado Chapter is a certified local government entity of the Navajo Nation charged with the responsibility to promote and protect the interest and general welfare of the community members pursuant to Title II, Section 4001 (a) of the Navajo Tribal Code; and
2. The Eastern Chapters of Huerfano, Nageezi, Counselor, Ojo Encino, Torreon, Pueblo Pintado and Whitehorse Lake face immediate water emergencies due to dropping wells, poor water quality and/or lack of capacity to serve many needy families; and
3. These Chapters also face a long-term water crisis due to inadequate aquifer recharge, well draw-down and sole-reliance on groundwater; and
4. The lack of sustainable water supply endangers the public health and safety and economic livelihood of the community members; and
5. Many Community members are not connected to safe drinking water and basic sanitation services; and
6. The lack of water supply capacity may jeopardize funding from Federal sources to connect these low-income residents to basic water and sanitation services; and
7. Regionalization of the individual chapter water system will improve water quality, provide capacity to serve poor and isolated families and improve water security for all the chapters in the short-term; and
8. Regionalization will facilitate bringing San Juan River water as a sustainable water solution to these chapters in the long-term; and
9. A regional system will allow for a strategic approach to fund and implement capital improvements that benefit all the chapters.


NOW, THEREFORE BE IT RESOLVED THAT:

1. The Pueblo Pintado Chapter finds that the only solution to both these short-term and long-term problems is cooperation between the Chapters and regionalization of the water system; and
2. The Pueblo Pintado Chapter supports the proposed Cutter Lateral project, consisting of five (5) phases; and
3. The Pueblo Pintado Chapter respectfully requests the State of New Mexico, the USDA - Rural Utilities Service, the Indian Health Service, the Navajo Nation and other agencies assistance to implement the Cutter Lateral project as quickly as possible; and
4. The Pueblo Pintado Chapter offers its support and assistance, as available, to implement this project to benefit chapter members.

CERTIFICATION

WE HEREBY CERTIFY THAT THE FOREGOING RESOLUTION was duly considered by the Pueblo Pintado Chapter at a duly called meeting at Pueblo Pintado, New Mexico (Navajo Nation) at which a quorum was present, Motioned by: Preston Sandoval, Seconded by: Annie Etcitty and passed by a vote of 28 in favor, 00 opposed and 00 abstained, this 9th day of April 2006.


Frank Chee Willetto, President
Pueblo Pintado Chapter


Herbert Antonio, Vice-President
Pueblo Pintado Chapter


Rena Murphy, Secretary/Treasurer
Pueblo Pintado Chapter

Whitehorse Lake Chapter
HCR 9 Box 4069
Cuba, New Mexico 87013
Phone: (505) 655-5430/5431
Fax : (505) 655-5432
Website:

Dave Rico, Council Delegate
Lavern Wagner, Council Delegate
Andrew Jim, President
Darren Hudson Vice-President
Janie B. Jim Sec./Treasurer
Howard Martinez, Land Board
Bobby Tsosie, Coordinator
Lena Calamity, Office Specialist

Joe Shirley, Jr. Navajo Nation President

Frank Dayish, Jr., Navajo Nation Vice-President

PROPOSED RESOLUTION OF WHITEHORSE LAKE CHAPTER
THE NAVAJO NATION

SUPPORTING THE CUTTER LATERAL AND EASTERN CHAPTERS WATER
REGIONALIZATIONAL PROJECT

WHEREAS:

1. The Whitehorse Lake Chapter is certified by the Navajo Nation Council as local governmental entity charged with the responsibility to protect and advocate for its membership; and
2. That these chapters also face a long-term water crisis due to inadequate aquifer recharge, well-draw down and sole-reliance on groundwater; and
3. That the lack of sustainable water supply endangers the public health and safety and economic livelihood of the community members; and
4. That many community members are not connected to safe drinking water and basic sanitation services; and
5. That the lack of water supply capacity may jeopardize funding from Federal sources to connect these low-income residents to basic water and sanitation services; and
6. That regionalization of the individual chapter water systems will improve water quality, provide capacity to serve poor and isolated families and improve water security for all the chapters in the short-term; and
7. That regionalization will facilitate bringing San Juan River water as a sustainable water solution to these chapters in the long-term; and

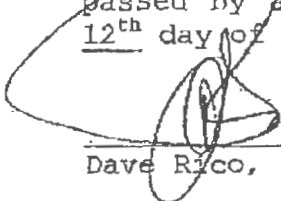
8. That a regional system will allow for a strategic approach to fund and implement capital improvement that benefit all the chapters.

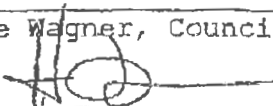
NOW THEREFORE BE IT RESOLVED THAT:

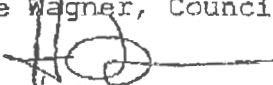
1. The Whitehorse Lake Chapter supports the proposed Cutter Lateral project, consisting of five (5) phases.
2. The Whitehorse Lake Chapter respectfully requests the State of New Mexico, the USDA-Rural Utilities Services, the Indian Health Service, the Navajo Nation and other agencies' assistance to implement the Cutter Lateral project as quickly as possible.
3. The Whitehorse Lake Chapter offers its support and assistance, as available, to implement this project to benefit chapter members.

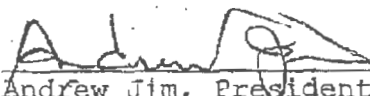
CERTIFICATION

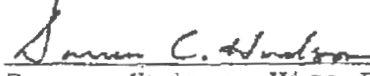
WE, hereby certify that the foregoing resolution was duly considered by the Whitehorse Lake Chapter at a duly called meeting, Whitehorse Lake, New Mexico, Navajo Nation, at which a quorum was present and that the same was motion by Chie Dmuth Jr. and second by Ruth Lewis and passed by a vote of 25 in favor, and 00 opposed, this 12th day of March, 2006.

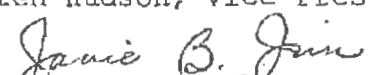

Dave Rico, Council Delegate


Laverne Wagner, Council Del.


Howard Martinez, Land Board


Andrew Jim, President


Darren Hudson, Vice-Pres.


Janie Jim, Sec. Treas.



Eastern Navajo Agency Council

P.O. Box 668 Crownpoint, New Mexico 87313

RESOLUTION OF THE EASTERN NAVAJO AGENCY COUNCIL SUPPORTING THE CUTTER LATERAL AND EASTERN NAVAJO WATER REGIONALIZATION PROJECT

Resolution No. ENAC-12/06-001

December 2, 2006

Dec 27 2006

WHEREAS:

1. The Eastern Navajo Agency Council is a consortium of duly elected representatives of thirty-one (31) Chapters of the Navajo Nation authorized to take certain actions with respect to the Eastern Navajo Agency Council and its residents; and

2. Numerous Navajo Chapters in Eastern Navajo Agency face immediate water emergencies due to dropping wells, poor water quality and/or lack of water supply capacity to service many needy families; and
3. These Chapters also face a long-term crisis due to inadequate aquifer recharge, well draw-down and sole-reliance on groundwater; and
4. The lack of sustainable water supply endangers the public health and safety and economic livelihood of the community members; and
5. Many community members are not connected to safe drinking water and basic sanitation services; and
6. The lack of water supply capacity may jeopardize funding from Federal sources to connect these low-income residents to basic water and sanitation services; and
7. Regionalization of the individual chapter water systems will improve water quality, provide capacity to serve poor and isolated families and improve water security for all the chapters in the short-term; and
8. Regionalization will facilitate bringing San Juan River water and/or relieve stress on local aquifers as a sustainable water solution to these chapters in the long-term; and

Johnny Johnson
President

Tommy McDonald
Vice-President

Dorothy Rogers
Secretary

Resolution ENAC-12/06-001

9. The San Juan River Settlement and Navajo Gallup Water Supply Project, including the Cutter Lateral, will allow for a strategic approach to fund and implement capital improvements that benefit all the chapters; and
10. The State of New Mexico has proposed funding initial phases of the Cutter Lateral in 2007, which serves as a first step to completing this project to benefit all Eastern Navajo Agency Chapters and the Navajo Nation as a whole.

NOW, THEREFORE, BE IT RESOLVED:

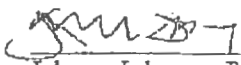
1. The Eastern Navajo Agency Council finds that the only solution to both these short-term and long-term problems is cooperation between the Chapters and regionalization of the water system.
2. The Eastern Navajo Agency Council supports the proposed Cutter Lateral project, consisting of five (5) or more phases, as the first step to implementation of the Navajo Gallup Water Supply Project and San Juan River Settlement.
3. The Eastern Navajo Agency Council respectfully requests the State of New Mexico, The USDA-Rural Utilities Services, and Indian Health Service, the Navajo Nation and other agencies' assistance to implement the Cutter Lateral project as quickly as possible.
4. The Easter Navajo Agency Council offers its support and assistance, as available, to implement this project to benefit members of all New Mexico Navajo Chapters.

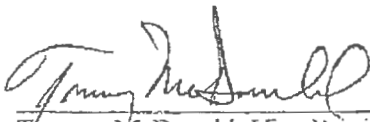
CERTIFICATION

WE HEREBY CERTIFY THAT THE FOREGOING RESOLUTION was duly considered and approved by a vote of 103 in favor, 02 opposed, 03 abstain, during the Eastern Navajo Agency Council Meeting on December 2, 2006, at Whitehorse Lake Chapter, New Mexico.

MOTION: Frank Chee Willetto

SECOND: McGarrett Pablo


Johnny Johnson, President


Tommy McDonald, Vice-President


Dorothy Rogers, Secretary



**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.: Navajo-Gallup Water Supply Reaches 26.1 and 26.2

DESCRIPTION: The USBR proposes 18.3 miles of waterline construction from the existing Ojo Encino North tank site to the new Pueblo Pintado tank site. The waterline would be 40 ft. of permanent right-of-way and an additional 60 ft. of temporary construction easement. The project would also include the construction of a 1,370-ft. power line with a 30-ft. wide ROW and a water tank with a 1.4 acre impact area and a 1,061-ft. drain. The total combined area of potential disturbance from the water line and associated infrastructure would be approximately 230.9 acres.

LOCATION: Counselor, Ojo Encino, & Pueblo Pintado Chapters, McKinley & Sandoval Counties, New Mexico

REPRESENTATIVE: Stephanie Lee, Ecosystem Management, Inc. (EMI) for Souder, Miller & Associates

ACTION AGENCY: U.S. Bureau of Reclamation, Bureau of Indian Affairs, and Navajo Nation

B.R. REPORT TITLE / DATE / PREPARER: BSR for NGWSP-Reaches 26.1 & 26.2/JUL 2014/Matthew E. Brooks

SIGNIFICANT BIOLOGICAL RESOURCES FOUND: Area 3. Suitable nesting habitat is present for Migratory Birds not listed under the NESL or ESA. Migratory Birds and their habitats are protected under the Migratory Bird Treaty Act (16 USC §703-712) and Executive Order 13186. Under the EO, all federal agencies are required to consider management impacts to protect migratory birds.

POTENTIAL IMPACTS

NESL SPECIES POTENTIALLY IMPACTED: NA

FEDERALLY-LISTED SPECIES AFFECTED: NA

OTHER SIGNIFICANT IMPACTS TO BIOLOGICAL RESOURCES: NA

AVOIDANCE / MITIGATION MEASURES: [1] Mitigation measures will be implemented to avoid impacts on species protected under the MBTA that could potentially nest within and adjacent to the proposed action area.

CONDITIONS OF COMPLIANCE*: NA

FORM PREPARED BY / DATE: Pamela A. Kyselka/17 JUL 2014

COPIES TO: (add categories as necessary)

☐ _____ ☐ _____

2 NTC § 164 Recommendation:

Signature

Date

☒ Approval

☐ Conditional Approval (with memo)

☐ Disapproval (with memo)

☐ Categorical Exclusion (with request letter)

☐ None (with memo)

Gleria M. Tom *7/17/14*
Gleria M. Tom, Director, Navajo Nation Department of Fish and Wildlife

***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.**

Representative's signature _____

Date _____



THE NAVAJO NATION

RUSSELL BEGAYE **PRESIDENT**
JONATHAN NEZ **VICE PRESIDENT**

EXHIBIT

H

tabbles



ENVIRONMENTAL PROTECTION AGENCY

OFFICE OF EXECUTIVE DIRECTOR/ADMINISTRATION

OFFICE OF ENVIRONMENTAL REVIEW


PO BOX 339 WINDOW ROCK ARIZONA 86515 Office: 928/871-7188 Fax: 928/871-7996

Website: www.navajonationepa.org

M E M O R A N D U M

TO: Howard Draper, Program & Project Specialist
Project Review Office
Navajo Land Department
Division of Natural Resources

FROM:


Rita Whitehorse-Larsen, Senior Environmental Specialist
Office of Executive Director/Administration
Office of Environmental Review
NNEPA

DATE: September 18, 2015

SUBJECT: 164 EOR 004075 Jemez Mountains Electric Cooperative Inc. (JMEC)
Right-of-Way (ROW) Navajo Gallup Water Supply Project (NGWSP)
Reach 26.2

The Navajo Nation Environmental Protection Agency (NNEPA) reviewed¹ and recommends **approval** for the proposed ROW to construct, operate and maintain the NGWSP Reach 26.2 aka Cutter Lateral single phase power line A Project and corresponding temporary construction easement within Pueblo Pintado, McKinley County, New Mexico. JMEC, PO Box 128, Espanola, New Mexico, 87532, submitted the proposed action. The project will consist of installing 420.20 feet long, 20 feet wide, single phase power line and disturbing 0.19 acres, more or less.

If the following recommendations from NNEPA are adhered to, the proposed project will not have a significant effect (direct, indirect, or cumulative) on the quality of the human environment considering the context and intensity of impacts.

1. Navajo Nation Clean Water Act:

- a. §Section 401 is required if any drainage with discernable ordinary high water mark will be crossed and/or disturbed.

¹ USBOR. Reclamation Managing Water in the West Environmental Assessment Reaches 26.1 and 26.2 of the Navajo-Gallup Water Supply Project. November 2014.

- 164 EOR 004075 JMEC NGWSP Reach 26 2 ROW Powerline
Page 2 of 3
09/18/2015

- a. JMEC will comply with the vegetative reclamation per Navajo Agriculture Department's recommended seed mix within the disturbed areas of the ROW corridors. Ms. Judy Willetto is the contact person for the vegetation seeding reclamation activities. She can be reached at 928/871-6592/6593.
- b. NNEPA recommends JMEC to backfill and re-contour the soil material as naturally as possible to lessen the impact to the natural drainages (i.e. redirecting the natural direction of the watershed, creating standing water, creating flooding to the existing roads, etc.) of the land.
- c. Avoid unnecessary ground disturbance and removal of vegetation within and adjacent to the ROW corridors.

If there are any questions, you may contact me at 928/871-7188. Thank you.

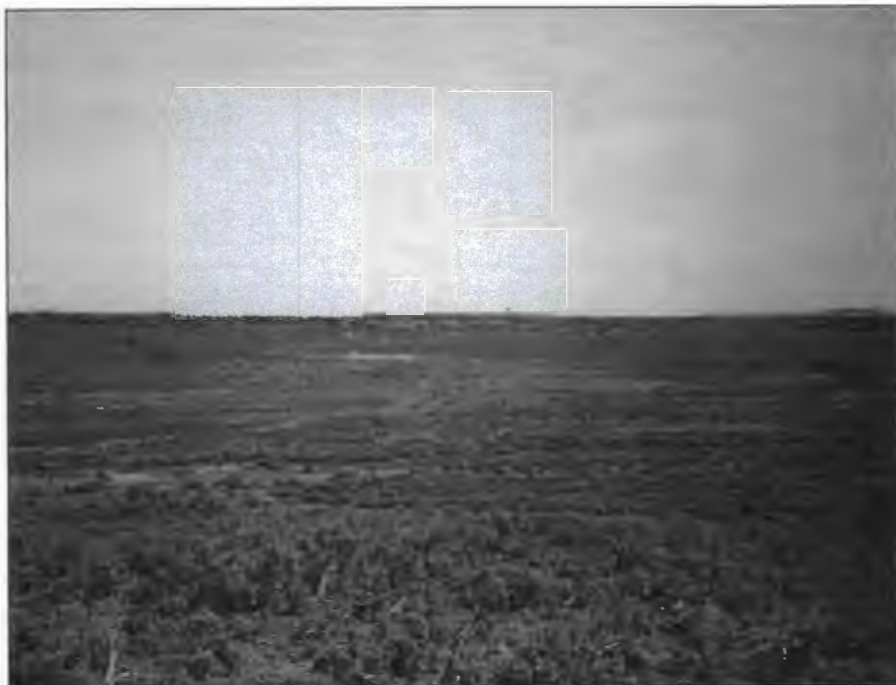
Cc: JMEC, PO Box 128, Espanola, New Mexico, 87532
NNEPA Water Quality; Operating Permit Program; STP; Administration chrono file
Contact Person: Sheri Compton, Manager of Engineering, JMEC, 505/264-1488; Andrew Robertson, Souder, Miller & Associates, 505/264-4188

RECLAMATION

Managing Water in the West

Environmental Assessment

Reaches 26.1 and 26.2 of the
Navajo-Gallup Water Supply Project



U.S. Department of the Interior
Bureau of Reclamation
Four Corners Construction Office
2200 Bloomfield Highway
Farmington, NM 87401
Phone: (505) 324-5001



U.S. Department of the Interior
Bureau of Land Management
Farmington District Office
6251 College Blvd.
Farmington, NM 87402
Phone: (505) 564-7600

November 2014

Mission Statements

The mission of the Department of the Interior is to protect and provide access to our Nation's natural and cultural heritage and honor our trust responsibilities to Indian Tribes and our commitments to island communities.

The mission of the Bureau of Land Management is to be responsible for the stewardship of our public lands. It is committed to manage, protect, and improve these lands in a manner to serve the needs of the American people for all times.

Management is based upon the principles of multiple use and sustained yield of our nation's resources within a framework of environmental responsibility and scientific technology. These resources include recreation, rangelands, timber, minerals, watershed, fish and wildlife, wilderness, air and scenic, scientific and cultural values.

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 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 Alaskan Natives.

LIST OF ACRONYMS

ACEC	Areas of Critical Environmental Concern
APE	Area of Potential Effect
BA	Biological Assessment
BGEPA	Bald and Golden Eagle Protection Act
BIA	Bureau of Indian Affairs
BLM	Bureau of Land Management
BMP	Best Management Practices
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CWA	Clean Water Act
DOT	Department of Transportation
EA	Environmental Assessment
EIS	Environmental Impact Statement
EMI	Ecosystem Management, Inc.
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FEIS	Final Environmental Impact Statement
FFO	Farmington Field Office
FLPMA	Federal Land Policy and Management Act
GHG	Greenhouse gases
HAP	Hazardous air pollutants
HUC	Hydrologic Unit Code
JAN	Jicarilla Apache Nation
JMEC	Jemez Mountains Electric Cooperative, Inc.
MBTA	Migratory Bird Treaty Act
MOU	Memorandum of Understanding
NAAQS	National Ambient Air Quality Standards
NATA	National Scale Air Toxics Assessments
NEPA	National Environmental Policy Act
NGWSP	Navajo–Gallup Water Supply Project
NHPD	Navajo Nation Historic Preservation Department
NM	New Mexico
NMAAQs	New Mexico Ambient Air Quality Standards
NNDFW	Navajo Nation Department of Fish and Wildlife

NPDES	National Pollution Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NTUA	Navajo Tribal Utility Authority
OM	Organic Matter
OSHA	Occupational Safety and Health Administration
PA	Programmatic Agreement
PLO	Public Land Order
PLS	Pure Live Seed
RMP	Resource Management Plan
RPFO	Rio Puerco Field Office
ROD	Record of Decision
ROW	Right-of-way
SAR	Sodium Absorption Ratio
SDA	Specially Designated Areas
SHPO	State Historic Preservation Office (New Mexico)
SMA	Souder, Miller and Associates
SMS	Special Management Species
SWPPP	Stormwater Pollution Prevention Plan
TCE	Temporary construction easement
TCP	Traditional Cultural Properties
THPO	Tribal Historic Preservation Officer (Navajo Nation)
USACE	U.S. Army Corps of Engineers
USBR	U.S. Bureau of Reclamation
USDA	U.S. Department of Agriculture
USDI	U.S. Department of the Interior
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
VRI	Visual Resources Inventory
VRM	Visual Resource Management

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1. PURPOSE AND NEED FOR ACTION

1.1. Background

The Navajo-Gallup Water Supply Project (NGWSP) is a planned regional water-supply system that would distribute San Juan River surface waters to the eastern section of the Navajo Nation, the city of Gallup, New Mexico, and the southwestern part of the Jicarilla Apache Nation (JAN). The Bureau of Reclamation (Reclamation) has developed the NGWSP to provide long-term municipal and industrial water to the Navajo Nation, the Jicarilla Apache Nation, and the city of Gallup, New Mexico. The NGWSP responds to the current underserved and ever increasing demand for water in these communities and addresses health and safety issues related to water quality. The existing groundwater supplies currently utilized by these communities are dwindling, are of poor quality, and have limited capacity (Reclamation 2009). More than 40 percent of Navajo households rely on water hauling to meet daily water needs (Reclamation 2009). 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 (Reclamation 2009). The Jicarilla Apache people are currently not able to live and work on the reservation outside of the town of Dulce, New Mexico, due to a lack of water supply (Reclamation 2009).

Reaches 26.1 and 26.2 are two segments of the NGWSP project totaling approximately 18.7 miles that would include water lines, distribution and regulation tanks, treatment facilities, and a power line. These reaches would transport potable water from the existing Ojo Encino North Tank to the existing Pueblo Pintado Tank in the Pueblo Pintado Chapter of the Navajo Nation.

The proposed Reaches 26.1 and 26.2 waterline alignment is located in McKinley and Sandoval County, New Mexico, as shown in Figure 1. The alignment would cross lands administered by the Navajo Nation, Bureau of Indian Affairs (BIA), and Bureau of Land Management (BLM; Figure 2). The general legal description of the proposed NGWSP Reaches 26.1 and 26.1 includes:

Reach 26.1

Portions of Sections 7 and 8 of Township 21 North, Range 5 West

Portions of Sections 12 and 13 of Township 21 North, Range 6 West

Reach 26.2

Portions of Sections 13, 23, 24, 26, 27, 28, 31, 32, and 33 of Township 21 North, Range 6 West

Portions of Section 6 of Township 20 North, Range 6 West

Portions of Sections 1, 2, 9, 10, 11, 16, 21, 28, 29, and 32 of Township 20 North, Range 7 West

Portions of Sections 5 and 6 of Township 19 North, Range 7 West

Reclamation prepared a Planning Report and Final Environmental Impact Statement for the greater NGWSP (FEIS-NGWSP; Reclamation 2009), and the Record of Decision (ROD) for that document signed by the Secretary of the Interior (Secretary) on October 1, 2009. Authorization to complete the NGWSP was included in the Omnibus Land Management Act of 2009, Title X, Part II (P.L. 11-11, March 30, 2009). The design, construction, operation and maintenance of the NGWSP as authorized by P.L. 111-11 are described in the preferred alternative in the FEIS-NGWSP. The FEIS-NGWSP is available for review at Reclamation's Western Colorado Area Office, Durango, Colorado, or on the World Wide Web at <http://www.usbr.gov/uc/envdocs/eis/navgallup/FEIS/index.html>. The site-specific analysis contained herein tiers to and incorporates by reference the information and analysis in the Reclamation FEIS-NGWSP.

1 This site-specific analysis also tiers into and incorporates by reference the information and analysis
2 contained in the BLM Farmington Proposed Resource Management Plan/Final Environmental Impact
3 Statement (FFO-FEIS) approved as per the September 29, 2003, ROD as the Farmington Resource
4 Management Plan (FFO-RMP) and updated in December 2003, pursuant to 40 Code of Federal
5 Regulations (CFR) 1508.28 and 1502.21 (USDI/BLM 2003). The document is available for review at the
6 BLM Farmington Field Office (FFO), Farmington, New Mexico on the World Wide Web at
7 http://www.blm.gov/nm/st/en/fo/Farmington_Field_Office/farmington_rmp.html. This environmental
8 assessment (EA) addresses the site-specific resources and effects of the Proposed Action that were not
9 specifically covered within the FFO-FEIS, as required by the National Environmental Policy Act of 1969
10 (NEPA), as amended (Public Law 91-90, 42 United States Code [USC] 4321 et. seq.).

11 **1.2. Purpose and Need for Action**

12 The purpose of the Proposed Action is to provide the proponent with access to BLM-managed lands and
13 Navajo Nation Tribal Trust, Indian allotment, and Public Land Order (PLO) 2198 lands managed by the
14 BIA Navajo Region for a right-of-way (ROW) for Reaches 26.1 and 26.2 of the Navajo Gallup Water
15 Supply Project. As authorized by Title V of the Federal Land Policy and Management Act (FLPMA) of
16 October 21, 1976 (43 USC 1761 et seq.) as amended, BLM will issue ROW grants for pipelines (other
17 than oil and gas pipelines) and other facilities and systems which are in the public interest. It is the policy
18 of the BLM to authorize all ROW applications at the discretion of the authorized office in the most efficient
19 and economical manner possible while protecting the natural environment and providing for public safety
20 (43 CFR 2800 and 2880). In addition, the BIA is to authorize all ROW applications that are within a
21 reservation for the purpose of constructing, operating, or maintaining water conduits (40 CFR 169).
22 Bureau of Reclamation is the lead project sponsor with BLM and BIA as cooperating agencies. The
23 Navajo Nation and Reclamation have entered a Financial Assistance Agreement, whereby Reclamation is
24 providing funding for the Navajo Nation to construct Reaches 26.1 and 26.2 of the NGWSP.

25 An approved ROW grant issued by BLM would authorize the Navajo Nation to construct Reaches 26.1
26 and 26.2, segments of the NGWSP. An approved ROW grant from BLM would further progress towards a
27 suitable, long-term water supply for a number of underserved communities in northwestern New Mexico.

28 An approved ROW grant issued by the BIA would authorize Navajo Nation to construct Reaches 26.1 and
29 26.2 segments on Navajo tribal trust, Indian allotment, and PLO 2198 lands. An approved ROW grant
30 from the BIA would further progress towards a suitable, long-term water supply for members of the
31 Navajo Nation. The proposed project would also facilitate self-governance and sovereignty goals of the
32 Navajo Nation.

33 **1.3. Conformance with Applicable Land Use Plan(s)**

34 The Proposed Action is in conformance with the September 2003 Farmington Resource Management
35 Plan with Record of Decision, as updated in December 2003 (BLM, 2003). The proposal is recognized as
36 an appropriate use of public lands in the FFO planning area Resource Management Plan. The proposed
37 action is in conformance with the Farmington RMP. Specifically the Proposed Action is in conformance
38 with the objective of the FFO lands program to grant ROWs to qualified businesses and government
39 entities for use of public lands (BLM 2003, pages 2-5 and 2-6). The Proposed Action also is in
40 conformance with the November 1986 Rio Puerco Resource Management Plan and ROD (BLM 1986).
41 The BLM has prepared a revised Draft Resource Management Plan (RMP) and Environmental Impact
42 Statement (EIS) to analyze and update BLM's management of public lands managed by the Rio Puerco
43 Field Office. The Proposed Action is in conformance with each of the action alternatives that are being
44 analyzed and could become the revised RMP. Special Designated Areas (SDAs) and Areas of Critical
45 Environmental Concern (ACECs) for the FFO were identified in the RMP/EIS under authority of the
46 FLPMA allowing for multiple use of lands administered by the BLM. The pipelines and other
47 improvements associated with Reaches 26.1, and 26.2 are not located within any SDAs or ACECs.

The Proposed Action is in compliance with the Land Use Plans for the Pueblo Pintado Chapter (ARC 2005). Providing more Chapter members with access to domestic water is a high priority in the Pueblo Pintado Chapter Land Use Plan.

1.4. Relationship to Statutes, Regulations or Other Plans

The Navajo Nation would comply with all applicable federal, tribal, and State of New Mexico laws and regulations. Non-point source pollution is an identified problem in the planning area that is directly associated with soil stability and water quality. Mandated by the Clean Water Act (CWA), efforts to reduce non-point source pollution through implementation of erosion control and management practices are an important part of BLM's management activities. Construction activities disturbing land may require permit coverage through implementation of erosion control and management practices are an important part of BLM's management activities. Construction activities disturbing land may require permit coverage through a National Pollution Discharge Elimination System (NPDES) storm-water discharge permit. Upon determination, a U.S. Army Corps of Engineers Section 404 CWA permit for discharge of dredge and fill materials in Waters of the U.S. may also be required. Applicants are required to obtain all the necessary permits and approvals prior to any disturbance activities.

Consultation with the U.S. Fish and Wildlife Service (USFWS) as required by Section 7 of the Endangered Species Act was conducted as part of the Farmington PRMP/FEIS (Consultation No. 2-22-01-1-389) to address cumulative effects of the RMP implementation. The consultation was summarized in Appendix M of the RMP/EIS. Formal consultation with the USFWS was also conducted as part of the NGWSP PR/FEIS (Consultation No. 2-22-01-F-532). The consultation is summarized in Appendix B of the PR/FEIS. Review of current USFWS federally listed species and onsite evaluation of habitat for the Proposed Action indicates no need for additional Section 7 consultation (Ecosystem Management, Inc. 2014).

The Navajo Tribal Utility Authority has filed a ROW application with the Farmington Field Office of the Bureau of Land Management (BLM FFO) for proposed construction of Reaches 26.1 and 26.2 of the NGWSP. Navajo Nation will apply for a ROW application with the BIA for proposed construction of Reaches 26.1 and 26.2 on Tribal Trust, Indian Allotment, and PLO lands. Jemez Mountains Electric Cooperative, Inc. (JMEC) will file a ROW application for the power lines with both BLM and BIA traversing BLM and Tribal Trust lands, respectively. BLM and BIA regulate ROW development so as to minimize environmental effects to public lands as required by numerous federal laws, including:

- The Endangered Species Act of 1973 (P.L. 94-325),
- The Migratory Bird Treaty Act of 1918 (MBTA), as amended (16 U.S.C. 703-712),
- The Bald Eagle and Golden Eagle Protection Act of 1940 (BGEPA), as amended (16 U.S.C. 668-668d)
- The Federal Water Pollution Control Act of 1948 (Clean Water Act), as amended (33 U.S.C. Chapter 26),
- The Clean Water Act of 1963, as amended (P.L. 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 (P.L. 52-209),
- The National Historic Preservation Act of 1966, as amended (P.L. 89-665),
- The Archaeological and Historic Preservation Act of 1974 (P.L. 86-253),
- The Archaeological Resources Protection Act of 1979, as amended (P.L. 96-95),

- The American Indian Religious Freedom Act of 1978, as amended (42 U.S.C. 1996), and
- The Native American Graves Protection and Repatriation Act of 1990 (P.L. 101-601).

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. A MOU was developed and entered into by the BLM and USFWS on April 12, 2010, to accomplish EO 13186 and to ensure the successful implementation of BLM and USFWS migratory bird conservation responsibilities. The MOU to *Promote the Conservation of Migratory Birds* presents collaborative methods to promote the conservation of migratory bird populations by identifying and implementing strategies which avoid or minimize adverse impacts to migratory birds. The BLM and USFWS have agreed that implementation of the MOU will be in harmony with existing agency missions, and the MOU does not supersede any legal requirements or existing species conservation processes and procedures such as ESA recovery plans. Reclamation does not have an MOU in place with the USFWS for management of migratory birds; a MBTA Directives and Management document is in draft form only. Reclamation analyzes and documents effects to migratory birds during the NEPA process and avoids or mitigates those effects to the maximum extent feasible.

The MOU to *Promote the Conservation of Migratory Birds* entered into by the BLM and the USFWS was not completed during the development of the revised FFO RMP. Consultation on the Biological Assessment (BA) with the USFWS for the RMP was completed on October 2002, the EIS was completed in March 2003, and the ROD for the RMP was signed in September of 2003. There are no management constraints or mitigation measures pertaining to the MBTA listed within the RMP, BA, EIS, or ROD. Revision and/or adoption of some elements of the MOU into the RMP may be required. Currently, effects to migratory birds are addressed and mitigated at the project level as outlined in the Migratory Bird Treaty Act BLM/FFO Interim Management Policy (Instruction Memorandum No. NM-F00-2010-001, USDI/BLM 2010).

Until further guidance related to the MOU is issued, the BLM will continue to analyze impacts to migratory birds in NEPA documents, list the MBTA as a law the owner of any BLM permit must comply with, and utilize the best management practices and mitigation measures that minimize impacts to migratory birds as outlined in Instruction Memorandum No. NM-F00-2010-001.

The BIA works with the Navajo Nation Department of Fish and Wildlife through a Public Law 93-638 contract to regulate ROW development on the Navajo Nation to minimize environmental effects to the biological resources on the Navajo Nation as required by Navajo Nation laws and procedures including:

- Navajo Endangered Species Act
- Resource Land Clearance Policies and Procedures
- Bald and Golden Eagle Protection Act

As the lead agency for the entire NGWSP, Reclamation has developed a Programmatic Agreement for compliance with the National Historic Preservation Act between the project participants. Reclamation, 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 (ACHP) 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. Proposed Action compliance with Section 106 responsibilities of the National Historic Preservation Act will be adhered to by following the Programmatic Agreement for the entire NGWSP.

- The American Indian Religious Freedom Act of 1978, as amended (42 U.S.C. 1996), and
- The Native American Graves Protection and Repatriation Act of 1990 (P.L. 101-601).

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. A MOU was developed and entered into by the BLM and USFWS on April 12, 2010, to accomplish EO 13186 and to ensure the successful implementation of BLM and USFWS migratory bird conservation responsibilities. The MOU to *Promote the Conservation of Migratory Birds* presents collaborative methods to promote the conservation of migratory bird populations by identifying and implementing strategies which avoid or minimize adverse impacts to migratory birds. The BLM and USFWS have agreed that implementation of the MOU will be in harmony with existing agency missions, and the MOU does not supersede any legal requirements or existing species conservation processes and procedures such as ESA recovery plans. Reclamation does not have an MOU in place with the USFWS for management of migratory birds; a MBTA Directives and Management document is in draft form only. Reclamation analyzes and documents effects to migratory birds during the NEPA process and avoids or mitigates those effects to the maximum extent feasible.

The MOU to *Promote the Conservation of Migratory Birds* entered into by the BLM and the USFWS was not completed during the development of the revised FFO RMP. Consultation on the Biological Assessment (BA) with the USFWS for the RMP was completed on October 2002, the EIS was completed in March 2003, and the ROD for the RMP was signed in September of 2003. There are no management constraints or mitigation measures pertaining to the MBTA listed within the RMP, BA, EIS, or ROD. Revision and/or adoption of some elements of the MOU into the RMP may be required. Currently, effects to migratory birds are addressed and mitigated at the project level as outlined in the Migratory Bird Treaty Act BLM/FFO Interim Management Policy (Instruction Memorandum No. NM-F00-2010-001, USDI/BLM 2010).

Until further guidance related to the MOU is issued, the BLM will continue to analyze impacts to migratory birds in NEPA documents, list the MBTA as a law the owner of any BLM permit must comply with, and utilize the best management practices and mitigation measures that minimize impacts to migratory birds as outlined in Instruction Memorandum No. NM-F00-2010-001.

The BIA works with the Navajo Nation Department of Fish and Wildlife through a Public Law 93-638 contract to regulate ROW development on the Navajo Nation to minimize environmental effects to the biological resources on the Navajo Nation as required by Navajo Nation laws and procedures including:

- Navajo Endangered Species Act
- Resource Land Clearance Policies and Procedures
- Bald and Golden Eagle Protection Act

As the lead agency for the entire NGWSP, Reclamation has developed a Programmatic Agreement for compliance with the National Historic Preservation Act between the project participants. Reclamation, 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 (ACHP) 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. Proposed Action compliance with Section 106 responsibilities of the National Historic Preservation Act will be adhered to by following the Programmatic Agreement for the entire NGWSP.

1 Additionally, the ROW Grant Holder, or their designated agents, shall:

- 2 • Comply with all applicable federal, State of New Mexico, Navajo Nation, and local laws and
3 regulations.
- 4 • Obtain the necessary permits for the construction of Reaches 26.1 and 26.2 including water rights
5 appropriations, water discharge permits, and relevant air quality permits.
- 6 • Certify that a Surface Use Agreement has been reached with private landowners where required.
- 7 • Obtain permission to survey and written consent from the Navajo Nation prior to BIA approval.

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

12 1.4.5. Scoping and Public Involvement

13 Reclamation conducted extensive public involvement, scoping, and formal comment opportunity in the
14 preparation of the EIS for the Navajo–Gallup Water Supply Project. Chapter 7 of the PR/FEIS describes
15 five public scoping meetings held specifically for the project and its consultation with state and federal
16 agencies, tribal governments, local governments, and interested organizations. Volume 3 of the EIS
17 provides all comments and responses on the draft EIS. In brief, the EIS identifies social issues
18 surrounding the need for a stable water supply, the uses of the water, and water rights. In addition,
19 previous scoping identified protection of special status species and cultural resources as issues for the
20 project. Consultation with the Navajo Nation and BLM supported the conclusions from previous scoping
21 and identified no new information not previously considered in the PR/FEIS.

22 Since 2006, Souder Miller and Associates has facilitated meetings with chapter officials, Navajo Nation
23 Council delegates, Jicarilla Apache Nation officials, other government officials, and residents of ten area
24 chapters, including Whitehorse Lake, Ojo Encino, Pueblo Pintado, and Torreon Chapters, which would be
25 provided water by the proposed waterline alignment. The meetings are typically held every 2–3 months,
26 and rotate between the different chapter houses. To date, approximately 31 such meetings have been
27 held. These meetings are typically scheduled 1–2 months in advance and are publicized at each of the
28 chapters' public chapter meetings and bulletin boards. All major problems and decisions regarding project
29 planning, design, ROW acquisition, and construction are discussed in these public forums.

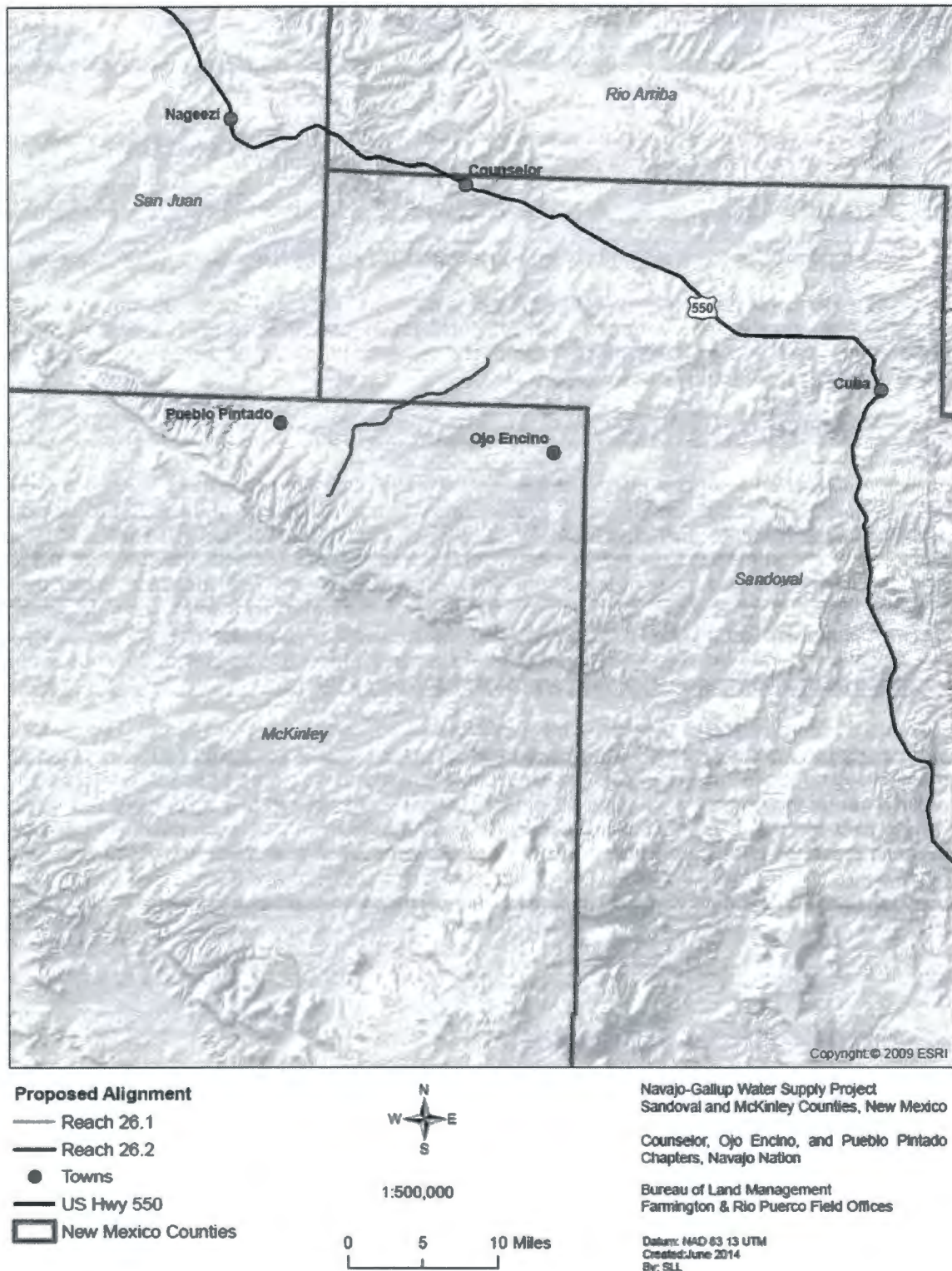


Figure 1. Vicinity map showing the proposed project location in McKinley and Sandoval Counties.

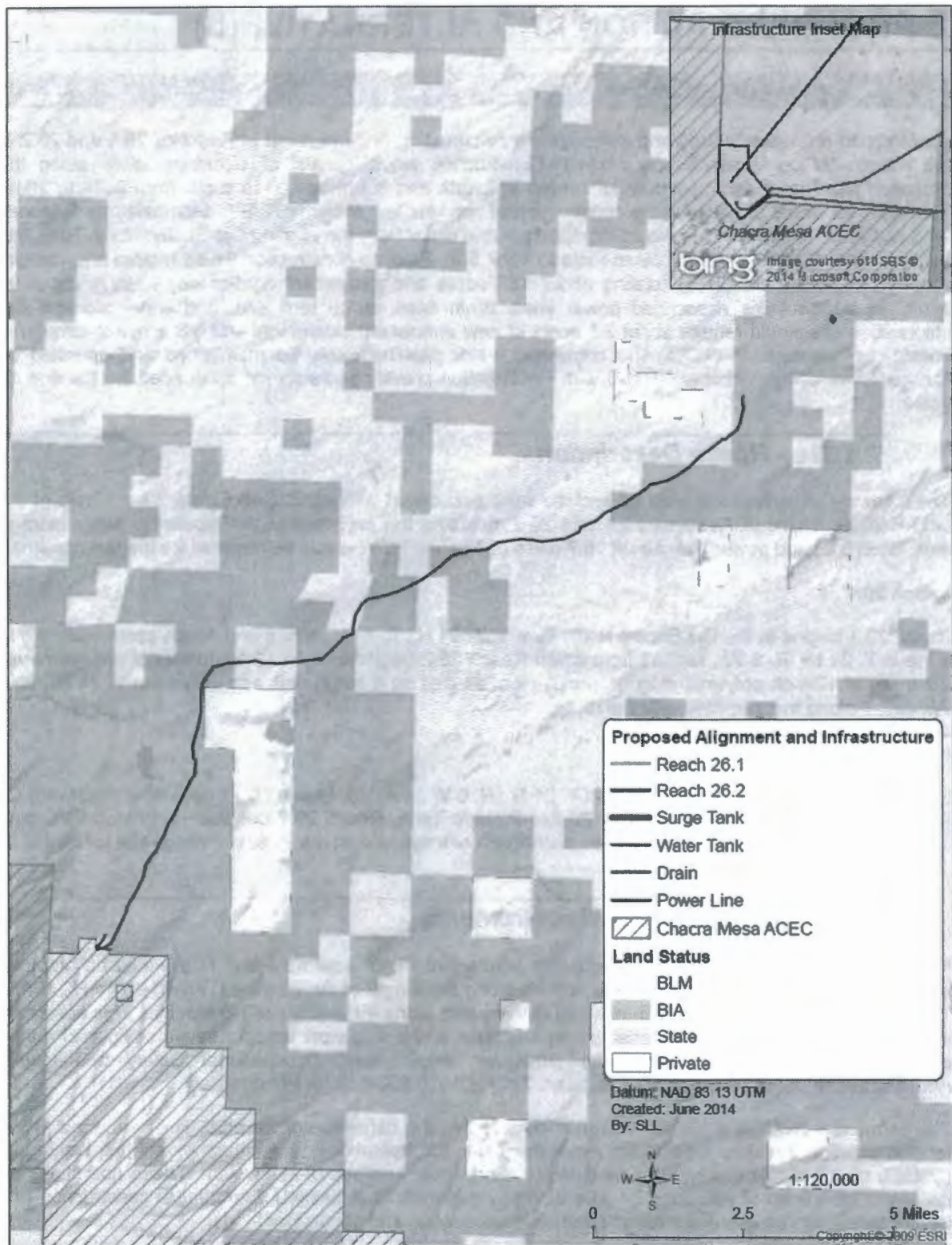


Figure 2. Locations of proposed alignment and associated infrastructure.

2. PROPOSED ACTION AND ALTERNATIVE(S)

2.1. Proposed Action

Reclamation proposes to fund and authorize the construction and operation of Reaches 26.1 and 26.2 of the Navajo–Gallup Water Supply Project. Construction would consist of disturbing lands along the proposed pipeline of approximately 18.7 miles in length and is anticipated to occur from 2014 to 2017. The approval would provide for the construction of two reaches of the NGWSP, designated as Reaches 26.1 and 26.2. These reaches would transport potable water from the existing Ojo Encino North Tank Site southwestward to the existing Pueblo Pintado Tank Site. Pipeline construction would require a temporary construction easement (TCE) totaling about 137 acres and permanent right-of-way totaling about 96 acres. In addition, the associated power lines, drain lines, surge tank site, and water storage and chlorination site would require about 3.5 acres of new permanent easements and 0.8 acres of temporary construction easements (TCE). The completed water pipeline would be maintained and operated by Navajo Tribal Utility Authority (NTUA) with Reclamation providing assistance as needed for the first 10 years.

2.1.1. Reach Description

The following describes the reaches and the work associated with each. See Figure 2 for a map of the proposed alignment of Reaches 26.1 and 26.2 including the proposed water pipelines, water storage tank, drain line, and power line. About 18.7 miles of pipeline ROW would be required for the two reaches.

Reach 26.1

Reach 26.1 begins at the Ojo Encino North Tank in T. 21 N., R. 5 W., sec. 8 and heads southwestward to a tee in T. 21 N., R. 6 W., sec. 13 from which Reach 26.2 begins. Reach 26.1 consists of approximately 2.7 miles of 12-inch polyvinyl chloride (PVC) pipe, as well as a surge tank site located in T. 21 N., R. 5 W., sec. 7 along the proposed pipeline route.

Reach 26.2

From the tee at the end of Reach 26.1 in T. 21 N., R. 6 W., sec. 13, Reach 26.2 heads southwestward for approximately 16 miles to the existing Pueblo Pintado Tank. Reach 26.2 consists of 10-inch PVC pipe and also includes an additional proposed distribution storage tank at the Pueblo Pintado site located in T. 19 N., R. 7 W., sec. 6.

2.1.2. Right-of-Way Requirements

For safe and efficient pipeline construction, a permanent ROW easement and TCE would be obtained from various public, tribal and non-tribal entities along the length of the pipeline (Table 1). The ROW and TCE for this project together would total 100 feet in width along the entirety of the pipeline. This easement allows space for spoilage, fill material, stockpiling pipe, and a safe work area for heavy equipment during construction. During construction, the contractor would meet Occupational Safety and Health Administration (OSHA) requirements, subpart, 29CFR 1926.650-652 for trench safety.

The permanent ROW is a 40-foot-wide tract centered on the centerline of the pipe. The permanent ROW for the pipeline requires less width since the work for operations, maintenance, and replacements (OM&R) 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.

The remaining 60-foot TCE is comprised of two 30-foot-wide tracts, one adjacent to each side of the ROW. This TCE allows for heavy equipment and workers to perform the job 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. The TCE would expire at final completion of the project when project ownership is transferred over to the NTUA.

The TCE and ROW for the pipeline and infrastructure would total approximately 230 acres, and after construction activities are completed, the permanent ROW would be about 96 acres.

The associated NGWSP facilities (including surge tank site, water storage tank and chlorination site, drain lines and power lines) would each require a permanent easement. The total area required for permanent easements to accommodate these facilities totals approximately 3.5 acres. Approximately 0.8 acres of additional TCE is required for power line construction as well as site earthwork and grading.

Table 1. ROW Surface Ownership Summary

Surface Ownership	TCE (acres)	ROW (acres)	Total (acres)
BLM	35.0	25.9	60.9
Navajo Tribal Trust Lands	54.9	36.8	91.7
Navajo Allotment Land	37.6	27.5	65.1
PLO 2198	9.8	6.3	16.1

2.1.3. Pipeline Construction

The pipeline ROW and TCE would be cleared of vegetation and topsoil as well as removal of some large boulders. The topsoil would be stockpiled separate and covered from general excavation material and would then be utilized during reseeding. The major portion of the excavation would be done using bulldozers, scrapers and track hoes, and possibly trenchers. A ripper would more than likely be used to break up sandstone, siltstone, and shale. Blasting will not be allowed.

The pipeline trench would reach a maximum depth of 20 feet in some areas but would typically average around 6 feet in depth. The bottom width of the trench would be approximately three to four feet. The trench width for the pipeline may vary considerably depending on the depth of excavation, the type of bedding and embedment requirements for the various types of pipe, 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 in order to meet OSHA trench safety requirements. The contractor would provide trench safety as required by OSHA either through the use of 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 combined 100-foot-wide ROW and TCE.

Where the pipeline crosses BIA Route 474, an additional 0.55 acres of TCE has been added to be used as staging area on either side of the highway while constructing the crossing.

An additional 2.5 acres of ROW was added to construct a drain line from a control valve vault located within the 40-foot wide pipeline ROW to discharge on the downhill side of a dirt road to avoid any damage to the road or homes in the area during occasional discharges of clean water.

2.1.4. Construction of Water Storage and Chlorination Site

One water storage and chlorination site is included within the scope of the project. This site is located at the end of Reach 26.2 in Pueblo Pintado.

The size of the permanent easement that will be acquired depends on:

- Presence and size of existing storage facilities.
- Number and volume of proposed water tanks.
- Amount of site grading (cut and fill) needed to assure proper tank elevation, site drainage, and site access.
- Presence or absence of nearby cultural or environmental resources restricting site boundaries.

The permanent easement area is defined to allow for safe and efficient construction activities without causing unacceptable impacts to surrounding environmental or cultural resources. These activities include, but are not limited to, grading, sub-foundation earthwork, improvement or construction of driveways for access, placement of prefabricated chlorination buildings, fabrication of steel water storage tanks, placement and trenching of site piping, and storage of materials and equipment. Power to the site during construction could be provided through generators. The construction activities would be confined to the easement at all times during construction.

The tank site is without power and would require the construction of a single-phase power line for which separate ROW and TCE would be acquired. All project power lines would be constructed and maintained by JMEC. The power line, which lies on both BLM and Navajo trust lands would have a 20-foot ROW and an additional 20 feet of TCE. Permanent ROWs would be centered on the proposed power line alignment. The TCEs would be placed on each side of the permanent ROW. The TCE would expire after construction of the power line is complete. All power line construction activities would be confined within the ROW and TCE at all times during construction.

The **Pueblo Pintado Tank Site** is located at end of Reach 26.2, the southernmost extent of this project. Existing site facilities include a 100,000-gallon steel distribution tank within a 0.23 acre fenced area. Proposed new construction includes installation of a 100,000-gallon regulation tank and two 1,000,000-gallon distribution tanks (Figure 3). Construction of one of the 1,000,000-gallon distribution tanks will be deferred. Additionally, a new chlorination building must be constructed on the site. The existing tank has a drain line that discharges into a stock pond north of the site. Drain lines from new tanks and chlorination building would discharge at a large existing wash to the east of the site. Discharges of untreated or treated drinking water from the tanks and chlorination buildings may be periodically made when disinfecting, flushing, filling or emptying the tanks and associated piping.

The total existing disturbed area within the fence is estimated at 0.23 acres. The proposed new facilities will require an estimated 2.3 acres of permanent easement including the tank site and drain, as well as an additional 0.3 acres of TCE for site grading and earthwork. A new single-phase power line is proposed to provide power to the site. The estimated length of the power line is 1,371 feet, requiring a permanent easement area of 0.9 acres and TCE of 0.4 acres.

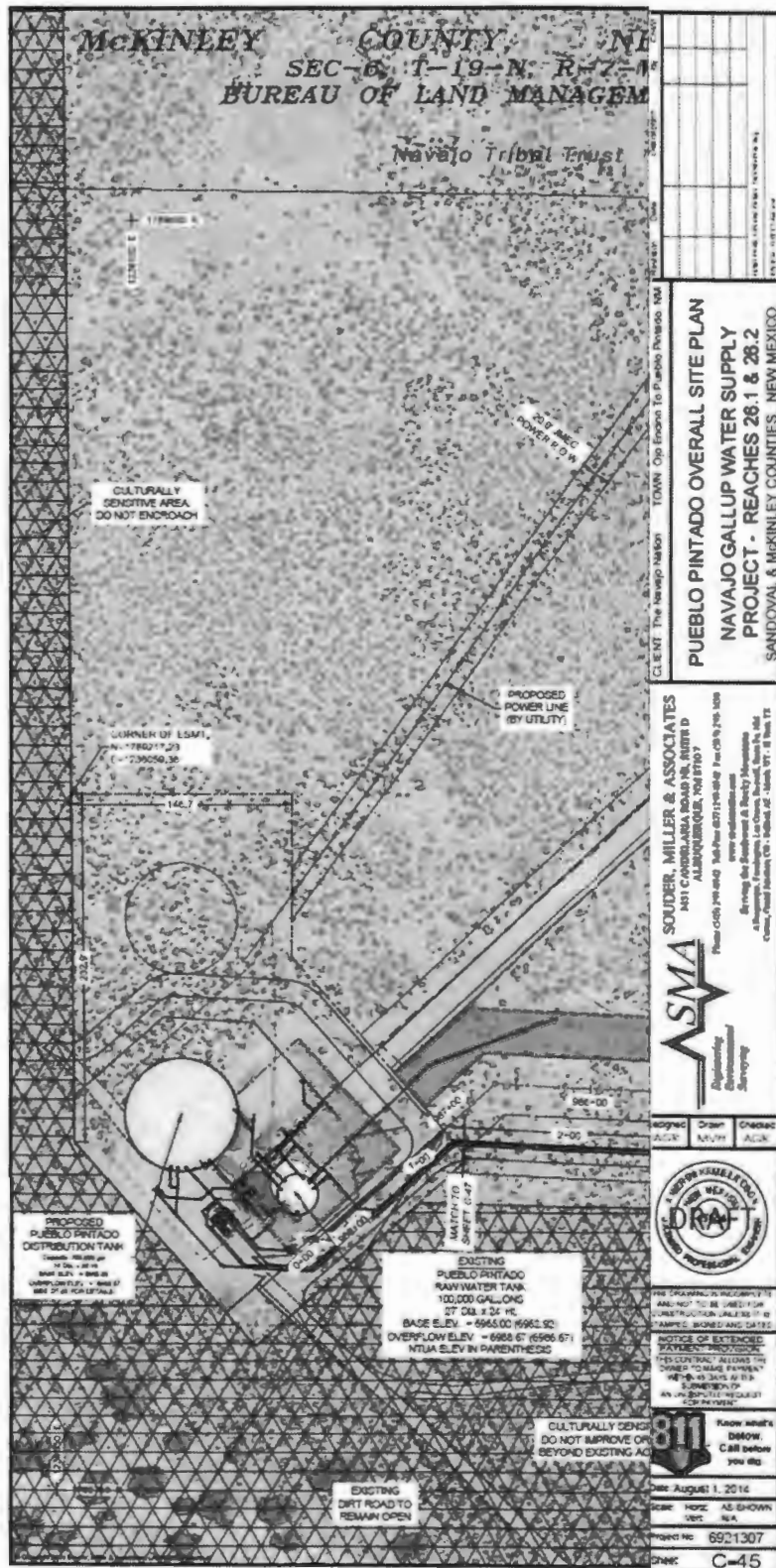


Figure 3. Water Storage and Chlorination Site Design



2.1.5. Surge Tank Site Construction

The proposed Reach 26.1 surge tank site is located at the northern end of Reach 26.1 in section 7 of Township 21 North, Range 5 West. There are no existing facilities on the site. Proposed new facilities include a concrete block surge tank building, site piping, and perimeter fence. The permanent ROW of the surge tank site is large enough to allow construction activities to proceed safely and efficiently. These activities include, but are not limited to, grading, sub-foundation earthwork, construction of driveways for access, placement of prefabricated buildings, placement and trenching of site piping, and storage of materials and equipment. Power to the site during construction could be provided through generators. The site would require 0.23 acres of proposed permanent easement. The construction activities would be confined to the ROW at all times during construction.

Discharges of chlorinated or non-chlorinated water from the surge tanks, and site piping may occur periodically from testing, disinfecting, flushing, filling or emptying surge tanks and underground piping.

To provide electricity to the surge tank site, a new single-phase power line service drop is proposed for construction for which a separate ROW and TCE would be acquired. All project power lines would be constructed and maintained by JMEC. The power line is located on Navajo trust land and would have a 20-foot (6.1-m) ROW and an additional 20 feet of TCE. The permanent ROW would be centered on the proposed power line alignment. The TCEs would be placed on each side of the permanent ROW. The TCE would expire after construction of each power line is complete. The estimated length of the power line will be up to 200 feet long, requiring a total easement area up to 0.18 acre. All power line construction activities would be confined within the ROW and TCE at all times during construction.

2.1.6. Design Features, Stipulations, and Requirements

The FFO RMP, Rio Puerco RMP, the Planning Report and EIS for the Navajo–Gallup Water Supply, and BIA include features designed to limit impacts to resources from management actions and externally proposed projects. The following design features, stipulations, and requirements are those from these planning documents that apply to this proposal.

Visual Resource Management

- Above-ground structures are required to be painted in one of five colors designated to blend with the natural color of the landscape (USDI/BLM 2003b, pages 2–20).
- Permit holders are required to coordinate with the Authorized Officer on the design and color of power poles and transmission lines to achieve minimal practicable visual impacts. USDI/BLM 2003b, pages 2–20).

Soils and Water

- Disturbed areas would be reseeded following specifications using designated seed mixtures within one year of final construction (USDI/BLM 2003b, pages 2–21; see Appendix A Re-vegetation Plan).
- No construction or routine maintenance activities shall be performed during periods when the soil is too wet to adequately support construction equipment. If such equipment creates ruts in excess of six inches deep, the soil shall be deemed too wet to work (USDI/BLM 2003b, pages 2–21).
- Any roads used exclusively for construction purposes shall be adequately closed to all vehicular travel and rehabilitated after completion of construction (USDI/BLM 2003b, pages 2–21).
- Disturbed areas would be reclaimed as described in the Re-vegetation Plan (included as Appendix A) prepared in accordance with the Farmington Field Office Bare Soil Reclamation Procedures published January 2013 and available on the World Wide Web at http://www.blm.gov/nm/st/en/fo/Farmington_Field_Office/ffo_planning/surface_use_plan_of.html

- Navajo Nation would use accepted erosion control measures during construction, supplement grass seeding with native shrub seed in upland areas where shrub cover is diminished due to pipeline disturbance, monitor planting to ensure establishment, and control noxious weeds in disturbed areas (Reclamation 2009, pages VI-4).

Air Quality

- All air pollutant emissions from future federally conducted or approved activities under the Farmington RMP shall comply with all applicable local, state, tribal, and federal air-quality laws, statutes, regulations, standards, and implementation plans (BLM FFO RMP, page 2-22).
- Navajo Nation would require that construction contractors implement measures to control fugitive dust during construction (Reclamation 2009, page VI-7).

Invasive Weed Management

- For all actions on public lands that involve surface disturbance or rehabilitation, reasonable steps would be required to prevent the introduction or spread of noxious weeds, including requirements for using weed seed-free hay, mulch, and straw (USDI/BLM 2003b, pages 2-22).
- It would be the operator's responsibility to monitor, control, and eradicate all invasive, non-native plant species within the proposed project area throughout the life of the proposed project (USDI/BLM 2003b, pages 2-25). The operator would contact the BLM-FFO regarding acceptable weed-control methods. If the operator does not hold a current Pesticide Use Permit, a Pesticide Use Permit would be submitted prior to pesticide application. Only pesticides authorized for use on BLM lands would be used. The use of pesticides would comply with federal and state laws. Pesticides would be used only in accordance with their registered use and limitations. The operator would contact the BLM-FFO prior to using these chemicals.

Trees

- 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 re-vegetation process.

Wildlife/Special Status Species

- Unless otherwise agreed to by the Authorized Officer in writing, power lines shall be constructed in accordance to standards outlined in "Suggested Practices for Raptor Protection on Power lines" (Olendorff et al. 1981, USDI/BLM 2003b, pages 2-26).
- Navajo Nation would ensure that construction contractors limit ground disturbance to the smallest feasible areas and that they implement Best Management Practices (BMPs) along with the planning or re-seeding of disturbed areas using native plant species to assist in the re-establishment of native vegetation (Reclamation 2009, pages VI-4).
- Navajo Nation would incorporate raptor perch guards or raptor safe configurations on all new transmission structures (Reclamation 2009, pages VI-4). Transmission lines that pose a high collision risk could be marked with spiral vibration dampers or bird flight diverters.
- Navajo Nation would trench and bury pipeline concurrently to minimize trapping of small wildlife. Reclamation would construct escape ramps for trenches left open overnight (Reclamation 2009, pages VI-4).
- Minimize the amount of open trench ahead of pipe laying and backfilling. No More than ½ mile of trench or the amount of trench that can be worked in a day will be open at any given time. Backfilling operations would be performed within a reasonable amount of time of the lowering operation to ensure the trench is not left open for more than 24 hours. Trenches left open

overnight will be fenced with a temporary fence or other methods approved by the Authorized Officer. The ends of the trench will be sloped (3:1) to allow animals to escape.

- Escape ramps/crossovers will be constructed every 1,320 feet. In areas where active grazing is taking place or in Wildlife Specially Designated Areas (SDA's) escape ramps/crossovers will be placed every 500 feet. The ends of the open trench will be sloped each night with a 3:1 slope.
- Established livestock and wildlife trails will be left in place as a cross over. Escape ramps/crossovers will be constructed with a minimum 3:1 slope at each end of the crossover. Crossovers will be a minimum of ten feet wide and not fenced.
- The end of the pipe will be plugged to prevent animals from crawling in.
- Before the trench is closed, inspect the trench for any animal that may be in the trench. Any trapped wildlife or livestock will be promptly removed and released at least 150 yards from the trench.
- Conduct surveys of the proposed construction areas for ferruginous hawk (*Buteo regalis*) and bald eagle (*Haliaeetus leucocephalus*) one year in advance of construction for pipeline routes and construction sites that are not adjacent to highways, well-traveled roads, or areas of regular human activities. If active nests are found as a result of the surveys, appropriate protective measures could be developed to avoid or minimize nest disturbance (Reclamation 2009, pages V-88).
- Construction could be managed to avoid intentional disturbance of dens for kit fox, as construction activities may discourage or disrupt denning activities (Reclamation 2009, pages V-88).
- No construction activities would be permitted from May 15 to July 31 for BLM FFO without a migratory bird nest survey. These surveys would be conducted by a BLM/FFO approved biologist using a survey protocol provided by a BLM/FFO biologist. If any active nests are located within the proposed project area on BLM land, project activities would not be permitted until written approval by a BLM/FFO biologist. The BLM/FFO would monitor any active nests located from a nest survey. On Navajo Nation lands no construction activities would be allowed from March 1–August 15 for Navajo Nation Department of Fish and Wildlife (NNDFW) without first performing migratory bird nest surveys. NNDFW stipulates no disturbance within 165 feet of active nests during incubation to fledging (as determined by direct field observation or qualified literature source specific for nesting dates in the Southwestern U.S.; BLM MOU WO-230-2010-04, Navajo Natural Heritage Program 2008, page 125).
- Should active nests be observed, the contractor has determined that project activities cannot be avoided until after the birds have fledged (left the nest), and if no practicable or reasonable avoidance alternatives are identified then the contractor must contact the USFWS's Migratory Bird Permit Office in Albuquerque, NM at (505) 248-7882. The contractor may proceed with work on the affected project activities following receipt the approved permit from the USFWS. (BLM MOU WO-230-2010-04)

Riparian Areas

- When riparian vegetation cannot be avoided during the permitted project, the permittee is responsible to reestablish any riparian vegetation lost during construction. Cottonwoods would be replaced on a 10-to-1 ratio and willows would be replaced on a 3-to-1 ratio. Sediment barrier fences would be constructed to BLM specifications in designated riparian area active channels that may be destabilized due to construction activities or as off-site mitigation to protect the integrity of designated riparian areas (USDI/BLM 2003b, pages 2–33).

Rangeland

- Prior to crossing, using, or paralleling any improvement on public land, the operator shall contact the owner of the improvement to obtain mitigating measures to prevent damage to the improvements (USDI/BLM 2003b, pages 2–36).
- All cut fences are to be tied to H-braces prior to cutting. The opening would be protected as necessary during construction to prevent the escape of livestock (USDI/BLM 2003b, pages 2–36).
- When construction activity in connection with a ROW breaks or destroys a natural barrier used for livestock control, gaps thus opened shall be fenced to prevent drift of livestock (USDI/BLM 2003b, pages 2–36).
- The permit holder is responsible to contact the grazing lessee(s) prior to crossing any fence on public land or any fence between public and private land, and to offer the lessee(s) an opportunity to be present when the fence is cut to ensure the fence is adequately braced and secured (USDI/BLM 2003b, pages 2–36).
- Cattle guards may be required when new roads cross existing fence lines (USDI/BLM 2003b pages 2–36).
- Navajo Nation would ensure that construction contractors fence revegetated areas to prevent grazing activities until disturbed areas became reestablished, and Reclamation would work with the Navajo Nation to provide temporary relocation assistance to affected livestock owners along the pipeline corridor (Reclamation 2009, pages VI–6).

Cultural Resources

- All BLM/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, project area reduction and/or specific construction avoidance zones, and employee education. All employees, contractors, and sub-contractors of the project will 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 U.S.C. 470aa-mm).
- 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 the appropriate agency—BLM Field Office Manager or Navajo Nation Historic Preservation Department (NHPD). The BLM or NHPD would then specify what action is to be taken in accordance with Section VIII of the cultural resources Programmatic Agreement.

Paleontology

- If in the conduct of any surface-disturbing operations, paleontological material is observed, the lessee or operator shall cease any operations that would result in the destruction of such objects and immediately contact the BLM or BIA if on Tribal trust lands. Further investigation would dictate site-specific stipulations for avoidance or salvage of any significant paleontological resources (USDI/BLM 2003b, pages 2–39).

Hazardous Materials

- Navajo Nation would contact pipeline and gas well companies prior to construction activities to identify and avoid existing hazards. Pipeline alignments would be adjusted, as needed, to avoid impacts to pipelines and wells (Reclamation 2009, pages VI–6).

2.2. No Action

The BLM NEPA Handbook (H-1 90-1) states that for EAs on externally initiated Proposed Actions, the No Action Alternative generally means that the proposed activity would not take place. This option is provided in 43 CFR 3162.3-1 (h) (2). This alternative would deny the approval of the proposed application, and the current land and resource uses would continue to occur in the proposed project area. No design features would be required. The No Action Alternative provides a baseline reference, enabling decision makers(s) to compare the magnitude of environmental effects of the Proposed Action.

3. AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This section describes the affected environment and environmental consequences within the project area as they relate to the implementation of the Proposed Action as described in Section 2.

The No Action Alternative reflects the current situation within the project area and will serve as the baseline for comparing the environmental impacts of the analyzed alternatives. Under the No Action Alternative, the proposed pipelines and other improvements would not be constructed. There would be no new effects from additional surface disturbances and activities to the resources. The No Action Alternative would result in the continuation of the current land and resource uses in the project area. This alternative will not be evaluated further in Chapter 3.

The following issues were considered, but dismissed from analysis because the Proposed Action Alternative does not affect the issues for the reasons stated below, and therefore are not discussed further in the EA.

Visual Resources—The impacts to visual resources management would be negligible because all BLM-administered lands that would be crossed by proposed Reaches 26.1 and 26.2 are located within Visual Resource Management (VRM) Class III and Class IV. Class III objectives are to partially retain the existing character of the landscape. The level of change to the characteristic landscape can be moderate. The objective of Class IV is to provide for management activities that require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high. Management activities may attract attention, but should not dominate the view of the casual observer. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements of line, form, color, texture. The visual resource impacts from vegetation removal, installing associated structures (water tank, power line) are consistent with both VRM Class III and IV objectives. To reduce color contrast of the new facilities, the proponent would paint the facilities on BLM-administered lands a color that is pre-approved by BLM and that blends with the adjacent vegetation. The water tank will be painted juniper green from BLM's standard environmental colors chart.

Minerals—The impacts to minerals would be negligible because existing pipelines would be protected so that their operations would not be affected. Gas well access roads may be temporarily impacted from time to time, but proposed activities would not block access to gas wells or interfere with gas production activities.

This chapter characterizes the resources and uses that have the potential to be affected by the proposed action (section 3.1), followed by a comparative analysis of the direct, indirect and cumulative impacts of the alternatives (section 3.2). Direct effects are caused by the action and occur at the same time and place. Indirect effects are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Cumulative impacts result from the incremental impacts of the action when added to other past, present, and reasonably foreseeable future actions.

3.1.1. Related Past, Present and Reasonably Foreseeable Actions

As defined by NEPA regulations (40 CFR 1508.7), "Cumulative impacts result from the incremental impacts of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other 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, oil and gas exploration, development, and distribution, and infrastructural development such as roads. Reasonably foreseeable actions include development of oil and gas wells

1 and supporting infrastructure on public lands in the San Juan Basin, maintenance and repair of pipelines,
2 invasive plant management plan that has been proposed on Navajo Nation lands in several New Mexico
3 counties, including Sandoval, McKinley, and San Juan, and the future water pipeline reaches to be
4 developed for the Navajo-Gallup Water Supply Project. Although these actions probably may not account
5 for all of the impacts that have or are likely to occur in the NGWSP project area, GIS analysis, agency
6 records, and professional judgment suggest that they have contributed to the vast majority of cumulative
7 impacts that have occurred in the assessment area.

8 **3.2 Air Resources**

9 **3.2.1. Affected Environment**

10 The Proposed Action is located in Sandoval and McKinley Counties, New Mexico. Additional general
11 information on air quality in the area can be found in Chapter 3 of the Farmington RMP/EIS (USDI BLM
12 2003a). In addition, new information about greenhouse gases (GHGs), and their effects on national and
13 global climate conditions has emerged since this document was prepared. Ongoing scientific research
14 has identified the potential impacts of GHG emissions such as carbon dioxide (CO₂), methane (CH₄),
15 nitrous oxide (N₂O), water vapor, and several trace gases on global climate. Through complex
16 interactions on a global scale, GHG emissions may cause a net warming effect of the atmosphere,
17 primarily by decreasing the amount of heat energy radiated by the earth back into space. Although GHG
18 levels have varied for millennia (along with corresponding variations in climatic conditions),
19 industrialization and burning of fossil carbon sources have caused GHG concentrations to increase
20 measurably, and may contribute to overall climatic changes, typically referred to as global warming.

21 Much of the information referenced in this section is incorporated from the Air Resources Technical
22 Report for BLM Oil and Gas Development in New Mexico, Kansas, Oklahoma, and Texas (herein referred
23 to as Air Resources Technical Report; USDI/BLM 2014). This document summarizes the technical
24 information related to air resources and climate change associated with oil and gas development and the
25 methodology and assumptions used for analysis.

26 The Environmental Protection Agency (EPA) has the primary responsibility for regulating air quality,
27 including six nationally regulated ambient air pollutants (criteria pollutants). These criteria pollutants
28 include carbon monoxide (CO), nitrogen dioxide (NO₂), ozone (O₃), particulate matter (PM₁₀ and PM_{2.5}),
29 sulfur dioxide (SO₂) and lead (Pb). EPA has established National Ambient Air Quality Standards (NAAQS)
30 for criteria air pollutants. The NAAQS are protective of human health and the environment. EPA has
31 approved New Mexico's State Implementation Plan and the state enforces state and federal air quality
32 regulations on all public and private lands within the state, except for tribal lands and within Bernalillo
33 County. Air quality is determined by atmospheric pollutants and chemistry, dispersion meteorology and
34 terrain, and also includes applications of noise, smoke management, and visibility. Climate is the
35 composite of generally prevailing weather conditions of a particular region throughout the year, averaged
36 over a series of years. EPA has proposed or completed actions recently to implement Clean Air Act
37 requirements for greenhouse gas emissions. Climate has the potential to influence renewable and non-
38 renewable resource management.

39 **Air Quality**

40 **Criteria Air Pollutants**

41 The Air Quality Technical Report describes the types of data used for description of the existing
42 conditions of criteria pollutants, how the criteria pollutants are related to the activities involved in oil and
43 gas development, and provides a table of current national and state standards. EPA's Green Book web
44 page (US EPA 2013a) reports that all counties in the FFO area are in attainment of all National Ambient
45 Air Quality Standards (NAAQS) as defined by the Clean Air Act. The area is also in attainment for New
46 Mexico Ambient Air Quality Standards (NMAAQS). The current criteria pollutant "design concentrations"
47 in the FFO area are described below. Total emissions of criteria pollutants from each source sector were
48 calculated by adding together the emissions from the four counties that are located in FFO: San Juan,
49 McKinley, Rio Arriba, and Sandoval.

"Design Concentrations" are the concentrations of air pollution at a specific monitoring site that can be compared to the NAAQS. The 2012 design concentrations of criteria pollutants are listed below in Table 2. There is no monitoring for CO and lead in San Juan County, but because the county is relatively rural, it is likely that these pollutants are not elevated. PM10 design concentrations are not available for San Juan County.

Table 2. Criteria Pollutant Monitored Values in San Juan County

Pollutant	2012 Design Concentration	Averaging Time	NAAQS	NMAAQs
O ₃	0.071 ppm	8-hour	0.075 ppm ¹	
NO ₂	13 ppb	Annual	53 ppb ²	50 ppb
NO ₂	38 ppb	1-hour	100 ppb ³	
PM _{2.5}	4.7 µg/m ³	Annual	12 µg/m ^{3,4}	60 µg/m ^{3,6}
PM _{2.5}	14 µg/m ³	24 hour	35 µg/m ^{3,3}	150 µg/m ^{3,6}
SO ₂	19 ppb	1-hour	75 ppb ⁵	

¹ Annual fourth-highest daily maximum 8-hour concentration, averaged over 3 years

² Not to be exceeded during the year

³ 98th percentile, averaged over 3 years

⁴ Annual mean, averaged over 3 years

⁵ 99th percentile of 1-hour daily maximum concentrations, averaged over 3 years

⁶ The NMAAQs is for Total Suspended Particulate (TSP)

Source: (U.S. Environmental Protection Agency, 2014)

In 2005, the EPA estimates that there was less than 0.01 ton per square mile of lead emitted in FFO counties, which is less than 2 tons total (U.S. Environmental Protection Agency, 2012). Lead emissions are not an issue in this area, and will not be discussed further.

Air quality in a given region can be measured by its Air Quality Index value. The air quality index (AQI) is reported according to a 500-point scale for each of the major criteria air pollutants, with the worst denominator determining the ranking. For example, if an area has a CO value of 132 on a given day and all other pollutants are below 50, the AQI for that day would be 132. The AQI scale breaks down into six categories: good (AQI<50), moderate (50-100), unhealthy for sensitive groups (100-150), unhealthy (>150), very unhealthy and hazardous. The AQI is a national index, the air quality rating and the associated level of health concern is the same everywhere in the country. The AQI is an important indicator for populations sensitive to air quality changes.

Mean AQI values for San Juan County were generally in the good range (AQI<50) in 2013 with 80% of the days in that range. The median AQI in 2013 was 42, which indicates "good" air quality. The maximum AQI in 2013 was 156, which is "unhealthy".

Although the AQI in the region has reached the level considered unhealthy for sensitive groups on several days almost every year in the last decade, there are no patterns or trends to the occurrences (Table 5). On 8 days in the past decade, air quality has reached the level of "unhealthy" and on two days, air quality reached the level of "very unhealthy". In 2009 and 2012, there were no days that were "unhealthy for sensitive groups" or worse in air quality. In 2005 and 2013, there was one day that was "unhealthy" during each year. In 2010, there were five "unhealthy" days and two "very unhealthy" days.

Table 3. Criteria pollutant design value concentrations monitored in San Juan County.

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Days	3	6	9	18	1	0	12	9	0	1

Source: US EPA 2013b

Hazardous Air Pollutants

The Air Quality Technical Report discusses the relevance of hazardous air pollutants (HAPs) to oil and gas development and the particular HAPs that are regulated in relation to these activities (USD/BLM 2014). The EPA conducts a periodic National Air Toxics Assessment (NATA) that quantifies HAP

emissions by county in the U.S. The purpose of the NATA is to identify areas where HAP emissions result in high health risks and further emissions reduction strategies are necessary. A review of the results of the 2005 NATA shows that cancer, neurological and respiratory risks in San Juan County are generally lower than statewide and national levels as well as those for Bernalillo County where urban sources are concentrated in the Albuquerque area (US EPA 2012).

Climate

The planning area is located in a semiarid climate regime typified by dry windy conditions and limited rainfall. Summer maximum temperatures are generally in the 80s or 90s degrees Fahrenheit (°F) and winter minimum temperatures are generally in the teens to 20s (Table 4). Temperatures occasionally reach above 100°F in June and July and have dipped below zero in December and January. Precipitation is divided between summer thunderstorms associated with the Southwest Monsoon and winter snowfall as Pacific weather systems drop south into New Mexico.

Table 4. 1981–2010 Climate Normals for Farmington Field Office Area.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Precip (inches)	0.68	0.63	0.62	0.63	0.48	0.51	1.37	1.36	1.15	0.81	0.71	0.67
Min. Temp. (F)	13.4	19.1	23.8	30.4	38.9	47.7	55.6	53.9	45.0	32.3	21.3	14.2
Avg. Temp. (F)	28.5	34.1	40.9	48.5	57.8	67.0	72.7	70.4	62.6	50.2	37.9	29.1
Max. Temp. (F)	43.6	49.1	58.0	66.7	76.7	86.3	89.8	86.9	80.3	68.1	54.5	44.0

The Air Resources Technical Report summarizes information about greenhouse gas emissions from oil and gas development and their effects on national and global climate conditions. While it is difficult to determine the spatial and temporal variability and change of climatic conditions; what is known is that increasing concentrations of GHGs are likely to accelerate the rate of climate change.

3.2.2. Impacts from the Proposed Action

Direct and Indirect Impacts

Air quality would temporary be directly impacted with pollution from exhaust emissions and dust. Air pollution from the motorized equipment and dust dissemination would discontinue at the completion of the project. Other factors that currently affect air quality in the area include dust from livestock herding activities, dust from recreational use, dust from use of roads for vehicular traffic, and emissions from oil and gas production activities. Impacts to air quality attributable to this project would be temporary and minor.

Cumulative Impacts

The FFO manages Federal hydrocarbon resources in San Juan, Sandoval, Rio Arriba, and McKinley Counties. There are approximately 23,522 wells in the San Juan Basin. About 16,435 of the wells in these counties are federal wells. The primary activities that contribute to levels of air pollutant and GHG emissions in the Four Corners area are electricity generation stations, fossil fuel industries, and vehicle travel. The Air Quality Technical Report includes a description of the varied sources of national and regional emissions that are incorporated here to represent the past, present, and reasonably foreseeable impacts to air resources (USDI/BLM 2014). It includes a summary of emissions on the national and regional scale by industry source. Analysis of cumulative impacts for reasonable development scenarios and RFDS of oil and gas wells on public lands in the FFO was presented in the 2003 RMP. The analysis determined that project emission sources in combination with reasonably foreseeable future emission

sources, would likely produce potentially significant cumulative impacts to ambient 8-hour O₃ levels within the San Juan County project area (USDI/BLM 2003a, pages 4-124). A more detailed discussion of cumulative effects can be found in the Air Resources Technical Report (USDI/BLM 2014).

The proposed project could result in a very small direct and indirect increase in several criteria pollutants, HAPs, and GHGs as a result the short-term construction activity. The very small increase in emissions from short-term construction activity when added to other reasonably foreseeable future action would not be expected to result in exceeding the NAAQS for any criteria pollutants in the analysis area. With the increased water supply and distribution, less people would have to haul water, resulting in a decrease of emissions from vehicles.

The very small increase in GHG emissions that could result from implementing the proposed alternative would not produce climate change impacts that differ from the No Action Alternative. This is because climate change is a global process that is impacted by the sum total of GHGs in the Earth's atmosphere. The incremental contribution to global GHGs from the action alternatives cannot be translated into effects on climate change globally or in the area of this site-specific action. It is currently not feasible to predict with certainty the net impacts from the action alternatives on global or regional climate.

The Air Resources Technical Report (USDI/BLM 2014) discusses the relationship of past, present, and future predicted emissions to climate change and the limitations in predicting local and regional impacts related to emissions. It is currently not feasible to know with certainty the net impacts from particular emissions associated with activities on public lands.

3.3.1. Affected Environment

3.3.1. Affected Environment

The United States Department of Agriculture Natural Resources Conservation Service (NRCS) has surveyed the soils in the Proposed Action area. The NRCS's Web Soil Survey website (<http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>) provides complete soil information. Table 5 presents the soils mapped in the project area.

Table 5. Soil types in the analysis area, characteristics, and management concerns.

Map Unit/Symbol	Textures	Parental Materials	Drainage Class and Available Water Capacity
Tsosié-Councilor-Blancot fine sandy loams, 1-to-3-percent slopes 10	fine sandy loam	fan alluvium derived from sandstone and shale, fan and stream alluvium derived from sandstone and shale, eolian material and fan and stream alluvium derived from sandstone	well drained moderately high
Doakum-Betonnie complex, 1-to-8-percent slopes 11	sandy loam	eolian material and fan and stream alluvium derived from sandstone and shale	somewhat excessive to well drained low to moderate
Councilor-Calladito complex, 1-to-8-percent slopes 13	loamy sand, fine sand	eolian deposits derived from sandstone, eolian material and fan and stream alluvium derived from sandstone and shale	excessive to well drained low to moderate

Map Unit/Symbol	Textures	Parental Materials	Drainage Class and Available Water Capacity
Councilor-Eslendo-Calladito complex, 2-to-25-percent slopes 14	loam, clay loam, fine sandy loam	eolian deposits derived from sandstone, eolian material and fan alluvium derived from sandstone, slope alluvium over residuum derived from sandstone and shale	well drained moderately high
Starlake clay, 1-to-3-percent slopes 16	clay	fan and stream alluvium derived from sandstone and shale	well drained low
Orlie-Tinian complex, 1-to-6-percent slopes 30	fine sandy loam/loam	eolian material and slope alluvium derived from sandstone and shale, and slope alluvium derived from sandstone and shale	well drained low to high
Doakum-Bentonnie frin sandy loams, 0-to-8-percent slopes 150	fine sandy loams	eolian deposits over slope alluvium derived from sandstone and shale	well drained moderately high
Councilor-Eslendo-Mespin complex, 5-to-30-percent slopes 180	fine sandy loam	eolian deposits over stream alluvium derived from sandstone and shale, residuum weathered from shale, eolian deposits derived from sandstone, stream alluvium derived from sandstone and shale	well drained very low to moderate
Blancot-Councilor-Tsodie association, 0-to-5-percent slopes 270	fine sandy loam, sandy clay loam	eolian deposits over stream alluvium derived from sandstone and shale, fan alluvium derived from sandstone and shale	well drained moderate
Vessilla-Menefee-Orlie association, 0-to-30-percent slopes 422	sandy loam	eolian deposits over slope alluvium over residuum weathered from sandstone, colluvium over residuum weathered from shale, eolian material and alluvium derived from sandstone and shale	well drained very low to high

Source: U.S. Department of Agriculture Natural Resources Conservation Service 2008.

3.3.2. Impacts from the Proposed Action

Direct and Indirect Impacts

Approximately 227 acres of soil disturbance would occur to construct the waterline and about three acres would be disturbed to construct the tanks, power line, chlorination building and drain lines. Soils that would be disturbed would be structurally mixed, displaced, and exposed to potential wind and water erosion. In some areas, these soils would also be compacted. Once disturbed, these soils could be subject to increased erosion, dependent upon storm events of water and/or wind. Disturbed areas, especially steeper slopes, would be susceptible to wind and water erosion until reseeding has been established (one to two growing seasons). The amount of soils that would be lost to erosion is unknown; however, it is assumed that it would be low based on the generally gentle slopes in the project area and

implementation of the design features. Topsoil will be conserved for reclamation (see section 2.1.6). Actions would not occur during inclement weather, structures would be established to limit movement of soil off-site, and disturbed areas would be reclaimed as appropriate. Reestablishment of permanent, perennial vegetation as outlined in the Re-vegetation Plan (see Appendix A) would decrease long-term soil erosion effects. Pipeline is co-located alongside existing roads as much as possible. To the extent possible, the pipeline is located on the uphill side of the road to minimize erosion over the pipeline. The contractor will be required to backfill trenches to at least 90% standard Proctor density (95% at road and wash crossings), which will minimize erosion of the backfill due to surface runoff. Additional measures would be achieved through BMPs detailed in the Stormwater Pollution Prevention Plan (SWPPP). Effects would be short term until re-vegetation and stabilization actions are completed new vegetation becomes established.

Cumulative Impacts

Past and present actions include livestock grazing and associated range improvements (e.g., fences, stock tanks) and oil and gas exploration, development, and associated infrastructure. The Chaco watershed where the Proposed Action is located includes 52 grazing allotments that covers approximately 35,250 acres. Reasonably foreseeable future actions include development of new oil and gas wells and supporting infrastructure. The Chaco watershed where the Proposed Action is located contains approximately 2,918,965 acres with an estimated 40 existing oil and gas wells and 29,000 acres of existing long-term oil and gas surface disturbance (BLM 2003). Based on the oil and gas development predictions in the 2003 RMP/FEIS, about 71 new well sites would be constructed, with 264 acres of surface disturbance.

Additional residential growth could also occur from the installation of the waterline, leading to surface disturbance from construction of roads, power lines, and homes. The proposed project to control invasive plants on the Navajo Nation could also temporarily increase soil erosion on treated areas until native vegetation becomes re-established. The cumulative impacts on soils from the past, present, and foreseeable future actions would comprise of short- and long-term surface disturbance (e.g., soil erosion, compaction). Based on the temporary and short-lived effects of surface disturbance from the proposed construction of Reaches 26.1 and 26.2, cumulative effects of the Proposed Action would be considered negligible.

3.4.1. Affected Environment

The BLM's watershed program emphasizes conservation and preventing and avoiding degradation of water resources by establishing site-specific BMPs to protect water resources. BLM management practices comply with the Federal Water Pollution Control Act of 1972 and the Clean Water Act of 1977 to ensure in-stream water-quality standards. Further water resources management information can be found in the Farmington Field Office Resource Management Plan and Rio Puerco Field Office Resource Management Plan.

Under the Clean Water Act, the US Army Corps of Engineers (USACE) has jurisdiction over "waters of the U.S." These jurisdictional waters include those that have a "significant nexus" to traditional navigable waters. The BLM/FFO and USACE Durango Regulatory Division have determined that jurisdictional waters may include USGS watercourses (i.e., "blue line" on USGS 1:24,000 topographic maps). The proposed pipeline crosses four USGS watercourses.

The local hydrology is dominated by Cañada Corrales, Arroyo Pueblo Alto, Chaco Wash, and their tributaries. These are all ephemeral washes; there are no perennial waters in the project area. The project area is in the Chaco subbasin, Upper San Juan Basin, and Upper Colorado Region watershed. The 12-digit hydrologic unit codes (HUC) are 140801060103, 140801060102, 140801060104, and 140801060107.

3.4.2. Impacts from the Proposed Action

Direct and Indirect Impacts

The clearing of vegetation for ROWs, TCEs, tanks, a power line, the chlorination building, and trenching for the waterlines would create exposed soils. Soil movement, resulting from both wind and water action, could occur within the construction zones. The amount of soil movement and potential for sediment transport to stream courses would depend on wind and water events in relation to soil disturbance, the effectiveness of erosion control measures, and the timing and success of reclamation. About 227 acres would be disturbed within the pipeline ROW and TCE, and about three acres in areas where construction of the tanks, chlorination building, drain lines, and power line would occur. This disturbance would be spread over the anticipated life of the project, which is planned for 2014 through 2017. In relation to the size of the four watersheds (approximately 132,400 acres) in which the improvements are located, the approximate 230 acres of disturbance represents a minor percentage (0.2%) of the total area. Due to the dispersed nature of the Proposed Action and the relatively small area of disturbance, the effects to water quality from construction activities on upland sites would be widely distributed and difficult to detect.

Although the majority of disturbance would occur on upland sites, the waterlines would cross four "blue line" stream courses over their total length of about 18.7 miles. There would be the potential for construction-related disturbance to increase the amount of sediment that would be mobilized within the channel or enter the channel from directly adjacent areas. This would be a temporary effect that would be limited with the implementation of erosion control measures. Short- and long-term effects to surface water quality and quantity are anticipated to be low to negligible under the Proposed Action.

The implementation of the design features outlined for soil and water in section 2.1.6 would limit short-term and long-term effects to water quality. Reestablishment of permanent, perennial vegetation would decrease long-term soil-erosion effects and, consequently, effects to floodplains and surface and ground water resources. NPDES permit compliance would require the maintenance of a SWPPP and the design, implementation, and maintenance of BMPs, as needed, to protect water quality. Activities associated with the proposed project that would impact US jurisdictional waterways would be conducted under Nationwide Permit # 12 (Utility Line Activities) and # 13 (Bank Stabilization).

Cumulative Impacts

The past and present actions that could contribute to cumulative impacts on water resources include livestock grazing and associated range improvements (e.g., fences, stock tanks) and oil and gas exploration, development, and associated infrastructure. The Chaco watershed where the Proposed Action is located includes 52 grazing allotments that covers approximately 35,250 acres. Reasonably foreseeable future actions include development of new oil and gas wells and supporting infrastructure. Total surface disturbance predicted by the PRMP/FEIS (Chapter 4) was 18,577 acres with 805 miles of new roads over twenty years in the San Juan Basin. The Chaco watershed where the Proposed Action is located contains approximately 2,918,965 acres with an estimated 40 existing oil and gas wells and 29,000 acres of existing long-term oil and gas surface disturbance (BLM 2003). Based on the oil and gas development predictions in the 2003 RMP/FEIS, about 71 new well sites will be constructed, with 264 acres of surface disturbance. Surface disturbance from oil and gas development could increase sediment yields in water bodies. Removal of vegetation in overgrazed areas could also contribute to increased sedimentation.

Additional residential growth could also occur from the installation of the waterline, leading to surface disturbance and increased sedimentation from construction of roads, power lines, and homes. The proposed project to control invasive plants on the Navajo Nation could also temporarily increase soil erosion on treated areas until native vegetation becomes re-established. The cumulative impacts on water resources from the past, present, and foreseeable future actions would comprise of short- and long-term surface disturbance (e.g., soil erosion, increased sediment). Based on the temporary and short-lived effects of surface disturbance (approximately 0.2% of the four watersheds) from the proposed construction of Reaches 26.1 and 26.2, cumulative effects of the Proposed Action would be considered negligible.

3.5.1. Affected Environment

The description of the Arizona/New Mexico Plateau ecoregion is summarized from the EPA's level III ecoregions of the United States narration (US EPA 2013c.). The Arizona/New Mexico Plateau occurs primarily in Arizona, Colorado, and New Mexico, with a small portion in Nevada. This ecoregion is approximately 45,870,500 acres, and the elevation ranges from 2,165 to 11,949 feet. The ecoregion's landscapes include low mountains, hills, mesas, foothills, irregular plains, alkaline basins, some sand dunes, and wetlands. This ecoregion is a large transitional region between the semiarid grasslands to the east, the drier shrublands and woodlands to the north, and the lower, hotter, less vegetated areas to the west and south. Vegetation communities include shrublands with big sagebrush (*Artemisia tridentata*), rabbitbrush (*Ericameria* sp., *Chrysothamnus* sp., etc.), winterfat (*Krascheninnikovia lanata*), shadscale saltbush (*Atriplex confertifolia*), and greasewood (*Sarcobatus vermiculatus*), and grasslands of blue grama (*Bouteloua gracilis*), western wheatgrass (*Pascopyrum smithii*), and needle-and-thread grass (*Hesperostipa comata*). Higher elevations may support piñon pine (*Pinus edulis*) and juniper (*Juniperus* sp.) forests. The ecoregion includes the urban areas of Santa Fe and Albuquerque, New Mexico. Important land uses include irrigated farming, recreation, rangeland, wildlife habitat, and some natural gas production.

The vegetation community is mapped as Great Basin Conifer Woodland and Plains and Great Basin Grassland (Brown 1994). The dominant vegetation across the majority of the project area consists of big sagebrush (*Artemisia tridentata*), Green's rabbitbrush (*Chrysothamnus Greenei*), blue grama (*Bouteloua gracilis*), and galleta (*Pleuraphis jamesii*; Figures 4 and 5). Sacaton (*Sporobolus airoides*) is present in the area mapped as Great Basin Desert Scrub in the south-central portion of the project area. One-seeded juniper (*Juniperus monosperma*) occurs in scattered patches in the northern portion of the project area. A flat, grass-dominated valley occurs between Chaco Wash to the south and Cañado Corrales to the north. This area is dominated by sacaton, galleta, greasewood (*Sarcobatus vermiculatus*), and New Mexico saltbush (*Atriplex obovata*).



Figure 4. North end of Reach 26.1 facing SW.



Figure 5. Reach 26.2 facing SW.

3.5.2. Impacts from the Proposed Action

Direct and Indirect Impacts

Direct impacts on plant communities and habitats would be expected to occur along the ROWs and TCEs for pipelines, the power line, and the other improvements to be constructed. Vegetation would be cleared for all construction activities (see Figure 6 for an example). Plant communities and habitats affected by direct or indirect impacts from project activities could incur short- or long-term changes in species composition, abundance, and distribution. Some impacts would also continue after the project

1 construction activities are complete. The plant communities that become established on any area
2 disturbed during ROW construction would depend on the restoration practices that are implemented,
3 including the species selected, the species present in adjacent habitats, the degree of disturbance to
4 vegetation and substrates, and the vegetation management practices selected for implementation. The
5 BLM FFO Reduced Palatability seed mix (for sagebrush and greasewood communities), selected from
6 the Bare Soil Reclamation Procedures (BLM FFO 2013), would be used for reseeded the ROW (see
7 Appendix A: Re-vegetation Plan).

8 Removal of trees within or along woodland areas in small areas would potentially result in an indirect
9 disturbance to woodland interior areas through changes in light and moisture conditions. Clearing for
10 pipeline construction would remove existing vegetation. Re-vegetation would be done after the pipeline
11 construction is completed; grass species would dominate the revegetated areas. This would result in
12 some conversion of shrub-dominated vegetation to grass along the linear ROWs. There should be no
13 conversion from woodland to grass as only scattered patches of one-seeded juniper occurs on the
14 northern portion of the proposed project area.

15 In some areas, restoration may potentially include species that are not locally native or plant communities
16 different from local native communities. Although the replanting of disturbed soils may successfully
17 establish vegetation in some locations (i.e., with a biomass and species richness similar to those of local
18 native communities), the resulting plant community may be quite different from native communities in
19 terms of species composition and representation of particular vegetation types, such as shrubs. The
20 community composition of replanted areas would likely be greatly influenced by the species that are
21 initially seeded, and colonization by species from nearby native communities may be slow. The
22 establishment of mature native plant communities may require decades, and some community types may
23 never fully recover from disturbance. Successful reestablishment of some habitat types, such as some
24 shrubland communities, may be difficult and may require considerably greater periods of time.
25 Restoration of plant communities in areas with arid climates (e.g., averaging less than nine inches of
26 annual precipitation) would be especially difficult (Monsen et al. 2004).



27
28 **Figure 6. Example of clearing of pipeline right-of-way through shrub-dominated vegetation.**

29 Indirect impacts on terrestrial habitats on or off the project site could result from land clearing and
30 exposed soil, soil compaction, and changes in topography, surface drainage, and infiltration
31 characteristics. Indirect impacts could include the degradation of habitat from construction activities
32 occurring in adjacent areas.

33 In addition to habitat removal, the operation of heavy equipment on the project ROWs may result in injury
34 or destruction of existing vegetation and biological (microbiological) soil crusts and the compaction and
35 disturbance of soils (Barger et al. 2006). Soil aeration, infiltration rates, and moisture content could be

1 impacted. Biological soil crusts occur in deserts and other sparsely vegetated arid habitats and are
2 important for soil stability, nutrient cycling, and water infiltration; their disturbance may affect the
3 development of plant communities (Fleischner 1994, Belnap et al. 2001, Gelbard and Belnap 2003). All
4 these factors could affect the rate or success of vegetation reestablishment.

5 Habitats adjacent to the project may become fragmented or isolated as a result of construction.
6 Biodiversity may subsequently be reduced in fragmented or isolated habitats. The fragmentation of large,
7 undisturbed high-quality habitats by construction would be considered a greater impact than construction
8 through previously disturbed or fragmented habitat.

9 The deposition of fugitive dust (including associated salts) generated during clearing and grading
10 activities and/or during the construction and use of access roads, or deposition that results from wind
11 erosion of exposed soils, could reduce photosynthesis and productivity (Thompson et al. 1984, Hirano et
12 al. 1995), increase water loss (Eveling and Bataille 1984) in plants near project areas, and result in injury
13 to leaves. Plant community composition could subsequently be altered, resulting in habitat degradation. In
14 addition, pollinator species could be affected by fugitive dust, potentially reducing pollinator populations in
15 the vicinity. Localized impacts on plant populations and communities could occur if seed production in
16 some plant species is reduced.

17 Cumulative Impacts

18 Surface disturbance and removal of vegetation from oil and gas development has occurred on 29,000
19 acres in the Chaco watershed where the Proposed Action is located (BLM 2003). Based on the oil and
20 gas development predictions in the 2003 RMP/FEIS, about 71 new well sites will be constructed, with 264
21 acres of surface disturbance. The Great Basin Desert Scrub and piñon juniper woodlands were the plant
22 communities to be most affected from oil and gas development (BLM 2003).

23 Additional residential growth could also occur from the installation of the waterline, leading to surface
24 disturbance and vegetation removal from construction of roads, power lines, and homes. The proposed
25 project to control invasive plants on the Navajo Nation lands in several New Mexico counties, including
26 McKinley and San Juan could change plant community composition and structure over the long-term by
27 restoring native plant communities. The Proposed Action would not be converting piñon-juniper
28 woodlands to grass-dominated communities, as only scattered one-seed juniper are present in the
29 northern portion of Reach 26.1. In combination with the past, present, and reasonably foreseeable future
30 actions, the temporary and short-lived effects from the Proposed Action would not contribute significantly
31 to cumulative effects on vegetation.

32 3.6. Noxious Weeds and Invasive Species

33 3.6.1. Affected Environment

34 Specific plants have been designated as noxious weeds by New Mexico State law due to their potential to
35 harm the state economy. The BLM weed management program emphasizes conservation of the native
36 plant community by monitoring, controlling, and preventing noxious weeds and invasive species.
37 Development of weed management programs is required by Executive Order 11312 Invasive Species
38 1999, the Federal Noxious Weed Act of 1974, the New Mexico Noxious Weed Management Act of 1978,
39 and the Federal Plant Protection Act of 2000 (USDI/BLM 2003a). The FFO weed management plan
40 dictates that for all actions on public lands that involve surface disturbance or rehabilitation, reasonable
41 steps would be required to prevent the introduction or spread of noxious weeds, including requirements
42 for using weed seed-free hay, mulch, and straw. These measures also include washing all vehicles and
43 equipment prior to moving on site to remove noxious weed seeds and propagules.

44 The New Mexico Class B noxious weed *Halogeton glomeratus* was found occasionally throughout the
45 proposed project area, mostly along disturbed roadside areas. Class B noxious weed species are limited
46 in range and, in areas with severe infestations management, should be designed to contain the noxious
47 weed and prevent further spread (NMDA 2009). Class B weed species will be treated within the project
48 corridor prior to work commencing. A pesticide use proposal will be initiated for the use of herbicides and

the BLM Noxious Weed coordinator will be contacted to assure the use of appropriate herbicides and timing of plant treatments or removal. Monitoring and treatment of noxious weeds will be performed throughout the lifetime of this project.

3.6.2. Impacts from the Proposed Action

Direct and Indirect Impacts

Indirect effects of increased vehicle traffic in the area, especially traffic that comes from outside the local area, may result in establishment of invasive/noxious weeds. Invasive/noxious plants generally outcompete native species where bare ground is created. Some construction activities would occur near known locations of the invasive plant *Halogeton glomeratus*. This plant occurs primarily along existing roads throughout the project area. Given the small, discrete areas of proposed disturbance and implementing the design features (section 2.1.6), effects from invasive, nonnative species are expected to be low for both the short and long term for the action area. Halogeton will be treated with appropriate control measures within the project area prior to work commencing to avoid spread along the project corridor and to reduce potential direct impacts.

Cumulative Impacts

Other management activities occurring in the area, such as oil and gas development, grazing management and recreation, as well as the proposed construction of Reaches 26.1 and 26.2 and the other improvements, present the potential for new invasive plant infestations. Constructing Reaches 26.1 and 26.2 could lead to construction of more homes, and associated infrastructure, which would also have the potential for spreading of existing noxious weeds and new noxious weed infestations. The BLM has active invasive-plant management programs, including providing for prevention and control in project-level decisions. In addition, the Navajo Nation has initiated analysis of its proposed noxious-weed management program, which includes areas near this project. These activities, along with the measures included in this project would help to reduce the potential for the introduction and spread of invasive plants.

3.7.1. Affected Environment

Migratory Birds

Executive Order 13186 dated January 17, 2001, calls for increased efforts to more fully implement the Migratory Bird Treaty Act of 1918. In keeping with this mandate, the BLM/FFO has issued an interim policy to minimize unintentional take as defined by the EO 13186 and to better optimize migratory bird efforts related to BLM/FFO activities (USDI/BLM 2010). In keeping with this policy, a list of priority birds of conservation concern that occur in similar ecoregions as the Proposed Action area was compiled through a review of existing bird conservation plans including:

- USFWS Birds of Conservation Concern (BCC)
- New Mexico Partners in Flight (NMPiF) New Mexico Bird Conservation Plan
- Comprehensive Wildlife Conservation Strategy for New Mexico (CWCS)
- Gray Vireo Recovery Plan
- The North American Waterbird Conservation Plan
- Recovery plans and conservation plans/strategies prepared for federally listed and candidate species.

The selected species have a known distribution in the FFO area and may be affected by various types of perturbations. These species and a brief assessment of their habitat are identified in Table 6.

Bird species observed in the project area include American Kestrel (*Falco sparverius*), Gray Flycatcher (*Empidonax wrightii*), Cassin's Kingbird (*Tyrannus vociferans*), Loggerhead Shrike (*Lanius ludovicianus*), Common Raven (*Corvus corax*), Cliff Swallow (*Petrochelidon pyrrhonota*), Horned Lark (*Eremophila alpestris*), Western Bluebird (*Sialia mexicana*), Mountain Bluebird (*Sialia currucoides*), Townsend's Solitaire (*Myadestes townsendi*), Sage Thrasher (*Oreoscoptes montanus*), Sage Sparrow (*Amphispiza belli*), Lark Sparrow (*Chondestes grammacus*), Brewer's Sparrow (*Spizella breweri*), Black-throated Sparrow (*Amphispiza bilineata*), and House Finch (*Carpodacus mexicanus*).

There are no large cliffs for nesting raptors near Reaches 26.1 and 26.2, but some surrounding areas contain small cliffs and steep rocky outcrops.

Table 6. Migratory birds with potential to occur in the project area. Table continued on following page.

Species Name	Habitat Associations	Potential to Occur in the Project Area
Bendire's thrasher (<i>Toxostoma bendirei</i>)	On the Colorado Plateau, inhabits open sagebrush with scattered junipers; sparse or degraded understory, lower elevations. Avoids riparian areas and arroyos with dense shrub cover.	Low shrub height, and high sagebrush cover, likely excludes Bendire's thrasher from the project area.
Black-throated sparrow (<i>Amphispiza bilineata</i>)	Xeric habitats dominated by open shrubs with areas of bare ground.	Sagebrush-dominated vegetation could provide suitable habitat for this species. Observed in the project area.
Brewer's sparrow (<i>Spizella breweri</i>)	Closely associated with sagebrush, preferring dense stands broken up with grassy areas.	Sagebrush-dominated vegetation makes this bird likely to occur in project area. Observed in the project area.
Gray vireo (<i>Vireo vicinior</i>)	In northern NM, stands of piñon pine and Utah juniper 5800–7200 feet, open with a shrub component and mostly bare ground; antelope bitterbrush, mountain mahogany, Utah serviceberry and big sagebrush often present. Broad, flat or gently sloped canyons, in areas with rock outcroppings, or near ridge-tops.	Lack of piñon-juniper cover makes this bird highly unlikely to occur in the project area.
Loggerhead shrike (<i>Lanius ludovicianus</i>)	Open country interspersed with improved pastures, grasslands, and hayfields. Nests in sagebrush areas, desert scrub, and woodland edges.	Desert scrub in the analysis area could provide suitable habitat for the species, although significant grassy areas are lacking. Observed in the project area.
Mountain bluebird (<i>Sialia currucoides</i>)	Open piñon–juniper woodlands, mountain meadows, and sagebrush shrublands; requires larger trees and snags for cavity nesting.	Desert scrub in the analysis area could provide suitable habitat for the species; although nest habitat lacking. Observed in the project area.
Mourning dove (<i>Zenaida macroura</i>)	Open country, scattered trees, and woodland edges. Feeds on ground in grasslands and agricultural fields. Roost in woodlands in the winter. Nests in trees or on ground.	Desert scrub in the analysis area could provide suitable habitat for the species.
Sage sparrow (<i>Amphispiza belli</i>)	Large and contiguous areas of tall and dense sagebrush. Negatively associated with seral mosaics and patchy shrublands	Sagebrush-dominated vegetation makes this bird likely to occur in project area. Observed in the

Species Name	Habitat Associations	Potential to Occur in the Project Area
	and abundance of greasewood.	project area.
Sage thrasher (<i>Oreoscoptes montanus</i>)	Shrub-steppe dominated by big sagebrush.	Sagebrush-dominated vegetation makes this bird likely to occur in project area. Observed in the project area.
Scaled quail (<i>Callipepla squamata</i>)	Brushy arroyos, cactus flats, sagebrush or mesquite plains, desert grasslands, Plains grasslands, and agricultural areas. Good breeding habitat has a diverse grass composition, with varied forbs and scattered shrubs.	Desert scrub in the analysis area could provide suitable habitat for the species.
Swainson's hawk (<i>Buteo swainsoni</i>)	A mixture of grassland, cropland, and shrub vegetation; nests on utility poles and in isolated trees in rangeland. Nest densities higher in agricultural areas.	Desert scrub in the analysis area could provide foraging habitat for the species.
Vesper sparrow (<i>Poocetes gramineus</i>)	Dry montane meadows, grasslands, prairie, and sagebrush steppe with grass component; nests on ground at base of grass clumps.	Desert scrub in the analysis area could provide suitable habitat for the species.

General Wildlife

Field surveys of the proposed project areas were made on January 26, 2012, June 19–20, 2012, and November 20, 21, and 28, 2012 (see Appendix B). The assessment area included a 400-foot (122 m) right-of-way centered on the waterline and associated structures. The area was surveyed for suitable habitat for protected plants and wildlife, cliffs suitable for nesting raptors, birds, noxious weeds, wetlands, drainages, and surface waters within the project area. No prairie dog towns were observed in the project area. The variety in biotic communities and topography within the proposed alignments provides habitat to a variety of wildlife species. Wildlife observed in the project area includes desert cottontail (*Sylvilagus audubonii*), American badger (*Taxidea taxus*), and banner-tailed kangaroo rat (*Dipodomys spectabilis*). Wildlife diversity in the area is limited by the lack of diverse vegetation communities and pressure from human activity.

The project area is classified by the NNDFW as Wildlife Resources Area 2 and 3 (moderately and low sensitivity, respectively) according to the Biological Resource Land Clearance Policies and Procedures (RCP). There are no wildlife-related BLM FFO SDAs in or near the project area.

3.7.2. Impacts from the Proposed Action

Direct and Indirect Impacts

Migratory Birds

The proposed project could affect about 230 acres, including areas cleared for water pipelines, storage tanks, and other improvements, although the impact area may be less because some of the 100-foot temporary construction easement for the water pipelines may not be disturbed. Most of the disturbance would involve the removal of woody and ground vegetation. If vegetation removal occurs outside the breeding season, there would be no direct impact to migratory birds because the local habitat types are abundant and there would be active nests or nestlings. No removal of vegetation would occur during the breeding season without preconstruction nest surveys (see section 2.1.6). If the surveys determine that no nests would be affected by vegetation removal, then there would be no direct effects on migratory birds.

1 If activities occur during the nesting season and nests are present, direct impacts would be the incidental
2 destruction of active bird nests, including eggs and hatchlings, and the temporary disruption of breeding
3 territories of individual birds because of noise and human presence during construction. Sage-nesting
4 species would be the most likely impacted, such as sage thrasher, sage sparrow, Brewer's sparrow, and
5 vesper sparrow. This work would only be done if no alternative exists and following receipt of the
6 approved permit from the USFWS (see Section 2.1.6).

7 At the completion of construction activities, re-vegetation of disturbed areas would reduce the impacts of
8 the Proposed Action. Some sage habitat would be converted to grass-dominated habitat within the
9 permanent ROW. The amount of projected habitat conversion is small compared to the total amount of
10 available sage habitat in the surrounding area.

11 Due to the staged nature of the Proposed Action, the relatively small, discrete areas of disturbance, and
12 the availability of adjacent suitable habitat, the anticipated effects on migratory bird populations and
13 species as a whole would be low to negligible in the short term and long term. Seasonal restriction on
14 construction activities would further reduce the potential for disturbance on nesting migratory birds.

15 **General Wildlife**

16 Wildlife habitat may suffer short-term degradation due to loss of vegetation, which may provide forage
17 and cover. No major or long-term effects on non-avian wildlife are anticipated. Incidental mortality or
18 displacement among small animals may occur on the site during clearing and preparation of the site. The
19 plant community, however, is widespread, and those animals are expected to move into adjacent
20 habitats.

21 **Cumulative Impacts**

22 Surface disturbance and removal of vegetation from oil and gas development has occurred on 29,000
23 acres in the Chaco watershed where the Proposed Action is located (BLM 2003). Based on the oil and
24 gas development predictions in the 2003 RMP/FEIS, about 71 new well sites will be constructed, with 264
25 acres of surface disturbance. Wildlife inhabiting the Great Basin Desert Scrub and piñon juniper
26 woodlands would be most affected from oil and gas development (BLM 2003). The Proposed Action
27 would not impact Great Basin Desert Scrub biotic community or piñon juniper woodlands.

28 There are 52 grazing allotments that cover approximately 120,000 acres in the Chaco watershed.
29 Depending on the intensity of grazing, available forage for wildlife (e.g., ungulates), nesting habitat for
30 grassland birds, and escape cover for small mammals and birds could be affected.

31 Installation of the waterline could lead to the growth of residential areas, which would increase the human
32 population in the area and lead to more roads, power lines, and other development. The impacts would
33 likely not be substantial in the foreseeable future due to the fact that the project area is rural and sparsely
34 populated.

35 The proposed project to control invasive plants on the Navajo Nation lands in several New Mexico
36 counties, including McKinley and San Juan could change plant community composition and structure over
37 the long-term by restoring native plant communities. This could improve wildlife habitat quality with
38 restoring/increasing native plant habitats. Based on the limited nature of ongoing and reasonably
39 foreseeable future actions, the temporary and short-lived effects due to the project would not significantly
40 contribute to cumulative effects on common wildlife species and migratory birds.

Affected Environment

Endangered Species Act of 1973

The ESA of 1973 requires all federal departments and agencies to conserve threatened and endangered species and the habitats on which they depend, and to consult with the USFWS on all actions authorized, funded, or carried out by a federal agency to ensure that the action will not likely jeopardize the continued existence of any threatened and endangered species or adversely modify critical habitat. Consultation with the USFWS, as required by Section 7 of the ESA, was conducted as part of the Farmington RMP/FEIS (Consultation No. 2-22-01-I-389) to address cumulative effects of RMP implementation. The consultation is summarized in Appendix M of the RMP/FEIS. Farmington Field Office staff reviewed the action alternatives and determined they would be in compliance with threatened and endangered species management guidelines outlined in the September 2002 Biological Assessment (Consultation No. 2-22-01-I-389). No further consultation with the U.S. Fish and Wildlife Service is required. Federally listed species with potential to occur in the project area are listed in Table 7.

Navajo Endangered Species Act

The Navajo Endangered Species Act (No. RCS-41-08) groups species of concern on Navajo Nation into four groups: Group 1: Those species or subspecies that no longer occur on the Navajo Nation. Group 2 and 3: "Endangered"—Any species or subspecies whose prospects of survival or recruitment within the Navajo Nation are in jeopardy or are likely within the foreseeable future to become so. Group 2 is species or subspecies whose prospects of survival or recruitment are in jeopardy. Group 3 is species or subspecies whose prospects of survival or recruitment are likely to be in jeopardy in the foreseeable future. Group 4 is any species or subspecies for which the NNDFW does not currently have sufficient information to support their being listed in Group 2 or Group 3 but has reason to consider them. The NNDFW will actively seek information on these species to determine if they warrant inclusion in a different group or removal from the list. The NNDFW shall determine the appropriate group for listing a species or subspecies due to any of the following factors:

1. The present or threatened destruction, modification, or curtailment of its habitat;
2. Over-utilization for commercial, sporting, or scientific purposes;
3. The effect of disease or predation;
4. Other natural or man-made factors affecting its prospects of survival or recruitment within the Navajo Nation; or
5. Any combination of the foregoing factors

Navajo-listed species with potential to occur in the project area are listed in Tables 7 and 8.

Special Management Species

In accordance with BLM Manual 6840, the FFO of the Bureau of Land Management has prepared a list of special management species to focus species management efforts toward maintaining habitats under a multiple use mandate, called FFO Special Management Species (SMS; Table 8). The BLM manages certain sensitive species not federally listed as threatened or endangered to prevent or reduce the need to list them as threatened or endangered in the future (Table 8). The authority for this policy and guidance is established by the Endangered Species Act of 1973, as amended; Title II of the Sikes Act, as amended; the FLPMA of 1976; and Department of Interior Manual 235.1.1A.

Tables 7 and Table 8 provide an evaluation of potential for BLM SMS and sensitive, federally protected, and Navajo-listed species to occur in the action area (Ecosystem Management, Inc.2013). The evaluation

1 of presence potential is based on the known habitat for the species and the assessment of the potential
 2 project during field assessments.

3 **Table 7. Federally and Navajo Group 2-listed species. Table continued on following pages.**

Species Name	Conservation Status*	Habitat Associations	Potential to Occur in Analysis Area
Birds			
Least tern (<i>Sterna antillarum</i> <i>athalassos</i>)	FWS E	Highly dependent on rivers, lakes and streams for diet and nesting habitat.	No large bodies of water occur within the project area.
Western yellow-billed cuckoo (<i>Coccyzus americanus</i>)	FWS Proposed T	Occurs in well-vegetated riparian areas.	There is no riparian vegetation within the project areas.
Southwestern willow flycatcher (<i>Empidonax traillii eximius</i>)	FWS E, N G2	This species inhabits dense riparian areas dominated by cottonwoods, willows, and tamarisk.	No riparian vegetation occurs in the project area.
Mexican spotted owl (<i>Strix occidentalis lucida</i>)	FWS T	Occurs in mature ponderosa pine and mixed-conifer forests and is typically associated with steep slopes and cliff/canyon complexes.	The project area lacks appropriate habitat for this species.
Mammals			
Black-footed ferret (<i>Mustela nigripes</i>)	FWS E, N G2	This species is dependent on large prairie dog towns over 198 acres or with over 20 burrows per hectare (0.4 acre = 1 ha)	There were no prairie dog towns observed within the project area. Nearby prairie dog towns would be avoided by at least 200 meters and do not exceed 80 hectares.
NM Meadow jumping mouse (<i>Zapus hudsonius luteus</i>)	FWS C	Occurs in montane riparian habitats and in tall sedges, thick grasses and willow-alder riparian habitats.	No suitable habitat occurs within the project area.
Fishes			
Rio Grande silvery minnow (<i>Hybognathus amarus</i>)	FWS E	This fish occurs in the Rio Grande.	The project area is not within the Rio Grande watershed.
Plants			
Mancos milkvetch (<i>Astragalus humillimus</i>)	FWS E, N G2	Found in cracks or eroded depressions on sandstone rimrock ledges and mesa tops in Point Lookout sandstone from 5,000–6,000 feet.	Area lacks appropriate geology.

Species Name	Conservation Status	Habitat Associations	Potential to Occur in Analysis Area
Zuni fleabane (<i>Erigeron rhizomatus</i>)	FWS T, N G2	Occurs in nearly barren detrital clay hillsides with soils derived from shales of the Chinle or Baca Formations most often on north- or east-facing slopes in open piñon-juniper woodlands from 7,300–8,000 feet.	Area lacks appropriate geology and vegetation community.
Knowlton cactus (<i>Pediocactus knowltonii</i>)	FWS E	Known only from the type locality in San Juan County, NM. It occurs on rolling, gravelly hills in piñon-juniper and sagebrush at about 6,200–6,300 feet.	Area lacks vegetation community and gravelly substrate. Area is well south of the only known locality.
Mesa Verde cactus (<i>Sclerocactus mesae-verdae</i>)	FWS T, N G2	Requires highly alkaline, gypsiferous soils in sparsely vegetated low, rolling clay hills formed from the Mancos or Fruitland Shale Formations at 4,900–5,500 feet.	There is some Fruitland Formation in the project area, but the area lacks the soil types and vegetation community where this species occurs. The project area is also outside the known range of Mesa Verde cactus.

*FWS T, E, and C = Fish and Wildlife Service Threatened, Endangered, and Candidate. N G1 and G2 = Navajo Endangered Species List rankings: G2 = endangered. All birds on list are protected under the Migratory Bird Treaty Act.

Table 8. Fish and Wildlife Service Species of Concern, BLM FFO Special Management and Sensitive species, Navajo Group 3 and 4 species, and eagles, with potential to occur in Sandoval and McKinley Counties. Table continued on following pages.

Species Name	Conservation Status*	Habitat Associations	Potential to Occur in Analysis Area
Birds			
Golden eagle (<i>Aquila chrysaetos</i>)	BLM SMS, N G3, BGEPA	Occurs in a variety of open habitats and nests mainly on large cliffs.	Low: There are no large cliffs or potential nesting habitats for golden eagles in the vicinity of the project area.
Western Burrowing owl (<i>Athene cunicularia</i>)	BLM SMS, BLM S, FWS SOC, N G4	Nests in ground cavities in open scrub and desert. Associated with prairie dog towns.	Low: No associated prairie dog colonies occur in the action area or within 200 meters of the project area.
Ferruginous hawk (<i>Buteo regalis</i>)	BLM SMS, BLM S, N G3	Frequently associated with prairie dog towns. Nests in badlands, desert scrub and grasslands on isolated elevated substrates.	Low: The project area lacks isolated, elevated structures, except for a transmission line at the southern end of the project area, and prairie dog towns.
Chestnut-collared longspur (<i>Calcarius ornatus</i>)	BLM S	Occurs in short- or mixed-grass prairies and prefers grazed or recently burned areas.	Low: Winter habitat for this species is restricted to the southern portion of the water line—the proposed action would affect a small portion of available habitat.
Mountain plover (<i>Charadrius montanus</i>)	BLM S, N G4	Occupies arid, short grassland habitat including heavily grazed areas. Microhabitat variables important for nesting often include large patches of bare ground (> 30% total cover), grass, and proximity to prairie dog towns	Moderate: There is one area in the proposed right-of-way with suitable Mountain Plover habitat in the north-south portion of the line west of Tanner Lake from Chaco Wash to north of Cañada Corrales. The area is flat and consists of grass with patches of bare ground.
Western yellow-billed cuckoo (<i>Coccyzus americanus</i>)	BLM SMS	Occurs in well-vegetated riparian areas.	Unlikely: There is no riparian vegetation within the project areas.
Prairie falcon (<i>Falco mexicanus</i>)	BLM SMS	Occurs in open habitats and nests on cliff walls.	Unlikely: The project area lacks adjacent cliffs that could serve as falcon nesting habitat.

Species Name	Conservation Status*	Habitat Associations	Potential to Occur in Analysis Area
Peregrine falcon (<i>Falco peregrine</i>)	BLM SMS, FWS SOC, N G4	Occurs in a wide variety of habitat types and nests on cliff walls.	Unlikely: There are no large cliffs or potential nesting habitats for peregrine falcons in the vicinity of the project area
Pinyon jay (<i>Gymnorhinus cyanocephalus</i>)	BLM S	Occurs in piñon-juniper woodlands of the foothills and lower mountain slopes. Nests on the south side of conifers.	Low: The project area lacks extensive habitat for this species. Transient flocks may occur in the area.
Bald eagle (<i>Haliaeetus leucocephalus</i>)	BLM SMS, BGEPA	Occurs around large bodies of water with fresh fish.	Unlikely: No large bodies of water occur within the project area.
Bendire's thrasher (<i>Toxostoma bendirei</i>)	BLM S	Occurs in sparsely vegetated desert habitats and nests in shrubs, trees, and cacti.	Low: The only suitable habitat in the project area is the open grassy habitat that also offers Mountain Plover habitat. The remainder of the project area is too shrubby, being dominated by dense sagebrush.
Mammals			
Pronghorn (<i>Antilocapra americana</i>)	N G3	Occurs in grassy areas with no to low shrub cover.	Low: Could occur in the project but the species prefers more open grassland or desert scrub habitats.
Townsend's big-eared bat (<i>Corynorhinus townsendii</i>)	BLM S	Occurs in mines and caves and is closely associated with coniferous forests, desert, native prairies, riparian areas and agricultural areas.	Unlikely: Lack of potential roosting and foraging habitats.
Gunnison's prairie dog (<i>Cynomys gunnisoni</i>)	BLM S	Occurs in mostly level, open grassy areas with soil that's suitable for burrowing.	Unlikely: No prairie dog towns were observed in or within 200 meters of the current project area.
Spotted bat (<i>Euderma maculatum</i>)	BLM S	Occurs in piñon-juniper, desert scrub, arid desert, ponderosa pine, mixed conifer forests, canyon bottoms, rims of cliffs, riparian areas, fields, and open pasture habitat. It usually roosts in caves and crevices in high cliffs.	Low: This species could use the project area for night-time foraging, but the area lacks caves and large cliffs for roosting.

Species Name	Conservation Status*	Habitat Associations	Potential to Occur in Analysis Area
Cebolleta pocket gopher (<i>Thomomys bottae paguatae</i>)	BLM S	Occurs in mixed scrub, sagebrush, juniper, piñon-juniper, and agricultural lands where there is suitable soil for burrows	Moderate: This species could potentially occur throughout the project area.
Kit fox (<i>Vulpes microtis</i>)	N G4	Occurs in open grassland and desert scrub.	Unlikely: The project area is dominated by continuous big sagebrush. It is unlikely that this species would inhabit the project area.
NM Meadow jumping mouse (<i>Zapus hudsonius luteus</i>)	BLM S	Occurs in montane riparian habitats and in tall sedges, thick grasses and willow-alder riparian habitats.	Unlikely: No suitable habitat occurs within the project area.
Plants			
Aztec gilia (<i>Aliciella formosa</i>)	BLM SMS, BLM S, N G4	Arid and sparsely vegetated Badland /Salt desert scrub communities in soils of the Nacimiento Formation. 5,000–6,000 feet.	Unlikely: Northeast portion of project area mapped as Nacimiento formation but lack the exposed badland soils on which this species typically occurs.
San Juan milkweed (<i>Asclepias sanjuanensis</i>)	BLM S, FWS SOC, N G4	Occurs in sandy or sandy loam soils in piñon-juniper woodlands and Great Basin desert scrub from 5,000–6,200 feet elevation.	Unlikely: The project area does not contain extensive piñon-juniper woodlands. The elevation of the project area is above that at which the milkweed is known to occur, but this does not rule out potential occurrence.
Acoma fleabane (<i>Erigeron acomanus</i>)	BLM S, N G3	Found on sandy slopes and benches beneath sandstone cliffs of the Entrada Sandstone Formation in piñon-juniper woodlands at 6,900–7,100 feet.	Unlikely: The project area lacks the geological substrate on which this species is known to occur.
Mancos saltbush (<i>Proatriplex pleiantha</i>)	BLM S	Occurs in San Juan County, NM, in badlands on saline clay soils of the Mancos and Fruitland Shale Formations at 5,000–5,500 feet.	Unlikely: The project area contains some Fruitland Formation geology; however, it lacks saline clay soils and badlands. The project area is also south of the known range of this species.
Parish's alkaligrass (<i>Puccinellia parishii</i>)	BLM S, G 4	This grass occurs near alkaline springs, seeps, and seasonally wet areas at 2,600–7,200 feet.	Unlikely: No suitable habitat occurs within the project area based on direct field observations.
Brack's cactus (<i>Sclerocactus cloverae</i> ssp. <i>brackii</i>)	BLM SMS, BLM S	Sandy clay slopes of the Nacimiento Formation in sparse semi desert, piñon-juniper grasslands and open arid areas of badland habitat from 5,000–6,000	Unlikely: The northeastern portion of the project area contains Nacimiento Formation geology but does not contain salt desert scrub vegetation and exposed gray clay soils preferred by this species. The project area elevation is also above that known for this

Species Name	Conservation Status*	Habitat Associations	Potential to Occur in Analysis Area
		feet.	species. This species is unlikely to occur in the project area because of lack of the vegetation community in which it occurs.
Grama grass cactus (<i>Sclerocactus papyracanthus</i>)	BLM S	Occurs in open flats of grasslands and woodlands, often with grama grass.	High: The project area contains the appropriate habitat.

*FWS SOC = Fish and Wildlife Species of Concern. BLM S and SMS = Bureau of Land Management Sensitive and Special Management Species. BGEPA = Bald and Golden Eagle Protection Act. N G3 and G4 = Navajo Endangered Species List rankings: G3 = threatened, G4 = candidate—they are not protected under Tribal Code but should be considered in project planning. All birds on list are protected under the Migratory Bird Treaty Act.

3.8.1. Impacts from the Proposed Action

Direct and Indirect Impacts

The proposed action would have no effect on the Bald Eagle, Least Tern, Western Yellow-billed Cuckoo, Southwestern Willow Flycatcher, Mexican Spotted Owl, Townsend's big-eared bat, black-footed ferret, New Mexico jumping mouse, Rio Grande silvery minnow, Mancos milkvetch, Zuni fleabane, Knowlton cactus, Mesa Verde cactus, San Juan milkweed, Aztec gilia, Brack's cactus, Acoma fleabane, Mancos saltbush, and Parish's alkaligrass because of lack of suitable habitat, which makes occurrence in the project area unlikely.

Burrowing Owl—The proposed action would have no effect on the Burrowing Owl because of lack of nesting habitat.

Golden eagle—The project would have no effect on the golden eagle because of lack of nesting habitat in or near the project area. The project would not violate the Bald and Golden Eagle Protection Act.

Ferruginous hawk—The proposed project area lacks isolated, elevated structures for nesting. The known inactive raptor nest on the transmission line crossing the southern portion of the project area would be surveyed before construction if disturbance is to occur between March and July. It is unlikely that birds would nest on the ground in the project area because of grazing and the proximity to the residences and roads. The proposed project would have no effect on the ferruginous hawk because of lack of suitable breeding habitat throughout most of the project area.

Mountain Plover—The proposed project would have no effect on the Mountain Plover because construction would not occur during the breeding season without a preconstruction nest survey.

Peregrine Falcon—The proposed project would have no effect on the Peregrine Falcon because of lack of suitable nesting habitat in or near the project area.

Prairie Falcon—The proposed project would have no effect on the Prairie Falcon because there is no suitable nesting habitat in or near the project area.

Chestnut-collared Longspur—The proposed project would have no effect on the Chestnut-collared Longspur because most of the project area lacks the appropriate habitat, the area is outside the species's breeding grounds, and only a small portion of appropriate habitat would be impacted.

Pinyon jay—The proposed project would have no effect on the Pinyon Jay because of lack of suitable breeding habitat.

Bendire's Thrasher—The proposed project would have no effect on Bendire's Thrasher because most of the project area lacks the appropriate habitat; only a small portion of appropriate habitat would be impacted, and no construction would occur during the breeding season without a preconstruction nest survey.

Black-tailed prairie dog—The proposed project would have no effect on the black-tailed prairie dog because it does not occur in or near the proposed project area based on field observations.

Pronghorn—The project would have no effect on this species because of the species's mobility, the narrow width of the right-of-way, and the temporary nature of the disturbance.

Kit fox—The proposed project would have no effect on the kit fox because of lack of suitable habitat and the nature of the proposed action.

Spotted bat—The proposed project would have no effect on the spotted bat because of lack of roosting habitat.

Cebolleta pocket gopher—The proposed project may impact the Cebolleta pocket gopher at the individual level; however, the project would have no effect on the Cebolleta pocket gopher at the population level because it would occur outside the gopher's main population center in Cibola County, New Mexico.

Grama grass cactus—The proposed project may impact individual grama grass cactus. The project would have no effect on the overall population in New Mexico because of the widespread distribution of the species.

The Navajo Fish and Wildlife Department concurred with the determinations on July 17, 2014 (Appendix B).

Cumulative Impacts

Surface disturbance and removal of vegetation from oil and gas development has occurred on 29,000 acres in the Chaco watershed where the Proposed Action is located (BLM 2003). Based on the oil and gas development predictions in the 2003 RMP/FEIS, about 71 new well sites will be constructed, with 264 acres of surface disturbance. Great Basin Desert Scrub and piñon juniper woodlands habitat would be most affected from oil and gas development (BLM 2003).

There are 52 grazing allotments that cover approximately 120,000 acres in the Chaco watershed. Depending on the intensity of grazing, available forage (e.g., ungulates), and escape cover for small mammals and birds could be affected.

Installation of the waterline could lead to the growth of residential areas, which would increase the human population in the area and lead to more roads, power lines, and other development. The impacts would likely not be substantial in the foreseeable future due to the fact that the project area is rural and sparsely populated.

The proposed project to control invasive plants on the Navajo Nation lands in several New Mexico counties, including McKinley and San Juan could change plant community composition and structure over the long-term by restoring native plant communities. This could improve wildlife habitat quality with restoring/increasing native plant habitats. Although habitat does exist for several species in the general area of the project, none of the species above would be affected with the exceptions of one plant and one animal: grama grass cactus and Cebolleta pocket gopher. Because only individual plants or gophers have the potential to be impacted by the construction activities, and the analysis indicates that there would be no effect at the population level for these species, there would be no cumulative effects from this project and other activities in the area.

3.9. Cultural Resources

3.9.1. Affected Environment

The proposed project area is located within the archaeologically rich San Juan Basin of northwest New Mexico. In general, the history of the San Juan Basin can be divided into five major periods: Paleolndian (ca. 10000 B.C. to 5500 B.C.), Archaic (ca. 5500 B.C. to A.D. 400), Basketmaker II–III and Pueblo I–IV periods (a.k.a. Anasazi; A.D. 1–1540), and the Historic (A.D. 1540 to present), which includes Native American as well as later Hispanic and Euro-American settlers. Detailed descriptions of these various periods are provided in the BLM FFO-FEIS (2003) and will not be reiterated here. Additional information can also be found in the Cultural Resources Technical Report (CRTR; SAIC 2002).

Effects to cultural resources must be taken into consideration under every NEPA-governed Proposed Action. The term “cultural resources” refers to any historic or prehistoric resource. This encompasses a wide range of material remains that have the potential to provide information about the human use and occupation of the project area. These cultural resources generally consist of archaeological sites and Traditional Cultural Properties (TCPs).

Cultural sites vary considerably and can include, but are not limited to, simple artifact scatters, structures or structural remains of various types with a myriad of associated features, rock art and inscriptions, ceremonial/religious features, and roads and trails.

The National Register of Historic Places (36 CFR Part 60; NRHP) is the basic benchmark by which the significance of cultural resources are evaluated by a federal agency when considering what effects its actions may have on cultural resources. To summarize, to be considered eligible for the NRHP a cultural resource must have integrity of location, design, setting, materials, workmanship, feeling, and association, and meet one or more of the following criteria: a) are associated with events that have made a significant contribution to the broad patterns of our history; b) are associated with the lives of significant persons in or past; does it c) embody the distinctive characteristics of a type, period, or method of construction; represent the work of a master; possess high artistic values; represent a significant and distinguishable entity whose components may lack individual distinction; or d) have yielded or may be likely to yield information important in history or prehistory. If a site, regardless of age, meets these standards it is referred to as a “historic property.”

Pursuant to Reclamation’s *Programmatic Agreement Regarding the Consideration and Management of Effects on Historic Properties Arising from Construction of the NGWSP, New Mexico* (PA), the Proposed Action’s Area of Potential Effect (APE) for direct physical effects on historic properties includes all lands within 125 feet of the planned 150 foot construction ROW for a total width of 400 feet as depicted in the FEIS. All lands within the APE for the Proposed Action were surveyed for cultural sites by EMI archaeologists at a BLM Class III level (100% pedestrian survey of the APE). The inventory identified 12 cultural sites (6 previously recorded and 6 new sites; A Cultural Resource Survey of Approximately 131.43 Acres for the Navajo Gallup Water Supply Reach 26.1, Sandoval County, New Mexico and A Cultural Resource Survey of 792.31 Acres for the Navajo Gallup Water Supply Project Reach 26.2, Sandoval and McKinley Counties, New Mexico). Two of the sites lie on BLM FFO, one on private land, and the remainder lies on Navajo Nation land. Eleven of the sites are archaeological and one is reported as a TCP for traditional Navajo use (discussed in more detail below).

Five cultural sites were recommended eligible for nomination to the NRHP, one is recommended eligible as a TCP, and seven are recommended not eligible. Fifty-two isolated occurrences were identified in the proposed project areas. Isolated occurrences were not recommended eligible for listing on the NRHP.

Native American Religious Concerns

TCPs are a separate class of cultural resources and are places that have cultural values that transcend the values of scientific importance that are normally ascribed to cultural resources such as archaeological sites and may or may not coincide with archaeological sites (Parker and King 1998).

1 A TCP is defined as a property that is listed on, or is eligible for inclusion on the NRHP because of its
2 association with cultural practices or beliefs of a living community that are: (1) rooted in that community's
3 history; and (2) important in maintaining the continuing cultural identity of the community (National
4 Register Bulletin #38). Native American communities are most likely to identify TCPs, although TCPs are
5 not restricted to those associations. Some TCPs are well known, while others may only be known to a
6 small group of traditional practitioners, or otherwise only vaguely known. Native American tribal
7 perspectives on what is considered a TCP are not limited by a places age or its National Register
8 eligibility or lack thereof.

9 TCPs cover a wide range of locales and use areas. Properties may include sacred landforms (e.g.,
10 mountains, rivers, lakes, outcrops, or naturally discolored rocks), places associated with deities, plant
11 gathering areas, places mentioned in traditional histories, habitation sites, and ceremonial/offering places
12 (Martin 2011).

13 Navajo Nation Historic Preservation Department (NHPD) policy requires that a good-faith effort must be
14 made to identify and evaluate all TCPs and sacred sites that may be affected by project-related activities.
15 For the Proposed Action, identification of TCPs consisted of reviewing existing published and unpublished
16 literature (e.g., Van Valkenburgh 1941, 1974, Brugge 1993, Kelly et al 2006, Gilpin 2013). In addition, the
17 NHPD's TCP database was searched for known TCPs within and adjacent to the project area. Further,
18 TCP interviews were conducted at the Pueblo Pintado Chapter House meeting on July 2, 2012 by
19 Ecosystem Management, Inc. (EMI) employee Lee Platero, an enrolled Navajo Nation tribal member
20 fluent in Navajo. These interviews were performed during a formal chapter house meeting in which
21 residents living along the proposed pipeline route were invited to attend, including the Counselor, Ojo
22 Encino, Pueblo Pintado, and Whitehorse Lake Chapters. EMI also made a good-faith effort to conduct
23 field interviews with those residing near the route of the proposed pipeline.

24 The proposed Reach 26.2 is adjacent to a historic Navajo structural site that includes a sweat lodge
25 constructed from axe cut juniper branch. The sweat lodge measures 2x2 meters and has collapsed and
26 deflated since initial use. The sweat lodge is associated with traditional Navajo use and is eligible for
27 protection as a TCP. EMI recommended this cultural site for inclusion in the NRHP under criterion "D".

28 **3.9.2. Impacts from the Proposed Action**

29 **Direct and Indirect Impacts**

30 Direct impacts normally include alterations to the physical integrity of a cultural site. If a cultural site is
31 significant for other than its scientific information, direct impacts may also include the introduction of
32 audible, atmospheric, or visual elements that are out of character for the cultural site. A potential indirect
33 impact from the proposed action is the increase in human activity or access to the area with the increased
34 potential of unauthorized removal or other alteration to cultural sites in the area.

35 Section III of Reclamation's PA regarding consultation on cultural resource National Register eligibility
36 determinations have not been completed. This requirement will be met, prior to construction, through
37 implementation of the PA governing the NHPA Section 106 process on the NGWSP. The PA allows for a
38 phased approach to Section 106 on the NGWSP to allow varying components of the project to progress
39 at different rates while ensuring Section 106 requirements are met for varying components prior to
40 construction.

41 Following stipulations in Sections IV and V of Reclamation's PA, historic properties/TCPs will be to the
42 extent possible, avoided with the implementation of design features such as but not limited to reduction of
43 construction areas, temporary barriers, and site monitoring (USDI BOR 2012, page 9). If historic
44 properties/TCPs cannot be avoided and will be adversely affected, Reclamation or its contractors will
45 prepare, in consultation with Parties to the PA, a treatment plan for all properties it determines are subject
46 to adverse direct and indirect effects by the Project and treatment will be consistent with the Secretary of
47 the Interior's Standards for the Treatment of Historic Properties and with the ACHP's guidelines. The
48 proposed water pipeline was rerouted to avoid the five eligible archaeological sites.

Native American Concerns

The proposed action is not currently known to physically threaten the integrity of any sacred places/TCP's, prevent access to sacred sites, prevent the possession of sacred objects, or interfere or otherwise hinder the performance of traditional ceremonies/rituals pursuant to AIFRA or EO 13007. There are currently no known remains that fall within the purview of NAGPRA that are threatened by Reaches 26.1 and 26.2.

Cumulative Impacts

Past and present actions include livestock grazing and associated range improvements (e.g., fences, stock tanks) and oil and gas exploration, development, and associated infrastructure. The Chaco watershed where the Proposed Action is located includes 52 grazing allotments that covers approximately 35,250 acres. Reasonably foreseeable future actions include development of new oil and gas wells and supporting infrastructure. Total surface disturbance predicted by the PRMP/FEIS (Chapter 4) was 18,577 acres with 805 miles of new roads over twenty years in the San Juan Basin. The Chaco watershed where the Proposed Action is located contains approximately 2,918,965 acres with an estimated 40 existing oil and gas wells and 29,000 acres of existing long-term oil and gas surface disturbance (BLM 2003). Based on the oil and gas development predictions in the 2003 RMP/FEIS, about 71 new well sites will be constructed, with 264 acres of surface disturbance. Surface disturbance could impact cultural resources in the area through direct damage and could result in increased vandalism.

Installation of a waterline could lead to the growth of residential areas, which would increase the human population in the area and lead to more roads, power lines, and other development. This development may impact cultural resources in the area. The impacts would likely not be substantial in the foreseeable future due to the project area's location on federal and tribal lands which are governed by environmental and cultural resource legislation that requires cultural resource surveys prior to residential development and supporting infrastructure installation.

3.10.1. Affected Environment

The major landowners within the proposed project area include Navajo Nation lands held in trust by the BIA and BLM lands (Reclamation 2009). Further general information regarding land-use authorizations can be found in Chapter V of the 2007 Navajo-Gallup Water Supply Project Planning Report and Draft Environmental Impact Statement.

Land use on Reaches 26.1 and 26.2 consists of mostly rural activities with scattered infrastructure. Jemez Mountains Electric Cooperative power lines, oil and gas pipelines, and waterlines managed by the Navajo Tribal Utility Authority cross the proposed waterline ROWs. Residences within a quarter mile of the waterlines are scattered throughout Reaches 26.1 and 26.2 concentrated around 26.1 where BIA 474 traverses the alignment (Figure 7). The predominant land use across all reaches is open-range grazing of cattle, horses, and sheep. Occasional barbed-wire fences cross the reaches and some small impoundments or reservoirs have been developed along washes. The roads that parallel Reach 26.2 (BIA Route 93) and Reach 26.1 (BIA Route 474) receive traffic from large tankers and big-rig trucks because of the gas exploration in the area.

3.10.2. Impacts from the Proposed Action

Direct and Indirect Impacts

Impacts to land use are measured in terms of whether the changes to land use caused by the Proposed Action are consistent with present land-use regulations and if these land-use changes would prevent or alter the types of future land use that would be feasible. The lands where the improvements would be placed are primarily managed for habitat and livestock grazing. Although grazing would be temporarily affected during proposed construction, this would be a temporary effect. After completion of construction

and reclamation of the waterline ROWs, they would again provide habitat and grazing opportunity. Small areas associated with the water storage and chlorination site, totaling about 3 acres, would not be available for other land uses. Should future waterline development occur in the area, these activities would not be incompatible with the waterline alignment or other improvements because they could be placed away from existing improvements.

Cumulative Impacts

Past and present actions include oil and gas development on 29,000 acres in the Chaco watershed where the Proposed Action is located. Reasonably foreseeable future actions include development of new oil and gas wells and supporting infrastructure. Total surface disturbance predicted by the PRMP/FEIS (Chapter 4) was 18,577 acres with 805 miles of new roads over twenty years in the San Juan Basin. Based on the oil and gas development predictions in the 2003 RMP/FEIS, about 71 new well sites will be constructed, with 264 acres of surface disturbance. Oil and gas development could cause conflicts with residential, community, and some commercial uses from potential noise sources. However, local zoning plans and regulations provide the basis for development and should eliminate incompatible land uses. Based on the temporary and short-lived effects of surface disturbance from the proposed construction of Reaches 26.1 and 26.2, cumulative effects of the Proposed Action would not contribute to fragmentation of land holdings or bisecting land use patterns, thus would have negligible cumulative impacts.

3.11. Transportation and Travel Management

3.11.1. Affected Environment

Portions of the reaches of the proposed project area follow or are crossed by dirt roads. Most of these roads provide access to local residences. The waterline would follow existing roads, BIA Routes 93 and 474, road corridors that receive big-rig truck and large tanker traffic because of the gas exploration in the area (Figure 7). The proposed project includes both a 40-foot wide permanent waterline right-of-way and a 60-foot temporary construction easement. The contractor will either construct berms to prevent public access to the ROWs and temporary construction easements from existing roadways or install signs restricting public access. No new roads will be created. After construction is completed, the temporary construction easement shall revert to BLM. However, NTUA will continue to use the permanent ROW for access to the pipeline for operation and maintenance purposes.

3.11.2. Impacts from the Proposed Action

Direct and Indirect Impacts

Public roads are likely to be disturbed as part of the Proposed Action. Traffic control would be required on these roads during construction. In addition, some activities may require operating equipment on the edge or shoulder of some roads, especially during excavation of pipelines. Such activities may interfere with traffic, but the effects are anticipated to be low due to low traffic volumes on the road and mitigation measures. Construction activity would increase traffic on roads within the project area; this increase would be spread over a 3-year period as construction would last from 2014 through 2017.

Cumulative Impacts

Existing oil and gas pipeline ROWs and associated infrastructure (power lines, water facility, access roads) are located north and south of Reaches 26.1 and 26.2; totaling about 2000 acres. There are no proposed access roads or pipeline ROWs near or adjacent to proposed Reaches 26.1 and 26.2. No other activities are known to be occurring or are planned to occur in the project area that would affect transportation and travel management. There would be no significant cumulative effects.

Mitigation Measures

The Navajo Nation or the Navajo Nation's contractor will use adequate traffic control devices and warning signs to alert drivers of equipment and activities in or near roadways.

3.12.1. Affected Environment

The BLM provides for multiple recreation uses of the public lands. The objective of the FFO outdoor recreation program is to ensure the continued availability of public land for a diverse array of quality resource-dependent outdoor recreation opportunities. Recreation use is managed to protect the health and safety of visitors; to protect natural, cultural, and other resource values; to stimulate enjoyment of public lands; and to resolve user conflicts (USDI/BLM, 2003b, page 2–14). The RPFO objective for Extensive Recreation Management Areas (ERMAs) is to manage recreation as planned actively on an interdisciplinary basis in concert with other resources/resource programs (USDI/BLM 2012). Further general information on recreation in the area can be found in the 2003 Farmington RMP/EIS.

Reaches 26.1 and 26.2 follow existing roads, BIA Routes 93 and 474. Most public use of the area associated with recreation is related to travel along roads to get to hunting areas. No developed recreation sites or other opportunities exist near the proposed project area. Dispersed recreation uses in these areas are limited, as the areas are not open to cross-country off-highway vehicle travel.

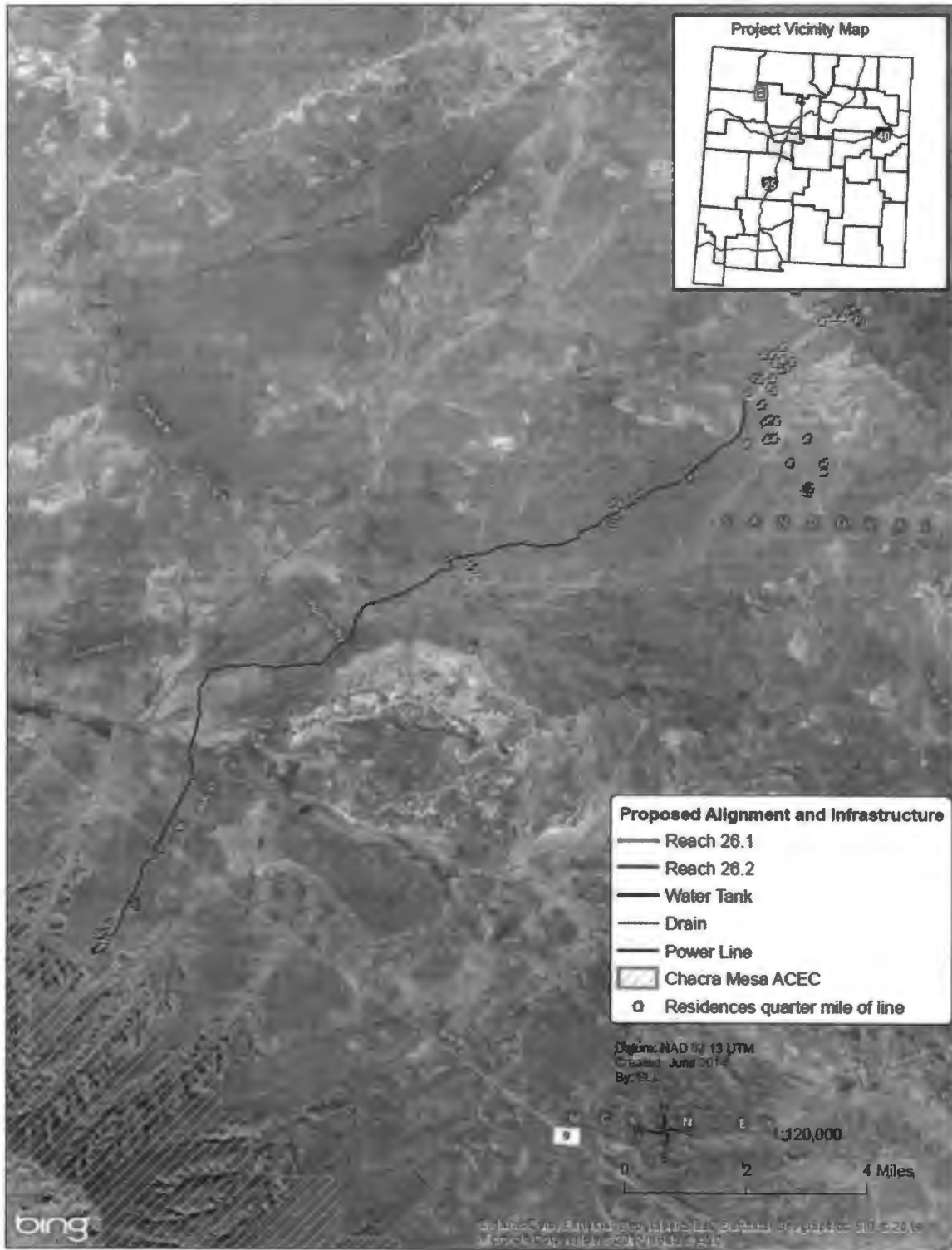
3.12.2. Impacts from the Proposed Action

Direct and Indirect Impacts

The proposed waterline alignments are located in a partially remote area removed from any notable recreation developments. Construction work may affect potential recreation activities and the general recreational experience of the public through increased noise, dust, and a general increase in human activity in the area. The general public may encounter equipment and personnel operating within the immediate project area. The proposed activities would likely not noticeably affect the recreating public as there is little sign of recreation in the proposed project area and given the limited extent of the proposed activities. Noise and activity in close proximity (within ¼ mile) of residences may affect residents.

The recreational user may observe new surface disturbances and construction activities. However, the Proposed Action would be consistent with the existing environment, which contains extensive disturbances associated with utility and energy-development infrastructure and transportation infrastructure. Work would occur during normal business hours to minimize disturbing residents and overnight recreationists. When construction is complete, disturbed areas would be re-contoured, reclaimed, and seeded to decrease the visual effects to the recreating public.

The NGWSP EIS analyzed the potential for general recreation effects on Navajo Nation lands. Because no campgrounds, hiking trails, or established recreation areas exist on Navajo Nation lands in the proposed project area, there would be no effect on these activities. The EIS disclosed that hunting activities are limited in the area due to the types of habitat that exists. Some tribal members hunt small game or elk and construction could temporarily displace wildlife, which could reduce hunting success (NGWSP EIS, pages V–98 to 99). When project activities are complete, hunting opportunity would return to preconstruction levels.



1
2 **Figure 7. Existing Road Network.**

Cumulative Impacts

Past and present actions that could have cumulative impacts on recreation include oil and gas exploration, development, and transportation and livestock grazing. Reasonably foreseeable actions that could impact recreation include oil and gas development of about 71 new well sites, with 264 acres of surface disturbance within the Chaco watershed where the Proposed Action is located (BLM 2003), which could have cumulative impacts on dispersed recreation areas. Oil and gas development would add to the level of modification, mainly visual and sound, that would detract from high quality dispersed recreation. Additional residential growth could also occur from the installation of the waterline, leading to surface disturbance from construction of roads, power lines, and homes, which could detract from dispersed recreation opportunities. There would be no cumulative impacts from the Proposed Action on campgrounds, hiking trails, or established recreation areas, as they do not exist within or near the proposed project area. The proposed project to control invasive plants on the Navajo Nation could also temporarily increase noise and reduce visual quality of treated areas until native vegetation becomes re-established. In combination with the past, present, and reasonably foreseeable future actions, the temporary and short-lived effects from the Proposed Action would not contribute significantly to cumulative effects on recreation.

3.13.1. Affected Environment

The livestock grazing program is principally authorized by FLPMA, the Taylor Grazing Act of 1934, and the Public Rangelands Improvement Act of 1978. The principal objective of the rangeland program is "to promote healthy sustainable rangeland ecosystem to accelerate restoration and improvement of public rangeland to properly functioning condition; to promote the orderly use, improvement and development of the public lands; to efficiently and effectively administer domestic livestock grazing; and to provide for the sustainability of the western livestock industry and communities that are dependent upon productive, healthy public rangelands." Further general information on rangeland management in the area can be found in Chapters 2 and 3 of the Farmington Resource Management Plan/Environmental Impact Statement (BLM 2003).

The proposed project crosses three grazing allotments managed by the FFO, RPFO, and BIA (Figure 8). The allotments are summarized in Table 9.

Table 9. Grazing allotments in the proposed project area.

Allotment Name and Number	Annual Operating Period	Maximum Permitted (head)			Available AUM ¹	Public land portion	Organization Managing Allotment
		Cattle	Sheep	Horse			
Counselor Community 6015	3/01–2/28	146	2287	2	5,890	100%	FFO
Tanner Lease 6019	3/01–2/28	8	—	—	96	100%	RPFO
Pueblo Pintado Community 6018	3/01–2/28	—	565	—	1,356	100%	BIA

¹AUM = Animal Unit Month

1 No permanent livestock water sources are within the immediate proposed project area. A number of
2 fences would be crossed by the Reach 26.1 and 26.2 alignments. Livestock may be present during
3 project operations.

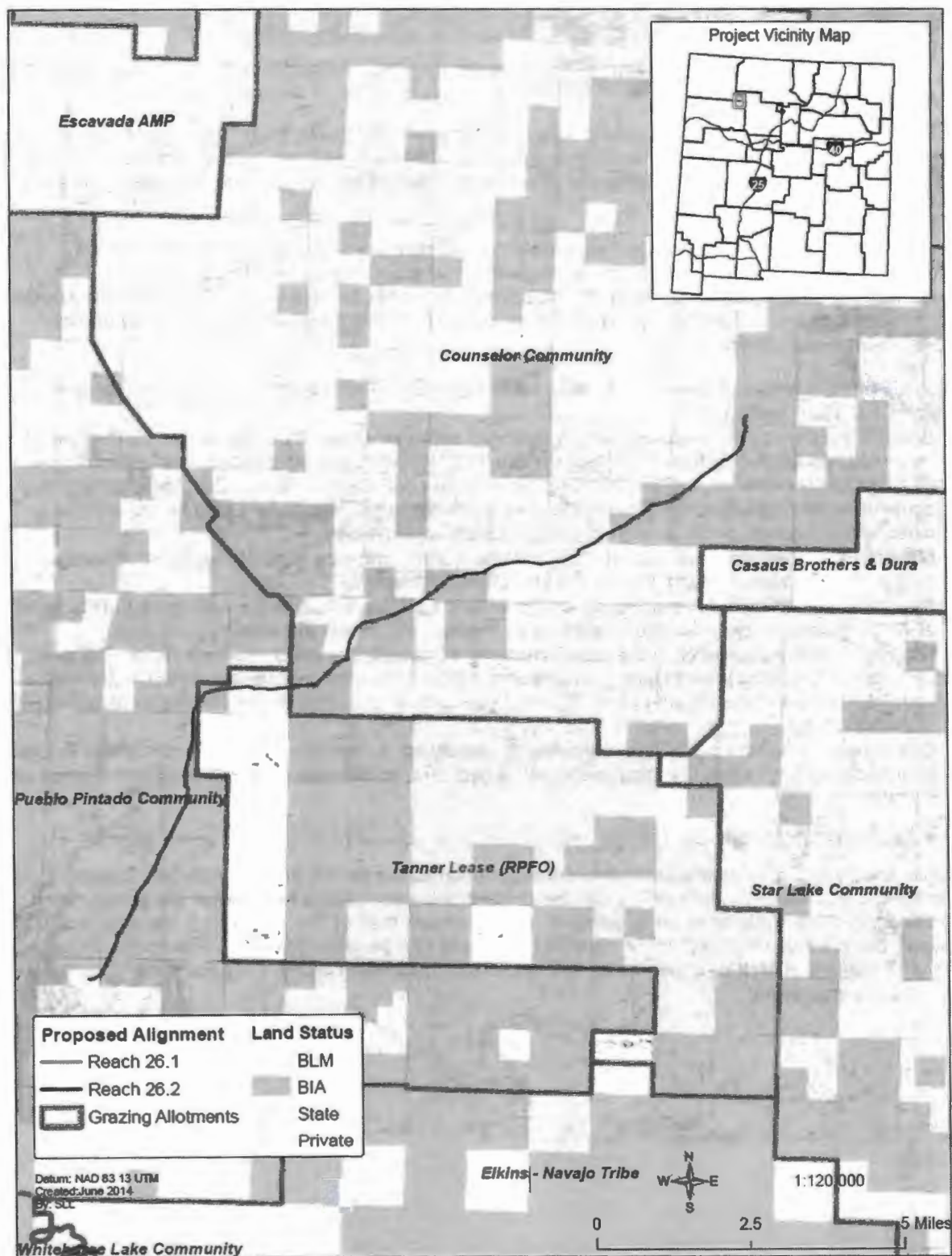
4 **3.13.2. Impacts from the Proposed Action**

5 **Direct and Indirect Impacts**

6 The Proposed Action would result in the temporary loss of forage as a result of the construction activities
7 within the grazing allotments. The disturbed area along the proposed pipeline ROW would be reseeded
8 with BLM-approved seed mixes, which is composed of palatable grasses and shrubs (Appendix A). The
9 disturbed area would be expected to revegetate within 1 to 2 years following reclamation and may result
10 in an increase in available forage within the proposed project area. There would no long-term loss of
11 available forage or water resources. Construction of the pipelines could also temporarily restrict livestock
12 movement and access to water due to the open trenches. In areas where active grazing is taking place
13 escape ramps/crossovers would be placed every 500 feet along an open trench to reduce potential
14 hazards to livestock; crossovers would be a minimum of ten feet wide and not fenced. Established
15 livestock and grazing trails would also be left in place to serve as a cross over. Grazing permittees would
16 be contacted prior to any construction operations on their respective portions of the proposed reaches. All
17 construction activities would be confined to the permitted areas only. Effects to range and grazing
18 livestock are anticipated to be minor in both the short and long term if design features are followed.

19 **Cumulative Impacts**

20 Reasonably foreseeable activities within the planning area that would impact forage resources include off-
21 highway vehicle traffic and grazing. The RMP determined that total surface disturbance from oil and gas
22 development in the planning area would affect about 1.6 percent of the San Juan Basin and 264 acres.
23 Combined with additional surface disturbance from urban development, the overall effect of removing
24 rangeland acreage from production would still be minimal when compared to the acreage of available
25 forage (USDI/BLM 2003a, pages 4-126 to 4-127). No other known projects are ongoing or planned to
26 occur within the grazing allotments that the Proposed Action crosses. In combination with the past,
27 present, and reasonable foreseeable activities, the Proposed Action would have no cumulative effects on
28 the allotments' carrying capacity or available AUMs.



1

2 **Figure 8. Grazing allotments and land ownership.**

3.14. Environmental Justice/Socio-Economics

3.14.1. Affected Environment

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations, requires that federal agencies identify and address any disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations.

Environmental justice refers to the fair treatment and meaningful involvement of people of all races, cultures, and incomes with respect to the development, implementation, and enforcement of environmental laws, regulations, programs, and policies. It focuses on environmental hazards and human health to avoid disproportionately high and adverse human health or environmental effects on minority and low-income populations.

Guidance on environmental justice terminology developed by the President's Council on Environmental Quality (CEQ 1997) is discussed below.

- Low-income population. A low-income population is determined based on annual statistical poverty thresholds developed by the US Census Bureau. In 2012, poverty level is based on total income of \$11,720 for an individual and \$23,283 for a family of four (US Census Bureau 2012d). A low-income community may include either a group of individuals living in geographic proximity to one another or dispersed individuals, such as migrant workers or Native Americans.
- Minority. Minorities are individuals who are members of the following population groups: American Indian, Alaskan Native, Asian, Pacific Islander, Black, or Hispanic.
- Minority population area. A minority population area is so defined if either the aggregate population of all minority groups combined exceeds 50 percent of the total population in the area or if the percentage of the population in the area comprising all minority groups is meaningfully greater than the minority population percentage in the broader region. Like a low-income population, a minority population may include either individuals living in geographic proximity to one another or dispersed individuals.
- Comparison population. For the purpose of identifying a minority population or a low-income population concentration, the comparison population used in this study is the state of New Mexico as a whole.

Low-income Populations

Income and poverty data estimates for the region surrounding the project area from the US Census Small Area Poverty Estimates model indicate that the percent of the population living below the poverty level in the socioeconomic study area as a whole is slightly above that of the state (21.3 percent and 20.6 percent), but it is much higher than the national average of 12.1 percent (Table 10). Poverty levels ranged from 37.7 percent in McKinley County to 13.7 percent in Sandoval County. Only Sandoval County was below the state average.

Table 10. Project Area County Population in Poverty (2002–2012).

	McKinley County	Rio Arriba County	Sandoval County	San Juan County	Study Area Total	New Mexico	United States
Percent of Population in Poverty 2002	21,766 30.2%	7,165 17.7%	19,934 11.1%	22,152 18.2%	71,017 21.3%	421,123 20.6%	34,569,951 12.1%
Percent of Population in Poverty 2012	27,296 37.7%	8,806 22.0%	18,502 13.7%	25,802 20.3%	80,406 21.5%	327,444 17.7%	48,760,123 15.9%
Median Household Income 2002	\$25,197	\$30,557	\$45,213	\$34,329	N/A	\$34,827	\$45,409
Median Household Income 2012	\$29,821	\$36,900	\$57,376	\$45,901	N/A	\$42,828	\$51,371
Classified as Low Income Population in 2012 based on CEQ guidelines?	No	No	No	No	No	NA	NA

Source: US Census Bureau 2013b

Similarly, estimates from 2012 indicate that Sandoval County had household median incomes (\$57,376) that were above the state level of \$42,828. McKinley County (\$29,821) was below that of the state in 2012. While no area communities meet the CEQ definition of a low-income population area (50 percent or higher), the highest poverty rates were seen in Bloomfield (29 percent), Espanola (26.3 percent), and Bernalillo (24.1 percent; Table 11).

Table 11. Project Area Key Community Race/Ethnicity and Poverty Data.

Community	% Population Racial or Ethnic Minority	Classified as Minority Population based on CEQ?	% of Individuals Below Poverty	Classified as Low- income Population based on CEQ?
Aztec	36.4%	N	14.4%	N
Bernalillo	78.8%	Y	24.1%	N
Bloomfield	55.8%	Y	29.0%	N
Espanola	91.6%	Y	26.3%	N
Farmington	48.8%	N	15.5%	N
Gallup	76.9%	Y	20.9%	N
Rio Rancho	46.7%	N	9.8%	N

Source: US Census Bureau 2012b

Note: American Community Survey estimates are based on data collected over a 5-year time period. The estimates represent the average characteristics of populations between January 2008 and December 2012 and do not represent a single point in time.

Census Tracts are geographic regions within the United States that are defined by the US Census Bureau in order to track changes in a population over time. Census Tracts are based on population sizes and not geographic areas. The average population of a Census Tracts is about 4,000 people, so rural areas that are sparsely populated may have very large Census Tracts while densely populated urban areas may have very small Census Tracts.

When broken down by Census Tract, 3 out of 87 tracts in the socioeconomic study area have greater than 50 percent of individuals living below the poverty line: Census Tract 9440 in eastern McKinley County had an individual poverty rate of 54.6 percent; Census Tract 9405 in southwestern McKinley County had an individual poverty rate of 59.4 percent; and Census Tract 9409 in northwestern Sandoval County had an individual poverty rate of 51.9 percent (US Census Bureau 2012b). These 3 Census Tracts are all relatively large, indicating a sparsely populated, rural area.

Minority Populations

The BLM, USFS, and USBR are responsible for coordinating with Native American Tribes and the BIA to develop and maintain long-range resource management plans (USDI/BLM 2003a). Executive Order 12898 directs that federal programs, policies, and activities not have a disproportionately high and adverse human health and environmental effect on minority and low-income populations (Reclamation 2009). The region surrounding the proposed project area contains significant populations belonging to minority and/or low-income groups (Table 12). Based on 2008–2012 data, minorities made up 59.5 percent of the population in New Mexico, compared to 36.3 percent in the United States as a whole (Table 10). The proportion of minorities in the socioeconomic study area (65.3 percent) substantially exceeded the United States and is slightly higher than the state average. At the county level, the population ranged from 89.7 percent minority in McKinley County to 52.8 percent in Sandoval County. Within relevant tribal nations, Native Americans represented the vast majority of the population. The largest minority groups were Hispanics/Latinos in Rio Arriba and Sandoval Counties and Native Americans in McKinley and San Juan Counties.

Table 12. Project Area County Population by Race/Ethnicity (2008–2012)

Population	McKinley County	Rio Arriba County	Sandoval County	San Juan County	Study Area	New Mexico	United States	Jicarilla Apache Nation	Navaho Nation	Ute Mountain Nation
Hispanic or Latino ethnicity of any race	9,744 13.6%	28,714 71.4%	46,334 35.3%	24,496 19%	109,288 29%	952,569 46.3%	50,545,275 16.4%	382 11.6%	2,958 1.7%	99 6.0%
White alone	7,413 10.3%	5,370 28.6%	61,977 47.2%	54,218 42.2%	128,978 34.67%	831,543 40.5%	196,903,968 63.7%	74 2.3%	3,762 2.2%	47 2.9%
Black or African American alone	353 0.5%	149 0.4%	2,704 2.1%	794 0.6%	4000 1.08%	35,586 1.7%	37,786,591 12.2%	0 0%	250 0.1%	5 0.3%
American Indian or Alaskan Native alone	52,358 72.8%	5,629 14.0%	15,964 12.2%	46,676 36.3%	120,627 32.43%	176,766 8.6%	2,050,766 0.7%	2,692 82.0%	162,920 94.3%	1,429 87.0%
Asian alone	506 0.7%	173 0.4%	1,685 1.3%	464 0.4%	2828 0.76%	25,411 1.2%	14,692,794 4.8%	73 2.2%	834 0.5%	14 0.9%
Native Hawaiian and Other Pacific Islander alone	38 0.1%	7 0%	100 0.1%	72 0.1%	217 0.06%	989 <.01%	480,063 0.2%	0 0%	209 0.1%	0 0%
Some Other Race	7 <.01%	22 0.1%	437 0.3%	84 0.1%	550 0.15%	3,623 0.2%	616,191 0.2%	0 0%	102 0.1%	0 0%
Two or more Races	1,469 2.0%	137 0.3%	2,101 1.6%	1,796 1.4%	5,503 1.48%	28,800 1.4%	6,063,063 2.0%	62 1.9%	1,660 1.0%	49 3.0%
Classified as Minority Population based on CEQ guidelines?	Yes	Yes	Yes	Yes		Yes	NA	Yes	Yes	Yes

Source: US Census Bureau 2012b

Note: American Community Survey estimates are based on data collected over a 5-year time period. The estimates represent the average characteristics of populations between January 2008 and December 2012 and do not represent a single point in time

1 Based on the CEQ definition of a minority population area (minority residents exceed 50 percent of all
2 residents), Bernalillo, Bloomfield, Espanola, and Gallup all are considered minority communities.

3 When examined at the Census Tract level, there are 24 out of 87 tracts that have a minority population
4 greater than 50 percent. These range from Census Tract 6.1 located just north of the city of Aztec with a
5 minority population of 80.5 percent to Census Tract 107.17 located north of the city of Rio Rancho with a
6 minority population of 50.2 percent (US Census Bureau 2012b). These Census Tracts are relatively small
7 and are based around the city of Rio Rancho and the Aztec/Farmington/Bloomfield area.

8 **Native American Populations**

9 Data in Table 12, Project Area County Population by Race/Ethnicity (2008–2012), account for a
10 substantial portion of the project area population, McKinley and Sandoval Counties, where the population
11 is 72.8 and 12.2 percent American Indian respectively. One tribal government occurs within the project
12 area: the Navajo Nation. The Navajo Nation maintains a general concern for protection of and access to
13 areas of traditional and religious importance, and the welfare of plants, animals, air, landforms, and water
14 on reservation and public lands. Policies established in 2006 by the BLM and US Forest Service, in
15 coordination with federal tribes, ensure access by traditional native practitioners to area plants. The policy
16 also ensures that management of these plants promotes ecosystem health for public lands. The BLM is
17 encouraged to support and incorporate into their planning traditional native and native practitioner plant-
18 gathering for traditional use (Boshell 2010).

19 **3.14.2. Impacts from the Proposed Action**

20 **Direct and Indirect Impacts**

21 The construction could impede access to multiple-use resources on BLM lands such as hunting,
22 gathering, or woodcutting. This would be temporary during construction activities in any local area. Upon
23 completion of construction, the reclamation activities would reestablish access where waterlines cross
24 existing roads to the public. There would be no displacement of communities or displacement of lands for
25 other uses. Indirect effects could include minimal positive effects to employment opportunities related to
26 project contractor support industries in the region as well as the economic benefits to state and county
27 governments related to taxes. Other effects could include a small increase in activity and noise
28 disturbance in areas adjacent to construction activities. Indirect effects would apply to all residents and
29 public land users in the proposed project area equally. Development of the proposed waterlines and
30 associated improvements would not result in disproportionate negative effects to minority or low-income
31 populations. Residents of the area would obtain improved access to potable water; thereby resulting in an
32 improved quality of life.

33 As noted in the EIS for the NGWSP "the beneficial effects of providing water to those who would
34 otherwise have to haul water would accrue primarily to the minority and low-income populations. This
35 access-to-water benefit and related health improvements are discussed in earlier sections of this report.
36 These important positive project impacts would assist rather than harm minority and low-income
37 populations (Reclamation 2009, page V-131)."

38 **Cumulative Impacts**

39 Cumulative impacts to environmental justice/socio-economics could occur from future oil and gas
40 development, which is predicted to include 71 new well sites, with 264 acres of surface disturbance in the
41 Chaco watershed where the Proposed Action is located (BLM 2003). Annual oil and gas production could
42 double over current levels (USDI/BLM 2003a, page 4-129), which could provide an increase in jobs,
43 expenditures, and public revenues. San Juan and McKinley counties both have disproportionately
44 minority populations that could benefit from resource development of federal and non-federal interests,
45 through job development. Development of Reaches 26.1 and 26.2 would provide a safe water supply to
46 many households who do not have access otherwise on the Navajo Nation and should stimulate the local
47 economy for both the construction and operation phases. There are no other known projects, that, when

considered with the Proposed Action, would contribute to cumulative effects on environmental justice/socio-economics.

3.15. Public Health and Safety

3.15.1. Affected Environment

OSHA laws regulate worker safety. The Proposed Action would include use of heavy equipment and creating open trenches during the course of construction and would comply with OSHA regulations (Navajo-Gallup Water Supply Project Reaches 24.1, 24.1 JAN, 25, and 26 Plan of Development 2014). Additional potential hazards to the general public include hazards associated with vehicle traffic.

The Environmental Protection Agency (EPA) and Department of Transportation (DOT) regulate hazardous materials under the Resource Conservation and Recovery Act (1976). The BLM manages public health and safety by complying with federal and state hazardous materials laws and regulations. The associated management goal of the BLM is to maintain the health of ecosystems through assessment, cleanup, and restoration of contaminated sites (USDI/BLM 2003a). Petroleum products that are transported in pipelines within the proposed project area are the primary hazardous material of concern. Accidental pipeline failure is a potential hazard associated with producing oil and gas fields (Reclamation 2009). Further general information on public health and safety in the proposed project area and potential hazards can be found in Chapter 5 of the 2009 Navajo-Gallup Water Supply Project Planning Report and Environmental Impact Statement.

3.15.2. Impacts from the Proposed Action

Direct and Indirect Impacts

Primary activities that could pose a risk to public health and safety from the Proposed Action are related to construction traffic and the operation of heavy equipment near public roadways. Health and safety risks for construction workers are related to the operation of heavy equipment, working around heavy equipment, and working in the vicinity of utilities (primarily gas gathering pipelines). These activities pose a risk of physical injury associated with auto accidents, contacting moving equipment, or explosion or fire from a punctured gas line. Direct and indirect effects to public health and safety would be minor and short term with the implementation of design features and adherence to OSHA regulations and BLM ROW grant stipulations.

Cumulative Impacts

There are no other known projects, that, when considered with the Proposed Action that would contribute to cumulative effects on public health and safety.

4. SUPPORTING INFORMATION

4.1. Tribes, Individuals, Organizations, or Agencies Consulted

Public scoping in this EA is tiered to the Reclamation FEIS-NGWSP, which conducted five public scoping meetings held specifically for the project and consulted with state and federal agencies, tribal governments, local governments, and interested organizations. The following individuals, agencies, or groups were consulted or sent copies of this document for review and comment:

- Bureau of Indian Affairs—Navajo Regional Office and Jicarilla Agency
- Navajo Nation Chapters—Whitehorse Lake, Ojo Encino, Pueblo Pintado, and Torreon
- Navajo Nation Historic Preservation Department
- Navajo Nation Department of Fish and Wildlife
- New Mexico State Historic Preservation Office
- Souder Miller and Associates
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service

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- 5 Kate Wright, Cultural Resources Specialist

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10

APPENDIX A. REVEGETATION PLAN

This re-vegetation plan was designed to meet the requirements presented in the U.S. Department of the Interior Bureau of Land Management Farmington Field Office (BLM FFO) Bare Soil Reclamation Procedures (BLM FFO 2013) for disturbance resulting from the construction of the Navajo–Gallup Water Supply (NGWS) Reaches 26.1 and 26.2. The proposed project would consist of installing approximately 18.7 miles (30.1 km) of 10-inch and 12-inch diameter (25 and 30-cm) polyvinyl chloride pipe from the Ojo Encino North tank site to the Pueblo Pintado tank site, in Sandoval and McKinley Counties, NM. The waterline would include 40 feet (12 m) of permanent right-of-way (ROW) and 60 additional feet (18 m) of temporary construction easement (TCE). The total acreage of permanent ROW would be 91 acres (36.8 ha); the total acreage of TCE would be 136 acres (55.0 ha). The total area of ROW and TCE combined would be approximately 227 acres (91.9 hectares).

The project would also include the construction of a water storage & chlorination facility at the existing Pueblo Pintado tank site. The additional tank would have 2.3 acres (0.9 ha) of permanent easement. This tank would require the construction of a 0.26-mile-long (0.42-km) single-phase power line totaling 1.3 acre (0.5 ha).

The total area of potential disturbance for the pipeline and associated infrastructures would be approximately 230 acres (93.1 ha).

The major portion of the excavation will be done by bulldozers, scrapers and track hoes and possibly trenchers. A ripper will more than likely be used to break up sandstone, siltstone and shale. Topsoil will be stockpiled separate from general excavation material and will then be utilized during reseeding. The pipeline trench will reach a maximum depth in some areas as deep as 20 to 30 feet but typically averages around six feet in depth. The bottom width of the trench will be approximately three to four feet in width. Boring would involve a bore machine. Soil compaction would be conducted with sheepsfoot rollers, excavators, and/or jumping jack tampers. It is anticipated that water would need to be pumped from trenches when encountered to off-worksite areas. This water would need to be pumped off of the work area in order to minimize mud and rutting from heavy equipment and to dispose of excess water in the working trench. Contractors would be required to obtain all necessary permitting for such water disposal prior to commencing construction. Soils would be reshaped to original form and the area reseeded with native vegetation.

The waterline and power line right-of-ways would be completely cleared of vegetation. Not all portions of the temporary construction easements would require vegetation removal because not all parts of the easements would be impacted—these would mostly function for staging areas and storage. A re-vegetation plan is required for all disturbances that remove vegetation and expose bare soil on BLM FFO lands.

The re-vegetation plan will follow the protocol outlined in Vegetation Reclamation Procedure B for disturbances over 1 acre. The initial onsite pre-disturbance visit was conducted on March 5th, 2013. Representatives from BLM FFO, BLM Rio Puerco Field Office (RPFO), and the Bureau of Reclamation met with Ecosystem Management, Inc. (EMI) to survey the vegetation communities in the project area and discuss seed mixes and noxious weed issues. Re-vegetation on lands belonging to the BLM RPFO will also follow the Bare Soil Reclamation Procedures and resulting re-vegetation plan, as agreed to following the initial onsite visit and meeting with both field offices.



Long view of typical 100-foot disturbance right-of-way for the NGWSP. Photo not from Reaches 26.1–26.2.



Cross view of typical 100-foot disturbance right-of-way for the NGWSP. Photo not from Reaches 26.1–26.2.

A.1. Site Description

Pre-disturbance site photos are presented below.

A.1.1. Vegetation Communities

Sagebrush Community—The majority of the project area is classified as the Sagebrush Community (Figure A-1). The dominant pre-disturbance vegetation consists of *Artemisia tridentata* (sagebrush), *Gutierrezia sarothrae* (broom snakeweed), and *Bouteloua gracilis* (blue grama). *G. sarothrae* is classified as an undesirable reclamation species in the Bare Soil Reclamation Procedures manual. *A. tridentata* is not included in the seed mix for this community type because it is likely to establish opportunistically without seeding. Other plants that occur in portions of the sagebrush community include *Chrysothamnus Greenei* (Green's rabbitbrush), *Pleuraphis Jamesii* (galleta), *Sporobolus airoides* (sacaton), and *Muhlenbergia pungens* (sandhill muhly). *S. airoides* is more common in the southern portion of Reach 26.2.

Unclassified grasslands—A portion of the south-central section of Reach 26.2 contains grasslands. These areas cannot be classified based on the eight vegetation communities corresponding to the Bare Soil Reclamation Procedures. These areas warrant a unique selection of revegetation seed mixes that do not include shrub species because the establishment of shrubs in grassland habitat would reduce the ecological function and values of these areas.

The grassland on Reach 26.2 consists of a wide, flat valley that spans from Cañado Corrales at the northeast end of this reach to Chaco Wash at the southwest end of this reach. The area is dominated by *S. airoides*, *P. Jamesii*, and *Atriplex obovata* (New Mexico saltbush). *Sarcobatus vermiculatus* (greasewood) occurs along washes in this area. A large prairie dog town is located in this area outside the right-of-way. This area is on Navajo Nation and BLM FFO land. This area is most similar to the greasewood community. We recommend that the seed mix be selected from this community type. This area spans from approximately 269271 E, 3984595 N to 266582 E, 3982495 N (NAD83 UTM Zone 13N).



Photo 1. South end of line facing northwest. Bare ground is associated with adjacent residence.



Photo 2. Near Pueblo Alto Trading Post facing southwest.



Photo 3. Near Pueblo Alto Trading Post facing northeast.



Photo 4. North of Tanner Lake facing southwest.



Photo 5. North of Tanner Lake facing northeast.



Photo 6. North-central project area facing southwest.

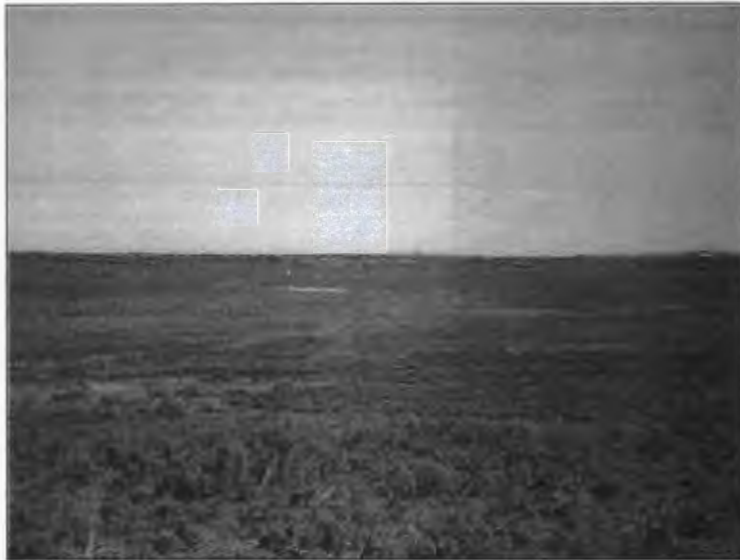


Photo 7. North-central project area facing northeast.



Photo 8. North end of project area facing southwest.



Photo 9. North end of project area facing northeast.



Photo 10. Unclassified grassland community.

A.2. Reclamation

A.2.1. Seed Mixes

The reduced-palatability seed mix is recommended for the widespread sagebrush community. Most of the area is subject to grazing by cattle, horses, and sheep. It is unrealistic to fence off such a large disturbance area. Furthermore, fencing would interrupt current open ranges. Seed mixes for the community types are presented in Table 1.

A.2.2. Reclamation Techniques

Provided below are some procedures and methods that may to help achieve more effective reclamation success (taken from the BLM FFO community and seed-mix descriptions).

Soil Testing: Development of a soil-testing plan for evaluation of the results of topsoil handling and reclamation procedures related to re-vegetation may prove beneficial. Suggested soil testing may include some or all of the following: pH, electrical conductivity (EC), texture, topsoil depth and overall soil depth, carbonates (reactivity), organic matter (OM), and Sodium Absorption Ratio (SAR).

Topsoil Stripping, Storage, and Replacement: At a minimum, the upper six inches of topsoil should be stripped, following the removal of vegetation during construction. The stripped topsoil should be stored separately from subsoil or other excavated material and replaced prior to final seedbed preparation.

Seedbed Preparation: For cut-and-fill slopes, initial seedbed preparation should consist of backfilling and recontouring to achieve the configuration specified in the reclamation plan. Seedbed preparation for compacted areas should be ripped to a minimum depth of 18 inches, with a maximum furrow spacing of two feet. Where practicable, ripping should be conducted in two passes at perpendicular directions. Avoid leaving large clumps or clods. If this exists, disking should be conducted. Disking and seed drills should run perpendicular to slopes to provide terracing and prevent rapid runoff and erosion. Seedbed preparation is one of the most important steps for reclamation success. Following final contouring, the backfilled or ripped surfaces should be covered evenly with topsoil. Final seedbed preparation should consist of raking or harrowing to spread topsoil prior to seeding to promote a firm seedbed. A loose seedbed makes it impossible to control the depth of seeding because the tires and the planter sink into the soil. Seedbed preparation may not be necessary for topsoil storage piles or other areas of temporary seeding.

Planting Depth: Improper planting depth, particularly the planting of some species too deeply in “fluffy” soils, is one of the major impediments to reseeding success. The Truax™ seed drill or modified rangeland drills that allow for seeding species from different seed boxes at different planting depths have been used by other BLM offices to address this issue. Efforts should be taken to ensure that perennial grasses and shrubs are planted at the appropriate depth. Intermediate-sized seeds such as wheatgrasses and shrubs should be planted at a depth of 0.5 inch, larger seeds, such as *Achnatherum hymenoides* at one to two inches, and small seeds such as *Sporobolus airoides* and *S. cryptandrus*, should be planted at a depth of 0.25 inch. In situations where differing planting depths are not practicable with the equipment being used, the entire mix should be planted no deeper than 0.25 inch. Planting too shallow is generally better than planting too deep. A review of current research methods is recommended (e.g., USDA PLANTS, USDA Plant Materials Centers and Service Areas, and native seed companies).

Soil Amendments: Amending a soil is not the same thing as mulching, although many types of mulch also are used as amendments. A “soil amendment” is any material added to a soil to improve its physical properties, such as water retention, permeability, water infiltration, drainage, aeration, nutrition, and structure. Organic amendments include sphagnum peat, humate, wood chips, grass clippings, straw, compost, manure, biosolids, sawdust, and wood ash. Inorganic amendments include vermiculite, perlite, lime, gypsum, tire chunks, pea gravel, and sand.

Mulching: Mulch may increase the success of seed germination and provide protection against erosion. Mulch should be applied within 24 hours following completion of seeding. In areas of interim reclamation that used drill-seeding or broadcast-seeding/raking, mulch should consist of crimping certified weed-free straw or certified weed-free native grass hay into the soil. Hydromulching may be used in areas of interim reclamation where crimping is impracticable, in areas of interim reclamation that were hydroseeded, and in areas of temporary seeding regardless of seeding method. Mulch applications in extremely clayey soils should be evaluated carefully to avoid developing an adobe mixture. In these cases, a soil amendment may prove more beneficial.

Timing of Seeding: Precipitation is the principal input controlling biological processes in arid and semiarid regions. The pattern of soil moisture will have a great impact on the fate of seeding. Many grasses species will germinate following significant moisture events that allow for deeper infiltration of soil moisture (4–12 inches deep). This moisture generally persists for several weeks and is available for seedling root growth and establishment. Grass species belong to one of two basic physiological types: cool season or warm season. Cool-season grasses have optimum growth temperatures of 70–75°F, with growth halting at around 40°F. Warm-season optimum temperatures occur at 85–95°F, with growth ceasing at about 55°F. The best time for seeding grass is at the beginning of the growing season. For cool-season grasses, there are two growing cycles: fall and spring. The best time to plant cool-season grasses is in late summer or early fall. For warm-season grasses, there is one growing season: summer. The best time to plant warm-season grass species is early spring or summer, with the onset of the monsoons, which typically begin early to mid-July.

The paragraph above provides the optimal timings of seeding for cool- and warm-season species that make up the seed mixes for the eight desired plant communities for reclaiming disturbed areas. Experience in Farmington Field Office has shown that with adequate winter moisture, cool-season seeds planted in the late fall or early winter (before the ground is frozen) will germinate the following spring, setting the stage for germination of warm-season species in the mix later in the season.

Table 1. Seed mixes for community types. Species in bold are known to grow in the project area.

Common Name	Scientific Name	Variety	Season	Form	PLS lbs./acre*
Reduced Palatability seed mix (for Sagebrush and Pinyon-Juniper Communities)					
Rubber rabbitbrush	<i>Ericameria nauseosa</i>	VNS	NA	Shrub	2
Four-wing saltbush	<i>Atriplex canescens</i>	VNS	NA	Shrub	2
Fringed sage	<i>Artemisia frigida</i>	VNS	NA	Sub-shrub	2
Purple threeawn	<i>Aristida purpurea</i>	VNS	Warm	Bunch	3
Indian ricegrass	<i>Achnatherum hymenoides</i>	Paloma or Rimrock	Warm	Bunch	3.5
Blue grama	<i>Bouteloua gracilis</i>	Alma or Hachita	Warm	Sod	2
Sand dropseed†	<i>Sporobolus cryptandrus</i>	VNS	Warm	Bunch	0.25
Scarlet globemallow	<i>Sphaeralcea coccinea</i>	VNS	Warm	Forb	0.25
Rocky Mountain beeplant	<i>Cleome serrulata</i>	VNS	Warm	Forb	0.25
Hairy false goldenaster	<i>Heterotheca villosa</i>	VNS	Warm	Forb	0.25
Unclassified Grasslands seed mix (Taken from greasewood seed-pick list)					
Indian ricegrass	<i>Achnatherum hymenoides</i>	Paloma or Rimrock	Warm	Bunch	4
Sand dropseed†, ‡	<i>Sporobolus cryptandrus</i>	VNS	Warm	Bunch	5
Blue grama	<i>Bouteloua gracilis</i>	Alma or Hachita	Warm	Sod	3
Galleta	<i>Pleuraphis jamesii</i>	Viva florets	Warm	Bunch/Sod-forming	5

*Based on 60 pure live seeds (PLS) per square foot, drill seeded. Double this rate (120 PLS/ft.2) if broadcast or hydroseeded.

† *S. cryptandrus* is preferred over *S. airoides*, the common dropseed in the project area, because it is better suited for re-vegetation projects (S. Dykes, BLM FFO noxious weed coordinator, personal communication).

Additional Seeding Rates or Species: While minimum seed requirements have been provided by the BLM, it does not exclude proposals for increased seeding rates or additional species/varieties of plants to BLM for approval to achieve reclamation standards. Industry attaining an understanding of soil types, precipitation patterns, the climate, and vegetation/environment relationships could be very valuable.

Sterile Cover Crop Option: A straw mulch (see above) with no sterile cover nurse crop would be a better option than using a nurse crop in that the mulch would help preserve soil moisture in the upper 2–3 inches of soil, while nurse crops in arid environments can compete with native seedlings for moisture.

BLM Consultation: BLM is available provide consultations concerning fencing options to help minimize industry costs, should fencing be necessary to achieve reclamation success.

A.2.3. Challenges

Grazing Pressures

A challenge to successful revegetation of the project area is grazing pressure. Current BLM and Bureau of Indian Affairs grazing-allotment rates may not reflect the actual level of grazing pressure in the area. Feral horses are abundant in some places; sheep and cattle are also common. Fences are few across the project area. Large portions of the project area lack substantial grass cover, and the revegetated right-of-way may attract hungry animals from the surrounding areas. Indeed, a visual inspection of the project area suggests that heavy grazing, coupled with the recent years' drought, have had negative impacts on native vegetation. Moreover, it is impractical to fence off approximately 19 miles of right-of-way. For this reason, we have recommended the reduced-palatability seed mix for most of the area.

Noxious Weeds

Eliminating and preventing further invasion of noxious weeds is another challenge for re-vegetation.

The New Mexico Class C and BIA Navajo Region Class C noxious weed *Tamarix ramosissima* (salt cedar) was found scattered in Cañada Corrales on Reach 26.2. The New Mexico Class B and BIA Navajo Region Class B noxious weed *Halogeton glomeratus* also occurs in some portions of the project area (Figure A-2).

T. ramosissima should remain confined to the washes in which it occurs if measures are taken to prevent the spread of seeds. *H. glomeratus* can be very problematic in disturbed areas where it may thrive from lack of competition. Following the protocol in the Bare Soil Reclamation Procedures Appendix D. Surface Use Plan of Operations Weed Management, the BLM FFO weed coordinator will review the noxious weed issues in the project area and submit onsite, specific requirements and instructions for weed treatments. The requirements and instructions will include the time frame of treatment, approved herbicides that may be used, required documentation to be submitted to the FFO after treatment, and any other site-specific instructions that may be applicable. Due to the seasonal nature of effective weed-treatment techniques, the operator may be required to treat the weeds before ground disturbance or may be required to treat the weeds after ground disturbance to avoid unreasonable delays.

A.3. Monitoring and Reporting Requirements

Post-re-vegetation monitoring requirements for Vegetation Reclamation Procedure B are presented below and can be found in section 3 of the Bare Soil Reclamation Procedures (BLM FFO 2013). It is available online: http://www.blm.gov/pgdata/etc/medialib/blm/nm/field_offices/farmington/farmington_planning/surface_use_plan_of.Par.69026.File.dat/FFO%20Bare%20Soil%20Reclamation%20Procedures%202-1-13.pdf.

A.3.1. Monitoring Responsibilities

The operator is responsible for the following:

- Conducting annual monitoring starting two calendar years after approval of required earthwork and/or seeding, and continuing until the vegetation percent cover standards have been attained, or an exception has been issued by the FFO. The FFO monitoring form will be completed and submitted to the FFO by December 31 of the year monitored.
- Reading the line point-intercept transects to document to FFO that vegetation percent cover standards have been attained.
- Requesting concurrence from the FFO that vegetation percent cover standards have been attained.
- Participating in conferences with the FFO and other effected parties to analyze issues contributing to unsuccessful reclamation.
- Participating in the implementation of remedial actions developed during the conference process as necessary.
- Conducting long term monitoring (every fifth year) after vegetation percent cover standards have been attained during the life of the well.
- All areas authorized by the APD until the operator transfers the permit or abandons the project and obtains a Final Abandonment Notice (FAN) from the FFO.

The FFO is responsible for the following:

- Establishing monitoring sites in collaboration with the operator during the required earthwork and/or seeding inspection, and submitting to the operator the initial monitoring report within 60 days of earthwork and/or seeding inspection approval.
- Evaluating annual monitoring reports submitted by the operator, and acknowledging to the operator that the reports have been received and evaluated within 60 days after received from the operator.
- Providing concurrence (or not) to the operator that the vegetation percent cover standards have been attained and rational for the determination within 60 days of receiving the request for concurrence.
- Participating in conferences with the operator and other effected parties to analyze issues contributing to unsuccessful reclamation.
- Participating in the implementation of remedial actions developed during the conference process as necessary.

A.3.2. Monitoring Components

The following monitoring components are required for the Vegetation Reclamation Procedure B:

- Establish monitoring sites after seeding is completed.
- Conduct annual monitoring starting two calendar years after seeding is completed.
- Evaluate monitoring reports.
- Compile and present documentation that percent vegetation cover standards have been attained.
- Request concurrence from the FFO that percent vegetation cover standards have been attained.
- FFO will provide concurrence (or not) that percent vegetation cover standards have been attained.
- Develop remedial plans to correct impacts to re-vegetation that may prevent the revegetated area from attaining per cent vegetation cover standards.
- Conduct long term monitoring after percent vegetation cover standards have been attained.

A.3.3. Monitoring Reporting

The FFO annual monitoring form will be completed and submitted to the FFO by December 31 of the year monitored. The FFO will evaluate the monitoring reports submitted and acknowledge that the reports have been received and evaluated within 60 days after they are received.

The following are the reclamation goals for each community type.

Sagebrush Community—≥ 35% foliar cover of trees/shrubs/grasses/forbs. ≤ 10% foliar cover of invasive/undesirables. 10% is allowed toward the meeting standard of 35%.

Unclassified Grassland—≥ 25% foliar cover of trees/shrubs/grasses/forbs. ≤ 10% foliar cover of invasive/undesirables. 10% is allowed toward the meeting standard of 35% (Taken from the greasewood community type standards).

FFO will read the line point intercept transects when the vegetation appears to have the potential to attain the standard. The holder may also request FFO staff to repeat a linear transect with a representative of the holder present if the holder believes the standard may be attained. The FFO will compile the following information to document that the percent vegetation cover standards have been attained:

- The overall percent foliar cover score from the linear transects for the ROW.
- The line point intercept transect data sheets.
- Photos from each established photo point.
- Two photos of each ROW line point intercept transect location: one photo looking each direction along the ROW. One photo taken of each transect from one end of the transect looking straight down to the ground.
- The FFO will prepare a notice to the ROW file that the percent cover standards have been attained.
- A copy of the notice will be supplied to the holder upon request.

The operator may request FFO concurrence that vegetation percent cover standards have been attained any time after two calendar years of completion of earthwork and seeding. When the vegetation on a reclaimed site appears to meet the required percent re-vegetation standard, the proponent may read the transect to document that the percent vegetation standards for the site have been attained. A request for concurrence that the percent re-vegetation standards have been attained may be submitted to the FFO. The request for concurrence will include the transect data sheets and photos taken from all the initial photo points established in the initial monitoring report. The FFO will review the request and either approve or deny the request within 60 days. If the FFO denies the request, the FFO may initiate a site inspection within 60 days of the denial to analyze the site and determine if remedial actions may be appropriate.

Requirements for the abandonment or relinquishment of re-vegetation monitoring for Vegetation Reclamation Procedure B are described below and can be found in section 3 of the Bare Soil Reclamation Procedures (BLM FFO 2013). It is available online:

http://www.blm.gov/pgdata/etc/medialib/blm/nm/field_offices/farmington/farmington_planning/surface_use_plan_of.Par.69026.File.dat/FFO%20Bare%20Soil%20Reclamation%20Procedures%202-1-13.pdf.

Monitoring requirements remain in effect as long as the permit, grant, or authorization remains in force, and until all associated facilities or infrastructure is abandoned by established BLM procedure and a final abandonment notice (FAN) or relinquishment is issued by the FFO. The operator must document that percent cover standards have been obtained when submitting a request for a FAN or a relinquishment. If ownership of any portion of the permit, grant, or authorization is transferred to another entity, the re-vegetation and monitoring requirements for the portion transferred will be assumed by the acquiring entity.

A.5.1. Lack of Progress in the Attainment of the Reclamation Standards

When monitoring reports indicate that bare soil reclamation is not successful, or the FFO identifies negative impacts within the reclamation area, the FFO or the permit holder/grantee may request a

conference to analyze the issues that may have contributed to reclamation failure, or lack of meaningful progress. FFO will facilitate the conference and invite potential affected parties such as the permit holder, grantee, FFO surface staff, range staff, realty staff, recreation staff, grazing permittee, or other authorized users that may be operating in the vicinity. The members of the conference will discuss the potential causes that may have contributed to the nonattainment of the reclamation standards. The conference may result in the development of a remedial plan to address the lack of re-vegetation success, or to repair and reseed damage to reclaimed areas. In cases where the permit holder/grantee can demonstrate that the site does not have the biological potential to attain the standards, the conference may result in the initiation of the exception process (see section 3 in the Bare Soil Reclamation Procedures (BLM FFO 2013)).

A.6. Literature Cited

Souder, Miller and Associates. 2014. Navajo–Gallup water supply project Reach 24.1, 24.1 JAN, 25, and 26 plan of development. Souder, Miller and Associates, Albuquerque, NM.

U.S. Department of the Interior Bureau of Land Management Farmington Field Office (BLM FFO). 2013. Bare Soil Reclamation Procedures.

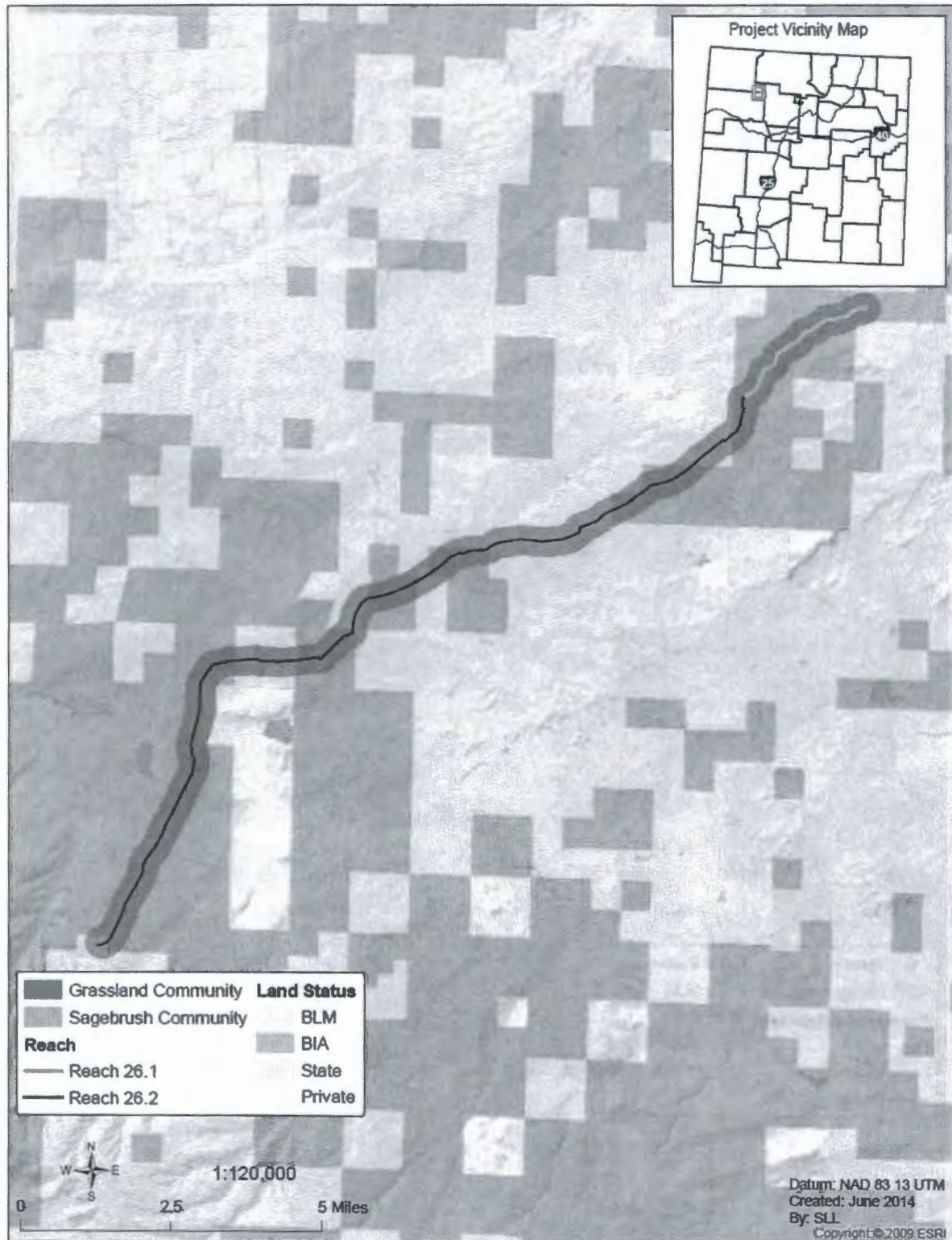


Figure A-1. Vegetation communities for Reaches 26.1 and 26.2.

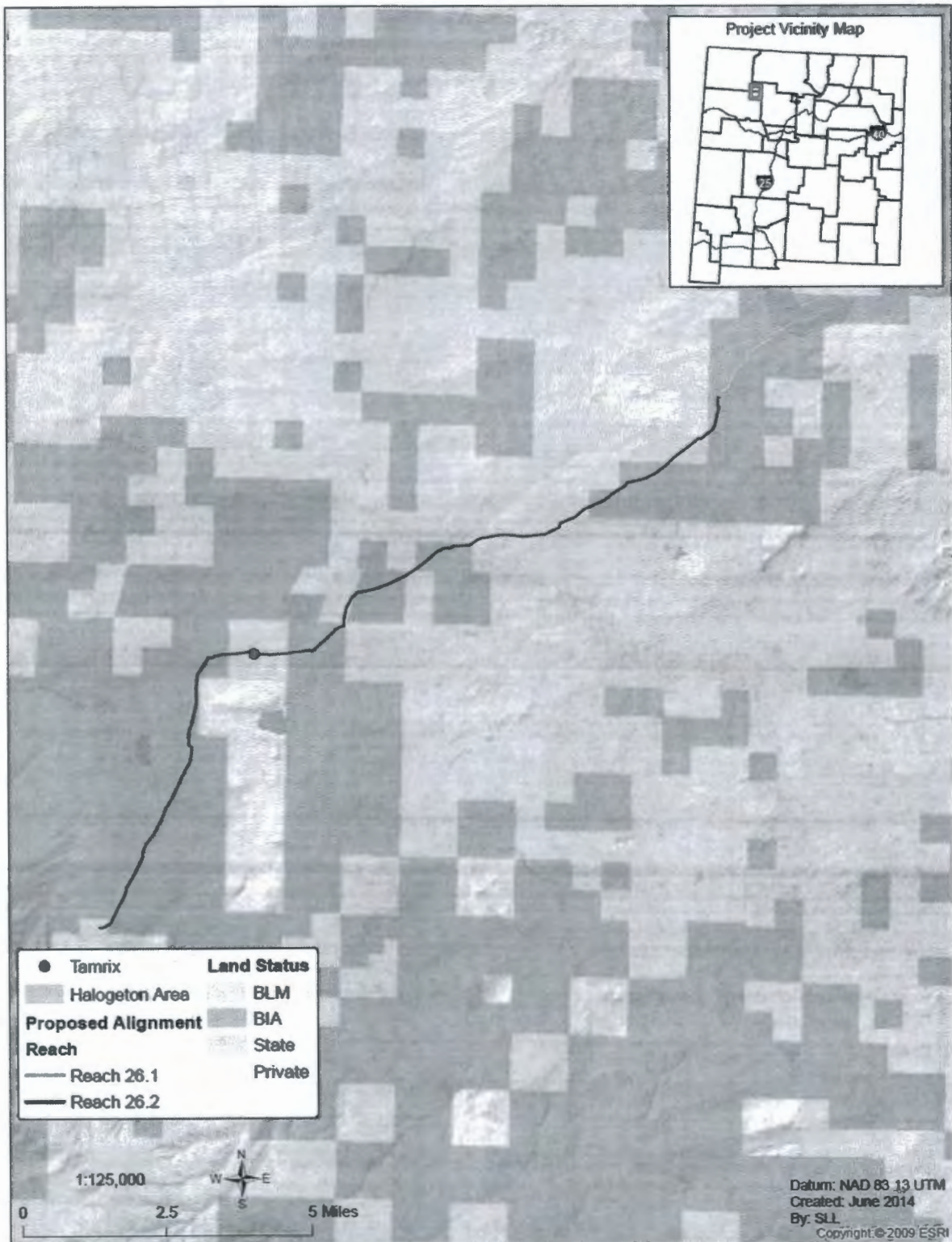


Figure A-2. General location of noxious weeds for Reaches 26.1 and 26.2.

**APPENDIX B. BIOLOGICAL RESOURCES COMPLIANCE
FORM**

**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.: Navajo-Gallup Water Supply Reaches 26.1 and 26.2

DESCRIPTION: The USBR proposes 18.3 miles of waterline construction from the existing Ojo Encino North tank site to the new Pueblo Pintado tank site. The waterline would be 40 ft. of permanent right-of-way and an additional 60 ft. of temporary construction easement. The project would also include the construction of a 1,370-ft. power line with a 30-ft. wide ROW and a water tank with a 1.4 acre impact area and a 1,061-ft. drain. The total combined area of potential disturbance from the water line and associated infrastructure would be approximately 230.9 acres.

LOCATION: Counselor, Ojo Encino, & Pueblo Pintado Chapters, McKinley & Sandoval Counties, New Mexico

REPRESENTATIVE: Stephanie Lee, Ecosystem Management, Inc. (EMI) for Souder, Miller & Associates

ACTION AGENCY: U.S. Bureau of Reclamation, Bureau of Indian Affairs, and Navajo Nation

B.R. REPORT TITLE / DATE / PREPARER: BSR for NGWSP-Reaches 26.1 & 26.2/JUL 2014/Matthew E. Brooks

SIGNIFICANT BIOLOGICAL RESOURCES FOUND: Area 3. Suitable nesting habitat is present for Migratory Birds not listed under the NESL or ESA. Migratory Birds and their habitats are protected under the Migratory Bird Treaty Act (16 USC §703-712) and Executive Order 13186. Under the EO, all federal agencies are required to consider management impacts to protect migratory birds.

POTENTIAL IMPACTS

NESL SPECIES POTENTIALLY IMPACTED: NA

FEDERALLY-LISTED SPECIES AFFECTED: NA

OTHER SIGNIFICANT IMPACTS TO BIOLOGICAL RESOURCES: NA


AVOIDANCE / MITIGATION MEASURES: [1] Mitigation measures will be implemented to avoid impacts on species protected under the MBTA that could potentially nest within and adjacent to the proposed action area.

CONDITIONS OF COMPLIANCE*: NA

FORM PREPARED BY / DATE: Pamela A. Kyselka/17 JUL 2014

COPIES TO: (add categories as necessary)

☐ _____ ☐ _____

2 NTC § 164 Recommendation:	Signature	Date
<input checked="" type="checkbox"/> Approval		7/17/14
<input 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)	Gloria M. Tom, Director, Navajo Nation Department of Fish and Wildlife	

*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.

Representative's signature

Date