

LEGISLATIVE SUMMARY SHEET

Tracking No. 0207-18

DATE: June 19, 2018

TITLE OF RESOLUTION: AN ACTION RELATING TO RESOURCES AND DEVELOPMENT; APPROVING A RIGHT-OF-WAY TO THE CITY OF GALLUP OF MCKINLEY COUNTY, NEW MEXICO TO CONSTRUCT, OPERATE AND MAINTAIN THE NAVAJO - GALLUP WATER SUPPLY PROJECT REACH 27.7B LOCATED ON TRIBAL TRUST LAND IN CHURCHROCK CHAPTER VICINITY (MCKINLEY COUNTY, NEW MEXICO)


PURPOSE: The purpose of this legislation is to approve a Right-of-Way to the City of Gallup in McKinley County, New Mexico, for Reach 27.7B of the Navajo-Gallup Water Supply Project.

This written summary does not address recommended amendments as may be provided by the standing committees. The Office of Legislative Counsel requests each Council Delegate to review each proposed resolution in detail.

5-DAY BILL HOLD PERIOD: SNOTAH
Website Posting Time/Date: 2:49pm 6-20-2018
Posting End Date: 6-25-2018
Eligible for Action: 6-26-2018

PROPOSED STANDING COMMITTEE RESOLUTION
23rd NAVAJO NATION COUNCIL -- Fourth Year, 2018

INTRODUCED BY


(Prime Sponsor)

TRACKING NO. 0207-18

AN ACTION

RELATING TO RESOURCES AND DEVELOPMENT; APPROVING A RIGHT-OF-WAY TO THE CITY OF GALLUP OF MCKINLEY COUNTY, NEW MEXICO TO CONSTRUCT, OPERATE AND MAINTAIN THE NAVAJO - GALLUP WATER SUPPLY PROJECT REACH 27.7B LOCATED ON TRIBAL TRUST LAND IN CHURCHROCK CHAPTER VICINITY (MCKINLEY COUNTY, NEW MEXICO)

BE IT ENACTED:

SECTION ONE. AUTHORITY

Pursuant to 2 N.N.C. Section §501 (B)(2), the Resources and Development Committee of the Navajo Nation Council has the authority to give final approval of all land withdrawals, non-mineral leases, permits, licenses, rights-of-way, surface easements and bonding requirements on Navajo Nation land and unrestricted (fee) land. This authority shall include subleases, modifications, assignments, leasehold encumbrances, transfers, renewals, and terminations.

SECTION TWO. FINDINGS

A. The City of Gallup, Post Office Box 1270, Gallup, New Mexico 87305, has submitted a right-of-way application to construct, operate and maintain a 120 foot roadway and public utility corridor to include a water line, 115V transmission line, 13.8V distribution line, sewerline and communications line for access and

1 utility maintenance purposes. This is identified as Reach 27.7B of Navajo Gallup
2 Water Supply Project and is located on, over and across Navajo Nation Trust
3 Lands in the Churchrock Chapter vicinity, McKinley County, New Mexico. *See*
4 Right-of-Way Application attached hereto and incorporated as **Exhibit A**.

5 B. The proposed right-of-way consists of Navajo Nation Trust Lands located in
6 McKinley County, New Mexico and the location is more particularly described on
7 the Right-of-Way Application (easement description) and Final Plat and Survey
8 Maps attached hereto and incorporated herein as **Exhibits A and B**.

9 C. The General Land Development Department, Field Investigation for City of
10 Gallup Reach 27.7B ROW Consent dated January 31, 2018, attached as **Exhibit**
11 **C**, has determined that land users have been identified and given consent.

12 D. The environmental and archaeological studies have been completed and are
13 attached hereto as **Exhibit D**.

14 E. The Churchrock Chapter through Resolution CRC-110620-B attached as **Exhibit**
15 **E**, supports the design, construction and implementation of the Navajo-Gallup
16 Water Supply Project.

17 F. The application for the Right-of-Way as submitted by the City of Gallup has
18 completed the Executive Official Review and has been reviewed by various
19 Navajo Nation Departments, including but not limited to: Fish and Wildlife;
20 Historic Preservation; Minerals; Navajo Nation Environmental Protection;
21 Division of Natural Resources and the Department of Justice and "Approved" or
22 found "Sufficient". *See* **Exhibit F**.

23
24 SECTION THREE. APPROVAL

25 A. The Resources and Development Committee of the Navajo Nation Council hereby
26 grants approval of a Right-of-Way to the City of Gallup to construct, operate and
27 maintain Reach 27.7B of the Navajo Gallup Water Supply Project located on Navajo
28 Nation Trust Lands in the Churchrock Chapter vicinity, McKinley County, New
29 Mexico. The location is more particularly described on the map attached hereto as
30 **Exhibits A and B**.

1 B. The Resources and Development Committee of the Navajo Nation Council hereby
2 approves the Right-of-Way subject to, but not limited to, the terms and conditions
3 incorporated herein as **Exhibit G**.

4 C. The Resources and Development Committee of the Navajo Nation Council hereby
5 authorizes the President of the Navajo Nation to execute any and all documents
6 necessary to affect the intent and purpose of this resolution.
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30



UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF INDIAN AFFAIRS

RIGHT-OF-WAY APPLICATION

COMES NOW THE APPLICANT City of Gallup of McKinley County, New Mexico this ___ day of July, 20 17, who hereby petition(s) the Bureau of Indian Affairs and respectfully files under the terms and provisions of the Act of February 5, 1948 (62 Stat. 17; 25 USC 323-328), and Departmental Regulations 25 CFR 169, an application of a Perpetual (term of years) right-of-way for the following purposes and reasons:

To acquire right of way to construct, operate and maintain a 120' Roadway and Public Utility Corridor to include a water line, 115KV transmission line, 13.8 KV Distribution line, sewerline and a communication line, for access and utility maintenance purposes.

Across the following described Navajo Tribal Trust Lands (easement description):

STRIP NO. 2

A 120' wide strip of land within the South $\frac{1}{2}$ of Section 9, T15N, R17W, N.M.P.M., McKinley County, New Mexico, the centerline being more particularly described as follows:

Commencing at the point for the West $\frac{1}{4}$ corner of said Section 9, Thence S0°21'54"W, 60.00' to the point of beginning, said point being 60.0' perpendicular to, parallel with and South of the East-West center of Section Line;

Thence S89°33'30"E perpendicular to, parallel with and South of said East-West center of section line, 1664.37' to a point;

Thence S76°38'21"E, 3710.48' to the point of ending of 120' wide strip No. 2;

Containing 14.8067 acres, more or less, and the side lines extend or shorten as to terminate at the boundary lines.

Said right-of-way across Navajo Tribal Trust Lands to be approximately 5374.85' in length, 120' in width, and 14.8067 acres, in size (or area), as shown on attached map of definite location, attached hereto, and made a part hereof.

SAID APPLICANT UNDERSTANDS AND EXPRESSLY AGREES TO THE FOLLOWING STIPULATIONS:

1. To construct and maintain the right-of-way in a workmanlike manner.
2. To pay all damages and compensation, in addition to the deposit made pursuant to 169.4, determined by the Secretary to be due the landowners and authorized users and occupants of the land due to the survey, granting, construction and maintenance of the right-of-way.
3. To indemnify the landowners and authorized users and occupants against any liability for loss of life, personal injury and property damage arising from the construction, maintenance, occupancy or use of the lands by the applicant, his employees, contractors and their employees, or subcontractors and their employees.
4. To restore the lands as nearly as may be possible to their original condition upon the completion of construction, to the extent compatible with the purpose for which the right-of-way was granted.

5. To clear and keep clear the lands within the right-of-way to the extent compatible with the purpose of the right-of-way; and dispose of all vegetative and other material cut, uprooted or otherwise accumulated during construction and maintenance of the project.
6. To take soil and resources conservation protection measures, including weed control, on the land covered by the right-of-way.
7. To do everything reasonable within its power to prevent and suppress fires on or near the lands to be occupied under the right-of-way.
8. To build and repair such roads, fences and trails as may be destroyed or injured by construction work and to build and maintain necessary and suitable crossings for all roads and trails that intersect the works constructed, maintained, or operated under the right-of-way.
9. That upon revocation or termination of the right-of-way, the applicant shall, so far as in reasonably possible, restore the land to its original condition. The determination of "reasonably possible" is subject to Secretary's approval.
10. To at all times keep the Secretary informed of its address, and in case of corporations, of the address of its principal place of business and the names and addresses of its principal officers.
11. That the applicant will not interfere with the use of the lands by or under the authority of the landowners for any purpose not inconsistent with the primary purpose for which the right-of-way is granted.
12. During the term of this Grant of Easement, if any previously unidentified cultural resources are discovered within the easement area, work should be halted immediately and the BIA and/or Tribal Contractor should be contacted immediately.

THE APPLICANT FURTHER STIPULATES AND EXPRESSLY AGREES AS FOLLOWS:

To conform and to abide by all applicable requirements with respect to the right-of-way herein applied for. The applicant agrees to conform to and abide by the rules, regulations, and requirements contained in the *Code of Federal Regulations*, Title 25 Indians, Part 169, as amended, and by reference includes such rules, regulations and requirements as a part of this application to the same effect as if the same were herein set out in full.

DATE 08/01/17

APPLICANT Jackie McKinney

Jackie McKinney, Mayor
City of Gallup

REQUIRED SUPPORTING DOCUMENTS:

1. () Written consent of landowner (ROW Form 94-7).
2. () Map (plats) of definite location (2 original mylars & 2 copies, See 25 CFR 169.6, 169.7, 169.8, 169.9, 169.10 and 169.11).
3. () Deposit of estimated damages or compensation (See 169.4 and 169.14). See attached letter of waiver to bonding requirements dated November 22, 2016
4. () Evidence of Authority of Officers to Execute Papers (ROW Form 94-4). See attached letter from George Kozeliski, City Attorney regarding items 4 and 5 of the right of way application.
5. () For corporation or business, requirements of 25 CFR 169.4 and 169.5 (unless previously filed):
 - () a. State certified copy of corporate charter or articles of incorporation.
 - () b. Certified copy of corporate resolution, by-laws, articles of partnership or association authorizing signatory to file the application.



**CITY OF
GALLUP**

Jackie McKinney, Mayor

Linda Garcia, District 1 Councilor

Allan Landavazo, District 2 Councilor

Yogash Kumar, District 3 Councilor

Cecil E. Garcia, District 4 Councilor

Maryann Ustick, City Manager

George W. Kozeliski, City Attorney



August 3, 2017

Mr. W. Mike Halona,
Department Manager III
Navajo Land Department
Post Office Box 2249
Window Rock, Az 86515

Ms. Sharon Pinto,
Regional Director
Bureau of Indian Affairs
Post Office Box 1060
Gallup, NM 87305-1060

Ref: Navajo Gallup Water Supply Reach 27.7B; Application for Right-of-Way
Navajo Tribal Trust land

Dear Ms. Pinto and Mr. Halona:

The City of Gallup hereby petitions the Navajo Nation and files application for Right-of-Way of a 120' Roadway and Public Utility Corridor proposing to cross Navajo Tribal Trust lands. The project alignment is generally located in the Churchrock Chapter area within Section 9, Township 15 North, Range 17 West, N.M.P.M., in the northeastern outskirts of Gallup, McKinley County, New Mexico. The project is further identified on the Right-of-Way Survey, Final Plat included as part of the application package.

The project scope is comprised of an unimproved maintenance road, a water line, 115KV transmission line, 13.8KV distribution line, sewer line, and a communication line to be owned, operated, and maintained by the City of Gallup. The unimproved roadway will be owned by the City of Gallup and may be maintained by McKinley County through a memorandum of agreement. Operation and maintenance of the waterline and associated facilities will be the responsibility of the City of Gallup

In accordance with 25 CFR 169.105 Due Diligence Requirements; the City of Gallup understands the vital importance for construction of the permanent improvements in a timely manner. Reach 27.7B is one of thirteen sub-Reaches forming the NGWSP Reach 27 designed to deliver municipal and industrial water to Gallup and neighboring Navajo communities. Funded by the New Mexico Finance Authority Water Trust Board and the Bureau of Reclamation Cooperative Agreement, Reach 27.7B construction is expected to be completed by December 2023. Surface, ground water and/or a combination of both surface and ground water will be conveyed through the municipal system of the City of Gallup providing an uninterrupted water supply to the communities of Churchrock, Iyanbito, Pinedale, and Mariano Lake.

Project coordinators have worked closely with Churchrock Chapter House staff and Chapter House officials in efforts to thoroughly disseminate project information to the individual land owners (Chapter Official letter enclosed). Application for right of way across Indian Allotment Land has been submitted to the Bureau of Indian Affairs under separate cover.

The following exhibits to the Application for Right-of-Way are included in this package:

Exhibit "A"

- Reach 27.7B vicinity map with project description
- Churchrock Chapter House Resolution
- NEPA: Environmental Analysis Decision Form

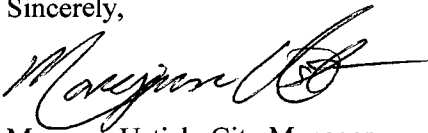
Ltr: to Mike Halona and Sharon Pinto
Ref. Application for Right-of-Way – Navajo Tribal Trust

- Navajo Nation Historic Preservation Cultural Concurrence
- NN Department of Game & Fish: Biological Compliance Form
- Exhibit "B" - Right-of-Way Application Form across TNT land
- Exhibit "C" - Letter from George Kozeliski, City of Gallup Attorney with attachments regarding items 4 & 5 listed on the Right-of-Way application form
- Letter from the Department of Interior regarding waiver to bonding requirements for the NGWSP
- Exhibit "D" - NEPA Sufficiency Report (separate binder)
- Exhibit "E" - Two original mylars and two copies

In closing, please accept this letter as an official request by the City of Gallup for a waiver to any costs associated with submittal and review of the herein right of way application process in accordance with Part III Navajo Gallup Water Supply Project Section 10601.c.(2) – Land of the Project Participants ... "project participants shall provide all land ... at no cost to the Secretary."

If you have any questions please contact Dennis Romero, Director, City of Gallup Water and Sewer Department at 505.863.1289. Questions specifically regarding the Right-of-Way application package should be directed to the City's Engineer of record for this project, Marc DePauli, DePauli Engineering and Surveying, LLC at 505.863.5440.

Sincerely,



Maryann Ustick, City Manager
City of Gallup

Enclosures: as stated
Copy w/enclosures: Dennis Romero, Director, City of Gallup Water and Sewer Department
Marc DePauli, DePauli Engineering and Surveying

City of Gallup
110 West Aztec Avenue
Gallup, New Mexico 87301



Office of the City Attorney
George W. Kozeliski, Esq.
Phone 505.863.1270
Email attorney@GallupNM.gov

July 6, 2017

Ms. Sharon Pinto Agency Superintendent
United States Department of Interior
Bureau of Indian Affairs
Eastern Navajo Agency
Post Office Box 328
Crownpoint, NM 87313

Re: NGWSP Reach 27.7B
Application for Right-of-Way
Allotment Numbers: 255179, 255180,
257862 & 202506

Dear Ms. Pinto:

This letter is being submitted with the above application in response to the "Required Supporting Documents" portion of the application for right of way. There are certain documents that are requested that simply do not exist because the City of Gallup is a political subdivision of the State of New Mexico. I will attempt below to respond to the required documents' 2 through 8:

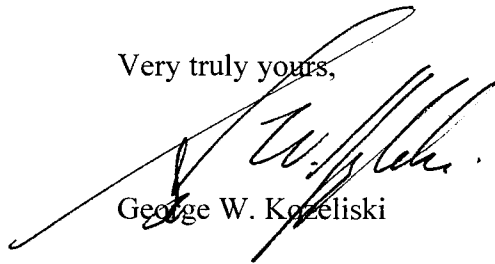
- 2) The City Manager under Article III of the Gallup City Charter is the chief administrative officer of the city and has the authority to execute the application
- 3) The City of Gallup under the laws of the State of New Mexico must act in good faith and subject to open meetings laws to assure the same.
- 4) The City of Gallup does not believe there will be damages but is subject to the Tort Claims Act of the State of New Mexico limiting damages for any one incident to \$750,000.
- 5) We do not have a certified corporate charter since we are a part of the State of New Mexico. The City was incorporated on April 7, 1891 by the Bernalillo County Commission. The City of Gallup was created before McKinley County existed and also 21 years before New Mexico became a State. I am attaching the Abstract of Title regarding those proceedings which created the City of Gallup.
- 6) We are attaching a copy of the City Charter that was last amended by the voters in April of 1981. We are also attaching a copy of the Resolution of the City Council authorizing the filing of the application.
- 7) The City of Gallup is a political subdivision of the State of New Mexico and therefore is only authorized to do business in the State of New Mexico. There is no document that exists authorizing the doing business, other than document listed in #5 above.

July 6, 2017
Ms. Sharon Pinto
Page 2

- 8) There are no certified copies of articles of partnership or association since the City of Gallup is neither, and is a political subdivision of the State of New Mexico.

These are all of the supporting documents the City of Gallup can obtain. If you have any questions, please feel free to contact me. Thank you very much.

Very truly yours,

A handwritten signature in black ink, appearing to read "G. W. Kozeliski", written over a horizontal line.

George W. Kozeliski

GWK/prd
Enclosures

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF INDIAN AFFAIRS

APPLICATION FOR PERMISSION TO SURVEY FOR RIGHT-OF-WAY

OWNER NAME: **TA NIP PAH:**

ALLOTMENT NUMBER: **220227**

ALLOTMENT DESCRIPTION: **The Northwest quarter {NW ¼} of Section 4, Township 14 North, Range 18 West, N.M.P.M.**

Applicant, **CITY OF GALLUP** having a residence or principal place of business at **110 WEST AZTEC AVENUE, GALLUP, NM 87301** hereby files an application with the Bureau of Indian Affairs, pursuant to the terms and provisions of the Act of February 5, 1948 (62 Stat. 17; 25 USC 323), and to the regulations of the Department of the Interior contained in Title 25, *Code of Federal Regulations*, Part 169, for permission to survey a right-of-way.

Purposes and Reasons: **Permission to make surveys for a 120' Roadway and Public Utility Corridor. The corridor shall include a waterline, 13.8 KV distribution line, wastewater line, and a communication line to be owned, operated and maintained by the City of Gallup. The project will also include other semi-public utilities.**

Across the following described Indian Land (Include sketches, describe width, length & location): **the preliminary alignment is generally located in the Tse' Lichii' Chapter and further described as the northwest quarter (NW ¼) of Section 4, Township 14 North, Range 18 West, N.M.P.M.**

The applicant understands and hereby expressly agrees to indemnify the United States, the owners of the land, and occupants of the land, against liability for loss of life, personal injury and property damage occurring because survey activities and caused by the applicant, his employees, contractors and their employees, or subcontractors and their employees.

Applicant

Date

Witness

Required Supporting Documents:

1. () Signed Consent of the Landowner to Accompany Application for Permission to Make Survey (ROW Form 94-2). {replaced by 104-b}
2. () Evidence of Authority of Officers to execute Papers (ROW Form 94-4). 104b
3. () Evidence of good faith and financial responsibility.
4. () Double estimated damages (deposit - 25 CFR 169.4).
5. () State certified corporate charter or articles of incorporation.
6. () Certified copy of resolution or by-laws of the corporation authorizing the filing of the application.
7. () State certification that the applicant is authorized to conduct business in the State of New Mexico.
8. () Certified copy of the articles of partnership or association.
9. () Other attachments:

Item #5

Abstract of Title

ABSTRACT OF TITLE

to

The Following Described Real Estate

Situated In Bernalillo County, New Mexico

COUNTY COMMISSIONERS' PROCEEDINGS

WITH REFERENCE

TO

THE

INCORPORATION

OF

THE TOWN OF GALLUP.

Certified to by

BERNALILLO COUNTY ABSTRACT & TITLE COMPANY
Albuquerque

BOOK "B" COMMISSIONERS' JOURNAL
PAGE 180, SHOWS AMONG OTHER THINGS,
AS FOLLOWS:-

"Regular Session
Albuquerque, N.M., April 6", 1901.

Present: - - - J. M. Sandoval, Chairman
 J. R. Rivera, Commissioner,
 R. P. Hall, Commissioner,
 H. V. Harris, Clerk.

"A petition signed by 200 qualified electors of the Town of Gallup, praying that said Town be incorporated, was presented to the Board with a Plat describing the territory proposed to be embraced in said incorporated town.

Also the sum of \$50. was deposited with the Board towards paying the expense of the Sheriff in taking the census previous to submitting the proposition for incorporation to a vote, which census the Sheriff is hereby directed to make in accordance with an act passed by the last Legislative Assembly."

BOOK "B", COMMISSIONERS' JOURNAL,
PAGE 133, SHOW AMONG OTHER PROCEEDINGS,
THE FOLLOWING:

"Adjourned Regular Session
Albuquerque, N.M., July 9, 1891.

The Board met pursuant to adjournment for the purpose of hearing any
protests that might be made against their actions as Board of Equal-
ization etc...

Present: - - - J. M. Sandoval, Chairman,
J. R. Ribera, Commissioner,
R. P. Hall, Commissioner,
H. V. Harris, Clerk.

"Whereas, on the 6th day of April, A.D. 1891, there was pre-
sented to the Board of County Commissioners of Bernalillo County,
a petition purporting to be signed by a majority of the voters of
the Town of Gallup, living within the Territory described as follows:

Commencing at the quarter section corner between Sections
fifteen (15) and twenty-two (22), Township Fifteen (15)
North, Range eighteen (18) West;
thence north one (1) mile to the quarter section corner
between Sections ten (10) and fifteen (15);
thence West one (1) mile to the quarter section corner
between Sections nine (9) and sixteen (16);
thence South one (1) mile to the quarter section corner
between Sections sixteen (16) and twenty-one (21);
thence East one (1) mile to the place of beginning,
all in above Township and Range.

And praying that the said Territory and the inhabitants thereof
be incorporated under the provisions of Chapter 32 of the Laws of the
Legislative Assembly of the Territory of New Mexico, adopted A.D. 1891.

And Whereas, it appears to the Board that said Petition is signed
by a majority of the qualified voters, residents of the Territory above
described, and that said Territory contains not less than five hundred
people, and that the people of said town have complied with all the
provisions and requirements of said law necessary to entitle said Terri-
tory to be incorporated.

It is Therefore Ordered, by the Board that the Territory above
described be and the same is hereby incorporated under the name of the
TOWN OF GALLUP and hereafter the same shall be governed according to
the provisions of said law.

And it is Further Ordered that the County Surveyor of Bernalillo
County be and he is hereby directed and required within thirty days
from this date to locate and establish the center and the side lines
of said Territory and to mark the same by substantial stone monuments
placed in the center and at each of the four corners of said Territory
and to mark the same with suitable inscriptions to indicate the purpose
and object of said monuments.

It is further Ordered by the Board that an Election for the pur-
pose of electing the officers of said town of Gallup shall be held in
said town on Monday, the 10th day of August, A.D. 1891. At said Elec-
tion there shall be elected a town Marshall and five Trustees, which

MINUTES OF COUNTY COMMISSIONERS in re "Town of Gallup"

#2.

Trustees after their Election and qualification, shall be known as the Board of Trustees of the Town of Gallup, and shall hold their offices until their Successors are duly elected and qualified.

It is Further Ordered that Wm. F. Kuchenbecker, W. A. Maxwell and Alexander Bowie be, and they are hereby appointed Judges to hold and conduct said Election according to the Statutes in such case made and provided. The said Election to be held at the store house of Ed. Hart."

Thomas F. Sena, Vice-President

Artha J. Camp, Secretary

Paul V. Crowley, President

BERNALILLO COUNTY ABSTRACT & TITLE CO.
(Incorporated)

307 Gold Ave., SW

Albuquerque, N. M.

C E R T I F I C A T E

STATE OF NEW MEXICO,)
County of Bernalillo) ss.

THE BERNALILLO COUNTY ABSTRACT & TITLE COMPANY, a corporation,
having its office and principal place of business in the City of
Albuquerque, in the State and County aforesaid, hereby certifies:

That the foregoing copy of entry from Book "B" County Com-
missioners' Journal, page 160, and the foregoing copy of entry from
Book "B" County Commissioners' Journal, page 183 (records of
Bernalillo County, New Mexico) are true and correct copy of said
entries as they appear upon said records in the office of the County
Clerk of Bernalillo County, New Mexico.

IN WITNESS WHEREOF the Bernalillo County Abstract & Title Company
by its Vice President, thereunto duly authorized, has caused its
Corporate Name and Seal to be hereunto affixed, and the same to be
attested by its Secretary.

BERNALILLO COUNTY ABSTRACT & TITLE COMPANY.

By *Thomas F. Sena*
Vice President

Attest: *Crisita S. Guevara*
act. Secretary.

No. 1,046

ABSTRACT OF TITLE

TO

County Commissioners

Proceedings

Town of

COMPLETE ABSTRACTS OF TITLE TO
ALL LANDS AND TOWN LOTS IN
THIS AND ADJOINING
COUNTIES

COMPILED BY
**BERNALILLO COUNTY
ABSTRACT & TITLE CO.**

307 W. GOLDAVE, ALBUQUERQUE, N.M.

OFFICE BUILDING
ALBUQUERQUE, NEW MEXICO

Item #6
City Charter

City
of
GALLUP
NEW MEXICO

CITY CHARTER

**Charter Amended Pursuant To Resolution 3064,
Adopted April 7, 1981, Effective May 14, 1981**

**CHARTER OF THE
CITY OF GALLUP, MCKINLEY COUNTY, NEW MEXICO¹**

ARTICLE I

**INCORPORATION, FORM OF GOVERNMENT,
POWERS, SEAL**

Section 1. Incorporation And Powers

The municipal corporation now existing and known as the city of Gallup within its present boundaries as now established or as hereinafter established in the manner provided by law, shall remain and continue in perpetuity to be a body politic and corporate. It shall possess all powers granted to municipal corporations under the statutes of New Mexico and not contrary to the provisions of this charter or granted by the constitution of the state of New Mexico and such other powers as are consistent with the constitution of the state of New Mexico and contained herein. The city was incorporated under chapter 32, session act of 1891, in the territory of New Mexico but notwithstanding such incorporation, the said municipality shall hereafter be known as the "city". (amd. Res. 96-26, 3-7-1997)

Section 2. Form Of Government

The municipal government provided by this charter shall be known as the "council-manager government". Pursuant to its provision and subject only to the limitations imposed by the state constitution and by this charter, all powers of the city shall be vested in an elective council, hereinafter referred to as "the council". The council's powers shall include the power to enact local legislation; adopt budgets; determine policy; and appoint the city manager and such other officers and employees deemed necessary and proper for orderly government and administration of the affairs of the city. All powers of the city shall be exercised in the manner prescribed by this charter, or if the manner be not prescribed; then in such manner as may be prescribed by ordinance or state statute.

Section 3. Powers Of City

The city may exercise all legislative powers and perform all functions not expressly denied by general law or charter. This grant of powers shall not include the power to enact private or civil laws governing civil relationships except as incident to the exercise of an independent municipal power. No tax imposed by the governing body of a charter municipality, except a tax authorized by general law, shall become effective until approved by a majority vote of the charter municipality. The purpose of this section is to provide for maximum local self-government. A liberal

1. This Charter amended pursuant to Res. 3064, adopted by the electorate on April 7, 1981, and effective May 14, 1981.

(a) Removal Of Appointive Officers: By the concurrent vote of a majority of the elected members of the council, any appointive officer of the corporation may be removed from office. Any officer removed may, within ten (10) days after his discharge, demand written charges and a right to be heard thereon at a public meeting of the council. Such hearing shall be granted by the council within ten (10) days after such a demand. Any officer removed shall immediately vacate his office. He shall be paid his usual salary for thirty (30) days following the date of his removal plus any other compensation otherwise due him. The action of the council in removing such officer shall be final. (amd. Res. 96-24, 3-7-1997)

C. Oath Of Office: Each person elected or appointed to hold an office of the city of Gallup, shall, before entering upon the duties of such office, take and subscribe to the official oath. (amd. Res. 96-24, 3-7-1997)

Section 3. Qualifications

The mayor, councilors, and municipal judge shall be legal residents of the state and qualified electors therein. The qualifications of municipal judge may be set by ordinance of the city of Gallup. (amd. Res. 87-11, 1-26-1987)

Section 4. Salaries Of Mayor And Councilors

The salary of the mayor shall be twenty one thousand dollars (\$21,000.00) annually. The salary of each city councilor shall be fifteen thousand dollars (\$15,000.00) annually. The salaries shall be paid in monthly installments. (amd. Ord. C95-1, 1-10-1995)

All other salaries of the officers and the city manager shall be provided in the manner prescribed by ordinance. The salaries shall be paid in semi-monthly installments until increased or decreased by ordinance, and said ordinance shall not increase or decrease the mayor's, councilor's, or municipal judge's salary during his current term. (amd. Res. 87-8, 1-26-1989)

Section 5. Judge Of Members

The council shall be the judge of the election and qualification of its members and for such purposes shall have the power to subpoena witnesses and require production of records but the decision of the council in any such case shall be subject to review by the courts.

Section 6. Duties Of The Mayor

The mayor of the city of Gallup shall be the presiding officer of the council and shall be the official head of the city. He shall sign all bonds, warrants and other official documents. He shall exercise and perform all duties imposed upon him by this charter, by state law and the ordinances of the city, and resolutions of the council. The mayor having a vote the same as other members of the city council shall not have veto powers. (Res. R2012-32, 7-24-2012)

ARTICLE III

THE CITY MANAGER

Section 1. Appointment, Removal And Salary

The city manager shall be the chief administrative officer of the city. The city council, by a majority vote of all members, shall appoint the city manager, who shall serve at the pleasure of the city council and at a salary fixed by the city council. The city council shall appoint a city manager within a reasonable time after a vacancy exists in the position. The city manager shall be chosen on the basis of executive and administrative qualifications with particular emphasis on actual experience and knowledge of the duties of the office. (amd. Res. 87-10, 1-26-1987)

During the period of any vacancy or extended absence in the office of the city manager, the city council shall appoint an acting city manager. The city manager may appoint an employee of the city as acting city manager during the temporary absence of the city manager. Any acting city manager shall have all responsibilities, duties and authority of the city manager during a vacancy in office or during the temporary absence or disability of the city manager. (amd. Res. 87-10, 1-26-1987)

Section 2. Powers And Duties

The city manager shall be responsible to the council for the proper administration of all the affairs of the city and to that end, subject to the provisions of this charter, he shall have the power to and be required to:

(a) Devote his entire time to the discharge of his official duties, prepare the agenda for and attend all meetings of the council unless excused therefrom by mayor or council.

(b) Prepare the budget annually, submit to the council and be responsible for its administration after its adoption.

(c) Prepare and submit to the council, at the end of each fiscal year, a complete report of finances and administrative activities of the city for the preceding year. (amd. Res. 96-24, 3-7-1997)

(d) Keep the council advised at all times of financial conditions and future needs of the city.

(e) Employ and discharge all employees of the city pursuant to personnel ordinance of the city. (amd. Res. 96-24, 3-7-1997)

Section 8. State Hearing Open To Public

(rep. Res. 96-24, 3-7-1997)

Section 9. Effective Date Of Budget; Certification; Copies Made Available

Upon final adoption, the budget shall be in effect for the budget year. A copy of the budget, as finally adopted, shall be certified by the city clerk. Sufficient copies of the certified budget shall be available in the finance office at city hall for the use of all city offices, departments or agencies and for the use of interested persons and civic organizations. (amd. Res. 96-24, 3-7-1997)

Section 10. Budget Summary

At the head of the budget there shall appear a summary stating the sources of anticipated revenue and expenditures, written in such a manner as to present a simple and clear summary of the detailed estimates of the budget.

ARTICLE V

RECALL, INITIATIVE AND REFERENDUM

Section 1. Recall; Petition; Election; Ballot; Effect; Filling Vacancies

(A) Any elective officer of the city shall be subject to a recall election at any time, except as hereinafter provided. The petition for the recall election must be signed by a number of qualified voters of the city equal in number to twenty percent (20%) of the total number of qualified voters of the city that voted on the office of governor at the last preceding general election. The election must be held within thirty (30) days of the filing of a good and sufficient petition unless a regular city election occurs within sixty (60) days, in which case such recall election shall be held at the regular election. At such recall election, there shall be a special ballot containing the name of the officer, the position which he holds and the dates of the beginning and termination of his official term. Below the name and title of the officer shall be the two (2) phrases, "for the recall" and "against the recall", one below the other, with a space after each for the placing of a cross where desired. If a majority of the ballots and a number equal to a majority of the ballots cast at the election of the officer whose recall is proposed, show a vote for the recall, the office in question shall be thenceforth vacant.

(B) If an officer is recalled as provided for above, he shall not be eligible for reelection until the term for which he was originally elected shall have expired.

(C) If a recall election results in a failure to secure the required majority of votes in favor of the recall, the officer in question shall not again be subjected to recall until after the expiration of six (6) months from the time at which the first recall election was held.

the proposed measure, it shall be their duty to call an election within thirty (30) days for submitting the measure to a vote of the people, unless a regular city election occurs within sixty (60) days, in which case the voters shall vote upon the measure at the regular election.

(B) At such election, the ballot shall contain the proposed measure as originally submitted and the measure as amended, if amended by the governing body of the city. After each of these measures, there shall be printed the words "For Proposed Measure or Measures" and "Against Proposed Measure or Measures" with a space for the voter to indicate his preference. (amd. Res. 96-24, 3-7-1997)

(C) If a majority of the votes cast at the election are in favor of the measure in its original form or its amended form, it shall be declared in effect as adopted. If neither measure receives a majority of the votes cast neither shall be in effect.

Section 5. Form Of Petitions; Committee Of Petitioners

All petition papers circulated for the purposes of an initiative, referendum or recall shall be uniform in size and style. Initiative petition papers shall contain the full text of the proposed ordinance. Each signer of any such petition paper shall sign his name in ink or indelible pencil and shall indicate after his name his place of residence by street and number, or other description sufficient to identify the place. There shall appear on each petition the names and addresses of the same five (5) electors, who, as a committee of the petitioners, shall be regarded as responsible for the circulation and filing of the petition. Attached to each separate petition paper there shall be an affidavit of the circulator thereof that he, and he only, personally circulated the foregoing paper, that it bears a stated number of signatures, that all the signatures appended thereto were made in his presence, and that he believes them to be the genuine signatures of the persons whose names they purport to be.

Section 6. Filing, Examination And Certification Of Petition

All papers comprising a recall, an initiative or referendum petition shall be assembled and filed with the city clerk as one instrument. Within ten (10) days after a petition is filed, the city clerk shall determine whether each paper of the petition is in proper form, and whether the petition is signed by a sufficient number of qualified electors. After completing his examination of the petition, the city clerk shall certify the result thereof to the council at its next regular meeting and in no event later than twenty (20) days after filing of petitions.

Section 7. Amendment Of Insufficient Petitions

A recall, referendum or initiative petition may be amended at any time within ten (10) days after the notification of insufficiency has been sent by the city clerk, by registered mail to each of the five (5) members of the petitions committee as hereinabove provided, by filing a supplementary petition upon additional papers

Section 3. Qualifications Of Electors And Residence Of Candidates For Municipal Office

(A) Any person whose affidavit of voter registration has been filed by the McKinley County clerk, who is registered to vote in a general election precinct established by the board of county commissioners that is wholly or partly within the municipal boundaries and who is a resident of the municipality is a qualified elector of the municipality. Persons who would otherwise be qualified electors if land on which they reside is annexed to a municipality shall be deemed to be qualified electors as of the final effective date of the annexation. All candidates for municipal elective office shall be qualified electors as of the date of filing of their declaration of candidacy.

(B) For the purpose of determining the residence of a person desiring to be a candidate for the nomination or election to an office, permanent residence shall be resolved in favor of that place shown on the person's certificate of registration as the person's permanent residence, provided the person resides on the premises. Any questions regarding residence shall be resolved in accordance with the laws of the state of New Mexico. The city clerk and city attorney shall validate candidate residency. (Res. 2007-03, 1-9-2007)

Section 4. City Ballots

(A) The full names of all the candidates for each city office shall be printed on the official ballots.

(B) At 5:01 P.M., fifty four (54) days prior to the municipal election, the municipal clerk, in the presence of the certified candidates (or authorized representatives) who desire to be present, administers an impartial and fair drawing by lot to determine the order the candidates' names will appear on the ballot. The clerk will draw for any candidate who is not present. (amd. Ord. C95-1, 1-10-1995)

(C) The election shall be conducted in the manner prescribed by the statutes of New Mexico which do not conflict with the provisions of this charter.

Section 5. Voting Machines

The council shall have the power to provide for the use of mechanical or other devices for voting or counting the votes in accordance with the principles set forth in this charter.

Section 6. Runoff Elections

(A) If no candidate receives forty percent (40%) of the votes, plus one vote, cast for a particular office, a runoff election shall be held within thirty (30) days after certification of the results of the election. The two (2) qualified candidates who receive the highest number of votes cast for the office shall automatically become the candidates in a runoff election without filing a declaration of candidacy. (Res. R2012-34, 7-24-2012)

(B) The council shall, by resolution, fix the date of the runoff election and specify the offices to be filled and the names of the candidates therefor. The resolution shall be published once, at least seven (7) days before the runoff election date. No other publications are required in connection with runoff elections. Eligibility to vote in a runoff election shall be the same as in the original election for the particular office and only such voting precincts and procedures will be reactivated as are necessary to accommodate any runoff race. (added Res. 89-10, 3-14-1989)

ARTICLE VII

PLANNING, ZONING, HOUSING

Section 1. Power To Plan; Zone

The council shall have full power and authority to perform any act necessary, including the power to establish a planning commission for the city and such other agencies as may be required from time to time, to provide for planning, zoning, development, slum clearance, housing, housing rehabilitation, replanning, redevelopment and such other improvements and development of the city not prohibited by state or federal law and deemed necessary by the council. All ordinances existing pertaining to planning and zoning of the city are hereby ratified and confirmed.

Section 4. Effect Of This Charter On Existing Laws

(A) All laws and parts of laws as relating to or affecting the city of Gallup, in force when this charter shall take effect are hereby repealed and superseded to the extent that the same are inconsistent with the provisions of this charter; otherwise, all other resolutions, ordinances, statutes, and laws whatsoever remain in full force and effect.

(B) Insofar as the provisions of the charter are the same in terms or in substance and effect as provisions of law in force when this charter shall take effect, relating to or affecting the city of Gallup, the provisions of this charter are intended to be not a new enactment but a continuation of such provisions of law, and this charter shall be so construed and applied.

Section 5. Amending The Charter

Amendments to this charter may be framed and submitted to the electors of the city by a charter commission in the manner provided by law for framing and submitting a new charter. Amendments may also be proposed and submitted by vote of a majority of the city council, or by a petition signed by a number of the qualified voters of the city equal in number to twenty percent (20%) of the total number of qualified voters of the city that voted on the office of governor at the last preceding general election. Such petition shall set forth the proposed amendment and be filed with the city clerk. Final adoption of the proposed amendment shall be ratified by a majority of qualified electors voting thereon and shall take effect thirty (30) days following the canvass and official determination by the council of the results of such election.

Section 6. Saving Clause

Should the courts of this or any other state of the United States declare any section, provision, paragraph, clause, sentence, phrase, or part thereof, of this charter invalid, unauthorized or unconstitutional, or in conflict with any other section, provision, paragraph, clause, sentence, phrase, or part thereof of this charter, then such decision shall affect only the section, provision, paragraph, clause, sentence, phrase, or part thereof, declared to be invalid, unauthorized or unconstitutional, and shall not affect any other part of this charter whatsoever. (amd. Res. 96-24, 3-7-1997)

Section 7. Discrimination

No individual shall be denied any civil or political right or privilege nor be discriminated against by practice or policy in municipal matters on account of his race, color, religion, national origin, gender, disability or age. (amd. Res. 96-24, 3-7-1997)

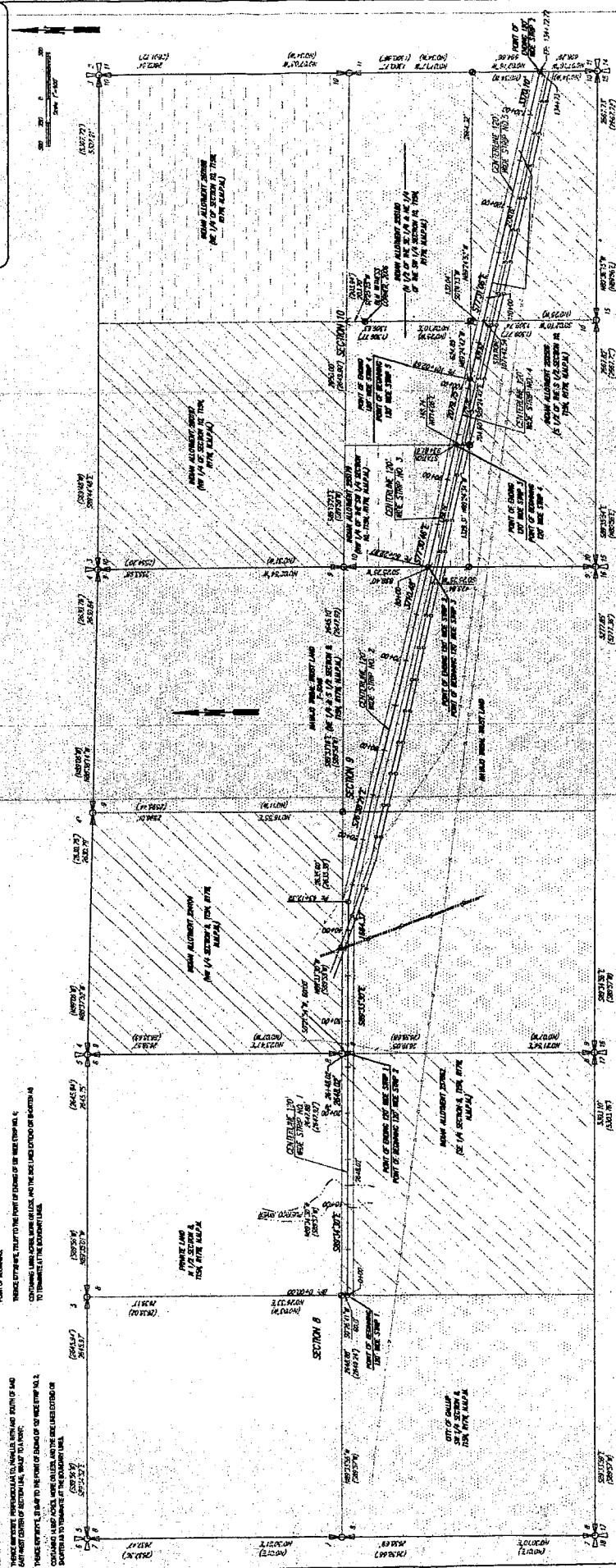


NOT TO SCALE
VICINITY MAP

LEGEND

- CONCRETE BARRICADE
- SECTION CORNER, ALL MARKS ON
- UNDERGROUND ONLY
- ALL MARKS ON GROUND
- REMARKS OF PROJECT
- END OF PROJECT
- UTILITY
- OVERHEAD ELECTRIC

LAND SURVEY SUMMARY			
SECTION	AREA (AC)	PERCENTAGE	REMARKS
SECTION 8	264.00	100%	SECTION 8
SECTION 9	264.00	100%	SECTION 9
SECTION 10	264.00	100%	SECTION 10
SECTION 11	264.00	100%	SECTION 11
SECTION 12	264.00	100%	SECTION 12
SECTION 13	264.00	100%	SECTION 13
SECTION 14	264.00	100%	SECTION 14
SECTION 15	264.00	100%	SECTION 15
SECTION 16	264.00	100%	SECTION 16
SECTION 17	264.00	100%	SECTION 17
SECTION 18	264.00	100%	SECTION 18
SECTION 19	264.00	100%	SECTION 19
SECTION 20	264.00	100%	SECTION 20
SECTION 21	264.00	100%	SECTION 21
SECTION 22	264.00	100%	SECTION 22
SECTION 23	264.00	100%	SECTION 23
SECTION 24	264.00	100%	SECTION 24
SECTION 25	264.00	100%	SECTION 25
SECTION 26	264.00	100%	SECTION 26
SECTION 27	264.00	100%	SECTION 27
SECTION 28	264.00	100%	SECTION 28
SECTION 29	264.00	100%	SECTION 29
SECTION 30	264.00	100%	SECTION 30
SECTION 31	264.00	100%	SECTION 31
SECTION 32	264.00	100%	SECTION 32
SECTION 33	264.00	100%	SECTION 33
SECTION 34	264.00	100%	SECTION 34
SECTION 35	264.00	100%	SECTION 35
SECTION 36	264.00	100%	SECTION 36
SECTION 37	264.00	100%	SECTION 37
SECTION 38	264.00	100%	SECTION 38
SECTION 39	264.00	100%	SECTION 39
SECTION 40	264.00	100%	SECTION 40
SECTION 41	264.00	100%	SECTION 41
SECTION 42	264.00	100%	SECTION 42
SECTION 43	264.00	100%	SECTION 43
SECTION 44	264.00	100%	SECTION 44
SECTION 45	264.00	100%	SECTION 45
SECTION 46	264.00	100%	SECTION 46
SECTION 47	264.00	100%	SECTION 47
SECTION 48	264.00	100%	SECTION 48
SECTION 49	264.00	100%	SECTION 49
SECTION 50	264.00	100%	SECTION 50
SECTION 51	264.00	100%	SECTION 51
SECTION 52	264.00	100%	SECTION 52
SECTION 53	264.00	100%	SECTION 53
SECTION 54	264.00	100%	SECTION 54
SECTION 55	264.00	100%	SECTION 55
SECTION 56	264.00	100%	SECTION 56
SECTION 57	264.00	100%	SECTION 57
SECTION 58	264.00	100%	SECTION 58
SECTION 59	264.00	100%	SECTION 59
SECTION 60	264.00	100%	SECTION 60
SECTION 61	264.00	100%	SECTION 61
SECTION 62	264.00	100%	SECTION 62
SECTION 63	264.00	100%	SECTION 63
SECTION 64	264.00	100%	SECTION 64
SECTION 65	264.00	100%	SECTION 65
SECTION 66	264.00	100%	SECTION 66
SECTION 67	264.00	100%	SECTION 67
SECTION 68	264.00	100%	SECTION 68
SECTION 69	264.00	100%	SECTION 69
SECTION 70	264.00	100%	SECTION 70
SECTION 71	264.00	100%	SECTION 71
SECTION 72	264.00	100%	SECTION 72
SECTION 73	264.00	100%	SECTION 73
SECTION 74	264.00	100%	SECTION 74
SECTION 75	264.00	100%	SECTION 75
SECTION 76	264.00	100%	SECTION 76
SECTION 77	264.00	100%	SECTION 77
SECTION 78	264.00	100%	SECTION 78
SECTION 79	264.00	100%	SECTION 79
SECTION 80	264.00	100%	SECTION 80
SECTION 81	264.00	100%	SECTION 81
SECTION 82	264.00	100%	SECTION 82
SECTION 83	264.00	100%	SECTION 83
SECTION 84	264.00	100%	SECTION 84
SECTION 85	264.00	100%	SECTION 85
SECTION 86	264.00	100%	SECTION 86
SECTION 87	264.00	100%	SECTION 87
SECTION 88	264.00	100%	SECTION 88
SECTION 89	264.00	100%	SECTION 89
SECTION 90	264.00	100%	SECTION 90
SECTION 91	264.00	100%	SECTION 91
SECTION 92	264.00	100%	SECTION 92
SECTION 93	264.00	100%	SECTION 93
SECTION 94	264.00	100%	SECTION 94
SECTION 95	264.00	100%	SECTION 95
SECTION 96	264.00	100%	SECTION 96
SECTION 97	264.00	100%	SECTION 97
SECTION 98	264.00	100%	SECTION 98
SECTION 99	264.00	100%	SECTION 99
SECTION 100	264.00	100%	SECTION 100



APPLICANT'S CERTIFICATE
I, JACQUELYNNE D. GIBSON, COUNTY CLERK, DO HEREBY CERTIFY THAT THE ABOVE IS THE TRUE AND CORRECT COPY OF THE SURVEY MAP AS SUBMITTED TO THE COUNTY CLERK FOR RECORDATION. I HAVE REVIEWED THE MAP AND FIND IT TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE SURVEY MAP ACT, CHAPTER 191, SECTION 191.001, AND I HAVE THEREFORE SIGNED AND SEALED THIS CERTIFICATE OF RECORDATION. IN WITNESS WHEREOF, I HAVE HEREUNTO SET MY HAND AND THE SEAL OF THE COUNTY OF NEW MEXICO, AT ALBUQUERQUE, NEW MEXICO, THIS 15TH DAY OF JULY, 2015.

NOTES:
1. THE SURVEY MAP WAS PREPARED BY THE SURVEYOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE SURVEY MAP ACT, CHAPTER 191, SECTION 191.001, AND THE SURVEYOR HAS THEREFORE SIGNED AND SEALED THIS CERTIFICATE OF RECORDATION.
2. THE SURVEY MAP WAS PREPARED BY THE SURVEYOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE SURVEY MAP ACT, CHAPTER 191, SECTION 191.001, AND THE SURVEYOR HAS THEREFORE SIGNED AND SEALED THIS CERTIFICATE OF RECORDATION.
3. THE SURVEY MAP WAS PREPARED BY THE SURVEYOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE SURVEY MAP ACT, CHAPTER 191, SECTION 191.001, AND THE SURVEYOR HAS THEREFORE SIGNED AND SEALED THIS CERTIFICATE OF RECORDATION.

STATE OF NEW MEXICO
COUNTY OF BERNALILLO
JACQUELYNNE D. GIBSON
COUNTY CLERK

APPLICANT'S CERTIFICATE
I, JACQUELYNNE D. GIBSON, COUNTY CLERK, DO HEREBY CERTIFY THAT THE ABOVE IS THE TRUE AND CORRECT COPY OF THE SURVEY MAP AS SUBMITTED TO THE COUNTY CLERK FOR RECORDATION. I HAVE REVIEWED THE MAP AND FIND IT TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE SURVEY MAP ACT, CHAPTER 191, SECTION 191.001, AND I HAVE THEREFORE SIGNED AND SEALED THIS CERTIFICATE OF RECORDATION. IN WITNESS WHEREOF, I HAVE HEREUNTO SET MY HAND AND THE SEAL OF THE COUNTY OF NEW MEXICO, AT ALBUQUERQUE, NEW MEXICO, THIS 15TH DAY OF JULY, 2015.



DAPPA ENGINEERING & SURVEYING LLC
1001 10TH AVENUE, SUITE 100
ALBUQUERQUE, NEW MEXICO 87102
TEL: (505) 261-1111
WWW.DAPPAENGINEERING.COM

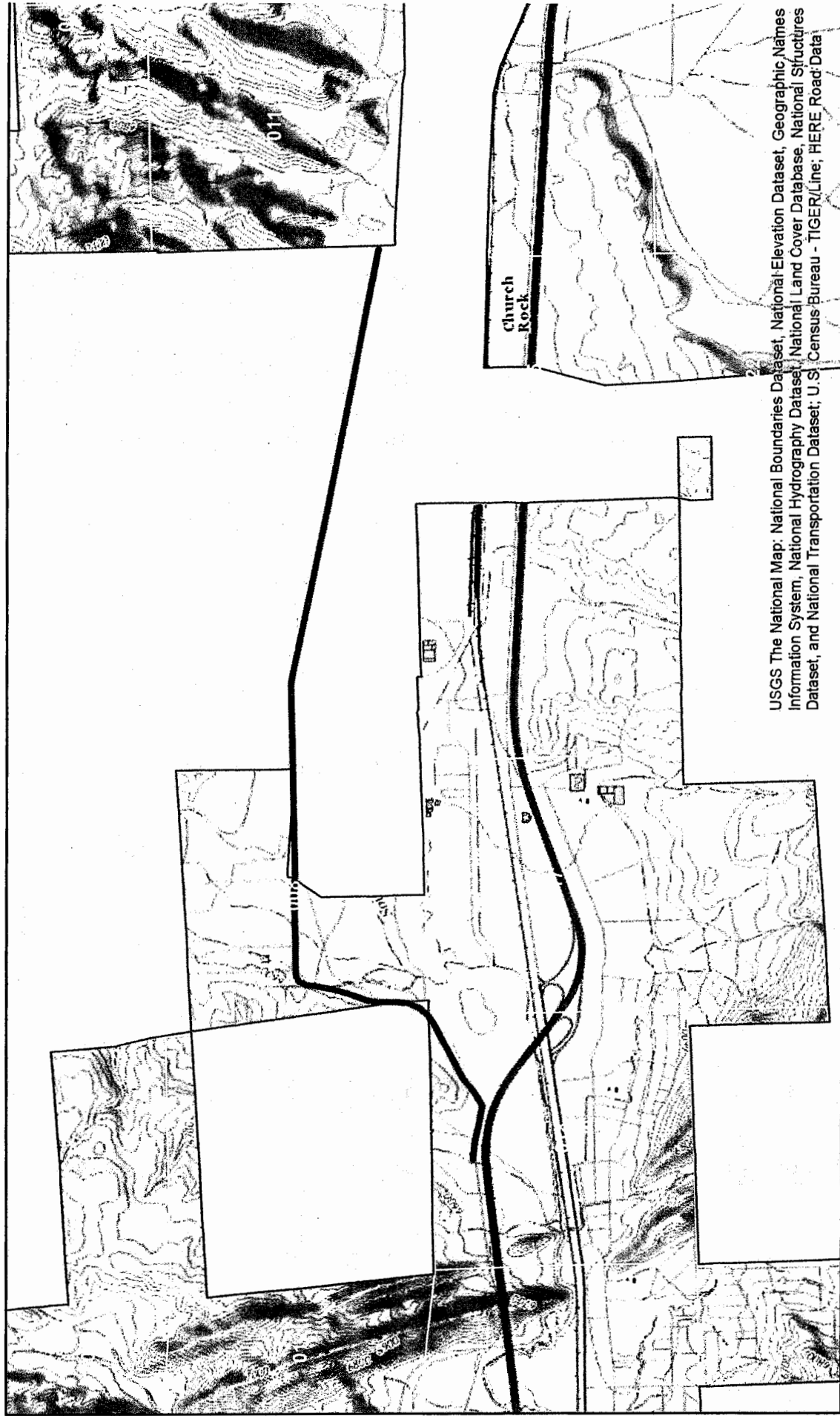
RIGHT-OF-WAY SURVEY
SITUATED IN SECTIONS 8 & 9, T10N, R17W, N.M.P.M.
BERNALILLO COUNTY, NEW MEXICO

FINAL PLAT

APPROVED FOR RECORDATION
JACQUELYNNE D. GIBSON
COUNTY CLERK

NGW-27.7B

Figure 1



USGS The National Map: National Boundaries Dataset, National Elevation Dataset, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; U.S. Census Bureau - TIGER/Line; HERE Road Data

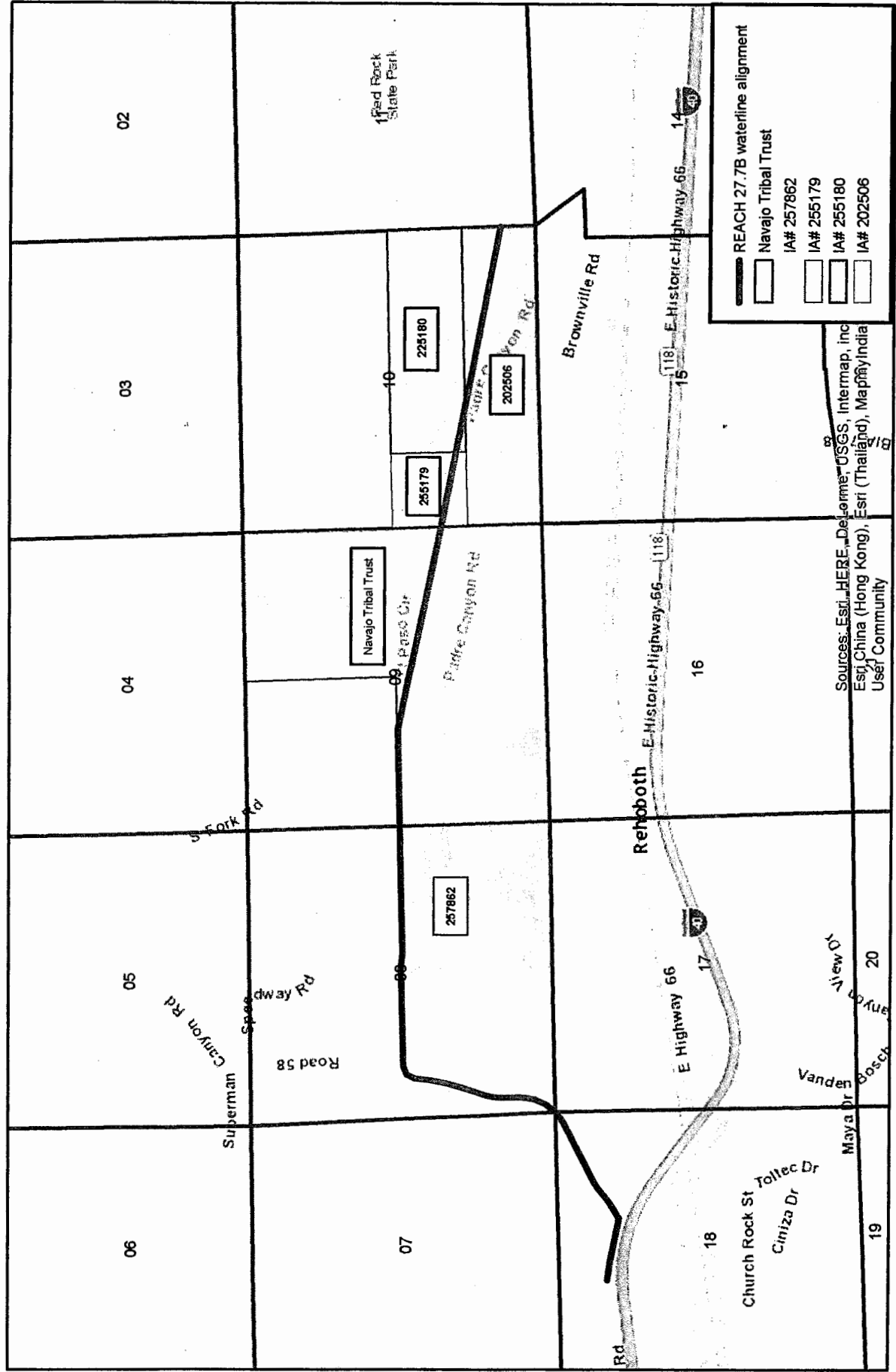
REACH 27.7B

Waterline alignment

Tribal Land



Navajo Gallup Water Supply Project Reach 27.7B Sections 8, 9 & 10, T15N, R18W, N.M.P.M.



NAVAJO GALLUP WATER SUPPLY PROJECT CHURCHROCK CHAPTER

The Navajo Gallup Water Supply Project {NGWSP} will benefit the Churchrock Chapter area residents in constructing a new waterline. The Project is designed to provide a long-term sustainable water supply to meet the future population needs of approximately 250,000 people in Navajo communities by the year 2040. Another benefit of the project will be construction of a Roadway and Public Utility Corridor. In addition to water, the Corridor will include power, wastewater and communication lines to be owned, operated and maintained by the City of Gallup. The project will also include semi-public utilities like cable, telephone and multi-use and non-motorized trails. Except for the waterline which will be constructed with NGWSP funding, the Roadway and Utility Corridor will be funded jointly by the City of Gallup, County of McKinley and other potential funding sources.

The Navajo Gallup Water Supply Project is the cornerstone of the Navajo Nation water rights settlement in the San Juan Basin. <http://www.usbr.gov/uc/rm/navajo/nav-gallup/index.html>.

These areas currently rely on a rapidly depleting groundwater supply that is of poor quality and inadequate to meet the current and future demands of more than 43 Navajo chapters. Over 40 percent of Navajo Nation households rely on hauling water to meet their daily needs. The Bureau of Reclamation <http://www.usbr.gov> has designed the project so that newly constructed phases will be connected to existing infrastructure to deliver water to Navajo communities that do not currently have water.

DePauli Engineering and Surveying, LLC has been working on the Navajo Gallup Water Supply Project alongside the United States Department of Interior Bureau of Reclamation, City of Gallup, State of New Mexico, the Navajo Nation, Northwest New Mexico Council of Governments, Indian Health Services, NTUA and surrounding Chapter Houses since 2000.

Churchrock Chapter House staff and the City of Gallup, along with DePauli Engineering's Consultants, Henry Hudson and Lisa Baca Diaz are working to obtain signatures for permission to survey the proposed project alignment. Attached is a copy of the area map for your review. The "permission to survey forms" are available at the Churchrock Chapter House for signature.

For more information, or if you would like to meet with a project coordinators contact one of the following individuals:

Alvin Billie
Community Service Coordinator
Michelle Johns, Office Asst.
Churchrock Chapter
505-905-5949
Brotherbear168@gmail.com

Henry Hudson
Consultant
505-870-0865
hbhudson@frontiernet.net

Marita Joe
City of Gallup GJU
505-863-1287
mjoe@ci.gallup.nm.us

Lisa Baca Diaz
Primero Planning
505-979-1450
bacadiatz@aol.com

ALLOTMENT # _____

ORIGINAL ALLOTEE NAME : _____

LEGAL: _____

FIELD CLEARANCE CHECKLIST

This form covers only damages and compensation to individual land users. It doesn't cover consideration or other fee to the Navajo Nation. (use back if necessary to complete this form).

1. Project Identification:

Application: City of GallupType of Project: Navajo Gallup Water SupplyPurpose: to provide water to the Church Rock CommunityLocation: McKinley County, Church Rock, NMIdentification number(s): Project Reach 27.7B and 27.11

2. Amount of land affected; a water line, 115Kv transmission line, 13.8KV Distribution line, wastewater line, and a communication line to be owned, operated and maintained by City of Gallup. The Roadway shall be owned by the City of Gallup and may be maintained by McKinley County through a memorandum of agreement {MOA}. The project will also include other semi-public utilities within the Public Utility Corridor that have a joint use agreement with the City of Gallup; 24.9 KV Continental Divide Electric Coop. power line, communication lines, and multi-use motorized and non-motorized trails {MOA with County} for Reach 27.7-{Project 7} Navajo Gallup Water Supply Project within the Church Rock Chapter area.

3. Land Status: Trust: x Fee: _____ Other: _____

4. List names of all individuals whose land use rights will be affected by the proposed project.

	Name	Census Number	Permit No.
1.	<u>Delbert White</u>	_____	<u>34</u>
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____

5. Are all the land users with claims to the affected lands as shown in Branch Land Operation records included in the list in item 4? Yes

6. Have the Grazing Committee or Land Board Member (which ever appropriate) for the affected area confirm land user list in item 4? Yes

ACKNOWLEDGEMENT

I acknowledge that due notice was given to the affected community of the proposed project, and according to my records and to the best of my knowledge, the list of the individual in item 4 includes all land users who have land use rights in the affected lands.

11/31/18

Date:

Howard Martinez, Land Support Agent, General Land Dev. Dept.

CONSENT FORM #1

(No expected damages)

**CONSENT TO USE
NAVAJO TRIBAL LANDS****TO WHOM IT MAY CONCERN**

I Delbert White hereby grant consent to the Navajo Nation and the Bureau of Indian Affairs, Window Rock, Arizona to permit City of Gallup of P.O. Box 1270, 110 W. Aztec Ave. Gallup, NM to use a portion of my land use area for the following purpose(s): a water line, 115kV transmission line, 13.8 kV distribution line, wastewater line, and a communication line to be owned, operated and maintained by City of Gallup. The Roadway shall be agreement {MOA}. The project will also include other semi-public utilities within the Pubic Utility Coop., powerline, communication lines, and multi-use motorized and non-motorized trails {MOA with County} for Reach 27.7-{Project 7} Navajo Gallup Water Supply Project within the Church Rock Chapter area.

_____ as shown on the map showing the location of the proposed project on the back of this consent form.

I acknowledge that I do not expect any damage to my improvements or diminishment in value of my land use rights and/or I expect the value of my land use rights to be enhanced as a result of the above-referenced project as proposed.

REMARKS: T. 15 N., R. 17 W., Section 9, S½, NE¼ There trash that around with in the bushes and fires that needs to be clean

1/31/18 Delbert White _____ 34
Date Land User Signature or (Thumbprint) Census No. Permit No.

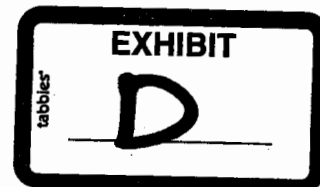
WITNESS:

01/31/2018 Ronald R. Arnold 16
Date Grazing Committee or Land Board Member District No.

Acknowledgement of Field Agent

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

Field Agent Signature



**BIOLOGICAL EVALUATION FOR NGSWP
REACH NO. 27.7B**

FOUR CORNERS ENVIRONMENTAL, INC. PROJECT NO. 11091R27.7B

**BUREAU OF RECLAMATION NAVAJO-
GALLUP WATER SUPPLY PROJECT
SAN JUAN RIVER PUBLIC SERVICE
COMPANY OF
NEW MEXICO ALTERNATIVE
BUREAU OF RECLAMATION
REACH NO. 27.7B**

Prepared for
DEPAULI ENGINEERING AND SURVEYING, LLC



Prepared by
FOUR CORNERS ENVIRONMENTAL, INC.

REPORT DATE: FEBRUARY 11, 2015



February 11, 2015

DePauli Engineering and Surveying, LLC
307 South Fourth Street
Gallup, New Mexico 87305-1270

Attention: Mr. Marc DePauli
DePauli Engineering & Surveying, Principal

Re: Report of Professional Environmental Services
Biological Evaluation for Bureau of Reclamation NGWSP Reach No. 27.7B
Bureau of Reclamation Navajo-Gallup Water Supply Project
San Juan River Public Service Company of New Mexico Alternative
Four Corners Environmental, Inc. Project No. 11091R27.7B

Dear Mr. DePauli:

Four Corners Environmental, Inc. (Four Corners) is pleased to provide this report for the Biological Evaluation of the Bureau of Reclamation Project Reach 27.7B. Four Corners was retained by DePauli Engineering and Surveying, LLC to complete a Biological Evaluation of Reach 27.7B as to update previous biological assessments and evaluations of the project previously completed by the U.S. Bureau of Reclamation and reported as "Endangered Species Act - Section 7 Consultation, Final Biological Opinion (Biological Opinion Number 2-22-01-F-532) for the Navajo-Gallup Water Supply Project, New Mexico. Specifically, Four Corners has been requested to determine the federally listed species and their federally listed critical habitats in compliance with the recommended methods cited in 50 Code of Federal Regulations (CFR) §402.12(f).

The project includes the construction of a potable water delivery pipeline along predefined routes. Construction activities in the area of Reach 27.7B include excavation of a trench, installation of a 16" water pipeline, and backfilling.

Four Corners has contacted local, state, and federal agencies, copies of which are included in Attachment C of this report. Additionally, Four Corners has completed a physical visit of Reach 27.7B to observe the existing environment, habitat(s), and evidence of the presence of listed species (where potentially present). Maps of the site visit to Reach 27.7B are included in Section 9. Photographs of the site area are included in Attachment B.

BIOLOGICAL EVALUATION FOR NGWSP REACH NO. 27.7B

**BUREAU OF RECLAMATION NAVAJO-GALLUP WATER SUPPLY PROJECT
SAN JUAN RIVER PUBLIC SERVICE COMPANY OF NEW MEXICO ALTERNATIVE
BUREAU OF RECLAMATION REACH NO. 27.7B**

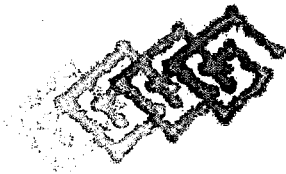
**DEPAULI ENGINEERING AND SURVEYING, LLC
307 SOUTH FOURTH STREET
GALLUP, NEW MEXICO**

PREPARED BY:

**FOUR CORNERS ENVIRONMENTAL, INC.
960 NORTH SINAGUA HEIGHTS DRIVE
FLAGSTAFF, ARIZONA 86004**

FOUR CORNERS PROJECT NO. 11091R27.7B

FEBRUARY 11, 2015



The results of this Biological Evaluation indicate that the planned Reach 27.7B construction activities will have no effect on listed species or their listed critical habitats.

Sincerely,

FOUR CORNERS ENVIRONMENTAL, INC.

Richard J. Brose, R.G.
Principal

Rhonda A. Brose
Rhonda A. Brose
C.E.O.

TABLE OF CONTENTS

Section	Page
1.0 PROJECT DESCRIPTION	1-1
2.0 LISTING OF AFFECTED SPECIES AND HABITAT	2-1
2.1 Field Reconnaissance Methods	2-2
2.2 Species Evaluation.....	2-2
3.0 AFFECTED ENVIRONMENT AND BASELINE CONDITIONS	3-1
3.1 CURRENT REGIONAL (RANGEWIDE) CONDITIONS	3-1
3.2 CURRENT CONDITIONS IN REACH AREA AND RELATIONSHIP TO SPECIES OF CONCERN	3-1
3.3 CUMULATIVE EFFECTS OF STATE AND PRIVATE ACTIONS IN REACH AREA	3-2
3.4 CRITICAL HABITAT.....	3-2
4.0 EFFECTS OF PROPOSED ACTION.....	4-1
4.1 DIRECT EFFECTS DURING CONSTRUCTION.....	4-1
4.2 INCIDENTAL TAKE	4-2
5.0 CONSERVATION MEASURES	5-1
6.0 RESULTS	6-1
7.0 LITERATURE CITED	7-1
8.0 LIST OF CONTACTS MADE/PREPARERS	8-1
8.1 Navajo Nation.....	8-1
8.2 State of New Mexico.....	8-1
9.0 MAPS	9-1

LIST OF TABLES

Table	Description	Following Page
2-1	Listing of Threatened and Endangered Species and Designated Critical Habitat Potentially within the Navajo-Gallup Water Supply Project Area	2-1
3-1	Species of Concern Potentially Occurring within Navajo Gallup Pipe Line Project Reach 27.7B	3-1

List of Figures

Figure	Description	Following Page
1-1	Project Location Map	1-2
1-2	Reach 27.7B Vicinity Map	1-2

Attachments

A	SWCA Technical Memorandum
B	Photographs
C	Agency Responses

1.0 PROJECT DESCRIPTION

The United States Department of the Interior, Bureau of Reclamation (BOR) is proposing to construct a water supply project that would divert water from the San Juan River and Navajo Reservoir to the Navajo Nation, Jicarilla Apache Nation, and the City of Gallup. Although there are numerous components to the overall BOR project, Four Corners has been retained by DePauli Engineering and Surveying, LLC to conduct evaluations of those portions of the BOR project that specifically involve the City of Gallup locations.

A significant amount of historical environmental work has been completed by numerous federal and state agencies to comply with applicable federal regulations/requirements for the federally funded project. A detailed Planning Report and Final Environmental Impact Statement (FEIS) were completed in 2009 by the BOR (2009). The San Juan River Public Service Company of New Mexico Alternative is commonly referred to as the Navajo-Gallup Water Supply Project (NGWSP).

Currently, the NGWSP alignment consists of a total of nine segments, including Reach 13 and Reach 27, with a total of nine subreaches in Reach 27 that include 27.5, 27.6, 27.7A, 27.7B, 27.9, 27.10, 27.11, 27.12 and 27.13. Biological surveys are required for threatened and endangered species and their protected habitats within 200 feet of either side of the construction right-of-way (400-feet total width).

Biological surveys for additional species are required on Bureau of Land Management (BLM) Indian allotment and Navajo Tribal Trust lands. Additional consultation with the United States Fish and Wildlife Service (USFWS) is also required for species and impacts not originally covered in the BOR (2009) Final Biological Opinion. The BOR (2009) identified, inventoried, and assessed threatened and endangered species and designated habitat within the Navajo-Gallup Water Supply Project Area. The BOR (2009) identified the Bald Eagle, Southwestern Willow Flycatcher, Ferruginous Hawk, Golden Eagle, Kit Fox, Pronghorn, Western Burrowing Owl, Beautiful Gilia and the Mesa Verde Cactus as potentially being affected by the project.

As a result of project timing and the potential selection of local, alternate construction routes, an update of certain elements of the biological evaluations is necessary to ensure the adequacy of the previous decisions with respect to changing project conditions and identify federally listed species and their federally listed critical habitats in alternative construction locations. This Biological Evaluation is based on information provided through federal and state agency correspondence telephone conversations, electronic mail, publicly available data, field activities, literature review, and other sources of information. These sources are listed in Section 8.0, List of Contacts Made/Preparers, of this report.

Four Corners utilized the services of a subcontractor, SWCA, Inc., (SWCA) to assist in coordinating activities with the Navajo Natural Heritage Program regarding listed species or additional species of concern. SWCA's Technical Memorandum is provided in Attachment A, SWCA Technical Memorandum.

This Biological Evaluation report documents information regarding federally listed species and their federally listed critical habitats as of the date of publication of this report for Reach 27.7B. The location of Reach 27.7B within the NGWSP project is illustrated on Figure 1-1, Project Location Map, and Figure 1-2, Reach 27.7B Vicinity Map.

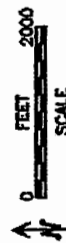
The proposed NGWSP project action within Reach 27.7B consists of the installation of a 16" water line as illustrated on Figure 1-2.

The construction activities are planned to begin October 2021 and extend through June 2023.



Legend

Reach 27.7B



Four Corners
 Environmental Inc.

Figure 1-2
 REACH 27.7B
 VICINITY MAP

FCE Project Name:

City Of Gallup

Navajo Gallup Water Supply Project

Project 6 - USBR - Reach 27.7B

FCE Project No: 11091 R27.7B

Date: 8/2014

Prepared By: C. Bross

SOURCES: DePaul Engineering & Surveying LLC, 2014

2.0 LISTING OF AFFECTED SPECIES AND HABITAT

Four Corners contacted and compiled updated listings of threatened and endangered species and designated habitat within the Navajo-Gallup Water Supply Project Area from United States Fish and Wildlife, and New Mexico Game and Fish. Four Corners evaluated the current listings and determined that new additional listings had not been made since information and findings published in BOR (2009).

Table 2-1, Listing of Threatened and Endangered Species and Designated Critical Habitat Potentially within the Navajo-Gallup Water Supply Project Area, provides a summary of current listed species, habitat, and the listing source(s).

Of the species identified in Table 2-1, Four Corners assessed Reach 27.7B for the species/habitat identified in BOR (2009) as present or potentially present within the Navajo-Gallup Water Supply Project Area as a whole. Four Corners also assessed Reach 27.7B for the reach-specific list of federally listed species, species listed under the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act, and species listed for their cultural and economic significance that are known to occur in or near the project area or within the relevant USGS Gallup West, New Mexico 7.5-minute quadrangle (Attachment A, SWCA Technical Memorandum – Appendix B, Navajo Nation Department of Fish and Game Response Letter).

Of the species identified in Table 2-1, the BOR (2009) identified the Bald Eagle, Southwestern Willow Flycatcher, Ferruginous Hawk, Golden Eagle, Kit Fox, Pronghorn, Western Burrowing Owl, Beautiful gilia and the Mesa Verde cactus as potentially being adversely affected by the project. Of the species identified in Table 2-1, the Navajo Nation Natural Heritage Program identified species of concern with the potential to occur in lands adjacent to Reach 27.7B as the Golden Eagle, Ferruginous Hawk, Peregrine Falcon, Black-Footed Ferret, Yellow-billed Cuckoo, Mexican Spotted Owl, Western Spotted Skunk, and Zuni Fleabane.

Table 2-1
Listing of Threatened and Endangered Species and Designated Critical Habitat
Potentially Within Navajo-Gallup Project Area

Common Name	Scientific Name	Source				
		USFWS ¹	NMGS ²	NNDNR ³	BOR(2009) ⁴	NNHP(2012) ⁵
BIRDS						
Bald Eagle	<i>Haliaeetus leucocephalus</i>	P ⁶	T ⁷	Group2 ⁸	SPI ⁹	---
Golden eagle	<i>Aquila chryaetos</i>	P	---	Group3 ¹⁰	SPI	PO ¹¹
Northern Goshawk	<i>Accipiter gentilis</i>	SOC ¹²	s ¹³	Group4 ¹⁴	NSH ¹⁵	---
Peregrine Falcon	<i>Falco peregrinus</i>	SOC	T	Group4	---	PO
American Peregrine Falcon	<i>Falco peregrinus anatum</i>	SOC	SOC	---	NSH	---
Arctic peregrine falcon	<i>Falco peregrinus tundrius</i>	SOC	SOC	---	NSH	---
Ferruginous hawk	<i>Buteo regalis</i>	---	---	Group3	SPI	PO
Mountain Plover	<i>Charadrius montanus</i>	SOC	s	Group4	---	---
Least Tern	<i>Sterna antillarum</i>	E ¹⁶	E	---	---	---
Black Tern	<i>Chlidonias niger surinamensis</i>	SOC	SOC	---	NSH	---
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>	C ¹⁷	s	Group2	NSH	PO
Mexican Spotted Owl	<i>Strix occidentalis lucida</i>	T	s	Group3	NSH	PO
Burrowing Owl	<i>Athene cunicularia</i>	SOC	---	Group4	---	---
Western burrowing owl	<i>Athene cunicularia hypugea</i>	SOC	SOC	---	SPI	---
Costa's Hummingbird	<i>Calypte costae</i>	---	T	---	---	---
Southwestern Willow Flycatcher	<i>Empidonax traillii extimus</i>	E	E	Group2	SPI	PO
Loggerhead Shrike	<i>Lanius ludovicianus</i>	---	s	---	---	---
Gray Vireo	<i>Vireo vicinior</i>	---	T	Group4	---	---
Baird's sparrow	<i>Ammodramus bairdii</i>	SOC	---	---	NSH	---
Sora	<i>Pozana carolina</i>	---	---	Group4	NSH	---
MAMMALS						
Western Small-footed Myotis Bat	<i>Myotis cillolabrum melanorhinus</i>	---	s	---	---	---
Occult Little Brown Myotis Bat	<i>Myotis lucifugus occultus</i>	---	s	---	---	---
Long-Legged Myotis Bat	<i>Myotis volans interior</i>	---	s	---	---	---
Fringed Myotis bat	<i>Myotis thysanodes thysanodes</i>	---	s	---	---	---
Long-eared Myotis bat	<i>Myotis evotis evotis</i>	---	s	---	---	---
Townsend's big-eared bat	<i>Corynorhinus townsendi</i>	SOC	---	Group4	NSH	---
Gunnison's Prairie Dog	<i>Cynomys gunnisoni</i>	C	s	---	---	---
Red Fox	<i>Vulpes vulpes</i>	---	s	---	---	---
Klt fox	<i>Vulpes macrotis</i>	---	---	Group4	SPI	---
Black Footed Ferret	<i>Mustela nigripes</i>	E	E	Group2	NSH	PO
Western Spotted Skunk	<i>Spilogale gracilis</i>	---	s	---	---	PO
Canada lynx	<i>Lynx canadensis</i>	C	---	---	NSH	---
Mule deer	<i>Odocoileus hemionus</i>	---	---	---	SPI	---
Pronghorn	<i>Antilocapra americana</i>	---	---	Group3	SPI	---
Rocky Mountain elk	<i>Cervus elaphus nelsoni</i>	---	---	---	---	---
AMPHIBIANS						
Northern Leopard Frog	<i>Rana pipiens</i>	---	---	Group2	NSH	---
FISH						
Zuni Bluehead Sucker	<i>Catostomus discobolus yarrowi</i>	C	C	Group4	NSH	PO

Table 2-1 Listing of Threatened and Endangered Species and Designated Critical Habitat Potentially Within Navajo-Gallup Project Area						
Common Name	Scientific Name	Source				
		USFWS ¹	NMGF ²	NNDNR ³	BOR(2009) ⁴	NNHP(2012) ⁵
INVERTEBRATES						
New Mexico silverspot butterfly	<i>Speyeria nokomis nitocris</i>	SOC	SOC	---	NSH	---
San Juan checkerspot butterfly	<i>Euphydryas anicia chuskae</i>	SOC	SOC	---	---	---
VEGETATION						
Acoma fleabane	<i>Erigeron aconanum</i>	SOC	SOC	Group3	NSH	---
Beautiful gilia	<i>Gilia formosa</i>	SOC	---	---	SPI	---
Bisti fleabane	<i>Erigeron bistinensis</i>	SOC	---	---	NSH	---
Brack hardwall cactus	<i>Sclerocactus cloveriae ssp bracki</i>	---	---	Group4	NSH	---
Gooding's onion	<i>Allium gooddongii</i>	---	---	Group3	NSH	---
Knowlton cactus	<i>Pediocactus knowltoni</i>	E	---	---	NSH	---
Mancos milkvetch	<i>Astragalus naturitensis</i>	---	---	Group2	NSH	---
Mesa Verde cactus	<i>Sclerocactus mesae-verdae</i>	---	---	Group2	SPI	---
Naturita milkvetch	<i>Astragalus naturitensis</i>	---	---	Group3	NSH	---
Parish's alkali grass	<i>Puccinellia parishii</i>	SOC	SOC	Group4	NSH	---
Santa Fe cholla	<i>Opuntia viridiflora</i>	SOC	---	---	NSH	---
Sivinski's fleabane	<i>Erigeron sivinskii</i>	SOC	SOC	Group4	NSH	---
Zuni (rhizome) fleabane	<i>Erigeron rhizomatus</i>	---	T	Group2	NSH	PO
Original Species List: Bureau of Recreation, 2009- Table V-10, Threatened and Endangered Species List						

- Notes: ¹ USFWS = United States Fish and Wildlife Service (2012);
² NMGF = New Mexico Game and Fish - McKinley County (2012);
³ NNDNR = Navajo Nation Division of Natural Resources - Department of Fish and Wildlife (2008);
⁴ BOR = Bureau of Reclamation (2009);
⁵ NNHP = Navajo Natural Heritage Program (2012);
⁶ P = Protected Species (Eagle Protection Act);
⁷ T = Threatened;
⁸ Group2 = A species or subspecies whose prospects of survival or recruitment are in jeopardy;
⁹ SPI = Species Potentially Impacted;
¹⁰ Group3 = A species or subspecies whose prospects of survival or recruitment are likely to be in jeopardy in the foreseeable future;
¹¹ PO = Possibly Occurring;
¹² SOC = Species of Concern;
¹³ s = sensitive species included in evaluation NMGS response letter (2012);
¹⁴ Group4 = Any species or subspecies for which the Navajo Nation Department of Fish and Wildlife NNDFW does not currently have sufficient information to support their being listed in G2 or G3 but has reason to consider them. The NNDFWL will actively seek information on these species to determine if they warrant inclusion in a different group or removal from the list;
¹⁵ NSH = No Suitable Habitat;
¹⁶ E = Endangered;
¹⁷ C = Candidate

2.1 Field Reconnaissance Methods

Four Corners biologists conducted a field reconnaissance of Reach 27.7B on the 11th and 12th of June, 2014 under access agreements provided by DePauli Engineering and the Navajo Nation Department of Fish and Wildlife (NNDFW) Biological Investigation Permit 17NNC, 23NNC, 16USC, 18USC. Field reconnaissance consisted of pedestrian surveys of Reach 27.7B to evaluate vegetation and landscape features indicative of federally listed and NNDFW special-status plant and animal species. The surveys were conducted within 200 feet of either side of the construction right-of-way (400-feet total width).

The potential for occurrence of the species addressed in this evaluation was based on documented records, existing information on distribution, and qualitative comparisons of the habitat requirements of each species with observed vegetation communities or landscape features. Possible effects or impacts to these species were evaluated based on reasonably foreseeable project-related activities.

2.2 Species Evaluation

The potential for occurrence of each species was summarized according to the categories listed below. Because not all species are accommodated precisely by a given category (i.e., category definitions may be too restrictive), an expanded rationale for each category assignment is provided. Potential for occurrence categories are as follows.

- **Known to Occur:** The species has been documented in the project area by a reliable observer.
- **May Occur:** The project area is within the species' currently known range, and vegetation communities, soils, etc., resemble those known to be used by the species.
- **Unlikely to Occur:** The project area is within the species' currently known range, but vegetation communities, soils, etc., do not resemble those known to be used by the species, or the project area is clearly outside the species' currently known range.

Those species listed by the USFWS were assigned to one of three categories of possible effect, following USFWS recommendations. Because species listed by the NNDFW are not protected under the authority of the Endangered Species Act (ESA) of 1973 (16 United States Code [USC] 1531 et seq.), effects determinations for these species do not follow USFWS recommendations. The effects determinations recommended by the USFWS are as follows:

- **May Affect (Is likely to adversely affect):** The project is likely to adversely affect a species if the species is known to occur in the project area and project activities would disturb areas or habitat elements known to be used by the species, or would directly affect an individual.
- **May Affect (Is likely to adversely affect):** The project is not likely to adversely affect a species if the species may occur but its presence has not been documented and project activities would not result in disturbance to areas or habitat elements known to be used by the species.
- **No Effect:** The project will have no effect on a species if the species is considered unlikely to occur (range, vegetation, etc., are inappropriate) and the species or its sign was not observed during surveys of the project area.

Because species not listed as threatened or endangered are not protected under the authority of the ESA, impact determinations for these species do not follow USFWS recommendations. Instead, the impact determinations for any species not protected under the ESA¹ are as follows.

- **No Impact:** The project will have no impact on a species if the species is considered unlikely to occur (range, vegetation, etc., are inappropriate) and/or if the species or its sign was not observed during surveys of the project area.
- **Beneficial Impact:** The project is likely to benefit the species, whether it is currently present or not, by creating or enhancing habitat elements known to be used by the species.
- **May impact individuals, but is not likely to result in a trend toward federal listing or loss of viability:** The project is not likely to adversely impact a species if the species may occur but its presence has not been documented and/or if project activities would not result in disturbance to areas or habitat elements known to be used by the species.
- **May impact individuals and is likely to result in a trend toward federal listing or loss of viability:** The project is likely to adversely impact a species if the species is known to occur in the project area and/or if project activities would disturb areas or habitat elements known to be used by the species or would directly affect an individual.

¹ This includes the species of concern listed by the NNDFW.

3.0 AFFECTED ENVIRONMENT AND BASELINE CONDITIONS

The affected environment consists of Navajo Nation lands. The affected environment consists of developed and undeveloped, west to east trending ridgeline located along off of Interstate 40 40 and Historic Highway 66 north of property owned by Conoco/Phillips. Although development is limited to residential structures and commercial property the planned pipeline route is within close proximity of the highway and residential development resulting in limited habitat. The affected environment falls within the arid upland habitat defined by the BOR (2009).

3.1 CURRENT REGIONAL (RANGEWIDE) CONDITIONS

Regionally, the NGWSP has certain elements that have a potential to adversely impact listed threatened and endangered species and associated habitat. These regional issues have previously been addressed by the BOR (2009) and USFWS (2009). Vegetation and associated wildlife are sparse within the arid upland environment and, locally, there may be virtually little to no vegetation. There are no perennial streams or wetlands. As such, there are no aquatic resources that will be impacted by the Reach 27.7B activities.

Since these regional issues have been identified and findings and mitigation measures have been addressed in the context of the overall environmental studies, they will not be further addressed in this document.

3.2 CURRENT CONDITIONS IN REACH AREA AND RELATIONSHIP TO SPECIES OF CONCERN

Reach 27.7B is located adjacent to both an existing highway (40 and 66), local and commercial development. The proposed right-of way was visited on June 11th and 12th, 2014. Field conditions were observed for 200 feet on either side of the construction right-of-way. A discussion of the potentially adversely affected species by the project activities is presented by the BOR (2009), which outlines the typical habitat for each species identified.

Table 3-1, Species of Concern Potentially Occurring within Navajo Gallup Pipe Line Project Reach 27.7B, provides current information on species, federal species status, range and habitat requirements,

<p align="center">Table 3-1 Species of Concern Potentially Occurring within Navajo Gallup Pipe Line Project Reach 27.7B</p>				
Common Name (Scientific Name)	USFWS Status	Range or Habitat Requirements	Potential Occurrence in Project Area	Determination of Effect/Impact
BIRDS				
Bald Eagle (<i>Haliaeetus leucocephalus</i>)	Protected	Bald eagles are opportunistic feeders. Fish compromise much of their diet, but they also eat waterfowl, shorebirds/colonial water birds, small mammals, turtles and carrion (often along roads or at landfills). They often nest in mature or old-growth trees; snags (dead trees); cliffs; rock promontories; rarely on the ground; and with increasing frequency on human-made structures such as power poles and communication towers.	Unlikely to occur. There are no large stands of trees to support nest structures and no large bodies of water or rivers that occur throughout the year to support the eagle's diet of fish and water birds.	No effect
Southwestern Willow Flycatcher (<i>Empidonax traillii eximius</i>)	Endangered	Southwestern willow flycatchers are found in dense riparian habitats along streams, rivers, and other wetlands where cottonwood (<i>Populus sp.</i>), willow (<i>Salix sp.</i>), boxelder (<i>Acer negundo</i>), saltcedar (<i>Tamarix sp.</i>), russian olive (<i>Elaeagnus angustifolia</i>), buttonbush (<i>Cephalanthus occidentalis</i>), and arrowweed (<i>Pluchea sericea</i>) are present. Nests are found in thickets of trees and shrubs, primarily those that are 13 to 23 feet tall, among dense, homogenous foliage. Habitat occurs at elevations below 8,500 feet average mean sea level.	Unlikely to occur. Reach area has no riparian habitat vegetation that the flycatcher prefers to nest in.	No effect
Ferruginous Hawk (<i>Buteo regalis</i>)	Not Listed	Ferruginous Hawks nest in badlands, flat or rolling desert grasslands and desert scrub. Habitat surrounding nest site must support populations of their preferred prey items of cottontail and jackrabbits, prairie dogs, ground squirrels and gophers.	May occur within Reach 27.7B. Suitable foraging habitat occurs with nesting areas in the reach area.	Individuals may be impacted by the project, but it is not likely that the species will trend toward federal listing or loss of viability.

<p align="center">Table 3-1 Species of Concern Potentially Occurring within Navajo Gallup Pipe Line Project Reach 27.7B</p>				
Common Name (Scientific Name)	USFWS Status	Range or Habitat Requirements	Potential Occurrence in Project Area	Determination of Effect/Impact
Golden Eagle (<i>Aquila chrysaetos</i>)	Protected	Nest on steep cliffs, typically less than or equal to 100 feet in height, although shorter cliffs (less than or equal to 30 feet) are infrequently used. Nesting cliffs are normally directly adjacent to foraging habitat of desert grasslands or desert scrub, with only sparse shrubs if present, that provides primary prey of cottontail and jackrabbits. Nests usually placed in middle to upper parts of cliffs in sheltered ledges, potholes, or small caves which provide protection from the elements.	May occur within Reach 27.7B. Suitable foraging habitat occurs with nesting areas in the reach area.	Individuals may be impacted by the project, but it is not likely that the species will trend toward federal listing or loss of viability.
Yellow-billed Cuckoo (<i>Coccyzus americanus</i>)	Candidate	Typically found in riparian woodland vegetation (cottonwood, willow, or saltcedar) at elevations below 6,600 feet average mean sea level. Dense understory foliage appears to be an important factor in nest site selection.	Unlikely to occur. Reach area has no riparian vegetation.	No effect
Peregrine Falcon (<i>Falco peregrinus</i>)	Species of Concern	Nests on steep cliffs greater than 100 feet tall in a scrape on sheltered ledges or potholes. Foraging habitat quality is an important factor; often, but not always, extensive wetland and/or forest habitat is within the falcon's hunting range.	May occur within Reach 27.7B. Suitable foraging habitat occurs with nesting areas in the reach area.	Individuals may be impacted by the project, but it is not likely that the species will trend toward federal listing or loss of viability.
Western Burrowing Owl (<i>Athene cunicularia</i>)	Species of Concern	Nests in ground burrow (often deserted prairie-dog burrow) typically in dry, open grasslands or Desert scrub, but grasslands with sparse junipers may also be used on the Navajo Nation; presence of suitable nest burrow is critical requisite.	May occur within Reach 27.7B. Suitable foraging habitat occurs along with prairie dog burrows used by the Western burrowing owl as critical nest burrows.	Individuals may be impacted by the project, but it is not likely that the species will trend toward federal listing or loss of viability.
Mexican spotted owl (<i>Strix occidentalis lucida</i>)	Threatened	Found in mature, montane forests and woodlands and steep, shady, wooded canyons. Can also be found in mixed-conifer and pine-oak vegetation types. Generally	Unlikely to occur. The reach area does not contain mixed-conifer or extensive pine-oak vegetation types.	No effect

Table 3-1
Species of Concern Potentially Occurring within Navajo Gallup Pipe Line Project Reach 27.7B

Common Name (Scientific Name)	USFWS Status	Range or Habitat Requirements	Potential Occurrence in Project Area	Determination of Effect/Impact
		nests in older forests of mixed conifers or ponderosa pine-Gambel oak (<i>Pinus ponderosa-Quercus gambelii</i>). Nests in live trees on natural platforms (e.g., dwarf mistletoe [<i>Arceuthobium</i> sp.] brooms), snags, and canyon walls at elevations between 4,100 and 9,000 feet amsl.		
MAMMALS				
Kit Fox (<i>Vulpes macrotis</i>)	Not Listed	Dens excavated in desert scrub or desert grasslands with soft, alluvial or silty-clay soils, and often with sparse saltbush, shadscale, greasewood, or sagebrush, and grasses.	May occur within Reach 27.7B. Suitable den site habitat occurs in the reach area.	Individuals may be impacted by the project, but it is not likely that the species will trend toward federal listing or loss of viability.
Pronghorn (<i>Antilocapra americana</i>)	Not Listed	Found in grasslands or desertscrub areas with rolling or dissected hills or small mesas, and usually with scattered shrubs and trees (typically juniper and sagebrush).	Unlikely to occur.	No effect, no impact.
Black-footed ferret (<i>Mustela nigripes</i>)	Endangered	Found on grassland plains in mountain basins at elevations below 10,500 feet average mean sea level, usually in association with prairie dogs, which serve as a primary source of food and burrows. No wild populations are currently known to exist in New Mexico.	Unlikely to occur. This species has been reintroduced more than 200 miles east of Gallup in Vermejo Park ranch within Colfax County.	No effect
Western spotted skunk (<i>Spilogale gracilis</i>)	Not Listed	The Western spotted skunk lives in rocky areas and vegetated canyon beds and hillsides. Its diet consists of small mammals, insects, small reptiles, birds and eggs.	May occur within Reach 27.7B. Suitable foraging and denning habitat occurs in the project area.	Individuals may be impacted by the project, but it is not likely that the species will trend toward federal listing or loss of viability.
VEGETATION				
Beautiful gilia (<i>Gilia formosa</i>)	Species of Concern	The beautiful gilia is a USFWS species of concern and is found only in San Juan County in salt desert scrub communities in soils of the Nacimiento Formation.	The formations Beautiful gilia prefer to grow in are not found within Reach 27.7B.	No effect

<p align="center">Table 3-1 Species of Concern Potentially Occurring within Navajo Gallup Pipe Line Project Reach 27.7B</p>				
Common Name (Scientific Name)	USFWS Status	Range or Habitat Requirements	Potential Occurrence in Project Area	Determination of Effect/Impact
Mesa Verde cactus (<i>Sclerocactus mesae-verdae</i>)	Threatened	Salt-desert scrub communities, typically in the Fruitland and Mancos shale formations, but also in the Menefee Formation overlaying Mancos shale. It is most frequently found on the tops of hills or benches and along slopes. Known populations occur between 4900 to 5500ft.	The formations Mesa Verde cactus prefer to grow in are not found within Reach 27.7B.	No effect
Zuni fleabane (<i>Erigeron rhizomatus</i>)	Threatened	Grows in selenium-rich red or gray detrital clay soils derived from the Chinle and Baca formations. Plants are found at elevations from 7,300-8,000 feet in pinyon-juniper woodland. Prefers slopes of up to 40 degrees, usually with a North-facing aspect.	Unlikely to occur. The project area is outside the elevation range and does not contain the appropriate soil types.	No effect
Source for range and habitat information: USFWS (2012), Mikesic and Roth (2008)				

potential for occurrence, and the determination of effect or impact. The findings summarized in Table 3-1 were determined by field observations, literature review, and the determination of effects with respect to the proposed construction right-of-way.

3.3 CUMULATIVE EFFECTS OF STATE AND PRIVATE ACTIONS IN REACH AREA

To date, the cumulative effects of historical actions associated with the reach have reduced available habitat, disrupted migration routes (where and if present), and present an ongoing source of vehicular traffic. The presence of development(s) include I-40 and Historic Highway 66; commercial property owned by Conoco/Phillips for natural gas production; and residential structures scattered across the landscape.

Consultations of federal and state action agencies in the affected area to date have indicated that the overall NGWSP is unlikely to adversely affect wildlife or wildlife habitat provided recommended mitigation activities are undertaken during construction.

3.4 CRITICAL HABITAT

Critical habitat is documented by USFWS (2004) for the Mexican Spotted Owl and the Southwestern Willow Flycatcher.

Critical habitat was designated for the Mexican Spotted Owl by the USFWS (2004). The critical habitat includes 2.1 million acres in New Mexico, with other habitat boundaries within Arizona, Colorado, and Utah. The Mexican Spotted Owl nest, roost, forage and disperse in a diverse array of biotic communities, and include areas of complex forest structure or rocky canyons. Nesting habitat contains uneven-aged, multi-storied mature or old growth stands that have a high canopy closure. In the northern portion of the range (Colorado and Utah), most nests are in caves or cliff walls in steep-walled canyons. Further south, the Mexican Spotted Owl has been observed in a variety of habitats ranging from high-elevation forests to pinon-juniper woodlands and riparian areas surrounded by desert grasslands. Breeding season is September 1 through February 28. Although the geographic range of the Mexican Spotted Owl includes the BOR project area, critical habitat in McKinley County, New Mexico, is limited to the Zuni Mountains and portions of the Chuska Mountains (defined in

Alternatives I, II and III) by the USFWS (2004). Reach 27.7B does not encroach on Mexican Spotted Owl critical habitat area.

The Southwestern Willow Flycatcher breeds in dense riparian habitats along rivers, streams or other wetlands. Almost all Southwestern Willow Flycatcher breeding habitats are within close proximity (less than 20 yards) of water or very saturated soils. Preferred vegetation includes dense growths of willows (*Salix* sp.), seepwillows (*Baccharis* sp.) or other shrubs and medium-sized trees. One of the most important characteristics of the Southwestern Willow flycatcher habitat appears to be the presence of dense vegetation, usually throughout all vegetation layers present. Therefore, critical habitat was not observed for the Southwestern Willow Flycatcher along Reach 27.7B.

4.0 EFFECTS OF PROPOSED ACTION

Environmental effects from the NGWSP Reach 27.7B activities in the affected area of the proposed pipeline construction site are discussed below.

4.1 DIRECT EFFECTS DURING CONSTRUCTION

The affected area is not in close proximity to critical habitat designated by the USFWS. Field observations did not identify evidence suggesting the presence of threatened or endangered species. The habitat necessary to support most of the listed species is not present in the affected area.

The planned excavation activities are anticipated to begin in October, 2021 either near the end of or past typical breeding seasons for listed species. The excavation activities will be conducted in the central portion of the easement, with access limited to existing roads or directly along the excavation pathway. It is anticipated that construction activities will require approximately 12 months, with Reach 27.7B activities anticipated to be completed by October 1, 2023. Although construction activities will be conducted daily (Monday through Friday), the construction will progress linearly in a generally east/west direction so that the entire length of construction will not be disturbed at any one time.

Pipeline construction activities are planned to include clearing and grubbing of the pipeline route, excavation of a ten foot wide trench to variable depths along the route, with a 16" water line placed within the trench.

The intensity and disturbance of the planned actions are largely temporary and primarily limited to existing easements that have previously been disrupted. The pipeline portion of the planned action will be covered so that future disruption of habitat for the listed species will be minimized.

4.2 INCIDENTAL TAKE

The results of the Biological Evaluation indicate that the proposed action will not result in incidental taking of either threatened or endangered species or their habitat. The Reach 27.7B corridor is in a previously constructed right-of-way and immediately adjacent to the existing Interstate 40, Historic Highway 66 and commercial property owned by Conoco/Phillips. These historical and ongoing disruptions to the natural environment have diminished the presence of native threatened or endangered species. Endangered or threatened habitat is not present in the Reach 27.7B corridor.

5.0 CONSERVATION MEASURES

Of the impacts summarized by the BOR (2009) for the preferred alternative, the applicable, non-wetland, impacts to vegetation were limited to 43 acres of permanent loss. None of this acreage is within Reach 27.7B. Similarly, wildlife resources were restricted to possible encroachment on raptor cliff-nesting habitat with the potential for avian collisions. Raptor cliff-nesting habitat is adjacent to proposed pipeline route in Reach 27.7B.

Although the New Mexico Department of Game and Fish has indicated that the planned construction activities are unlikely to adversely affect wildlife or wildlife habitat, they have provided recommendations for protective measures to minimize the effects of the planned activities on wildlife that may be present in the construction area. These recommendations include minimizing open trenches (keeping excavation and backfill operations close together), trenching during cooler months (October - March) unless there are critical wintering areas present, and avoiding leaving trenches open overnight. The use of these techniques also minimizes travel distances for construction equipment that results in overall fuel savings for construction equipment.

6.0 RESULTS

A total of nine species potentially impacted listed by the BOR (2009) could occur within the Project Reach 27.7B. A total of four species of concern with the potential to occur within Reach 27.7B were identified by the Navajo Natural Heritage Program (NNHP). A total of seven species: ferruginous hawk, golden eagle, peregrine falcon, western burrowing owl, kit fox, black-footed ferret and western spotted skunk, have observed habitat within the project area. The project is unlikely to negatively impact these species or result in a trend toward federal listing or loss of viability. For the remaining species, the project area either lacks critical vegetation and landscape features for nesting, denning, growing, or preferred foraging habitat, or both. Range or habitat requirements, potential occurrence in project area, and possible effects of the potentially impacted species are summarized below in Table 3-1.

7.0 LITERATURE CITED

BOR, see United States Bureau of Reclamation.

USFWS, see United States Fish and Wildlife Service.

City of Gallup, 2009, Water Treatment and Conveyance Contract, (City of Gallup and the Navajo Nation), dated May 11, 2009.

City of Gallup, 2011, Right of Capacity Agreement (City of Gallup and Navajo Nation), dated September 17, 2011.

Mikesic, D., and D. Roth. 2008. Navajo Nation Endangered Species List. Species Accounts, Version 3.08. Navajo Nation Department of Fish and Wildlife: Navajo Natural Heritage Program, http://nnhp.nndfw.org/sp_account.html (accessed June 2014)

Navajo Nation Division of Natural Resources - Department of Fish and Wildlife, 2008, Navajo Endangered Species List, Resources Committee Resolution No. RCS-41-08, dated September 10, 2008.

Navajo Natural Heritage Program, 2012, Correspondence - Navajo Endangered Species List (NESL) Information for Bureau of Reclamation Navajo-Gallup Water Supply Project, Bureau of Reclamation Reach 27.7B, City of Gallup Reach (Project) Number 8, FCE Project Number 11091R27.7B, Located in Legal Description Sections 7, 8, 17-20, 29, 30; T16N, R18W, North of Gallup, McKinley County, NM, NNHP File Number 12SWCA-03, dated March 22, 2012.

New Mexico Game and Fish, 2012, Report County Federal/State Species Status for McKinley County (New Mexico), <http://www.bison-m.org> (accessed June 2014).

United States Fish and Wildlife Service, 2004, "Environmental Assessment for Designation of Critical Habitat for the Mexican Spotted Owl", U.S. Fish and Wildlife Service Region 2, August 18, 2004.

United States Fish and Wildlife Service, 2004, "Critical Habitat Designated for Mexican Spotted Owl", August 20, 2004 *Federal Register*.

United States Fish and Wildlife Service, 2009, Final Biological Opinion for the Navajo-Gallup Water Supply Project.

United States Fish and Wildlife Service, 2012, Listed and Sensitive Species in McKinley County (New Mexico), <http://www.fws.gov/southwest/es/New Mexico> (accessed June 2014).

United States Fish and Wildlife Service Arcata Fish and Wildlife Office, 2012, Bald Eagle *Haliaeetus leucocephalus*, http://www.fws.gov/arcata/es/birds/baldEagle/b_eagle.html (accessed June 2014)

United States Geological Survey, "Southwestern Willow Flycatcher Habitat" <http://sbsc.wr.usgs.gov/cprs/research/projects/swwf/wiflhab.asb> (accessed June 2014).

United States Bureau of Reclamation, 2009, "Planning Report and Final Environmental Impact Statement, Navajo-Gallup Water Supply Project, New Mexico-Arizona" April, 2009.

8.0 LIST OF CONTACTS MADE/PREPARERS

Consultation with numerous agencies was completed in the preparation for the NGWSP project Reaches as a whole by Four Corners in 2011, and of this Biological Evaluation in 2014. Multiple forms of contact were sent to each Agency for their response including a written letter, email and phone call. The contacts made are listed below. Responses from these contacts, where received, are included in Attachment C to this report.

Federal Agencies

United States Bureau of Land Management
New Mexico State Office
PO Box 27115

Santa Fe, New Mexico 87502-0115

Attn: Mr. William Merhege, Deputy State Director, Resources (2011)

Four Corners Environmental was unable to receive a response letter from the United States Bureau of Land Management (2014)

United States Fish and Wildlife Service
Aquatic Ecosystems Branch Chief
New Mexico Ecological Services Field Office
2105 Osuna Road NE

Albuquerque, New Mexico 87113-1001

Attn: George D. Dennis III, Ph.D. (2011)

Four Corners Environmental was unable to receive a response letter from the United States Fish and Wildlife Service (2014)

United States Forest Service, Southwestern Region
Wildlife, Fish and Rare Plants
333 Broadway SE

Albuquerque, New Mexico 87102

Four Corners Environmental was unable to receive a response letter from the United States Forest Service, Southwestern Region (2014)

8.1 Navajo Nation

Navajo Natural Heritage Program
P.O. Box 1480
Window Rock, Arizona 86515

8.2 State of New Mexico

New Mexico Game and Fish
PO Box 25112
Santa Fe, New Mexico 87505
Attn: Conservation Services (2011)
Attn: Mark Wunder (2014)

New Mexico State Forestry Division
1220 S. St. Francis Drive
Santa Fe, New Mexico 87505
Attn: Bernadette Lovato - Public Records (2011)
Attn: Daniel Roth - Botany Program Coordinator (2014)

Consultation and Preparation

Four Corners utilized the services of the following subcontractors to assist in performing field evaluation(s) for the Biological Evaluation.

SWCA
114 N. San Francisco Street, Suite 100
Flagstaff, Arizona

Four Corners completed the preparation of the Biological Evaluation text, including background research, current status evaluations and participation in field activities. Letters representing the findings of Four Corners' subcontractors will be included as an addendum to this report.

9.0 MAPS

The location of Reach 27.7B is illustrated on Figure 1-1, Project Location Map, which also illustrates the Gallup regional system to be constructed under the NGWSP. Figure 1-2, Reach 27.7B Vicinity Map provides an aerial view of the Reach 27.7B arid upland environment.

ATTACHMENT A

SWCA TECHNICAL MEMORANDUM

**BIOLOGICAL EVALUATION FOR THE
NAVAJO GALLUP WATER SUPPLY
SYSTEM REACHES 27.7B AND 27.11
IN MCKINLEY COUNTY,
NEW MEXICO**

Prepared for

DePauli Engineering & Surveying, LLC

Prepared by

SWCA Environmental Consultants

January 2015

**BIOLOGICAL EVALUATION FOR THE NAVAJO GALLUP
WATER SUPPLY PROJECT REACHES 27.7B AND 27.11 IN
MCKINLEY COUNTY, NEW MEXICO**

Prepared for

DEPAULI ENGINEERING & SURVEYING, LLC
307 South 4th Street
Gallup, New Mexico 87301
(505) 863-5440

Prepared by

SWCA ENVIRONMENTAL CONSULTANTS
5647 Jefferson Street NE
Albuquerque, New Mexico 87109
Telephone: (505) 254-1115; Facsimile: (505) 254-1116
www.swca.com

SWCA Project 29778

January 2015

TABLE OF CONTENTS

1 INTRODUCTION AND PROJECT DESCRIPTION	1
2 METHODS.....	3
2.1 Drainages and Wetlands.....	3
2.2 Species Identification	3
2.3 Species Evaluation	4
3 ECOLOGICAL OVERVIEW.....	6
3.1 Soils.....	10
3.1.1 Reach 27.7B.....	10
3.1.2 Reach 27.11.....	14
3.2 Waters of the U.S. and Special Aquatic Sites	14
3.3 Vegetation Communities.....	17
3.4 Wildlife.....	18
4 LIST OF SPECIAL-STATUS SPECIES	20
4.1 Migratory Bird Treaty Act	24
4.2 Bald and Golden Eagle Protection Act	24
5 CONCLUSION.....	25
6 LITERATURE CITED.....	27
APPENDIX A PROJECT AREA PHOTOGRAPHS.....	29
APPENDIX B NAVAJO NATION DEPARTMENT OF FISH AND WILDLIFE RESPONSE LETTER.....	35

LIST OF TABLES

Table 1. Soil Map Units along Reach 27.7B	10
Table 2. Soil Map Units along Reach 27.11	14
Table 3. Construction Disturbance Acreages along Proposed Reach 27.7B	17
Table 4. Construction Disturbance Acreages along Proposed Reach 27.11	17
Table 5. Plant Species Observed during the Biological Survey	18
Table 6. Wildlife Detected during the Biological Survey.....	19
Table 7. Species Federally Listed as Endangered, Threatened, or Proposed in McKinley County.....	21
Table 8. Other Special-Status Species Including Navajo Nation Department of Fish and Wildlife Species of Concern	22

LIST OF FIGURES

Figure 1. General location of Navajo-Gallup Water Supply Project Reaches 27.7B and 27.11. 7	
Figure 2. Reach 27.7B location.....	8
Figure 3. Reach 27.11 location.	9
Figure 4. Drainages crossing Reach 27.7B.....	15
Figure 5. Drainages crossing Reach 27.11.....	16

TABLE OF CONTENTS

1 INTRODUCTION AND PROJECT DESCRIPTION	1
2 METHODS	3
2.1 Drainages and Wetlands	3
2.2 Species Identification	3
2.3 Species Evaluation	4
3 ECOLOGICAL OVERVIEW	6
3.1 Soils	10
3.1.1 Reach 27.7B	10
3.1.2 Reach 27.11	14
3.2 Waters of the U.S. and Special Aquatic Sites	14
3.3 Vegetation Communities	17
3.4 Wildlife	18
4 LIST OF SPECIAL-STATUS SPECIES	20
4.1 Migratory Bird Treaty Act	24
4.2 Bald and Golden Eagle Protection Act	24
5 CONCLUSION	25
6 LITERATURE CITED	27
APPENDIX A PROJECT AREA PHOTOGRAPHS	29
APPENDIX B NAVAJO NATION DEPARTMENT OF FISH AND WILDLIFE RESPONSE LETTER	35

LIST OF TABLES

Table 1. Soil Map Units along Reach 27.7B	10
Table 2. Soil Map Units along Reach 27.11	14
Table 3. Construction Disturbance Acreages along Proposed Reach 27.7B	17
Table 4. Construction Disturbance Acreages along Proposed Reach 27.11	17
Table 5. Plant Species Observed during the Biological Survey	18
Table 6. Wildlife Detected during the Biological Survey	19
Table 7. Species Federally Listed as Endangered, Threatened, or Proposed in McKinley County	21
Table 8. Other Special-Status Species Including Navajo Nation Department of Fish and Wildlife Species of Concern	22

LIST OF FIGURES

Figure 1. General location of Navajo-Gallup Water Supply Project Reaches 27.7B and 27.11.	7
Figure 2. Reach 27.7B location	8
Figure 3. Reach 27.11 location	9
Figure 4. Drainages crossing Reach 27.7B	15
Figure 5. Drainages crossing Reach 27.11	16

This page left intentionally blank

1 INTRODUCTION AND PROJECT DESCRIPTION

The City of Gallup and DePauli Engineering & Surveying, LLC (DePauli), are proposing to build Navajo Gallup Water Supply Project (NGWSP) Reaches 27.7B and 27.11 in order to deliver water through City facilities to neighboring Navajo communities. SWCA Environmental Consultants (SWCA) was selected by DePauli to complete a biological survey of the project area, including an evaluation of potential habitat for special-status species and a determination of the ordinary high water mark (OHWM) for any jurisdictional waterway that crosses the proposed route of the two reaches.

NGWSP Reaches 27 and 13 form a component of the NGWSP known as the Gallup Rural Navajo Water Supply Project (GRNWSP), which is funded by the State of New Mexico through the New Mexico Finance Authority (NMFA) and the State of New Mexico Water Trust Board (WTB), the City of Gallup, and the Bureau of Reclamation Federal Financial Assistance Agreement No. R11AC10002.

Reach 27.11 involves the construction of a 12-inch and 14-inch waterline that will connect Reaches 14.6, 14.7, and 14.8 to Red Rock, Bread Springs, and Chichiltah, respectively. Reach 27.7B begins at the terminus of Reach 27.6 and will extend eastward. It will be completed as a 16-inch waterline that connects Bureau of Reclamation Reaches 14.1, 14.2, 14.3 and 14.4 to Church Rock, Iyanbito, Pinedale, and Mariano Lake, respectively. Reaches 27.7B and 27.11 are associated with a footprint of 10 feet for the trench width and a temporary work space of 20 feet on either side of the trench.

The analysis presented in this Biological Evaluation (BE) will facilitate compliance with the following laws and regulations:

- Endangered Species Act of 1973 (ESA) (Public Law [PL] 93-205) and amendments of 1988 (PL 100-478);
- National Environmental Policy Act of 1969 (NEPA) (PL 91-190, 42 United States Code [USC] 4321 et seq.);
- Bald and Golden Eagle Protection Act of 1940 (16 USC 668 -668d, 54 Stat. 250);
- Migratory Bird Treaty Act of 1918 (MBTA) (16 USC 703-712);
- Sections 401 and 404 of the Clean Water Act—all federal consultations, including the ESA, must be completed prior to U.S. Army Corps of Engineers (USACE) issuance of 404 authorizations.
- New Mexico Endangered Plant Species Act (9-10-10 New Mexico Statutes Annotated and attendant Regulation 19 New Mexico Annotated Code 21.2); and
- New Mexico Wildlife Conservation Act of 1974 (New Mexico Statutes Annotated 17-2-37 through 17-2-46, 1978 compilation).

The scope of work for this report includes:

- A review of the U.S. Fish and Wildlife Service (USFWS) species list for McKinley County, New Mexico;
- A review of the Navajo Nation Department of Fish and Wildlife (NNDFW) species of concern list for the U.S. Geological Survey (USGS) Gallup East, Church Rock, and Twin Buttes 7.5-minute quadrangle maps;
- A field reconnaissance of the project area consisting of an evaluation of potential habitat for special-status species and a determination of the OHWM for any jurisdictional waterway that crosses the proposed route of the two reaches;
- An evaluation of the potential for USFWS and NNDFW special-status species to occur in the project area; and
- Calculations of disturbance acreages at all crossings of jurisdictional waterways.

2 METHODS

SWCA biologists conducted a field reconnaissance of the project area on September 26, 2014 under NNDFW Biological Investigation Permit 670. The USGS Gallup East, Church Rock, and Twin Buttes 7.5-minute topographic maps were used for general orientation and to locate the project boundaries and access roads. Field reconnaissance consisted of pedestrian surveys of the project area to evaluate 1) vegetation and landscape features indicative of federally listed and NNDFW plant and animal species of concern, and 2) potential jurisdictional waters, wetlands, and aquatic habitats. Surrounding areas within line of sight were visually inspected using binoculars for the presence of raptors, their nests, or signs of raptor use (e.g., whitewash) within a 1-mile buffer surrounding the project area.

2.1 DRAINAGES AND WETLANDS

SWCA's survey of the project area included investigating the presence of potential waters of the U.S. and wetlands. Potential waters of the U.S. were identified by the presence of an OHWM and by the presence of defined beds and banks.

The presence/absence of wetlands was determined in the field using routine on-site delineation methods according to the *Corps of Engineers Wetlands Delineation Manual* (USACE 1987) and the appropriate *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (USACE 2008a). Determination of wetland habitat (type) was based on the classification system developed by Cowardin et al. (1979). Other sources used to identify the presence/absence of wetlands included the *Pocket Guide to Hydric Soil Field Indicators, Version 7.0* (Wetland Training Institute, Inc. 2013). Wetland boundaries were delineated where hydrophytic vegetation, hydric soils, and hydrology were present. An area was determined to be a wetland if it displayed a positive indication of all three wetland criteria. Data at each site verifying a wetland were recorded on a USACE Wetland Determination Data Form for the Arid West Region.

The presence/absence of lotic systems (e.g. creeks, rivers, arroyos, human-made ditches; collectively "streams") was determined in the field using the methods outlined in the *Field Guide of the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States: A Delineation Manual* (USACE 2008b).

2.2 SPECIES IDENTIFICATION

The USFWS maintains county lists of endangered, threatened, proposed, and candidate species known to occur in New Mexico, as well as critical habitats designated in the state. Endangered and threatened species are protected under the ESA (16 United States Code [USC] 1531 et seq.). The ESA specifically prohibits "take," which means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to engage in any such conduct" to a listed species. Avian species, with the exception of upland game birds and introduced species, also receive legal protection under the federal MBTA (16 USC 703-712).

Special-status species evaluated in this BE were based in part on the list of endangered, threatened, proposed, and candidate species for McKinley County, New Mexico, available at the

USFWS website (USFWS 2014). Additionally, SWCA queried the NNDFW for a list of Navajo Nation species of concern, including species listed under the MBTA and the Bald and Golden Eagle Protection Act, and species listed for their cultural and economic significance known to occur in or near the project area or within the relevant USGS Gallup East, Church Rock, and Twin Buttes 7.5-minute quadrangles. All species listed in the NNDFW's response letter (Appendix B) are covered in this BE.

2.3 SPECIES EVALUATION

The potential for local species occurrence addressed in this BE was based on 1) existing species distribution information, 2) qualitative comparisons of the habitat requirements of each species with vegetation communities or landscape features in the project area, and 3) direct field observations. Possible impacts to these species were evaluated based on reasonably foreseeable project-related activities.

The potential for occurrence of a species was identified using the following categories:

- *Known to occur*—the species had been documented in the project area by a reliable observer.
- *May occur* the project area was within the species' currently known range, and vegetation communities, soils, etc., resembled those known to be used by the species.
- *Unlikely to occur*—the project area was within the species' currently known range, but vegetation communities, soils, etc., did not resemble those known to be used by the species, or the project area was clearly outside the species' currently known range.

Species federally listed as endangered or threatened under the ESA were assigned to one of three categories of possible effect, following USFWS recommendations. The effects determinations recommended by the USFWS include:

- *May affect, is likely to adversely affect*—the proposed project is likely to have an adverse effect on the species or its critical habitat. Any action that would result in take of an endangered or threatened species is considered an adverse effect. A combination of beneficial and adverse effects is still considered "likely to adversely affect," even if the net effect is neutral or positive. Adverse effects are not considered discountable because they are expected to occur. In addition, the probability of occurrence must be extremely small to qualify as discountable effects. Likewise, an effect that can be detected in any way or that can be meaningfully articulated in a discussion of the results of the analysis is not insignificant; it is an adverse effect.
- *May affect, is not likely to adversely affect*—all effects to the species and its critical habitat are beneficial, insignificant, or discountable. Beneficial effects have contemporaneous positive effects without adverse effects to the species (for example, there cannot be "balancing," so that the benefits of the action would outweigh the adverse effects). Insignificant effects relate to the size of the impact and should not reach the scale where take occurs. Discountable effects are considered extremely unlikely to occur. Based on best judgment, a person would not: 1) be able to meaningfully measure, detect, or evaluate insignificant effects or 2) expect discountable effects to occur. Determinations

of “not likely to adversely affect, due to beneficial, insignificant, or discountable effects” require written concurrence from the USFWS.

- *No effect*—there are absolutely no effects to the species and its critical habitat, either positive or negative.

Because species not listed as threatened or endangered are not protected under the authority of the ESA¹, impact determinations for these species do not follow USFWS terminology. The impact determinations for those species are the following:

- *No impact* – the project will have no impact on a species if 1) the species is considered unlikely to occur (range, vegetation, etc., are inappropriate) and/or if 2) the species or its sign was not observed during surveys of the project area.
- *Beneficial impact* – the project is likely to benefit the species, whether it is currently present or not, by creating or enhancing habitat elements known to be used by the species.
- *May impact individuals, but is not likely to result in a trend toward federal listing or loss of viability* – the project is not likely to adversely impact a species if 1) the species may occur but its presence has not been documented and/or if 2) project activities would not result in disturbance to areas or habitat elements known to be used by the species.
- *May impact individuals and is likely to result in a trend toward federal listing or loss of viability* – the project is likely to adversely impact a species if 1) the species is known to occur in the project area and/or if 2) project activities would disturb areas or habitat elements known to be used by the species or would directly affect an individual.

¹ This includes some of NNDFW's species of concern.

3 ECOLOGICAL OVERVIEW

The project area is located near the city of Gallup in McKinley County, New Mexico (Figure 1-Figure 3). Reach 27.7B is found in Sections 8, 9, 10, and 18, Township 15 North, Range 17 West on the USGS Gallup East 35108-E6 and Church Rock 35108-E5 quadrangles. Reach 27.11 is located in Sections 4 and 5, Township 14 North, Range 18 West and Sections 28 and 33, Township 15 North, Range 18 West on the USGS Twin Buttes 35108-D7 quadrangle.

The average elevation of the project area is 6,603 feet above mean sea level for Reach 27.7B and 6,700 feet above mean sea level for Reach 27.11. Gallup, like most of the interior Mountain West, has a cool semiarid climate. The summers are hot during the day, but high elevation and low humidity contribute to nights remaining distinctly cool. Despite the large diurnal temperature range, most rain falls in the summer from afternoon thunderstorms. Despite the dry climate and an average of only 7.4 days with temperatures below 32 degrees Fahrenheit (°F), winter nights are cold and snow is common and sometimes heavy. Precipitation averages about 7 inches per year with roughly 40% falling in July, August, and September, and 34% during December to March.

The weather during the survey was sunny with scattered clouds and no precipitation. Temperatures ranged from 67°F to 87°F. Appendix A consists of photographs that are representative of the project area.

*Biological Evaluation for the Navajo Gallup Water Supply Project Reaches 27.7B and 27.11 in
McKinley County, New Mexico*

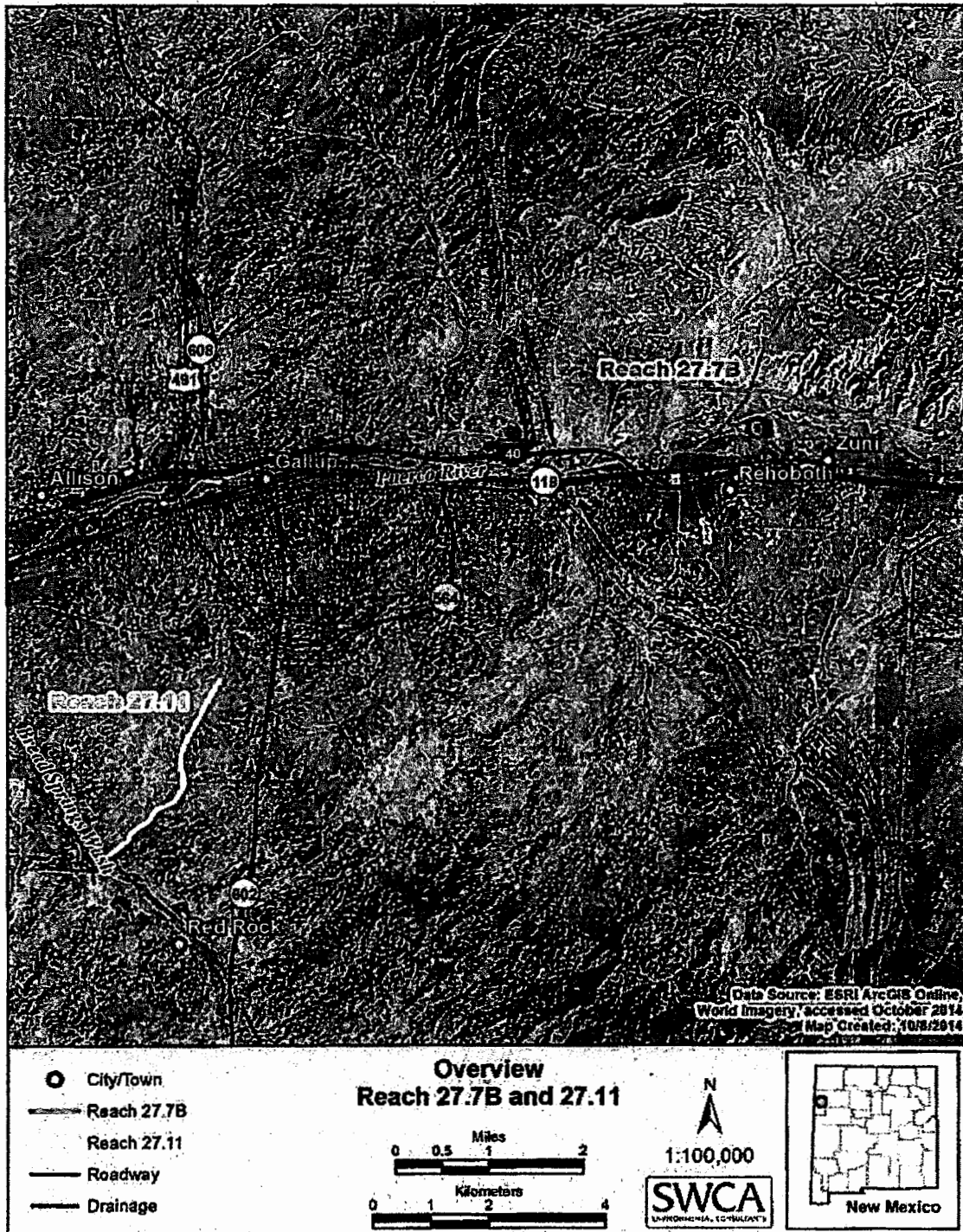


Figure 1. General location of Navajo-Gallup Water Supply Project Reaches 27.7B and 27.11.





Figure 3. Reach 27.11 location.

3.1 SOILS

3.1.1 REACH 27.7B

Ten mapping units are represented in the Reach 27.7B project area (Table 1). Each unit is described below (Natural Resources Conservation Service 2014a).

Table 1. Soil Map Units along Reach 27.7B

Map Unit	Acreage in Project Area
Breadsprings and Nahodish soils	19.79
Rock outcrop-Westmion-Skyvillage complex	1.14
Riverwash-Escawetter association	2.61
Zia sandy loam	42.72
Buckle-Gapmesa-Barboncito complex	4.20
Eagleeye-Atchee-Rock outcrop complex	6.81
Aquima-Hawaikuh silt loams	72.98
Buckle fine sandy loam	43.68
Rehobeth silty clay loam	5.14
Quarries and pits	1.62
Total	200.69

Breadsprings and Nahodish Soils, 0% to 2% Slopes

The Nahodish component makes up 35% of the map unit. Slopes are 0% to 2%. This component is on valleys. The parent material consists of stream alluvium derived from sandstone and shale. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches is high. Shrink-swell potential is moderate. This soil is rarely flooded. It is rarely ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 0%. This component is in the R036XA010NM Salty Bottomland ecological site. Non-irrigated land capability classification is 6c. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 5%. The soil has a slightly sodic horizon within 30 inches of the soil surface.

The Breadsprings component makes up 35% of the map unit. Slopes are 0% to 2%. This component is on valleys. The parent material consists of stream alluvium derived from sandstone and shale. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is high. Shrink-swell potential is low. This soil is rarely flooded. It is rarely ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 0%. This component is in the R036XA010NM Salty Bottomland ecological site. Non-irrigated land capability classification is 6c. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 8%. The soil has a slightly sodic horizon within 30 inches of the soil surface.

Rock outcrop-Westmion-Skyvillage Complex, 30% to 80% Slopes

The Wesmion component is colluvium over residuum weathered from shale. Depth to a root restrictive layer, bedrock (paralithic), is 5 to 20 inches. The natural drainage class is well

drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches is very low. Shrink-swell potential is high. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1%. This component is in the R036XB131NM Foothills ecological site. Non-irrigated land capability classification is 7e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 3%. The soil has a slightly sodic horizon within 30 inches of the soil surface.

The Skyvillage component makes up 15% of the map unit. Slopes are 30% to 40%. This component is on cuestas and uplands. The parent material consists of eolian deposits over slope alluvium derived from sandstone. Depth to a root restrictive layer, bedrock (lithic), is 5 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches is very low. Shrink-swell potential is low. This soil is not flooded or ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1%. This component is in the R036XB121NM Shallow Sandstone ecological site. Non-irrigated land capability classification is 7s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 10%.

Riverwash-Escawetter Association, 0% to 1% Slopes

The Riverwash component consists of unstable sand and silt that is reworked by water and wind so frequently that it supports little or no vegetation. It occurs in stream channels and is subject to frequent, brief periods of flooding from high intensity storms, July to September.

The Escawetter component makes up 25% of the map unit. Slopes are 0 to 1%. This component is on floodplains and valleys. The parent material consists of stream alluvium derived from sandstone and shale. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches is low. Shrink-swell potential is low. This soil is frequently flooded. It is not ponded. A seasonal zone of water saturation is at 6 inches during March, April, May, June, July, August, and September. Organic matter content in the surface horizon is about 0%. This component is in the R037XB029NM Sandy Bottomland Subirrigated ecological site. Non-irrigated land capability classification is 7c. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 1%.

Zia Sandy Loam, 1% to 5% Slopes

The Zia component makes up 80% of the map unit. Slopes are 1 to 5%. This component is on uplands. The parent material consists of eolian deposits over fan and stream alluvium derived from sandstone. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat excessively drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches is moderate. Shrink-swell potential is low. This soil is not flooded or ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2%. This component is in the R036XB113NM Sandy ecological site. Non-irrigated land capability classification is 6c. Irrigated land capability classification is 3e. This soil does not meet hydric criteria. The calcium carbonate equivalent

within 40 inches, typically, does not exceed 3%. The soil has a slightly sodic horizon within 30 inches of the soil surface.

Buckle-Gapmesa-Barboncito Complex, 1% to 6% Slopes

The Buckle component makes up 35% of the map unit. Slopes are 1% to 6%. This component is on cuestas and uplands. The parent material consists of eolian deposits over fan and slope alluvium derived from sandstone and shale. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is high. Shrink-swell potential is moderate. This soil is not flooded or ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 0%. This component is in the R036XA006NM Loamy ecological site. Non-irrigated land capability classification is 6c. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 7%.

The Barboncito component makes up 25% of the map unit. Slopes are 1% to 3%. This component is on cuestas and uplands. The parent material consists of eolian deposits over slope alluvium derived from sandstone and shale. Depth to a root restrictive layer, bedrock (lithic), is 10 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is very low. Shrink-swell potential is moderate. This soil is not flooded or ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1%. This component is in the R036XA006NM Loamy ecological site. Non-irrigated land capability classification is 7s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 3%.

The Gapmesa component makes up 30% of the map unit. Slopes are 1% to 3%. This component is on cuestas and uplands. The parent material consists of eolian deposits over alluvium derived from sandstone and shale. Depth to a root restrictive layer, bedrock (lithic), is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is low. Shrink-swell potential is moderate. This soil is not flooded or ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 0%. This component is in the R036XA006NM Loamy ecological site. Non-irrigated land capability classification is 6c. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 3%.

Eagleeye-Atchee-Rock Outcrop Complex, 2% to 35% Slopes

The Atchee component makes up 35% of the map unit. Slopes are 2% to 10%. This component is on ridges and uplands. The parent material consists of slope alluvium over residuum weathered from sandstone and shale. Depth to a root restrictive layer, bedrock (lithic), is 5 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is very low. Shrink-swell potential is moderate. This soil is not flooded or ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 0%. This component is in the

R036XA002NM Clayey ecological site. Non-irrigated land capability classification is 7s. This soil does not meet hydric criteria.

The Eagleye component makes up 40% of the map unit. Slopes are 5T to 35%. This component is on hills and uplands. The parent material consists of slope alluvium over residuum weathered from shale. Depth to a root restrictive layer, bedrock (paralithic), is 5 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches is very low. Shrink-swell potential is low. This soil is not flooded or ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 0%. This component is in the R036XA002NM Clayey ecological site. Non-irrigated land capability classification is 7e. This soil does not meet hydric criteria.

Aquima-Hawaikuh Silt Loams, 1% to 5% Slopes

The Aquima component makes up 40% of the map unit. Slopes are 1% to 5%. This component is on uplands. The parent material consists of fan alluvium over stream alluvium derived from sandstone and shale. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is high. Shrink-swell potential is moderate. This soil is not flooded or ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1%. This component is in the R036XB112NM Loamy ecological site. Non-irrigated land capability classification is 6c. Irrigated land capability classification is 3e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 8%. The soil has a slightly sodic horizon within 30 inches of the soil surface.

Buckle Fine Sandy Loam, 1% to 8% Slopes

The Buckle component makes up 85% of the map unit. Slopes are 1% to 8%. This component is on uplands. The parent material consists of eolian deposits over fan and slope alluvium derived from sandstone and shale. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is high. Shrink-swell potential is moderate. This soil is not flooded or ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1%. This component is in the R036XA006NM Loamy ecological site. Non-irrigated land capability classification is 6c. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 2%.

Rehobeth Silty Clay Loam, 0% to 1% Slopes

The Rehobeth component makes up 90% of the map unit. Slopes are 0 to 1%. This component is on floodplains and valleys. The parent material consists of stream alluvium derived from gypsum. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches is moderate. Shrink-swell potential is high. This soil is occasionally flooded. It is frequently ponded. There is no zone of water saturation within a depth of 72 inches. Organic

matter content in the surface horizon is about 1%. This component is in the R036XA010NM Salty Bottomland ecological site. Non-irrigated land capability classification is 6c. This soil meets hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 3%. The soil has a slightly sodic horizon within 30 inches of the soil surface.

Quarries and Pits

Generated brief soil descriptions are created for major soil components. The quarries and pits is a miscellaneous area.

3.1.2 REACH 27.11

Three soil map units are represented in the Reach 27.11 project area (Table 2).

Table 2. Soil Map Units along Reach 27.11

Map Unit	Acreage in project area
Breadsprings and Nahodish soils	22.81
Mentmore loam	75.97
Eagleeye-Atchee-Rock outcrop complex	31.81
Total	130.59

Breadsprings and Nahodish Soils, 0% to 2% Slopes

Breadsprings and Nahodish soils are described above in Section 3.1.1.

Mentmore Loam, 1% to 8% Slopes

The Mentmore component makes up 85% of the map unit. Slopes are 1% to 8%. This component is on cuestas and uplands. The parent material consists of fan and slope alluvium derived from sandstone and shale. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is high. Shrink-swell potential is moderate. This soil is not flooded or ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 0%. This component is in the R036XA006NM Loamy ecological site. Non-irrigated land capability classification is 6c. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 5%.

Eagleeye-Atchee-Rock Outcrop Complex, 2% to 35% Slopes

The Eagleeye-Atchee-Rock outcrop complex is described above in Section 3.1.1.

3.2 WATERS OF THE U.S. AND SPECIAL AQUATIC SITES

No wetlands or aquatic sites were identified in the project area. During SWCA's field survey, all National Hydrography Dataset (NHD) (USGS 2014) drainages –and any additional drainages encountered in the project area – were investigated for discernible OHWMs (see Figure 4 and Figure 5). In total, only two drainages with discernible OHWMs were identified crossing Reach 27.7B and 22 crossing Reach 27.11. Disturbance acreages are presented in Table 3 and Table 4.



Figure 4. Drainages crossing Reach 27.7B.

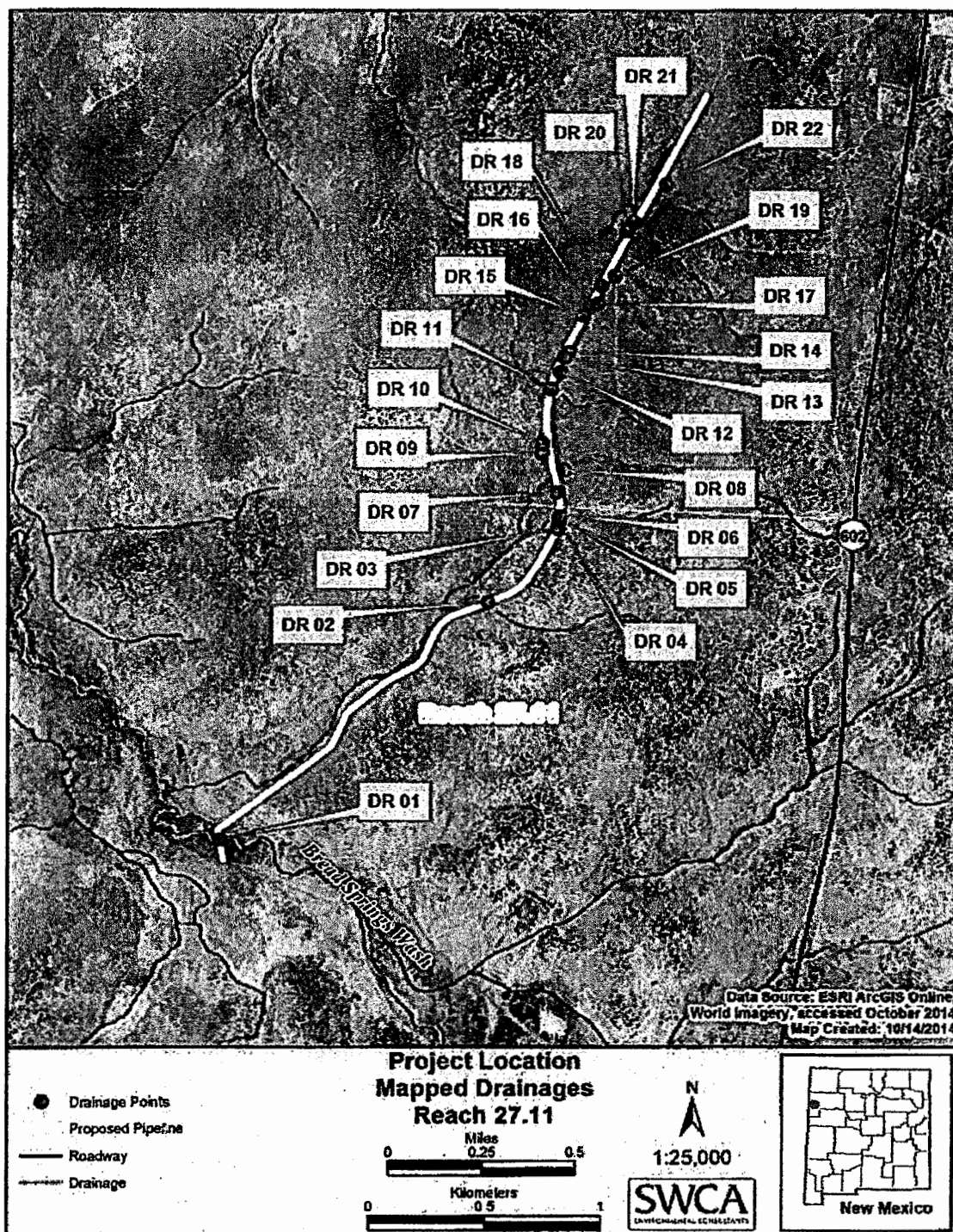


Figure 5. Drainages crossing Reach 27.11.

Table 3. Construction Disturbance Acreages along Proposed Reach 27.7B

Drainage	Disturbance Acreage	
	Temporary 40-foot Corridor ¹	Permanent 10-foot Corridor ²
DR01	0.131056	0.033007
DR02	0.005834	0.001415

¹Temporary work space of 20 feet in width on either side of the trench; ²10-ft trench width

Table 4. Construction Disturbance Acreages along Proposed Reach 27.11

Drainage	Disturbance Acreage	
	Temporary 40-foot Corridor ¹	Permanent 10-foot Corridor ²
DR01	0.040626	0.010464
DR02	0.013334	0.002701
DR03	0.012260	0.001342
DR04	0.006546	0.001499
DR05	0.006243	0.001452
DR06	0.006748	0.001515
DR07	0.029832	0.005466
DR08	0.014484	0.003797
DR09	0.000000	0.000000
DR10	0.011322	0.002403
DR11	0.008771	0.002419
DR12	0.004743	0.001329
DR13	0.005864	0.001457
DR14	0.000345	0.000000
DR15	0.005652	0.001017
DR16	0.015581	0.004095
DR17	0.006570	0.001543
DR18	0.007869	0.003246
DR19	0.000000	0.000000
DR20	0.002208	0.000000
DR21	0.007914	0.002087
DR22	0.000000	0.000000

¹Temporary work space of 20 feet in width on either side of the trench; ²10-ft trench width

A number of drainages with discernible OHWMs found during the survey of Reach 27.11 did not correspond to any NHD drainage (Figure 5). Reach 27.11 follows an old roadway from Gallup to Zuni. Historical sheet flow has been altered by the existing roadway. The roadway acts as a diversion dam where culverts or breaches in the dam have concentrated the flow creating the numerous drainage crossings.

3.3 VEGETATION COMMUNITIES

The project area is located in the Environmental Protection Agency (EPA) Arizona/New Mexico Plateau Level 3 Ecoregion (Griffith et al. 2006). The Arizona/New Mexico Plateau represents a large transitional region between the drier shrublands and wooded higher relief tablelands of the Colorado Plateaus in the north, the lower, hotter, less vegetated Mojave Basin and Range in the west, and forested mountain ecoregions that border the region on the northeast and south. Local relief in the region varies from a few feet on plains and mesa tops to well over 1,000 feet along tableland side slopes. The Continental Divide splits the region, but is not a prominent topographic feature. The region extends across northern Arizona, northwestern New Mexico, and into Colorado in the San Luis Valley. Gunnison prairie dogs (*Cynomys gunnisoni*) are a keystone

species in many of the sagebrush ecosystems and their burrows provide habitat for other wildlife, including burrowing owls (*Athene cunicularia*), weasels (Mustelidae), badgers (*Taxidea taxus*), and a variety of snakes.

In the project area, SWCA's survey showed the vegetation to be dominated by silver sagebrush (*Artemisia cana*), rubber rabbitbrush (*Ericameria nauseosa*), and fourwing saltbush (*Atriplex canescens*). Grass cover included blue grama (*Bouteloua gracilis*), sand dropseed (*Sporobolus cryptandrus*), and coastal sandbur (*Cenchrus spinifex*). Overall, grass cover was sparse with small areas of lush blue grama. Ridge lines were dominated by oneseed juniper (*Juniperus monosperma*).

Plant species recorded during the biological surveys are listed in Table 5. None of these species correspond to a special-status species. No state noxious weeds were observed in the course of the biological surveys.

Table 5. Plant Species Observed during the Biological Survey

Common Name	Scientific Name
Alderleaf mountain mahogany	<i>Cercocarpus montanus</i>
Blue grama	<i>Bouteloua gracilis</i>
Broom snakeweed	<i>Gutierrezia sarothrae</i>
Cocklebur	<i>Xanthium</i> sp.
Croton	<i>Croton</i> sp.
Ephedra	<i>Ephedra viridis</i>
Fourwing saltbush	<i>Atriplex canescens</i>
Greasewood	<i>Sarcobatus vermiculatus</i>
Oneseed juniper	<i>Juniperus monosperma</i>
Piñon pine	<i>Pinus edulis</i>
Prickly pear	<i>Opuntia</i> sp.
Rocky Mountain beeplant	<i>Cleome serrulata</i>
Rubber rabbitbrush	<i>Ericameria nauseosa</i>
Russian olive	<i>Elaeagnus angustifolia</i>
Russian thistle	<i>Salsola tragus</i>
Saltcedar	<i>Tamarix ramosissima</i>
Sand dropseed	<i>Sporobolus cryptandrus</i>
Sandbur	<i>Cenchrus</i> sp.
Siberian elm	<i>Ulmus pumila</i>
Silver sagebrush	<i>Artemisia cana</i>
Sunflower	<i>Helianthus</i> sp.
Tansy aster	<i>Machaeranthera</i> sp.
Touristplant	<i>Dimorphocarpa wislizeni</i>
Witchgrass	<i>Panicum capillare</i>

Note: Nomenclature follows the PLANTS Database (Natural Resources Conservation Service 2014b).

3.4 WILDLIFE

SWCA biologists detected 12 bird species and five mammals during the September 2014 surveys of the project area (Table 6). No special-status species were observed. In addition to the five wild mammals observed in the project area, domestic cattle (*Bos taurus*), domestic dog (*Canis lupus familiaris*), domestic donkey (*Equus asinus*), goat (*Capra aegagrus hircus*), and domestic horse (*Equus* sp.) were also detected.

Table 6. Wildlife Detected during the Biological Survey

Taxonomic Group	Common Name	Scientific Name
Mammals	Black-tailed jackrabbit	<i>Lepus californicus</i>
	Gunnison's prairie dog	<i>Cynomys gunnisoni</i>
	Coyote	<i>Canis latrans</i>
	Desert cottontail	<i>Sylvilagus audubonii</i>
	Mule deer	<i>Odocoileus hemionus</i>
Birds	American kestrel	<i>Falco sparverius</i>
	Chipping sparrow	<i>Spizella passerina</i>
	Common raven	<i>Corvus corax</i>
	Horned lark	<i>Eremophila alpestris</i>
	House sparrow	<i>Passer domesticus</i>
	Mourning dove	<i>Zenaida macroura</i>
	Northern mockingbird	<i>Mimus polyglottos</i>
	Red-tailed hawk	<i>Buteo jamaicensis</i>
	Rock dove	<i>Columba livia</i>
	Turkey vulture	<i>Cathartes aura</i>
	Western kingbird	<i>Tyrannus verticalis</i>
	Western meadowlark	<i>Sturnella neglecta</i>

The general project area along Reach 27.7B provides foraging, nesting and roosting opportunities for raptor species. Sandstone cliffs parallel the project area approximately 300 m to the north, and whitewash was documented in several places on those cliffs during the biological survey. A transmission line also runs parallel to the project area to the south. An American kestrel (*Falco sparverius*) was detected while perched on the transmission line during the biological survey. Two large Gunnison's prairie dog colonies were found along the 27.7B reach. Prairie dog colonies provide a major food source for raptors such as red-tailed hawks (*Buteo jamaicensis*) as well as golden eagles (*Aquila chrysaetos*). Burrows in a prairie dog colony also provide habitat for burrowing owls (*Athene cunicularia*). Although no burrowing owls were recorded during the biological surveys, the observed habitat is suitable for the species.

In the Reach 27.11 project area, several burrows suitable for burrowing owls were observed. There were also multiple transmission lines nearby, all of which can provide perches for raptor species.

Most of the burrows that were detected during the biological survey were occupied by Gunnison's prairie dogs. One larger burrow was located along the bank of one of the drainages. It appeared to be a skunk burrow.

4 LIST OF SPECIAL-STATUS SPECIES

All information on the vegetation and wildlife in the project area was derived from the biological survey conducted on September 26, 2014. In addition to recording wildlife and plants encountered during the surveys, habitat was evaluated for the possible occurrence of special-status species. As part of that habitat evaluation effort, the presence of any water, arroyos, playas, wetlands, stock tanks, and special soils was documented.

The special-status species evaluated in this report consist of 1) all federally protected (i.e., endangered and threatened) species, 2) additional species listed by the USFWS as candidate and proposed species and species under review (USFWS 2014), 3) state listed endangered and threatened species (Biota Information System of New Mexico [BISON-M] 2014) identified by the NNDFW as having the potential to occur in the general project area; and 4) Navajo Nation species of concern, some of which are also listed as candidates or are under review by the USFWS and/or are state listed.

The species federally listed as endangered, threatened, or proposed and being evaluated in this report are listed in Table 7. Three endangered species and three threatened species have the potential to occur in McKinley County (see Table 7). All six of them are unlikely to occur in the project area due to the lack of suitable habitat.

Of the 10 other special-status species listed as species of concern by the NNDFW, four have the potential to occur in the project area (Table 8).

Table 7. Species Federally Listed as Endangered, Threatened, or Proposed in McKinley County

Common Name (Scientific Name)	USFWS Status*	Range or Habitat Requirements	Potential for Occurrence in Project Area	Determination of Effect
Black-footed ferret (<i>Mustela nigripes</i>)	Endangered	Found on grassland plains in mountain basins at elevations below 10,500 feet, usually in association with prairie dogs, which serve as a primary source of food and burrows. The species is extirpated in New Mexico, except for a reintroduced population in Colfax County.	Unlikely to occur. Until recently, the species was considered extirpated in New Mexico. Black-footed ferrets have been reintroduced on Vermejo Park ranch in Colfax County, more than 200 miles east of Gallup.	No effect
Mexican spotted owl (<i>Strix occidentalis lucida</i>)	Threatened	Found in mature, montane forests and woodlands and steep, shady, wooded canyons. Can also be found in mixed-conifer and pine-oak vegetation types. Generally nests in older forests of mixed conifers or ponderosa pine-Gambel oak (<i>Pinus ponderosa-Quercus gambelii</i>). Nests in live trees on natural platforms (e.g., dwarf mistletoe [<i>Arceuthobium</i> sp.] brooms), snags, and canyon walls at elevations between 4,100 and 9,000 feet.	Unlikely to occur. The project area does not contain shady, wooded canyons or mixed-conifer or pine-oak vegetation communities.	No effect
Southwestern willow flycatcher (<i>Empidonax traillii eximius</i>)	Endangered	Found in dense riparian habitats along streams, rivers, and other wetlands where cottonwood (<i>Populus</i> sp.), willow (<i>Salix</i> sp.), boxelder (<i>Acer negundo</i>), saltcedar (<i>Tamarix</i> sp.), Russian olive (<i>Elaeagnus argentea</i>), buttonbush (<i>Cephaelis occidentalis</i>), and arrowweed (<i>Pistia stratiotes</i>) are present. Nests are found in thickets of trees and shrubs, primarily those that are 13 to 23 feet tall, among dense, homogeneous foliage. Habitat occurs at elevations below 8,500 feet.	Unlikely to occur. There is no dense riparian vegetation in the project area.	No effect
Yellow-billed cuckoo (<i>Coccyzus americanus</i>)	Threatened	Typically found in riparian woodland vegetation (cottonwood, willow, or saltcedar) at elevations below 8,600 feet. Dense understory foliage appears to be an important factor in nest site selection.	Unlikely to occur. There is no riparian vegetation in the project area.	No effect
Zuni bluehead sucker (<i>Catostomus discobolus yarrowi</i>)**	Endangered	Habitat as largely shaded, pool and riffle habitats, about 1 to 1.5 feet deep with water velocity less than 4 inches/second, with substrates from gravel and cobble to boulders and bedrock. Preferred spawning habitat is clean gravel beds.	Unlikely to occur. There are no perennial streams in the project area.	No effect
Zuni fleabane (<i>Erigeron rhizomatus</i>)	Threatened	Grows in seleniferous-rich red or gray detrital clay soils derived from the Chinle and Baco formations. Plants are found at elevations from 7,300 to 8,000 feet in pifton-juniper woodland. Prefers slopes of up to 40 degrees, usually with a north-facing aspect.	Unlikely to occur. The project area is outside the elevation range and does not contain the appropriate soil types.	No effect

Source for range and habitat information: USFWS (2014); NMDG (2004).

* Federal (USFWS) status definitions:

Endangered -- Any species considered by the USFWS as being in danger of extinction throughout all or a significant portion of its range. The ESA specifically prohibits the take of a species listed as endangered. Take is defined by the ESA as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to engage in any such conduct.

Threatened -- Any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. The ESA specifically prohibits the take (see definition above) of a species listed as threatened.

** The Zuni bluehead sucker is also listed by the State of New Mexico as Endangered.

Table 8. Other Special-Status Species Including Navajo Nation Department of Fish and Wildlife Species of Concern

Common Name (Scientific Name)	NMFW Status*	State Status (Endangered or Threatened)	Range or Habitat Requirements	Potential for Occurrence in Project Area	Determination of Effect
Burrowing owl (<i>Athene cunicularia</i>)	G4	-	Present mainly during the breeding season in the northern half of New Mexico. Found in grasslands especially in association with prairie dog colonies, in desert scrub, and in agricultural and semi-urban environments. Depends on prairie dogs, rock squirrels (<i>Otospermophilus variegatus</i>), and other fossorial mammals for the availability of burrows.	Burrowing owls may be present in the project area along both reaches. No owls were detected during the biological surveys, but prairie dog colonies, some of them large, were noted. Some burrows suitable to burrowing owls were also observed.	May impact individuals, but is not likely to result in a trend toward federal listing or loss of viability.
Ferruginous hawk (<i>Buteo regalis</i>)	G3	-	Nests in badlands, flat or rolling semi-desert grasslands, and grassland-piñon-juniper ecotone. Habitat surrounding nest site must support populations of their preferred prey, especially prairie dogs. Largest nesting ferruginous hawk nesting populations in New Mexico are in grassland or grassland/badland ecosystems	May occur in the project area, primarily outside the nesting season. Prairie dogs detected in the project area represent a source of food and transmission lines and cliffs afford tall perches. The area is not known for any large ferruginous hawk populations.	May impact individuals, but is not likely to result in a trend toward federal listing or loss of viability.
Golden eagle (<i>Aquila chrysaetos</i>)	G3	-	Nests mainly on steep cliffs, typically 100 feet high, although shorter cliffs (30 feet) are infrequently used. Nesting cliffs are normally directly adjacent to foraging habitat of semi-desert grasslands or desert scrub, with only sparse shrubs. If present, that provide primary prey of cottontail (<i>Sylvilagus</i> sp.) and jackrabbits (<i>Lepus</i> sp.). Nests are usually placed in middle to upper parts of cliffs in sheltered ledges, potholes, or small caves that provide protection from the elements.	May occur in the project area. Suitable roosting and foraging habitat is present near, if not within, the project area. Prairie dogs represent an important source of food for the species, and large prairie dog towns were documented during the biological survey.	May impact individuals, but is not likely to result in a trend toward federal listing or loss of viability.
Mountain plover (<i>Charadrius montanus</i>)	G4	-	Known to breed in the Four Corners area. Prefers large, flat grassland expanses with sparse, short vegetation and bare ground; also found in semi-desert scrub. Strongly associated with prairie dogs in New Mexico and often nests in heavily grazed areas or on gravelly ground with very short vegetation.	May occur. No large, flat grassland expanses exist in the project area, but large prairie dog towns were documented during the biological survey.	May impact individuals, but is not likely to result in a trend toward federal listing or loss of viability.
Peregrine falcon (<i>Falco peregrinus</i>)	G4	Threatened	Nests on steep cliffs >100 feet tall in a scrape on sheltered ledges or potholes. Foraging habitat quality is an important factor; often, but not always, extensive wetland and/or forest habitat is within the falcon's hunting range of 7.5 miles.	May occur in flight while passing through the project area and on cliffs situated nearby. Peregrine falcons hunt from high vantage points such as cliffs.	May impact individuals, but is not likely to result in a trend toward federal listing or loss of viability.

Biological Evaluation for the Navajo Gallup Water Supply Project Reaches 27.7B and 27.11 in McKinley County, New Mexico

Common Name (Scientific Name)	NNDFW Status	State Status (Endangered or Threatened)	Range or Habitat Requirements	Potential for Occurrence in Project Area	Determination of Effect
Northern leopard frog (<i>Lithobates pipiens</i>)	G2	-	Breeds in wetlands usually with permanent water and aquatic vegetation (especially cattails [<i>Typha</i> sp.]), ranging from irrigation ditches and small streams to rivers, small ponds, and marshes to lakes or reservoirs.	Unlikely to occur. No wetlands or sources of permanent water are present in the project area.	No impact
Acoma fleabane (<i>Erigeron aconarius</i>)	G3	-	Sandy slopes beneath sandstone cliffs of the Entrada Sandstone Formation in piñon-juniper woodland communities. Populations are known from ca. 7,000 feet.	Unlikely to occur. The project area lies outside the elevational range of the species. It has no piñon-juniper woodland.	No impact
Navajo bladderpod (<i>Lesquerella navajovensis</i>)	G3	-	Occurs primarily on windward, windswept mesa rims and nearby habitat with little vegetative cover and high insolation. Also found at the base and slopes of small hills of the Chinle Formation. Typically only found in a combination of Todilto Limestone overlying Entrada Sandstone or Chinle outcrops in piñon-juniper communities.	Unlikely to occur in the project area due to the absence of slopes, mesa rims and suitable soils.	No impact.
Sivinski's fleabane (<i>Erigeron sivinski</i>)	G4	-	Steep, barren, shale slopes of the Chinle Formation, in piñon-juniper woodland and Great Basin desert scrub communities. Known populations occur at 6,100 to 7,400 feet.	Unlikely to occur due to the absence of shale slopes of the Chinle Formation in the project area.	No impact
Yellow lady's slipper (<i>Cypripedium parviflorum</i> var. <i>pubescens</i>)	G4	Endangered	In moderate shade along stream banks, mountain meadows and mesic places in ponderosa pine, mixed conifer, and aspen forest communities. On the Navajo Nation known from above 7,000 feet.	Unlikely to occur in the project area due to the absence of streambanks and other mesic habitats. The project area also lies outside the elevational range of the species.	No impact

Source for range and habitat information: Milkreis and Roth (2008), USFWS (2014).

NNDFW Status

G2 - "Endangered" - A species or subspecies whose prospects of survival or recruitment are in jeopardy.

G3 - "Endangered" - A species or subspecies whose prospects of survival or recruitment likely to be in jeopardy in the foreseeable future.

G4 - Any species or subspecies for which the NNDFW does not currently have sufficient information to support their being listed in G2 or G3 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.

4.1 MIGRATORY BIRD TREATY ACT

The MBTA provides federal protection to all breeding migratory birds, including nests and eggs. In order to relocate or alter any MBTA-protected nests, it will be necessary to obtain a permit from the USFWS to maintain compliance with the MBTA. However, Section 1 of the Interim Empty Nest Policy of the USFWS, Region 2, states that if the nest is completely inactive at the time of destruction or movement, a permit is not required in order to comply with the MBTA. If an active nest is observed before or during construction or maintenance activities, measures should be taken to protect the nest from destruction and to avoid a violation of the MBTA. The NNDFW recommends following avoidance guidelines (Mikesic and Roth 2008) if active nests are discovered within proximity to the project site. Potential raptor habitat was observed adjacent to the project area on the north side.

4.2 BALD AND GOLDEN EAGLE PROTECTION ACT

Bald eagles (*Haliaeetus leucocephalus*) and golden eagles are protected under the Bald and Golden Eagle Protection Act and the MBTA. In New Mexico, the bald eagle is found typically in association with water and nests only at a few undisclosed locations along lakes or streams in the northern and western portions of the state (Stahlecker and Walker 2010). The golden eagle nests primarily on rock ledges or cliffs, less often in large trees at elevations ranging from 4,000 to 10,000 feet, and is typically found in mountainous regions of open country, prairies, arctic and alpine tundra, open wooded areas, and barren areas. Both bald and golden eagles are birds of prey. In New Mexico, bald eagles prey on fish but also on mammals, especially prairie dogs. Golden eagles feed mainly on small mammals, as well as invertebrates, carrion, and other wildlife (BISON-M 2014). Although prairie dogs occur in the project area, bald eagles are unlikely to occur along Reach 27.7B or 27.11 due to the lack of water and trees. Golden eagles are more likely to occur in or near the project area, due to the presence of prairie dog colonies and proximity to tall cliffs that could offer both perching and nesting opportunities. However, the proposed project is not anticipated to cause take of individual bald or golden eagles, their nests, or eggs.

5 CONCLUSION

No wetlands or perennial drainages were documented in the project area along either Reach 27.7B or Reach 27.11. In total, 24 drainages with discernible OHWMs were documented. The acreage of permanent, construction-related disturbance at the crossing of those drainages never exceeds 0.1 acre.

No federally threatened, endangered, or proposed species are likely to occur in the project area along either Reach 27.7B or Reach 27.11. Five of the species of concern listed by the NNDFW may occur in the project area. Impacts from the project are possible, mainly in the form of noise disturbance or temporary loss of habitat, but would not result in a trend toward federal listing or loss of viability.

If implementation of the project is scheduled during the migratory bird nesting season (March through August), SWCA recommends nest surveys be conducted prior to the onset of construction activities.

This page left intentionally blank

6 LITERATURE CITED

- Biota Information System of New Mexico (BISON-M). 2014. BISON-M home page. Available at: <http://www.bison-m.org>. Accessed July 2014.
- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. *Classification of Wetlands and Deepwater Habitats of the United States*. FWS/OBS-79/31. Washington, D.C.: U.S. Fish and Wildlife Service.
- Griffith, G.E., J.M. Omernik, M.M. McGraw, G.Z. Jacobi, C.M. Canavan, T.S. Schrader, D. Mercer, R. Hill, and B.C. Moran. 2006. Ecoregions of New Mexico (two-sided color poster with map, descriptive text, summary tables, and photographs). U.S. Geological Survey, Reston, VA. Scale 1:1,400,000.
- Mikesic, D., and D. Roth. 2008. Navajo Nation Endangered Species List. Species Accounts, Version 3.08. Navajo Nation Department of Fish and Wildlife: Navajo Natural Heritage Program. Available at http://nnhp.nndfw.org/sp_account.htm. Accessed April 2013.
- Natural Resources Conservation Service. 2014a. Web Soil Survey of McKinley County, New Mexico. Available at: <http://websoilsurvey.nrcs.usda.gov/app/>. Accessed September 2014.
- . 2014b. The Plants Database. Available at: <http://plants.usda.gov>. Accessed September 2014.
- Stahlecker, D.W., and H.A. Walker. 2010. Bald eagle. In *Raptors of New Mexico*, edited by J.-L. E. Cartron, pp. 131–149. Albuquerque: University of New Mexico Press.
- U.S. Army Corps of Engineers (USACE). 1987. U.S. Army Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1. Vicksburg, Mississippi: U.S. Army Engineers Waterways Experiment Station Environmental Laboratory.
- . 2008a. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region, Version 2.0. ERDC/EL TR-08-28. Vicksburg, MS: U.S. Army Engineer Research and Development Center.
- . 2008b. A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States: A Delineation Manual. ERDC/EL TR-08-12. Vicksburg, MS: U.S. Army Engineer Research and Development Center.
- U.S. Fish and Wildlife Service (USFWS). 2014. Species by County Report: McKinley County, New Mexico. Available at: http://ecos.fws.gov/tess_public/countySearch!speciesByCountyReport.action?fips=35031. Accessed September 2014.
- U.S. Geological Survey (USGS). 2014. National Hydrography Dataset. Available at: <http://nhd.usgs.gov/>. Accessed September 2014.

Western Regional Climate Center. 2014. New Mexico Climate Summaries. Available at:
<http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?nm6281>, Accessed September 2014.

Wetland Training Institute, Inc. 2013. *Pocket Guide to Hydric Soil Field Indicators, Version 7.0
with Updates*. Edited by Robert J. Pierce. Glenwood, New Mexico: Wetland Training
Institute, Inc.

APPENDIX A
PROJECT AREA PHOTOGRAPHS

This page left intentionally blank

**APPENDIX B
NAVAJO NATION DEPARTMENT OF FISH AND WILDLIFE
RESPONSE LETTER**

This page left intentionally blank

*Biological Evaluation for the Navajo Gallup Water Supply Project Reaches 27.7B and 27.11 in
McKinley County, New Mexico*



NAVAJO NATION
Department of Fish & Wildlife
Navajo Natural Heritage Program
P.O. Box 1480
Window Rock, AZ 86515



Phone: 928.871.6472 • Fax: 928.871.7603 • <http://nnhp.nndfw.org>

Ben Shelly President

Ben Lee Jim Vice President

19 August 2014

File#14SWCA-02

Jean-Luc E. Cartron, Ph.D., Senior Ecologist
SWCA, Environmental Consultants
5647 Jefferson NE
Albuquerque, NM 87109

NAVAJO ENDANGERED SPECIES LIST (NESL) INFORMATION FOR:

PROJECT: NAVAJO GALLUP WATER SUPPLY (NGWS)
REACH 27.7B
LEGAL DESCRIPTION T15N, R17W, SECTIONS 8, 9, 10 & 18
REACH 27.11
LEGAL DESCRIPTION T14N, R18W, SECTION 4
McKINLEY COUNTY, NM

Mr. Cartron:

The following information on species of concern¹ is provided in response to your 12 June 2014 request concerning the subject project, which consists of the Navajo Gallup Water Supply (NGWS) Reaches 27.7B and 27.11 in order to deliver Project water through City facilities to neighboring Navajo communities.

Each 7.5-minute quadrangle containing project boundaries is addressed separately below. For potentially occurring species these species lists are quadrangle-specific rather than project-specific. Potential for species has been determined primarily on quadrangle-wide coarse habitat characteristics and species range information. Your project biologist should determine habitat suitability at the project site(s).

A total of fifteen (15) species both known and/or potential are included in this response. They are:

	SCIENTIFIC NAME	COMMON NAME	NESL STATUS	FEDERAL STATUS AND/OR *MBTA
L	<i>Aquila chrysaetos</i>	Golden Eagle	G3	MBTA

¹"Species of concern" include protected, candidate, and other rare or otherwise sensitive species, including certain native species and species of economic or cultural significance. For each species, the following tribal and federal statutes are indicated: Navajo Endangered Species List (NESL), federal Endangered Species Act (ESA), Migratory Bird Treaty Act (MBTA), and Eagle Protection Act (EPA). No legal protection is afforded species with only ESA candidate or NESL group 4 status; please be aware of these species during surveys and inform the NFWF of observations. Documentation that these species are more numerous or widespread than currently known, and addressing these species in project planning and management is important for conservation and may contribute to ensuring they will not be uplisted in the future. Species without ESA or NESL legal protection (e.g., NESL group 4 species) are only included in responses on a regular basis and may not be included in this response. Please refer to the NESL for a list of group 4 species; contact me if you need a copy.

*Biological Evaluation for the Navajo Gallup Water Supply Project Reaches 27.7B and 27.11 in
McKinley County, New Mexico*

2

2.	<i>Astragalus utahensis</i>	Naturita Milk vetch	G3	
3.	<i>Athene cucularia</i>	Burrowing Owl	G4	MBTA
4.	<i>Buteo regalis</i>	Ferruginous Hawk	G3	MBTA
5.	<i>Charadrius montanus</i>	Mountain Plover	G4	FSA Proposed Threatened; MBTA
6.	<i>Cypripedium parviflorum</i> var. <i>pubescens</i>	Yellow Lady's Slipper	G4	
7.	<i>Empidonax traillii eximius</i>	Southwestern Willow Flycatcher	G2	ESA Endangered; MBTA
8.	<i>Erigeron aconitifolius</i>	Acoma Fleabane	G3	
9.	<i>Erigeron rhizomatus</i>	Rhizome Fleabane/Zuni Fleabane	G2	ESA Threatened
10.	<i>Erigeron sibiricus</i>	Sibiricus Fleabane	G4	
11.	<i>Falco peregrinus</i>	Peregrine Falcon	G4	MBTA
12.	<i>Lesquerella navajoensis</i>	Navajo Bladderpod	G3	
13.	<i>Mustela nigripes</i>	Black-footed Ferret	G2	ESA Endangered
14.	<i>Strix occidentalis lucida</i>	Mexican Spotted Owl	G3	ESA Threatened; MBTA
15.	<i>Lithobates pipiens</i>	Northern Leopard Frog	G2	

*MBTA - Migratory Bird Treaty Act

TWIN BUTTES, NM 7.5-MINUTE QUADRANGLE

Project Location: NGWS Reach 27.11

Although the Navajo Fish and Wildlife Department (NFWD) has no record of species of concern occurring on or near the project site(s) at this time, the potential for certain species of concern to occur needs to be evaluated.

Species of concern with potential to occur on the 7.5-minute quadrangle(s) containing the project boundaries include the following:

1. *Aquila chrysaetos*
2. *Athene cucularia*
3. *Buteo regalis*
4. *Empidonax traillii eximius*
5. *Falco peregrinus*
6. *Lithobates pipiens*
7. *Mustela nigripes*
8. *Erigeron aconitifolius*
9. *Erigeron rhizomatus*
10. *Erigeron sibiricus*
11. *Lesquerella navajoensis*

AREA 3 of The Biological Resource Land Clearance Policies & Procedures

Area 3-Low Sensitivity Wildlife Resources: This area has a low, fragmented concentration of species of concern. Species in this area may be locally abundant on 'islands' of habitat, but islands are relatively small, limited in number and well spaced across the landscape. (For detailed information regarding "Area 3" please refer to our website at nndfw.org).

MANUELITO, NM 7.5-MINUTE QUADRANGLE

Project Location: NGWS Reach 27.11

Although the Navajo Fish and Wildlife Department (NFWD) has no record of species of concern occurring on or near the project site(s) at this time, the potential for certain species of concern to occur needs to be evaluated.

Species of concern with potential to occur on the 7.5-minute quadrangle(s) containing the project boundaries include the following:

1. *Aquila chrysaetos*
2. *Athene cunicularia*
3. *Charadrius montanus*
4. *Empidonax traillii eximius*
5. *Falco peregrinus*
6. *Mustela nigripes*
7. *Strix occidentalis lucida*
8. *Erigeron rhizomatus*

AREA 3 of The Biological Resource Land Clearance Policies & Procedures

Area 3-Low Sensitivity Wildlife Resources: This area has a low, fragmented concentration of species of concern. Species in this area may be locally abundant on 'islands' of habitat, but islands are relatively small, limited in number and well spaced across the landscape. (For detailed information regarding "Area 3" please refer to our website at nndfw.org).

GALLUP EAST, NM 7.5-MINUTE QUADRANGLE

Project Location: NGWS Reach 27.7B

Although the Navajo Fish and Wildlife Department (NFWD) has no record of species of concern occurring on or near the project site(s) at this time, the potential for certain species of concern to occur needs to be evaluated.

All or parts of this project currently are within areas protected by the Raptor Electrocution Prevention Regulations, consult with NNDFW Zoologist and/or EA Reviewer for more information and recommendations.

Species of concern with potential to occur on the 7.5-minute quadrangle(s) containing the project boundaries include the following:

1. *Aquila chrysaetos*
2. *Asio sagittatus*
3. *Athene cunicularia*
4. *Charadrius montanus*
5. *Cypripedium parviflorum var. pubescens*
6. *Empidonax traillii eximius*
7. *Erigeron aconitifolius*
8. *Erigeron rhizomatus*
9. *Erigeron strigosus*
10. *Falco peregrinus*
11. *Lesquerella navajocensis*
12. *Lithobates pipiens*

*Biological Evaluation for the Navajo Gallup Water Supply Project Reaches 27.7B and 27.11 in
McKinley County, New Mexico*

4

13. *Mustela nigripes*
14. *Strix occidentalis lucida*
15. *Erigeron rhizomatus*

AREA 3 of The Biological Resource Land Clearance Policies & Procedures

Area 3 Low Sensitivity Wildlife Resources: This area has a low, fragmented concentration of species of concern. Species in this area may be locally abundant on 'islands' of habitat, but islands are relatively small, limited in number and well spaced across the landscape. (For detailed information regarding "Area 3" please refer to our website at nndfw.org.)

CHURCH ROCK, NM 7.5 MINUTE QUADRANGLE

Project Location: NGWS Reach 27.7A & 27.7B

Although the Navajo Fish and Wildlife Department (NFWD) has no record of species of concern occurring on or near the project site(s) at this time, the potential for certain species of concern to occur needs to be evaluated.

All or parts of this project currently are within areas protected by the Raptor Electrocution Prevention Regulations; consult with NNDFW Zoologist and/or FA Reviewer for more information and recommendations.

Species of concern with potential to occur on the 7.5 minute quadrangle(s) containing the project boundaries include the following:

1. *Aquila chrysaetos*
2. *Astragalinus nativitatis*
3. *Aithya cunicularia*
4. *Buteo borealis*
5. *Chondestes montanus*
6. *Empidonax traillii extimus*
7. *Erigeron aconitifolius*
8. *Erigeron rhizomatus*
9. *Erigeron strigosus*
10. *Falco peregrinus*
11. *Lesquerella navajensis*
12. *Lithobates pipiens*
13. *Mustela nigripes*
14. *Strix occidentalis lucida*
15. *Erigeron rhizomatus*

AREA 3 of The Biological Resource Land Clearance Policies & Procedures

Area 3 Low Sensitivity Wildlife Resources: This area has a low, fragmented concentration of species of concern. Species in this area may be locally abundant on 'islands' of habitat, but islands are relatively small, limited in number and well spaced across the landscape. (For detailed information regarding "Area 3" please refer to our website at nndfw.org.)

Potential for the black-footed ferret should be evaluated if prairie-dog towns of sufficient size (per NFWD guidelines) occur in the project area.

Potential for *Puccinellia parishii* should be evaluated if wetland conditions exist that contain white alkaline crusts.

Biological surveys need to be conducted during the appropriate season to ensure they are complete and

accurate please refer to NN Species Accounts.⁴ Further questions pertaining to surveys should be referred to Species Account. Surveyors on the Navajo Nation must be permitted by the Director, NFWD. Contact Jeff Cole at (928) 871-6595 for permitting procedures. Questions pertaining to surveys should be directed to the NFWD Zoologist (Chad Smith) for animals at 871-7070 and Botanist (Andrea Hazelton) for plants at (928) 523-3221. Questions regarding biological evaluations should be directed to Pamela Kyselka (Acting Environmental Reviewer) at 871-7065.

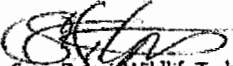
Potential impacts to wetlands should also be evaluated. The U.S. Fish & Wildlife Service's National Wetlands Inventory (NWI) maps should be examined to determine whether areas classified as wetlands are located close enough to the project site(s) to be impacted. In cases where the maps are inconclusive (e.g., due to their small scale), field surveys must be completed. For field surveys, wetlands identification and delineation methodology contained in the 'Corps of Engineers Wetlands Delineation Manual' (Technical Report Y-87-1) should be used. When wetlands are present, potential impacts must be addressed in an environmental assessment and the Army Corps of Engineers, Phoenix office, must be contacted. NWI maps are available for examination at the NFWD's Natural Heritage Program (NHP) office, or may be purchased through the U.S. Geological Survey (order forms are available through the NHP). The NHP has complete coverage of the Navajo Nation, excluding Utah, at 1:100,000 scale; and coverage at 1:24,000 scale in the southwestern portion of the Navajo Nation.

The information in this report was identified by the NFWD's biologists and computerized database, and is based on data available at the time of this response. If project planning takes more than two (02) years from the date of this response, verification of the information provided herein is strongly recommended. It should not be regarded as the final statement on the occurrence of any species, nor should it substitute for on site surveys. Also, because the NFWD's information is continually updated, any given information response is only wholly appropriate for its respective request.

For a list of sensitive species on the Navajo Nation in addition to the species listed on the Navajo Endangered Species List (NESL) please refer to our website at www.nndfw.org.

An invoice for this information is attached.

If you have any questions I may be reached at (928) 871-6472.


Sonja Detsol, Wildlife Tech.
Natural Heritage Program
Department of Fish and Wildlife

xc: file/chrono

⁴ Available free of charge on our website at <http://nnp.nvafishandwildlife.org/>

ATTACHMENT B
PHOTOGRAPHS

Photographs of Reach 27.7B



Looking west at most western portion of Reach 27.7B



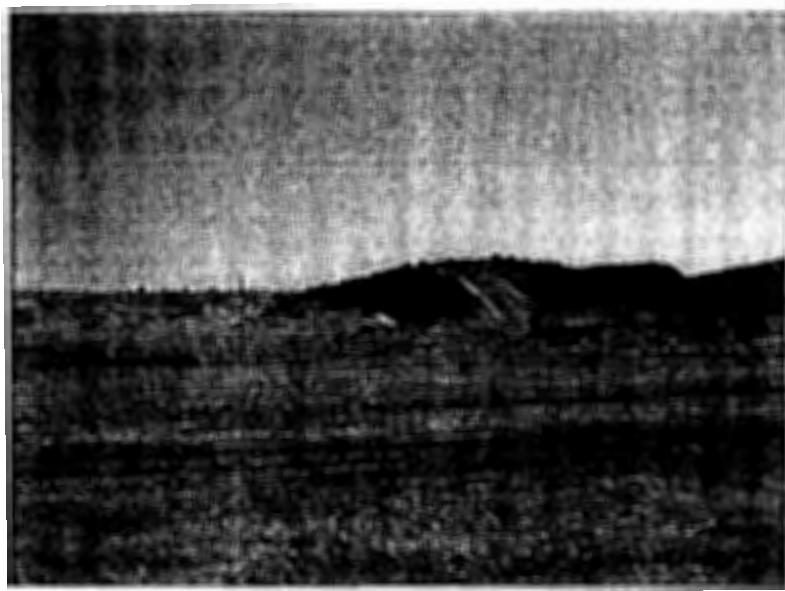
Looking north at a prairie dog town north of pipeline route



Looking northeast



Looking northwest along pipeline route at residential housing



Looking north



Looking south at Conoco Station to the south of pipeline route



Looking northeast at red rock cliffs with hawk nest



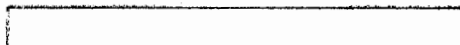
Residential homes north of the most eastern part of Reach 27.7B

ATTACHMENT C

AGENCY RESPONSES

8/20/2014

(1 unread) - fcedbrose - Yahoo Mail



Inbox (1)

RE: Four Corners Environmental Navajo - Gallu...(3)

Roth, Daniela, EMNRD

To Me, rabrose@fourcornersenw.com

Hi Casey:

I have reviewed the USFWS Biological Opinion (BO) for the Navajo Gallup Water Supply Project, dated February 26, 2009. The Mesa Verde cactus (*Sclerocactus mesae-verdae*) remains an Endangered Species in the State of New Mexico and is also listed threatened under the Federal Endangered Species Act. Initial surveys for this species were completed in 2001 and 2002, more than 13 years ago. As documented in the BO, 2001/2002 were devastating drought years for this species, documenting declines of 80% or greater. Since then, the cacti have somewhat recovered. Therefore more than 3 cacti may be impacted by the proposed project. As proposed in the BO, pre-construction surveys should be conducted to document any additional plants that may now occur in the habitat identified to exist along the proposed water line. Additional cacti found during pre-construction surveys need to be avoided. As stated in the BO, if more than 3 cacti are damaged or destroyed, there may be a need for reinitiation of the consultation.

Please let me know if I can be of further help.

Daniela Roth

BOYANY PROGRAM COORDINATOR
EMNRD Forestry Division
1220 S. St. Francis Dr
Santa Fe, NM 87505
(505)476 3347 (Phone)
(505)476 3330 (Fax)
<http://www.emnrd.state.nm.us/SFD/>

Reply, Reply All or Forward | More

Me Daniela, Thank you for getting back to n

rhonda brose

To Me, Richard Brose, James Brose

Nice job, Case.

> Show message history

Richard Brose

From: "Erik J. Brischler" <ebischler@fourcornersenv.com>
To: "Richard J. Brose" <rjbrose@fourcornersenv.com>; "Rhonda A. Brose" <rabrose@fourcornersenv.com>
Sent: Wednesday, February 01, 2012 3:43 PM
Subject: Fw: Navajo-Gallup Water Supply Project No. 11091
 Found this in my long lost email. Official response from the US Fish & Wildlife Service regarding our letter for the Navajo Gallup Water Supply Project...

— Original Message —

From: George Dennis <gdennis@fws.gov>
To: ebischler@fourcornersenv.com
Cc: Cyndie Aboytta <cyndie@fws.gov>
Sent: Monday, January 30, 2012 8:52 AM
Subject: Navajo-Gallup Water Supply Project No. 11091

Dear Mr. Brischler:

Thank you for your recent request for information on threatened or endangered species or important wildlife habitats that may occur in your project area. For further consultation with the U.S. Fish and Wildlife Service (Service) we recommend submitting inquiries or assessments electronically to our incoming mailbox at nmesfo@fws.gov where it will be more quickly routed to the appropriate biologist for review.

We received requests from you for technical assistance on the following segments of the Navajo-Gallup Water Supply Project pipeline.

Reach No.	City of Gallup Project No.	Date Received
13	8	12/27/2011
27.6	6	12/27/2011
27.6	8	12/27/2011
27.7	7	12/27/2011
27.9	9	12/27/2011
27.10	10	12/27/2011
27.11	11	12/27/2011
27.12	12	12/27/2011
27.13	13	12/27/2011

You indicate that these projects may be covered by the consultation number 2-22-01-F-532. You will need to clearly demonstrate that these locations and actions are covered by this consultation. If not covered by this consultation and federal funds are used in these projects a separate consultation may be needed.

The Service's New Mexico Ecological Services Field Office has posted lists of the endangered, threatened, proposed, candidate and species of concern occurring in all New Mexico Counties on the Internet. Please refer to the following web page for species information in the county where your project occurs:

http://www.fws.gov/southwest/es/NewMexico/SBC_Info.cfm

After opening the web page, find New Mexico Listed and Sensitive Species Lists on the main page and click on the county of interest. Your project area may not necessarily include all or any of these species.

2/25/2012

This information should assist you in determining which species may or may not occur within your project area.

Under the Endangered Species Act of 1973, as amended (16 USC 1531 et seq.) (Act), it is the responsibility of the Federal action agency or its designated representative to determine if a proposed action "may affect" endangered, threatened, or proposed species, or designated critical habitat, and if so, to consult with us further. Similarly, it is their responsibility to determine if a proposed action has no effect to endangered, threatened, or proposed species, or designated critical habitat. On December 16, 2008, we published a final rule concerning clarifications to section 7 consultations under the Act (73 FR 76272). One of the clarifications is that section 7 consultation is not required in those instances when the direct and indirect effects of an action pose no effect to listed species or critical habitat. As a result, we do not provide concurrence with project proponent's "no effect" determinations.

If your action area has suitable habitat for any of these species, we recommend that species-specific surveys be conducted during the flowering season for plants and at the appropriate time for wildlife to evaluate any possible project-related impacts. Please keep in mind that the scope of federally listed species compliance also includes any interrelated or interdependent project activities (e.g., equipment staging areas, offsite borrow material areas, or utility relocations) and any indirect or cumulative effects.

Candidates and species of concern have no legal protection under the Act and are included on the web site for planning purposes only. We monitor the status of these species. If significant declines are detected, these species could potentially be listed as endangered or threatened. Therefore, actions that may contribute to their decline should be avoided. We recommend that candidates and species of concern be included in your surveys.

Also on the web site, we have included additional wildlife-related information that should be considered if your project is a specific type. These include communication towers, power line safety for raptors, road and highway improvements and construction, spring developments, and livestock watering facilities, wastewater facilities, and trenching operations.

Under Executive Orders 11988 and 11990, Federal agencies are required to minimize the destruction, loss, or degradation of wetlands and floodplains, and preserve and enhance their natural and beneficial values. We recommend you contact the U.S. Army Corps of Engineers for permitting requirements under section 404 of the Clean Water Act if your proposed action could impact floodplains or wetlands. These habitats should be conserved through avoidance, or mitigated to ensure no net loss of wetlands function and value.

The Migratory Bird Treaty Act (MBTA) prohibits the taking of migratory birds, nests, and eggs, except as permitted by the Service. To minimize the likelihood of adverse impacts to all birds protected under the MBTA, we recommend construction activities occur outside the general migratory bird nesting season of March through August, or that areas proposed for construction during the nesting season be surveyed, and when occupied, avoided until nesting is complete.

We suggest you contact the New Mexico Department of Game and Fish, and the New Mexico Energy, Minerals, and Natural Resources Department, Forestry Division for information regarding fish, wildlife, and plants of State concern.

Thank you for your concern for endangered and threatened species and New Mexico's wildlife habitats. We appreciate your efforts to identify and avoid impacts to listed and sensitive species in your project area.

Regards,
George Dennis

George D. Dennis III, Ph.D.
Aquatic Ecosystems Branch Chief
U.S. Fish and Wildlife Service
New Mexico Ecological Services Field Office
2105 Osuna Road NE
Albuquerque, NM 87113-1001
505.761.4754

2/25/2012

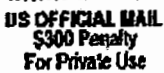
george_dennis@fws.gov

2/25/2012

1

86004-7873

THE PRESENTATION OF THE



01618601032
\$00.450
01/31/2012
Issued From 87401
US POSTAGE



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Farmington Field Office
1235 I-40 Plateau Highway - Suite A
Farmington, New Mexico 87401



January 30, 2012

Four Corners Environmental, Inc
Attn: Erik Brischler
960 N. Sinagua Heights Dr.,
Flagstaff AZ 86004-7870

Dear Erik,

I am writing in response to your T&E species data request for the Navajo-Gallup Water Supply Project. I reviewed the legal location indicated in your letters on GIS. According to the information I have, none of the parcels of land within the project or action area is on BLM managed lands. I followed up my review with a call to your office and Rhonda Brose confirmed that the project area is indeed not on BLM. I do not have any records of and federally-listed species or their habitat with your project or action area. If there is any federally-listed species or habitat, Ecological Service (Abq) and/or Navajo Natural Heritage would have this information and the impacts of your proposed project.

Thank you for your inquiry. Please contact me if you have any further questions or concerns.

Sincerely,

John Kendall
Wildlife Biologist-T&E Program

New Mexico Department of Game and Fish
P. O. Box 25112
Santa Fe, NM 87504

Hasler FIRST-CLASS MAIL

01/17/2012

US POSTAGE \$00.44



ZIP 87507
011D12601772

Erik Brischler
Four Corners Environmental, Inc.
960 N. Sinagua Heights Dr.
Flagstaff, AZ 86004-7870

8500457870 RD18

GOVERNOR
Susana Martinez



DIRECTOR AND SECRETARY
TO THE COMMISSION
James B. Lane, Jr.

STATE OF NEW MEXICO
DEPARTMENT OF GAME & FISH

One Wildlife Way
Santa Fe, NM 87507
Post Office Box 25112
Santa Fe, NM 87504
Phone: (505) 476-8000
Fax: (505) 476-8121

Visit our website at www.nm.gov/dgaf
For information call: (505) 476-8000
To order free publications call: (800) 862-2710

STATE GAME COMMISSION

JIM MCCLINTIC
Chairman
Albuquerque, NM

THOMAS "DICK" BALOPEK
Vice-Chairman
Las Cruces, NM

DR. TOM ARVAS
Albuquerque, NM

SCOTT BIDEGAN
Tucuman, NM

ROBERT ESPINOZA, SR.
Farmington, NM

ROBERT V. HOFFMAN
Las Cruces, NM

BILL MONTOTA
Alto, NM

January 10, 2012

Erik J. Brischler, Project Scientist
Four Corners Environmental, Inc.
980 North Sinagua Heights Drive,
Flagstaff, AZ 86004-7870

Re: Threatened and Endangered Species and Designated Critical Habitat; Navajo - Gallup
Water Supply Project Biological Assessment; Four Corners Environmental, Inc. Project No.
11091; NMDGF Doc. No. 14821

Dear Mr. Brischler,

The Department of Game and Fish (Department) has reviewed your request for information regarding the above-referenced project, and provides the following recommendations to minimize or eliminate impacts to wildlife.

Open trenches and ditches can trap small mammals, amphibians and reptiles and can cause injury to large mammals. Periods of highest activity for many of these species include night time, summer months and wet weather.

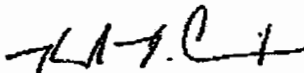
- To minimize the amount of open trenches at any given time, keep trenching and back-filling crews close together.
- Trench during the cooler months (October - March). However, there may be exceptions (e.g., critical wintering areas) which need to be assessed on a site-specific basis.
- Avoid leaving trenches open overnight. Where trenches cannot be back-filled immediately, escape ramps should be constructed at least every 90 meters. Escape ramps can be short lateral trenches sloping to the surface or wooden planks extending to the surface. The slope should be less than 45 degrees (100%). Trenches that have been left open overnight, especially where endangered species occur, should be inspected and animals removed prior to back-filling.

January 10, 2012

With implementation of these recommendations during construction, the Department believes that this project as proposed is unlikely to adversely affect wildlife or wildlife habitats. For your convenience, we have enclosed a copy of New Mexico Wildlife of Concern for McKinley County (Biota Information System of New Mexico, BISON-M, New Mexico Dept. of Game and Fish electronic database). Species accounts, habitat associations and county species lists (use the "Database Query" option) can be accessed from the BISON-M database via the World-wide Web at <http://www.bison-m.org>. The Department recommends that you contact the U.S. Fish and Wildlife Service for current listing of federally listed species.

Thank you for the opportunity to review and comment on your project. If you have any questions, please contact Ellen Heilhecker, Northwest Area Habitat Specialist at (505) 222-4708 or ellen.heilhecker@state.nm.us.

Sincerely,



Kenneth K. Cunningham
Assistant Chief, Technical Guidance Section
Conservation Services Division

KKC/eh

xc: USFWS NMES Field Office
Brian Gleadle, NW Area Operations Chief, NMDGF
Ellen Heilhecker, NW Area Habitat Specialist, NMDGF

NEW MEXICO WILDLIFE OF CONCERN McKINLEY COUNTY

For complete up-dated information on federal-listed species, including plants, see the US Fish & Wildlife Service NM Ecological Services Field Office website at <http://www.fws.gov/southwest/newMexico/SBC.cfm>. For information on state-listed plants, contact the NM Energy, Minerals and Natural Resources Department, Division of Forestry, or go to <http://nmrareplants.unm.edu/>. If your project is on Bureau of Land Management, contact the local BLM Field Office for information on species of particular concern. If your project is on a National Forest, contact the Forest Supervisor's office for species information. E = Endangered; T = Threatened; s = sensitive; SOC = Species of Concern; C = Candidate; Exp = Experimental non-essential population; P = Proposed

<u>Common Name</u>	<u>Scientific Name</u>	<u>NMGE</u>	<u>US FWS</u>	<u>critical habitat</u>
Zuni Bluehead Sucker	<i>Catostomus discobolus yarrowi</i>	E	C	
Bald Eagle	<i>Haliaeetus leucocephalus</i>	T		
Northern Goshawk	<i>Accipiter gentilis</i>	s	SOC	
Peregrine Falcon	<i>Falco peregrinus</i>	T	SOC	
Mountain Plover	<i>Charadrius montanus</i>	s	SOC	
Least Tern	<i>Sterna antillarum</i>	E	E	
Black Tern	<i>Chlidonias niger surinamensis</i>		SOC	
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>	s	C	
Mexican Spotted Owl	<i>Strix occidentalis lucida</i>	s	T	Y
Burrowing Owl	<i>Athene cunicularia</i>		SOC	
Costa's Hummingbird	<i>Calypte costae</i>	T		
Southwestern Willow Flycatcher	<i>Empidonax traillii extimus</i>	E	E	Y
Loggerhead Shrike	<i>Lanius ludovicianus</i>	s		
Gray Vireo	<i>Vireo vicinior</i>	T		
Western Small-footed Myotis Bat	<i>Myotis ciliolabrum melanorhinus</i>	s		
Occult Little Brown Myotis Bat	<i>Myotis lucifugus occultus</i>	s		
Long-legged Myotis Bat	<i>Myotis volans interior</i>	s		
Fringed Myotis Bat	<i>Myotis thysanodes thysanodes</i>	s		
Long-eared Myotis Bat	<i>Myotis evotis evotis</i>	s		
Gunnison's Prairie Dog (prairie)	<i>Cynomys gunnisoni</i>	s		
Red Fox	<i>Vulpes vulpes</i>	s		
Black-footed Ferret	<i>Mustela nigripes</i>		E	
Western Spotted Skunk	<i>Spilogale gracilis</i>	s		



THE NAVAJO-GALLUP WATER SUPPLY PROJECT:
A Class III Cultural Resource Inventory of Reach 27.7B,
McKinley County, New Mexico

Submitted to:

DePauli Engineering & Surveying LLC
304 South 4th Street
Gallup, NM 87301

and

USDI Bureau of Reclamation
Western Colorado Area
Durango Field Office

Technical Report 15-16
February 13, 2015

505.506.0261 | paleowest.com | 115 West Main Street | Farmington, NM 87401

**THE NAVAJO-GALLUP WATER SUPPLY PROJECT:
A CLASS III CULTURAL RESOURCE INVENTORY OF REACH 27.7B,
MCKINLEY COUNTY, NEW MEXICO**

Prepared by:

**Nikki Shurack
Jason Chuipka**

Prepared for:

**DePauli Engineering & Surveying LLC
304 South 4th Street
Gallup, New Mexico 87301**

and

**USDI Bureau of Reclamation
Western Colorado Area
Durango Field Office**

**New Mexico General Archaeological Investigation Permit No. NM-13-210-S
Navajo Nation Cultural Resource Permit No. B13543
NMCRIS Activity No. 132507**

PaleoWest Technical Report No. 15-16

**PaleoWest Archaeology
115 West Main Street
Farmington, New Mexico 87401
www.paleowest.com**

February 13, 2015

ABSTRACT

As part of the Navajo-Gallup Water Supply Project (NGWSP), PaleoWest Archaeology (PaleoWest) conducted a Class III cultural resource inventory of 4.1 miles of a 400-foot-wide area of potential effect (APE) totaling 154.75 acres of private, Bureau of Land Management, Tribal Trust and Indian Allotment land for Reach 27.7B. Reach 27.7B is located within the northeast outskirts of Gallup, New Mexico, in McKinley County, within Sections 8, 9, 10 and 18 of Township 15N, Range 17W, New Mexico Principle Meridian. The inventory was conducted at the request of DePauli Engineering & Surveying LLC. PaleoWest conducted the survey under the authority of General Archaeological Investigation Permit No. NM-13-210-S, issued by the New Mexico Cultural Properties Review Committee and Navajo Nation Cultural Resources Permit B13543 issued by the Navajo Nation Historic Preservation Department.

PaleoWest identified 6 new archaeological sites, revisited 2 previously recorded sites and documented 11 historic and prehistoric isolated occurrences (IOs) during the Class III inventory of Reach 27.7B of NGWSP. The location of site LA2696 plots within the footprint of an existing pipeline and was likely destroyed during its construction. PaleoWest recommends one or more components at five of the sites (LA50404/NM-01-32473, LA100196/NM-Q-30-17, LA180775, LA180778, and NM-Q-30-149) as eligible to the National Register of Historic Places (NRHP). Three sites (LA180776/NM-Q-30-151, LA180777, and NM-Q-30-150) were recommended as not eligible to the NRHP. By definition, the 11 IOs are considered not eligible to the NRHP.

PaleoWest recommends no further work for the IOs or sites recommended as not eligible for inclusion in the NRHP, and these sites will not need to be avoided by the undertaking. All six sites that have been recommended as eligible to the NRHP merit protection from the direct and indirect effects of the proposed undertaking.

LA50404/NM-01-32473, a prehistoric site that has officially been determined eligible to the NRHP, is located just north of the currently proposed 120-foot right-of-way (ROW). However, it is on the opposite side of the Hasler Valley Road. The site will not be adversely impacted by Reach 27.7B construction if all ground disturbance is limited to the south side of Hasler Valley Road, as is currently planned. No fencing or monitoring is recommended.

LA100196/NM-Q-30-17, a multi-component site, is immediately north of the Reach 27.7B ROW. The site will be avoided by the ROW by approximately 10 m, as currently planned, and the majority of cultural deposits (including the only feature defined at the site) are more than 100 m from the edge of the ROW. No fencing or monitoring is recommended.

LA180775, a prehistoric site, is located immediately south-southeast of the currently proposed 120-foot ROW. The centerline cannot be moved any further west-northwest without crossing Hasler Valley Road. The site will not be adversely impacted if construction is limited to the ROW. No adjustments to the Reach 27.7B centerline are recommended. However, given the proximity of the site to the ROW, temporary fencing and monitoring 50 feet on either side of the site is recommended during construction.

LA180778, a prehistoric site, is immediately west of the Reach 27.7B ROW. However, it is on the opposite side of the Hasler Valley Road. The site will not be adversely impacted by Reach

27.7B construction if all ground disturbance is limited to the east side of Hasler Valley Road, as is currently planned. No fencing or monitoring is recommended.

NM-Q-30-149, a historic site and traditional cultural property, is immediately south of the Reach 27.7B ROW. Avoidance of the site is possible if the centerline is adjusted at least 23 feet to the north so that the ROW will be entirely outside of the site boundary. The site is recommended as eligible to the NRHP not because of the potential for buried deposits but because it is a ceremonial area. No fencing or monitoring is recommended.

TABLE OF CONTENTS

Abstract.....	ii
Introduction.....	1
Project background	1
Project Location.....	3
Environmental Setting	0
Culture History	1
Paleoindian (11,500–5500 B.C.).....	1
Archaic (5500–1000 B.C.).....	2
Basketmaker II-III (1000 B.C.–A.D. 750).....	3
Pueblo I–IV (A.D. 750–1400)	3
Protohistoric and Historic	5
History of Gallup	6
Previous Research.....	7
Methodology	2
Navajo Nation Lands	2
Non-Tribal Lands.....	2
Ethnography.....	3
Fieldwork.....	4
NRHP Evaluations.....	5
Survey Results	6
Archaeological Sites	0
LA50404/NM-01-32473	0
LA100196/NM-Q-30-17.....	3
LA180775	0
LA180776/NM-Q-30-151	2
LA180777	4
LA180778	7
NM-Q-30-149	9
NM-Q-30-150	12
Recommendations.....	14
NRHP Recommendation Summary	14
Management Recommendations.....	14
Monitoring	15
Summary	18
References Cited	20
Attachment 1: Site Forms	
Attachment 2: Ethnography Report	

LIST OF FIGURES

Figure 1. Map showing project location in northwest New Mexico.....	2
Figure 2. Map showing the setting of Reach 27.7B.....	0
Figure 3. Map showing previous surveys and recorded sites within a quarter-mile of the Reach 27.7B centerline.....	0
Figure 4. Map showing previous surveys and recorded sites within a quarter-mile of the Reach 27.7B centerline.....	1
Figure 5. Map showing sites and IOs recorded along the west end of Reach 27.7B (Map 1).....	0
Figure 6. Map showing sites, IOs, and IUSs recorded along the east end of Reach 27.7B (Map 2).....	1
Figure 7. Map of site LA50404/NM-01-32473.....	2
Figure 8. Map of site LA100196/NM-Q-30-17.....	0
Figure 9. Map of site LA180775.....	1
Figure 10. Map of site LA180776/NM-Q-30-151.....	3
Figure 11. Map of site LA180777.....	6
Figure 12. Map of site LA180778.....	8
Figure 13. Map of site NM-Q-30-149.....	11
Figure 15. Map of site LA180775 showing proposed fencing during construction.....	16
Figure 16. Map of site NM-Q-30-149.....	17

LIST OF TABLES

Table 1. Previous Projects within a Quarter-Mile of the Reach 27.7B Survey Area	0
Table 2. Previously Recorded Sites within a Quarter-Mile of the Current Project Area.....	1
Table 3. Sites Recorded Along Reach 27.7B.....	7
Table 4. IOs Recorded during the Current Project	7
Table 5. In-Use Navajo Sites along Reach 27.7B (from Ethnography Report: Attachment 2).....	8
Table 6. NRHP Recommendation Summary for Sites Recorded along Reach 27.7B.....	14
Table 7. Management Recommendation Summary for all Reach 27.7B Cultural Resource Sites.....	18

INTRODUCTION

PROJECT BACKGROUND

The Navajo-Gallup Water Supply Project (NGWSP) is a Bureau of Reclamation (Reclamation) infrastructure project that will ultimately consist of about 280 miles (451 kilometers) of pipeline, several pumping plants, and at least two water treatment plants. These facilities will convey water from the San Juan River to the eastern section of the Navajo Nation, southwestern portion of the Jicarilla Apache Nation, and the city of Gallup, New Mexico. As part of NGWSP and at the request of DePauli Engineering & Surveying, LLC (DePauli), PaleoWest Archaeology (PaleoWest) conducted a Class III cultural resource inventory of Reach 27.7B in Gallup, McKinley County, New Mexico (Figure 1). The inventory was conducted under the authority of General Archaeological Investigation Permit No. NM-13-210-S, issued by the New Mexico Cultural Properties Review Committee, and Navajo Nation Cultural Resources Permit B13543 issued by the Navajo Nation Historic Preservation Department (NNHPD).

Reclamation defined the area of potential effect (APE) as 400 feet (122 m) wide, or 200 feet (61 m) on either side of the Reach 27.7B centerline. The width of the proposed right-of-way (ROW) is 120 feet. The Reach 27.7B corridor is 4.1 miles in length, and the surveyed area encompasses 154.75 acres. The purpose of the inventory was to identify cultural resources within the 400-foot-wide APE of Reach 27.7B and to determine if they were eligible or potentially eligible to the National Register of Historic Places (NRHP). PaleoWest conducted the survey under the authority of General Archaeological Investigation Permit No. NM-13-210-S, issued by the New Mexico Cultural Properties Review Committee, Reclamation Contract No. R11PC40008, and Reclamation Task Order No. R13PD40015.

Fieldwork was conducted May 12–15, 2014. The PaleoWest survey crew chief was Trisha Rude, and the crew members included John Schwegman and Arlan Hickson. Jason Chuipka was the Principal Investigator for NGWSP, Kevin Thompson was the Project Manager, and Nikki Shurack was the Field Director. Ted Tsouras provided support for the NGWSP Survey Database, and Teresa Ingalls prepared geographic information system (GIS) maps for in-field use and for this report.

The PaleoWest survey of Reach 27.7B identified 6 previously unrecorded archaeological sites, 2 previously recorded sites, 3 in-use sites (IUSs), and 11 non-eligible isolated occurrences (IOs). This report details the results of the cultural resource inventory and provides management recommendations for the identified resources. Complete site forms are included in Attachment 1. The ethnographic report is provided in Attachment 2, which will be confidential and submitted to NNHPD. The relevant findings from the ethnographic study are included in this report.

Reclamation has funded PaleoWest to produce a historic context for all segments of Reach 27 to mitigate direct and indirect effects of construction to historic sites in the Gallup area. This historic context is in progress with a draft delivery scheduled for April 2015.

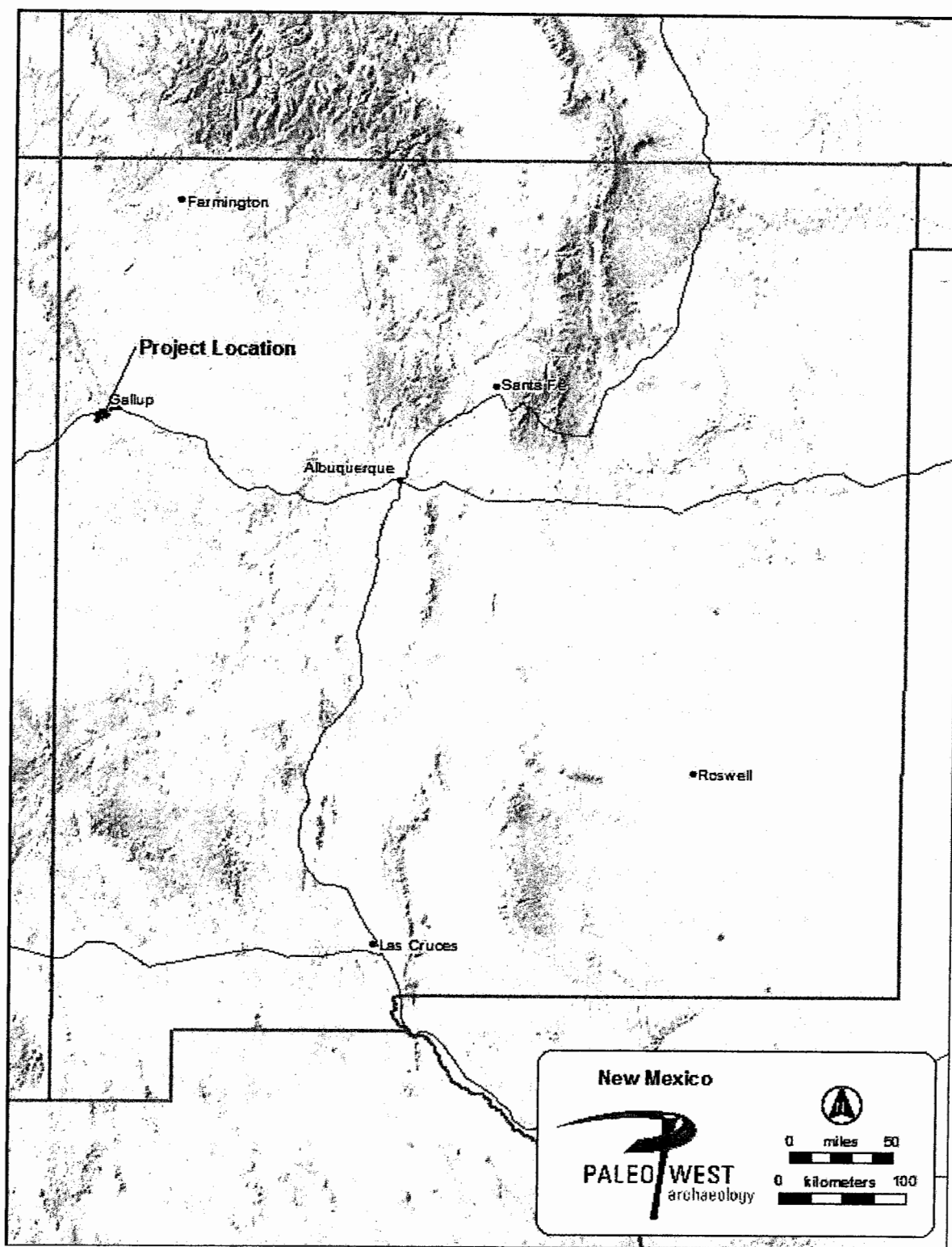


Figure 1. Map showing project location in northwest New Mexico.

PROJECT LOCATION

Reach 27.7B is a water pipeline corridor comprised of a single 4.1-mile-long line located in the northeastern outskirts of Gallup, New Mexico. This is within McKinley County and included Sections 8, 9, 10 and 18 of Township 15N, Range 17W, New Mexico Principle Meridian (NMPM). The location of Reach 27.7B can be found on the U.S. Geological Survey (USGS) Gallup East, New Mexico (1979), and Church Rock, New Mexico (1979) 7.5-minute quadrangle maps. Reach 27.7B crosses both Tribal, Bureau of Land Management (BLM) and private lands (Figure 2).

The westernmost 1.13 miles of Reach 27.7B cross BLM and private land. The next 0.4 miles of the reach transect both private and Tribal land (the centerline appears to straddle the property boundary in the west ½ of Section 8.) The north ½ and the southeast ¼ of Section 8 are Tribal property, and the southwest ¼ of Section 8 is privately owned. The remainder of the reach passes through Tribal lands. The Tribal lands are administered by the Church Rock chapter of the Crownpoint/Eastern Agency.

Reach 27.7B runs generally east-west, north of Interstate 40, at the northwestern outskirts of Gallup. The west end of the line connects with the east end of Reach 27.6, about a mile west of Rehoboth. The east end of Reach 27.7B connects with Reach 27.7A, south of Red Rock State Park and west of Church Rock.

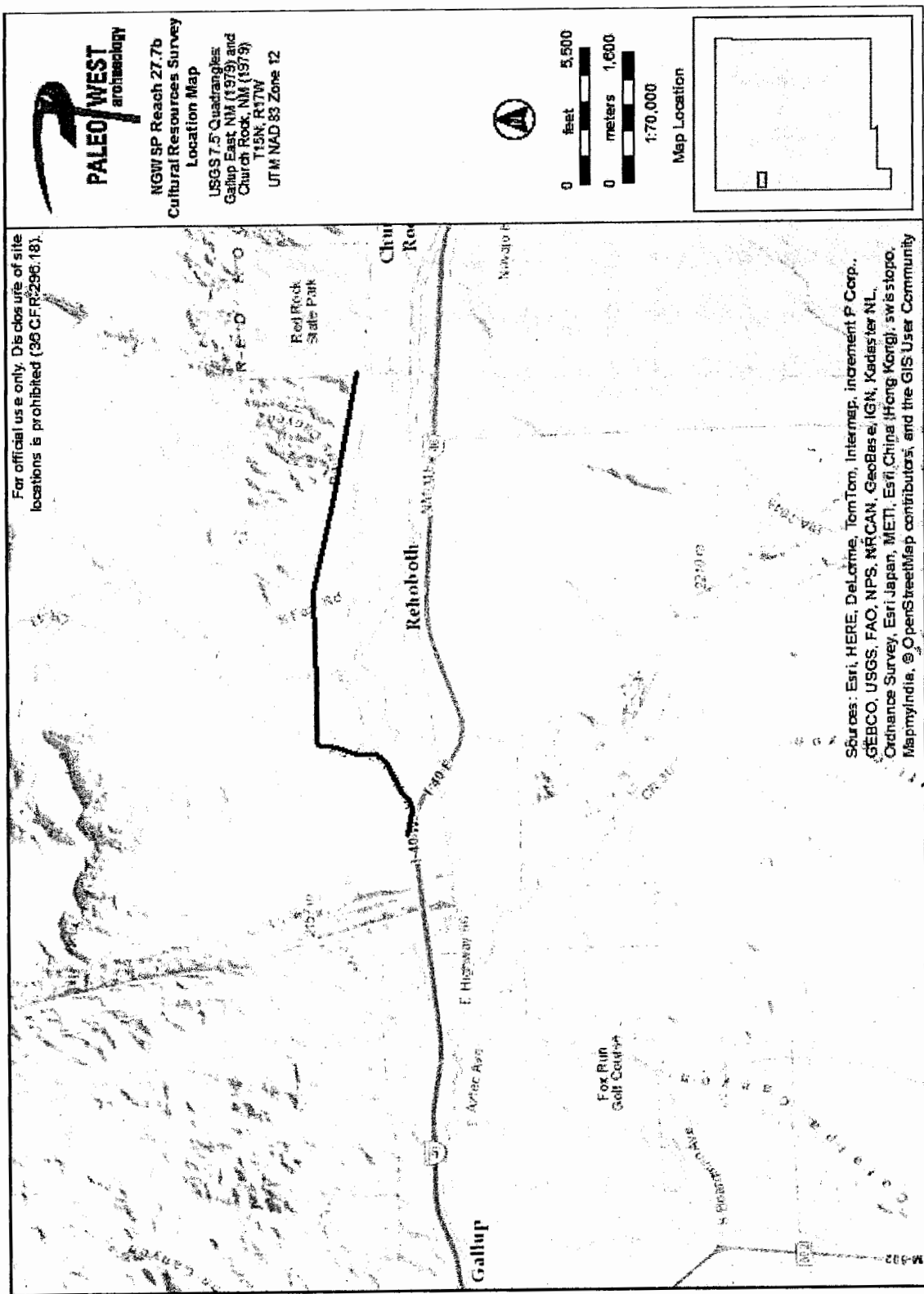


Figure 2. Map showing the setting of Reach 27.7B.

ENVIRONMENTAL SETTING

The Reach 27.7B project area is located on the Colorado Plateau southwest of the physiographic area referred to as the San Juan Basin. The area surrounding Reach 27.7B is known as the Gallup Basin, or the Gallup syncline, and is a structural depression situated between the Zuni Mountains to the south and the Defiance Plateau and Chuska Mountains to the west, northwest, and north. Hewett (1982) provides a detailed overview of the geology of the greater Gallup Basin. The current project area is underlain by the Allison Member of the Menefee Formation, one of the uppermost portions of the Cretaceous-aged Mesa Verde Group (Dillinger 1990). The Crevasse Canyon Formation of the Mesa Verde Group also appears near the project area. Both the Crevasse Canyon and Menefee formations contain coal seams of varying thickness—one of the principle attractions of the area in historic times. Pleistocene and Holocene alluvial deposits occur in the bottoms of intermittent streams and washes and along valley floors.

Reach 27.7B runs south of the Red Rocks landform. There are a variety of mapped soils and soil complexes within the project area. Among these are the Eagleeye-Atchee-Rock outcrop complex consisting of gravelly clay loam comprising slope alluvium over residuum weathered from shale; the Buckle-Gapmesa-Barboncita loams, sandy loams, and loamy sands comprising recent eolian deposits atop slope alluvium derived from sandstone and shale; Mentmore sandy clay loam comprising fan and slope alluvium derived from sandstone and shale; and Breadsprings and Nahodish silty clay loam comprising stream alluvium derived from sandstone and shale (Natural Resources Conservation Service 2014).

Weathering of the landscape through alluvial action has resulted in a convoluted series of exposed sandstone outcrops rising above short valleys. In other places, more fully weathered sandstone hills and ridges occur. Hewett (1982:37–41) describes three periods of alluvial deposition separated by episodes of down-cutting stream channels. The first period of deposition occurred during and prior to the Pleistocene and deposited sediments directly atop portions of Mesa Verde Group sandstones. During the Altithermal, the first period of deposition was badly eroded. Following the Altithermal, a second period of deposition deposited thick layers of clay-rich sediments cross-bedded with sand and gravel beds. The final period of deposition occurred between approximately A.D. 1200 and 1800 and is associated with floodplain development in many parts of San Juan Basin. During the mid- to late-1800s, the present regime of arroyo cutting was initiated.

The average elevation within the project area is 6,700 feet above mean sea level (AMSL) Bread Springs Wash at the southern end of the reach has an elevation of 6,600 feet AMSL. The climate of the area is characterized by cool, dry winters and warm, dry summers. Mean annual precipitation is less than 15 inches throughout the project area. Temperatures range from the mid-40s to mid-90s degrees Fahrenheit in the summer and from 0 to 40 degrees Fahrenheit in the winter.

Powell and Anschuetz (2002:2.6–2.7) identify the area in which Reach 27.7B is located as an ecotone between grasslands to the south and pinyon-juniper woodlands found in higher elevation areas to the north. Common plant species within this “juniper grassland” include pinyon pine, juniper, cliffrose, Utah serviceberry, mountain mahogany, sagebrush, rabbitbrush, broom

snakeweed, winterfat, rice-grass, bladderpod, vetch, and various other species of native and invasive grasses. Animal species found within the area include: mule deer, badgers, red foxes, striped skunks, coyotes, porcupines, several species of mice and rats, prairie dogs, pocket gophers, squirrels, chipmunks, cottontails, jackrabbits, bats, and a variety of migratory birds, depending on the season.

CULTURE HISTORY

A detailed overview of the culture history for the San Juan Basin is found in the NGWSP Research Design and Sampling Plan (Potter et al. 2013). The following brief summaries of prehistoric cultural periods draw extensively on that research; the historic period culture history specific to the area north of Gallup is drawn from additional sources.

PALEOINDIAN (11,500–5500 B.C.)

Paleoindian groups are considered to be the first well-documented human occupation of the North America continent. The early Paleoindian period is associated with the late Pleistocene, a period of cooler, wetter, and less seasonal weather that supported different plant and animal communities than are observed today across much of the continent. Within the Pleistocene environmental regime, Clovis is the first universally acknowledged cultural tradition in North America, characterized by well-made fluted bifacial knives and projectile points, a bone and ivory working industry, spurred end-scrapers, large caches of high-quality stone material, and associations with extinct megafauna such as mammoths and mastodons. Despite the long-standing emphasis on “Clovis First,” scholars are increasingly giving credence to claims of pre-Clovis material (Cordell and McBrinn 2012:114) or arguing for different technological traditions of comparable antiquity, such as the Western Stemmed Tradition (Beck and Jones 2010).

Clovis is found across the North American continent, but subsequent Paleoindian complexes such as Folsom, Agate Basin, Cody, and Plainview have more limited distributions across the North American West. The contraction of these traditions probably represents regional environmental specialization on the part of Paleoindian groups faced with rapid climate fluctuation at the end of the Pleistocene (Ballenger et al. 2011). For example, the Folsom adaptation on the Southern Plains and central New Mexico appears to have focused on bison hunting across large territories as other megafauna such as mammoths went extinct; at the same time, these Folsom groups developed a seasonal pattern of winter occupation in large riverine basins (such as the Rio Grande) during the winter coupled with summer-fall use of the Southern Plains for hunting (Amick 1996). Elsewhere, such as in the southern Southwest and the margins of the Rocky Mountains late Paleoindian groups began practicing a generalized foraging and hunting lifestyle more typically considered “Archaic” that emphasized deer, elk, smaller game, and plant resources (Cordell and McBrinn 2012:122–126; Vierra et al. 2012). Regional trajectories of cultural and technological change were well-defined by the late Pleistocene as Paleoindian groups diversified across the Southwest. Throughout the Pleistocene, populations are hypothesized to have been small, and the principle social group comprised of small and mobile bands of related individuals, though given the breadth of land-use and subsistence strategies evident by the late Pleistocene across the Southwest a degree of organizational diversity among Paleoindian groups is logical.

Paleoindian remains are poorly represented in the San Juan Basin in general, as well as in the Gallup Basin and adjacent areas. The three Clovis points recovered by Danson (1961) near Sanders, Arizona, and an unfinished Clovis point recovered by Olson (1964) near Houck, Arizona are oft-cited examples in the immediate vicinity of the project area. Cordell (1982:76–77) attributed the paucity of Paleoindian remains in the San Juan Basin as a whole to 1) a lack of significant erosion into Pleistocene-aged material in the basin, 2) re-working of diagnostic Paleoindian projectile points by later groups, and 3) the limited utility of the San Juan Basin to Paleoindian subsistence practices. In addition, Paleoindian limited activity sites for plant gathering, lithic reduction, and other purposes may go unrecognized because they lack the diagnostic projectile points commonly found at kill sites and hunting camps (Tainter and Gillio 1980).

ARCHAIC (5500–1000 B.C.)

The Archaic period in the San Juan Basin has been characterized as both an adaptation of Paleoindian peoples to new environmental conditions (Judge 1982) and as the replacement of Paleoindians by other groups of hunters and foragers (Irwin-Williams 1973). The Early Archaic coincides with a period of hotter and drier environmental conditions known as the Altithermal, although the rapid fluctuation of the climate during this period may have been a more important factor in shaping Early Archaic subsistence strategies (Huckell 1996). Throughout the Archaic period, populations were organized into small, kin-based bands. In general, Archaic subsistence strategies focused on wild plant and animal resources. The exploitation of smaller game increased, and plant resources took on a greater importance, as demonstrated by changes in projectile point technology and the addition of ground stone to the Archaic tool kit. Seasonal rounds likely exploited both lowland desert scrub environments and higher montane woodlands (Huckell 1996:350).

The transition to a more generalized foraging strategy (rather than one focused on hunting specific species of large game) first appears in the southern Southwest as early as 8000 B.C. (Cordell and McBrinn 2012:104, 124). The transition appears to date later in the northern Southwest, to approximately 5500 B.C. In the San Luis Valley of Colorado and along the Rio Grande in New Mexico, this involved a decline in regional mobility and a shift towards smaller game hunting signified by changes in projectile point technology to Jay and Bajada points (Vierra 2011:26). There is less evidence from the San Juan Basin, but by 5000 B.C. groups may already have been practicing a more generalized hunting/foraging strategy that was distinct from that of their neighbors to the northeast and east.

Importantly, during the Late Archaic, domesticated maize makes its first appearance in the Southwest. Vierra (2008) argues that maize was only a small component of the diet of Late Archaic peoples and that its use was sporadic prior to A.D. 500. Wills (1988:479) proposes that maize cultivation was a risk management strategy in response to the uncertainty of hunting and gathering; as such, early agriculture was an effort to “sustain the productivity of hunting and gathering.”

BASKETMAKER II-III (1000 B.C.–A.D. 750)

The distinction between the Late Archaic and Basketmaker II (1000 B.C.–A.D. 500) is difficult to define. This is because the timing of different populations' adoption of agriculture as their primary subsistence strategy varied across the northern Southwest. Maize appears in the San Juan Basin around 1000 B.C. (Simmons 1986) though in the context of hunter-gatherer camps rather than more sedentary settlements with well-constructed domestic architecture. Two distinct Basketmaker II populations are hypothesized to have lived on either side of the San Juan Basin that may represent different historical trajectories (Matson 1991). Eastern Basketmaker II populations may be descendants of local Late Archaic hunter-gatherers, and Western Basketmaker II may represent an incursion of farmers from the southern Southwest. Regardless, by 200 B.C., Basketmaker II populations across much of the northern Southwest can be characterized as farmer-gatherers, dwelling in pit houses and building food storage facilities like slab-lined and bell-shaped cists.

During Basketmaker III (A.D. 500–750), groups in the San Juan Basin became more reliant on maize agriculture and developed permanent settlements. Pit houses continued to be the primary form of domestic architecture and above ground storage facilities became more elaborate. Although subsistence was relatively similar to the preceding Basketmaker II period, major changes in social organization occurred during Basketmaker III. Large aggregated settlements first occurred in the San Juan Basin during the A.D. 500s, though it is debated whether these represent the location of periodic gatherings or are permanent villages (Reed 2000; Wills and Windes 1989). Concurrent with this development, new leadership roles likely appeared. Public architecture, such as great kivas, became the focal point of some settlements during Basketmaker III (Gilpin and Benallie 2000).

Sites dating to the Basketmaker II and Basketmaker III periods are not well represented in the current project area or within the Gallup Basin more generally. Data from excavated ceramics suggests that the nearby McKinley Mine lease area was not intensively occupied prior to about A.D. 850 (Acklen 1982:578). Similarly, investigations undertaken by the School of American Research (Scheick 1983c) identified very limited evidence for Basketmaker III occupation in the Mentmore area immediately southwest of the current project area. Anschuetz and Scheick (2002:3.19) attribute this lack of Basketmaker III material to the unsuitability of the area to the Basketmaker farming adaptation.

PUEBLO I-IV (A.D. 750–1400)

Significant cultural and demographic changes occurred during the Pueblo periods that resulted in new trends in settlement, architecture, and society. During the Pueblo I period (A.D. 750–900) populations grew rapidly as the northern Southwest experienced the effects of a Neolithic Demographic Transition (Kohler et al. 2008). This episode of population growth was initiated by changes in subsistence and technology during preceding periods, such as intensified agriculture, ceramic containers, and the bow and arrow. Possibly in response to population pressures and competition for agricultural and hunting land, large, aggregated, permanent villages formed, particularly in the Northern San Juan region (Wilshusen and Perry 2008). Villages presented new economic and ritual opportunities that may have laid foundations for later developments in social organization (Schachner 2001).

In tandem with these changes in settlement patterns, residential architecture became more substantial and functionally differentiated. Typical habitation units comprised a surface room block of four-to-six rooms aligned in two connected rows, with a pit structure located to the south or southeast. The back rooms of the surface roomblock were used for storage, and the front rooms had a domestic function. The pit structure was a part-time residence, but also had ceremonial or ritual functions. Most settlements contained one or two habitation units, but large villages could combine these architectural building blocks into settlements of 10–70 pit structures and up to 300 residents (Wilshusen 1999). Each pit structure may be associated with a single household (Lightfoot 1994). Subsistence relied largely on maize agriculture at this time, although hunting remained an important source of protein, and cooperative hunting forays may have encouraged solidarity within villages (Kohler and Reed 2011).

The transition between the Pueblo I and Pueblo II (A.D. 900–1150) periods entailed a large-scale depopulation of the Northern San Juan region and concomitant growth in the San Juan Basin. The San Juan Basin had a small population throughout most of the Pueblo I period, but many new sites were founded after A.D. 875, possibly by migrants leaving the Northern San Juan (Wilshusen and Van Dyke 2006).

The Pueblo II period is characterized by the development and flourishing of the Chaco Phenomenon, or the Chacoan regional system. This system was focused on Chaco Canyon and greatly influenced cultural and social patterns of much of the Pueblo II period northern Southwest. Beginning around A.D. 900, monumental great houses many degrees of magnitude larger than adjacent small habitations were constructed within Chaco Canyon. They exhibited core-and-veneer walls, multi-story architecture, blocked in kivas, great kivas, and earthen architecture, such as berms and roads, that created a conceptual landscape surrounding the great house. High frequencies of exotic and imported material, such as Narbona Pass Chert, decorated and utilitarian pottery, turquoise, and shell have been recovered from Chaco Canyon great houses (Cameron 2001; Judd 1954; Toll 2001). Construction at Chaco Canyon great houses may have encouraged unequal status relationships between great house and small house dwellers (Sebastian 1992), though whether these relationships were based in economic (Earle 2001) or ritual power (Yoffee 2001) is debated.

Outside of Chaco Canyon are numerous great houses that mirror this architectural signature, though in most cases their construction was a local emulation of Chacoan architectural style, rather than conceived of and directed by actual Chacoan masons. It is not clear whether social patterns evident in Chaco were also mirrored within great houses communities. The vast majority of habitations continued to consist of masonry room blocks of four-to-eight rooms and a pit structure, though by this time it is thought that pit structures had become primarily ceremonial in nature and assisted in supra-household social integration (Lipe and Hegmon 1989). In many cases, a community of these smaller habitations surrounded a great house, and this is the dominant settlement pattern that characterizes the Pueblo II period outside Chaco Canyon. However, there were still many small habitations that are not located near a great house. Across the northern Southwest during this period, there was a great expansion in the number of settlements, and Pueblo II period room blocks are found in a wider range of environmental niches and geographic areas.

A major drought struck the northern Southwest between A.D. 1130 and 1150. The drought was one cause among several that probably contributed to the decline of the Chacoan regional system after A.D. 1150. Most great houses in the canyon itself were abandoned at this time, and regionally a significant social reorganization is evident in changes in architecture and settlement patterns that mark the beginning of the Pueblo III period (A.D. 1150–1300). Many areas experienced wholesale depopulation, while in other areas populations that had previously been dispersed coalesced into larger settlements and communities. Most notably, the Cibola and Northern San Juan regions grew in population, and large, aggregated villages became a hallmark of Pueblo III settlement patterns in those areas. The nature of social relationships and organization within these two regions continued to be dictated to a certain extent by their historical connections to the Chacoan system (Cameron and Duff 2008). Within the San Juan Basin and surrounding areas, numerous Chaco-era great houses continued to serve as community centers into the Pueblo III period.

Throughout the later Pueblo III period, the population of the northern San Juan region declined steadily; at the same time, the proportion of people living in large villages increased. The end of the Pueblo III period is marked by a regional depopulation of these villages that coincides with a region-wide drought. This depopulation extended into the San Juan Basin, and there are no known sites dating the Pueblo IV period. However, isolated ceramic sherds indicated that groups living in adjacent areas, such as northeastern Arizona and along the Zuni River, visited the San Juan Basin during this period or traded with less archaeologically visible groups already in the basin.

PROTOHISTORIC AND HISTORIC

The Protohistoric period is marked by the continued coalescence of populations into larger settlements and the subsequent depopulation of large portions of the Southwestern landscape. By A.D. 1450, the Rio Grande Valley and the areas around modern Zuni and Hopi had become notable population centers. There is limited evidence of these groups entering the San Juan Basin during this period.

Navajo oral traditions (Levy 1998; Zolbrod 1984) hold that Navajo supernaturals emerged into the present world at a lake or spring located near Pagosa Springs, Colorado. Northwest New Mexico, in particular, contains many locations that are considered sacred by the Navajo and that occur in origin narratives. Linguistic research suggests that approximately a thousand years ago, a population of Northern Athapaskan speakers living in present-day western Canada migrated south, eventually settling in northern and northwest New Mexico and establishing the Southern Athapaskan language group. Throughout the 16th century, the Spanish became increasingly aware of the presence of Southern Athapaskan groups, and eventually they differentiated between Navajo and Apache (Gunnerson 1974; Brugge 1972).

There are three archaeologically defined phases of the Navajo occupation of northwest New Mexico. The Dinétah phase (A.D. 1450–1650) refers to the earliest archaeological identified Navajo sites, which are primarily clustered around Navajo Reservoir and characterized by forked-stick hogans, Dinétah gray ware ceramics, and corn-beans-and-squash agriculture. The Gobernador phase (A.D. 1650–1765) is a period of social change and upheaval as a result of pressures from Ute and Spanish incursions into the Dinétah, or Navajo, homeland in northwest New Mexico. It is characterized by masonry “pueblito” architecture in defensive locations and

Gobernador Polychrome ceramics. The Cabezon phase (A.D. 1765–1863) is characterized by an increased emphasis on shepherding and weaving. Between 1863 and 1868, the Navajo were pursued by the U.S. military and forced into a reservation at Bosque Redondo. After 1868 they were allowed to return to their homelands, but the experience had a lasting impact on Navajo culture and traditions. Fort Wingate, near Gallup, and, later, Fort Defiance became major hubs of Navajo-U.S. government interaction as Navajo travelled to the fort to receive ration cards (Kelley and Whiteley 1982:33; Scheick 1983b:40).

Bailey and Bailey (1983) have defined the later history of the Navajo people in the northern San Juan Basin based on changes in their situation in relation to larger economic forces affecting the region. They refer to the years between A.D. 1868 and 1907 as the "Incipient Trading Post Period." During this time, Anglo/Euro-American traders began to barter with Navajo people for wool, woven blankets, and jewelry in return for staple goods like flour and sugar. The period from A.D. 1907–1931 is referred to as the "Developed Trading Post Period." As drought and land disputes rendered traditional subsistence practices more difficult, the Navajo increasingly relied on the staple goods and manufactured items obtained from trading posts in exchange for sheep, wool, and crafts. The U.S. government enacted the Stock Reduction Act in 1931, a piece of legislation that resulted in the destruction of large numbers of Navajo livestock that had been essential to the wool industry that supported many Navajo families. The period between 1931 and 1945 is called the "Modern Transitional Period" and is characterized by dramatic changes in the Navajo economy and family structure, as people were increasingly forced to look for wage-earning jobs in the mining, transportation, and energy sectors. The period after 1945 is known as the "Modern Reservation Period" and represents the near-complete transition from traditional subsistence practices and economy to one rooted in the United States wage economy; it is a period characterized by a rapid increase in consumption of mass-produced and manufactured goods.

HISTORY OF GALLUP

The town of Gallup was founded in 1881 as a stop along the Atlantic and Pacific Railroad. The arrival of the railroad to western New Mexico in 1881 proved to be an event of great significance to both Navajo and Anglo/Euro-American history in the area. An immediate effect of the arrival of the railroad on the Navajo was an increase in the number of trading posts in the Gallup area that catered to the Navajo wool market (Kelley and Whiteley 1982:52). A less immediate effect was a long-term shift in settlement patterns to lower elevations (below 6500 feet AMSL) and the incorporation of a greater degree of Anglo industrial material culture. Previous archaeological investigations in the Gallup basin (Allen and Nelson 1982; Scheick 1983c) have identified a large number of Navajo sites, the majority of which post-date 1881. Homesites containing a permanent habitation and multiple extramural features are the principle site type, although campsites associated with herding and other limited activity sites also occur (Kelley et al. 1982:Table 11.10). Several trends are discernable within the 1880–1950 period. Some of the most important and archaeologically noticeable are the effects of the Stock Reduction Act, which greatly curbed pastoralism and herding among the Navajo in general and encouraged a shift to the wage economy (see discussion above; Bailey and Bailey 1983). Scheick argues that this shift is represented in the Navajo historic archaeological remains of the Gallup area as an increase in the number of isolated homesites located near coal mining communities and around the periphery of Gallup (Scheick 1983b:642).

One of the primary attractions of the Gallup area to the Atlantic and Pacific railroad was the presence of significant coal deposits. The earliest mines in the area were small wagon mines opened by hand and operated using wheelbarrows (Scheick 1983a:46). However, by 1885 the Dye, Patton, Bell, Black Diamond, and Gallup coal mines were in operation and employing around 700 miners (Nickelson 1988:19). During the 1880s and 1890s, numerous camps sprung up, and several towns developed within the Gallup area to house workers for coal mines, such as Allison, Gibson, Defiance, and Mentmore (Scheick 1983a:48). Railroad spurs were constructed from the main Atlantic and Pacific line to these coal mines in order to transport the coal. Although much of the coal mined in Gallup area was used to fuel trains along the railroad, an equally significant amount was shipped out to markets as far away as California and El Paso, Texas.

Outside capital began investing in Gallup coal mines after 1888 (Nickelson 1988:19), and by the early 1900s large companies dominated the coal business in the area (Scheick 1983a:46). McKinley County coal production reached 548,150 tons in 1900 and 737,925 tons in 1910 and peaked at 905,959 tons in 1929 (Nickelson 1988:Table 2). Of the greatest importance for the project area was the decision by the Gallup American Coal Company to construct the Navajo No. 5 Mine (also called the Gamerco Mine) in 1922, when many of their other coal mines in the area were becoming depleted or difficult to work. The mine was destined to become the largest producer in the Gallup Coal field during the 1920s and 1930s. The town of Gamerco (a contraction of Gallup AMERican COal company) was largely completed by 1924 (Nickelson 1988:68) and was intended to house 4,000 miners, although it never did. Gamerco is located north of the project area.

The Great Depression had a chilling effect on new investment in the coal mining in Gallup, and the industry declined steadily through the 1930s and 1940s. However, sixty years of development of the coal industry had a significant effect on the demographics of the city of Gallup, attracting a wide range of ethnicities including many Eastern Europeans, Italians, Russians, French, Japanese, Austrians, and Mexicans (Scheick 1983b:645). During the past 40 years, changes in mining practice (such as the introduction of strip mining to the area) have reinvigorated Gallup area coal mining, and many of the larger cultural resource management projects during the period have been associated with the development of the nearby McKinley Mine.

PREVIOUS RESEARCH

During the writing of the NGWSP Research Design, Potter et al. (2013) surveyed all existing literature concerning the archaeological resources of the San Juan Basin of New Mexico. In 2011, PaleoWest undertook a Class I literature search that identified all projects and previously recorded sites within the NGWSP project area (Gilpin and Thompson 2013).

PaleoWest initiated a custom query of the New Mexico Cultural Resource Information System (NMCRIIS) database managed by the Archaeological Records Management Services division of the Museum of New Mexico Laboratory of Anthropology in Santa Fe. The query used shapefiles obtained from DePauli and identified 19 previously recorded projects within a quarter-mile of the project centerline (Figures 3 and 4; Table 1). Twenty previously recorded sites were found within a quarter-mile of the Reach 27.7B centerline (see Figures 3 and 4; Table 2).

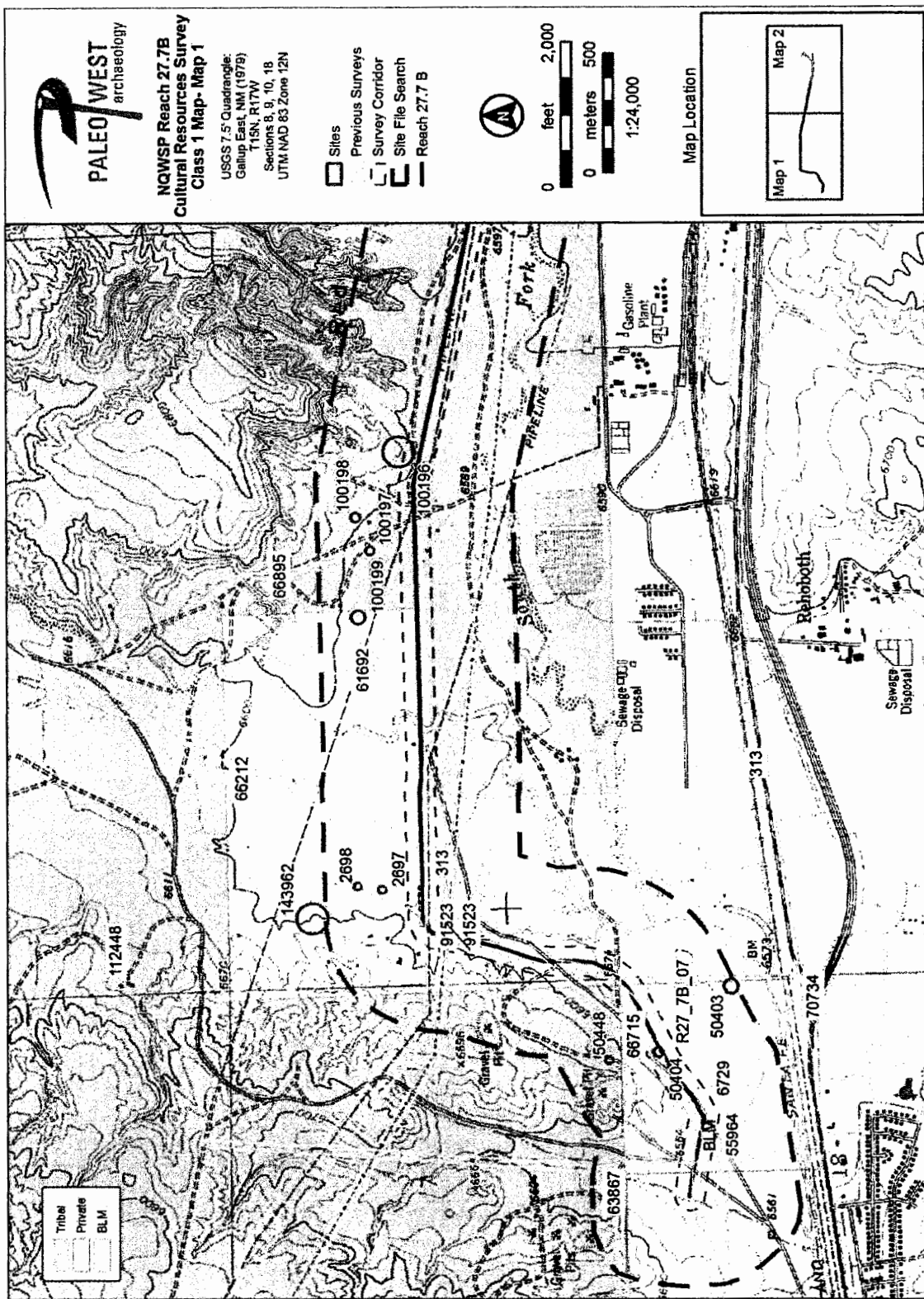


Figure 3. Map showing previous surveys and recorded sites within a quarter-mile of the Reach 27.7B centerline.

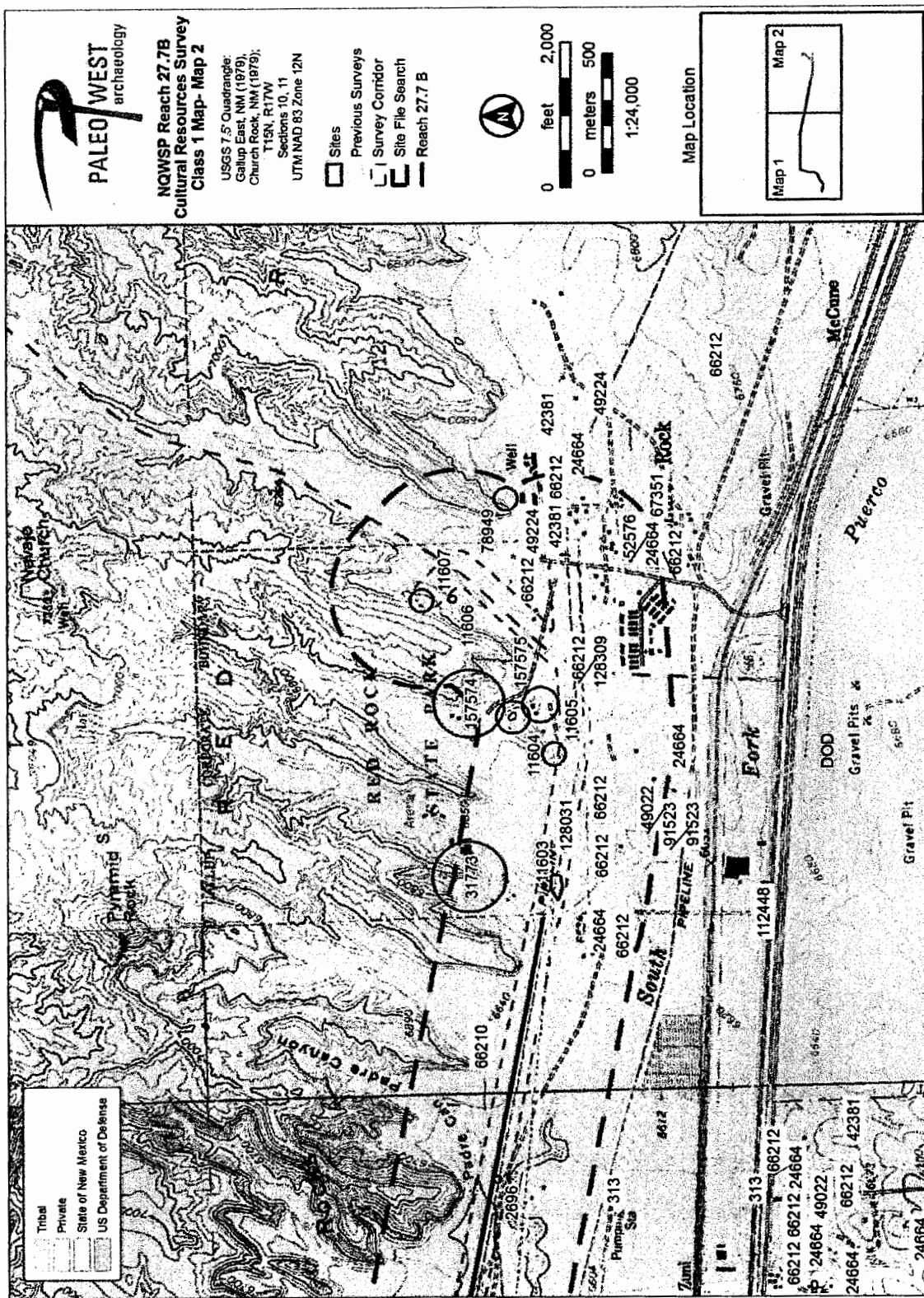


Table 1. Previous Projects within a Quarter-Mile of the Reach 27.7B Survey Area

NMCRIS Activity No.	Report Title	Reference	Total Acres
313	The GASCO Survey: A 100 Mile Pipeline from Star Lake to Gallup	Gauthier, Rory P. and John R. Stein, 1977	3636.36
6729	Gallup Land Sale	Botsford, M. L. L. A. Jacobson Ball, and P. Gaudy, 1984	280
24664	An Archaeological Survey of Ninety-four Scattered Homes for the Installation of Septic Systems and Waterline Extensions for the Gallup Office of Environmental Health and Engineering	Miner, Mark, 1988	442
42381	A Cultural Resources Inventory of 86 Scattered Homesites for Proposed Water Service Lines, Septic Tanks and Leach Fields to be Installed by the Navajo Tribal Utility Authority	CSWTA, Inc., 1993	286.9
49022	A Cultural Resources Inventory Survey of 95 Scattered Homesites for Proposed Water Service Lines, Septic Tanks and Leach Fields to be Installed by the Navajo Tribal Utility Authority	Gilbert, B. M., 1994	290.1
49224	An Archaeological Survey of Seventy Scattered Homes, and Water Line Extensions, in the Gallup District, Eastern Agency, San Juan and McKinley Counties, New Mexico	Francisco, Aldon J., 1995	232
52576	An Archaeological Survey of Seven Scattered Homesites for the Indian Health Service, McKinley County, New Mexico (IHS NA-88-604) NNAD 96-12	Maldonado, Ronald P., 1996	20.2
55964	A Cultural Resource Survey of 9.6 Kilometers (6 Miles) Along Interstate 40 East of Gallup	Levine, Daisy F., 1997	104.7
61692	Across the Colorado Plateau: Anthropological Studies Along the San Juan Basin and Transwestern Mainline Expansion Pipeline Routes Volume I Summary of Archeological Survey and Test Excavations, and Preliminary Ethnological Studies - A Phase 2 Management R	Winter, Joseph C., 1991	3957.48
63867	A Cultural Resource Inventory of the Gamerao Tie Powerline Church Rock Chapter, McKinley County, New Mexico	Yazzie, Maxine L., 1998	38.7
66210	Cultural Resource Inventory Ten Navajo Nation Homesite Locations One Proposed Powerline/Waterline R/W Aneth and Red Mesa Chapters, San Juan County, Utah, Church Rock and Thoreau Chapters, McKinley County, New Mexico, Teec Nos Pos Chapter, Apache County,	Hammack, Laurens C., 1999	28.8
66212	Cultural Resource Inventory NTUA Church Rock Project NA 98-304 49 Scattered Homesites and 2.6 Miles of Waterline Extensions McKinley County, New Mexico	Errickson, Mary, 1998	172.2
66715	Cultural Resource Investigation of a Proposed Bike Path along Hassler Valley Road, the City of Gallup, McKinley County, New Mexico	Nieto, Davis Jr., 2000	57.03
66895	An Addendum for a Reroute to: A Cultural Resource Inventory of the Church Rock North Powerline, Church Rock Chapter, McKinley County, New Mexico	Copeland, Denise R. E., 1999	16.98

NMCRIS Activity No.	Report Title	Reference	Total Acres
67351	A Cultural Resource Inventory of the Churchrock Chapter Tract, McKinley County, New Mexico	Copeland, Denise R. E., 1999	14.04
91523	A Cultural Resource Survey of 43.3 Miles of the Tri-State Power Line in McKinley County, New Mexico	Howell, Todd L. Dawn Temple and Deann Muller, 2005	530.6
128031	A Class III Archaeological Survey for the Reach 27.7a Segment of the Navajo-Gallup Water Supply Pipeline Project, McKinley County, New Mexico	Dongoske, Cindy, 2013	115
128309	Cultural Resources Inventory of an Existing Natural Gas Pipeline Right-of-Way for Transwestern Pipeline Company, Red Rock Park, City of Gallup, McKinley County, New Mexico	Deats, Stewart, 2013	30.39
70734	A Cultural Resource Survey of Three Signalization and Intersection Improvement Projects in Gallup, McKinley County, New Mexico	Marshall, Michael P., 2000	12

Table 2. Previously Recorded Sites within a Quarter-Mile of the Current Project Area

LA Number	NNHPD/ NMCRIS Activity No.	Site Type	Eligibility
LA2696	36	Historic	N/a
LA2697	36	Prehistoric	N/a
LA2698	36	Historic	N/a
LA11603	128309	Prehistoric	No
LA11604	NA	Prehistoric	N/a
LA11605	NA	Prehistoric	N/a
LA11606	NA	Prehistoric	N/a
LA11607	NA	Prehistoric	N/a
LA31773	NA	Prehistoric/Historic	N/a
LA50403	6729	Prehistoric	N/a
LA50404	NA	Prehistoric	Yes
LA50448	NA	Prehistoric/Historic	Yes
LA78949	NA	Prehistoric	N/a
LA100196	45108	Prehistoric	Yes
LA100197	45108	Historic	No
LA100198	45108	Prehistoric	NA
LA100199	45108	Historic	Yes
LA143962	88407	Prehistoric	Yes
LA157574	157574	Historic	N/a
LA157575	157574	Prehistoric/Historic	N/a

METHODOLOGY

Cultural resources encountered during the Class III inventory of Reach 27.7B were recorded as either sites or as IOs based on the definitions set forth in the NNHPD Fieldwork and Report Standards and Guidelines (NNHPD 2014:20–24), the New Mexico state regulations New Mexico Archaeological Council (NMAC) 4.10.15 (NMAC 2005a), and BLM Manual H-8100-1. NNHPD guidelines were used to define resources on Navajo Nation land; state regulations were used to define sites on non-Navajo Nation lands.

NAVAJO NATION LANDS

As defined by NNHPD (2014:20), a site is the location of a prehistoric or historic occupation or activity, or a building or structure, whether standing or ruined. A site is anything that falls within the preceding definition and is more than an isolated find. Historic sites are not restricted to sites over 50 years old and may be more recent in origin. In general, a cultural resource qualifying as a site should exhibit at least one of the following:

- One or more features
- One formal tool if associated with other cultural materials, or more than one formal tool
- An occurrence of cultural material (such as pottery sherds, chipped stone, or historic items) that contains one of the following:
 - Three or more types of artifacts or materials
 - Two types of artifacts or materials in a density of at least 10 items per 100 m²
 - A single type of artifact or material in a density of at least 25 items per 100 m²

As defined by NNHPD (2014:20), an IO is any non-structural remains of a single event. Alternatively, any non-structural assemblage of approximately 10 or fewer items within an area of approximately 10 m² or less, especially if it is of questionable human origin or if it appears to be the result of fortuitous causes, is an IO.

For the purposes of this project, items of modern trash observed along roads and two tracks were not recorded as sites or IOs. This decision was made in accordance with NNHPD guidelines stating that “professional judgment of the archaeologist must be used to determine what constitutes a historic site,” and that, “scattered roadside trash, for example is so minimal as to preclude the necessity for recording” (NNHPD 2014:31).

NON-TRIBAL LANDS

As defined in New Mexico state regulations (NMAC 2005a) and BLM Manual 8100-1, a site is a location where there exists material evidence of the past life and culture. The regulations state that a significant archaeological site is typically 50 or more years old, although exceptions may be argued for sites whose significance derives from design, materials, workmanship, or association with people or events significant to history even though they are less than 50 years old.

Examples of archaeological sites include hearths, rock art panels and inscriptions, campsites, cairns, rock alignments, habitations, artifact scatters, resource procurement and processing areas,

and agricultural fields. These locales generally have one or more features in association with other cultural materials, and many often have the potential for subsurface features or cultural deposits.

An IO is defined as a single object or artifact or a few artifacts greater than 50 years old that lack clear association and generally comprise fewer than 10 artifacts. Examples of IOs include a single flake, projectile point, or potsherd; several sherds from a single broken pottery vessel; pieces of glass from a single bottle; or a single undateable feature. Modern roadside trash and modern episodes of recent illicit trash dumping were not recorded, although modern refuse was noted when it occurred on a historic or prehistoric site.

ETHNOGRAPHY

Ethnographic studies were conducted on Navajo Nation lands crossed by Reach 27.7B. The objectives of ethnographic studies were to:

- Identify Navajo historic and traditional cultural properties (TCPs) in and near the APE that might be affected by the project
- Evaluate the significance of these resources within the framework of applicable Navajo Nation, federal, and/or state laws and make recommendations about how the project can avoid or mitigate adverse effects so as to be in compliance with the applicable laws
- Produce an overview of local Navajo traditional culture history and geography to provide an adequate context within which to evaluate the significance of the cultural resources identified

The ethnographic studies conducted as part of the cultural resource inventory utilized previous studies about Navajo historic and traditional cultural resources and history (i.e., ethnographic, historic records, and archaeological studies), as well as interviews with knowledgeable local residents. Fieldwork generally consisted of consulting with local Chapter officials, residents with homesites within sight of the project corridor, and other local residents recommended by either Chapter officials or people living along the corridor. Interviews also included special-purpose consultation with ceremonialists, historically knowledgeable local elders, and others identified for their knowledge of particular cultural sites in or near the corridor.

The Navajo Nation Policy to Protect Traditional Cultural Properties requires that a good faith effort must be made to identify and evaluate all TCPs and sacred sites that may be affected by project related activities. TCPs are generally defined as property that has a traditional cultural significance where “traditional” refers to beliefs, customs, and practices of a living community of a people that have been passed down through the generations. The role of the property is derived from its significance and its part in a history that is embedded in the beliefs, customs, and cultural practices of a community or people. The Navajo Nation Policy to Protect Traditional Cultural Properties is consistent with the Federal definition of TCPs. According to the Navajo Nation Cultural Resources Protection Act (CMY-19-88), cultural resources are any product of human activity or any object or place given significance by human action or belief.

National Register Bulletin 38 defines TCPs as places of historical significance because of their association with “cultural practices and beliefs that are (1) rooted in the history of a community,

and (2) are important to maintaining the continuity of that community” (Parker and King 1990:1). TCPs were identified by examination of the files of the Traditional Cultural Properties Program at NNHPD and through ethnographic research. The Traditional Cultural Properties Program files include USGS 1:100,000 scale maps with TCPs plotted on them and notebooks with descriptions of each property. Ethnographic interviews were conducted with people living within sight of Reach 27.7B, officials of the local Chapters, hataaliis/ceremonialists, and historically knowledgeable locals.

FIELDWORK

The purpose of the inventory was to identify cultural resources within the 400-foot-wide APE of Reach 27.7B. The APE buffered the 120-foot-wide ROW by 140 feet. PaleoWest conducted the Class III inventory in two phases: an initial “walking” stage that identified IOs and noted the location of potential sites and a “recording” phase that documented the potential sites identified while walking. The walking phase consisted of four archaeologists walking parallel transects spaced 15 m apart. Survey crews walked first one side of the project centerline, and then returned along the opposite side. In block survey areas, the archaeologists walked parallel transects spaced 15 m apart. Because of the density of isolated historic debris and historic and prehistoric archaeological sites, survey inertia rarely exceeded three pipeline miles per day. Crews navigated with handheld global positioning system (GPS) units that were loaded with shapefiles of the project centerline and the two edges of the APE. The ground was generally clear, with some areas partially obscured by sagebrush and undergrowth.

IOs were recorded on an iPhone equipped with FileMaker Go, using a database developed specifically for NGWSP. These records included locational information in UTM coordinates, a description of the IO, and a photo, if appropriate. For each newly identified site encountered by PaleoWest, a new site record was completed using the Laboratory of Anthropology Site Record form. At a minimum, a completed site record consisted of a Laboratory of Anthropology Site Record form; a GPS location plotted on a 7.5-minute USGS quadrangle map; a scaled site plan map; illustrative, captioned color photographs; and photographs or illustrations of diagnostic artifacts and features.

Site information, such as in-field artifact analyses, features data, and narrative description, was entered in PaleoWest’s Navajo-Gallup Database, which automatically transferred data into the appropriate sections of the Laboratory of Anthropology Site Record form. Map data (i.e., site boundaries, feature boundaries, and site datum) were gathered with a Trimble Juno with sub-meter accuracy and processed using ArcGIS. The locations of all site datums were plotted in North American Datum 83 (NAD 83). Physical datums, consisting of 2-foot lengths of 1-inch diameter white PVC and aluminum site tags, were placed on newly recorded and revisited sites. Site sketch maps were created on an iPad equipped with Inkscape (a digital drafting application) and a Garmin handheld GPS. Site maps depict the site datum, site boundary, the location of cultural features, artifact distributions, disturbances, and surrounding topography and drainages. Digital photographs were taken using an iPhone 3.

For survey that transected private land, only portions of sites that were within the APE were recorded as per recommendations received in April of 2013 from Michelle Ensey of the New Mexico State Historic Preservation Division. The location of all Reach 27.7B work was located

by PaleoWest using GPS units loaded with the survey area shapefiles provided by Reclamation and DePauli.

NRHP EVALUATIONS

Cultural resources identified within the APE of Reach 27.7B were evaluated for significance under the National Historic Preservation Act of 1966, as amended (NHPA) (36 Code of Federal Regulations [CFR] 800). This legislation ensures the protection of historic and prehistoric sites and those properties that have value to the traditional beliefs of a community. Under NRHP 36 CFR 60.4, cultural resources may be eligible for nomination to the NRHP if they "possess integrity of location, design, setting, materials, workmanship, feeling and association" and if the resources in question are resources:

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

Prehistoric archaeological sites are typically considered eligible to the NRHP under Criterion D for their local and regional significance and their potential to yield important information, although they may be nominated under any of the four Criteria. Historic archaeological sites are more frequently nominated under Criteria A–C, because the historic record allows them to be tied with greater confidence to specific themes, persons, and styles or construction techniques; however, they too may be nominated under Criterion D for the potential to yield important information. The NRHP eligibility recommendations used for the Reach 27.7B inventory consisted of *eligible* to the NRHP, *not eligible* to the NRHP, or *needs data (undetermined)*. IOs, by definition, are considered *not eligible* for inclusion on the NRHP.

If significance has been established, it is necessary to determine if the resource retains the integrity for which it is significant. The evaluation of integrity is often subjective but must always be grounded in an understanding of a resource's physical features and how they relate to its significance. Resources that have been substantially altered after the period of significance may not retain sufficient integrity to reflect their original character. A single major change and/or the cumulative effect of numerous minor changes may diminish integrity. Integrity is always evaluated in respect to the significance of the resource and the period of significance. A resource that retains its integrity will possess several, and usually most, of the following:

- *Location*—The place where the historical resource was constructed or the specific place where the historical event took place. It involves relationships that exist between the resource and place.

- *Setting*—The physical environment of a historic property. It relates to the character of the place in which the resource played its historical role.
- *Design*—The combination of elements that create the form, plan, space, structure, and style of a property.
- *Materials*—The physical elements that were deposited during a particular period of time and in a particular pattern or configuration to form a historic property (a site, building, structure, object, or district).
- *Workmanship*—The physical evidence of the crafts of a particular culture or people during any given period in history or prehistory.
- *Feeling*—The property's expression of the aesthetic or historical sense of a particular period of time.
- *Association*—The direct link between an important historical event or person and a historic property.

SURVEY RESULTS

The PaleoWest survey of Reach 27.7B identified 6 previously unrecorded archaeological sites, 2 previously recorded sites, 11 IOs, and 3 IUSs (Tables 3–5; Figures 5 and 6). The proximity of the Reach 27.7B survey area to the city of Gallup and the adjacent highway has resulted in modern trash being scattered across in portions of the survey area. IOs comprised prehistoric and historic artifacts.

Ethnography on Navajo Nation lands found that site NM-Q-30-149 qualified as a TCP within the ROW of Reach 27.7B and recommended that the site be avoided. The ethnographers concur that site LA2696, having been destroyed, does not qualify as eligible to the NRHP. No other ethnographic significance was discovered at any of the other sites on Navajo Nation lands along Reach 27.7B (see Attachment 2).

The PaleoWest survey of Reach 27.7B identified eight archaeological sites (see Table 3; see Figures 5 and 6), several of which had more than one component. The majority of the sites (five of eight) are recommended eligible for inclusion on the NRHP; three sites were recommended as not eligible. The sites are summarized below, and complete site forms are included in Attachment 1.

Table 3. Sites Recorded Along Reach 27.7B

Site No.	Site Type	Affiliation and Date	Land Status	NRHP Evaluation
LA100196/ NM-Q-30-17	Prehistoric/Historic Non-Structural	Anasazi (AD 500–1100); Navajo (AD 1945–Present)	Navajo Nation	Eligible
LA180775	Prehistoric Non-structural	Anasazi (AD 900–1300)	BLM	Eligible
LA180776/ NM-Q-30-151	Historic Structural	Navajo (AD 1990–Present)	Navajo Nation	Not Eligible
LA180777	Historic Structural	Hispanic (AD 1918–1939); Navajo (AD 1940s–1970s)	Private	Not Eligible
LA180778	Prehistoric Structural	Anasazi (AD 1100–1300)	Private	Eligible
LA50404/NM- 01-32473	Prehistoric Structural	Anasazi (AD 900–1300)	BLM	Eligible
NM-Q-30-149	Historic Structural	Navajo (AD 1940–1979)	Navajo Nation	Eligible
NM-Q-30-150	Historic Non-structural	Navajo (AD 1945–Present)	Navajo Nation	Not Eligible

Table 4. IOs Recorded during the Current Project

IO No.	UTM Easting (NAD 83)	UTM Northing (NAD 83)	Description	Estimated Dates (A.D.)
1	711157	3935312	Sand-tempered gray ware, 30 × 25 × 6 mm	700–1300
2	711125	3935376	Bowl sherd, crushed rock temper, slipped, 35 × 18 × 7 mm; clapboard corrugated gray ware, 35 × 25 × 5 mm; whitish chalcedony tertiary flake, 25 × 35 × 8 mm	900–1300
3	711172	3935221	Indented corrugated sherd with crushed rock temper, 35 × 30 × 4 mm	900–1300
4	711115	3935137	Wooden truck bed rails with two churchkey-opened 12 oz. all steel beverage cans: 2.1 × 1.2 m, two 2 × 4s 1 × 4s, 1 × 6s, wire nails and baling wire	1935–1962
5	710874	3934985	Widebanded, black-on-white slipped jar sherd with crushed rock temper, 40 × 30 × 5 mm	700–1300
6	710326	3934890	Abandoned stock pond, 20 m in diameter and 1.5 m deep	Unidentified Historic/Modern
7	711386	3935900	Plain crushed rock-tempered gray ware sherd: 45 × 40 × 5 mm	700–1300
8	712841	3936020	Automobile horn, 4 1/2 inches in diameter and 6 inches long	Unidentified Historic/Modern
9	712968	3936005	Two churchkey-opened 12-ounce beverage cans, two sanitary cans (15 oz.), one rectangular 1-gallon fuel can, one repurposed metal frame	1935–1962
10	715565	3935491	Two stockpiles of fencing material in an area measuring 30 × 10 m; total of nine railroad ties in two piles. Formerly site 15	Unidentified Historic/Modern
11	714090	3935880	Isolated pile of rocks	Unidentified Prehistoric/Historic

Table 5. In-Use Navajo Sites along Reach 27.7B (from Ethnography Report: Attachment 2)

IUS No.	UTM Easting (NAD 83)	UTM Northing (NAD 83)	Description/Date	NRHP Evaluation
IUS 7	713176	3936010	Post-and-wire livestock pen enclosing a wood-frame shed and lamb pen; wood-frame house (partly dismantled). Structures date sometime between ca. 1980 and 2000; all are in the APE	Not NRHP eligible (less than 50 years old)
IUS 8	715257	3935593	White mobile home (ca. 1960s or later), outhouse (unused), and two small corrugated metal sheds, all apparently in APE	Not NRHP eligible (less than 50 years old)
IUS 9	715063	3935650	New brown wood-frame house, new prefab shed, both apparently in APE	Not NRHP eligible (less than 50 years old)

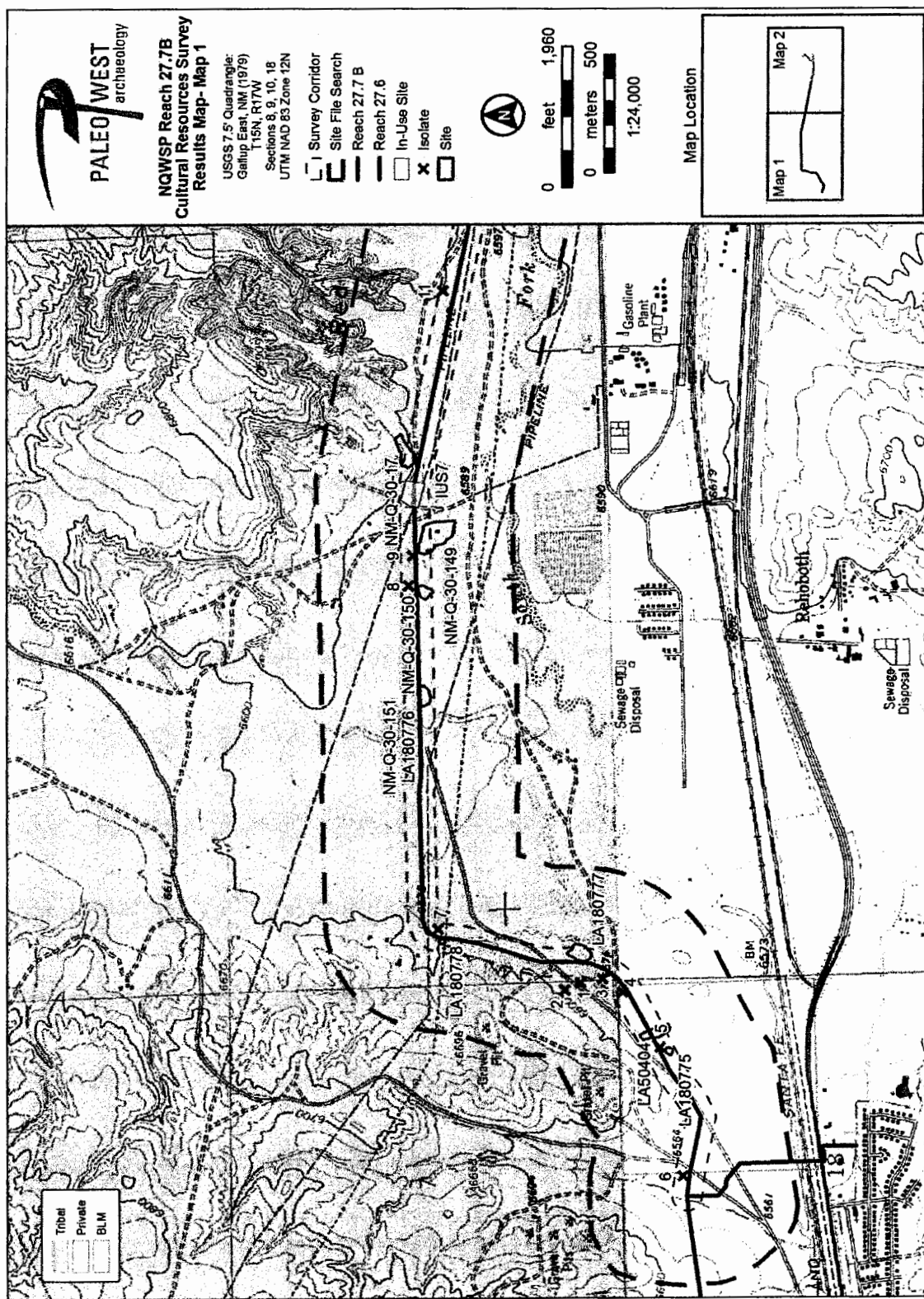


Figure 5. Map showing sites and IOs recorded along the west end of Reach 27.7B (Map 1).

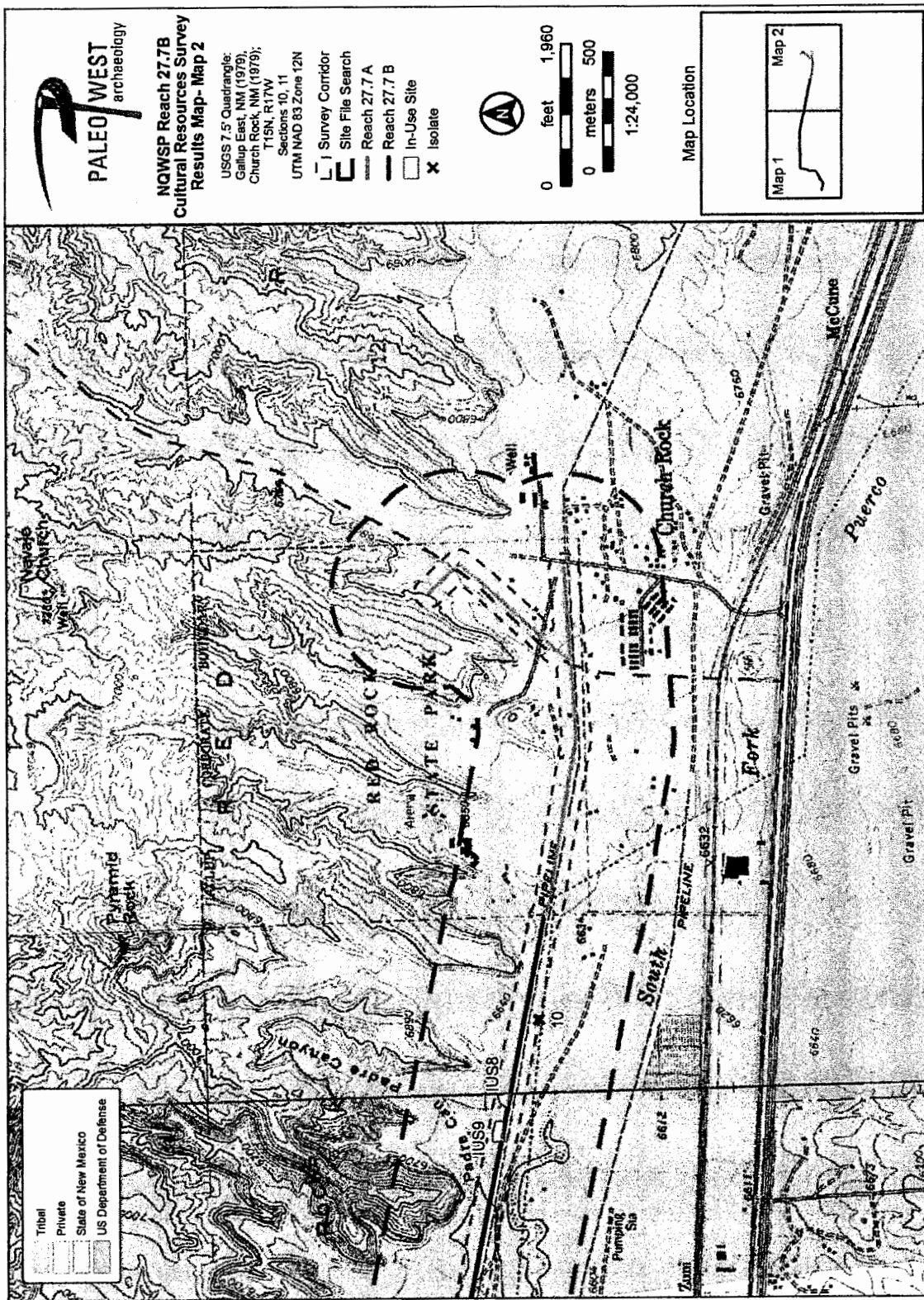


Figure 6. Map showing sites, IOs, and IUSs recorded along the east end of Reach 27.7B (Map 2).

ARCHAEOLOGICAL SITES

LA50404/NM-01-32473

Site Type: Prehistoric Structural

Cultural and Temporal Affiliation: Anasazi (A.D. 900–1100)

NGWSP Reach: Reach 27.7B

UTM Easting/Northing (Zone 12N, NAD 83): 710915mE/3935052mN

Elevation: 6574 feet AMSL

Dimensions (Area): 30 × 50 m (1500 m²)

Legal Description: In Section 18, T15N, R17W on the USGS 7.5-minute Gallup East, New Mexico quadrangle, McKinley County, New Mexico

Site Description

LA50404 is a Pueblo II habitation consisting of a possible pit structure (Feature 1) and a dense artifact concentration (Figure 7). The site was originally recorded by the BLM in 1984. It was further updated by the BLM in 1993 and by Zuni Cultural Resource Enterprise archaeologists in 1990 and 1998. It was described as a dense artifact concentration with possible architectural stone.

In 2014, PaleoWest archaeologists revisited the site and observed a shallow depression (Feature 1) on the north side of the artifact concentration, likely representing a pit structure. Previous recordings variably identified a second feature as an amorphous small rock cluster, a possible fieldhouse, or an isolated room. This feature was not relocated in 2014, although a mostly buried sandstone upright is situated west of Feature 1 and may indicate the presence of additional buried architecture.

Feature 1 is a shallow depression on the crest of a low rise in the northern part of the site. The depression measures roughly 3 m in diameter. It is just north of the artifact concentration.

The artifact concentration is located on the slope just south of Feature 1. It consists of at least 100 Pueblo II sherds, including Escavada and Red Mesa Black-on-white and numerous indented corrugated sherds. Roughly 20–30 chert and quartzite lithic artifacts are also present, most of which are tertiary flakes. A small amount of oxidized sandstone is present in the artifact concentration. In addition to the artifacts noted above, Gallup Black-on-white and Puerco Black-on-red ceramics, as well as chalcedony and obsidian lithic materials, were noted during earlier site documentation episodes but were not observed or relocated during the 2014 recording.

A light scatter of Pueblo II sherds and lithic artifacts makes up the rest of the site area. Most of these artifacts are similar to those observed in the main artifact concentration. No ground stone was observed in the site area.

The site is interpreted as a Pueblo II single residence. The site area has undergone considerable deposition, and additional features may be buried under windblown sand.

NRHP Eligibility Recommendation

T
The site was officially determined eligible for listing on the NRHP under Criterion D in 1993 and 2000 (HPD log numbers 41434 and 59148). PaleoWest archaeologists found no reason to reevaluate these previous determinations.

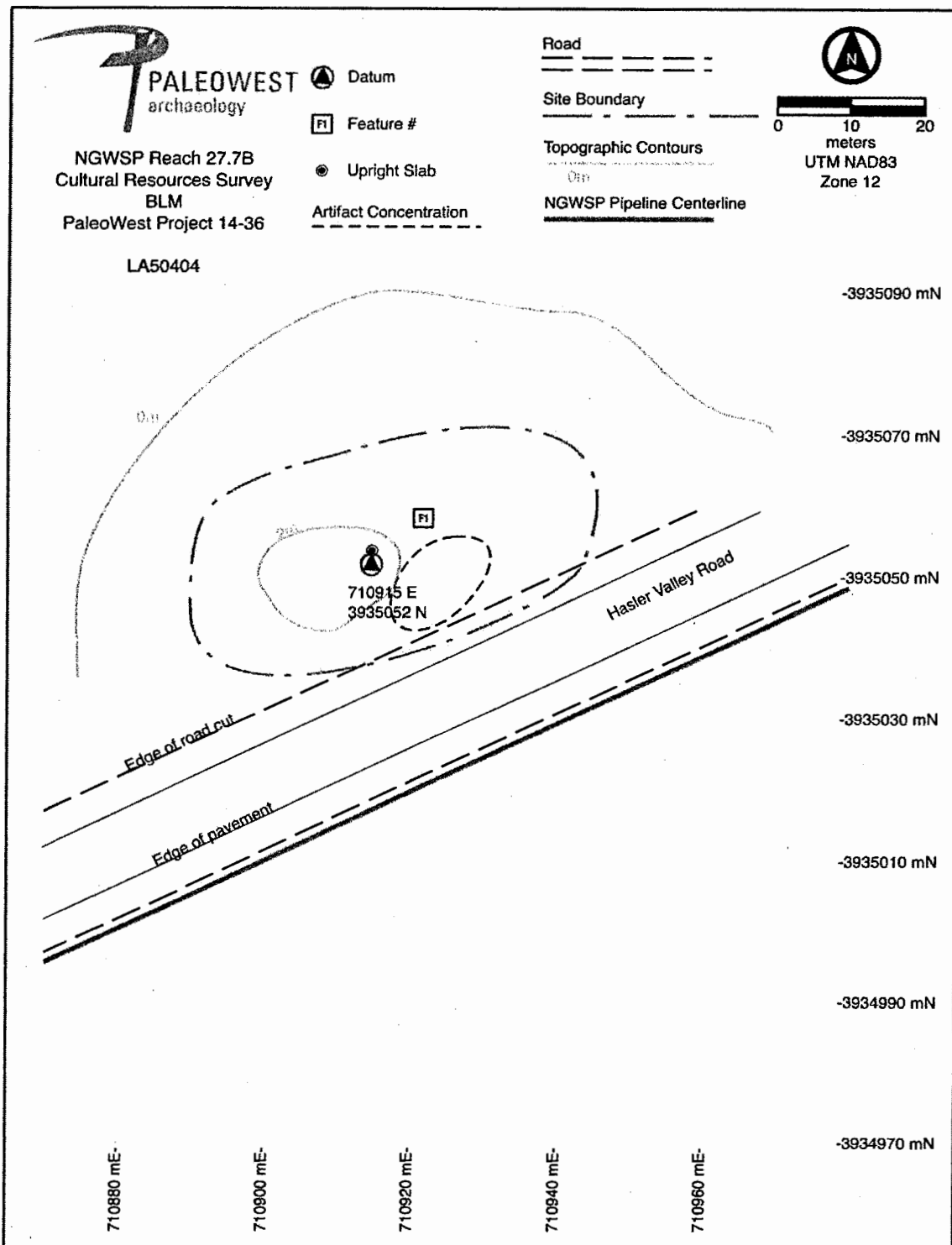


Figure 7. Map of site LA50404/NM-01-32473.

LA100196/NM-Q-30-17

Site Type: Prehistoric/Historic Non-Structural

Cultural and Temporal Affiliation: Anasazi (A.D. 500–1100); Navajo (A.D. 1945–present)

NGWSP Reach: Reach 27.7B

UTM Easting/Northing (Zone 12N, NAD 83): 713402mE/3936010mN

Elevation: 6604 feet AMSL

Dimensions (Area): 138 × 41 m (347 m²)

Legal Description: In Section 9, T15N, R17W on the USGS 7.5-minute Gallup East, New Mexico quadrangle, McKinley County, New Mexico

Site Description

The site was originally recorded by the Navajo Nation Archaeological Department in 1992 as a Basketmaker III to Pueblo II artifact scatter located in the alluvial flat at the base of an outcrop of red sandstone (Figure 8). An existing two-track road runs east-west just south of the site, and existing home sites are visible to the east and west of the site area.

In 2014, PaleoWest archaeologists observed that much of the site area in the alluvial flat was lost to severe alluvial erosion. The 1992 datum placed in this area could not be relocated. Additional artifacts were also observed along the opposite side of the outcrop, west of the original site boundary. A sediment stain was also noted in the northeast portion of the site and designated Feature 1. Recent historic-to-modern trash was also observed in the site area and designated as an additional site component.

Feature 1 is situated in an area of wind-blown sand that creates low dune formations east of the sandstone outcrop. It measures 1.0 m (N-S) by 1.4 m (E-W) and consists of gray ash-stained soil. One Escavada Black-on-white sherd was noted in the feature vicinity. Feature 1 is interpreted as a possible thermal feature, most likely dating to Pueblo II.

Although PaleoWest archaeologists expanded the site boundaries, adding roughly 100 additional prehistoric artifacts to the original count of 139, artifact types identified in 1992 still appear to pertain to the site at large. There is a small amount of Basketmaker III/Pueblo I gray ware on the site, mostly located east of the sandstone outcrop. One gray ware seed jar rim sherd was observed in 2014. The remaining ceramic artifacts appear to date to Pueblo II. Lithic material types observed in 2014 include various types of chert and quartzite, and at least three tertiary flakes of obsidian. All stages of lithic reduction are represented, although tertiary flakes dominate. A one-hand, unifacially ground mano reused as a hammerstone (PL 1) was also observed in the center of the site on top of the sandstone outcrop.

A fair amount of recent historic-to-modern trash, mostly consisting of bottle glass, was observed in the site area. This trash included clear, brown, and a small amount of aqua bottle glass; several sanitary cans; and at least one occurrence of trash in a white plastic kitchen trash bag. These items constitute a recent historic-to-modern site component.

The site is interpreted as a possible seasonal campsite where lithic reduction, food preparation, and resource processing took place. There appears to have been at least a brief period of Basketmaker III/Pueblo I use, but the site's main component appears to be Pueblo II. In more

recent years, the site appears to have served as a limited dump site. Although much of the site has been lost to erosion, subsurface potential still exists, especially in association with Feature 1.

NRHP Eligibility Recommendation

The site was officially determined eligible for listing on the NRHP in 1994 (HPD log number 42764).

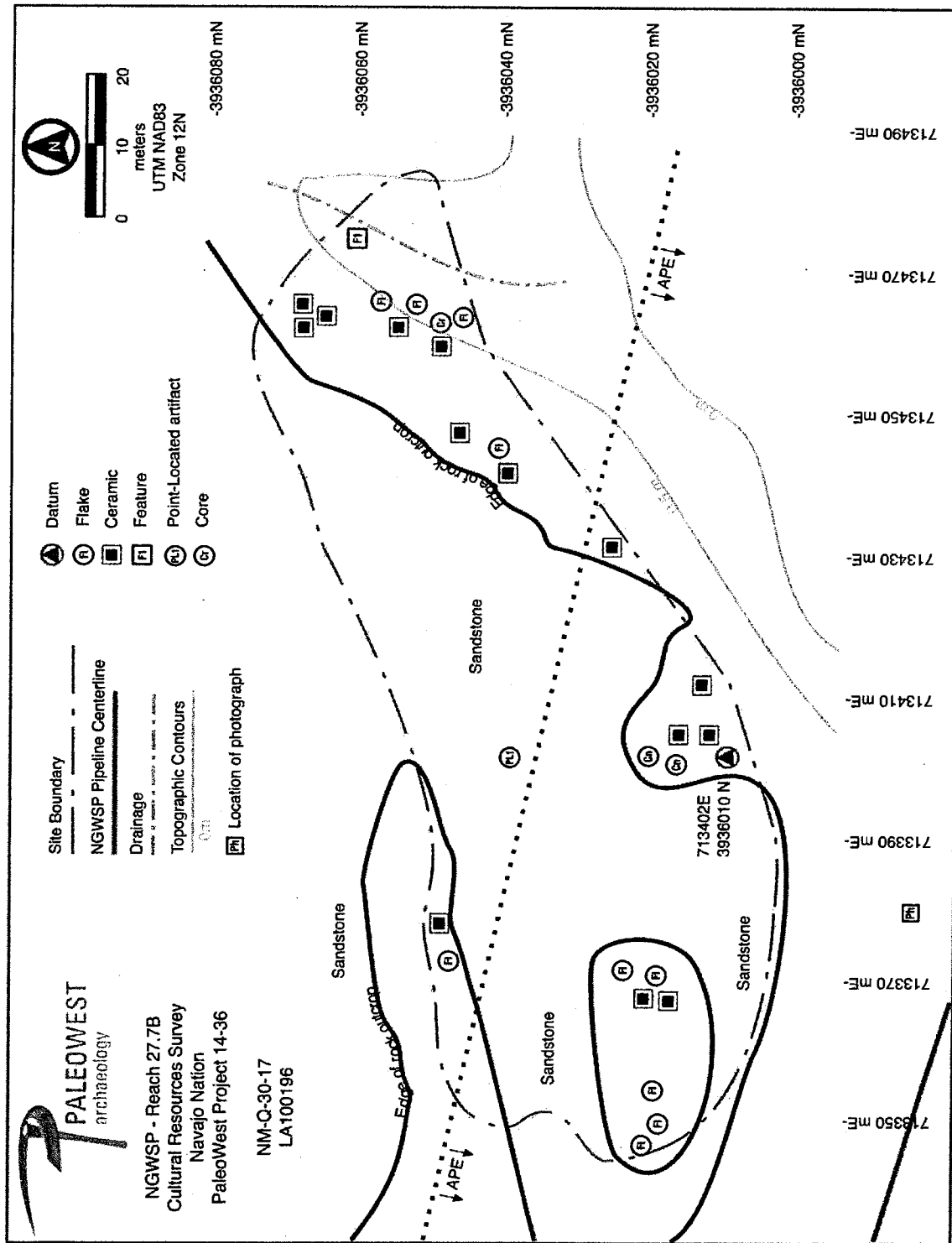


Figure 8. Map of site LA100196/NM-Q-30-17.

LA180775

Site Type: Prehistoric Non-structural

Cultural and Temporal Affiliation: Anasazi (A.D. 900–1300)

NGWSP Reach: Reach 27.7B

UTM Easting/Northing (Zone 12N, NAD 83): 710864mE/3934953mN

Elevation: 6578 feet AMSL

Dimensions (Area): 28 × 30 m (840 m²)

Legal Description: In Section 18, T15N, R17W on the USGS 7.5-minute Gallup East, New Mexico quadrangle, McKinley County, New Mexico

Site Description

The site consists of an artifact scatter located on a low rise south of Hasler Valley Road. The artifacts appear to mostly be eroding out of the west side of the low rise, possibly from the area of a buried feature. One mostly buried oxidized sandstone upright (PL1) and two pieces of tabular sandstone laying flat next to a ground stone fragment (PL2) testify to the probable presence of a buried feature (Figure 9).

Artifacts observed on the site include one unifacial ground stone fragment (PL2) that measures 9 × 7 × 3.5 cm and appears to be from a metate; one red petrified wood primary flake; and one primary, one secondary, and four tertiary flakes of grayish brown chert. The grayish brown chert secondary flake appears to be unifacially retouched on the ventral side at its distal margin. One indented corrugated sherd is located at the far southwest end of the site.

The site is interpreted as a possible activity area or temporary habitation where lithic reduction and resource processing took place. Additional testing would be required to determine the nature of the possible buried feature. The single sherd on the site tentatively dates the occupation to Pueblo II or Pueblo III.

NRHP Eligibility Recommendation

PaleoWest recommends that the site is eligible for listing on the NRHP under Criterion D. The site retains integrity of materials and location. Subsurface cultural deposits appear to be present at the site and could yield important information about regional prehistory.

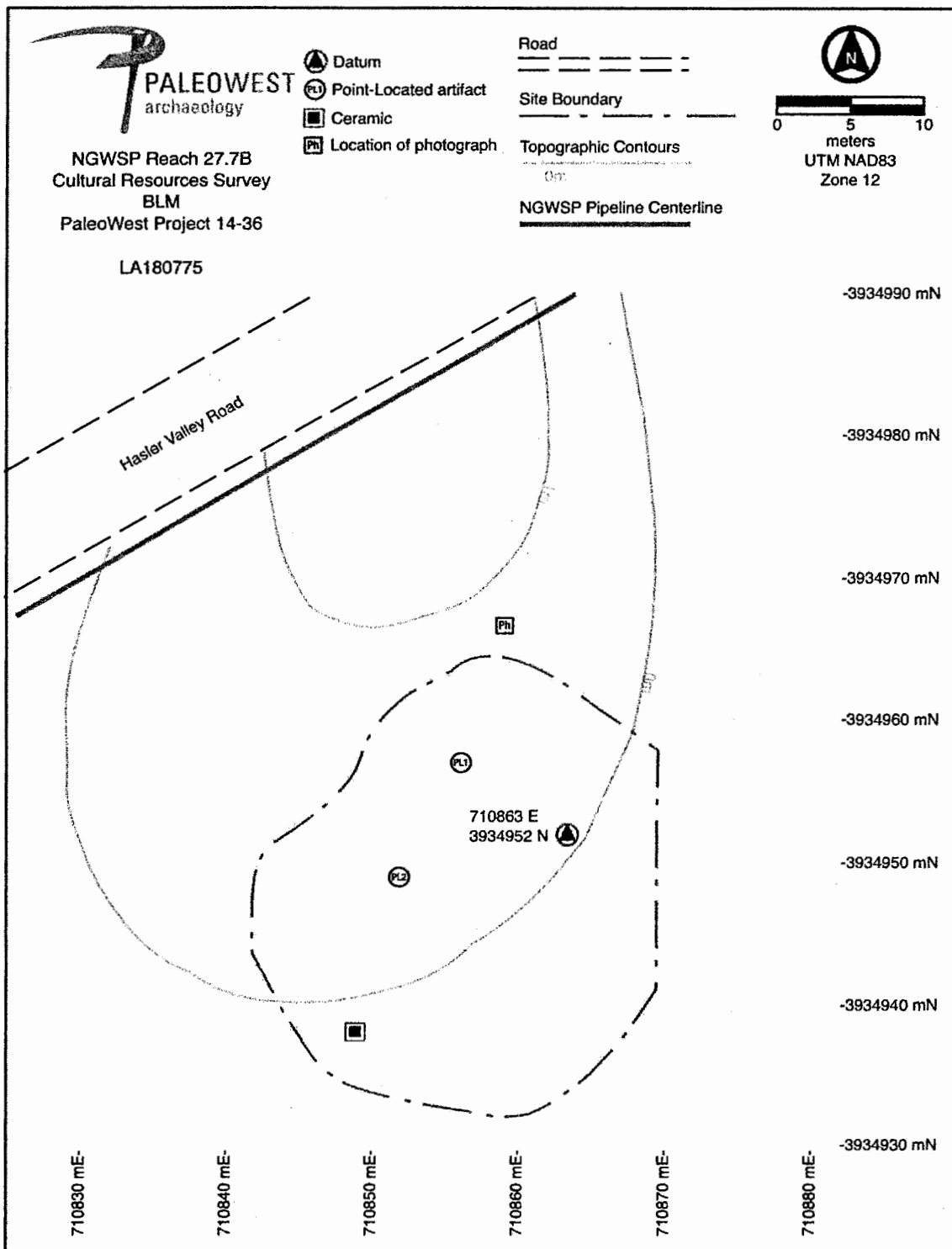


Figure 9. Map of site LA180775.

LA180776/NM-Q-30-151

Site Type: Historic Structural

Cultural and Temporal Affiliation: Navajo (A.D. 1990–present)

NGWSP Reach: Reach 27.7B

UTM Easting/Northing (Zone 12N, NAD 83): 712371mE/3935951mN

Elevation: 6594 feet AMSL

Dimensions (Area): 86 × 51 m (237 m²)

Legal Description: In Section 8, T15N, R17W on the USGS 7.5-minute Gallup East, New Mexico quadrangle, McKinley County, New Mexico

Site Description

The site is a broad trash scatter located on the east side of a deep arroyo. The area is accessible from the east by a two track road and at its west end by another two-track that runs along the edge of the arroyo. Three features are present on the site, including a constructed wall of tires (Feature 1) that appears to have been created as a roadblock and two small piles of ash and burned trash (Features 2 and 3). All of the trash on the site appears to be less than 20 years old (Figure 10).

Feature 1 is a northwest-southeast-oriented wall of tires, constructed up to 4 feet (5 tires) high. The feature runs across a two-track road, and much of the trash on the site is located on the southwest side of the feature. A large PVC pipe anchors tires in place at the feature's southeast end. The feature appears to have been created as a type of barricade. The two-track road enters the site from the east, and the construction of Feature 1 probably post-dates trash dumping episodes west of the barricade. Trash west of the barricade includes black fabric and black plastic sheeting, cinder blocks, brown and clear bottle glass, a pair of child's rubber boots, yard waste, and other items.

Features 2 and 3 are located at the southwest end of the site. Feature 2 is a roughly 1.2-m-diameter concentration of ashy sediment and burned trash. Items associated with the feature include an aerosol can, clear glass jars with screw-cap lids, a SOBE beverage bottle, aluminum cans, an aluminum meat tin, and various can fragments. A small amount of brush, including greasewood twigs and Russian thistle, is piled over the feature.

Feature 3 is located south of Feature 2 and measures roughly 1.5 m in diameter. It consists of ashy sediment and burned trash, including brown and clear bottle glass, a metal spoon, several pieces of cobalt glass, an aluminum beverage can, an aluminum meat tin, and aluminum foil.

Items of modern trash scattered across the site include modern steel cans, clear and brown glass bottles, yard debris, electronic parts, a large water filter, scraps of plywood, pieces of clothing, and various glass, metal and plastic items.

NRHP Eligibility Recommendation

PaleoWest recommends the site not eligible for inclusion on the NRHP because it is a modern trash dump less than 50 years old.

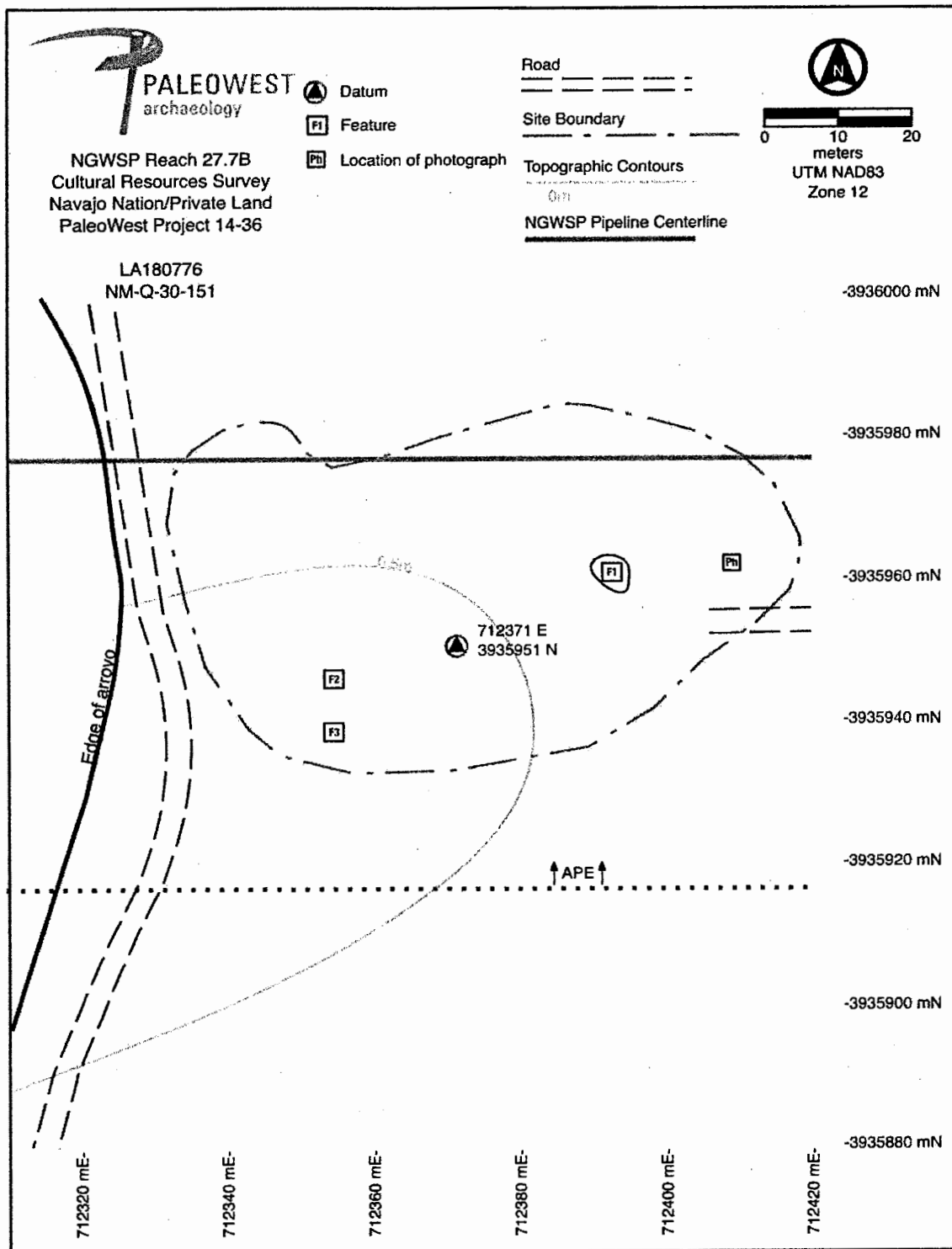


Figure 10. Map of site LA180776/NM-Q-30-151.

LA180777

Site Type: Historic Structural

Cultural and Temporal Affiliation: Hispanic (A.D. 1918–pre-1940); Navajo (A.D. 1940s–1970s)

NGWSP Reach: Reach 27.7B

UTM Easting/Northing (Zone 12N, NAD 83): 711275mE/3935307mN

Elevation: 6604 feet AMSL

Dimensions (Area): 21 × 26 m (411 m²)

Legal Description: In Section 8, T15N, R17W on the USGS 7.5-minute Gallup East, New Mexico quadrangle, McKinley County, New Mexico

Site Description

The site appears to be the remains of a historic small industrial or home site and corral located on private land on an open sagebrush plain east of Hasler Valley Road (Figure 11). Because of the private land status, recording activities were restricted to the current project's APE. The site does appear to continue east of the APE, where the head to an old water well is visible.

Within the APE, three features were identified: the remains of two structures (Features 1 and 2) and a corral (Feature 3). Feature 1 is located just east of the existing road. It consists of a rectangular concrete foundation that measures 25 feet (E-W) × by 28 feet (N-S). An alignment of weathered 0.5 × 7.0-inch timbers runs north-south within the feature. All nails in these timbers are round-headed and appear modern. Other timbers and remains of concrete piers are scattered just east of the feature. One fragment of a Gallup Brick Company brick is located at the northwest corner of Feature 1. The ground surface around the feature appears to have been bladed. The feature is interpreted as remains of a structure that has been mechanically cleared from the site.

Feature 2 is a concentration of milled timbers and two concrete pier blocks that appear to represent the location of a second structure east of Feature 1. The pier blocks are located roughly 15 feet apart and may represent the northwest and southeast corners of the feature. The timbers are in a deteriorated condition but measure roughly 1 × 4 and 0.5 × 7 inches. Like Feature 1, Feature 2 appears to have been mechanically cleared from the site. Metal stove parts are located at the northeast end of the feature.

Feature 3 is located northeast of Features 1 and 2. It is a roughly circular enclosure built of T-posts, juniper posts, scrap pieces of timber, and hogwire. Although most of the supports for the corral are T-posts, two pairs of juniper posts are incorporated into the northwest and southeast ends of the feature, possibly marking entryways. Hogwire is intact only along the southwest edge of the feature. Scrap timbers are used along the base of the corral to anchor hogwire in place. The top shelf of an old metal stove and a large piece of scrap metal are located just southwest of the feature. The corral appears to be more recent than Features 1 and 2.

An additional 40–50 timbers are scattered across the site, in addition to modern round head nails, a light scatter of clear glass, at least three Gallup Brick Company bricks, one cinderblock, the remains of an old mattress or seat springs, several fragments of sanitary cans, approximately five soft-top 12-ounce beverage cans, and part of an old Daisy BB gun. Most of the site area in the

APE appears to have been bladed, probably to clear away remains of buildings and associated trash. A small artifact concentration southeast of Feature 1 contains hard-paste white ware, sanitary cans, and two "NO DEPOSIT NO RETURN BOTTLES" and one Pepsi Cola bottle. The three bottles are embossed with "72" and presumably date to 1972.

Interviews with local residents and searches of historic records indicate that Features 1 and 2 may represent part of an early 20th century Hispanic homestead patented in 1918 and that the corral (Feature 3) was constructed, used, and periodically repaired in the second half of the 20th century by local Navajo families after the homestead was no longer occupied (Attachment 2). The later use and maintenance of the corral likely accounts for the 1970s artifacts at the site.

NRHP Eligibility Recommendation

The site does not meet any criteria for inclusion on the NRHP. No evidence was found to indicate that the site is associated with events that have made a significant contribution to patterns of history or that it is associated with the lives of persons significant in the past (Criteria A and B). The site lacks integrity to convey the distinctive characteristics of a type, period, or method of construction (Criterion C). Recordation has exhausted the data potential of the site and the ability of the site to yield information important in prehistory or history (Criterion D). Use of the site continued until relatively recently (ca. 1970s), and the historic component lacks integrity. The site is therefore recommended as not eligible to the NRHP.

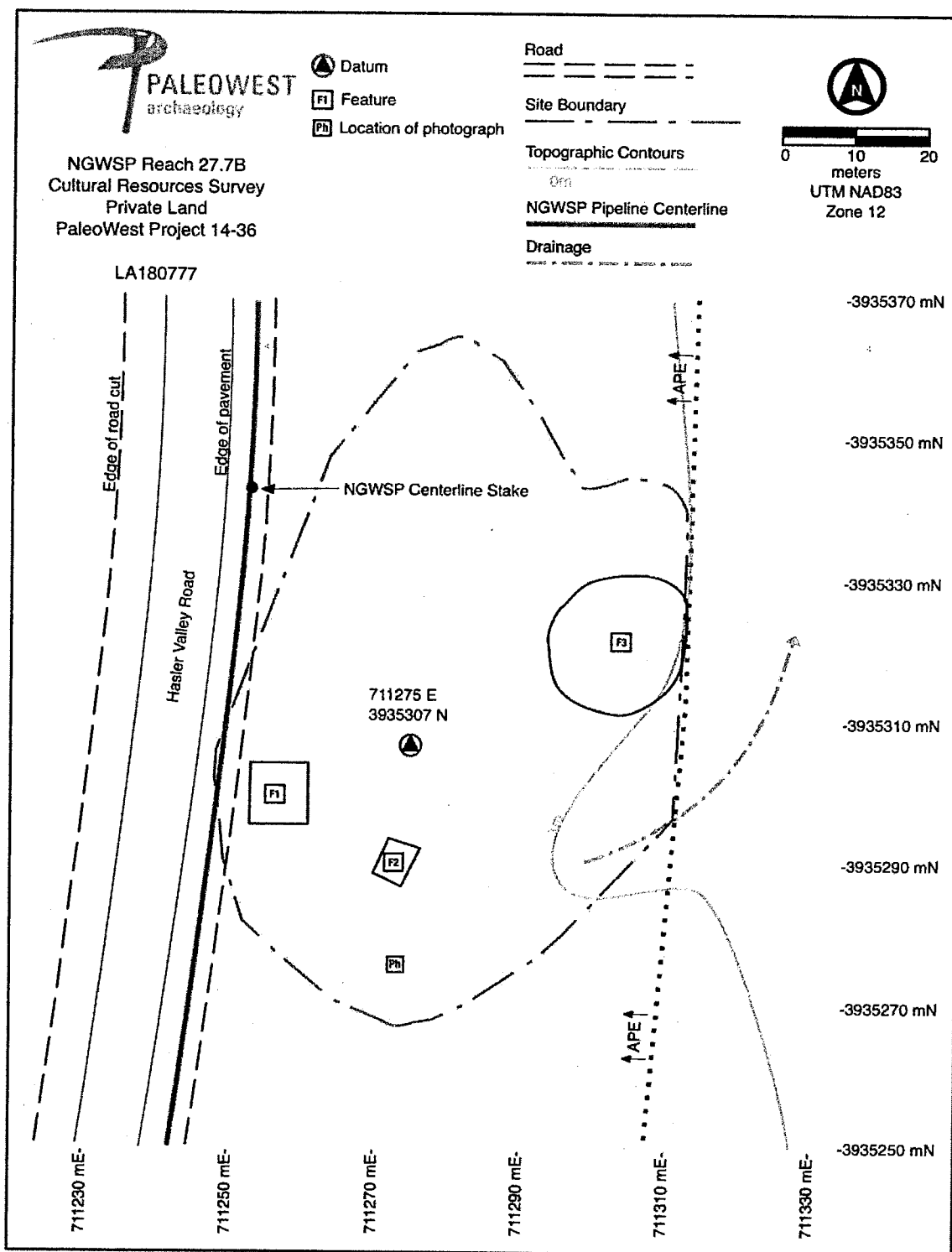


Figure 11. Map of site LA180777.

LA180778

Site Type: Prehistoric Structural

Cultural and Temporal Affiliation: Anasazi (A.D. 1100–1300)

NGWSP Reach: Reach 27.7B

UTM Easting/Northing (Zone 12N, NAD 83): 711335mE/3935884mN

Elevation: 6578 feet AMSL

Dimensions (Area): 67 × 96 m (4765 m²)

Legal Description: In Section 8, T15N, R17W on the USGS 7.5-minute Gallup East, New Mexico quadrangle, McKinley County, New Mexico

Site Description

The site consists of a possible Anasazi campsite containing a simple feature (Feature 1) exposed in the western cutbank of Hasler Valley Road and associated artifacts (Figure 12). It is located on a low hill, southwest of a major turn in the road, below an isolated juniper tree. An existing power line runs east-west across the south edge of the site.

Feature 1 is a small stain that consists of gray stained soil, small flecks of charcoal, and small pieces of oxidized sandstone. In profile, the feature measures 60 cm wide by 20 cm thick; the top of the feature is roughly 30 cm below the modern ground surface. Surrounding sediment consists of loose, reddish brown sand. Sediment within and surrounding the feature is somewhat compacted, possibly from heat exposure. One indented corrugated jar sherd is located immediately above the feature. The feature may represent a buried hearth or other thermal feature.

Other artifacts on the site include a brown chert tertiary flake in the road-cut south of the feature, and three sherds on the hilltop above the feature. The three sherds included two small white ware sherds with protruding sand temper and one indented corrugated sherd.

NRHP Eligibility Recommendation

PaleoWest recommends that the site is eligible for listing on the NRHP under Criterion D. The site retains integrity of materials and location. Subsurface cultural deposits associated with Feature 1 are present at the site and could yield important information about regional prehistory.

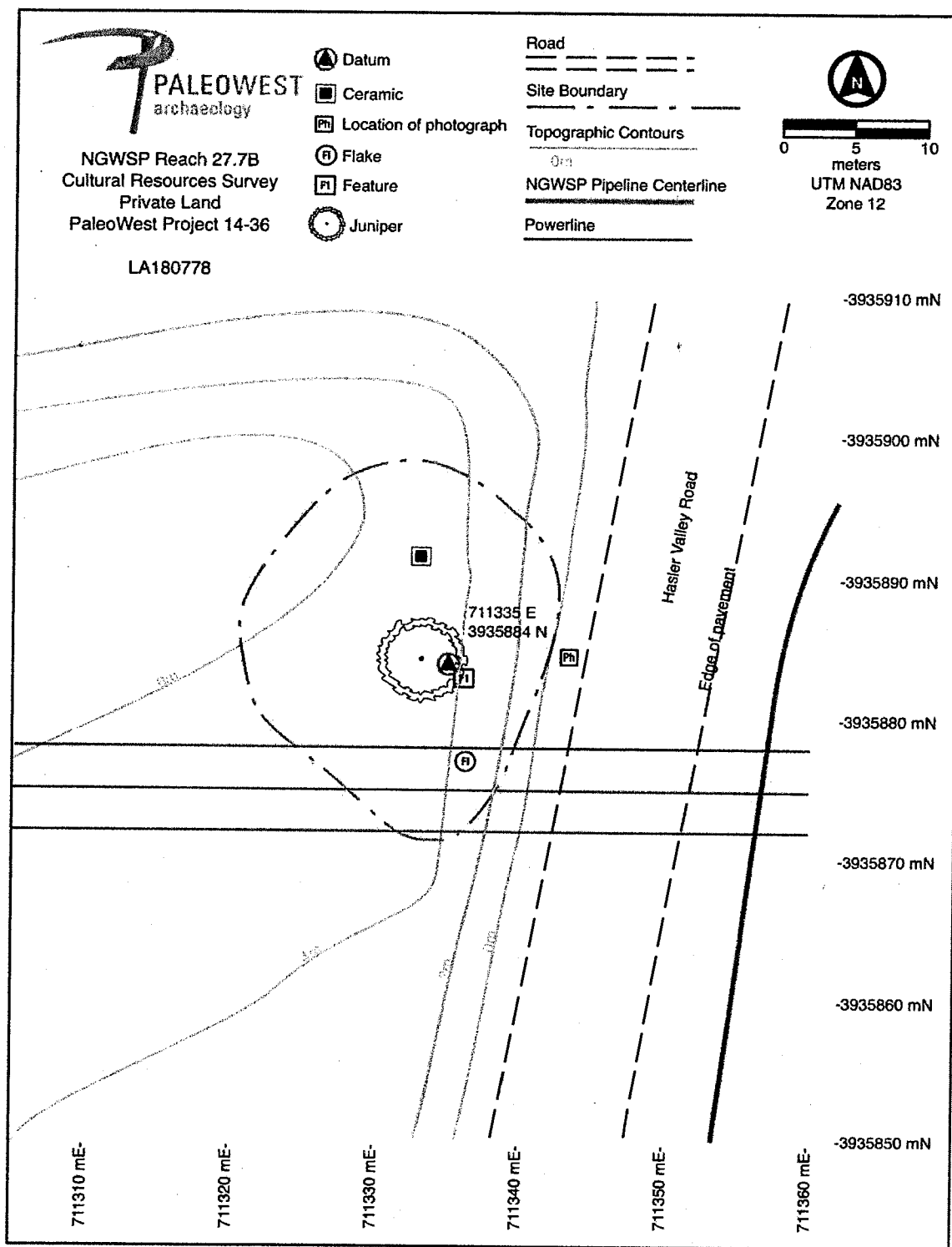


Figure 12. Map of site LA180778.

NM-Q-30-149

Site Type: Historic Structural

Cultural and Temporal Affiliation: Navajo (ca. 1940–1979)

NGWSP Reach: Reach 27.7B

UTM Easting/Northing (Zone 12N, NAD 83): 713041mE/3935943mN

Elevation: 6604 feet AMSL

Dimensions (Area): 128 × 133 m (486 m²)

Legal Description: In Section 9, T15N, R17W on the USGS 7.5-minute Gallup East, New Mexico quadrangle, McKinley County, New Mexico

Site Description

This is a Navajo ceremonial site consisting of several historic structures, some of which appear to have been cleared away by mechanical equipment (Figure 13). Two structures (possibly a hogan and ramada) appear within the site area on the 1979 Gallup East, New Mexico 7.5-minute USGS topographic quadrangle, but these are depicted in black, indicating they were originally depicted on the preceding 1963 map. The structures found at the locations of the structures depicted on the USGS map have been designated Features 1 and 2. Additionally, two small brush structures (Features 3 and 4), an ash dump containing trash (Feature 5), and a trash pile (Feature 6) were identified in the site area.

Feature 1 is located in the far northwest portion of the site and matches the location of a structure depicted on the USGS map. It is located in a mechanically cleared flat area and consists of a slight depression with the remains of a concrete pier. Scattered windshield glass and pieces of scrap metal are present in this area.

Feature 2 is located in the central site area and matches the location of a second structure on the USGS map. It is within a mechanically cleared area, but soil within the feature itself is slightly elevated, suggesting a small push pile. The feature consists of a 4-m-diameter area of slightly elevated soil with one large sandstone block, several pieces of plywood, scrap metal, and bottle glass. An Owens Illinois clear glass bottle base dating to 1960 is associated with the feature. Part of a cinderblock and a small strand of barbed wire are also in the feature vicinity.

Feature 3 is a small brush enclosure constructed of juniper branches and barbed wire. A single Gallup Brick Company brick is located in the center of the feature. The feature consists of upright juniper supports that stand up to roughly 1.5 m high, with some smaller branches still set in the crooks of the supports. A strand of barbed wire is located at the west edge of the feature. The feature itself measures roughly 5 m in diameter and may have served as a small lambing pen.

Feature 4 is the remains of a second small brush structure consisting of several collapsed juniper branches in a roughly 6-m-area. One upright juniper support with forked branches stands approximately 2 m tall at the west side of the feature. The handle of a fly swatter attached to a metal door latch is hung in a branch of this juniper support. The feature could represent another small enclosure or a possible windbreak shelter.

Features 5 and 6 (both piles of ash and trash) are located at the east side of the site. A smaller dozer push pile containing fewer artifacts is located between the two features and not designated as a feature. Feature 5 is elevated roughly 30 cm and measures roughly 7 m in diameter. It consists of ashy soil with charcoal and coal clinkers, numerous can fragments, clear and brown bottle glass, car seat springs, parts of two enamel bowls, a tire, butchered animal bone, and various other items. A brown glass Clorox bottle base and a clear glass Owens Illinois bottle base dating to 1960 are located within the feature. The feature may represent a clinker pile associated with the home site, possibly with additional trash pushed into it.

Feature 6 is a slightly elevated area of scattered trash south of Feature 5 and east of Feature 2 that measures roughly 10 m in diameter. It consists of butchered animal bone, bottle glass, can fragments, window glass, a few sandstone blocks, and at least one brick. A large rodent hole is present in the northwest edge of the feature. The feature is interpreted as a concentration of trash and construction material, probably representing a location where trash was pushed from other areas. A "SLOANS LINIMENT" bottle and a clear glass Owens Illinois bottle base dating earlier than 1954 are associated with the feature.

Nearby residents consulted for this project (Kelley et al. 2014) identified the site as a ceremonial grounds used by their extended family for ceremonies beginning ca. 1940 (TCP R27.7B-01). A sparse scatter of recent historic trash defines the rest of the site area. The trash on the site is generally similar to the items associated with Features 5 and 6 (see discussion above) and dates mostly to the 1950s and 1960s. Interviews indicate that the site was apparently in use from approximately 1940 through the 1950s, and diagnostic trash identified on the site suggests that it may have been used until the 1960s. According to the USGS map, Features 1 and 2 were still standing in 1979, but it is unclear when use of the site ceased and when the two buildings were dismantled.

NRHP Eligibility Recommendation

As a Navajo ceremonial site, this site qualifies as a TCP under the NHPA and National Register Bulletin 38. The site retains integrity of location, setting, and association. It is more than 50 years old and associated with personages significant in Navajo traditional history (Criterion B)—that is, the immortal beings who visited the site during ceremonies.

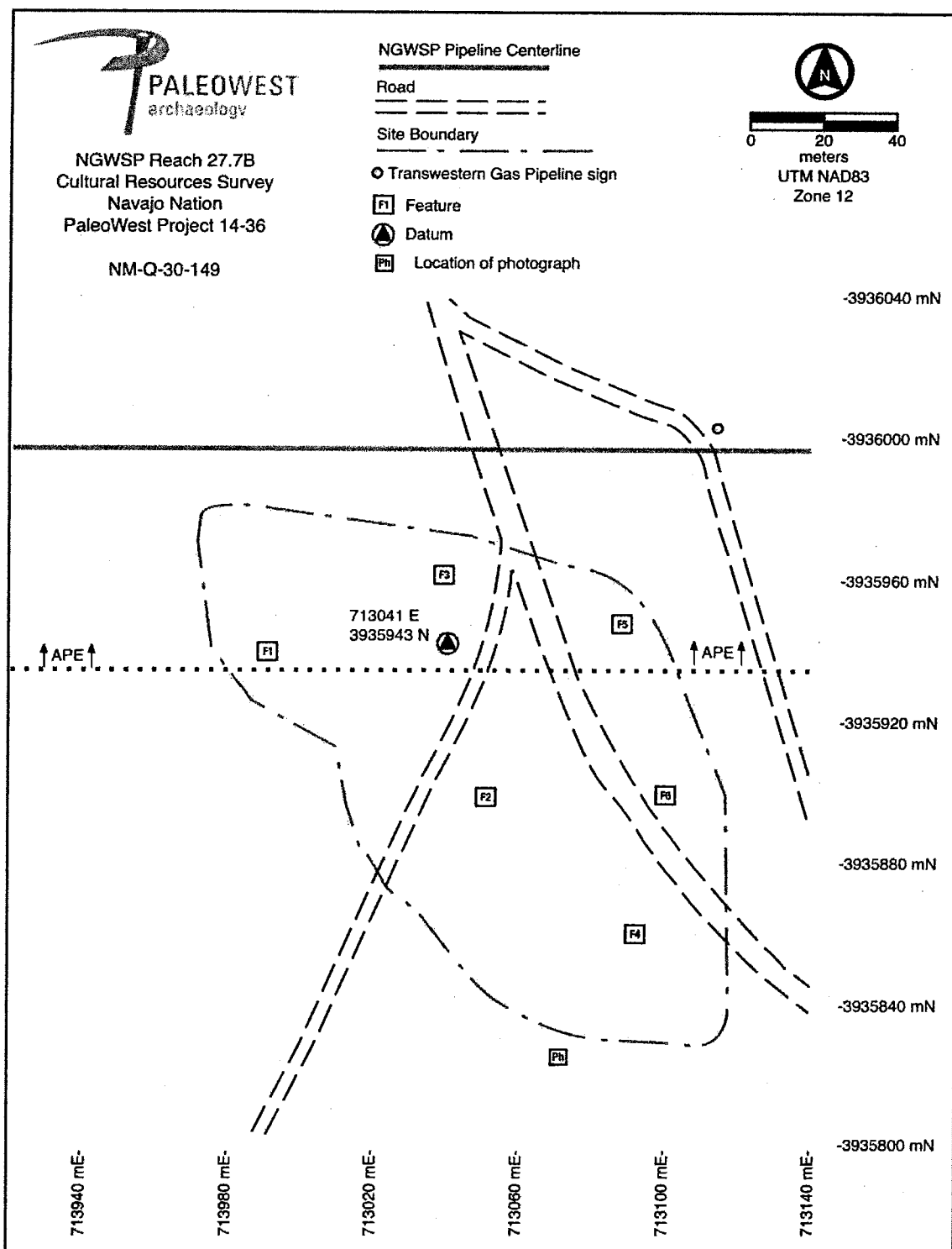


Figure 13. Map of site NM-Q-30-149.

NM-Q-30-150

Site Type: Historic Non-structural

Cultural and Temporal Affiliation: Navajo (A.D. 1945–present)

NGWSP Reach: Reach 27.7B

UTM Easting/Northing (Zone 12N, NAD 83): 712809mE/3935967mN

Elevation: 6607 feet AMSL

Dimensions (Area): 50 × 57 m (181 m²)

Legal Description: In Section 9, T15N, R17W on the USGS 7.5-minute Gallup East, New Mexico quadrangle, McKinley County, New Mexico

Site Description

The site consists of a recent historic can scatter, possibly dating to the 1960s. It is located in an open floodplain, east of an existing power line and two-track road (Figure 14).

Artifacts on the site include several pieces of scrap metal, including possible stove parts, a rubber wheel (possibly from a stroller), six sanitary food cans opened by rotary can opener, two internal friction steel cans, two all-steel 12-ounce churchkey-opened beverage containers, part of a possible lard bucket, a solder dot milk can, an aluminum tin (possibly a meat tin), approximately six steel can scraps, and at least two fragments of clear glass. The scatter appears to represent a limited number of trash-dumping episodes and to be limited to the surface. It does not appear to have potential for subsurface deposits.

NRHP Eligibility Recommendation

PaleoWest does not recommend that the site is eligible for listing on the NRHP under any criteria. The site retains integrity of materials and location only. It does not appear to have any subsurface cultural deposits or any potential to yield important information about regional history.

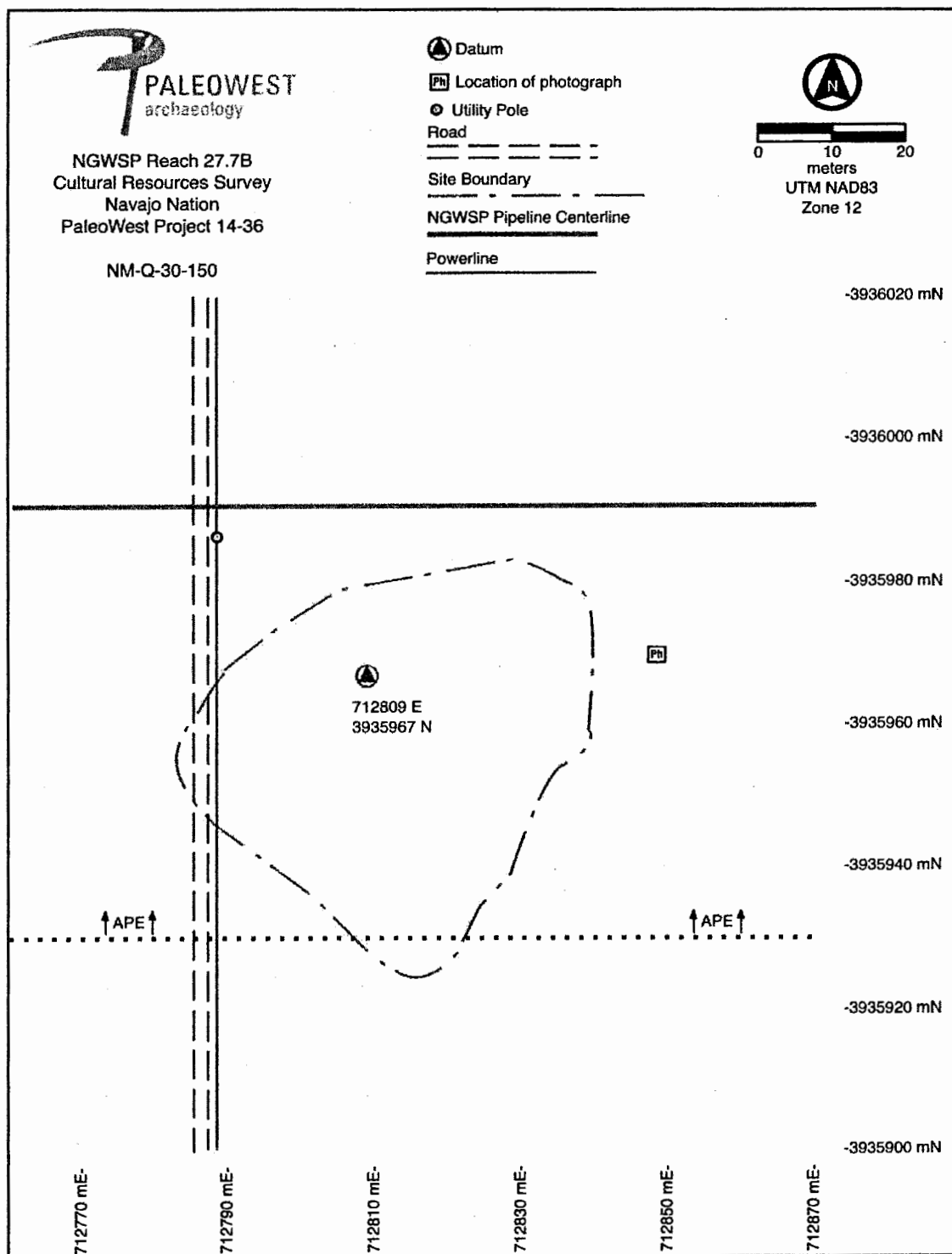


Figure 14. Map of site NM-Q-30-150.

RECOMMENDATIONS

NRHP RECOMMENDATION SUMMARY

During the Class III inventory PaleoWest identified 6 new archaeological sites, 2 previously recorded sites, and 11 IOs. By definition, the 11 IOs are considered not eligible to the NRHP. The data collected on these items has exhausted their data potential. Of the eight cultural resource sites, five are recommended eligible to the NRHP, and three are recommended as not eligible to the NRHP (Table 6).

Table 6. NRHP Recommendation Summary for Sites Recorded along Reach 27.7B

Site No.	Site Type	NRHP Recommendation
LA50404/NM-01-32473	Prehistoric Structural	Eligible
LA100196/NM-Q-30-17	Prehistoric/Historic Structural	Eligible
LA180775	Prehistoric Non-structural	Eligible
LA180776/NM-Q-30-151	Historic Structural	Not Eligible
LA180777	Historic Structural	Not Eligible
LA180778	Prehistoric Structural	Eligible
NM-Q-30-149	Historic Structural	Eligible
NM-Q-30-150	Historic Non-structural	Not Eligible

MANAGEMENT RECOMMENDATIONS

PaleoWest recommends no further work for the sites recommended as non-eligible to the NRHP or the IOs; they will not need to be avoided by the undertaking. The five sites that have been recommended as eligible to the NRHP merit protection from the direct and indirect effects of the proposed undertaking.

LA50404/NM-01-32473, a prehistoric site that has officially been determined eligible to the NRHP, is located just north of the currently proposed 120-foot ROW. However, it is on the opposite side of the Hasler Valley Road. The site will not be adversely impacted by Reach 27.7B construction if all ground disturbance is limited to the south side of Hasler Valley Road, as is currently planned. No fencing or monitoring is recommended.

LA100196/NM-Q-30-17, a multi-component site, is immediately north of the Reach 27.7B ROW. The site will be avoided by the ROW by approximately 10 m as currently designed, and the majority of cultural deposits (including the only feature defined at the site) are more than 100 m from the edge of the ROW. No fencing or monitoring is recommended.

LA180775, a prehistoric site, is located immediately south-southeast of the currently proposed 120-foot ROW. The centerline cannot be moved any further west-northwest without crossing Hasler Valley Road. The site will not be adversely impacted if construction is limited to the ROW. No adjustments to the Reach 27.7B centerline are recommended. However, given the

proximity of the site to the ROW, temporary fencing and monitoring 50 feet on either side of the site is recommended during construction (Figure 15).

LA180778, a prehistoric site, is immediately west of the Reach 27.7B ROW. However, it is on the opposite side of the Hasler Valley Road. The site will not be adversely impacted by Reach 27.7B construction if all ground disturbance is limited to the east side of Hasler Valley Road, as currently planned. No fencing or monitoring is recommended.

NM-Q-30-149, a historic site and TCP, is immediately south of the Reach 27.7B ROW. Avoidance of the site is possible by adjusting the centerline at least 23 feet to the north so that the ROW will be entirely outside of the site boundary (Figure 16). The site is recommended as eligible to the NRHP not because of the potential for buried deposits but because it is a ceremonial area. No fencing or monitoring is recommended.

MONITORING

Archaeological monitoring by an archaeologist with a current permit on file with the New Mexico BLM is recommended for site LA180775, which is on BLM land. This is in accordance with BLM Handbook 8100-1. An archaeological monitor will be able to protect, document, and/or mitigate adverse effects of construction to unanticipated buried cultural deposits if they are encountered. Because the site is within 10 feet of the ROW, temporary fencing (T-posts and orange safety fencing) along the edge of the ROW is recommended to prevent inadvertent disturbance to the site. The fencing will create a visual boundary during construction.

Sites that are outside of the ROW will not need to be monitored, because there is less potential for associated buried deposits to be present that far away from the last surface manifestation of the site. Construction will not extend beyond the ROW, and fencing is unnecessary as long as the construction is limited to the ROW.

In the event cultural discoveries are made on private land during Reach 27.7B construction, permission to conduct cultural resource investigations will be secured from the land owner prior to any further work. The New Mexico State Historic Preservation Office (SHPO) will be notified and consulted. All cultural materials (excluding human remains and/or associated funerary objects) recovered from private lands will be submitted to the land owner following testing and analysis, because these collections fall outside of regulations regarding disposition of material remains outlined in NMAC 4.10.8.19.

In the event that cultural discoveries are made on Navajo Nation lands, the NNHPD will be notified immediately and the *Guidelines for the Treatment of Discovery Situations* (NNHPD 2014) will be followed. Similarly, if discoveries are made on BLM lands, the appropriate BLM field office will be notified immediately.

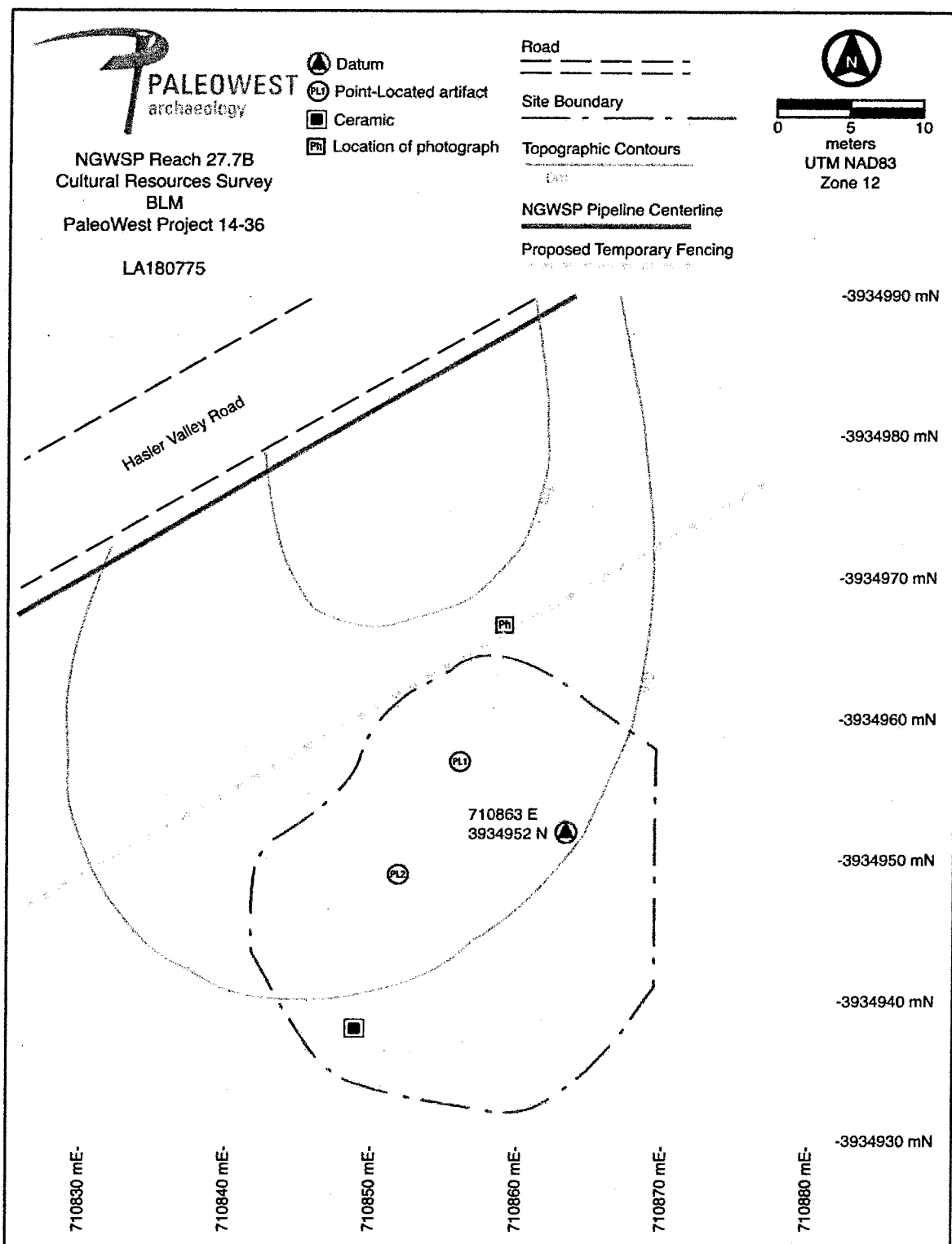


Figure 15. Map of site LA180775 showing proposed fencing during construction.

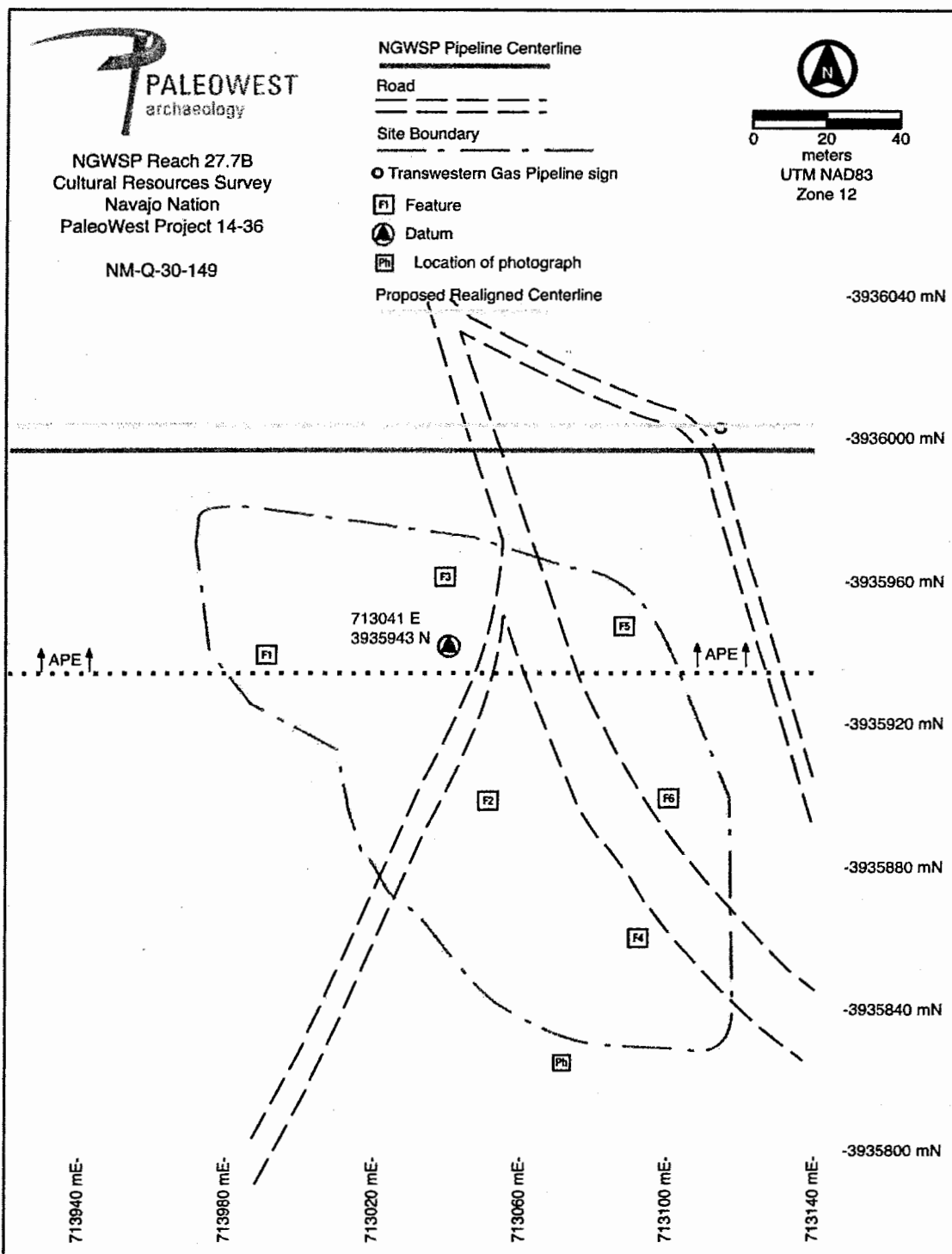


Figure 16. Map of site NM-Q-30-149.

If human remains are encountered, the protocols of NMAC 4.10.11 (NMAC 2008) and the NGWSP Native American Graves Protection and Repatriation Act Plan of Action (2012) will be followed. All construction work shall be stopped in the immediate area, and local law enforcement will be notified. Documentation of all funerary objects, material objects, or artifacts associated with a human burial will be provided to the SHPO and/or NNHPD. The documented burial and associated funerary objects, material objects, or artifacts will remain undisturbed after disposition is agreed upon after consultation with SHPO and/or the appropriate land managing agency.

SUMMARY

PaleoWest identified 6 new archaeological sites, revisited 2 previously recorded sites, and documented 11 historic and prehistoric IOs during the Class III inventory of Reach 27.7B of NGWSP. The location of site LA2696 plots within the footprint of an existing pipeline and was likely destroyed during its construction. All cultural resources were found within the survey areas associated with the linear portions of the Reach 27.7B pipeline.

PaleoWest recommends one or more components at five of the sites as eligible to the NRHP and three sites as not eligible to the NRHP (see Table 6). The 11 IOs are by definition not eligible to the NRHP. Additionally, three IUSs were located within the R27.7B ROW, including IUS7, IUS8, and IUS9. None of these sites are recommended as eligible to the NRHP, but construction will need to take into consideration impacts to these areas.

PaleoWest recommends no further work for the IOs or the sites recommended as not eligible for inclusion to the NRHP. All of the sites that have been recommended as eligible to the NRHP merit protection from the direct and indirect effects of the proposed undertaking. This can be achieved by adjustments to the centerline or temporary fencing and monitoring (Table 7).

Table 7. Management Recommendation Summary for all Reach 27.7B Cultural Resource Sites

Site No.	Recommendation	NRHP Recommendation
LA100196/ NM-Q-30-17	No adjustments to the Reach 27.7B because the site is avoided; no further work	Eligible
LA180775	No adjustments to the Reach 27.7B; fence and monitor during construction	Eligible
LA180776/ NM-Q-30-151	No adjustments to the Reach 27.7B centerline; no further work	Not Eligible
LA180777	No adjustments to the Reach 27.7B centerline; no further work	Not Eligible
LA180778	No adjustments to the Reach 27.7B; no further work	Eligible
LA50404/ NM-01-32473	No adjustments to the Reach 27.7B; no further work	Eligible
NM-Q-30-149	Re-align the Reach 27.7B centerline by at least 23 feet to the north to avoid the site	Eligible
NM-Q-30-150	No adjustments to the Reach 27.7B centerline; no further work	Not Eligible

In addition to these recommendations, Reclamation has funded PaleoWest to produce a historic context for all segments of Reach 27 to mitigate direct and indirect effects of construction to the historic landscape of the Gallup area. This historic context is in progress with a draft delivery scheduled for April 2015.

Implementation of the recommendations and restricting all ground-disturbing activity to the Reach 27.7B ROW will mitigate the adverse impacts of construction. Direct impacts to NRHP-eligible sites will be avoided.

REFERENCES CITED

Acklen, John C.

- 1982 Ceramics Analysis. In *Anasazi and Navajo Land Use in the McKinley Mine Area Near Gallup, Vol. 1: Archaeology*, edited by Christina G. Allen and Ben A. Nelson, pp. 578–596. Office of Contract Archaeology, University of New Mexico, Albuquerque.

Allen, Christina G., and Ben A. Nelson (editors)

- 1982 *Anasazi and Navajo Land Use in the McKinley Mine Area near Gallup, New Mexico, Vol. 1: Archaeology*. Office of Contract Archaeology, University of New Mexico, Albuquerque.

Amick, Daniel S.

- 1996 Regional Patterns of Folsom Mobility and Land Use in the American Southwest. *World Archaeology* 27(3):411–426.

Anschuetz, Kurt F., and Cherie L Scheick

- 2002 Cultural Environment. In *Cultural Dynamics and Landscape Use: Pueblo II and III Occupation of the McKinley Mine South Lease. Part I: Background and Description*, edited by Cherie L. Scheick, pp. 3.1–3.44. Research Series 347. Southwest Archaeological Consultants, Inc., Santa Fe.

Bailey, Garrick, A., and Roberta Glenn Bailey

- 1983 Ethnographic and Ethnohistoric Notes Concerning the Gallegos Mesa Navajo with Special Emphasis on Those Families Living on Block III of the Navajo Indian Irrigation Project. In *Human Adaptation and Cultural Change: The Archaeology of Block III, N. I.I. P.*, edited by Lawrence E. Vogler, pp 1961–1926, Navajo Nation Papers in Anthropology No. 15, Navajo Nation Cultural Resource Management Program, Window Rock, Arizona.

Ballenger, Jesse A. M., Vance T. Holliday, Andrew L. Kowler, William T. Reitze, Mary M. Prasciunas, D. Shane Miller, and Jason D. Windingstad

- 2011 Evidence for Younger Dryas Global Climate Oscillation and Human Response in the American Southwest. *Quaternary International* 242(2):502–519.

Beck, Charlotte, and George T. Jones

- 2010 Clovis and Western Stemmed: Population Migration and the Meeting of Two Technologies in the Intermountain West. *American Antiquity* 75(1):81–116.

Brugge, David M.

- 1972 *The Navajo Exodus*. Supplement No. 4. Archaeological Society of New Mexico, Albuquerque.

Cameron, Catherine

- 2001 Pink Chert, Projectile Points, and the Chacoan Regional System. *American Antiquity* 66:79–102.

- Cameron, Cathy, and Andrew I. Duff
2008 History and Process in Village Formation: Context and Contrasts from the Northern Southwest. *American Antiquity* 73(1):29–57.
- Cordell, Linda S.
1982 An Overview of Prehistory in the McKinley Mine Area. In *Anasazi and Navajo Land Use in the McKinley Mine Area Near Gallup, Vol. 1: Archaeology*, edited by Christina G. Allen and Ben A. Nelson, pp. 75–120. Office of Contract Archaeology, University of New Mexico, Albuquerque.
- Cordell, Linda S., and Maxine E. McBrinn
2012 *Archaeology of the Southwest*. 3rd Edition. Left Coast Press, Walnut Creek, California.
- Danson, E. B.
1961 Early Man Points from the Vicinity of Sanders, Arizona. *Plateau* 34(2):67–68.
- Dillinger, J.K.
1990 Geologic Map and Structure Contours Map of the Gallup 30' × 60' Quadrangle, McKinley County, New Mexico. U.S. Geological Survey, Miscellaneous Investigations Series Map I-2009, scale 1:100,000.
- Earle, T.
2001 Economic Support of Chaco Canyon Society. *American Antiquity* 66(1):26–35.
- Gilpin, Dennis, and Larry Benallie, Jr.
2000 Juniper Cove and Early Anasazi Community Structure West of the Chuska Mountains. In *The Foundations of Anasazi Culture: The Basketmaker-Pueblo Transition*, edited by Paul F. Reed, pp. 161–173. University of Utah Press, Salt Lake City.
- Gilpin, Dennis and Linda Thompson
2013 *A Class I Archaeological Inventory of the Navajo-Gallup Water Supply Project*. Prepared for the U.S. Bureau of Reclamation, Contract No. R11PC40008. PaleoWest Archaeology Report No. 12-14. PaleoWest Archaeology, Farmington, New Mexico.
- Gunnerson, Dolores A.
1974 *The Jicarilla Apaches: A Study in Survival*. Northern Illinois University, DeKalb, Illinois.
- Hewett, Nancy S.
1982 A Review of the Literature Concerning the Geology and Hydrology in the Vicinity of the Gallup Basin, New Mexico. In *Anasazi and Navajo Land Use in the McKinley Mine Area Near Gallup, Vol. 1: Archaeology*, edited by Christina G. Allen and Ben A. Nelson, pp. 22–47. Office of Contract Archaeology, University of New Mexico, Albuquerque.

Huckell, Bruce B.

- 1996 The Archaic Prehistory of the North American Southwest. *Journal of World Prehistory* 10(3):305-373.

Irwin-Williams, C.

- 1973 *The Oshara Tradition: Origins of Anasazi Culture*. Contributions in Anthropology Vol. 5(1). Eastern New Mexico University, Portales.

Judd, Neil M.

- 1954 *The Material Culture of Pueblo Bonito*. Smithsonian Institution, Washington D.C.

Judge, James W.

- 1982 The Paleo-indian and Basketmaker Periods: An Overview and Some Research Problems. In *The San Juan Tomorrow: Planning for the Conservation of Cultural Resources in the San Juan Basin*, edited by F. Plog and Walter Wait, pp. 5-57. U.S. Department of the Interior National Park Service, and School of American Research, Santa Fe.

Kelley, Klara, and Peter Whiteley

- 1982 Navajo History and Land Use: A Summary of the Historical and Ethnographic Literature. In *Anasazi and Navajo Land Use in the McKinley Mine Area near Gallup, New Mexico*, Vol. 2: *Ethnohistory*, by Klara B. Kelley, pp. 1-128. Office of Contract Archaeology, University of New Mexico, Albuquerque.

Kelley, Klara B., Stephen G. Lent, John C. Acklen, and Jeffery L. Boyer

- 1982 Analysis of Data from the Navajo Site Reports. In *Anasazi and Navajo Land Use in the McKinley Mine Area near Gallup, New Mexico*, Vol. 1: *Archaeology*, edited by Christina G. Allen and Ben A. Nelson, pp. 413-446. Office of Contract Archaeology, University of New Mexico, Albuquerque.

Kohler, Timothy A., and Charles Reed

- 2011 Explaining the Structure and Timing of Formation of Pueblo I Villages in the Northern U.S. Southwest. In *Sustainable Lifeways: Cultural Persistence in an Ever-changing Environment*, edited by N. Miller, K. Moore, and K. Ryan, pp. 150-179. University of Pennsylvania Press, Philadelphia.

Kohler, Timothy A., Matt Pier Glaude, Jean-Pierre Bocquet-Appel, and Brian M. Kemp

- 2008 The Neolithic Demographic Transition in the U.S. Southwest. *American Antiquity* 73(4):645-669.

Levy, Jerrold E.

- 1998 *In the Beginning: The Navajo Genesis*. University of California Press, Berkeley.

Lightfoot, Ricky R.

- 1994 *The Duckfoot Site, Vol. 2: Archaeology of the House and Household*. Occasional Papers No. 2. Crow Canyon Archaeological Center, Cortez, Colorado.
- Lipe, William D., and Michelle Hegmon (editors)
- 1989 *The Architecture of Social Integration in Prehistoric Pueblos*. Occasional Papers No. 1. Crow Canyon Archaeological Center, Cortez, Colorado.
- Natural Resources Conservation Service
- 2014 *Web Soil Survey*. Available at: <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>. Accessed May 2014.
- Matson, R. G.
- 1991 *The Origins of Southwestern Agriculture*. University of Arizona Press, Tucson.
- New Mexico Archaeological Council (NMAC)
- 2005a *Standards for Survey and Inventory*. New Mexico Register, Volume XVI, Number 15, NMAC 4.10.15. New Mexico State Historic Preservation Division, Santa Fe, New Mexico.
- 2005b *Standards for Monitoring of Cultural Properties and Historic Preservation*. New Mexico Register, Volume XVI, Number 15, NMAC 4.10.17. New Mexico State Historic Preservation Division, Santa Fe, New Mexico.
- 2008 *Issuance of Permits for Excavation of Unmarked Human Graves in New Mexico*. New Mexico Register, Volume XVI, Number 15, NMAC 4.10.11. New Mexico State Historic Preservation Division, Santa Fe, New Mexico. Amended 2008.
- Nickelson, Howard B.
- 1988 *One hundred Years of Coal Mining in the San Juan Basin, New Mexico*. New Mexico Bureau of Mines and Mineral Resources. Bulletin 111. New Mexico Institute of Mining and Technology, Socorro, New Mexico.
- Navajo Nation Historic Preservation Department
- 2014 *NNHPD Permit Package 2014: Fieldwork and Reporting Guidelines*. Navajo Nation Historic Preservation Department, Cultural Resource Compliance Section, Window Rock, Arizona.
- Olson, A. P.
- 1964 An Unfinished Clovis Point from Houck, Arizona. *Plateau* 36(4):123–124.
- Parker, Patricia L. and Thomas F. King
- 1990 National Register Bulletin Number 38: *Guidelines for the Evaluation and Documentation of Traditional Cultural Properties*. National Park Service, United States Department of the Interior. Washington, D.C.

Potter, James M., Dennis Gilpin, and Jason Chuipka

- 2013 *Navajo-Gallup Water Supply Project Archaeological Research and Sampling Design*. Prepared for the Bureau of Reclamation, Western Colorado Area Office, Durango Field Office. Technical Report No. 12-06. PaleoWest Archaeology, Farmington, New Mexico.

Powell, Gina, and Kurt F. Anschuetz

- 2002 Project Area Natural Environment and Cultural-Ecological Considerations. In *Cultural Dynamics and Landscape Use: Pueblo II and III Occupation of the McKinley Mine South Lease*, edited by Cherie L. Scheick. Southwest Archaeological Consultants, Inc., Santa Fe.

Reed, Paul F. (editor)

- 2000 *Foundations of Anasazi Culture: The Basketmaker-Pueblo Transition*. University of Utah Press, Salt Lake City.

Schachner, Gregson

- 2001 Ritual Control and Transformation in Middle-Range Societies: An Example from the American Southwest. *Journal of Anthropological Archaeology* 20(2):168-194.

Scheick, Cherie

- 1983a A Cultural Overview of the Gamerco Lease Area. In *The Gamerco Project: Flexibility as an Adaptive Response*, edited by Cherie Scheick, pp. 13-52. Report No. 071. School of American Research, Santa Fe.
- 1983b The Economic and Social Impacts of the Coal Mining Industry on the Study Area. In *The Gamerco Project: Flexibility as an Adaptive Response*, edited by Cherie Scheick, pp. 643-646. Report No. 071. School of American Research, Santa Fe.

Scheick, Cherie (compiler)

- 1983c *The Gamerco Project: Flexibility as an Adaptive Response*. Report No. 071. School of American Research, Santa Fe.

Sebastian, Lynne

- 1992 *The Chaco Anasazi: Sociopolitical Evolution in the Prehistoric Southwest*. Cambridge University Press, Cambridge.

Simmons, Alan H.

- 1986 New Evidence for the Early Use of Cultigens in the American Southwest. *American Antiquity* 51(1):73-89.

Tainter, Joseph A., and David A. Gillio

- 1980 *Cultural Resources Overview Mt. Taylor Area, New Mexico*. USDA Forest Service, Southwest Region, Albuquerque, New Mexico and Bureau of Land Management, New Mexico State Office, Santa Fe, New Mexico.

Toll, H. Wolcott

- 2001 Making and Breaking Pots in the Chaco World. *American Antiquity* 66(1):56–78.
- Vierra, Bradley J.
- 2008 Early Agriculture on the Southeastern Periphery of the Colorado Plateau. In *Archaeology Without Borders: Contact, Commerce, and Change in the U.S. Southwest and Northwestern Mexico*, edited by Laurie D. Webster and Maxine E. McBrinn. University of Colorado Press, Boulder.
- 2011 Foraging Societies in an Arid Environment: Coping with Change in the Greater Southwest. In *Movement, Connectivity, and Landscape Change in the Ancient Southwest*, edited by Margaret C. Nelson and Colleen Strawhacker, pp. 25–44. University of Colorado Press, Boulder.
- Vierra, Bradley J., Margaret A. Jodry, M. Steven Shackley, and Michael J. Dilley
- 2012 Late Paleoindian and Early Archaic Foragers in the Northern Southwest. In *From the Pleistocene to the Holocene: Human Organization and Cultural Transformations in Prehistoric North America*, edited by C. Britt Bousman and Bradley Jay Vierra, pp. 171–196. Texas A & M University Press, College Station.
- Wills, W. H.
- 1988 Early Agriculture and Sedentism in the American Southwest: Evidence and Interpretations. *Journal of World Prehistory* 2(4): 445–488.
- Wills, W. H., and Thomas C. Windes
- 1989 Evidence for Population Aggregation and Dispersal during the Basketmaker III Period in Chaco Canyon, New Mexico. *American Antiquity* 54(2):347–369.
- Wilshusen, Richard H.
- 1999 Pueblo I (A.D. 750–900). In *Colorado Prehistory: A Context for the Southern Colorado Drainage Basin*, edited by William D. Lipe, Mark D. Varien, and Richard H. Wilshusen, pp. 196–241. University of Utah Press, Salt Lake City.
- Wilshusen, Richard H., and Elizabeth M. Perry
- 2008 Evaluating the Emergence of Early Villages in the North American Southwest in Light of the Proposed Neolithic Demographic Transition. In *The Neolithic Demographic Transition and Its Consequences*, edited by Jean-Pierre Bocquet-Appel and Ofer Bar-Yosef, pp. 417–438. Springer, Berlin.
- Wilshusen, Richard H., and Ruth Van Dyke
- 2006 Chaco's Beginnings: The Collapse of Pueblo I Villages and the Origins of the Chaco System. In *The Archaeology of Chaco Canyon: An 11th Century Pueblo Regional Center*, edited by Stephen H. Lekson, pp. 211–259. School of American Research Press, Santa Fe.
- Yoffee, N.

- 2001 The Chaco "Rituality" Revisited. In *Chaco Society and Polity: Papers from the 1999 Conference*, edited by L. S. Cordell, W. J. Judge and J. Piper, pp. 63-78. New Mexico Archeological Council Special Publication 4. New Mexico Archeological Council, Albuquerque.

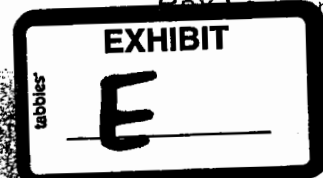
Zolbrod, Paul

- 1984 *Dine Bahane: The Navajo Creation Story*. University of New Mexico Press, Albuquerque.



CHURCHROCK CHAPTER

P.O. Box 549 * CHURCHROCK, NEW MEXICO 87311
Phone: (505) 905-5949 * Fax: (505) 905-6561
Email: Churchrock@navajochapters.org
www.churchrock.nndes.org



Johnnie Henry Jr., PRESIDENT
Vacant, VICE-PRESIDENT
Louise Jim, SECRETARY/TREASURER
Emery Choe, LAND BOARD MEMBER

Edmund Yazzie, COUNCIL DELEGATE
Sherman Woody, CLUPC PRESIDENT
Raymond James, VETERAN COMMANDER
Dolly Pine, SENIOR COUNCIL PRESIDENT

Vacant, COMMUNITY SERVICES COORDINATOR

Deanna Washee, OFFICE SPECIALIST

RESOLUTION OF THE CHURCHROCK CHAPTER
RESOLUTION NO. CRC-110620-B

SUPPORTING THE DESIGN AND CONSTRUCTION OF THE NAVAJO-GALLUP WATER SUPPLY PROJECT

WHEREAS

1. Pursuant to Sections 1.B and 2.22 of the Navajo Local Governance Act, the Churchrock Chapter is established to make decisions about local government matters, to conduct local government operations and to provide for the general health, safety and welfare of its membership; and
2. Pursuant to Resolution No. CAP-34-98, the Navajo Nation Council adopted the Navajo Nation Local Governance Act (LGA), Title 26 of the Navajo Nation Code; and
3. Public Law 111-11 Section 10601, authorized the Secretary of Interior, acting through the commissioner of Reclamation to design and construct the Navajo-Gallup Water Supply Project; and
4. The Churchrock Chapter is one of the 43 Chapters identified to be served by the proposed water supply project; and
5. The Bureau of Reclamation is currently designing and preparing to begin construction of the Navajo-Gallup Water Supply Project.

NOW THEREFORE BE IT RESOLVED THAT

1. The Churchrock Chapter fully supports the design, construction, and implementation of the Navajo-Gallup water supply Project; and the project is in the best interest of the Churchrock Chapter and the Navajo Nation; and
2. The Churchrock Chapter recognizes that the Project Participants, including the Navajo Nation, shall provide all land or interest in land, as appropriate, at no cost (P.L. 111-11 Section 10602 (c) (2); and
3. The Churchrock Chapter will work cooperatively with the Navajo Nation, the Bureau of Reclamation and its agents to obtain and all required approvals.

CERTIFICATION

We, the undersigned, hereby certify that the forgoing resolution was duly considered by Churchrock Chapter at a duly called meeting at Churchrock Chapter (Navajo Nation), New Mexico at which a quorum was present and it was approved by a vote of 34 in favor 00 opposed 00 abstained on the 20th of June 2011.

Motion by:

Julie Livingston

Seconded by:

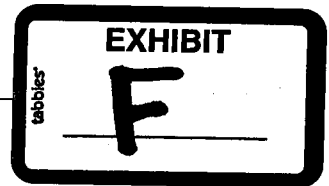
Herbert Benally

Johnnie Henry Jr., President

Louise Jim, Secretary/Treasurer

Document No. 008511

Date Issued: _____



EXECUTIVE OFFICIAL REVIEW

Title of Document: COG/NGWSP Reach 27.7B ROW

Contact Name: YAZZIE, ELERINA B

Program/Division: DIVISION OF NATURAL RESOURCES

Email: michellehoskie@frontier.com

Phone Number: 928-871-6447

<input type="checkbox"/>	Business Site Lease			Sufficient	Insufficient
	1. Division:	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>
	2. Office of the Controller:	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>
	(only if Procurement Clearance is not issued within 30 days of the initiation of the E.O. review)				
	3. Office of the Attorney General:	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>
 	Business and Industrial Development Financing, Veteran Loans, (i.e. Loan, Loan Guarantee and Investment) or Delegation of Approving and/or Management Authority of Leasing transactions				
	1. Division:	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>
	2. Office of the Attorney General:	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>
 	Fund Management Plan, Expenditure Plans, Carry Over Requests, Budget Modifications				
	1. Office of Management and Budget:	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>
	2. Office of the Controller:	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>
	3. Office of the Attorney General:	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>
 	Navajo Housing Authority Request for Release of Funds				
	1. NNEPA:	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>
	2. Office of the Attorney General:	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>
 	Lease Purchase Agreements				
	1. Office of the Controller:	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>
	(recommendation only)				
	2. Office of the Attorney General:	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>
 	Grant Applications				
	1. Office of Management and Budget:	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>
	2. Office of the Controller:	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>
	3. Office of the Attorney General:	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>
 	Five Management Plan of the Local Governance Act, Delegation of an Approving Authority from a Standing Committee, Local Ordinances (Local Government Units), or Plans of Operation/Division Policies Requiring Committee Approval				
	1. Division:	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>
	2. Office of the Attorney General:	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>
 	Relinquishment of Navajo Membership				
	1. Land Department:	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>
	2. Elections:	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>
	3. Office of the Attorney General:	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>

☐ **Land Withdrawal or Relinquishment for Commercial Purposes**

Sufficient Insufficient

1. Division: _____ Date: _____ ☐ ☐
2. Office of the Attorney General: _____ Date: _____ ☐ ☐

☐ **Land Withdrawals for Non-Commercial Purposes, General Land Leases and Resource Leases**

1. NLD _____ Date: _____ ☐ ☐
2. F&W _____ Date: _____ ☐ ☐
3. HPD _____ Date: _____ ☐ ☐
4. Minerals _____ Date: _____ ☐ ☐
5. NNEPA _____ Date: _____ ☐ ☐
6. DNR _____ Date: _____ ☐ ☐
7. DOJ _____ Date: _____ ☐ ☐

☐ **Rights of Way**

1. NLD _____ Date: _____ ☐ ☐
2. F&W _____ Date: _____ ☐ ☐
3. HPD _____ Date: _____ ☐ ☐
4. Minerals _____ Date: _____ ☐ ☐
5. NNEPA _____ Date: _____ ☐ ☐
6. Office of the Attorney General: _____ Date: _____ ☐ ☐
7. OPVP _____ Date: _____ ☐ ☐

☐ **Oil and Gas Prospecting Permits, Drilling and Exploration Permits, Mining Permit, Mining Lease**

1. Minerals _____ Date: _____ ☐ ☐
2. OPVP _____ Date: _____ ☐ ☐
3. NLD _____ Date: _____ ☐ ☐

☐ **Assignment of Mineral Lease**


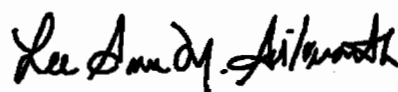


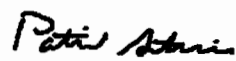
1. Minerals _____ Date: _____ ☐ ☐
2. DNR _____ Date: _____ ☐ ☐
3. DOJ _____ Date: _____ ☐ ☐

☒ **ROW (where there has been no delegation of authority to the Navajo Land Department to grant the Nation's consent to a ROW)**

1. NLD _____ Date: _____ ☐ ☐
2. F&W _____ Date: _____ ☐ ☐
3. HPD _____ Date: _____ ☐ ☐
4. Minerals _____ Date: _____ ☐ ☐
5. NNEPA _____ Date: _____ ☐ ☐
6. DNR _____ Date: _____ ☐ ☐
7. DOJ (ic) ✓ B. Khat Date: 2/8/18 ☒ ☐
8. OPVP _____ Date: 2/14/18 ☒ ☐

☐ **OTHER:**

1. _____ Date: _____ ☐ ☐
2. _____ Date: _____ ☐ ☐
3. _____ Date: _____ ☐ ☐
4. _____ Date: _____ ☐ ☐
5. _____ Date: _____ ☐ ☐

User Name (Facility)	Job Title	Department	Vote Cast	Comments	Replies	Vote Date	Signature
Eugenia Quintana EPA (Navajo Land Title Data System - Windowrock AZ)	Air and Toxics - Reviewer	Navajo Nation Environmental Protection Agency	Approved	no comments	No Reply	11-Aug-2017	
Lee Anna Martinez EPA (Navajo Land Title Data System - Windowrock AZ)	Water Quality - Reviewer	Navajo Nation Environmental Protection Agency	Approved 1.	1. Please consult with our office should your project impact any waterway, ephemeral or perennial. A Clean Water Act Section 401 404 may be needed. It is strongly encouraged to discuss the proposed project with our office. You may contact our office at (928) 871-7690. Thank you.	1. No Reply	20-Oct-2017	
Najamh Tariq (Navajo Land Title Data System - Windowrock AZ)	Approver	Department of Water Resources	Approved	no comments	No Reply	29-Nov-2017	
Pam Kyselka F&W (Navajo Land Title Data System - Windowrock AZ)	Technical Review	Fish and Wildlife	Approved 1.	1. #14SWCA-01-27.7B	1. No Reply	09-Aug-2017	
Pam Maples EPA (Navajo Land Title Data System - Windowrock AZ)	Storage Tanks Program - Reviewer	Navajo Nation Environmental Protection Agency	Approved	no comments	No Reply	15-Aug-2017	
Patrick Antonio (Navajo Land Title Data System - Windowrock AZ)	Water Quality - Supervisor	Navajo Nation Environmental Protection Agency	Approved 1.	1. The final EIS for the overall project indicated each reach will comply with the federal Construction General Permit for storm water discharges	1. No Reply	10-Aug-2017	

from
construction
activities.

Robert Allan Deputy
DNR Director DNR
(Navajo Land DNR
Title Data
System -
Windowrock
AZ)

Approved 1. CONDITIONAL: 1. No 31-Aug-2017
Add Navajo
Nation Terms
and Conditions.

Robert O. Allan

Tamara Billie HPD
NNHP Reviewer Historic
(Navajo Land Preservation
Title Data Department
System -
Windowrock
AZ)


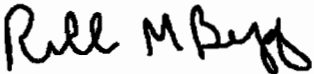
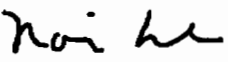
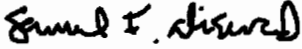

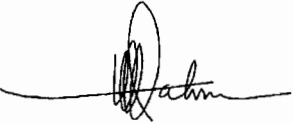
Approved 1. Please adhere 1. No 10-Aug-2017
to stipulations
outlined in the
correspondence
letter dated
November 2,
2016. Ref.
HPD-16-929

Tamara Billie

Yolanda Public
Barney EPA Water Navajo Nation
(Navajo Land System Environmental
Title Data Supervision Agency
System - Program
Windowrock
AZ)

Approved 1. Please see 1. No 24-Oct-2017
attached
memo
approving
this project.

Yolanda

User Name (Facility)	Job Title	Department	Vote Cast	Comments	Replies	Vote Date	Signature
Bidtah N. Becker (FBFA)	FBFA Users	FBFA Action Team	Approved	no comments	No Reply	26-Dec-2017	
Richard Begay (Navajo Land Title Data System - Windowrock AZ)	Navajo Nation Historic Preservation Officer	Historic Preservation Department	Approved	no comments	No Reply	18-Dec-2017	
Ronnie Ben EPA (Navajo Land Title Data System - Windowrock AZ)	Underground Injection Reviewer	Navajo Nation Environmental Protection Agency	Approved	1. Conditional Approval granted and is contingent on compliance with all NNEPA and US EPA environmental laws.	1. No Reply	30-Nov-2017	
Sam Diswood (Navajo Land Title Data System - Windowrock AZ)	Technical Review	Fish and Wildlife	Approved	no comments	No Reply	29-Nov-2017	
Steven Prince (Navajo Land Title Data System - Windowrock AZ)	Technical Reviewer	Navajo Nation Minerals Management	Approved	1. Please permanently attach the uploaded Terms and Conditions document to the approval package. slp	1. No Reply	04-Dec-2017	
W. Mike Halona (Navajo Land Title Data System - Windowrock AZ)	Manager III Navajo Land Department	NLD Administration	Approved	no comments	No Reply	29-Nov-2017	



NAVAJO NATION DEPARTMENT OF JUSTICE

DOCUMENT REVIEW REQUEST FORM



DOJ	
02-02-18	324p
DATE / TIME	
<input type="checkbox"/> 7 Day Deadline	
DOC #:	008511 #2
SAS #:	
UNIT:	Nm

☒ RESUBMITTAL
(Jawwils)

*** FOR NNDJ USE ONLY - DO NOT CHANGE OR REVISE FORM. VARIATIONS OF THIS FORM WILL NOT BE ACCEPTED. ***

CLIENT TO COMPLETE

DATE OF REQUEST:	2/2/2018	DIVISION:	Division Natural Resources
CONTACT NAME:	Michelle Hoskie or Stevie Hudson	DEPARTMENT:	General Land Development Department
PHONE NUMBER:	871-6447 or 6401	E-MAIL:	michellehoskie@frontier.com

TITLE OF DOCUMENT: CITY OF GALLUP/NAVAJO GALLUP WATER SUPPLY PROJECT - REACH 27.7B

DOJ SECRETARY TO COMPLETE

DATE/TIME IN UNIT:	2.2.16 430p	REVIEWING ATTORNEY/ADVOCATE:	Irvin Chee 2.13.18
DATE TIME OUT OF UNIT:	2.9.18 1:50p		

DOJ ATTORNEY / ADVOCATE COMMENTS

- Document is now legally sufficient after the right T3C was attached along with Field Clearance Certification Checklist also being attached by the DGC

REVIEWED BY: (Print)	Date / Time	SURNAMED BY: (Print)	Date / Time
PRIME CHAIR	2/7/18	Blackhart	2/8/18 4:12pm

DOJ Secretary Called: Michelle for Document Pick Up on 2.9.18 at 145 By: B

PICKED UP BY: (Print)

DATE / TIME:

NNDJ/DRRF-July 2013

COMPLETED

✓ member which indicates that all of the grazing permittees surrounding the proposed project area had been identified by the DGC member.

Rx. → file

3-6-18

- These documents
are to be given to
Irvine Lee of
DOT.

- Marianne Kahn

3-8-18

- Documents was retrieved by me on 3-7-18.
- These documents/Packet are to be given to
Steve of GLAD Office to make copies
to make another set of the documents for
another packet & another Doc.#. E.g., Doc.
#008511A since this packet is Doc.#:008511.
- This request for Correction/Amendment is by Marianne
Kahn.
- If you have any questions, please
call me at 928/801-6222.

Thx - Irvine/DOT

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 Project - Reach 27.7B

DESCRIPTION: The USBR proposes the construction of a waterline that will connect Reaches 14.1, 14.2, 14.3, and 14.4 to the Church Rock, Iyanbito, Pinedale, and Mariano Lake Chapters. The length of the proposed waterline is unknown and not documented in the BE; however, water pipeline construction would require 10 ft. for the trench width and a TCE of 20 ft. on either side of the trench.

LOCATION: Church Rock Chapter, McKinley County, New Mexico

REPRESENTATIVE: Lisa Baca Diaz, Primero Planning for DES

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

B.R. REPORT TITLE / DATE / PREPARER: NGWSP Reach No. 27.7B/11 FEB 2015/Four Corners Environmental,

nc.

SIGNIFICANT BIOLOGICAL RESOURCES FOUND: Area 3. Suitable nesting habitat is present.

POTENTIAL IMPACTS

NESL SPECIES POTENTIALLY IMPACTED: NA

FEDERALLY-LISTED SPECIES AFFECTED: NA

OTHER SIGNIFICANT IMPACTS TO BIOLOGICAL RESOURCES: NA

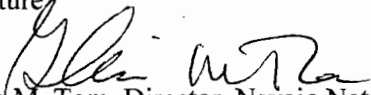
AVOIDANCE / MITIGATION MEASURES: [1] Pursuant to the Migratory Bird Treaty Act (U.S. Code Title 16, Chapter 7, 703-712), migratory birds not listed under the NESL or ESA are prohibited from take by federal law. Waterline construction and land clearing activities will avoid the Migratory Bird breeding season of 15 MAR - 31 AUG or surveys will precede ground-disturbing activities. If the breeding season cannot be avoided, surveys for active nests will be conducted. The survey will include a 50 m (165 ft.) buffer outside the edge of disturbance. Removal or disturbance of nesting habitat (i.e. trees & shrubs) will not be allowed within 50 meters of an active nest during incubation to fledging; [2] Avoid leaving the trench open during non-working hours and overnight to prevent injury to large ungulates and other mammals. The trench will be sloped to allow smaller species of wildlife to exit the trench safely.

CONDITIONS OF COMPLIANCE*: NA

FORM PREPARED BY / DATE: Pamela A. Kyselka/14 OCT 2015

COPIES TO: (add categories as necessary)

☐ _____ ☐ _____

2 NTC § 164 Recommendation:	Signature	Date
<input checked="" type="checkbox"/> Approval		10/16/15
<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



THE NAVAJO NATION

Historic Preservation Department

P.O. Box 4950 • Window Rock, Arizona 86515 • (928) 871-7198



Russell Begaye
President

November 2, 2016

Jonathan Nez
Vice President

Ernie Rheume
Bureau of Reclamation
Western Colorado Area Office
Durango Field Division
185 Suttle Street, Suite 2
Durango, Colorado 81303-7911

Subject: *A Class III Cultural Resource Inventory of Reach 27.7B, Navajo-Gallup Water Supply Project (NGWSP), McKinley County, New Mexico*

Dear Mr. Rheume:

Thank you for your correspondence regarding, *A Class III Cultural Resource Inventory of Reach 27.7B, Navajo-Gallup Water Supply Project (NGWSP), McKinley County, New Mexico*. The area of potential effect is located on Bureau of Land Management, Private land, and Navajo Tribal Trust Land and has been surveyed by PaleoWest Archaeology.

The Navajo Nation Historic Preservation Department concurs with your determination of *No Historic Properties Effected* for the Reach 27.7B waterline project. We also agree with all the site eligibilities of the eight archaeological sites that were documented within the project area. According to the report, sites NM-Q-30-17, NM-Q-30-151, NM-Q-30-149, & NM-Q-30-150 are located on Navajo Nation Land. Sites NM-Q-30-17 & NM-Q-30-149 are eligible to the National Register of Historic Places. In order to minimize adverse effects to the site, the Bureau of Reclamation (BOR) will ensure:

Site NM-Q-30-149

1. The waterline will avoid the site by constricting the construction right-of-way by fencing.
2. A qualified archaeologist will monitor construction within 50-ft of the site boundary.
3. A report will be submitted to NNHPD within 30 days of monitoring activities.

Site NM-Q-30-17:

1. The waterline will avoid the site by constricting the construction right-of-way by fencing.
2. The site will be avoided by the ROW by approximately 10 meters, as currently planned, and the majority of the cultural deposits are more than 100 meters from the edge of the ROW.

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

If you have any questions, or need more clarification, please do not hesitate to call me at 928/871-7198, or by email at tbillie@navajo-nsn.gov.

Sincerely,

Tamara Billie, Senior Archaeologist/Acting THPO
The Navajo Nation Historic Preservation Department

Concurrence:

Bureau of Indian Affairs
Navajo Regional Office

xc: File/HPD-16-929

AK
11/11

NEPA Sufficiency Review Process: Environmental Analysis Decision Form:

- I. Potential for *Substantial Changes* to the NGWSP in this Project location which were not described in the FEIS and are relevant to environmental concerns:
- A. The pipeline alignment for this Project, or other related appurtenance, is to be located in an area not in a general location proposed and/or evaluated in the FEIS:
1. Yes: ☐ go to IV
 2. No: ☒ go to next
- B. The pipeline alignment in relatively the same general location as that shown on the FEIS, but its refined alignment is often more than 1,000 ft from the FEIS alignment and/or a major project feature has substantially changed:
1. Are environmental values within the refined alignment vicinity substantially different potentially significant impacts not discussed in the FEIS:
 - a. ☐ Yes: go to IV
 - b. ☒ No: go to next
 2. Does the refined alignment allow water distribution to locations and/or to entities not discussed in the FEIS, changing the overall purpose of the NGWSP in more than a minor manner:
 - a. ☐ Yes: go to IV
 - b. ☒ No: go to next
- C. The pipeline alignment almost exactly (i.e., less than 1,000 feet from original) follows the alignment shown in the FEIS and no project features are substantially different from that proposed in the FEIS:
1. Yes: ☐ go to II
 2. No: ☒ go to next
- II. Potentially *Significant New Circumstances or Information* relevant to environmental concerns that have a bearing on the Project:
- A. Plant or animal species potentially affected by the Project not so identified in the FEIS, is now listed by FWS as TES and require amending, or revising the NGWSP FWS Biological Opinion:
1. Yes: ☐ go to IV
 2. No: ☒ go to next
- B. A significant cultural resource impacted by the Project may not be avoided or mitigated to less than a significant impact, except at a substantially greater cost than foreseen in the FEIS and possibly requiring an amendment to the Programmatic Agreement:
1. Yes: ☐ go to IV
 2. No: ☒ go to next

C. Potentially significant changes in land use, population distribution, or water usage from the NGWSP related to the Project were not addressed in the FEIS:

1. Yes: ☐ go to IV
2. No: ☒ go to next

III. The FEIS may be outdated:

A. It has been less than 5 years since the NGWSP FEIS and ROD were issued:

1. Yes: ☒ go to V
2. No: ☐ go to next

B. Changes in Environmental conditions at this Project location since the FEIS:

1. Change in Land Use: New, and substantial, development has occurred within the ROW of this Project and cannot be avoided (e.g., previous non-irrigated grazing lands are in a substantial portion of the ROW, and have been converted to irrigated croplands), requiring substantial mitigation actions for potentially significant impacts not envisioned in the FEIS:

- a. Yes: ☐ go to IV
- b. No: ☐ go to next

2. Change in Vegetation/habitat: The vegetation/habitat has substantially changed in a manner that increases the environmental impact of construction substantially beyond those described in the FEIS (e.g., changes in habitat have created conditions favorable for TES-listed species, which are now found in Project areas not evaluated at this location in the FEIS, and requiring coordination with FWS re the Endangered Species Act):

- a. Yes: ☐ go to IV
- b. No: ☐ go to next

C. The Project may have been substantially modified:

1. A major Project component (e.g., a water intake method or location, a pumping plant location, or a new pipeline route to an area not addressed in the FEIS) has changed substantially in location, design or operating procedure within the scope of this Project:

- a. Yes: ☐ go to IV
- b. No: ☐ go to next

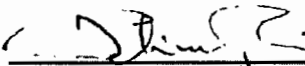
2. The amount of water delivered to an entity, or the entity to which water is delivered, has changed from the description provided because of the Project, and this Project component or this aspect of the Project's effects was not evaluated in the FEIS:

- a. Yes: ☐ go to IV
- b. No: ☐ go to V

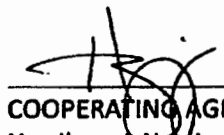
IV. ☐ Upon review of the { Reaches 27.7B & 27.11, } Project described here and its relationship to the NGWSP FEIS, and including consideration of the added relevant supporting documents and the report above, I find the NGWSP FEIS potentially insufficient to ensure the policies and goals defined in NEPA are infused into this Project portion of the NGWSP. The issues supporting this decision are those as indicated above in the Sufficiency Form leading to this #IV decision. A tiered Environmental Assessment, in accordance with appropriate BOR and DOI guidelines (Reclamation 2012 § 6.1; and, 43 CFR Part 46 § 46.140), should be prepared to determine whether any substantial changes to the project or significant new circumstances or information relevant to environmental concerns, that cannot be avoided or mitigated sufficiently, create new significant environmental impacts requiring preparation of a supplemental EIS in accordance with BOR and CEQ guidelines (Reclamation 2012 § 7.11; and, 40 CFR § 1502.20) The issues checked in the Sufficiency Form should receive particular attention in this tiered EA.

V. ☒ Upon review of the {Reaches 27.7B & 27.11} Project described here and its relationship to the NGWSP FEIS as well as supporting documents, I find the NGWSP FEIS is sufficient to ensure the policies and goals defined in NEPA are infused into the project. This decision is supported by a lack of sufficient evidence leading to a #IV selection through application the Sufficiency Form above. No further NEPA actions are required for this Project portion of the NGWSP.

APPROVED:


LEAD AGENCY PROJECT NEPA COORDINATOR
Phillip W. Rieger,
Environmental Protection Specialist
Western Colorado Area Office, Durango

2-22-2016
Date


COOPERATING AGENCY NEPA COORDINATOR
Harrilene J. Yazzie,
Regional NEPA Coordinator
Bureau of Indian Affairs – Navajo Region

6/29/2016
Date

Note: This entire completed evaluation is to be placed in the NGWSP FEIS Administrative Record.



THE NAVAJO NATION
ENVIRONMENTAL PROTECTION AGENCY

Public Water Systems Supervision Program
Post Office Box 339, Window Rock, AZ 86515
Telephone (928) 871-7755
Fax (928) 871-7818
www.navajopublicwater.org



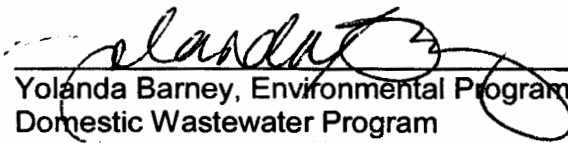
Russell Begaye
President

Jonathan Nez
Vice President

October 24, 2017

MEMORANDUM

TO: Navajo Land Title Data Systems
Land Department
Division of Natural Resources

FROM: 
Yolanda Barney, Environmental Program Manager
Domestic Wastewater Program
Surface and Ground Water Protection Department
Navajo Nation Environmental Protection Agency

SUBJECT: DOCUMENT No. 008511

The Navajo Nation Environmental Protection Agency's Public Water Systems Supervision Program ("PWSSP") reviewed Document No. 008511, Navajo Gallup Water Supply Reach 27.7B; Application for Right of Way Navajo Tribal Trust Land. This project proposes to cross the Navajo Nation in the Churchrock Chapter area over 120 feet of roadway and public utility corridor. This project is part of the Navajo Gallup Pipeline Project. PWSSP recommends approval of this document.

All proposed drinking water projects will need to be permitted by the PWSSP-NNEPA. All proposed drinking water projects (extensions, upgrades, new wells, new public water systems, etc.) must also comply with the design review and construction permit requirements of the PWSSP pursuant §§1501 and 1601 of the Navajo Nation Primary Drinking Water Regulations.

All proposed wastewater projects will need to be permitted by the Domestic Wastewater Program-NNEPA. Extensions, upgrades, new sewer infrastructure, septic tanks, and other wastewater infrastructure must comply with the design review and construction permit requirements pursuant to §201 of the Domestic Wastewater Program.

If there are any questions, please contact me at 871-7755.

xc: Ronnie Ben, Environmental Department Manager, Surface/Ground Water Protection Dept., NNEPA
PWSIDNN#3500211
PWSIDNN#35160091

General Land Development Department

Executive Official Review Release Form

Document No. **8511**

- **Title of Document:** CITY OF GALLUP/NGWSP ROW REACH
27.7B AND 27.11

CERTIFICATION:

The original packet was released to

Charmaine Yazzie

(Please Print)

on this

20

day of

February

2018.

220pm



Sponsor: EDMUND YAZZIE

X _____



EXHIBIT " F "

NAVAJO NATION RIGHT-OF-WAY TERMS AND CONDITIONS

CITY OF GALLUP (GRANTEE)

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 \$ 517,586.82 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 consent to the grant of the right-of-way by the Navajo Nation.

If consideration has been waived, 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 sewer pipeline, road, electric lines, and communications 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 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 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.

SECTION 10, T10N, R10E, S10E, NEW MEXICO COUNTY, NEW MEXICO

SECTION 9, T10N, R10E, S10E, NEW MEXICO COUNTY, NEW MEXICO

SECTION 8, T10N, R10E, S10E, NEW MEXICO COUNTY, NEW MEXICO

SECTION 7, T10N, R10E, S10E, NEW MEXICO COUNTY, NEW MEXICO

SECTION 6, T10N, R10E, S10E, NEW MEXICO COUNTY, NEW MEXICO

SECTION 5, T10N, R10E, S10E, NEW MEXICO COUNTY, NEW MEXICO

SECTION 4, T10N, R10E, S10E, NEW MEXICO COUNTY, NEW MEXICO

SECTION 3, T10N, R10E, S10E, NEW MEXICO COUNTY, NEW MEXICO

SECTION 2, T10N, R10E, S10E, NEW MEXICO COUNTY, NEW MEXICO

SECTION 1, T10N, R10E, S10E, NEW MEXICO COUNTY, NEW MEXICO

SECTION 10, T10N, R10E, S10E, NEW MEXICO COUNTY, NEW MEXICO

SECTION 9, T10N, R10E, S10E, NEW MEXICO COUNTY, NEW MEXICO

SECTION 8, T10N, R10E, S10E, NEW MEXICO COUNTY, NEW MEXICO

SECTION 7, T10N, R10E, S10E, NEW MEXICO COUNTY, NEW MEXICO

SECTION 6, T10N, R10E, S10E, NEW MEXICO COUNTY, NEW MEXICO

SECTION 5, T10N, R10E, S10E, NEW MEXICO COUNTY, NEW MEXICO

SECTION 4, T10N, R10E, S10E, NEW MEXICO COUNTY, NEW MEXICO

SECTION 3, T10N, R10E, S10E, NEW MEXICO COUNTY, NEW MEXICO

SECTION 2, T10N, R10E, S10E, NEW MEXICO COUNTY, NEW MEXICO

SECTION 1, T10N, R10E, S10E, NEW MEXICO COUNTY, NEW MEXICO

SECTION 10, T10N, R10E, S10E, NEW MEXICO COUNTY, NEW MEXICO

SECTION 9, T10N, R10E, S10E, NEW MEXICO COUNTY, NEW MEXICO

SECTION 8, T10N, R10E, S10E, NEW MEXICO COUNTY, NEW MEXICO

SECTION 7, T10N, R10E, S10E, NEW MEXICO COUNTY, NEW MEXICO

SECTION 6, T10N, R10E, S10E, NEW MEXICO COUNTY, NEW MEXICO

SECTION 5, T10N, R10E, S10E, NEW MEXICO COUNTY, NEW MEXICO

SECTION 4, T10N, R10E, S10E, NEW MEXICO COUNTY, NEW MEXICO

SECTION 3, T10N, R10E, S10E, NEW MEXICO COUNTY, NEW MEXICO

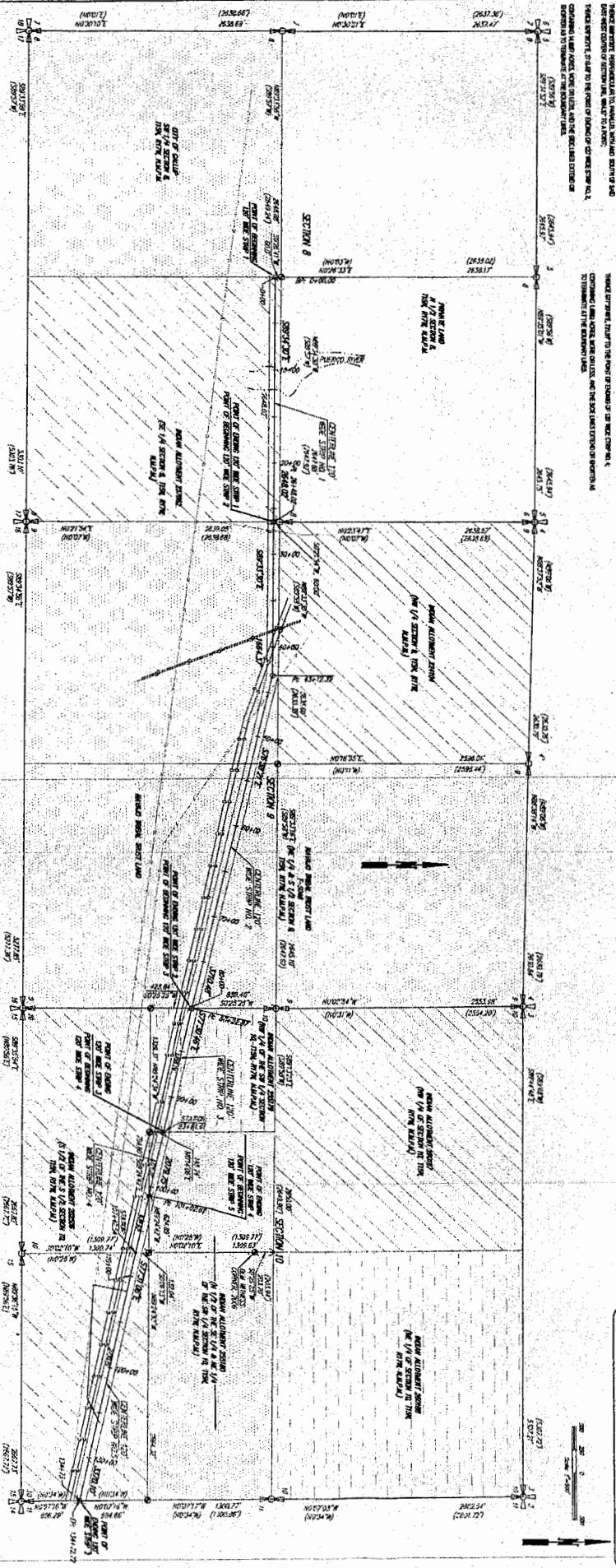
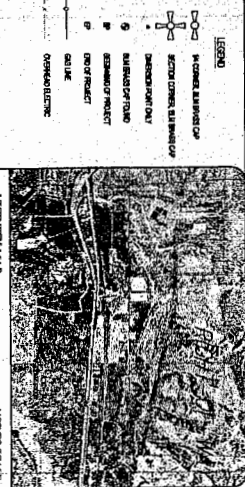
SECTION 2, T10N, R10E, S10E, NEW MEXICO COUNTY, NEW MEXICO

SECTION 1, T10N, R10E, S10E, NEW MEXICO COUNTY, NEW MEXICO

LAND STATUS SUMMARY TABLE

ALL LAND IS NEW MEXICO PUBLIC LAND, EXCEPT WHERE SHOWN OTHERWISE.

SECTION	ACRES	OWNER	REMARKS
10-10-10	20.00	NEW MEXICO	Public Land
10-10-11	20.00	NEW MEXICO	Public Land
10-10-12	20.00	NEW MEXICO	Public Land
10-10-13	20.00	NEW MEXICO	Public Land
10-10-14	20.00	NEW MEXICO	Public Land
10-10-15	20.00	NEW MEXICO	Public Land
10-10-16	20.00	NEW MEXICO	Public Land
10-10-17	20.00	NEW MEXICO	Public Land
10-10-18	20.00	NEW MEXICO	Public Land
10-10-19	20.00	NEW MEXICO	Public Land
10-10-20	20.00	NEW MEXICO	Public Land



APPLICANT'S CERTIFICATE

I, JOHN DOE, of the County of NEW MEXICO, State of NEW MEXICO, do hereby certify that the above described land is my own and that I am the owner thereof and that I have no interest in any other land in the County of NEW MEXICO, State of NEW MEXICO.

John Doe

JOHN DOE

DEEDS ATTACHED

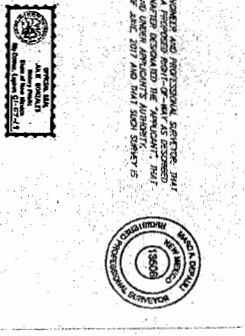
STATE OF NEW MEXICO
COUNTY OF NEW MEXICO

BEFORE ME, the undersigned authority, on this day personally appeared JOHN DOE, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

Given under my hand and seal of office this day of NOVEMBER, 2017.

[Signature]

NOTARY PUBLIC, My Comm. Expires 12-31-19

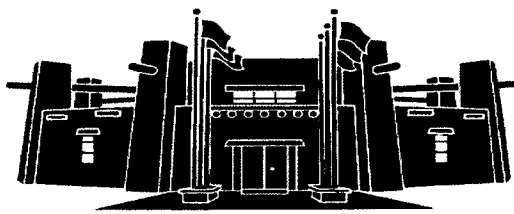


RIGHT-OF-WAY SURVEY

SITUATED IN SECTIONS 8, 9 & 10, T10N, R10E, S10E, NEW MEXICO COUNTY, NEW MEXICO

FINAL PLAT


DATE	BY	SCALE	SHEET
11/15/17	J.D.	1" = 300'	1
11/15/17	J.D.	1" = 300'	2
11/15/17	J.D.	1" = 300'	3
11/15/17	J.D.	1" = 300'	4
11/15/17	J.D.	1" = 300'	5
11/15/17	J.D.	1" = 300'	6
11/15/17	J.D.	1" = 300'	7
11/15/17	J.D.	1" = 300'	8
11/15/17	J.D.	1" = 300'	9
11/15/17	J.D.	1" = 300'	10



MEMORANDUM

TO: Honorable Edmund Yazzie
23rd Navajo Nation Council Delegate

FROM:


Candace French, Attorney
Office of Legislative Counsel

DATE: June 19, 2018

RE: AN ACTION RELATING TO RESOURCES AND DEVELOPMENT;
APPROVING A RIGHT-OF-WAY TO THE CITY OF GALLUP OF
MCKINLEY COUNTY, NEW MEXICO TO CONSTRUCT, OPERATE
AND MAINTAIN THE NAVAJO - GALLUP WATER SUPPLY PROJECT
REACH 27.7B LOCATED ON TRIBAL TRUST LAND IN CHURCHROCK
CHAPTER VICINITY (MCKINLEY COUNTY, NEW MEXICO)

Per your request, attached is the above-reference proposed resolution and associated legislative summary sheet. Based on existing law and documentation provided, the resolution as drafted is legally sufficient. However, as with all legislation, the proposed resolution is subject to review by the courts in the event of a challenge.

The Office of Legislative Counsel recommends the appropriate standing committee(s) reviews based on the standing committees powers outlined in 2 N.N.C. §§ 301, 401, 501, 601, and 701. Nevertheless, "the Speaker of the Navajo Nation Council shall introduce [the proposed resolution] into the legislative process by assigning it to the respective oversight committee(s) of the Navajo Nation Council having authority over the matters for proper consideration. 2 N.N.C. § 164(A)(5).

Please review the proposed resolution to ensure it is drafted to your satisfaction. If you approve, please sign as "Primary Sponsor" and submit it to the Office of Legislative Services where the proposed resolution will be given a tracking number and referred to the Office of the Speaker. If the proposed legislation is unacceptable to you, please contact me at the Office of Legislative Counsel and advise me of the changes you would like to make to the proposed resolution.

THE NAVAJO NATION
LEGISLATIVE BRANCH
INTERNET PUBLIC REVIEW PUBLICATION



LEGISLATION NO: 0207-18 SPONSOR: Edmund Yazzie

TITLE: An Action Relating to Resources and Development; Approving a Right-Of-Way to the City of Gallup of McKinley County, New Mexico to Construct, Operate and Maintain the Navajo - Gallup Water Supply Project Reach 27.7B Located on Tribal Trust Land in Church Rock Chapter Vicinity (McKinley County, New Mexico)

Date posted: June 20, 2018 at 2:49pm

Digital comments may be e-mailed to comments@navajo-nsn.gov

Written comments may be mailed to:

**Executive Director
Office of Legislative Services
P.O. Box 3390
Window Rock, AZ 86515
(928) 871-7590**

Comments may be made in the form of chapter resolutions, letters, position papers, etc. Please include your name, position title, address for written comments; a valid e-mail address is required. Anonymous comments will not be included in the Legislation packet.

Please note: This digital copy is being provided for the benefit of the Navajo Nation chapters and public use. Any political use is prohibited. All written comments received become the property of the Navajo Nation and will be forwarded to the assigned Navajo Nation Council standing committee(s) and/or the Navajo Nation Council for review. Any tampering with public records are punishable by Navajo Nation law pursuant to 17 N.N.C. §374 *et. seq.*

**THE NAVAJO NATION
LEGISLATIVE BRANCH
INTERNET PUBLIC REVIEW SUMMARY**

LEGISLATION NO.: 0207-18

SPONSOR: Honorable Edmund Yazzie

TITLE: An Action Relating to Resources and Development; Approving a Right-Of-Way to the City of Gallup of McKinley County, New Mexico to Construct, Operate and Maintain the Navajo - Gallup Water Supply Project Reach 27.7B Located on Tribal Trust Land in Church Rock Chapter Vicinity (McKinley County, New Mexico)

Posted: June 20, 2018 at 2:49pm

5 DAY Comment Period Ended: June 25, 2018

Digital Comments received:

Comments Supporting (1)	1. Marvin Murphy, CEO; 1st Order Land Services, Inc.
Comments Opposing	<i>None</i>
Inconclusive Comments	<i>None</i>



Legislative Secretary II
Office of Legislative Services

6/24/2018 8:12am

Date/Time

Navajo-Gallup Water Project

Marvin P. Murphy <marvmurphy@yahoo.com>

Thu 6/21/2018 10:59 AM

To: comments <comments@navajo-nsn.gov>;

Good day Council Delegates and my leadership,

I am a residence of Iyanbito Chapter and no more than 10 years ago my parents and I planned on where to place my homesite lease. As I thought wow, "It's far from power and water, then it was said, "if you build it they will come." Now my residence is establish where the centerline of the water will go 15' from my HSL south boundary line.

The Dine people of the community hope and pray this water line is laid clear to Iyanbito Chapter on the east side. Due to the fact that Uranium exists in the water there and the people and animals still use it and drink it to this day. I remember my grandparents having 2 - water softeners in their house, but that was years ago.

Thank you Hon. Yazzie for your efforts! Please follow through to its completion on these roads, bridges, freeway crossings, floodings, roads, Right-of-Ways, waterlines & powerlines for the people as it is needed across this vast reservation.

As the smallest chapter we have a huge voice! Ahe'hee' shi Naatani...

-A simple case of planning and following thru. Now I'll have water with this legislation.

Whether is 13" D.I.P. or reduced to 8" P.V.C.-

As an inspection engineer for DePauli engineering 14 years ago I updated and laid miles of pipe in the city to prepare for this project. Instead of going around Gallup. I helped prepare Gamerco, Gallup and surrounding areas in preparation for this waterline. Mr. Pat Page is the BLM CE whom is running this and I talked with him 11 years ago.

Thank you from

Your humble Navajo Professional Land Surveying Engineer

Marvin Murphy CEO 1st Order Land Services, Inc.

505-713-3445

RESOURCES AND DEVELOPMENT COMMITTEE
Regular Meeting
Smith Lake Chapter, Smith Lake NM
June 27, 2018

ROLL CALL
VOTE TALLY SHEET:

Legislation # 0207-18: An Action Relating to Resources and Development; Approving a Right-of-Way to the City of Gallup of McKinley County, New Mexico to Construct, Operate and Maintain the Navajo-Gallup Water Supply Project Reach 27.7B Located on Tribal Trust Land in Church Rock Chapter Vicinity (McKinley County, New Mexico)
Sponsor: Honorable Edmund Yazzie

MAIN MOTION: Davis Filfred S: Leonard Pete V:

ROLL CALL VOTE TALLY:

YEAS: Walter Phelps, Davis Filfred and Jonathan Perry, and Benjamin Bennett

NAYS:

EXCUSED: Leonard Pete excused from meeting early.

MOTION TO TABLE: For Sponsor and Agent to meet with Minerals Department regard the Exhibit E - Terms and Conditions. Terms and Conditions only covers: sewer line, roads, electric lines, and communication lines. The intent of the legislation is to construct, operate and maintain the Navajo-Gallup Water Supply Project.

Motion: Jonathan Perry **Second:** Leonard Pete **V:** 5-0-1 (CNV)



Alton Joe Shepherd, Chairperson
Resources and Development Committee



Shammie Begay, Legislative Advisor
Resources and Development Committee