

RESOLUTION OF THE
RESOURCES AND DEVELOPMENT COMMITTEE
Of the 23rd Navajo Nation Council---Second Year 2016

AN ACTION RELATING TO RESOURCES AND DEVELOPMENT; APPROVING THE RENEWAL OF RIGHT-OF-WAY TO TRI-STATE GENERATION AND TRANSMISSION ASSOCIATION, INC., TO OPERATE AND MAINTAIN A 115 KV TRANSMISSION LINE FROM GRANTS TO GALLUP TO YA TA HEY, MCKINLEY COUNTY, NEW MEXICO

BE IT ENACTED:

SECTION ONE. AUTHORITY

A. Pursuant to 2 N.N.C. Section 500, the Resources and Development Committee of the Navajo Nation Council is established as a Standing Committee of the Navajo Nation; and

B. Pursuant to 2 N.N.C. §501 B 2(a), the Resource and Development Committee of the Navajo Nation Council authorizes final approval for rights-of-way.

SECTION TWO. FINDINGS

A. Pursuant to Resolution, attached hereto as Exhibit "A," dated July 21, 1976, the Advisory Committee of the Navajo Tribal Council approved right-of-way across Navajo Tribal Fee Land in Section 25, Township 16 North, Range 19 West, NMPM, for transmission line to Plains Electric Generation and Transmission Cooperatives, Inc.; and

B. Tri-State Generation and Transmission Association, Inc. merged with Plains Electric Generation and Transmission Cooperatives, Inc. and now owns and operates the transmission line. Tri-State Generation and Transmission Association, Inc., P.O. Box 33695, Denver, Colorado 80233-0695, has submitted a request, attached hereto as Exhibit "B," to renew its easement for an additional twenty (20) year term; and

C. The existing right-of-way consists of 6.2272 acres, more or less, of Navajo Nation Fee Lands located in Section 25, Township 16 North, Range 19 West, NMPM, McKinley County, New Mexico and location is more particularly described on the survey map attached hereto and incorporated herein as Exhibit "C"; and

D. The Project Review Section with the Navajo Land Department has determined that there is no need to obtain the consents from the affected land users (i.e. grazing Permittees) because this easement and right-of-way were previously approved by Advisory Committee Resolution dated July 21, 1976. The Advisory Committee Resolution is attached hereto and made a part hereof as Exhibit "A"; and

E. All environmental and archaeological studies have been completed and are attached hereto and incorporated herein by this reference.

SECTION THREE. APPROVAL

A. The Resources and Development Committee of the Navajo Nation Council hereby grants the renewal of a Right-of-Way to Tri-State Generation and Transmission Association, Inc., on Navajo Nation Fee Lands in the Rock Springs Chapter vicinity, McKinley County, New Mexico. The location is more particularly described on the map attached hereto as Exhibit "C."

B. The Resources and Development Committee of the Navajo Nation Council hereby approves the right-of-way subject to, but not limited to, the following terms and conditions attached hereto and incorporated herein as Exhibit "D."

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

. . . .

. . . .

. . . .

CERTIFICATION

I, hereby, certify that the foregoing resolution was duly considered by the Resources and Development Committee of the 23rd Navajo Nation Council at a duly called meeting at Navajo Department of Transportation, (Navajo Nation) Tse Bonito, New Mexico, at which quorum was present and that same was passed by a vote of 5 in favor, 0 opposed, 1 abstained this 26th day of July, 2016.

A handwritten signature in blue ink, appearing to read 'Alton Joe Shepherd', with a long horizontal flourish extending to the right.

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

Motion: Honorable Walter Phelps
Second: Honorable Leonard Pete

Document No. 002317Date Issued: 07/21/2014**EXECUTIVE OFFICIAL REVIEW**DIVISION OF
NATURAL RESOURCESTitle of Document: RoW 4 Tri-State Gen&Trans.Grants/Glp.NMContact Name: DRAPER, HOWARDProgram/Division: DIVISION OF NATURAL RESOURCESEmail: howarddraper@frontiernet.netPhone Number: 928-871-6647☐ **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 checked="" 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: *09 Oct 14* ☒ ☐
2. F&W _____ Date: *10/13/14* ☒ ☐
3. HPD _____ Date: *10-20-14* ☒ ☐
4. Minerals *Ribonmuh / Mkt. Zone* _____ Date: *10/28/14* ☒ ☐
5. NNEPA *QAD* _____ Date: *2-26-2015* ☒ ☐
6. DNR _____ Date: *3/5/15* ☒ ☐
7. DOJ *(10)* _____ Date: *3/17/15* ☒ ☐
8. OPVP *Benifai J.* _____ Date: *3/18/15* ☒ ☐

A-2
consent
attached
Subject to
Changes to
Terms &
Conditions

☐ OTHER:

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



NAVAJO NATION DEPARTMENT OF JUSTICE

DOCUMENT REVIEW REQUEST FORM

☐ RESUBMITTAL



DOJ	
3/5/15	10:47pm
DATE / TIME	
<input type="checkbox"/> 7 Day Deadline	
DOC #:	002317
SAS #:	
UNIT:	NM

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

CLIENT TO COMPLETE			
DATE OF REQUEST:	9/2/2014	DIVISION:	Natural Resources
CONTACT NAME:	Howard P. Draper or Vera Shirley	DEPARTMENT:	Navajo Land Dept
PHONE NUMBER:	X-6490, 6447, 6401	E-MAIL:	howarddraper@frontiernet.net; vshurley@frontiernet.net
TITLE OF DOCUMENT: Approving the Renwal of Right-of-Way to Tri-State Generation and Transmission Association, Inc. to Operate and Maintain a 115 kV Transmission Line from Chaco Gallup, McKinley and La Grana Counties, NM			
DOJ SECRETARY TO COMPLETE			
DATE RECEIVED:	3/5/15	REVIEWING ATTORNEY/ADVOCATE:	Bill Loh B.
	4:37		3/16/15
DATE TIME OUT OF UNIT:		to Ya Ta Hey	
DOJ ATTORNEY / ADVOCATE COMMENTS			
- Document is legally sufficient. <i>[Signature]</i>			
REVIEWED BY: (Print)	Date / Time	SURNAMED BY: (Print)	Date / Time
Hee + Becker		Becker	3/17/15 1pm
DOJ Secretary Called:	Howard Draper	Document Pick Up on	3/17/15 at 2 By: <i>[Signature]</i>
PICKED UP BY: (Print)	DATE / TIME:		

NNDOJ/DRRF-July 2013

COMPLETED



THE NAVAJO NATION

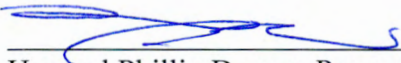
Navajo Land Department

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

November 12, 2015

MEMORANDUM :

TO: Resource and Development Committee

FROM: 
Howard Phillip Draper, Program & Project Specialist
Project Review Section, Navajo Land Department

RE: 164 Document No. 2317

Our office is in receipt of the requested information regarding the above subject. Our office therefore feels that all the information contained in the Tri-State Generation and Transmission Association, Inc., response letter dated 1/14/2015 is sufficient. Any further request for information that specifically involves Doc. No. 2317 should be directed to the appropriate Navajo Nation Program that deals with the specific concern or issue (i.e. payments would involve Navajo Land Department-NLD, Navajo Minerals, or Navajo Nation Controller, etc., environmental would involve Navajo Fish & Wildlife, Navajo Environmental Protection Agency, etc,...) Thank You.

Hpd/

Cc: project file

RESOLUTION OF THE
ADVISORY COMMITTEE OF THE
NAVAJO TRIBAL COUNCIL

Approving a Right of Way Across Navajo Tribal
Fee Land

OFFICE OF THE
COUNTY CLERK
MAR 22 11 09 AM '76
MCINLEY COUNTY

WHEREAS:

1. The Advisory Committee of the Navajo Tribal Council has been authorized to approve rights of way across Tribal fee lands by Navajo Tribal Council Resolutions CJ-56-53 (16 HTC 202); and

2. Plains Electric Generation and Transmission Cooperative, Inc., has applied for a right of way for a transmission line across land held in fee by the Navajo Tribe, and described in Exhibit "A" attached hereto and made a part hereof; and

3. Navajo Land Administration has determined that the usual payment of such right of way to be \$2.00 per rod or \$1,000.00.

NOW THEREFORE BE IT RESOLVED THAT:

1. The Advisory Committee of the Navajo Tribal Council does hereby approve a right of way for a period of 10 years with an option for renewal from the date of this approval across Navajo Tribal fee land in Section 25, Township 16 North, Range 10 West, New Mexico Principal Meridian, and more particularly described in Exhibit "A", attached hereto, for Plains Electric Generation and Transmission Cooperative, Inc.

2. The consideration for said right of way shall be \$2.00 per rod or \$1,000.00.

CERTIFICATION

I hereby certify that the foregoing resolution was duly considered by the Advisory Committee of the Navajo Tribal Council at a duly called meeting at Window Rock, Navajo Nation (Arizona), at which a quorum was present and that same was passed by a vote of 13 in favor and 2 opposed, this 21st day of July, 1976.

Wilson C. Skeet

Vice Chairman
Navajo Tribal Council

STATE OF *Arizona*)
COUNTY OF *Apache*) ss.

The foregoing instrument was acknowledged before me on this 4th day of January, 1976, by Wilson C. Skeet, Vice Chairman of the Navajo Tribal Council.



[Signature]
Notary Public

My commission expires:
Aug 15, 1977

RESOLUTION OF THE
ADVISORY COMMITTEE OF THE
NAVAJO TRIBAL COUNCIL

Amending Advisory Committee Resolution No. ACJY-137-76
by Changing the Term of the Easement

WHEREAS:

1. The Advisory Committee of the Navajo Tribal Council by Resolution No. ACJY-137-76 approved the right-of-way across Navajo Tribal land owned in fee for a term of 10 years with an option to renew the easement for an additional 10 years at the expiration of the original term; and

2. Plains Electric Generation and Transmission Coop., Inc., is required by its financial arrangements with Rural Electrification Administration, a federal agency, to secure land use rights for a minimum term of 35 years; and

3. It is now necessary to amend said resolution to incorporate the required term of 35 years into Resolution No. ACJY-137-76.

NOW THEREFORE BE IT RESOLVED THAT:

The Advisory Committee of the Navajo Tribal Council hereby amends Resolution No. ACJY-137-76 by incorporation; (1) 35 years in lieu of 10 years as the term of the easement; (2) \$2,000.00 in lieu of \$1,000.00 as consideration; and (3) delete the language "...with option to renew the easement for additional 10 years.."

CERTIFICATION

I hereby certify that the foregoing resolution was duly considered by the Advisory Committee of the Navajo Tribal Council at a duly called meeting at Window Rock, Navajo Nation (Arizona), at which a quorum was present and that same was passed by a vote of 7 in favor and 3 opposed, this 11th day of August, 1976.

Wilson C. Skeet
Vice Chairman
Navajo Tribal Council



STATE OF *Arizona*)
COUNTY OF *Apache*) ss.

The foregoing instrument was acknowledged before me on this *11TH* day of *January*, 1976, by Wilson C. Skeet, Vice Chairman of the Navajo Tribal Council.

John J. Naughton
Notary Public

My commission expires:
(My Commission Expires Aug 16, 1979)

EXHIBIT "A"

EASEMENT

Right-of-Way Through Navajo Tribal Fee Lands

A certain strip or parcel of land being situated within the North 1/2 of the North 1/2 of Section 25, Township 16 North, Range 19 West, New Mexico Principal Meridian, in McKinley County, State of New Mexico and being more particularly described as follows to wit:

Beginning at a point on the West line of Section 25, T. 16 N., R. 19 W., from which point the corner common to Sections 23, 24, 25 & 26, T. 16 N., R. 19 W., a steel pin with aluminum cap marked "NE Cor. Google & Pouls Engineering" bears North 00° 27' 50" East a distance of 122.5 feet. Said point of beginning being a point on the centerline survey of a proposed 115-KV transmission line and being Engineer's Station 14 + 13.99; Thence from said point of beginning North 00° 27' 50" East along the West line of Section 25, a distance of 25.26 feet to the northerly easement line; Thence South 85° 54' East along the Northerly easement line a distance of 5,407.79 feet to the East line of Section 25; Thence South 01° 22' East along the Range line between R. 18 W. & R. 19 W. a distance of 25.59 feet to a point on the centerline of the proposed 115-KV transmission line being Engineer's Station 68 + 22.58 from which point the section corner common to Sections 19 & 30, T. 16 N., R. 18 W. & Sections 24 & 25, T. 16 N., R. 19 W., bears North 01° 22' West a distance of 100.0 feet; Thence continuing along said Range line South 01° 22' East a distance of 25.59 feet to a point on the Southerly easement line; Thence North 85° 54' West along said Southerly easement line a distance of 5,409.39 feet to a point on the West line of Section 25; Thence N. 00° 27' 50" East along said West line of Section 25 a distance of 25.26 feet to the true point and place of beginning.

Containing 6.2082 acres, more or less.

176,576
STATE OF NEW MEXICO
McKINLEY
I, Debra J. Smith, County Clerk
do hereby certify that the foregoing was filed in the Clerk's office
on the 11th day of March, A. D. 19 78, at 11:09 o'clock A.M.
and recorded in Book 72 on page 850
Debra J. Smith
County Clerk
Cecilia Angel Diaz



TRI-STATE GENERATION AND TRANSMISSION ASSOCIATION, INC.

HEADQUARTERS: P.O. BOX 33695 DENVER, COLORADO 80233-0695 303-452-6111

August 10, 2011



The Navajo Nation
Office of the President
Honorable President Ben Shelly
PO Box 7440
Window Rock, Arizona 86515

RE: Right of Way Renewal Request

Dear Honorable President Ben Shelly:

Tri-State Generation and Transmission Association, Inc. (Tri-State) owns and operates The Ya-Ta-Hey -- Gallup -- Grants Tap 115kV transmission line, located in McKinley County, New Mexico. A portion of this line is located on Tribal Fee property located in the North 1/2 of the North 1/2 of Section 25, Township 16 North, Range 19 West, New Mexico Principal Meridian. Tri-State is interested in renewing this right of way with the Navajo Nation.

Tri-State, based in Westminster, Colorado, is a not-for-profit cooperative association comprised of a diverse membership of 44 electric co-ops operating in New Mexico, Colorado, Nebraska, and Wyoming. Tri-State supplies low cost wholesale power to these electric co-ops.

Please feel free to contact me at (303) 254-3032, or Mel Apachec at (928) 551-2285, if you have any questions.

Sincerely,

Joseph Gallik
Senior Permitting and Land Rights Specialist

Cc: Mel Apachec, Tri-State Land Consultant
Howard P. Draper, Navajo Project Review Section
P.O. Box 2249, Window Rock, Arizona 86515.

AN EQUAL OPPORTUNITY / AFFIRMATIVE ACTION EMPLOYER

A Touchstone Energy Cooperative



CRAIG STATION
P.O. BOX 1307
CRAIG, CO 81626-1307
970-824-4411

ESCALANTE STATION
P.O. BOX 577
PREWITT, NM 87045
505-876-2271

NUCLA STATION
P.O. BOX 698
NUCLA, CO 81424-0698
970-864-7316



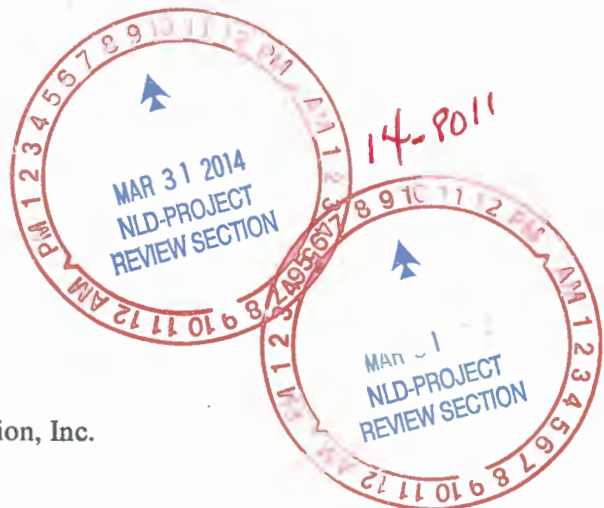
TRI-STATE GENERATION AND TRANSMISSION ASSOCIATION, INC.

HEADQUARTERS: P.O. BOX 33695 DENVER, COLORADO 80233-0695 303-452-6111

February 4, 2014

Howard P. Draper, Program and Projects Specialist
Navajo Land Department – Project Review Section
P. O. Box 2249
Window Rock, Arizona 86515

RE: Tri-State Generation and Transmission Association, Inc.
Gallup – Yatahey 115 kV Transmission Line
Right of Way Renewal across Tribal Fee Land



Dear Mr. Draper:

Tri-State Generation and Transmission Association, Inc. (Tri-State) owns, operates and maintains the existing Gallup – Yatahey 115 kV Transmission Line. A portion of the line is situated on Navajo Tribal Fee land within N1/2, N1/2 of Section 25, Township 16 North, Range 19 West, N.M.P.M., McKinley County, New Mexico. Tri-State is requesting renewal of the easement for a twenty year period.

The original right-of-way was granted to Plains Electric Generation and Transmission Cooperative (Plains Electric) in 1978 for a 35 year period. Tri-State now owns and operates the existing transmission line through a merger with Plains Electric in 2000.

Attached is the Navajo Tribal Advisory Committee's Resolution of 1978 for approving the right-of-way, updated legal descriptions/maps, 2000 merger documents between Plains Electric and Tri-State and the approved BIA NEPA Categorical Exclusion documents.

Should you have any questions, please contact Mel Apachee, Tri-State Land Consultant at 928-551-2285 or me at 303-254-3032.

Sincerely,

Joseph J. Gallik
Senior Permitting and Land Rights Specialist

CC: Mel Apachee, G&P Land

G&P **Gilcrease & Partners, LLC**
Land and Right of Way Acquisition
Mel Apachee
Project Manager
Cell: 928.551.2285 **2871**
melapachee@hotmail.com
Gilcrease & Partners, LLC is an Independent Contractor
authorized to Negotiate Land/Right-of-Way Agreements
on behalf of Tri-State Generation and Transmission Association, Inc.

AN EQUAL OPPORTUNITY / AFFIRMATIVE ACTION EMPLOYER

A Touchstone Energy Cooperative



CRAIG STATION
P.O. BOX 1307
CRAIG, CO 81626-1307
970-824-4411

505-876-2271

P.O. BOX 698
NUCLA, CO 81424-0698
970-864-7316

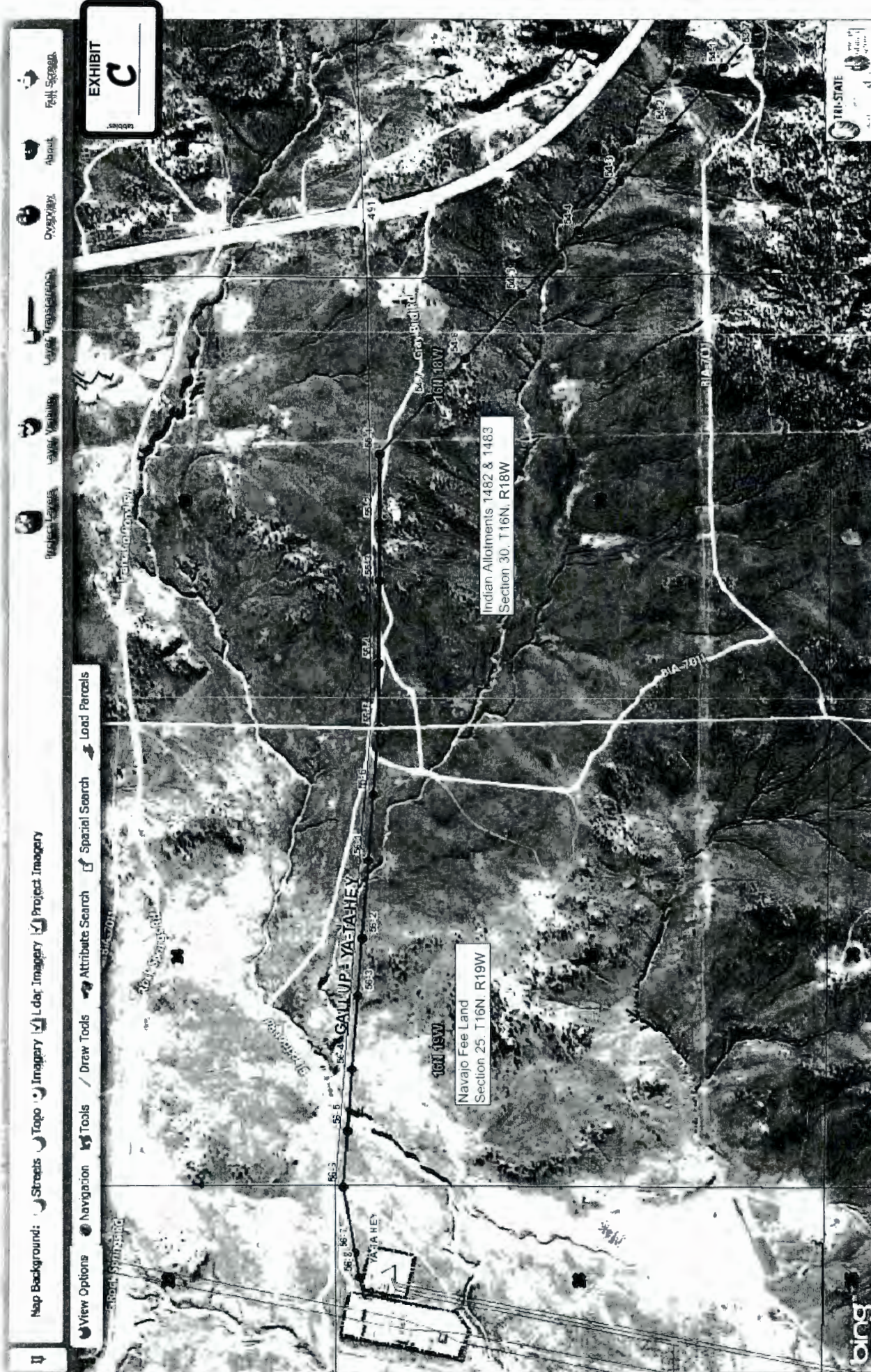


EXHIBIT A

DESCRIPTION

An Electric Overhead (OHE) Power Line Easement within Section 25, Township 16 North, Range 19 West, N.M.P.M., also within Navajo Tribal Fee Lands, and within McKinley County, New Mexico and being fifty feet in width, twenty-five feet on each side of the following described centerline, also known as the centerline of the Tri-State 115 kV Transmission Line, the side lines of said easement to be shortened or lengthened so as to terminate at said Section 25:

BEGINNING at a point on the west line of said Section 25, Township 16 North, Range 19 West, Whence a found USDOI BLM brass cap stamped, "T16N, R19W, S23, S24, S26, S25, 2008", also being the Northwest Corner of said Section 25, bears North 01°02'20" East a distance of 122.23 feet;

THENCE South 85°18'48" East a distance of 5397.98 feet to an angle point;

THENCE South 89°22'21" East a distance of 9.82 feet to the POINT OF TERMINATION, Whence a found USGLO brass cap stamped, "T16N, R19W, R18W, S24, S19, S25, S30, 1931, 2010", also being the Northeast Corner of said Section 25, bears North 00°47'31" West a distance of 99.27 feet.

50 FOOT EASEMENT contains 6.2073 acres, more or less.

Centerline length is 5407.80 linear feet.


Anchor easement contains 0.0199 acres, more or less.

Drawing attached and by this reference made a part hereof.

EASEMENT TOTAL is 6.2272 acres, more or less.

TRI-STATE GENERATION AND TRANSMISSION ASSOCIATION, INC.

I, Joel K. Bladow, do hereby certify that I am the Senior Vice President / Transmission of Tri-State Generation and Transmission Association, hereinafter designated the Applicant; that Timothy Solinski who subscribed to the foregoing certificate, was directed by the Applicant to survey the location of a power line easement and to prepare this map; that the location of said easement is accurately represented on this map; that such survey has been adopted by the applicant as the definite location of the easement thereby shown; and that the map has been prepared to be filed with the Secretary of Interior or his duly authorized representative as part of the application for said easement to be granted the Applicant, its successors and assigns.


Joel K. Bladow

Senior Vice President / Transmission


Date

SURVEYOR'S CERTIFICATION

I, Timothy Solinski, a New Mexico Professional Surveyor No. 17531, do hereby certify that this Easement Plat and the actual survey on the ground upon which it is based were performed by me or under my direct supervision; that I am responsible for this survey; that this survey meets the Minimum Standards for Surveying in New Mexico; and that it is true and correct to the best of my knowledge and belief. I further certify that this survey is not a land division or subdivision as defined in the New Mexico Subdivision Act and that this instrument is an Easement Survey.


Timothy Solinski

NM Professional Surveyor No. 17531


Date



TRI-STATE 115 kV TRANSMISSION LINE
NAVAJO TRIBAL FEE LAND
S25, T16N, R19W

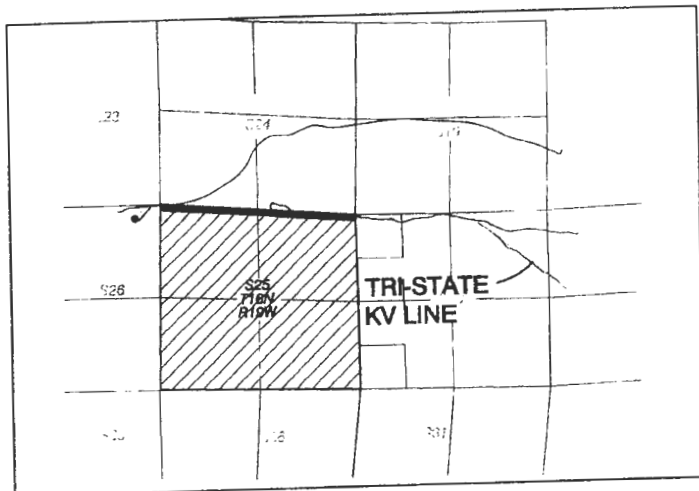
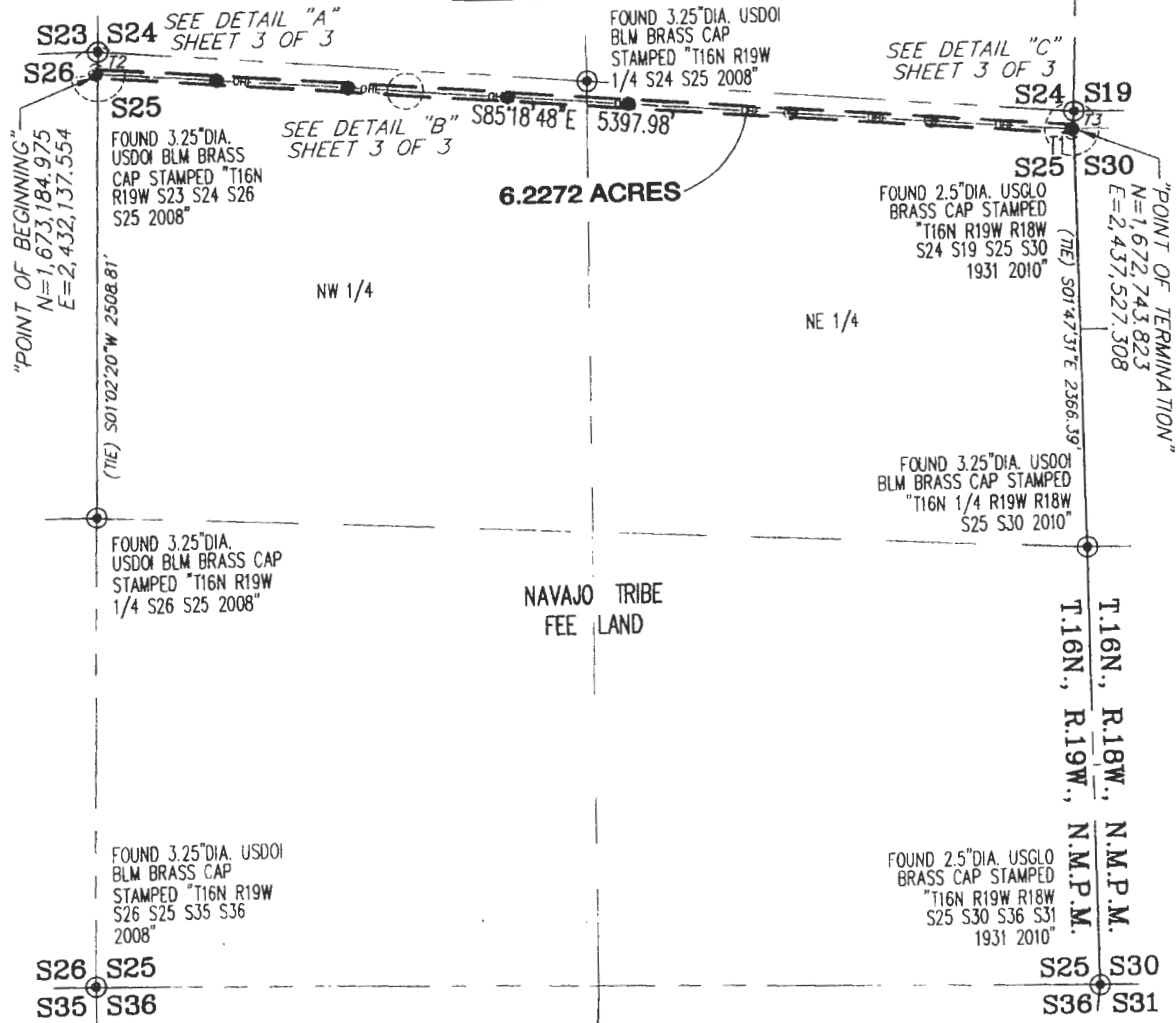
SHEET: 1 OF 3

DATE: 8/23/2012



Bohannon & Huston

EXHIBIT A



LOCATION MAP
NOT TO SCALE

TANGENT DATA		
ID	BEARING	DISTANCE
T1	S89°22'21"E	9.82'
T2	N01°02'20"E	122.23'
T3	N00°47'31"W	99.27'

NOTES

- Distances are ground distances.
- Units are U.S. Survey Feet.
- Bearings are New Mexico State Plane Grid Bearings (West Zone) NAD 1983 (based upon GPS observations).



0 500 1000
SCALE: 1" = 1000'

TRI-STATE 115 kV TRANSMISSION LINE
NAVAJO TRIBAL FEE LAND
S25, T16N, R19W

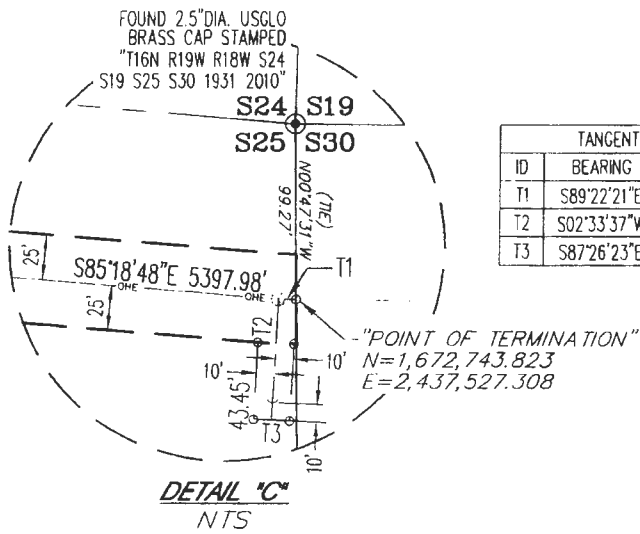
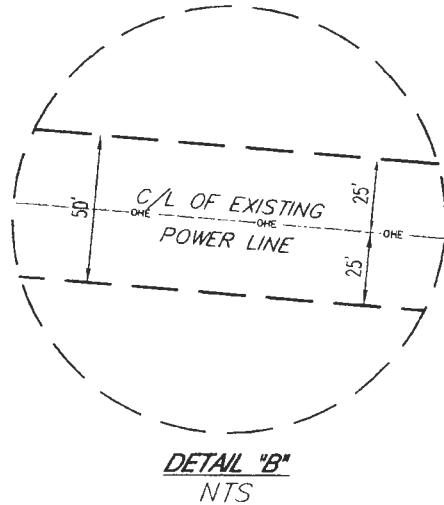
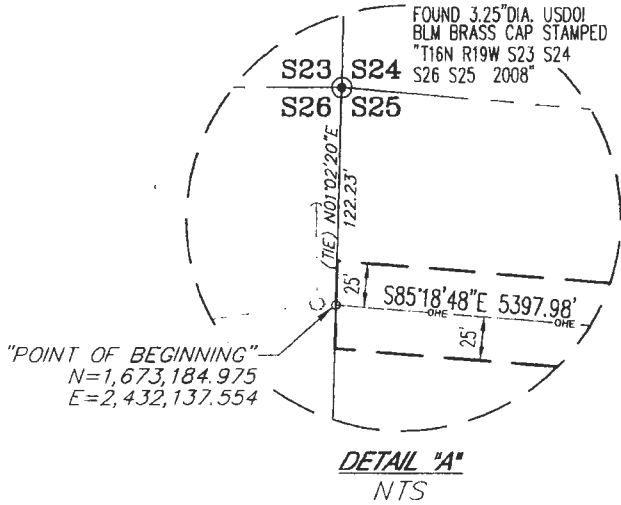


Bohannon & Huston

SHEET: 2 OF 3

DATE: 8/23/2012

EXHIBIT A



TANGENT DATA		
ID	BEARING	DISTANCE
T1	S89°22'21"E	9.82'
T2	S02°33'37"W	68.09'
T3	S87°26'23"E	20.00'

TRI-STATE 115 kV TRANSMISSION LINE
NAVAJO TRIBAL FEE LAND
S25, T16N, R19W

SHEET: 3 OF 3

DATE: 8/23/2012



Bohannon & Huston



EXHIBIT "D"

NAVAJO NATION RIGHT-OF-WAY TERMS AND CONDITIONS

TRI STATE GENERATION AND TRANSMISSION ASSOCIATES, INC. (GRANTEE)

1. The term of the right-of-way shall expire on July 20, 2031.
2. Consideration for the right-of-way is assessed at \$ 312,125.95 and shall be paid within ten (10) days of the approval of the Right-of-Way by the Navajo Nation 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 ten (10) days of approval of and consent to the grant of the right-of-way by the Navajo Nation.
3. The Grantee may develop, use and occupy the right-of-way for the purpose(s) of operating and maintaining a 115 kV electrical transmission line, together with rights of ingress and egress to access the transmission line, as designated by the Navajo Nation. 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. The Grantee shall also obtain written approval from the Navajo Nation if the kV rating of the line increases.
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.

By Navajo Nation approval of these Terms and Conditions, The Nation does not require any other notice in writing for the following encumbrance: Tri-State's rights and interests in this right-of-way are and may be encumbered by Tri-State's Master First Mortgage Indenture dated December 15, 1999, attached to the New Mexico UCC-1 Financing Statement filed with the New Mexico Secretary of State at File No. 991104001, as has been or may be amended, supplemented, restated or supplanted from time to time ("Indenture"), without the need for any further consent from the Navajo Nation.

13. The Navajo Nation may terminate the right-of-way for violation of any of the terms and conditions stated herein, provided the Nation grants 30 days' notice and an opportunity to remedy the non-compliance. The termination may be 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.



**ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF EXECUTIVE DIRECTOR/ADMINISTRATION**

OFFICE OF ENVIRONMENTAL REVIEW

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

Website: www.navajonationepa.org

M E M O R A N D U M

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

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

DATE: February 26, 2015

SUBJECT: 164 EOR 002317 ROW TriState Generation and Transmission Association Inc.

The Navajo Nation Environmental Protection Agency (NNEPA) reviewed¹ and recommends **approval** for the proposed lease renewal for the existing Gallup-Yatehey 115 kV Transmission Line. Tri-State Generation and Transmission Association Inc., PO Box 33695, Denver, Colorado, 80233-0695, owns and operates the Yatehey – Gallup – Grants Tap 115 kV transmission line. The propose action will not significantly impact the Navajo Nation's environmental resources.

If there are any questions, contact Rita Whitehorse-Larsen at 928/871-7188. Thank you.

Cc: Tri-State Generation and Transmission Association Inc., PO Box 33695, Denver, Colorado, 80233-0695
NNEPA Administration; Departments; Programs

¹ Tri-State Generation and Transmission Association Inc. Categorical Exclusion Exception Review (CEER) Checklist Tri-State to Yatehey Transmission Line Right-of-Way Renewal, Navajo Nation Indian Allotments 1482 and 1483 and Navajo Fee Land, McKinley County, New Mexico. October 2013.

164 EOR 002317 TriState Generation Transmission transmission existing



**THE
NAVAJO
NATION**

MINERALS DEPARTMENT

Post Office Box 1910

Window Rock, Arizona 86515

Phone: (928) 871-6587 • Fax: (928) 871-7095

Ben Shelly
President


Rex Lee Jim
Vice-President

October 16, 2014

MEMORANDUM

TO : ALL CONCERNED

FROM :


Akhtar Zaman, Director
Minerals Department

SUBJECT : DELEGATION OF AUTHORITY

Ms. Rowena Cheromiah, Minerals Royalty Audit Manager, is hereby delegated to act in the capacity of the Director of the Minerals Department beginning at 8:00 A.M. on Friday, October 17, 2014 and ending at 5:00 P.M. on Friday, October 31, 2014.

Your cooperation with Ms. Cheromiah will be appreciated.

ACKNOWLEDGMENT



Rowena Cheromiah
Minerals Audit Department

AZ/kjs
Distribution

COPY

TRI-STATE GENERATION AND TRANSMISSION ASSOCIATION, INC.

HEADQUARTERS: P.O. BOX 33695 DENVER, COLORADO 80233-0695 303-452-6111

January 14, 2015

Akhtar Zaman, Director
Navajo Nation Minerals Department
P.O. Box 1910
Window Rock, Arizona 86515

RE: Tri-State Generation and Transmission Association, Inc. (Tri-State) Gallup – Yatahey 115 kV
Transmission Line Right-of-Way Renewal across Navajo Tribal Fee Land (DNR-23-17)

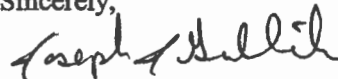
Dear: Mr. Zaman:

In response to your Memorandum dated October 27, 2014 regarding DNR-23-17, renewal of a 115 kV Transmission Line Right-of-Way that crosses Navajo Tribal Fee Land, Section 25, Township 16 North, Range 19 West, N.M.P.M., McKinley County, New Mexico. Tri-State would like to provide the following information, recommendations, and comments regarding your concerns as outlined in your Memorandum:

1. Tri-State's attached 2011 letter of interest to renew the right-of-way and 2014 cover letter when submitting the right-of-way documents, clearly states the project as "Gallup to Yatahey 115 kV Transmission Line – across Navajo Fee Land". Tri-State recommends that the resolution be corrected to reflect the correct name.
2. The Navajo Tribal Advisory Committee Resolution No. ACJY-137-76 and ACAU-160-76 are attached and Tri-State recommends that they be referenced in this right-of-way application.
3. Tri-State submitted the attached letter of interest to renew the right-of-way on August 10, 2011, prior to its expiration date on August 11, 2011. The right-of-way was approved by the Navajo Tribal Advisory Committee on July 21, 1976 for a 10 year term; however, Navajo Tribal Advisory Committee amended the resolution on August 11, 1976 to grant a 35 year term. It is Tri-State's understanding that the 35 year expiration date of the current right-of-way to be August 11, 2011.
4. Tri-State also had concerns with the terms and conditions (Exhibit D) that was not included for their review and/or comments.

Should you have any questions please feel free to contact me at (303) 254-3032 or Mel Apachee, Tri-State Land Consultant at (928) 551-2871.

Sincerely,



Joseph J. Gallik
Senior Permitting and Land Rights Specialist

Attachments

CC: Howard Draper, Navajo Land Department – Project Review Section
Ram Das, Manager Minerals Department
Mel Apachee, Project Manager, G&P Land

AN EQUAL OPPORTUNITY / AFFIRMATIVE ACTION EMPLOYER

A Touchstone Energy* Cooperative



CRAIG STATION
P.O. BOX 1307
CRAIG, CO 81626-1307
970-824-4411

ESCALANTE STATION
P.O. BOX 577
PREWITT, NM 87045
505-876-2271

NUCLA STATION
P.O. BOX 698
NUCLA, CO 81424-0698
970-864-7316



TRI-STATE GENERATION AND TRANSMISSION ASSOCIATION, INC.

HEADQUARTERS: P.O. BOX 33695 DENVER, COLORADO 80233-0695 303-452-6111

COPY

April 29, 2015

Howard Draper, Program & Project Specialist
Navajo Land Department - Project Review Section
P. O. 2249
Window Rock, Arizona 86515

RE: Tri-State Generation and Transmission Association, Inc.
Gallup - Yatahey 115 kV Transmission Line
Right-of-Way Renewal across Navajo Tribal Fee Land (DNR-2317)

Dear Mr. Draper:

Tri-State Generation and Transmission Association, Inc. (Tri-State) received a copy of the draft terms and conditions from the Navajo Minerals Department on March 18, 2015. Tri-State has reviewed the draft terms and conditions and is in agreement to the compensation consideration for the right-of-way assessed at \$312,125.95 for a twenty year term, which shall be expiring on July 20, 2031. However, Tri-State is requesting revisions to the terms and conditions per attached outline.

Regarding item 24 which Tri-State has requested to be included in the terms and conditions, Tri-State uses multiple lending sources to finance its operations, and therefore it has entered into a Master Mortgage Indenture to provide a single mortgage instrument to secure all (or most of) its outstanding financing. This allows Tri-State to consolidate its loans, and not have to have a lot of separate loans. Instead, the Indenture, which is currently managed by Wells Fargo as the Indenture trustee, mortgages all of Tri-State's applicable property collectively for the benefit of the lenders. The Indenture creates a security interest in much of Tri-State's personal property, as well as in most (if not all) of Tri-State real property, including parcels owned in fee, easements, and most of its leases. Because of the 'blanket' nature of the Indenture, a security interest attaches automatically to property that Tri-State acquires on an ongoing basis.

Should you have any questions or require additional information, please contact me at 303-254-3032 or Mel Apachee, Tri-State Land Consultant at 928-551-2871.

Sincerely,

Joseph J. Gallik
Senior Permitting and Land Rights Specialist

CC: Mel Apachee, G&P Land, Project Field Manager
Akhtar Zaman, Navajo Minerals Department Director

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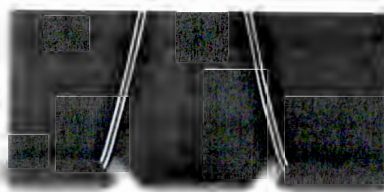
CRAIG STATION
P.O. BOX 1307
CRAIG, CO 81626-1307
970-824-4411

ESCALANTE STATION
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P.O. BOX 698
NUCLA, CO 81424-0698
970-864-7316



**THE
NAVAJO
NATION**



MINERALS DEPARTMENT

Post Office Box 1910

Window Rock, Arizona 86515

Phone: (928) 871-6587 • Fax: (928) 871-7095

Ben Shelly
President

Rex Lee Jim
Vice-President

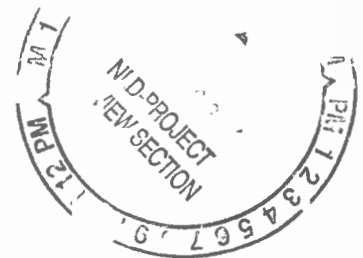
Interoffice Memorandum

TO: Howard Draper, Program & Project Specialist
Navajo Land Department

FROM: Brown Chermuch
for Akhtar Zaman, Director
Minerals Department

DATE: October 27, 2014

SUBJECT: DOCUMENT NO. 002317, RENEWAL OF A 115kV LINE
RIGHT-OF-WAY FOR TRI-STATE



The above document was reviewed and was deemed insufficient for the following reasons:

1. The map (Exhibit C) shows the right-of-way is from Gallup, New Mexico to Ya Ta Hey, New Mexico whereas the proposed Resources and Development Committee (RDC) resolution states that the right-of-way is from Grants, New Mexico to Gallup, New Mexico.
2. Two Advisory Committee resolutions are attached but these resolutions do not have resolution numbers.
3. Even if we consider the amended term of 35 years, the right-of-way expired in July 2011. There is no documentation to show that an application was submitted to extend it prior to the expiration of the terms. Hence, a new application has to be submitted.
4. The terms and conditions (Exhibit D) is not attached.

After corrections are made and a complete application is submitted, please return the application to the Minerals Department for assessment of the consideration.

Please contact Mr. Ram Das at (928) 871-6587 if you have any questions.

RSD:AZ/kjs

TRB 4/7/2015 proposed revisions to Navajo ROW Terms and Conditions (changes to existing text are shown in red and with underlines and strikeouts):

Please revise Paragraph 1 to read as follows:

1. The term of the right-of-way shall ~~expire on July 20, 2031~~ be for twenty (20) years, retroactively effective to, and beginning on, _____, 2011, and expiring on July 20, 2031.

Please revise Paragraph 2 to read as follows:

2. Consideration for the right-of-way is assessed at \$312,125.95 for the entire term of the right-of-way and shall be paid to the Navajo Nation in a lump sum within ten (10) business days ~~of the approval of the ROW by the Navajo Nation after Grantee receives a copy of the final, certified written Resolution of the Resources and Development Committee of the Navajo Nation Council approving this right-of-way and an invoice for the sum stated above.~~

In the first sentence of Paragraph 3, please insert the following text to indicate that Grantee may develop, use and occupy the right-of-way for the purpose(s) of: operating, maintaining, repairing, and reconstructing a 115 kV electrical transmission line, together with the rights of ingress and egress as reasonably appropriate to access the transmission line

Please revise Paragraph 8 to read:

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 of Grantee's improvements located thereon and make all necessary and reasonable repairs.

Please revise Paragraph 10 to read:

10. The Grantee shall be responsible for and promptly pay all damages to property caused by Grantee or its employees, representatives, agents or contractors in connection with Grantee's use of the right-of-way when they are sustained.

Please revise Paragraph 13 by adding the following sentence at the end of Paragraph 13:

This right-of-way will not be terminated for any violation or cause in accordance with this Paragraph 13 if Grantee corrects the applicable violation or cause, or takes reasonable remedial action where full, immediate correction is not practical, within thirty (30) days after receiving written notice from the Navajo Nation of such violation or cause.

Please add the following paragraph to the Terms and Conditions as an acknowledgement of Tri-State mortgage indenture financing:

24. Notwithstanding anything herein to the contrary, Tri-State's rights and interests in this right-of-way are and may be encumbered by Tri-State's Master First Mortgage Indenture dated December 15, 1999, attached to the New Mexico UCC-1 Financing Statement filed with the New Mexico Secretary of

State at File No. 991104001, as has been or may be amended, supplemented, restated or supplanted from time to time ("Indenture"), without the need for any further consent from the Navajo Nation.

Regarding the above requested item 24, Tri-State uses multiple lending sources to finance its operations, and therefore it has entered into a Master Mortgage Indenture to provide a single mortgage instrument to secure all (or most of) its outstanding financing. This allows Tri-State to consolidate its loans, and not have to have a lot of separate loans. Instead, the Indenture, which is currently managed by Wells Fargo as the Indenture trustee, mortgages all of Tri-State's applicable property collectively for the benefit of the lenders. The Indenture creates a security interest in much of Tri-State's personal property, as well as in most (if not all) of Tri-State real property, including parcels owned in fee, easements, and most of its leases. Because of the 'blanket' nature of the Indenture, a security interest attaches automatically to property that Tri-State acquires on an ongoing basis.

Tri-State proposed revisions to Navajo ROW Terms and Conditions:

Please revise Paragraph 1 to read as follows:

1. The term of the right-of-way shall be for twenty (20) years, retroactively effective to, and beginning on, _____, 2011, and expiring on July 20, 2031.

Please revise Paragraph 2 to read as follows:

2. Consideration for the right-of-way is assessed at \$312,125.95 for the entire term of the right-of-way and shall be paid to the Navajo Nation in a lump sum within ten (10) business days Grantee receives a copy of the final, certified written Resolution of the Resources and Development Committee of the Navajo Nation Council approving this right-of-way and an invoice for the sum stated above.

In the first sentence of Paragraph 3, please insert the following text to indicate that Grantee may develop, use and occupy the right-of-way for the purpose(s) of: operating, maintaining, repairing, and reconstructing a 115 kV electrical transmission line, together with the rights of ingress and egress as reasonably appropriate to access the transmission line

Please revise Paragraph 8 to read:

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Please revise Paragraph 10 to read:

10. The Grantee shall be responsible for and promptly pay all damages to property caused by Grantee or its employees, representatives, agents or contractors in connection with Grantee's use of the right-of-way when they are sustained.

Please revise Paragraph 13 by adding the following sentence at the end of Paragraph 13:

This right-of-way will not be terminated for any violation or cause in accordance with this Paragraph 13 if Grantee corrects the applicable violation or cause, or takes reasonable remedial action where full, immediate correction is not practical, within thirty (30) days after receiving written notice from the Navajo Nation of such violation or cause.

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24. Notwithstanding anything herein to the contrary, Tri-State's rights and interests in this right-of-way are and may be encumbered by Tri-State's Master First Mortgage Indenture dated December 15, 1999, attached to the New Mexico UCC-1 Financing Statement filed with the New Mexico Secretary of State at File No. 991104001, as has been or may be amended, supplemented, restated or supplanted from time to time ("Indenture"), without the need for any further consent from the Navajo Nation.

Regarding the above requested item 24, Tri-State uses multiple lending sources to finance its operations, and therefore it has entered into a Master Mortgage Indenture to provide a single mortgage instrument to secure all (or most of) its outstanding financing. This allows Tri-State to consolidate its loans, and not have to have a lot of separate loans. Instead, the Indenture, which is currently managed by Wells Fargo as the Indenture trustee, mortgages all of Tri-State's applicable property collectively for the benefit of the lenders. The Indenture creates a security interest in much of Tri-State's personal property, as well as in most (if not all) of Tri-State real property, including parcels owned in fee, easements, and most of its leases. Because of the 'blanket' nature of the Indenture, a security interest attaches automatically to property that Tri-State acquires on an ongoing basis.

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.: Tri-State's 115 kV Transmission Line Right-of-Way Renewal

DESCRIPTION: Tri-State Generation and Transmission Association, Inc. proposes a right-of-way renewal of an existing 115kV electric transmission line. The length of the transmission line is approximately 11,292.8 feet within a 50-ft. wide ROW, or 13.5125 acres.

LOCATION: Allotment 1482 & 1483, Sec. 30, T16N, R18W, NMPM and Navajo Fee Land, Sec. 25, T16N, R19W, NMPM, McKinley County, New Mexico

REPRESENTATIVE: Nicholas Parker, Principal, P3 Planning

ACTION AGENCY: Tri-State Generation and Transmission Association, Inc.

B.R. REPORT TITLE / DATE / PREPARER: Request for a concurrence/07 MAR 2013/Nicholas Parker

SIGNIFICANT BIOLOGICAL RESOURCES FOUND: Area 3. No effect determination.

POTENTIAL IMPACTS

NESL SPECIES POTENTIALLY IMPACTED: NA

FEDERALLY-LISTED SPECIES AFFECTED: NA

OTHER SIGNIFICANT IMPACTS TO BIOLOGICAL RESOURCES: NA

AVOIDANCE / MITIGATION MEASURES: NA

CONDITIONS OF COMPLIANCE*: NA

FORM PREPARED BY / DATE: Pamela A. Kyselka/25 MAR 2013

COPIES TO: (add categories as necessary)

☐
☐

2 NTC § 164 Recommendation:

Signature

Date

☒ Approval

☐ Conditional Approval (with memo)

☐ Disapproval (with memo)

☐ Categorical Exclusion (with request letter)

☐ None (with memo)

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

P3/PLANNING

6100 4th St, NW, no 442
Albuquerque NM 87107
505.750.2109

Pamela Kyselka
The Navajo Nation
Department of Fish and Wildlife
PO Box 1480
Window Rock, AZ 86515

March 7, 2013

Dear Ms. Kyselka:

Tri-State Generation and Transmission Association, Inc. (Tri-State) is in the process of renewing the right-of-way for an existing 115 kV transmission line across Indian Allotments 1482 and 1483--and across a piece of Navajo Fee land. The original right-of-way was granted to Plains Electric. However in 2000, Plains Electric merged with Tri-State; therefore, Tri-State now owns and operates the existing overhead electric line. Tri-State is not proposing any changes to the use and/or design of the existing line. Further, the transmission line is located within existing right-of-way and there will be no expansion of the line.

Tri-State is contacting you and your office to request concurrence for the right-of-way renewal for continued operation and maintenance of the transmission line. The length of the line measures approximately 11,292.8 feet by 50 feet—or 13.5125 acres (including anchor easements). Details are provided below.

In order for Tri-State to comply with Tribal and federal laws and regulations, we received a Data Response from Ms. Sonja Detsoi at The Navajo Nation. Based on Ms. Detsoi's findings, and your preliminary analysis, we understand our project lies within Wildlife Area 3 (Low Sensitive Area), and that there is no suitable habitat for the species listed on the Data Response. As such, Tri-State requests your concurrence for renewal of the right-of-way.

The location of the Indian allotments and Navajo Fee land (Northwest of Gamerco) are as follows:

Allotment 1482, Section 30, Township 16 North, Range 18 West, NMPM, McKinley County, New Mexico

- 50-ft.-wide right-of-way; 2,601.07 ft. in length; 2.9856 acres, more or less
- Right-of-way expired on September 6, 2012 (Tri-State began right-of-way renewal process in 2010)

Allotment 1483, Section 30, Township 16 North, Range 18 West, NMPM, McKinley County, New Mexico

- 50-ft.-wide right-of-way; 3,283.93 ft. in length; 4.2997 acres, more or less (including anchor easement)
- Right-of-way expired on September 6, 2012 (Tri-State began right-of-way renewal process in 2010)

P3/PLANNING

6100 4th St, NW, no 442
Albuquerque NM 87107
505.750.2109

Navajo Fee land, Section 25, Township 16 North, Range 19 West, NMPM, McKinley County, New Mexico

- 50-ft.-wide right-of-way; 5,407.80 ft. in length; 6.2073 acres, more or less and anchor easement of 0.0199 acres, more or less (total of 6.2272 acres)
- Right-of-way expires on January 4, 2013

Of course if you have any questions, please feel free to let us know. P3planning is assisting Tri-State and Mr. Mel Apache with the environmental compliance component of this project.

Thanks again for your assistance and we'll look forward to speaking with you soon.

Yours sincerely,



Nicholas Parker



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

Rex Lee Jim, Vice-President

29 January 2013

File#13PTPL-01

Nicholas Parker, Principal
P3 Planning
6100 4th Street NW No. 442
Albuquerque, NM 87107

NAVAJO ENDANGERED SPECIES LIST (NESL) INFORMATION FOR:

PROJECT: TRI-STATE GENERATION & TRANSMISSION ASSOCIATION, INC.
RIGHT-OF-WAY (ROW) RENEWAL FOR EXISTING 115 Kv TRANSMISSION LINE
LOCATION OF THE PROJECT SITE ARE AS FOLLOWS:
ALLOTMENT 1482, SEC. 30, T16N, R18W, NMPM
ALLOTMENT 1483, SEC. 30, T16N, R18W, NMPM
NAVAJO FEE LAND, SEC. 25, T16N, R19W, NMPM
McKINLEY COUNTY, NM

Mr. Parker:

The following information on species of concern¹ is provided in response to your 17 January 2013 request concerning the subject project, which consists of the Tri-State Generation and Transmission Association, Inc., right-of-way (ROW) renewal for an existing 115 kV transmission line across Indian Allotments 1482 and 1483 and Navajo Fee Land. No changes to the use and/or design of the existing line is proposed. The proposed project includes the following:

- Allotment 1482, Sec. 30, T16N, R18W, NMPM, McKinley County, NM
50-ft wide ROW; 2,601.07 ft in length; ±2,9856 acres
- Allotment 1483, Sec. 30, T16N, R18W, NMPM, McKinley County, NM.
50-ft wide ROW; 3,283.93 ft. in length; ±4.2997 acres (including anchor easement)
- Navajo Fee Land, Sec. 25, T16N, R19W, NMPM, McKinley County, NM.
50 ft. wide ROW; 5,407.80 ft in length; ±6,2073 acres & anchor easement ±0.0199 acres (total 6.2272 acres)

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 statuses 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 NFWD 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.

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 *Gallup West, NM* quadrangle(s) containing the project boundaries include the following. Potential is based primarily on quadrangle-wide coarse habitat characteristics and species range information. Your project biologist should determine habitat suitability at the project site(s).

	SCIENTIFIC NAME	COMMON NAME	NESL STATUS	FEDERAL STATUS AND/OR *MBTA
1.	<i>Aquila chrysaetos</i>	Golden Eagle	G3	MBTA
2.	<i>Buteo regalis</i>	Ferruginous Hawk	G3	MBTA
3.	<i>Falco peregrinus</i>	Peregrine Falcon	G4	MBTA
4.	<i>Mustela nigripes</i>	Black-footed Ferret	G2	ESA Endangered

*MBTA - Migratory Bird Treaty Act

AREA 3: LOW SENSITIVITY WILDLIFE RESOURCES

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.

The powerline(s) should be designed according to the Avian Power Line Interaction Committee's 'Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006' (Edison Electric Institute, APLIC, and the California Energy Commission. Washington, D.C. and Sacramento, CA).

Does the project design include guy wires for structural support? If so, and if bird species may occur in relatively high concentrations in the project area, then guy wires should be equipped with highly visible markers to reduce the potential mortality due to bird-guy wire collisions. Examples of visual markers include aviation balls and bird flight diverters. Birds can be expected to occur in relatively high concentrations along migration routes (e.g., rivers, ridges or other distinctive linear topographic features) or where important habitat for breeding, feeding, roosting, etc. occurs. The U.S. Fish and Wildlife Service recommends marking guy wires with at least one marker per 100 meters of wire.

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


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

CULTURAL RESOURCES COMPLIANCE FORM

THE NAVAJO NATION
HISTORIC PRESERVATION DEPARTMENT
PO BOX 4950
WINDOW ROCK, ARIZONA 86515

ROUTE COPIES TO:

☒ P3 Planning

NNHPD NO. **HPD-13-627**

OTHER PROJECT NO.: **P3-01-011**

PROJECT TITLE: A Cultural Survey for the Tri-State Ya-Ta-Hey Transmission Line Right-of-Way Renewal, the Navajo Nation, McKinley County, New Mexico (P3planning Project No. P3-01-011)

LEAD AGENCY: BIA/NR

SPONSOR: Mr. Curtis Miller, Environmental Planner Tri-State G&T, PO Box 33695, Denver, CO 80234

PROJECT DESCRIPTION: Tri-State Generation and Transmission Association (Tri-State) is renewing right-of-way (ROW) easements for the Ya-Ta-Hey 115-kilovolt (kV) transmission line. The total length of the ROW is 2.14-miles with a 50-ft wide right-of-way. An additional 50-ft was added beyond the ROW. The renewal of the lease is for 25-years and covers the routine operation of the transmission line. Future ground disturbance will be intensive and extensive with the use of heavy equipment.

LAND STATUS: Navajo Tribal Fee Land, Allotments 1482 & 1483

CHAPTER: Rock Springs

LOCATION: T.16N, R.18W - Sec. 30; T.16N, R.19W, Sec. 25; Gallup West Quadrangle, McKinley County, New Mexico NMPM

PROJECT ARCHAEOLOGIST: Nicolas Parker & William Penner

NAVAJO ANTIQUITIES PERMIT NO: B13221

DATE INSPECTED: 05/28/2013 - 05/29/2013

DATE OF REPORT: 07/30/2013

TOTAL ACREAGE INSPECTED: 25.92 ac.

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

LIST OF CULTURAL RESOURCES FOUND:

(3) Sites (NM-Q-31-48, NM-Q-31-49, NM-Q-31-50);

(6) Isolated Occurrences (IO)

LIST OF ELIGIBLE PROPERTIES:

(3) Sites (NM-Q-31-48, NM-Q-31-49, NM-Q-31-50)

LIST OF NON-ELIGIBLE PROPERTIES:

(6) IO

LIST OF ARCHAEOLOGICAL RESOURCES:

(3) Sites (NM-Q-31-48, NM-Q-31-49, NM-Q-31-50)

EFFECT/CONDITIONS OF COMPLIANCE: No historic properties will be affected with the following conditions:

Sites NM-Q-31-48, NM-Q-31-49, NM-Q-31-50:

1. Markers will be placed along access roads to ensure future maintenance patrols abide by the following stipulations:
2. All ground disturbing/maintenance activities will avoid the sites.
3. All vehicular traffic will be restricted to the existing access roads within site boundaries. Drive arounds are not allowed within site boundaries.

In the event of a discovery ["discovery" means any previously unidentified or incorrectly identified cultural resources including but not limited to archaeological deposits, human remains, or locations reportedly associated with Native American religious/traditional beliefs or practices], all operations in the immediate vicinity of the discovery must cease, and the Navajo Nation Historic Preservation Department must be notified at (928) 871-7147.

FORM PREPARED BY: Tamara Billie

FINALIZED: September 4, 2013

Notification to

Proceed Recommended:

Yes ☒

No ☐

Conditions:

Yes ☒

No ☐

The Navajo Nation
Historic Preservation Office

Date

Navajo Region Approval:

Yes ☒

No ☐

BIA - Navajo Regional Office

Date

TLM 9/20/13

Navajo Nation Project No. (To be assigned)

A Cultural Resources Survey for the Tri-State Ya-Ta-Hey Transmission Line Right-of-Way Renewal, The Navajo Nation, McKinley County, New Mexico

Prepared for:

Tri-State Generation and Transmission Association, Inc.
1100 W. 116th Ave.
Westminster, CO 80234

Prepared by:

Nicholas Parker and William Penner

Submitted by:

Nicholas Parker, Principal Investigator

P3/PLANNING

6100 4th Street NW

No. 442

Albuquerque, NM 87107

T. 505.750.2109

www.p3planning.com

Survey Conducted Under:

The Navajo Nation: Permit B13221

Rock Springs Chapter, The Navajo Nation

Reviewing Agencies:

The Navajo Nation Historic Preservation Department
Bureau of Indian Affairs

P3planning Report Number: P3-01-011

CITATION

Nicholas Parker and William Penner. 2013.

*A Cultural Resources Survey for the Tri-State Ya-Ta-Hey Transmission Line
Right-of-Way Renewal, The Navajo Nation, McKinley County, New Mexico.*

Prepared by P3planning, Albuquerque, New Mexico.

ABSTRACT

Tri-State Generation and Transmission Association (Tri-State) is renewing right-of-way (ROW) easements for the Ya-Ta-Hey 115-kilovolt transmission line crossing Navajo Nation Indian Allotments 1482 and 1483—and across a piece of Navajo Fee land—in the Rock Springs Chapter of The Navajo Nation. The total length of the ROW renewal is roughly 2.14 miles. The renewed easement will be for the term of 25 years and cover the routine operation of the transmission line. As part of the renewal process for the ROW, Tri-State is working with The Navajo Nation and the Bureau of Indian Affairs (BIA), which provides technical assistance to the Tribe on leasing and ROW issues. BIA's involvement requires Tri-State to comply with various federal regulations, including the National Environmental Policy Act and National Historic Preservation Act (NHPA). Tri-State contracted with P3planning to help fulfill the BIA's obligations under Section 106 of the NHPA. Per consultation with The Navajo Nation and the BIA, and in consideration of Navajo and BIA guidelines, these obligations included completing a cultural resource investigation of the easement.

The Navajo Nation, with input from BIA, defined the area of potential effects (APE) as Tri-State's 115kV transmission line easement on Navajo Nation land (measuring 50 feet [ft] wide by 11,292.8 ft long [or 2.14 miles]) plus an additional area extending 50 ft (15 meters) beyond the ROW. The APE and survey area totaled 25.92 acres and consisted solely of Tri-State's existing ROW on lands under the jurisdiction of The Navajo Nation.

Between May 28 and 29, 2013, P3planning conducted an intensive (100 percent) pedestrian cultural resource survey of this APE. The survey was performed under P3planning's Navajo Nation Permit (B13221) and was assigned Project Number (No.) XXXXX by The Navajo Nation Historic Preservation Department. Chapter House visits were not a requirement for the current cultural resources work, or for the ROW renewal process.

A single previously recorded archaeological sites (NM-Q-31-48/ LA 172267), two newly recorded archaeological sites (NM-Q-31-49 and NM-Q-31-50), and six isolated occurrences (IOs) were documented during the current inventory. Of the three sites located within the current project area, all are recommended as eligible to the National Register of Historic Places (NRHP) under Criterion D for their potential to yield additional data that may address important research questions and contribute to our understanding of the prehistory of the region.

P3planning recommends that the sites be avoided by ground-disturbing activities and that vehicular traffic within site boundaries is restricted to existing access roads. Furthermore, it is recommended that maintenance personnel do not turn vehicles around within the site areas and avoid using access roads that traverse sites during inclement weather when surface deposits are particularly prone to disturbance.

If these recommendations are followed, the proposed undertaking will have *no adverse effect* on the qualities that may qualify the archaeological sites for inclusion in the NRHP. In the event that structures must be replaced within site boundaries and the recommendations described here cannot be followed, efforts must be coordinated with The Navajo Nation's Historic Preservation Department and the BIA. Site boundaries will be provided to Tri-State maintenance personnel in order to facilitate the avoidance of these resources. Due to their limited data potential, the IOs are not likely to increase our understanding of the prehistory of the area. They are, therefore, recommended ineligible for listing in the NRHP under any criteria and no further management considerations are recommended for these resources.

If these recommendations are followed, subject to consultation and comment, the proposed ROW renewal will have *no adverse effect* on any of the historic properties within the APE. If buried cultural deposits are encountered during future project activities, work should cease immediately and The Navajo Nation Tribal Historic Preservation Officer and the BIA should be notified. The proposed project complies with the provisions of the NHPA of 1966, as amended through 1992, and the Archaeological Resources Protection Act of 1979, and all applicable regulations. The report is consistent with federal and tribal standards for cultural resource management.

P3/PLANNING

*A Cultural Resources Survey for the Tri-State Ya-Ta-Hey Transmission Line
Right-of-Way Renewal, The Navajo Nation, McKinley County, New Mexico
Tri-State Generation and Transmission Association, Inc.*

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INTRODUCTION AND PROJECT DESCRIPTION

Tri-State Generation and Transmission Association (Tri-State) is renewing right-of-way (ROW) easements for the Ya-Ta-Hey 115-kilovolt (kV) transmission line crossing Navajo Nation Indian Allotments 1482 and 1483—and across a piece of Navajo Fee land—in the Rock Springs Chapter of The Navajo Nation. The total length of the ROW renewal is roughly 2.14 miles. The renewed easement will be for the term of 25 years and cover the routine operation of the transmission line. As part of the renewal process for the ROW, Tri-State is working with The Navajo Nation and the Bureau of Indian Affairs (BIA), which provides technical assistance to the Tribe on leasing and ROW issues. BIA's involvement requires Tri-State to comply with various federal regulations, including the National Environmental Policy Act and National Historic Preservation Act (NHPA). Tri-State contracted with P3planning to help fulfill the BIA's obligations under Section 106 of the NHPA. Per consultation with The Navajo Nation and the BIA, and in consideration of BIA guidelines, these obligations included completing a cultural resource investigation of the easement. This report presents the results of the cultural resource investigations along Tri-State's ROW across lands owned by The Navajo Nation (Figure 1).

The Navajo Nation, with input from BIA, defined the area of potential effects (APE) as Tri-State's 115kV transmission line easement on Navajo Nation land (measuring 50 feet [ft] wide by 11,292.8 ft long [or 2.14 miles]) plus an additional area extending 50 ft (15 meters [m]) beyond the ROW. The APE and survey area totaled 25.92 acres and consisted solely of Tri-State's existing ROW on lands under the jurisdiction of The Navajo Nation.

Between May 28 and 29, 2013, P3planning conducted an intensive (100 percent) pedestrian cultural resource survey of this APE. The survey was performed under P3planning's Navajo Nation Permit (B13221) and was assigned Project Number (No.) XXXXX by The Navajo Nation Historic Preservation Department. Chapter House visits were not a requirement for the current cultural resources work, or for the ROW renewal process. Nicholas Parker served as the principal investigator, field supervisor, and authored the report. William Penner served as a crew chief, co-author, and cartographer.

The purpose of this investigation was to locate and assess all cultural resources and historic properties within the APE. These types of properties may include, but are not limited to, historic districts, archaeological sites, isolated occurrences (IOs), and historic buildings, structures, objects, and acequias over 50 years old. An assessment was made for each resource as to its potential eligibility for nomination to the National Register of Historic Properties (NRHP). The assessments of impacts to historic properties by the proposed undertaking were conducted to aid Tri-State, The Navajo Nation, and BIA in complying with pertinent tribal, state, and federal laws and regulations. The two Navajo Nation Allotments (1482 and 1483) are located in Section 30 in Township (T) 16 North (N), Range (R) 18 West (W). The Navajo Fee Land portion is located in Section 25 in T 16N, R 19W. These sections appear on the *Gallup West, New Mexico* USGS quadrangle.

ENVIRONMENTAL SETTING

The project area is located in the Navajo Section of the Colorado Plateau physiographic province (Hawley 1986). The Colorado Plateau is roughly centered on the Four-corners region of the Southwestern United States—within western Colorado, northwestern New Mexico, southern and eastern Utah, and northern Arizona. This Navajo Section of the Colorado Plateau includes volcanic fields to the southwest and dramatic monclines and synclines to the south, east, and west. These geological features compose the Gallup Basin. Expansive rolling plains on highly eroded sandstone mesas and cuestas often characterize the Navajo section of the basin. Shiprock—located 75 miles north of the project area—is a prominent and culturally important monadnock formation on the Colorado Plateau. The Navajo Section is bounded to the west by the Chuska Mountains, to the north by the San Juan Mountains, to the east by the Rio Grande Rift, and to the south by the Zuni Mountains. The San Juan River—located 90 miles to the north—is the major hydrologic feature of the Navajo Section. However, the project area and surrounding environs are drained by hundreds of intermittent and ephemeral arroyos, draws, and washes that feed into the Puerco River located west of Gallup. Some of the major drainages include Black Ridge Wash, Burned Death

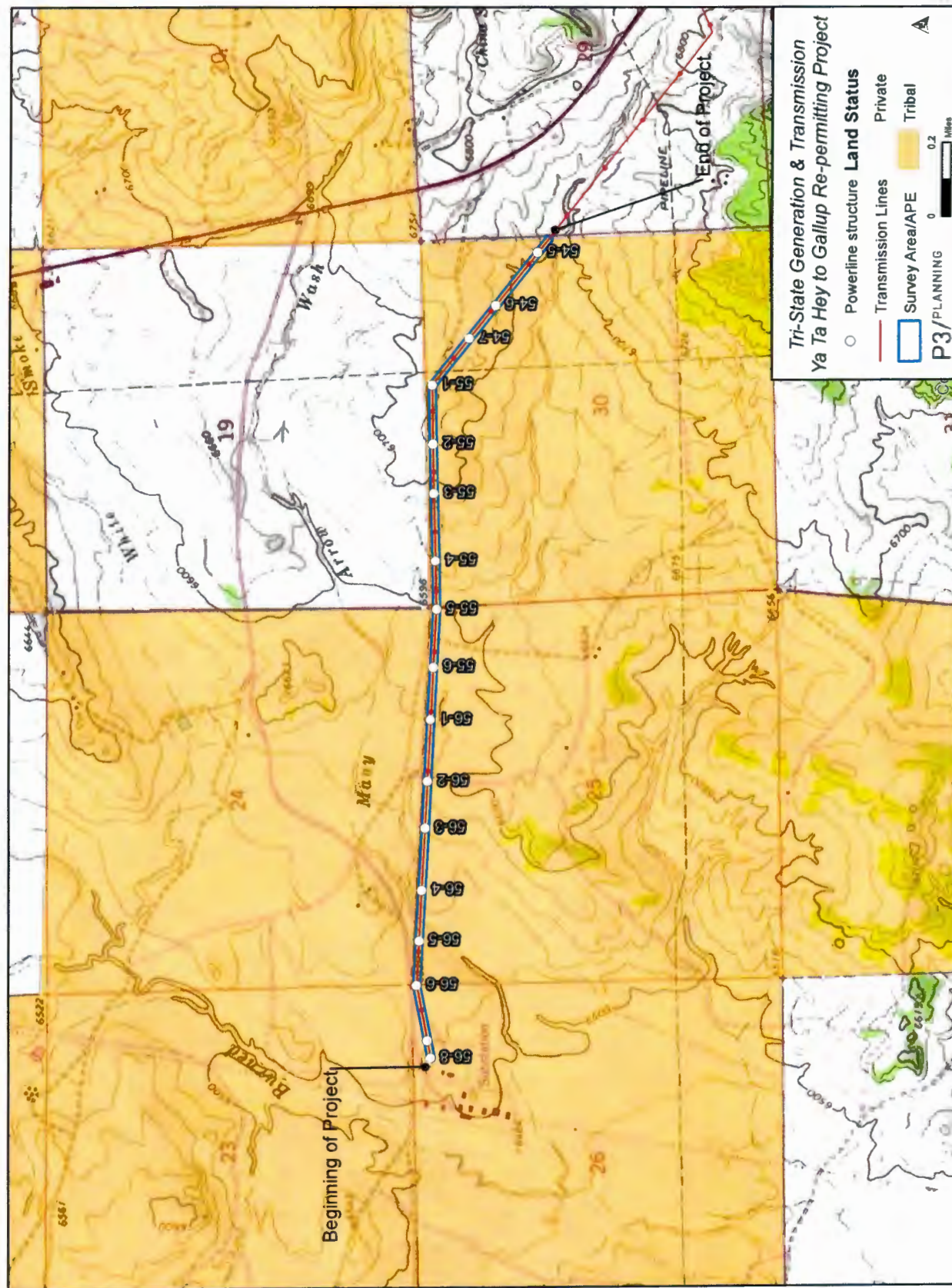


Figure 1. Project area map.

Wash, and Defiance Draw. In fact, these—along with many of the unnamed small drainages—have significantly incised the landscape over the past 100 years (possibly due to overgrazing).

Elevation ranges dramatically in the Navajo Section: from 4,700 ft above mean sea level (amsl) around the Four Corners, to over 9,916 ft amsl at Chromo Mountain on the Continental Divide (100 miles northeast of the project). Within the current project area, elevation ranges from 6,520 to 6,700 ft amsl.

Surface geology in the project area includes Quaternary alluvial and aeolian deposits with underlying horizontal Cretaceous materials from the Mesa Verde group. Both the Menefee and Crevasse Canyon formations are composed of shales and sandstone that form much of the local exposed bedrock. These two formations also serve much of the local extractive coal development in the greater Gallup area.



Figure 2. Project area overview (looking east towards Structure 56-4)

The mean annual precipitation in the greater Gallup area averages around 9 inches. Most of the rain falls in the summer months in the form of isolated monsoonal thunderstorms. The winter months of December and January also contribute some moisture—mostly in the form of snowfall.

The project area traverses approximately 4.2 miles of Great Basin Desert Scrubland—or Juniper Savanna (Dick Pedie 1992). This ecological zone is characterized by cold-temperate desertland with big sagebrush (*Artemisia* spp.), saltbush (*Atriplex* spp.), winterfat (*Ceratoides lanata*), tumble mustard (*Sisymbrium altissimum*), Indian ricegrass (*Oryzopsis hymenoides*), cholla (*Opuntia* spp.), prickly pear cactus (*Optunia polyacantha*), globemallows (*Sphaeratcea* spp.), snakeweed (*Gutierrezia sarothrae*) and grama grasses (*Bouteloua* spp.). In addition, interspersed junipers (*Juniperus* spp.) and piñon pine (*Pinus* spp.) can be found throughout the scrublands, which is thought to be a result of grazing over the past 100 years.

Animals found throughout this community include the black-tailed jackrabbit (*Lepus americana*), dark kangaroo mouse (*Microdipodops megacephalus*), Ord's kangaroo rat (*Dipodomys ordii*), mule deer (*Odocoileus hemionus*), coyote (*Canis latrans*), rattlesnakes (*Crotalus* spp.), gopher snakes (*Pituophis* spp.) and many other species. Avian fauna include: sage sparrow (*Amhisipiza belli*), sage thrasher (*Oreoscoptes montanus*), pinyon jays (*Gymnorhinus cyanocephalus*), red-tail hawks (*Buteo jamaicensis*), ravens (*Corvus corax*) and countless other migratory and year-round residents.

In general, the project area is typical of the physical and natural environments of the Navajo Section of the Great Basin. P3planning identified many of the species noted above—as have other researchers in the area. In addition, the project is bisected by a number of heavily incised arroyos. Exposed bedrock was noted on top of ridges, and deep deposits of sandy soils were noted in cut-banks, and other eroded surfaces. Also, industry and residents have a deep relationship with the area. This can be seen with members of The Navajo Nation living and working on their allotments—and grazing horses and cattle in the area. In addition, industry such as electric transmission, generation, and distribution are notable—as are the extractive industries such as coal mining and natural gas exploration. Illegal dumping is also a problem in the area—and across New Mexico. Modern trash was noted throughout—most often in the larger arroyos.

CULTURAL SETTING

The following culture history briefly outlines the prehistory and history of the Colorado Plateau region of the Southwest around Gallup, New Mexico in order to provide a context for understanding and evaluating cultural resources located in the project area. Given the resources encountered in the current project, greater regional detail is provided for the Gallup Basin when describing the Pueblo II and III periods.

PALEOINDIAN PERIOD (10,000 – 5500 B.C.)

The earliest, well-documented human occupation in New Mexico began circa 10,000 B.C. This was a time of climatic fluctuations, with generally wetter and cooler conditions prevailing. These conditions favored the spread of grassland vegetation, which supported a variety of late Pleistocene and early Holocene species such as mammoth, camelids, ground sloth, and extinct forms of bison. The remains of these animals have been found in association with Paleoindian sites, not uncommonly with evidence for killing and butchering. Traditionally, the Paleoindian adaptation has been characterized as centered on big-game hunting (Irwin-Williams and Haynes 1970); however, this has been a recent recognition of evidence for the exploitation of smaller game and plant resources. Paleoindian lithic technologies are easily transported, reliable, and carefully designed to fulfill multiple future tasks, with lithic toolkits generally consisting of distinctive lanceolate spear points, bifaces, and scrapers—all made of high-quality raw material from disparate sources.

The Paleoindian period is typically divided into three subperiods, each equated with widespread “cultures” or “complexes”—Clovis (10000–9000 B.C.), Folsom (9000–8000 B.C.), and late Paleoindian (8000–5500 B.C.). The Clovis complex is associated with a toolkit comprised of large, fluted lanceolate points produced from bifaces (Clovis points), bifacial knives, graters, hammerstones, transverse end scrapers, and side scrapers (Wilmsen 1970). Numerous Clovis sites have been documented in New Mexico, particularly within the southern and eastern portions of the state, and Clovis materials have been found in direct association with the remains of mammoth and other extinct megafaunal species. The Folsom complex immediately follows Clovis, and is defined by smaller lanceolate points with large flutes extending almost the entire length of the blade, end scrapers, drills, and abrading stones. Folsom sites appear to be related to a subsistence and mobility pattern focused around the exploitation of bison species, particularly *Bison antiquus*.

A shift to drier environmental conditions occurred around 8500 B.C. in association with the appearance of the Late Paleoindian/Plano complex, which encompasses various subcomplexes defined on the basis of distinctive projectile points. This proliferation in point styles is indicative of increasing regionalization of populations, which likely represents a decrease in mobility. Late Paleoindian sites tend to be spatially associated with water sources and evidence exploitation of herds of bison, rather than individual animals, and thus hunting was likely communal in nature (Cordell 1979, Wheat 1972).

ARCHAIC (5500 B.C. – A.D. 200)

During the Archaic period (5500 B.C.–A.D. 200), there was a continuation of mobile hunting and gathering, but a shift towards a more generalized subsistence base than in the preceding Paleoindian period. This broadening of diet breadth was likely necessitated by the decline in the abundance of large-bodied game. Archaic groups generally exploited a wider range of environmental settings, but within more geographically restricted areas. Archaeological evidence indicates that mobility was seasonal and tied to the density and distribution of key plant resources across the landscape. Archaic technology reflects a greater reliance on plant foods and small game, particularly manos, basin metates, and various dart points. Although settlement patterns are diverse, Archaic sites are generally small and seasonal, including base camps, limited activity/logistical sites, hearths, roasting features, groundstone, and pit structures.

Traditionally, researchers have utilized the culture areas defined by Irwin-Williams (1973) for the Archaic Period in the Southwest, particularly the Oshara Tradition for the northern Southwest (Colorado Plateau). Each of these traditions is divided into temporal phases, primarily on the basis of projectile-point

morphology. The project area is located primarily within the known geographical distribution of the Oshara tradition. The Oshara sequence is divided into five phases—Jay (5500–4800 B.C.), Bajada (4800–3200 B.C.), San Jose (3200–1800 B.C.), Armijo (1800–800 B.C.), and En Medio (800 B.C.–A.D. 400), which spans the Late Archaic and Basketmaker II (A.D. 1–500) periods. The Oshara phases reflect increasing complexity leading up to the Anasazi occupation. Many researchers currently utilize a more general and inclusive Archaic sequence divided into Early (5500 to 3500 B.C.), Middle (3500 to 1500 B.C.), and Late Archaic (1500 B.C.–A.D. 200) periods.

Early Archaic sites are relatively rare, and little is known about settlement or subsistence. Early Archaic finds are usually isolated Jay or Bajada points, sometimes with associated lithic scatters and/or groundstone tools. The Middle Archaic Period (3500–1500 B.C.) coincides with the Altithermal, a climatic shift to warmer conditions (1986, Matson 1991). In general, population appears decline over much of the northern Southwest during this period, and some suggest that there was a southward migration of people from the northern Colorado Plateau. Projectile point styles also become more geographically restricted. During the Late Archaic Period (1500 B.C.–A.D. 200), domestic structures and groundstone tools become more abundant, indicating a decrease in mobility and an increase in the intensity of plant processing activities. Although maize appeared in the American Southwest during the Archaic period between 1500 and 1000 B.C. (Cordell 1997), it did not become a staple in the northern Southwest until the subsequent Basketmaker period. The impact and role of maize agriculture on Archaic subsistence systems continues to be a major topic of debate (Berry 1982, Matson 1991, Minnis 1985, Wills 1995).

Several Archaic sites in the Gallup Basin were recently excavated during the Transwestern Pipeline Expansion (Burchett et al, 1994), revealing a generalized subsistence base that emphasized wild plant sources and game with some evidence of corn and squash by the later Archaic (Hammett and McBride 1993). Researchers suggest these sites show a seasonal migration pattern with spring through early fall encampments around grassland ecozones, and late fall and winter camps concentrated in the higher woodland or transitional environments.

ANASAZI PERIOD

The primary cultural sequence used to describe post-Archaic cultural developments in the Southwest is the Pecos Classification (Kidder 1927), which includes the Basketmaker III, Pueblo I, Pueblo II, Pueblo III, and Pueblo IV periods (Figure 3). Although the sequence was originally based on Kidder's work at Pecos Pueblo, some of the changes that define differences between the Basketmaker III, Pueblo I, and Pueblo II periods on the Colorado Plateau—such as the shift to aboveground masonry architecture—occurred at varying times across the Southwest. Several trends that emerged in earlier periods culminated during the Anasazi period, including population growth, greater sedentism and attendant architectural and sociopolitical developments, the emergence of ceramic technology, increasing dependence on agriculture, and storage of agricultural products. In northern New Mexico, Wendorf and Reed (1955) place the introduction of ceramic technology at around A.D. 600, although it may have arrived later in some areas. Anasazi is an encompassing term borrowed from the Navajo language for the Basketmaker-Pueblo period continuum of development. Archaeologists use and understand the term Anasazi to apply to prehistoric peoples of a particular time period and, as used here, should not be confused with the Navajo *Anasazi*, referring to all ancient peoples who inhabited *Diné* customary lands.

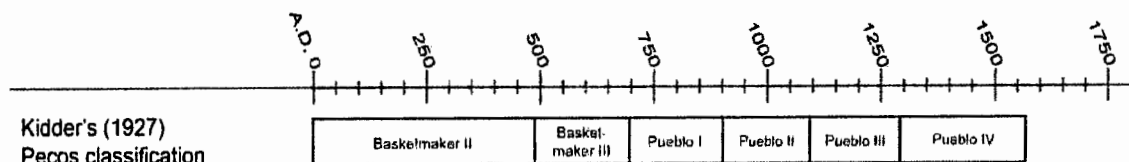


Figure 3. Pecos classification

BASKETMAKER II AND III (A.D. 200 – 700)

The Basketmaker period marks a major shift in subsistence technology as groups became more dependent on agriculture. This time is characterized by the introduction of the bow-and-arrow, the appearance of pottery, increase in site size, formalization of subterranean residential structures, and the first appearance of non-residential or communal structures. Pitstructures, which typically vary from 5 to 8 m in diameter, are often associated with formal storage features, some of which are slab-lined (Bradley 1994). After the appearance of ceramics in the archaeological record, regional cultural traditions are defined primarily on the basis of the geographic distribution of distinctive pottery types. The Anasazi culture area (defined on the basis of grayware pottery) is concentrated in the San Juan Basin and northern Rio Grande areas of northwestern New Mexico and southwestern Colorado.

Pueblo I (A.D. 700 – 900)

The Pueblo I period ends in A.D. 900 in the classic Pecos Conference chronology (Kidder 1927); however, its terminus may be closer to A.D. 1000 in the broader Gallup Basin area (Gumerman and Dean 1989). Site frequencies (and populations) increase slowly in the San Juan Basin (Judge 1989, Gumerman 1984, Gratz 1991). Sites begin to show a transition to aboveground architecture, with groups of pithouses occurring alongside blocks of masonry rooms (many of which lack much building stone, perhaps indicating they were mostly constructed of jacal). Pithouses also begin to exhibit architectural features of kivas that become more common later in the Pueblo II and III periods. Assemblages are dominated by plain-ware pottery, but some utility vessels exhibit neck banding and black-on-white and black-on-red types also are present. Groundstone artifacts are common, along with smaller projectile points exhibiting side-notches. There is a growing reliance on agriculture in the Pueblo I period (Plog 1979) even though some researchers have suggested environmental conditions deteriorated slightly with less precipitation during the growing season (Gumerman 1988, Dean et al. 1989).

Documentation of sites from Pueblo I period within the Gallup area is generally poor. Architectural changes include the use of aboveground structures for habitation, the removal of interior divisions in pithouses, a shift from clay-lined to slab-lined firepits, pole support modifications and the addition of benches. Ceramics include Lino Gray, White Mound Black-on-white, Kana'a Black-on-white, and Kiathutlana Black-on-white (Anyon et al. 1983:49). Brownwares are still present in the western portion of the Gallup Basin. Scheick (1991) has suggested that there is increased contact between cultural groups in this period, possibly resulting from movement in response to changing climatic conditions and more reliance on agriculture.

Pueblo II (A.D. 900 – 1100)

The Pueblo II period exhibits a shift to using aboveground structures for habitation, although pithouses are still used as well. Roomblocks are increasingly constructed of masonry rather than jacal (Cordell 1979; Gratz 1991). Site sizes in northwestern New Mexico slightly increased or remained similar to those in the Pueblo I period (Plog 1979). Site frequency, however, grew significantly in the San Juan Basin, a development that Judge (1989) attributes to immigration as well as local population growth (Cordell 1979).

Sites typically include rectilinear roomblocks with an associated kiva and middens. If pithouses are present, they often are adjacent to the roomblocks near the kiva. Artifact assemblages include greater varieties of black-on-white ceramics and a shift to more corrugated utility vessels rather than plain wares. Additionally, black-on-red wares from the south begin to appear in increasing quantities later in the period. Lithic artifacts are frequently simple, and two-hand manos, along with slab metates, are common. Hunting and gathering remain critical despite the continued reliance on agriculture. By roughly A.D. 1000, there is increased evidence of trade and potential economic specialization, along with a rise in water tables and more favorable climate for agriculture (Dean et al. 1985).

Gladwin (1945) defined three phases within the Gallup Basin that span the Pueblo II period. The Red Mesa phase (A.D. 870–930) is characterized by a variety of architectural types, including aboveground rectilinear pueblos with extramural hearths and four to six rooms constructed of adobe, jacal, or masonry (Beal 1978). If pithouses are present, they appear to have both habitation and ceremonial functions. Indented corrugated ceramics first appear during this phase and Red Mesa Black-on-white is the diagnostic ceramic. The Wingate phase (A.D. 930–1000) includes the introduction of black-on-red ceramics (principally Puerco and Wingate Black-on-reds) with the most common decorated wares being Puerco and Gallup Black-on-whites. Other changes include more intramural hearths, a small increase in the number of rooms in pueblos, and the appearance benches and pilasters in some kivas (Gumerman and Olson 1968). The Hosta Butte phase (A.D. 1000–1080) was defined based on sites north of Crownpoint, New Mexico and is not typically discussed for resources in the Gallup Basin (Gladwin 1945, Schieck 1991). Outside of the Gallup Basin, sites are increasing in size up to 60 rooms by late Pueblo II/early Pueblo III periods, but room estimates in the Gallup Basin and the Rio Puerco Valley indicate that the largest sites from this time period contain fewer than 25 rooms.

Populations increase throughout the Anasazi region during the Pueblo II period. In particular, the Red Mesa Valley east of the Gallup Basin exhibits much greater site densities at the conclusion of the Pueblo II period, with a pattern of large community houses (containing roomblocks with pit structures at the center of the cluster) surrounded by various site types (Schieck 1983). This development is not evident in the Gallup Basin, except perhaps in Manuelito Canyon where Fowler et al. (1987) documented extensive Chacoan communities. Most of the basin was utilized, however, including areas that may have been marginal for agriculture (Schieck 1991). Some researchers feel this growth developed *in situ* due to favorable climate that allowed for use of more arid uplands. Black Creek Canyon, Manuelito Canyon and the Tohatchi area may have been the most favorable environments for agriculture, while the other portions of the Gallup Basin could be used during periods of more rainfall (Cordell 1982). Changes in site types, increases in trade goods, more frequent kivas, and overall population aggregation have been suggested as indicating greater economic and social ties with external groups and increasing participation in intraregional networks (Cordell 1982, Fehr 1982).

Pueblo III (A.D. 1100 – 1300)

The Pueblo III period is marked by continued use of pithouses as common habitation structures, masonry roomblocks with enclosed kivas, and some later sites featuring enclosed plazas and meal rooms attached to roomblocks (Cordell 1979, Gumerman 1984). This specialized architecture for food processing may suggest a need to maximize benefits derived from agricultural products. Sites are increasingly large with multi-story pueblos built around large plazas (Plog 1979). Artifact assemblages exhibit increased variety in ceramic design and polychrome pottery begins to appear, while lithic artifacts are similar to those in the Pueblo II period (Cordell 1979).

One of the major developments of the Pueblo III period is the construction of large hundred-room pueblos in Chaco Canyon and growth of the associated regional system. By the middle of the Pueblo III period, however, a widespread drought with limited rainfall occurred across the Colorado Plateau. This significant event is thought by many researchers to be the cause of major population shifts in the Southwest, including the abandonment of Chaco Canyon and much of the San Juan Basin (Cordell 1979, Dean et al. 1985, Judge 1989), although others suggest that the redistribution is due to reorganization of settlement patterns and subsistence strategies.

In the Red Mesa Valley, people had abandoned many of the large Chaco-related communities by early Pueblo III, although some bigger upland communities remained (Schieck 1985). Gumerman and Dean (1989) suggest that the Kayenta area probably attained its highest population just before the end of the period. In the Gallup Basin, evidence suggests populations moved to areas with established intraregional connections, including large increases in the occupation of Manuelito Canyon and Tohatchi area. Otherwise, the use of the drier areas in the Gallup Basin declined, likely due to several droughts from A.D. 1090 to 1250. These areas, however, may have been used seasonally during wetter conditions as evidenced by short-term residential and limited activity sites (Schieck 1983, 1991; Kauffman 1985).

Gladwin (1945) suggests people left the Gallup Basin gradually, moving west toward the river valleys and Manuelito Canyon, Tohatchi, and Black Creek around A.D. 1200 or 1250. The high site densities in these areas in the later Pueblo III period may also be related to population movement related to the collapse of the Chaco system.

Pueblo IV (A.D. 1300 – 1600)

The Pueblo IV period continued trends seen previously with more large sites found in limited areas of the Southwest, including extensive villages with hundreds or thousands of rooms (Plog 1979). Populations in the greater Gallup area were concentrated near Zuni, New Mexico and Hopi, Arizona (Cordell 1979). Additionally, a few other well-watered areas (such as the Puerco and Little Colorado River valleys and some of the larger washes) continued to be occupied into the early part of this period, perhaps due to the drier conditions and environmental changes that first began around A.D. 1275 and persisted until about A.D. 1500 (Gumerman and Dean 1989). Agriculture continued to be very important to highly aggregated settlements and there is evidence of increasing use of water-control systems such as reservoirs. Yellow wares from the Hopi area and glaze polychromes from Zuni are some of the highly distinctive ceramic styles that developed in the densely settled areas (Cordell 1979, Plog 1979).

HISTORICAL BACKGROUND

Navajo Traditional History

There has been increasing recent attention to Navajo traditional history—knowledge passed orally from one generation to the next as part of song, poetry, clan origin stories and ceremonial narrative—and how it can be productively used to interpret Navajo material culture, an approach previously not employed with great effect by archaeologists (Begay and Roberts 1996; Brugge 1983, 1996; Kelley and Francis 1994, 2003; Stein et al. 2007; Warburton and Begay 2005; Williams et al. 2006). We can little improve on Byszewski's excellent synthesis of these findings and recommend the reader to her work (Parrish, Hurt, Parker, and Byszewski 2007). One particularly interesting research focus was that of clan relations and the potential inclusion of outsiders into Navajo culture. For example, there are several accounts of Navajo clans with descent from the Anasazi (Warburton and Begay 2005) and four Navajo clans—Salt, Bitter Water, Tall House, and Many Houses—have origin stories connecting them to the Chaco Canyon Anasazi (Stein 2008). Brugge (1996) suggests that nearly one-third of contemporary Navajo clans claim Pueblo origins. These scholars demonstrate the value of combining traditional history and archaeological data to provide a more balanced and full consideration of the human past, also allowing groups to have their own voice and self-definition.

The first historical references to the Navajo indicates they were mostly located in the Dinétah area of northeast Arizona and the eastern San Juan Basin during the 1600s. Spanish accounts from the Espejo Expedition (1582) refer to Athapaskan speakers in the vicinity of Acoma (Brugge 1983). By the 1700s, Navajo groups had moved to both the south and west, and several communities along the Rio Puerco are cited in late eighteenth-century documents. Navajos and other Athapaskan populations had complex interactions with other groups in New Mexico, including pueblos, Spanish/Hispanic/Anglo settlements, and nomadic Athapaskans. This dynamic relationship persisted for several centuries, from the 1500s through the middle 1800s. Navajo material culture during this period was distinguished by conical forked-pole hogans, masonry pueblitos built in defensive locations, elaborate rock art, evidence for both agricultural and pastoral economies, polychrome and plain gray ceramics, and the use of Pueblo trade wares. Although sites dated to this period are concentrated in the Dinétah area, they have also been identified distributed across the San Juan Basin and Colorado Plateau. Later sites came to include masonry hogans (which appear along with the earlier forked-pole type), a continuation of polychrome and plain gray ceramics, the greater occurrence of glass and metal artifacts, and evidence for an increasingly pastoral economy.

Early Spanish Colonial Period (A.D. 1540 – 1692)

The early historic period in western New Mexico began with the appearance of Coronado and Spanish explorers in A.D. 1538, when the *entrada* reported people living at Zuni Pueblo in large villages. Permanent Spanish colonization of New Mexico, however, began with the expedition of Don Juan de Oñate, who was chosen by the Spanish government to colonize New Mexico and divide land for Spanish settlement. In 1598, his expedition set out from central Mexico with 400 soldiers and settlers, as well as 10 Franciscan friars, eventually establishing the capital of New Mexico near modern-day Ohkay Owingeh (Riley 1995). Oñate's early goals were to explore the region and assign missionaries to pueblos, but the new colony was plagued by continuing hostilities with native peoples (including numerous Spanish atrocities) and discontent among both settlers and friars. Eventually the capital was moved to Santa Fe, which would contain the majority of Spanish settlers in the region until the Pueblo Revolt.

Spanish occupation of New Mexico in the 1600s was frequently harsh. They strengthened their control through Franciscan missions and the implementation of the *encomienda* (awards of trusteeship over indigenous peoples) system. During this time the church and state had different goals, although both were paid for by the labor and resources extracted from the Native American Pueblo inhabitants. The Spanish population in New Mexico by 1630 is estimated at 750, and it likely never exceeded 2500 prior to the Pueblo Revolt (Barrett 2002a). Economic changes during this period included the adoption of new cultigens such as wheat, the introduction of sheep—and to a lesser degree, cattle and horses—and a variety of new technologies such as metallurgy.

The Early Spanish Colonial period witnessed an overall decline in population and contraction of the area and number of sites occupied by native groups. Settlement data indicates that the greatest periods of abandonment occurred in the 1630s and the decade prior to the Pueblo Revolt. Growing tensions between Pueblos and Spanish missionaries and settlers erupted in a pan-Pueblo revolt in 1680 that successfully removed the Spanish from New Mexico for the next 12 years. A total of 21 clergymen and 380 Spanish settlers were killed during the revolt, and an unknown number were taken captive. A variety of long-term causes of the revolt have been presented, including religious intolerance, forced labor, extraction of tribute, and increased Apachean raiding brought about, in part, by Spanish slave raids (Moore 2009). Riley (1995) points out that the Pueblos directed their greatest fury against the missionaries rather than settlers, suggesting that the Pueblo Revolt was an attempt to prevent further loss of cultural identity and religious practices, although economic factors likely also played a role. Driven by the desire to reclaim Indian souls lost to Christendom and the need for a buffer against French expansion, the Spanish returned to New Mexico under the command of de Vargas in 1692. The Pueblo Revolt was an extremely disruptive event and Barrett (2002:113) notes that the Pueblo population declined by 40 percent between 1680 and 1706.

Late Spanish Colonial Period (A.D. 1692 – 1821)

The goals of Spanish colonization following the reconquest were radically different than during their initial colonization. In general, the emphasis shifted from wealth acquisition, speculation, and Christian conversion to permanent settlement and the establishment of a lasting colony. Many of the more extreme forms of suppression were scaled back, and eighteenth-century mission policy was more accepting of native ceremonies. However, Spanish settlement remained slow throughout the period, and the Spanish would not surpass native populations until at least 1780.

The Spanish immediately instituted a new *merced* (land-grant) settlement system that transformed the way they utilized the resources of New Mexico (Wozniak 1987). Land grants were given to settlers who were expected to support themselves and their extended families through agriculture and stock-raising, and the exploitation of Native American labor was expressly prohibited (Simmons 1969). Most grants in the eighteenth century were given to groups rather than individuals, as a means of settling as many people as possible and to provide for defensible settlements, which led to the development of northern and western parts of New Mexico (Simmons 1969). The economic system of colonial New Mexico also changed drastically following the reconquest. Trade with Chihuahua expanded, and a merchant class developed. Metal, firearms, cloth, and other basic commodities were often in short supply, and trade

embargos served to keep the frontier colony impoverished. The sheep industry was reestablished and the *partido* system developed, under which owners partitioned parts of their flock to individual shepherds, who paid this debt with the original animals and a percentage of the increase at the end of the contract (Baxter 1987)

Raiding by nomadic groups increased drastically between 1750 and 1785 due to the expansion of Spanish settlement and a variety of processes taking place along the frontier of New Spain. Brooks (2002) brought a new focus on the redistributive aspects of this raiding system, which included a large market for slaves. Both Spanish and indigenous peoples engaged in this slave traffic and numerous families along the Rio Grande included Navajo servants and other individuals obtained from retributive incursions into the borderlands. Sporadic Apache attacks had occurred throughout the 1600s, and Comanche raids began in 1716 with raids on the northernmost pueblos and Spanish settlements. By 1740, the Comanches had pushed the Apaches out of much of the Southern Plains and cut off their trade networks with French colonies, forcing them into increased contact with Spanish settlements along the Rio Grande. As a result, the 1750s and 1760s were a time of continuous Apache and Comanche attacks on settlements and pueblos located along the northern and eastern frontier. Finally, the reorganization of Spanish defenses and a series of treaties led to a period of relative peace beginning around 1780 (Moore 2009). However, some friction still continued with Apache, Navajo, Ute, and Comanche groups through the early part of the 1800s.

Mexican/Santa Fe Trail Period (A.D. 1821 – 1848)

In 1821, the Treaty of Cordova brought New Mexico under the control of the newly independent Republic of Mexico. Although there was little change in the daily lives of most northern New Mexicans, significant changes did occur on a broader scale. First, the formerly outlawed trade with America was legalized, and the Santa Fe Trail was opened (Cordell 1979). Trade with the United States brought inexpensive goods to New Mexico and broke the monopoly of the Chihuahuan merchants, while also allowing many New Mexicans like Felipe Chaves to make their fortunes as *fleteros* (freighters) moving cargo along the Santa Fe Trail. In addition to goods, Anglo merchants, ranchers, and settlers also began arriving in New Mexico. The second major change was a more lenient land-grant policy, and Mexico began deeding large areas of grazing land beyond the river valleys, which eventually led to the expansion of settlement beyond the Rio Grande and its tributaries.

In 1846, Mexican rule of New Mexico was terminated when the Kearny Expedition arrived in Las Vegas and, faced with no resistance, claimed the territory for the United States. The United States, as part of its westward expansion, seized upon the liberal Mexican open-door policy and general weakness in its post-revolution government, declaring war on Mexico. Some areas in northern New Mexico provided isolated resistance; however, the Treaty of Guadalupe Hidalgo ended the Mexican-American War and formalized the ceding of New Mexico to the U.S. government in 1848.

U.S. Territorial Period to present (A.D. 1848 – present)

As a territory of the United States, many economic and political changes came to New Mexico. One of these changes was the estimated loss of almost 77 percent of the land claimed by native communities and Hispanic settlers due to issues with land grants and claims. Furthermore, homestead patents for land outside of grants were not given to Spanish or Mexican land grant claimants. Unconfirmed grant land was transferred into state or railroad land, or into public domain. Until the Civil War, there were not enough American military forces in New Mexico to substantially change the regional balance of power. This changed in 1863 when Kit Carson was ordered to round up the Navajo and move them to Bosque Redondo, south of present-day Fort Sumner. Conditions on the "Long Walk" to the camp were terrible and not much improved on their arrival. Nearly 9,000 people were forced to live in an area totaling less than 40 square miles. Crops failed repeatedly over the multiyear experiment. The Navajo and Apache also living on the doomed reservation did not get along, and costs ran to almost a million dollars a year to support all the people.

The railroad arrived in New Mexico in 1879 when the Atchison, Topeka, and Santa Fe Railway (AT&SF) line reached Las Vegas, integrating New Mexico into the growing American market economy. Later in the 1880s, the Atlantic and Pacific Railroad (which eventually was purchased by the AT&SF) was constructed through the area of present-day Gallup, resulting in significant regional changes. Gallup became a division terminal in 1889, mostly due to its proximity to nearby coal mines. The arrival of the railway had an enormous impact on commerce with Mexico and the economy of the territory of New Mexico. The transport of goods and resources between the U.S. and Mexico increased dramatically. The cattle ranching industry also soared with this advancement in transportation; the number of cattle in New Mexico quadrupled from 1880 to 1890 (Glover 1993: 209). In 1912, New Mexico was admitted as a state in the American Union.

Although mining became progressively more important in New Mexico after 1848, the industry doubled after the arrival of the railway (Deyloff and Snow 2001:29). Mining communities appeared and grew rapidly along its course. For example, the town of Gamerco, whose lands are adjacent to the current project, was settled as a company town in 1920 when the Gallup American Coal Company began to exploit coal seams in the area north of Gallup. Various facilities (for example, a coal processing plant, rail line, and power plant) were constructed to serve the community, which included almost 500 miners and their families at the peak of operations (Julyan 1996). The coal mine, however, closed in the 1960s and the infrastructure was removed. The Gallup area has changed in the later twentieth century, as the railroad diminished in its economic role (albeit transportation along the interstate corridor remains critical) and other activities such as tourism became more important.

PREVIOUS RESEARCH

On February 12, 2013, P3planning conducted a pre-field records search with The Navajo Nation Historic Preservation Department in Window Rock, Arizona to obtain information on all previously conducted surveys and recorded archaeological sites located within 1640 ft (500 m) of the project area. This same search was conducted with the New Mexico Cultural Resource Information System (NMCRIS) at the Archaeological Records Management Section (ARMS) to ensure that all known cultural resources and inventories were accounted for. Current listings of the NRHP and New Mexico State Register of Cultural Properties (NMSRCP) were also consulted to determine the presence of any cultural properties or districts within the APE. The purpose of the records review was to determine the location of known cultural properties that might be affected by the proposed undertaking and to derive expectations as to the nature and frequency of resources that might be encountered during the field survey.

The records searches indicated that one previous survey and one previously identified resource are located within the project area; seven previously recorded archaeological sites and four prior cultural resource investigations are shown in The Navajo Nation's database within 1640 ft (500 m) of the APE (Tables 1 and 2). The NMCRIS database only shows three previous archaeological sites and five surveys. The single previously recorded site is not in either database, but was located through consultation with ARMS—and through the literature search. The tables located below represent a combination of the record searches—where spatial data were available.

Most of the previous investigations in the vicinity of the project area are surveys associated with the installation of waterlines and/or home-sites. Two surveys in particular, one conducted in 2006 by Múukui-ci Cultural and Environmental Services (MCES; located outside of the 1640-ft ARMS review area) and a second conducted by Zuni Cultural Resource Enterprise (ZCRE) in 2011/2012 provide the most thorough and informative data. The MCES inventory (Kenward 2006), conducted as part of a waterline and homesite project, encompassed 116.34 acres of lands in the Rock Springs Chapter of The Navajo Nation. A total of three archaeological sites and 15 isolated occurrences (IOs) were recorded. Sites included roomblocks, lithic scatters, and historic materials. These sites had both Pueblo II/III and Unknown Prehistoric cultural/temporal affiliations. Historic materials were also noted within the project area. And while none of these sites are located within the current APE, they give a good foundation to the typical materials found in this area. The ZCRE inventory conducted in 2011 (Dongoke 2012) was associated with Reach 13 of the Navajo-Gallup Water supply project. ZCRE surveyed 169.69 acres over a 3.5-mile-long

corridor. A total of six archaeological sites were documented in this area, along with 52 IOs. One of the sites (Laboratory of Anthropology [LA] 172267—now assigned NM-Q-31-48) is located within the current APE. This site consists of a Pueblo II rubble mound/roomblock with a large midden containing thousands of ceramic artifacts. As such, ZCRE's findings also provided valuable context to the resources in the area.

Table 1. Previously recorded surveys within the project vicinity (1640 ft [500 m] of the APE)

NMCRIS No.	Performing Agency	Date Completed	Acreage
<u>Within APE</u>			
Unknown	Bureau of Indian Affairs Albuquerque Area Office	1985	8.5
<u>Within Project Vicinity</u>			
2113	UNM Office of Contract Archaeology	1975	63.92
13556	Museum of New Mexico	1978	145.45
15586	Complete Archaeological Services	1986	11.85
21325	NM State Highway & Transportation	1988	83.64
27843	Private Individual	1984	0.01
35752	NM State Highway & Transportation	1991	32
105456	Wasetta, Dwayne	2003	2.9
122105/123069	ZCRE	2011/2012	85/85

Table 2. Previously recorded sites within the project vicinity (1640 ft [500 m] of the APE)

LA No.	Site/Occupation Type	Cultural/Temporal Affiliation	NRHP Eligibility/ Criterion	NMCRIS No.
<u>Within Project Vicinity</u>				
171423	Prehistoric/Structural	Pueblo II (A.D. 700 – 1100)	Eligible, D	122105/123069
2523	Prehistoric/Non-structural	Unspecific Aboriginal (9500 B.C. – A.D. 1850)	Eligible, D	NA
2524	Prehistoric/Structural	Unspecific Aboriginal (9500 B.C. – A.D. 1850)	Not Entered	NA
16128	Historic/Structural	Unspecific Aboriginal (9500 B.C. – A.D. 1850)	Not Entered	75692

METHODS

P3planning archaeologists conducted a 100-percent pedestrian cultural resource survey of the APE for the proposed undertaking. The following sections summarize the methods used during pre-field preparations, field efforts, and post-field processing.

PRE-FIELD PREPARATION

As stated above, P3planning personnel completed a pre-field records review with The Navajo Nation Historic Preservation Department and with ARMS for previously recorded archaeological sites, buildings, structures, and surveys in the project area and vicinity prior to conducting the survey. In addition, current listings of the NRHP and the NMSRCP were consulted to determine the presence of any cultural properties or districts within, and in the vicinity of, the project area. Details of these searches are provided in the preceding Previous Research section.

Prior to entering the field, maps were produced in ArcGIS showing the project area and all previously recorded sites in the project vicinity. The project area and Universal Trans Mercator (UTM) North American Datum (NAD) 83, Zone 12, coordinate system were overlaid on USGS quadrangles and aerial photographs to aid in accurate identification of project boundaries during field recording.

FIELD METHODS

P3planning personnel completed the 100-percent pedestrian survey by walking transects no more than 49 ft (15 m) apart across the entire project area. Throughout this process, UTM coordinates were obtained using an Archer XF101 Global Positioning System (GPS) receiver with a positional accuracy of less than 3.28 ft (1 m). Transects were walked parallel to the centerline of the Tri-state transmission line. The GPS unit and project area maps were consistently consulted to assure full coverage of the project area. Notes on topographic features, hydrology, geology, vegetation patterns, ground surface visibility, and sources of disturbance and recent use were recorded during survey.

Sites were defined as occurrences of one or more features, or at least 10 artifacts in an area of 100 square meters, that are estimated to be at least 50 years old. Locations of human activity that did not meet the site definition were considered to be IOs. IOs were generally defined as any non-structural remains of a single event or any assemblage of approximately 10 or fewer artifacts within an area of approximately 10 square meters or less. Information recorded for IOs include the area (for IOs consisting of more than one artifact), artifact type and frequency, and sketches of diagnostic artifacts. GPS-derived locations for IOs and sites were verified by reference to landscape features and landmarks shown on USGS quadrangles and aerial photographs.

All newly discovered sites were recorded on Navajo Nation Site Record forms and identified using their temporary field number. A datum consisting of a metal rebar stake and a bright orange location stake (with etched temporary site number) was placed on each site. Supplemental in-field-analysis forms were used to record prehistoric and historic artifacts, provide adequate descriptive information for each assemblage, and assign cultural/temporal affiliations when possible. Cultural and temporal affiliations were assigned to sites with diagnostic artifacts and/or features on the basis of accepted type descriptions. All features were fully described and photographed. Drawings of features and individual diagnostic artifacts were also produced when applicable. To facilitate relocation, each site was plotted on the appropriate 7.5-minute USGS quadrangle. All sites were mapped using an Archer XF101 GPS unit. Each site map included the site number, site boundary, datum location, north arrow, scale, and legend. Maps also portray the location of features, artifact concentrations, diagnostic or other important artifacts, areas of disturbance, topographic data, and any other relevant features.

The same attributes were recorded on artifacts regardless of whether they were part of a site or an IO. Complete projectile points and point fragments were sketched in the field for later typological classification. Other tools or significant artifacts were photographed or illustrated in the field when necessary. Attributes recorded for flaked-stone artifacts include dimensions, cortex, completeness, and platform characteristics. Recorded attributes for groundstone artifacts include form (mano, metate, etc.), dimensions, condition, morphology, and grinding intensity/direction. P3planning personnel do not sketch all diagnostic ceramics in the field unless the ware and type cannot be determined. Because typological classification of these artifacts is based on numerous technological attributes—such as paste color and texture, temper type and size, surface smoothing or polish, use of mineral or carbon paint—that cannot be efficiently represented in a field sketch or photograph (in contrast to the primarily morphological attributes of projectile point types), P3planning relied instead on professional experience to conduct in-field analysis of ceramics. P3planning field crews utilized field manuals that provide ceramic type descriptions and completed ceramic analysis forms that include entries for typological classification and for various technological and design attributes for artifacts that cannot be confidently classified as to type. No artifacts were collected during this inventory.

In addition to archaeological sites and IOs, P3planning evaluated the APE for built environment resources, including historic buildings, acequias, and potential districts and/or cultural landscapes prior to, during, and after fieldwork using the standards outlined in New Mexico Register Volume XVI Issue Number 15 and National Park Service (NPS) National Register Bulletin 30 (McClelland, Keller, Keller, and Melnick 1999). Should they have been identified, in-use historic buildings, structures, and objects would have been recorded using the New Mexico Historic Cultural Properties Inventory (HCPI) form.

POST-FIELD PROCESSING

Following field investigations, all GPS data were differentially corrected to ensure sub-meter accuracy. Shapefiles were then exported to ArcGIS so that project area and site maps could be created. Additions and/or edits to shape files were made as necessary, based on notes taken during fieldwork. All field notes and artifact forms were checked for accuracy and completeness prior to the completion of site narratives and electronic forms. Digital photographs were downloaded and edited using appropriate software.

SURVEY RESULTS

The following sections provide a description of the results of the cultural resource survey, as well as NRHP eligibility evaluations and management recommendations for each recorded resource. A total of two newly discovered archaeological sites (NM-Q-31-49 and NM-Q-31-50), one previously recorded archaeological site (NM-Q-31-48/ LA 172267), and six IOs were documented during the current investigation. Maps depicting the location of these resources are presented in Appendix A, and their locations appear in Appendix B (Table B.1 and Table B.2). Navajo Nation Site forms are included as separate attachments to this report.

ISOLATED OCCURRENCES

A total of six IOs were documented during this investigation (Table 3). All of the IOs are prehistoric and were located in the western portion of the project area. Of the IOs, two consist of one or more pieces lithic debitage, another consisted of a single groundstone fragment, and the remaining three include ceramic artifacts. Of the debitage recorded as isolates, materials were limited to chalcedony and chert. A single piece of groundstone was also noted. It consisted of a two-handed mano fragment composed of a fine-grained sandstone.

Ceramic artifacts recorded as IOs include a non-diagnostic grayware body sherd, a Gallup black-on-white bowl sherd with mineral paint, and one black-on-red bowl sherd with bone-gray paste and a firing core.

While the spatial distribution of these artifacts provides information on the general prehistoric use of the project area, these resources lack additional data potential and are not likely to increase our understanding of prehistory. They are therefore recommended ineligible for listing on the NRHP under any criteria. No further investigations are recommended for these resources. A table containing a description of each IO, as well as their UTM coordinates, is provided in Appendix B. A map showing the location of all the IOs is provided as part of Appendix A.

Table 3. Isolated occurrences

IO Number	Description
1	Two late-stage-reduction thinning flakes measuring 20 millimeters (mm) x 15mm x 2mm and 20 mm x 10mm x 3 mm, respectively. Materials include mottled red/brown chert and brown chert. There is no visible cortex on either flake.
2	Non-diagnostic plain grayware body sherd with sand temper measuring 40mm x 26mm x 5mm.
3	Black-on-white body sherd with chevron design—likely Gallup Black-on-White. Sherd has mineral paint, sand temper, and a gray slip interior. It measures 48mm x 36mm x 6mm.
4	Black-on-red rim sherd of a bowl with bone-gray paste and a firing core. Has fine mica or sand temper and measures 32mm x 28mm x 6mm.
5	Single chalcedony late-stage-reduction thinning flake with no visible cortex. The flake measures 20mm x 18mm x 2mm.
6	Two-handed mano fragment (3/4 complete)—ground and pecked on all facets. Mano consists of a fine-tan sandstone and measures 17.5 centimeters (cm) x 9cm x 3cm.

PREVIOUSLY RECORDED ARCHAEOLOGICAL SITES

NM-Q-31-48 (LA 172267)

Temporary Site Number: P3-01-011-03

Site Type: Prehistoric, Structural

Occupation: Pueblo II (A.D. 900–1100)

Dimensions: 180 x 120 m

Land Ownership: The Navajo Nation and Gamera Associates (private property)

NM-Q-31-48 is a large prehistoric site consisting of a multi-room pueblo rubble mound, a midden, and thousands of artifacts dating from the Pueblo II period (A.D. 900–1100; Figure A.2). The site is situated at an elevation of 6715 ft amsl on the upper slope of a small hill/ridge and has a southern aspect. Slopes measure between 2 and 7 percent. A series of small arroyos cut southward; another large arroyo is located just north of the pueblo rubble mound and trends east-to-west. From the site area, there are expansive views to the east, south, and west. The Tri-State transmission line, Structure 54-5, and a two-track access road all are located along the southern portion of the site—well away from the rubble mound, features, and significant artifact concentrations. Vegetation in the immediate vicinity covers approximately 20 percent of the ground surface and includes scattered one-seed junipers, piñon pines, broom snakeweed, sand sage, chamisa, prickly pear, and several range grasses. Surface sediments consist of loosely consolidated aeolian silty sand and appear highly erodible. Observed sources of disturbance include aeolian erosion and down-cutting from a number of arroyos; however, the site is estimated to remain approximately 51 to 75 percent intact.

ZCRE (Dongoke 2012) originally recorded the site as LA 172267 in 2012 in support of the Navajo-Gallup Pipeline Project—although it does not currently appear on the ARMS database. Based on diagnostic artifacts, the site was assigned a Pueblo II

(A.D. 900–1100) cultural/temporal affiliation, and was determined to be eligible to the NRHP under Criterion D for its information potential. However, there are issues with ZCRE's current report, despite the recorded concurrence with the Bureau of Reclamation (the lead federal agency) and the New Mexico State Historic Preservation Officer. This relates to ZCRE submitting two separate reports with slightly differing results under the same NMCRIS number (although referencing two separate actions: NMCRIS 122105 and 123069). To help resolve this issue, and to clarify our results, P3planning met with ARMS representative Ms. Cordelia Snow following our field investigation. What we determined is that ZCRE conducted a series of surveys (see NMCRIS 122105 and 123069) for the same project—expanding their APE—and uploaded sites from only one phase of their project (although ARMS shows the total survey area). Unless ZCRE submits a new, inclusive document (and uploads all related GIS shapefiles), future



Figure 4. View southeast from center of NM-Q-31-48 toward Structure 54-4

researchers should fully review both ZCRE reports to ensure a complete understanding of their survey, results, and recommendations.

It should also be noted that much of this site is located on private property owned by Gamera Associates. P3planning/Tri-State did not have permission to survey on their lands, and therefore our recording is limited to ZCRE's summary and our interpretations of the site from Tri-State's ROW.

The most prominent feature of NM-Q-31-48 is a large pueblo rubble mound measuring 19 m x 12 m located in the northern portion of the site. The mound is oriented northeast-to-southwest and contains a series of buried and distinct chambers. ZCRE states that there are at least six rooms present, and, based on our review and the size of the mound, this seems reasonable. The mound itself is made of light-gray shaped and unshaped sandstone. ZCRE also notes some upright slabs.

Oriented due south of the pueblo is a large and expansive midden containing thousands of ceramics. Types noted include: Red Mesa, Escavada, Reserve, Puerco, Tularosa Black-on-white wares; Puerco and Wingate Black-on-red wares; St. Johns Polychrome; and indented corrugated and numerous other plain-ware sherds. Vessels include large and small jars, bowls, and mugs exhibiting a diversity of slips, tempers, and finishes. The densest concentration of ceramics is located within 15 m of the rubble mound, although artifacts are noted as far as 40 m south of the site (and 10 m north of the mound). The southern distribution is clearly related to slope-wash as many artifacts can be seen in disturbed contexts within the on-site arroyo cuts.

In addition to the thousands of ceramics, a small number of flaked (< 30) and thermally altered stone (n=5) was noted. The flaked-stone assemblage was limited to late-stage-reduction debitage; some fire-cracked sandstone was also noted in the vicinity of the rubble mound. Materials included mottled chert, chalcedony, and some petrified wood. No formal tools or groundstone was identified. Also, no thermal features or staining was noted.

The cultural/temporal affiliation of the site remains unchanged by the current site update. This is based on the presence of thousands of diagnostic ceramics, including many classic black-on-white specimens. As such, this Pueblo II habitation represents an area of intensive living, processing, and storing. And while formal tools were not identified, this may be due to modern collecting—or prehistoric scavenging of useful materials. The location of the site on the top of a hill/ridge may have made it a desirable vantage point from which to monitor the movement of wild game, or other humans—such as at nearby (and contemporary) sites NM-Q-31-49 and NM-Q-31-50.



Figure 5. Some of the variety of sherds at NM-Q-31-48

Eligibility and Management Recommendations

NM-Q-31-48 is a large structural prehistoric site that includes a rubble mound and midden area. Based on the presence of the collapsed pueblo and both the size and diversity of the artifact assemblage, the likelihood of intact subsurface cultural deposits is considered to be high. If such deposits are present, additional materials could yield valuable information on site function, temporal affiliation, ceramic and lithic technological organization, and prehistoric land use in the area. The site was determined to be *eligible* to the NRHP under Criterion D in 2012. No change in this determination is warranted.

P3planning recommends that the site be avoided by all future ground-disturbing activities—although the pueblo and midden area are located approximately 25 m north of Tri-State's ROW and on private property. Furthermore, it is recommended that vehicular traffic be restricted to the existing access road. Personnel should avoid turning vehicles around within the site boundaries, and the portion of the access road located within the site should be avoided during inclement weather when wet road conditions increase the potential for subsurface disturbance. If these recommendations are followed, subject to consultation and comment, the proposed ROW renewal—and future maintenance of the transmission line—will have *no adverse effect* on the site.

NEWLY RECORDED ARCHAEOLOGICAL SITES**NM-Q-31-49**

Temporary Site Number: P3-01-011-01

Site Type: Prehistoric, Structural

Occupation: Pueblo II (A.D. 900–1100)

Dimensions: 60 x 40 m

Land Ownership: The Navajo Nation

NM-Q-31-49 is a small prehistoric site consisting of a small thermal feature and a diffuse artifact scatter dating from the Pueblo II period (A.D. 900–1100; Figure A.3). The site is situated at an elevation of 6710 ft amsl on the knob of a small hill and has broad and sweeping views to the west and south. Slopes measure between 1 and 3 percent. Two bladed access roads define the northern extent of the site and Tri-State's transmission line spans the outer margins. Structures 55-3 and 55-2 are located approximately 75 m outside of the boundaries to the east and west. Vegetation in the immediate vicinity covers approximately 30 percent of the ground surface and includes scattered one-seed junipers, piñon pines, broom snakeweed, sand sage, chamisa, prickly pear, and several range grasses. Surface sediments consist of loosely consolidated aeolian silty sand and appear highly erodible. The site also has exposed sandstone bedrock and a series of large boulders. Observed sources of disturbance include aeolian erosion and road maintenance; however, the site is estimated to remain approximately 51 to 75 percent intact.



Figure 6. View west at NM-Q-31-49 looking toward Structure 55-3 (Feature 1 is in left foreground)

The sole identifiable feature on the site consists of an ashy stain measuring 1 m x 40 cm within the bladed road surface. A number of ceramic and lithic artifacts were noted within 5 m of the stain—concentrated on and around a push-pile just west of the feature. No fire-cracked rock was identified.

A series of formal tools were also identified on the site. These included a single sandstone one-hand mano with ground and pecked facets measuring 12 cm x 8 cm x 5 cm. In addition, a petrified wood biface was discovered 2 m from the thermal feature. It was intact and measured 7 cm x 4 cm x 0.8 cm. A third tool consisted of a broken Desert Side-notched projectile point composed of chert and measuring 2.3 cm x 1.6 cm x 0.3 cm. This point has a broad temporal association (late archaic to proto-historic), but based on the other artifacts, it is most likely from the Pueblo II period. Two petrified wood lithic-reduction cores—both measuring roughly 12 cm x 8 cm x 5 cm—were also identified along the exposed bedrock portion of the site.

In addition to the formal lithic tools, a number of late-stage lithic-reduction flakes were identified. These included mottled and brown chert (n=7), petrified wood (n=7), and quartzite (n=2).

Also of note was a moderate density of ceramics—mostly dating to the Pueblo II period (A.D. 900–1100). These included indented corrugated (n=13), Gallup/Red Mesa Black-on-white (n=4), and a number of plainware sherds (n=10). Vessels include large and small jars and bowls. The sherds, much like the lithics, are spread over the entire site with moderately more noted in the southern area—along the exposed bedrock and near the location of the previously noted projectile point.



Figure 7. Desert Side-notched projectile point at NM-Q-31-49

The cultural/temporal affiliation of the site appears consistent with other materials located in the area, such as at NM-Q-31-48 and NM-Q-31-50. Further, the Pueblo II classification is based on the presence of diagnostic ceramics, including many classic black-on-white specimens, and the single Desert Side-notched projectile point. As such, this site appears to represent a short-term Pueblo II encampment that served as a living, processing, and storing area. The location of the site on a prominent hill may have made it a desirable vantage point from which to monitor the movement of wild game, or other humans—such as at nearby (and contemporary) sites NM-Q-31-48 and NM-Q-31-50.

Eligibility and Management Recommendations

NM-Q-31-49 is a small structural prehistoric site that includes a small thermal feature and a diffuse artifact scatter. Based on the presence of the single feature, and the diversity of the artifact assemblage, the likelihood of intact subsurface cultural deposits is considered to be high. If such deposits are present, additional materials could yield valuable information on site function, temporal affiliation, ceramic and lithic technological organization, and prehistoric land use in the area. The site is therefore recommended *eligible* to the NRHP under Criterion D.

P3planning recommends that the site be avoided by all future ground-disturbing activities. Furthermore, it is recommended that vehicular traffic be restricted to the existing access road. Personnel should avoid turning vehicles around within the site boundaries, and the portion of the access road located within the site should be avoided during inclement weather when wet road conditions increase the potential for subsurface disturbance. If these recommendations are followed, subject to consultation and comment, the proposed ROW renewal—and future maintenance of the transmission line—will have *no adverse effect* on the site.

NM-Q-31-50

Temporary Site Number: P3-01-011-02

Site Type: Multicomponent, Structural

Occupation: Pueblo II (A.D. 900–1100); Historic (early-to-middle twentieth century)

Dimensions: 124 x 63 m

Land Ownership: The Navajo Nation

NM-Q-31-50 is a moderately sized multicomponent site consisting of three small thermal features and a diffuse prehistoric/historic artifact scatter dating from the Pueblo II period (A.D. 900–1100) and early-to-middle twentieth century (Figure A.4). NM-Q-31-50 is situated at an elevation of 6725 ft amsl on the eastern slope of a small hill. On-site gradients measure between 1 and 7 percent. A single bladed access road bisects the site and Tri-State's transmission line spans the outer margins. Structure 54-6 is located within the eastern extent of the site, but not in within the feature or artifact concentration areas. Vegetation in the immediate vicinity covers approximately 20 percent of the ground surface and includes scattered one-seed junipers, piñon pines, broom snakeweed, sand sage, chamisa, prickly pear, and several range grasses. Surface sediments consist of loosely consolidated aeolian silty sand and appear highly erodible. The site also has series of large boulders. Observed sources of disturbance include aeolian erosion and road maintenance. In fact, a small push-pile/bladed area is located along the road margins in the western extent of the site; however, NM-Q-31-50 is estimated to remain approximately 51 to 75 percent intact.

The three identifiable features consist of distinct and isolated ashy stains along the eastern extent of the site boundary. A few ceramic, lithic, and glass artifacts were noted within 10 m of the respective stains—although the greatest concentration of materials is located up-slope and away from the features. No fire-cracked rock was identified. The features are as follows:

Feature 1 is located on the north side of the two-track access road and measures 25 cm x 30 cm. No charcoal was noted, although a single corrugated sherd was identified within 1 m of the stain. A small number of lithic and ceramic artifacts were also noted within 10 m of the feature.

Feature 2 is an ashy/charcoal deposit just south of two-track access road. The stain measures 50 cm x 50 cm and modern bottle glass appears in close proximity. This feature is most likely historic-to-recent.

Feature 3 is an ashy stain measuring 20 cm x 25 cm with no associated artifacts.

In addition to the features, a number of historic artifacts were identified within the site boundaries. These included milk glass (n=8), bottle glass (n=10), sun-colored amethyst glass (n=6), an enamelware bowl fragment, solder-dot cans (n=4), sanitary cans (n=10), tobacco tins (n=1), and a single Nehi orange soda can. Based on the low-density of historic artifacts, it appears that these materials represent short-term encampments associated with nearby state highway 491 (formerly NM 666), hunting or herding by local Navajo, or ancillary activities from the nearby miners/residents in Gamerao.



Figure 8. View north at NM-Q-31-50 (Artifact Concentration 1 in foreground)

In addition to the historic materials, there is a moderate density of prehistoric ceramics—mostly dating to the Pueblo II period (A.D. 900–1100). These included indented corrugated (n=4), Gallup Black-on-white (n=12), Red Mesa Black-on-white (n=3), and a number of plainware sherds (n=5). Vessels include large and small jars and bowls. And while materials are located throughout the entire site area, they are concentrated on the hill-slope in the western extent of the site.

And while not a dominant component of the site, a small number of lithics were also identified. These were limited to late-stage-reduction flakes composed of chert (n=2), petrified wood (n=3), and chalcedony (n=1). No formal tools or groundstone were noted.

The prehistoric cultural/temporal affiliation of the site appears consistent with other materials located in the area, such as at NM-Q-31-48 and NM-Q-31-49. Further, the Pueblo II classification is based on the presence of diagnostic ceramics, including many classic black-on-white specimens. As such, this site appears to represent a short-term Pueblo II encampment that served as a living, processing, and storing area. The location of the site on the eastern slope of a small hill may have made it a desirable vantage point from which to monitor the movement of wild game, or other humans—such as at nearby (and contemporary) sites NM-Q-31-48 and NM-Q-31-49.

Further, the historic materials are consistent with twentieth-century artifacts found across New Mexico and the Western US—often near roads where camping was typical for travelers. The artifacts do not appear associated with ranching or homesteading and therefore do not likely contribute any new information to our understanding of early-to-middle twentieth century behavior.

Eligibility and Management Recommendations

NM-Q-31-50 is a moderately sized multicomponent site that includes three small thermal features and a diffuse prehistoric and historic artifact scatter. Based on the noted features and the diversity of the prehistoric artifact assemblage, the likelihood of intact subsurface cultural deposits is considered to be high. If such deposits are present, additional materials could yield valuable information on site function, temporal affiliation, ceramic and lithic technological organization, and prehistoric land use in the area. The site is therefore recommended *eligible* to the NRHP under Criterion D. The historic component, while interesting, is not likely to yield any new insights into the lives of people in the early-to-middle twentieth century. As such, we recommend the historic component of NM-Q-31-50 as non-contributing to the site's eligibility.

P3planning recommends that the site be avoided by all future ground-disturbing activities. Furthermore, it is recommended that vehicular traffic be restricted to the existing access road. Personnel should avoid turning vehicles around within the site boundaries, and the portion of the access road located within the site should be avoided during inclement weather when wet road conditions increase the potential for subsurface disturbance. If these recommendations are followed, subject to consultation and comment, the proposed ROW renewal—and future maintenance of the transmission line—will have *no adverse effect* on the site.



Figure 9. Red Mesa B/W sherd at NM-Q-31-50

INTERPRETIVE SUMMARY

One previously recorded archaeological site, two newly recorded archaeological sites, and six IOs were documented during the current investigation. The identified cultural resources are Pueblo II or Unspecified Prehistoric in cultural/temporal affiliation, along with some limited historic materials. The prehistoric sites and resources may be grouped into three main types based on feature and assemblage characteristics: (1) long-term occupations that likely involved fairly intensive exploitation of local resources (NM-Q-31-48), (2) shorter-term occupations/reoccupations—possibly targeting specific resources (NM-Q-31-49 and NM-Q-31-50) and (3) limited activity areas (IOs 1-6). The sites are also consistent with other materials found in the area. These include nearby sites LA 2523 and LA 2524, along with countless others in the broader Gallup Basin. The historic artifacts—while limited—are also consistent with other documented resources in the area. They likely represent short-term encampments possibly associated with nearby state highway 491 (formerly NM 666), hunting or herding by local Navajo, or ancillary activities from the nearby miners/residents in Gamerco.

PREHISTORIC FEATURES AND OCCUPATION TYPES

All three sites documented during this project contain cultural features, including charcoal/ash stains (NM-Q-31-49 and NM-Q-31-50), and a large rubble-mound (NM-Q-31-48). Most of the charcoal stains are 20 cm to 1 m in diameter and likely represent hearths. No larger stains or buried features were identified.

Hearths of this size are often associated with short-term encampments or occupations. Larger hearths are often associated with pithouses or roasting activities—and with a high concentration of fire-cracked rock. The two sites with smaller thermal features (NM-Q-31-49 and NM-Q-31-50) are in close association with Pueblo II ceramics (black-on-white and corrugated), a one-hand mano, a biface, and a broken Desert Side-notched projectile point. They are also in relative close proximity to each other and NM-Q-31-48. These may have served as short-term, nearby encampments or outliers to the larger pueblos in the area. They may also have been slightly earlier Pueblo II habitations that were occupied prior to the construction of NM-Q-31-48.

The large pueblo rubble mound at NM-Q-31-48 measures 19 m x 12 m and is located in the northern portion of the site. NM-Q-31-48 in particular represents a long-term occupation that must have involved intensive exploitation of resources. The mound is oriented northeast-to-southwest and contains a series of buried and distinct chambers. ZCRE (2012) states that there are at least six rooms present, and based on our review and the size of the mound, this seems reasonable. The mound itself is made of light-gray shaped and unshaped sandstone. This type of rubble mound is typical of the Pueblo II period's shift to using aboveground structures for habitation. In addition, as with other aboveground habitations from this time period, roomblocks were increasingly constructed of masonry rather than jacal (Cordell 1979; Gratz 1991). In addition, the lack of diagnostic materials prior to the Pueblo II period within the survey area is consistent with the assertions of Judge (1989) and Cordell (1979) that the San Juan Basin experienced significant growth—represented through site density—during this phase.

In addition to the roomblock on NM-Q-31-48, there is a large midden located to the south of the rubble-mound. Neither ZCRE (Dongoke 2012) or P3planning, however, identified pithouses or kiva depressions, which are often found adjacent to roomblocks. The artifact assemblage within the midden on NM-Q-31-48 included thousands of black-on-white ceramics and corrugated utility vessels. This is consistent with noted departures from plain utility wares to a variety of corrugated examples during the Pueblo II period. Additionally, black-on-red wares from the south were noted, albeit in proportionally smaller numbers indicative of trade vs. local production. Lithic artifacts were also not widely noted, and may suggest collecting by prehistoric inhabitants or by modern people. However, P3planning did identify the presence of a two-hand mano (IO 6), and other groundstone (NM-Q-31-49), in the area.

All of the IOs were interpreted as evidence of limited activity areas based on a lack of features and a limited quantity or diversity of artifacts. Of course some of the materials may have been transported though erosive episodes—especially the ceramic sherds (IOs 2, 3, and 4). The late-stage-reduction flakes

(IOs 1 and 5) are more likely attributable to Unspecified Prehistoric hunting activities, whereas IO 6 (a broken two-handed mano) may have been a discarded tool from one of the documented sites.

MATERIALS

Many of the artifacts documented in the project area are pieces of lithic debitage, followed by flaked-stone tools, and groundstone tools. Local chalcedony, chert, quartzite, and petrified wood, which are available in alluvial gravels, are the most common raw material types. Two petrified wood cores, a petrified wood biface, late-stage-reduction flakes (of all noted material types), and a single (broken) Desert Side-notched projectile point were recorded.

The two manos identified in the project area were produced from local, fine-grained sandstone. One of the manos (NM-Q-31-49) is ovoid/one-hand in form and the second (IO 6) is a broken two-handed example. Both manos are ground and pecked on all facets. During the broader Pueblo II period, assemblages are characterized by the addition of more two-hand manos and trough metates. This shift in grinding technology appears to be associated with the processing of dried maize, particularly *Maiz de Ocho* (or “flour corn”), and a food preparation regime involving ceramic vessels (Bartlett 1933:28; Crown and Wills 1995; Lancaster 1986). The lack of associated metates, which are not easily transported, suggests that some of the associated artifacts may either be buried—or were collected sometime after abandonment.

Ceramics were documented in large numbers on all three archaeological sites (NM-Q-31-48, NM-Q-31-49, and NM-Q-31-50), and in three of the six IOs. Identified types include Red Mesa, Escavada, Reserve, Puerco, Tularosa Black-on-white wares; Puerco and Wingate Black-on-red wares; St. Johns Polychrome; and indented corrugated and numerous other plain-ware sherds. Vessels include large and small jars, bowls, and mugs exhibiting diverse of slips, tempers, and finishes. The densest concentration of ceramics is located on NM-Q-31-48—with thousands of examples noted in the midden and downslope areas. These ceramics are clearly associated with evidence of intensive occupation—and agricultural activities (as noted above). The lack of definitive early materials, suggests that the use of the area became increasingly more intensive into the Pueblo II period.

The historic artifacts were limited to NM-Q-31-50 and may represent short-term encampments associated with nearby state highway 491 (formerly NM 666), hunting or herding by local Navajo, or ancillary activities from the nearby miners/residents in Gamerco. In either case, these early-to-middle twentieth-century artifacts consist of milk glass (n=8), bottle glass (n=10), sun-colored amethyst glass (n=6), an enamelware bowl fragment, solder-dot cans (n=4), sanitary cans (n=10), tobacco tins (n=1), and a single Nehi orange soda can. These types of artifacts—which are noted across the American West—are indicative of increased travel and trade across the U.S. during this time period.

CONCLUSION

In general, the sites and artifacts noted during the current inventory are consistent with the results of other researchers in the area. It is clear that most of the Gallup Basin was utilized, including areas that may have been marginal for agriculture, during the Pueblo II period (Scheick 1991). Some researchers feel this growth developed *in situ* due to favorable climate that allowed for use of more arid uplands. Black Creek Canyon, Manuelito Canyon and the Tohatchi area may have been the most favorable environments for agriculture, while the other portions of the Gallup Basin (such as the current project area) could be used during periods of more rainfall (Cordell 1982). Changes in site types, increases in trade goods, more frequent kivas, and overall population aggregation have been suggested as indicating greater economic and social ties with external groups and increasing participation in intraregional networks (Cordell 1982, Fehr 1982).

While no kivas were identified during the current survey, other observations made by Cordell (1979, 1982), Judge (1989), and Gratz (1991) are consistent with our findings of increased occupation in marginal areas during the Pueblo II period.

MANAGEMENT SUMMARY

On February 12, 2013, P3planning personnel conducted a records search with The Navajo Nation Historic Preservation Department and with the NMCRIS database to obtain information on all prior surveys and previously recorded properties located within 1640 ft (500 m) of the proposed project areas. Current listings of the NRHP and NMSRCP were also consulted. An intensive (100-percent) pedestrian cultural resource survey was conducted between May 28 and May 29, 2013. One previously recorded archaeological site (NM-Q-31-48/ LA 172267), two newly recorded archaeological sites (NM-Q-31-49 and NM-Q-31-50), and six IOs were documented during the current inventory. Management recommendations for these resources are summarized below.

Due to their limited data potential, the IOs are not likely to increase our understanding of the prehistory of the area. They are, therefore, recommended ineligible for listing in the NRHP under any criteria and no further management considerations are recommended for these resources.

Of the three sites located within the current project area, all are recommended as eligible to the NRHP under Criterion D for their potential to yield additional data that may address important research questions and contribute to our understanding of the prehistory of the region.

P3planning recommends that the sites be avoided by ground-disturbing activities and that vehicular traffic within site boundaries is restricted to existing access roads. Furthermore, it is recommended that maintenance personnel do not turn vehicles around within the site areas and avoid using access roads that traverse sites during inclement weather when surface deposits are particularly prone to disturbance.

If these recommendations are followed, the proposed undertaking will have *no adverse effect* on the qualities that may qualify the archaeological sites for inclusion in the NRHP. In the event that structures must be replaced within site boundaries and the recommendations described here cannot be followed, efforts must be coordinated with The Navajo Nation's Historic Preservation Department and the BIA. Site boundaries will be provided to Tri-State maintenance personnel in order to facilitate the avoidance of these resources.

If these recommendations are followed, subject to consultation and comment, the proposed ROW renewal will have *no adverse effect* on any of the historic properties within the APE. If buried cultural deposits are encountered during future project activities, work should cease immediately and The Navajo Nation Tribal Historic Preservation Officer and the BIA should be notified. The proposed project complies with the provisions of the NHPA of 1966, as amended through 1992, and the Archaeological Resources Protection Act of 1979, and all applicable regulations. The report is consistent with federal and tribal standards for cultural resource management.

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APPENDIX A

Maps

FOR OFFICIAL USE ONLY–

The public disclosure of the location of archaeological sites on state and private lands is prohibited by Section 18-6-11.1 NMSA 1978. Public disclosure of archaeological site locations is federally prohibited by 16 USC 470hh (CFR 296.18)

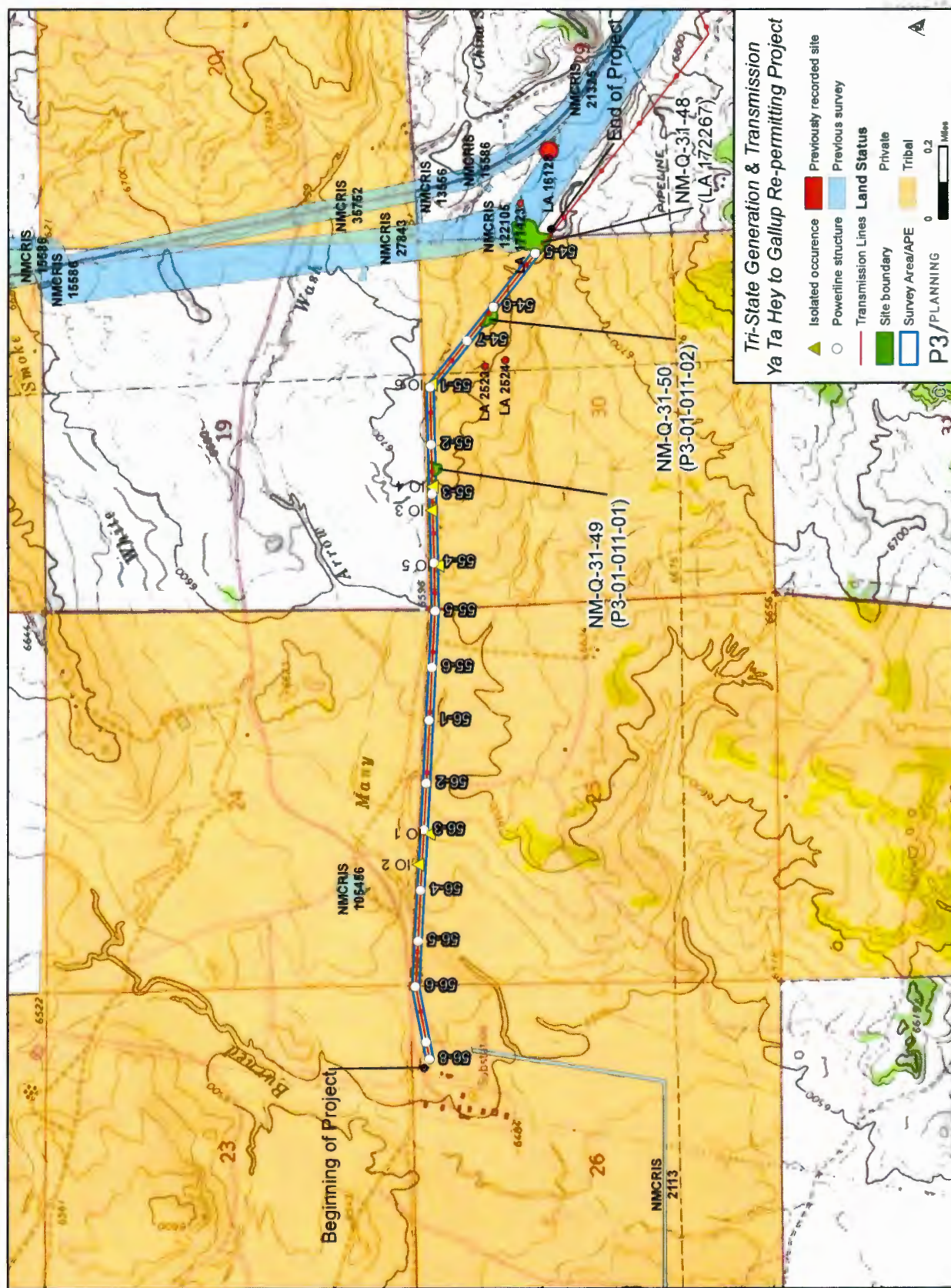
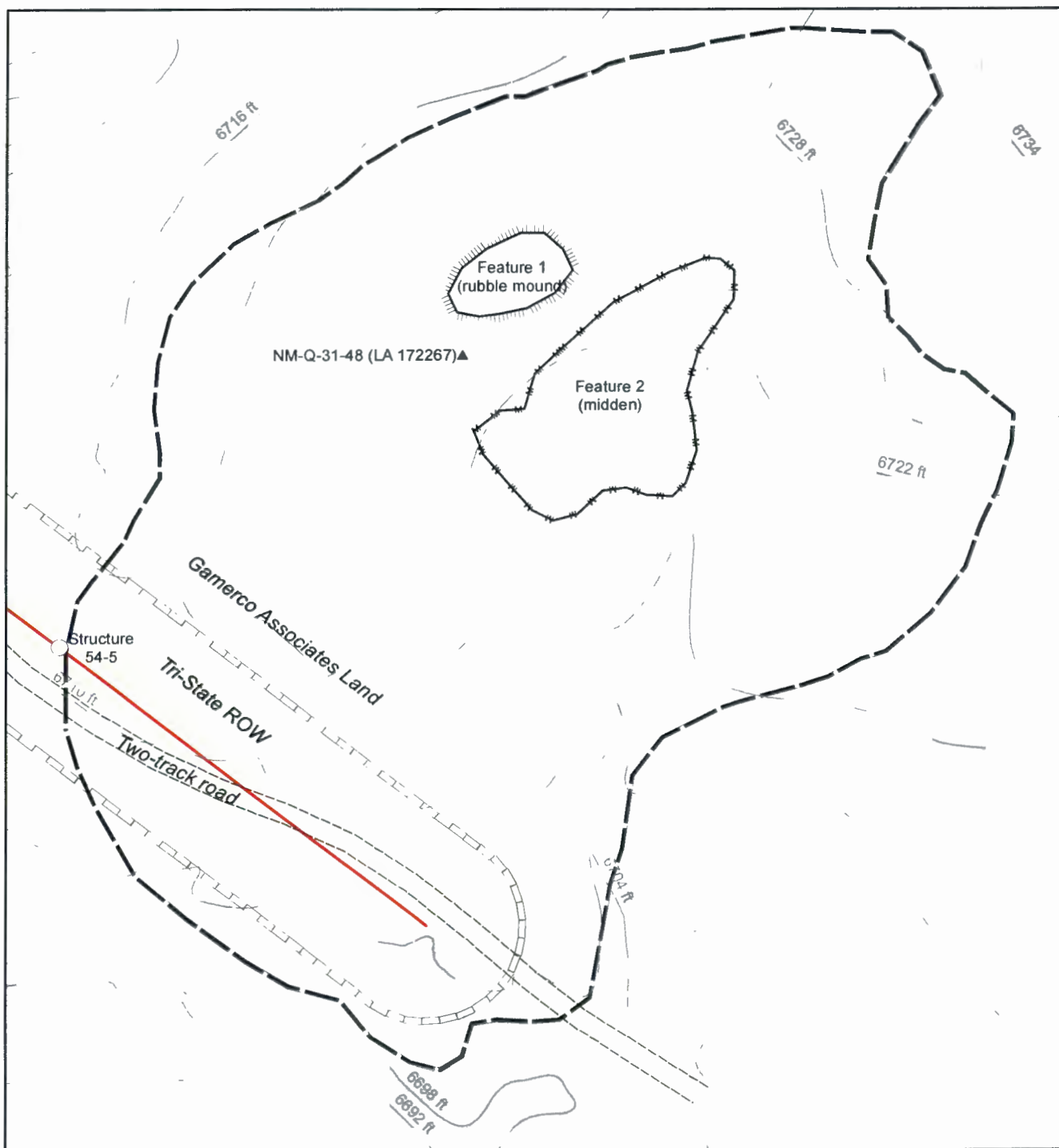


Figure A1. Project area map showing previously recorded sites and surveys.



Legend: NM-Q-31-48 (LA 172267)

Site boundary

Road edge

Survey area

Contours

Site datum

Thermal feature

Powerline structure

Rubble mound (likely pueblo)

Midden

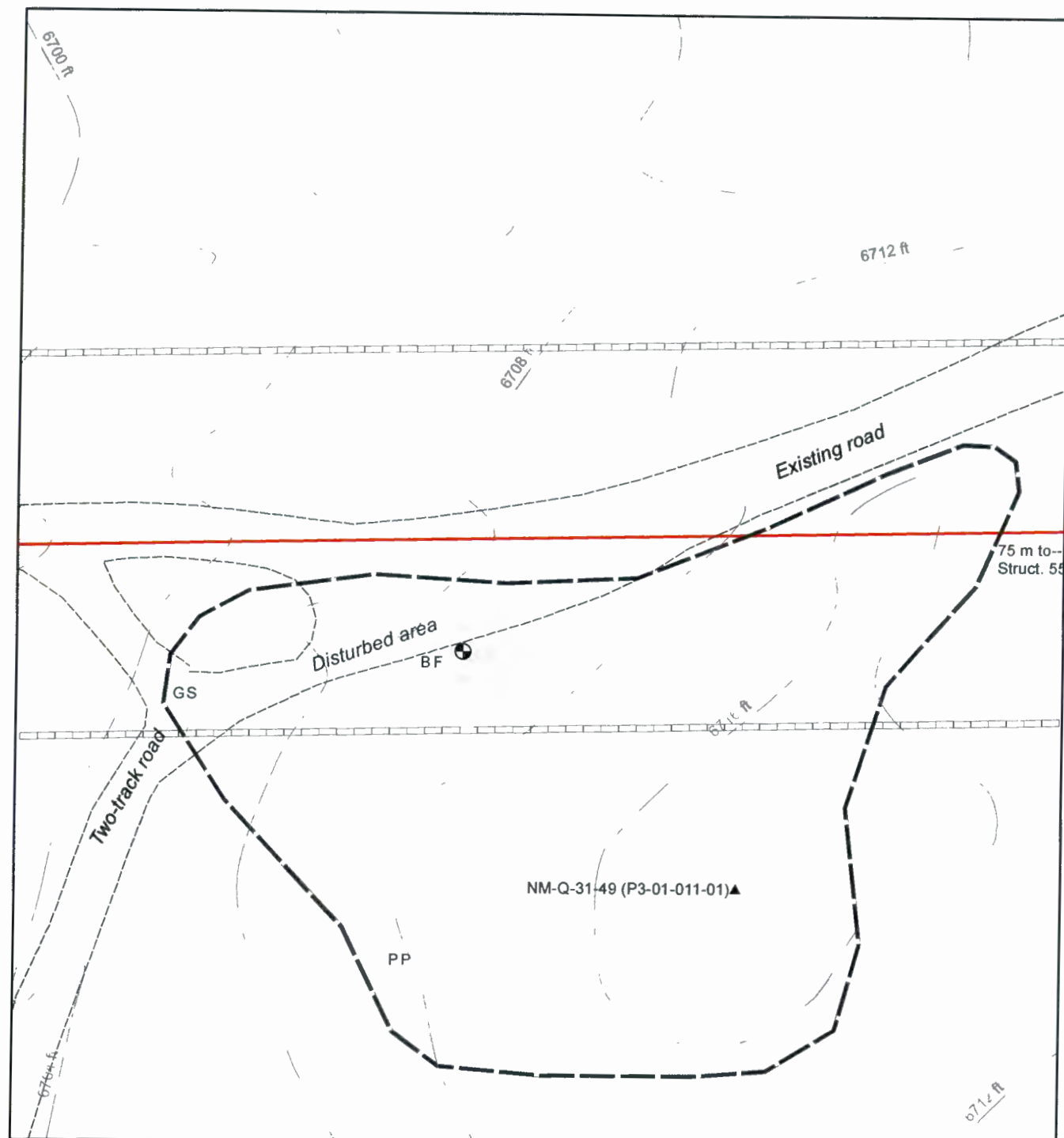
Tri-State Generation & Transmission
Ya Ta Hey to Gallup Re-permitting Project

0 20
Meters



Date: 4/3/2013

P3/PLANNING



Legend: NM-Q-31-49 (P3-01-011-01)

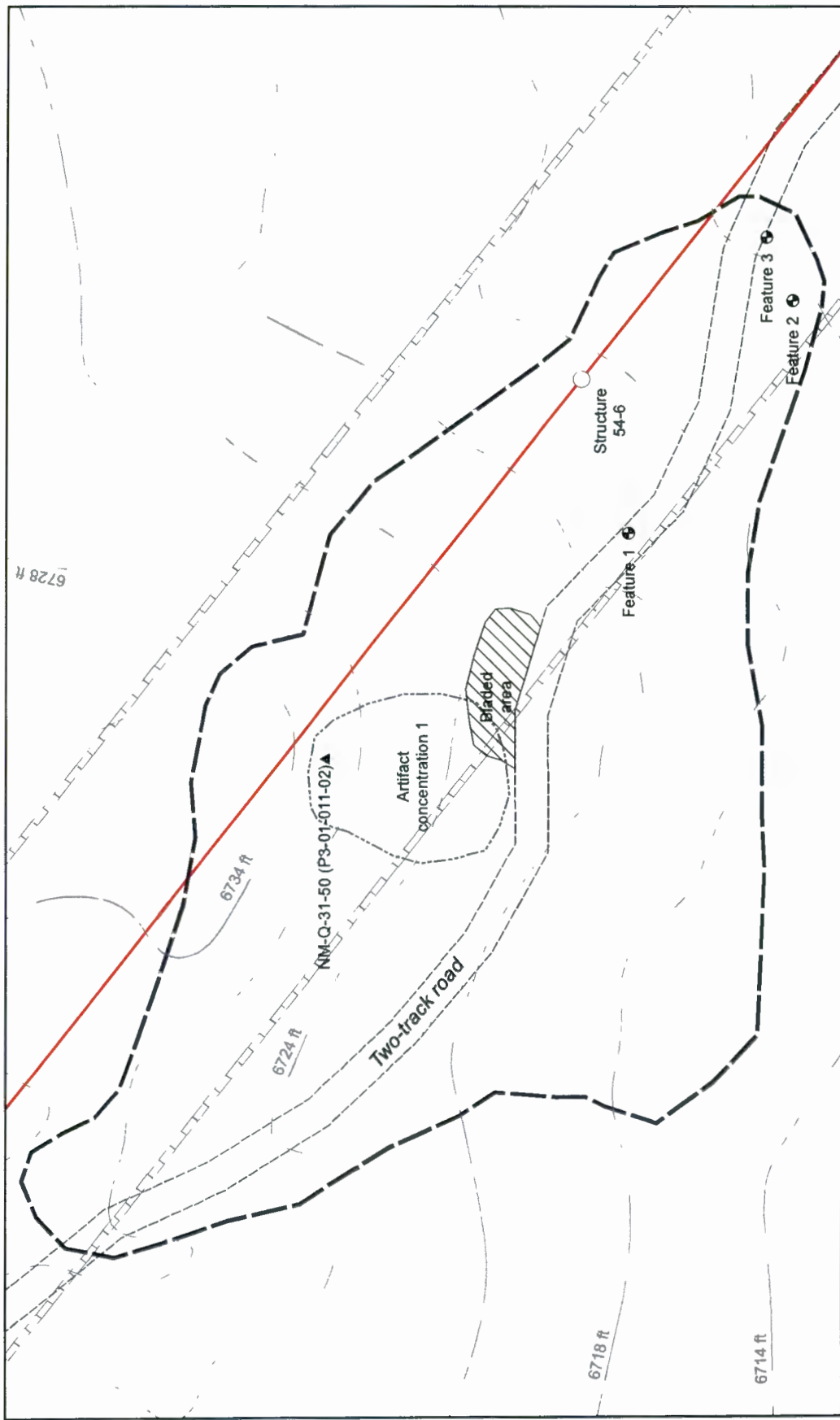
- | | |
|---------------|---------------------|
| Site boundary | Site datum |
| Road edge | Thermal feature |
| Survey area | GS Mano |
| Contours | PP Projectile point |
| | BF Biface |

Tri-State Generation & Transmission
Ya Ta Hey to Gallup Re-permitting Project



Date: 30/01/2013

P3/PLANNING



Legend: NM-Q-31-50 (P3-01-011-02)

- Site boundary
- Road edge
- Survey area
- Contours
- Site datum
- Thermal feature
- Powerline structure
- Artifact concentration
- Bladed area

Tri-State Generation & Transmission
Ya Ta Hey to Gallup Re-permitting Project



P3/PLANNING

APPENDIX B

Isolated Occurrence Table and Locational Data for Archaeological Sites Documented within the APE

FOR OFFICIAL USE ONLY–

The public disclosure of the location of archaeological sites on state and private lands is prohibited by Section 18-6-11.1 NMSA 1978. Public disclosure of archaeological site locations is federally prohibited by 16 USC 470hh (CFR 296.18)

Table B.1. Isolated Occurrence Location Information

Isolated Occurrence No.	Description	Location	UTMs (NAD 83; Zone 12)
IO 1	Two late-stage-reduction thinning flakes measuring 20mm x 15mm x 2mm and 20 mm x 10mm x 3 mm, respectively. Materials include mottled red/brown chert and brown chert. There is no visible cortex on either flake.	South-southeast of Structure 56-3	Easting 698889 Northing 3941133
IO 2	Non-diagnostic plain grayware body sherd with sand temper measuring 40mm x 26mm x 5mm.	West-northwest of Structure 56-3	Easting 698753 Northing 3941182
IO 3	Black-on-white body sherd with chevron design—likely Gallup BW. Sherd has mineral paint, sand temper, and a gray slip interior. It measures 48mm x 36mm x 6mm.	West of Structure 53-3	Easting 700302 Northing 3941125
IO 4	Black-on-red rim sherd of a bowl with bone-gray paste and a firing core. Has fine mica or sand temper and measures 32mm x 28mm x 6mm.	Side of road west of Structure 53-3	Easting 700405 Northing 3941121
IO 5	Single chalcedony late-stage-reduction thinning flake with no visible cortex. The flake measures 20mm x 18mm x 2mm.	Southwest of Structure 55-4	Easting 700064 Northing 3941094
IO 6	Two-handed mano fragment (3/4 complete)—ground and pecked on all facets. Mano consists of a fine-tan sandstone and measures 17.5cm x 9cm x 3cm.	East of Structure 55-1	Easting 700855 Northing 3941126

Table B.2. Site Location Information

Site No.	Description	Location	UTMs (NAD 83; Zone 12)
NM-Q-31-48 (LA 172267)	Large prehistoric site consisting of a multi-room pueblo rubble mound, a midden, and thousands of artifacts dating from the Pueblo II period (A.D. 900–1100).	Structure 54-5 is located within the southern site boundary.	Easting 701497 Northing 3940700
NM-Q-31-49	Small prehistoric site consisting of a small thermal feature and a diffuse artifact scatter dating from the Pueblo II period (A.D. 900–1100).	Structures 55-2 and 55-3 are located 75 m to the east/west.	Easting 700482 Northing 3941099
NM-Q-31-50	Moderately sized multicomponent site consisting of three small thermal features and a diffuse prehistoric/historic artifact scatter dating from the Pueblo II period (A.D. 900–1100) and early-to-middle twentieth century.	Structure 54-6 is located within the north-central site area.	Easting 701153 Northing 3940864

ARCHAEOLOGICAL INVENTORY REPORT DOCUMENTATION PAGE (HPD APR/93)

1. HPD REPORT NO.	
2. TITLE OF REPORT: <i>A Cultural Resources Survey for the Tri-State Ya-Ta-Hey Transmission Line Right-of-way Renewal, The Navajo Nation, McKinley County, New Mexico</i> (P3planning Project No. P3-01-011)	3. FIELDWORK DATES: May 28, 2013 – May 29, 2013 4. REPORT DATE: July 2013
5. CONSULTANT NAME AND ADDRESS: P3planning LLC 6100 4 th Street NW, No. 442 Albuquerque, NM 87107	6. PERMIT NO.: B13221 7. CONSULTANT REPORT NO.: P3-01-011
8. SPONSOR NAME AND ADDRESS: Mr. Curtis Miller Environmental Planner Tri-State G&T PO Box 33695 Denver, CO 80234	9. SPONSOR PROJECT NO.: 10. AREA OF EFFECT: 13.51 acres TOTAL AREA SURVEYED: 25.92 acres

11. LOCATION (MAP ATTACHED):

- a. Chapters: Rock Springs
- b. Agency:
- c. County: McKinley

d. State: New Mexico

- e. Land Status: Navajo Nation Tribal Trust and Tribal Fee
- f. UTM Zone : 12
- g. Legal: The two Navajo Nation Allotments (1482 and 1483) are located in Section 30 in Township (T) 16 North (N), Range (R) 18 West (W). The Navajo Fee Land portion is located in Section 25 in T 16N, R 19W.
- h. 7.5' Map(s): *Gallup West, New Mexico* USGS quadrangle
- i. Lead Agency: NNHPD

12. Report Attachments

a. Description of Undertaking:

Tri-State Generation and Transmission Association (Tri-State) is renewing right-of-way (ROW) easements for the Ya-Ta-Hey 115-kilovolt (kV) transmission line crossing Navajo Nation Indian Allotments 1482 and 1483—and across a piece of Navajo Fee land—in the Rock Springs Chapter of The Navajo Nation. The total length of the ROW renewal is roughly 2.14 miles. The renewed easement will be for the term of 25 years and cover the routine operation of the transmission line. As part of the renewal process for the ROW, Tri-State is working with The Navajo Nation and the Bureau of Indian Affairs (BIA), which provides technical assistance to the Tribe on leasing and ROW issues. BIA's involvement requires Tri-State to comply with various federal regulations, including the National Environmental Policy Act and National Historic Preservation Act (NHPA). Tri-State contracted with P3planning to help fulfill the BIA's obligations under Section 106 of the NHPA. Per consultation with The Navajo Nation and the BIA, and in consideration of BIA guidelines, these obligations included completing a cultural resource investigation of the easement. The attached report presents the results of the cultural resource investigations along Tri-State's ROW across lands owned by The Navajo Nation.

The Navajo Nation, with input from BIA, defined the area of potential effects (APE) as Tri-State's 115kV

transmission line easement on Navajo Nation land (measuring 50 feet [ft] wide by 11,292.8 ft long [or 2.14 miles]) plus an additional area extending 50 ft (15 meters [m]) beyond the ROW. The APE and survey area totaled 25.92 acres and consisted solely of Tri-State's existing ROW on lands under the jurisdiction of The Navajo Nation.

b. Existing Data Review:

On February 12, 2013, P3planning conducted a pre-field records search with The Navajo Nation Historic Preservation Department in Window Rock, Arizona to obtain information on all previously conducted surveys and recorded archaeological sites located within 1640 ft (500 m) of the project area. This same search was conducted with the New Mexico Cultural Resource Information System (NMCRIIS) at the Archaeological Records Management Section (ARMS) to ensure that all known cultural resources and inventories were accounted for. Current listings of the NRHP and New Mexico State Register of Cultural Properties were also consulted to determine the presence of any cultural properties or districts within the APE. The purpose of the records review was to determine the location of known cultural properties that might be affected by the proposed undertaking and to derive expectations as to the nature and frequency of resources that might be encountered during the field survey.

The records searches indicated that one previous survey and one previously identified resource are located within the project area; seven previously recorded archaeological sites and four prior cultural resource investigations are shown in The Navajo Nation's database within 1640 ft (500 m) of the APE (see Tables 1 and 2 of the report). The NMCRIIS database only shows three previous archaeological sites and five surveys. The single previously recorded site (LA 172267—now assigned NM-Q-31-48) is not in either database, but was located through consultation with ARMS—and through the literature search. Most of the previous investigations in the vicinity of the project area are surveys associated with the installation of waterlines and/or home-sites.

c. Area Environmental & Cultural Setting:

The project area is located in the Navajo Section of the Colorado Plateau physiographic province (Hawley 1986). The Colorado Plateau is roughly centered on the Four-corners region of the Southwestern United States—within western Colorado, northwestern New Mexico, southern and eastern Utah, and northern Arizona. This Navajo Section of the Colorado Plateau includes volcanic fields to the southwest and dramatic monclines and synclines to the south, east, and west. These geological features compose the Gallup Basin. Expansive rolling plains on highly eroded sandstone mesas and cuestas often characterize the Navajo section of the basin. Shiprock—located 75 miles north of the project area—is a prominent and culturally important monadnock formation on the Colorado Plateau. The Navajo Section is bounded to the west by the Chuska Mountains, to the north by the San Juan Mountains, to the east by the Rio Grande Rift, and to the south by the Zuni Mountains. The San Juan River—located 90 miles to the north—is the major hydrologic feature of the Navajo Section. However, the project area and surrounding environs are drained by hundreds of intermittent and ephemeral arroyos, draws, and washes that feed into the Puerco River located west of Gallup. Some of the major drainages include Black Ridge Wash, Burned Death Wash, and Defiance Draw. In fact, these—along with many of the unnamed small drainages—have significantly incised the landscape over the past 100 years (possibly due to overgrazing).

Elevation ranges dramatically in the Navajo Section: from 4,700 ft above mean sea level (amsl) around the Four Corners, to over 9,916 ft amsl at Chromo Mountain on the Continental Divide (100 miles northeast of the project). Within the current project area, elevation ranges from 6,520 to 6,700 ft amsl.

Surface geology in the project area includes Quaternary alluvial and aeolian deposits with underlying horizontal Cretaceous materials from the Mesa Verde group. Both the Menefee and Crevasse Canyon formations are composed of shales and sandstone that form much of the local exposed bedrock. These two formations also serve much of the local extractive coal development in the greater Gallup area.

The mean annual precipitation in the greater Gallup area averages around 9 inches. Most of the rain falls in the

summer months in the form of isolated monsoonal thunderstorms. The winter months of December and January also contribute some moisture—mostly in the form of snowfall.

The project area traverses approximately 4.2 miles of Great Basin Desert Scrubland—or Juniper Savanna (Dick Pedie 1992). This ecological zone is characterized by cold-temperate desertland with big sagebrush (*Artemisia* spp.), saltbush (*Atriplex* spp.), winterfat (*Ceratoides lanata*), tumble mustard (*Sisymbrium altissimum*), Indian ricegrass (*Oryzopsis hymenoides*), cholla (*Opuntia* spp.), prickly pear cactus (*Opuntia polyacantha*), globemallows (*Sphaeratcea* spp.), snakeweed (*Gutierrezia sarothrae*) and grama grasses (*Bouteloua* spp.). In addition, interspersed junipers (*Juniperus* spp.) and piñon pine (*Pinus* spp.) can be found throughout the scrublands, which is thought to be a result of grazing over the past 100 years.

Animals found throughout this community include the black-tailed jackrabbit (*Lepus americana*), dark kangaroo mouse (*Microdipodops megacephalus*), Ord's kangaroo rat (*Dipodomys ordii*), mule deer (*Odocoileus hemionus*), coyote (*Canis latrans*), rattlesnakes (*Crotalus* spp.), gopher snakes (*Pituophis* spp.) and many other species. Avian fauna include: sage sparrow (*Amphispiza belli*), sage thrasher (*Oreoscoptes montanus*), pinyon jays (*Gymnorhinus cyanocephalus*), red-tail hawks (*Buteo jamaicensis*), ravens (*Corvus corax*) and countless other migratory and year-round residents.

In general, the project area is typical of the physical and natural environments of the Navajo Section of the Great Basin. P3planning identified many of the species noted above—as have other researchers in the area. In addition, the project is bisected by a number of heavily incised arroyos. Exposed bedrock was noted on top of ridges, and deep deposits of sandy soils were noted in cut-banks, and other eroded surfaces. Also, industry and residents have a deep relationship with the area. This can be seen with members of The Navajo Nation living and working on their allotments—and grazing horses and cattle in the area. In addition, industry such as electric transmission, generation, and distribution are notable—as are the extractive industries such as coal mining and natural gas exploration. Illegal dumping is also a problem in the area—and across New Mexico. Modern trash was noted throughout—most often in the larger arroyos.

d. Field Methods:

P3planning archaeologists conducted a 100-percent pedestrian cultural resource survey of the APE for the proposed undertaking. The project area was inspected by walking parallel transects spaced no more than 15 meters apart to cover the project area and buffer zone.

13. CULTURAL RESOURCE FINDINGS:

a. Location/Identification of Each Resource:

A total of one previously recorded archaeological site (NM-Q-31-48/LA 172267), two newly recorded archaeological sites (NM-Q-31-49, and NM-Q-31-50), and six Isolated Occurrences (IOs) were documented during the current inventory.

b. Evaluation of Significance of Each Resource:

Isolated Occurrences

All of the IOs are prehistoric and were located in the western portion of the project area. And while the spatial distribution of these artifacts provides information on the general prehistoric use of the project area, these resources lack additional data potential and are not likely to increase our understanding of prehistory. They are therefore recommended ineligible for listing on the NRHP under any criteria. No further investigations are recommended for these resources.

Previously Recorded Site

NM-Q-31-48 (LA 172267 / Temp: P3-01-011-03) is a large structural prehistoric site that includes a rubble mound and midden area. Based on the presence of the collapsed pueblo and both the size and diversity of the artifact assemblage, the likelihood of intact subsurface cultural deposits is considered to be high. If such deposits are present, additional materials could yield valuable information on site function, temporal affiliation, ceramic and lithic technological organization, and prehistoric land use in the area. The site was determined to be *eligible* to the NRHP under Criterion D in 2012. No change in this determination is warranted.

Newly Recorded Sites

NM-Q-31-49 (Temp: P3-01-011-01) is a small structural prehistoric site that includes a small thermal feature and a diffuse artifact scatter. Based on the presence of the single feature, and the diversity of the artifact assemblage, the likelihood of intact subsurface cultural deposits is considered to be high. If such deposits are present, additional materials could yield valuable information on site function, temporal affiliation, ceramic and lithic technological organization, and prehistoric land use in the area. The site is therefore recommended *eligible* to the NRHP under Criterion D.

NM-Q-31-50 (Temp: P3-01-011-02) is a moderately sized multicomponent site that includes three small thermal features and a diffuse prehistoric and historic artifact scatter. Based on the noted features and the diversity of the prehistoric artifact assemblage, the likelihood of intact subsurface cultural deposits is considered to be high. If such deposits are present, additional materials could yield valuable information on site function, temporal affiliation, ceramic and lithic technological organization, and prehistoric land use in the area. The site is therefore recommended *eligible* to the NRHP under Criterion D. The historic component, while interesting, is not likely to yield any new insights into the lives of people in the early-to-middle twentieth century. As such, we recommend the historic component of NM-Q-31-50 as non-contributing to the site's eligibility.

14. MANAGEMENT SUMMARY (RECOMMENDATIONS):

Due to their limited data potential, the IOs are not likely to increase our understanding of the prehistory of the area. They are, therefore, recommended ineligible for listing in the NRHP under any criteria and no further management considerations are recommended for these resources.

Of the three sites located within the current project area, all are recommended as eligible to the NRHP under Criterion D for their potential to yield additional data that may address important research questions and contribute to our understanding of the prehistory of the region.

P3planning recommends that the sites be avoided by ground-disturbing activities and that vehicular traffic within site boundaries is restricted to existing access roads. Furthermore, it is recommended that maintenance personnel do not turn vehicles around within the site areas and avoid using access roads that traverse sites during inclement weather when surface deposits are particularly prone to disturbance.

If these recommendations are followed, the proposed undertaking will have *no adverse effect* on the qualities that may qualify the archaeological sites for inclusion in the NRHP. In the event that structures must be replaced within site boundaries and the recommendations described here cannot be followed, efforts must be coordinated with The Navajo Nation's Historic Preservation Department and the BIA. Site boundaries will be provided to Tri-State maintenance personnel in order to facilitate the avoidance of these resources.

If these recommendations are followed, subject to consultation and comment, the proposed ROW renewal will have *no adverse effect* on any of the historic properties within the APE. If buried cultural deposits are encountered during future project activities, work should cease immediately and The Navajo Nation Tribal Historic Preservation Officer and the BIA should be notified. The proposed project complies with the provisions of the NHPA of 1966, as amended through 1992, and the Archaeological Resources Protection Act of 1979, and all applicable regulations. The attached report is consistent with federal and tribal standards for cultural resource management.

15. CERTIFICATION:

General Charge Name: Nicholas Parker, PI

SIGNATURE:  DATE: July 30, 2013

Direct Charge Name: Nicholas Parker, PI


SIGNATURE:  DATE: July 30, 2013

Table 1 Project Area Information

Tri-State Ya-Ta-Hey Transmission Line Right-of-way Renewal	
Project Location	The two Navajo Nation Allotments (1482 and 1483) are located in Section 30 in T 16N, R 18W. The Navajo Fee Land portion is located in Section 25 in T 16N, R 19W. All Navajo Nation Lands in McKinley County, New Mexico
USGS Quadrangle 7.5' Map	<i>Gallup West, New Mexico</i> USGS Map Code: 35108-E7
Project UTM Coordinates (See Figure A.2, all points are Zone 12, NAD 83)	BOP—West end of project 697890 E 3941128 N EOP—East end of project 701501 E 3940637 N
Transmission-line Easement Dimensions	<p>Allotment 1482, Section 30, T 16N, R 18W, NMPM, McKinley County, New Mexico</p> <ul style="list-style-type: none"> • 50-ft.-wide right-of-way; 2,601.07 ft. in length; 2.9856 acres, more or less <p>Allotment 1483, Section 30, T 16N, R 18W, NMPM, McKinley County, New Mexico</p> <ul style="list-style-type: none"> • 50-ft.-wide right-of-way; 3,283.93 ft. in length; 4.2997 acres, more or less (including anchor easement) <p>Navajo Fee land, Section 25, T 16N, R 19W, NMPM, McKinley County, New Mexico</p> <ul style="list-style-type: none"> • 50-ft.-wide right-of-way; 5,407.80 ft. in length; 6.2073 acres, more or less and anchor easement of 0.0199 acres, more or less (total of 6.2272 acres)
Total Project Area	13.51 acres
Total Surveyed Area	25.92 acres

Table 2 Site Evaluation Table

NNHPD Site Number	National Register of Historic Places 36CFR 60.4				ARPA	AIRFA
	50 years old	Integrity	Criterion	Exclusions		
NM-Q-31-48 (LA 172267)	Yes	Yes	Criterion D	None	Yes	Potential
NM-Q-31-49	Yes	Yes	Criterion D	None	Yes	No
NM-Q-31-50	Yes	Yes	Criterion D	None	Yes	No

Table 3 Site Recommendation Summary

NNHPD Site Number	Recommendations	Monitoring Recommended
NM-Q-31-48 (LA 172267)	P3planning recommends that the site be avoided by all future ground-disturbing activities—although the pueblo and midden area are located approximately 25 m north of Tri-State’s ROW and on private property. Furthermore, it is recommended that vehicular traffic be restricted to the existing access road. Personnel should avoid turning vehicles around within the site boundaries, and the portion of the access road located within the site should be avoided during inclement weather when wet road conditions increase the potential for subsurface disturbance. If these recommendations are followed, subject to consultation and comment, the proposed ROW renewal—and future maintenance of the transmission line—will have <i>no adverse effect</i> on the site.	No
NM-Q-31-49	P3planning recommends that the site be avoided by all future ground-disturbing activities. Furthermore, it is recommended that vehicular traffic be restricted to the existing access road. Personnel should avoid turning vehicles around within the site boundaries, and the portion of the access road located within the site should be avoided during inclement weather when wet road conditions increase the potential for subsurface disturbance. If these recommendations are followed, subject to consultation and comment, the proposed ROW renewal—and future maintenance of	No

NNHPD Site Number	Recommendations	Monitoring Recommended
	the transmission line—will have <i>no adverse effect</i> on the site.	
NM-Q-31-50	P3planning recommends that the site be avoided by all future ground-disturbing activities. Furthermore, it is recommended that vehicular traffic be restricted to the existing access road. Personnel should avoid turning vehicles around within the site boundaries, and the portion of the access road located within the site should be avoided during inclement weather when wet road conditions increase the potential for subsurface disturbance. If these recommendations are followed, subject to consultation and comment, the proposed ROW renewal—and future maintenance of the transmission line—will have <i>no adverse effect</i> on the site.	No

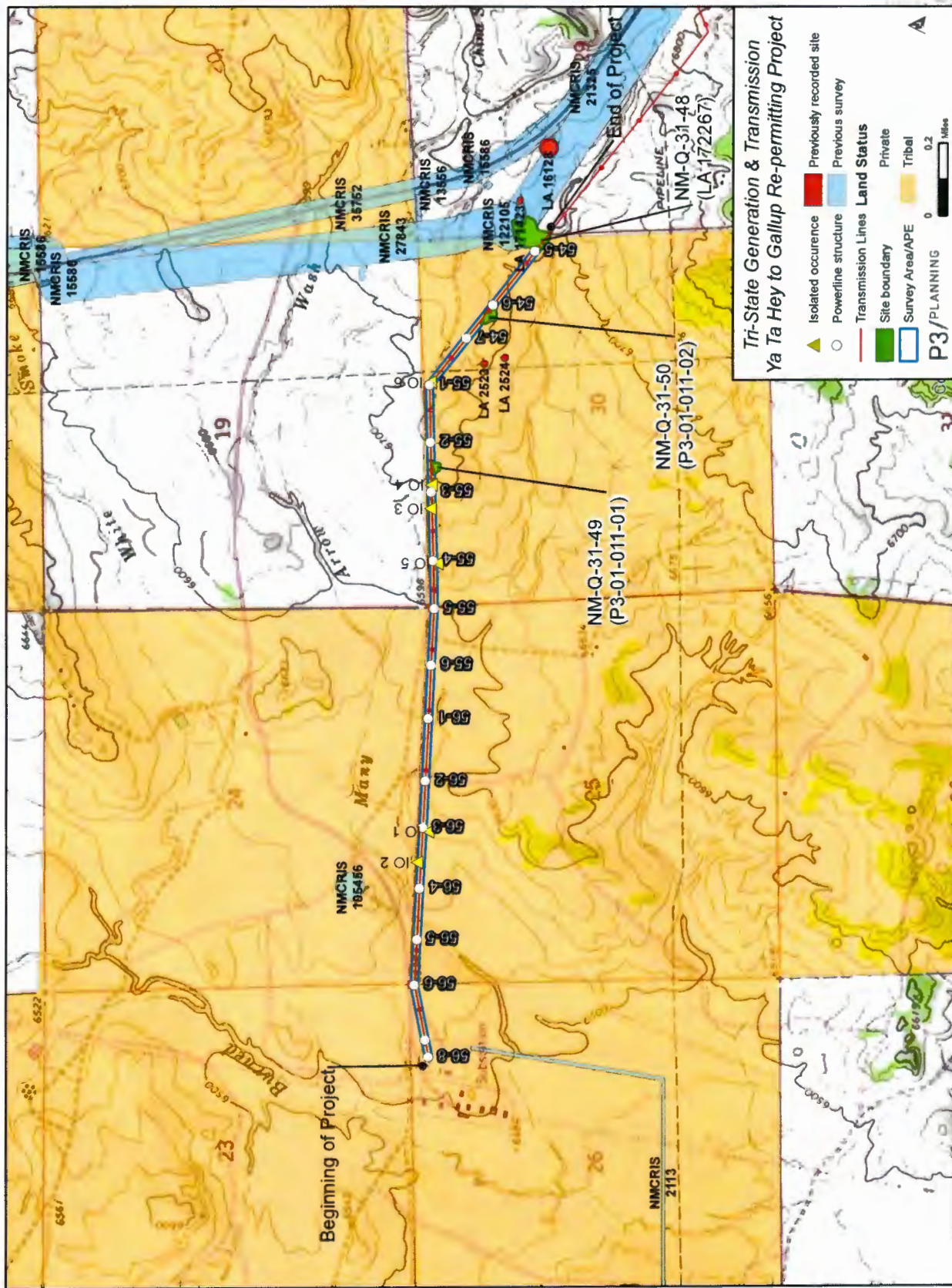


Figure A1. Project area map showing previously recorded sites and surveys.

Navajo Nation Archaeology Department

Site Survey and Management Form

SITE NO.: NM-Q-31-48 (LA 172267/ Temp: P3-01-011-03) DATE RECORDED: May 29, 2013

PROJECT NO. & NAME: A Cultural Resources Survey for the Tri-State Ya-Ta-Hey Transmission Line Right-of-way Renewal, The Navajo Nation, McKinley County, New Mexico (P3planning Project No. P3-01-011)

ORGANIZATION: P3planning LLC

ARCHAEOLOGIST (S): Nicholas Parker and William Penner

USGS MAP REFERENCE: Gallup West, New Mexico, USGS Map Code 35108-E7

LEGAL DESCRIPTION: SE/4, SE/4, NE/4 of Section 30, Township 16 North, Range 18 West, NMPM

UTM COORDINATES (ZONE 12): 3940700 N, 701497 E

STATE: NM COUNTY: McKinley CHAPTER: Rock Springs

LAND STATUS: Indian Allotment

GROUND VISIBILITY: Kind and extent of cover ? 20% vegetation cover

TOPOGRAPHY: The site is situated at an elevation of 6715 ft amsl on the upper slope of a small hill/ridge and has a southern aspect. Slopes measure between 2 and 7 percent. A series of small arroyos cut southward; another large arroyo is located just north of the pueblo rubble mound and trends east-to-west. From the site area, there are expansive views to the east, south, and west.

DRAINAGE: Unnamed drainages surround site; Arrow Wash located to the north

ELEVATION (FT/M): 6,715 ft amsl Slope and Direction: 2 to 7° South

SEDIMENT TYPE: Surface sediments consist of loosely consolidated aeolian silty sand and appear highly erodible.

VEGETATION PRESENT: Desert-scrubland vegetation covers approximately 20 percent of the ground surface and is dominated by scattered one-seed junipers, piñon pines, broom snakeweed, sand sage, chamisa, prickly pear, and several range grasses.

CULTURAL AFFILIATION:

1) Anasazi, Pueblo II period

SITE TYPE:

1) NM-Q-31-48 is a large prehistoric site consisting of a multi-room pueblo rubble mound, a midden, and thousands of artifacts.

PERIOD (S) OF OCCUPATION (Date if known):

1) Anasazi, Pueblo II period (ca. AD 900-1100)

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Site Survey and Management Form

DIMENSIONS OF SITE (L X W): 180 x 120 m TOTAL AREA (SQ.M): 21,600 m²

ARCHITECTURE PRESENT ? Yes DESCRIBE: The most prominent feature of NM-Q-31-48 is a large pueblo rubble mound measuring 19 m x 12 m located in the northern portion of the site. The mound is oriented northeast-to-southwest and contains a series of buried and distinct chambers. ZCRE states that there are at least six rooms present, and, based on our review and the size of the mound, this seems reasonable. The mound itself is made of light-gray shaped and unshaped sandstone. ZCRE also notes some upright slabs.

ARTIFACT OBSERVED/COUNTED: Field analysis included a sample of the thousands of artifacts observed on the ground surface. Types noted include: Red Mesa, Escavada, Reserve, Puerco, Tularosa Black-on-white wares; Puerco and Wingate Black-on-red wares; St. Johns Polychrome; and indented corrugated and numerous other plain-ware sherds. Vessels include large and small jars, bowls, and mugs exhibiting a diversity of slips, tempers, and finishes. The densest concentration of ceramics is located within 15 m of the rubble mound, although artifacts are noted as far as 40 m south of the site (and 10 m north of the mound). The southern distribution is clearly related to slope-wash as many artifacts can be seen in disturbed contexts within the on-site arroyo cuts.

In addition to the thousands of ceramics, a small number of flaked (< 30) and thermally altered stone (n=5) was noted. The flaked-stone assemblage was limited to late-stage-reduction debitage; some fire-cracked sandstone was also noted in the vicinity of the rubble mound. Materials included mottled chert, chalcedony, and some petrified wood. No formal tools or groundstone was identified. Also, no thermal features or staining was noted.

COLLECTION MADE ? No OF WHAT ? N/A METHOD: N/A

PHOTOS: Digital Download 1, Frames 15-20

SITE DESCRIPTION: NM-Q-31-48 is a large prehistoric site consisting of a multi-room pueblo rubble mound, a midden, and thousands of artifacts dating from the Pueblo II period (A.D. 900–1100; Figure A.2). The site is situated at an elevation of 6715 ft amsl on the upper slope of a small hill/ridge and has a southern aspect. Slopes measure between 2 and 7 percent. A series of small arroyos cut southward; another large arroyo is located just north of the pueblo rubble mound and trends east-to-west. From the site area, there are expansive views to the east, south, and west. The Tri-State transmission line, Structure 54-5, and a two-track access road all are located along the southern portion of the site—well away from the rubble mound, features, and significant artifact concentrations. Vegetation in the immediate vicinity covers approximately 20 percent of the ground surface and includes scattered one-seed junipers, piñon pines, broom snakeweed, sand sage, chamisa, prickly pear, and several range grasses. Surface sediments consist of loosely consolidated aeolian silty sand and appear highly erodible. Observed sources of disturbance include aeolian erosion and down-cutting from a number of arroyos; however, the site is estimated to remain approximately 51 to 75 percent intact.

ZCRE (Dongoke 2012) originally recorded the site in 2012 in support of the Navajo-Gallup Pipeline Project—although it does not currently appear on the ARMS database. Based on diagnostic artifacts, the site was assigned a Pueblo II (A.D. 900–1100) cultural/temporal affiliation, and was determined to be eligible to the NRHP under Criterion D for its information potential. However, there are issues with ZCRE's current report, despite the recorded concurrence with the Bureau of Reclamation (the lead federal agency) and the New Mexico State Historic Preservation Officer. This relates to ZCRE submitting two separate reports with slightly differing

Navajo Nation Archaeology Department

Site Survey and Management Form

results under the same NMCRIS number (although referencing two separate actions: NMCRIS 122105 and 123069). To help resolve this issue, and to clarify our results, P3planning met with ARMS representative Ms. Cordelia Snow following our field investigation. What we determined is that ZCRE conducted a series of surveys (see NMCRIS 122105 and 123069) for the same project—expanding their APE—and uploaded sites from only one phase of their project (although ARMS shows the total survey area). Unless ZCRE submits a new, inclusive document (and uploads all related GIS shapefiles), future researchers should fully review both ZCRE reports to ensure a complete understanding of their survey, results, and recommendations.

It should also be noted that much of this site is located on private property owned by Gamerco Associates. P3planning/Tri-State did not have permission to survey on their lands, and therefore our recording is limited to ZCRE's summary and our interpretations of the site from Tri-State's ROW.

The most prominent feature of NM-Q-31-48 is a large pueblo rubble mound measuring 19 m x 12 m located in the northern portion of the site. The mound is oriented northeast-to-southwest and contains a series of buried and distinct chambers. ZCRE states that there are at least six rooms present, and, based on our review and the size of the mound, this seems reasonable. The mound itself is made of light-gray shaped and unshaped sandstone. ZCRE also notes some upright slabs.

Oriented due south of the pueblo is a large and expansive midden containing thousands of ceramics. Types noted include: Red Mesa, Escavada, Reserve, Puerco, Tularosa Black-on-white wares; Puerco and Wingate Black-on-red wares; St. Johns Polychrome; and indented corrugated and numerous other plain-ware sherds. Vessels include large and small jars, bowls, and mugs exhibiting a diversity of slips, tempers, and finishes. The densest concentration of ceramics is located within 15 m of the rubble mound, although artifacts are noted as far as 40 m south of the site (and 10 m north of the mound). The southern distribution is clearly related to slope-wash as many artifacts can be seen in disturbed contexts within the on-site arroyo cuts.

In addition to the thousands of ceramics, a small number of flaked (< 30) and thermally altered stone (n=5) was noted. The flaked-stone assemblage was limited to late-stage-reduction debitage; some fire-cracked sandstone was also noted in the vicinity of the rubble mound. Materials included mottled chert, chalcedony, and some petrified wood. No formal tools or groundstone was identified. Also, no thermal features or staining was noted.

The cultural/temporal affiliation of the site remains unchanged by the current site update. This is based on the presence of thousands of diagnostic ceramics, including many classic black-on-white specimens. As such, this Pueblo II habitation represents an area of intensive living, processing, and storing. And while formal tools were not identified, this may be due to modern collecting—or prehistoric scavenging of useful materials. The location of the site on the top of a hill/ridge may have made it a desirable vantage point from which to monitor the movement of wild game, or other humans—such as at nearby (and contemporary) sites NM-Q-31-49 and NM-Q-31-50.

CONDITION OF SITE: Good (51-75% intact)

CAUSES OF DISTURBANCE: The site is in good condition with some moderate disturbance from water erosion. A two-track road and Tri-State's transmission line are located along the southern extent of the site—although roughly 25 m from the rubble mound and midden (both located on private property).

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Site Survey and Management Form

LOCATION OF SITE RELATIVE TO PROJECT AREA: Project consists solely of a right-of-way renewal; no ground disturbing activities are part of this undertaking. But as stated above, Tri-State's infrastrure is located at least 25 m from the rubble mound and midden.

EXTENT OF INVESTIGATION TO DATE: Survey

RESEARCH POTENTIAL: NM-Q-31-48 is a large structural prehistoric site that includes a rubble mound and midden area. Based on the presence of the collapsed pueblo and both the size and diversity of the artifact assemblage, the likelihood of intact subsurface cultural deposits is considered to be high. If such deposits are present, additional materials could yield valuable information on site function, temporal affiliation, ceramic and lithic technological organization, and prehistoric land use in the area. The site was determined to be *eligible* to the NRHP under Criterion D in 2012. No change in this determination is warranted.

RECOMMENDATIONS: P3planning recommends that the site be avoided by all future ground-disturbing activities—although the pueblo and midden area are located approximately 25 m north of Tri-State's ROW and on private property. Furthermore, it is recommended that vehicular traffic be restricted to the existing access road. Personnel should avoid turning vehicles around within the site boundaries, and the portion of the access road located within the site should be avoided during inclement weather when wet road conditions increase the potential for subsurface disturbance. If these recommendations are followed, subject to consultation and comment, the proposed ROW renewal—and future maintenance of the transmission line—will have *no adverse effect* on the site.

SITE ASSESSMENT UNDER 36 CFR 60.4 (NATIONAL REGISTER) :

INTEGRITY: Good

CRITERIA: D

EXCLUSIONS: None

SITE ASSESSMENT UNDER 43 CFR 7.3 (ARPA): The site is over 100 years old and protection under ARPA is warranted.

SITE ASSESSMENT UNDER AIRFA: The site may possess qualities meriting protection under AIRFA.

PROVIDE A SITE MAP (Including site designation, North Arrow, scale, recognizable features, landmarks and relationship to project area)

HOW CAN THE SITE BE REACHED ? SEE ATTACHED USGS QUAD

OTHER COMMENTS (Ethnographic data, etc.)



Legend: NM-Q-31-48 (LA 172267)

- | | | |
|---------------|---------------------|------------------------------|
| Site boundary | Site datum | Rubble mound (likely pueblo) |
| Road edge | Thermal feature | Midden |
| Survey area | Powerline structure | |
| Contours | | |

*Tri-State Generation & Transmission
Ya Ta Hey to Gallup Re-permitting Project*

0 20
Meters



Date: 7/30/2013

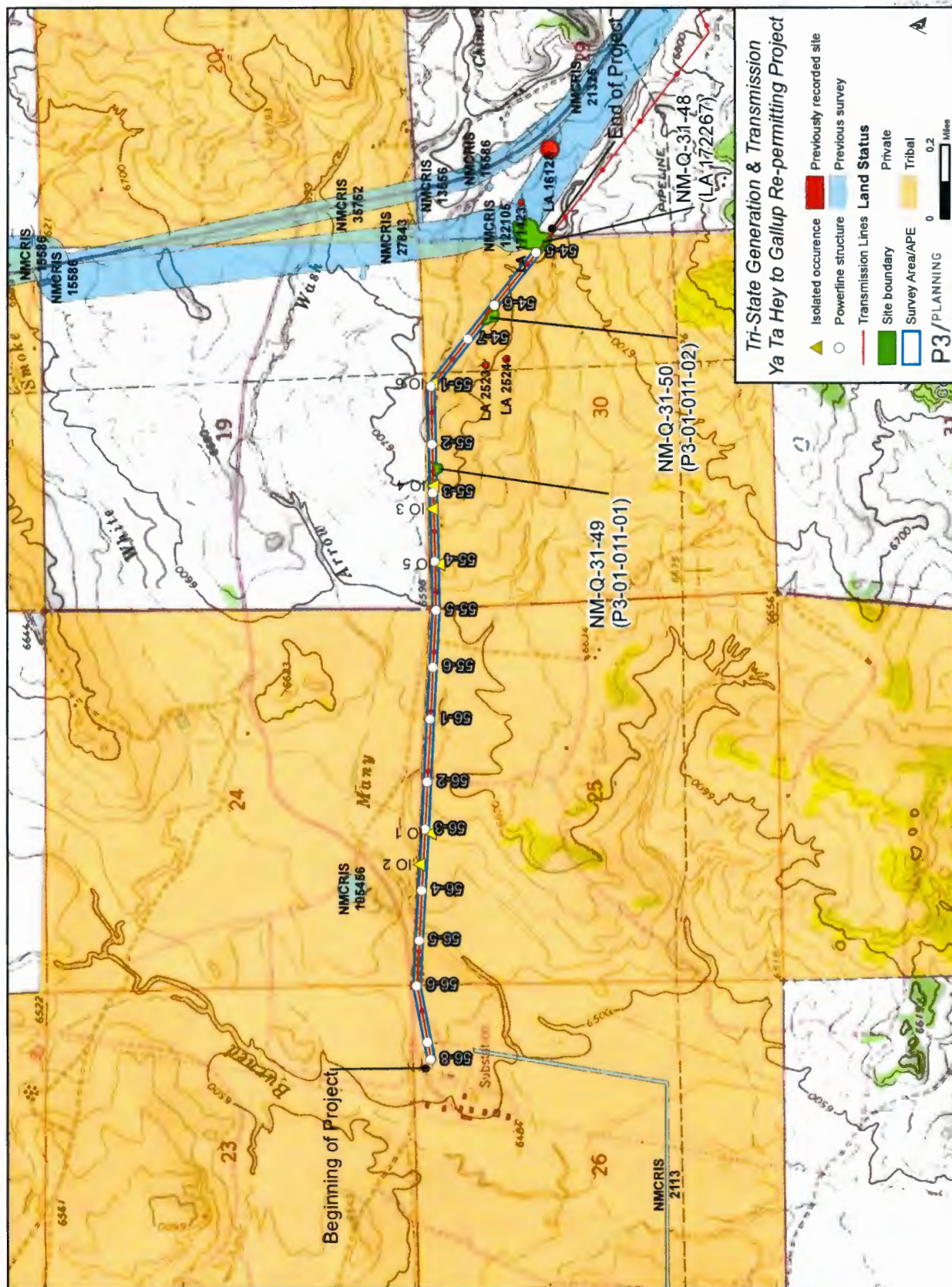


Figure A1. Project area map showing previously recorded sites and surveys.

Navajo Nation Archaeology Department

Site Survey and Management Form
Site NM-Q-31-48 Photos



Pueblo Rubble Mound; View facing east



Sherd in on-site arroyo; View facing north

LABORATORY OF ANTHROPOLOGY SITE RECORD

1

1. IDENTIFICATION & OWNERSHIP

LA Number: 172267 (contact ARMS for site registration)☐ Site Update? (complete at least Sections 1-4)Site Name(s): Reach 13 -Field Site No. 5Other Site Number(s):

_____Agency Assigning Number:

_____Current Site Owner(s): PrivateSite Type: Structural Occupation Type: Prehistoric

2. RECORDING INFORMATION

NMCRIS Activity No.: 123069 Field Site Number: 5Site Marker? ☐ (specify ID#): _____Recorder(s): K. Dongoake, K. Bowekaty, and E. BowekatyAgency: ZCRE Recording Date (dd-MMM-yyyy): 07-Feb-2012Site Accessibility (choose one): ☒ accessible ☐ buried (sterile overburden) ☐ flooded ☐ urbanized ☐ not accessibleSurface Visibility (% visible; choose one): ☐ 0% ☐ 1-25% ☐ 26-50% ☒ 51-75% ☐ 76-99% ☐ 100%

Remarks: _____

Recording Activities:

☒ sketch mapping☐ instrument mapping (e.g., total station mapping)☐ surface collection (controlled or uncontrolled)☒ in-field artifact analysis☐ other activities (specify): _____☐ photography☐ shovel or trowel tests, probes☐ test excavation☐ excavation (data recovery)

Description of Analysis or Excavation Activities: _____

Photographic Documentation: _____

Surface Collections (choose one):

☐ uncontrolled surface collection☐ controlled (sample: <100%)☐ other method (describe): _____☒ no surface collection☐ collections of specific items only☐ controlled (complete: 100%)

Records Inventory:

☒ site location map☒ sketch map(s)☐ instrument map(s)☐ excavation, collection, analysis records☐ photos, slides, and associated records☐ other records: _____☒ field journals, notes☐ NM Historic Building Inventory formRepository for Original Records: Zuni Cultural Resource EnterpriseRepository for Collected Artifacts: None collected

3. CONDITION

Archaeological Status: ☐ surface collection ☐ test excavation ☐ partial excavation ☐ complete excavationDisturbance Sources: ☐ wind erosion ☒ water erosion ☐ bioturbation ☐ vandalism ☐ construction/land development☐ other source (specify): _____

Vandalism:

☐ defaced glyphs☐ damaged/defaced building☐ surface disturbance☐ manual excavation☐ mechanical excavation☐ other vandalism (specify): _____Percentage of Site Intact (choose one): ☐ 0% ☐ 1-25% ☐ 26-50% ☐ 51-75% ☒ 76-99% ☐ 100%Observations on Site Condition: Overall the site is in very good condition.

4. RECOMMENDATIONS (for Performer/Recorder use only)

National Register Eligibility (choose one):

☒ eligible☐ not eligible☐ not sure

Applicable Criteria:

☐ (a)☐ (c)☐ (b)☒ (d)

Basis for Recommendation: Site contains a room block, rubble area, and dense artifact scatter indicating that the site contains subsurface integrity and features that will yield scientifically important information about the prehistoric past.

Assessment of Project Impact: The right-of-way for the proposed water line runs through the northern portion of the site boundary any will impact the site.

Treatment Recommendations: avoidance

5. SHPO CONSULTATIONS (for SHPO and Sponsor use only)Sponsor NR Determination: ☒ eligible ☐ not eligible ☐ not determinedApplicable Criteria: ☐ (a) ☐ (b) ☐ (c) ☒ (d)Sponsor Staff: J Tuomey Date (dd-MMM-yyyy): 21 MAY 2012

Sponsor Remarks: Although this site lies within the 400' survey corridor the construction corridor will not enter the site boundary. To ensure avoidance an archaeological monitor will be required during construction activities

SHPO NR Concurrence: ☒ eligible ☐ not eligible ☐ not determinedApplicable Criteria: ☐ (a) ☐ (b) ☐ (c) ☐ (d)HPD Staff: JR Date (dd-MMM-yyyy): 21 MAY 2012 HPD Log No: 94542Register Status: ☐ listed on National Register ☐ listed on State Register ☐ formal determination of eligibility

State Register No.: _____

SHPO Remarks: _____

6. LOCATION

Source Graphics:

☒ USGS 7.5' (1:24,000) topo maps☐ rectified aerial photos [Scale: _____]☐ other topo maps [Scale: _____]☐ unrectified aerial photos [Scale: _____]☐ GPS unitGPS accuracy (choose one): ☐ < 1.0 m ☐ 1-10 m ☐ 10-100 m ☐ > 100 m☐ other source (describe): _____

UTM Coordinates (© center of site; at least one set of coordinates required):

Map-based Coordinates Datum: NAD27 Zone: _____ E: _____ N: _____GPS-based Coordinates Datum: NAD27 Zone: 12 E: 701,561 N: 3,940,534

Directions to Site: The site is located on the western side of SR 491 between Gallup and Ya Ta He. The site is situated on a west-northwesterly trending ridge that is located approximately 150 meters from highway 491. In highway R-O-W? ☐

Town (if in city limits): _____ State: NM County: McKinley

USGS Quadrangle Name

Date

USGS Code

Gallup West, 1963 (PR 1979)

PLSS

Meridian

Unplatted

Township

Range

Section

¼ Sections

Protracted?

<u>New Mexico</u>	<input type="checkbox"/>	<u>T 16 N</u>	<u>R 18 W</u>	<u>29</u>	<u>SW</u>	<u>NW</u>	<u>NW</u>	<input type="checkbox"/>
<u>New Mexico</u>	<input type="checkbox"/>	<u>T</u>	<u>R</u>	<u></u>	<u></u>	<u></u>	<u></u>	<input type="checkbox"/>
<u>New Mexico</u>	<input type="checkbox"/>	<u>T</u>	<u>R</u>	<u></u>	<u></u>	<u></u>	<u></u>	<input type="checkbox"/>
<u>New Mexico</u>	<input type="checkbox"/>	<u>T</u>	<u>R</u>	<u></u>	<u></u>	<u></u>	<u></u>	<input type="checkbox"/>

7. PHYSICAL DESCRIPTION

Site Dimensions: 145 x 105 meters Basis for Dimensions (choose one): ☐ estimated ☒ measuredSite Area: 15,225 sq m Basis for Area (choose one): ☐ estimated ☒ measured Elevation: 6765 feetSite Boundaries Complete? (choose one): ☒ Yes ☐ No (explain): _____Basis for Site Boundaries: ☒ distribution of archeological features & artifacts ☐ modern features or ground disturbance
☐ property lines ☐ topographic features ☐ other (specify): _____Depositional/Erosional Environment: ☐ alluvial ☒ aeolian ☒ colluvial ☐ residual ☐ no deposition (on bedrock)
☐ other process (describe): _____Stratigraphy & Depth of Archeological Deposits (choose one): ☒ unknown/not determined
☐ no subsurface deposits present ☐ subsurface deposits present ☐ stratified subsurface deposits present

Estimated Depth of Deposits: _____

Basis for Depth Determinations: ☐ estimated ☐ shovel/trowel tests ☐ core/auger tests ☐ excavations
☐ road or arroyo cuts ☐ rodent burrows ☐ other observations (describe): _____

Observations on Subsurface Archeological Deposits: _____

Local Vegetation (list species in decreasing order of dominance):

Overstory: PinonUnderstory: Sagebrush, grasses, and cactiVegetation Community (choose one or two) ☐ forest ☐ woodland ☐ grassland ☐ scrubland ☒ desert scrubland ☐ marshland
☐ other community (specify): _____Topographic Location: ☐ bench ☐ dune ☐ low rise ☒ ridge
☐ alluvial fan ☐ blowout ☐ flood plain/valley ☐ mesa/butte ☐ rockshelter
☐ arroyo/wash ☐ canyon rim ☐ foothill/mountain front ☐ mountain ☐ saddle
☐ badlands ☐ cave ☐ hill slope ☐ open canyon floor ☐ talus slope
☐ base of cliff ☐ cliff/scarp/bluff ☐ hill top ☐ plain/flat ☐ terrace
☐ base of talus slope ☐ constricted canyon ☐ lava flow (malpais) ☐ playa
☐ other location (describe): _____Observations on Site Setting: The site is situated on a west-northwesterly trending ridge and is approximately 150 meters west of highway 491.

8. ASSEMBLAGE DATA

Assemblage Content (all components).

Lithics

- ☒ lithic debitage
☐ chipped-stone tools
☐ diagnostic projectile points
☐ non-local lithic material
☐ stone-tool manufacturing items
 (cores, hammerstones, etc.)
☒ ground-stone tools
☐ other stone tools

☐ Other items (specify): _____

Prehistoric Ceramics

- ☐ whole ceramic vessels
☒ diagnostic ceramics
☐ other prehistoric ceramics

Historic Artifacts

- ☐ diagnostic glass artifacts
☐ other glass artifacts
☐ diagnostic metal artifacts
☐ other metal artifacts
☐ whole ceramic vessel
☐ diagnostic ceramics
☐ other historic ceramics

Other Artifacts and Materials

- ☐ bone tools
☐ faunal remains
☐ macrobotanical remains
☐ perishable artifacts
☐ ornaments
☐ figurines
☐ mineral specimens
☐ architectural stone
☐ burned adobe
☐ fire-cracked rock/burned caliche

Assemblage Size (all components):

artifact class	estimated frequency						*Counts (if <100)
	0	1s	10s	100s	1000s	>10,000	
lithic artifacts (choose one): (include debitage)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
prehistoric ceramics (choose one):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
historic artifacts (choose one):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
total assemblage size (choose one):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

Dating Potential: ☒ radiocarbon ☐ dendrochronology ☐ archeomagnetism ☐ obsidian hydration
☒ relative techniques (e.g. seriation, diagnostics, etc.) ☐ other methods (specify): _____

Assemblage Remarks: _____

9. CULTURAL/TEMPORAL AFFILIATIONS

TOTAL NUMBER OF COMPONENTS DEFINED: 1

COMPONENT #1 (EARLIEST)

Cultural Affiliation: _____

Basis for Temporal Affiliations (choose one): ☐ not applicable ☐ based on associated chronometric data or historic records
☒ associated diagnostic artifact or feature types ☐ based on analytically derived assemblage data or archeological experience

*Period of Occupation: (*see NMCRIS Guidelines for valid periods, default occupation dates, and phase/complex names)

	Period Name	Begin Date	End Date
Earliest Period:	<u>PII</u>	<u>900 AD</u>	<u>1200 AD</u>
Latest Period (if any):	<u>PII</u>		

Dating Status: ☐ radiocarbon ☐ dendrochronology ☐ archaeomagnetism ☐ obsidian hydration
☒ relative techniques (e.g. seriation, diagnostics, etc.) ☐ other methods (specify): _____

Basis for Cultural/Temporal Affiliation: Decorated ceramics

Component Type: Features/artifact scatter

Remarks: The site consists of a rubble mound with at least six subsurface rooms indicated by surface wall alignments, a dense midden area, and an associated artifact scatter.

*Associated Phase/Complex Name(s): _____

COMPONENT #2

Cultural Affiliation: _____

Basis for Temporal Affiliations (choose one): ☐ not applicable ☐ based on associated chronometric data or historic records
☐ associated diagnostic artifact or feature types ☐ based on analytically derived assemblage data or archeological experience

*Period of Occupation: (*see NMCRIS Guidelines for valid periods, default occupation dates, and phase/complex names)

	Period Name	Begin Date	End Date
--	-------------	------------	----------

Earliest Period: _____

Latest Period (if any): _____

Dating Status: ☐ radiocarbon ☐ dendrochronology ☐ archaeomagnetism ☐ obsidian hydration
☐ relative techniques (e.g. seriation, diagnostics, etc.) ☐ other methods (specify) _____

Basis for Cultural/Temporal Affiliation: _____

Component Type: _____

Remarks: _____

*Associated Phase/Complex Name(s): _____

10. FEATURE DATA

(see NMCRIS User's guide for a list of valid feature types)

Feature Type	Reliable ID ?	# Observed	Assoc. Comp. #s	Feature ID, Notes
Rubble Mound	Yes	1		
Midden Area	Yes	1		

Feature Remarks: _____

11. REFERENCES

Written Sources of Information: _____

Additional Sources of Information: _____

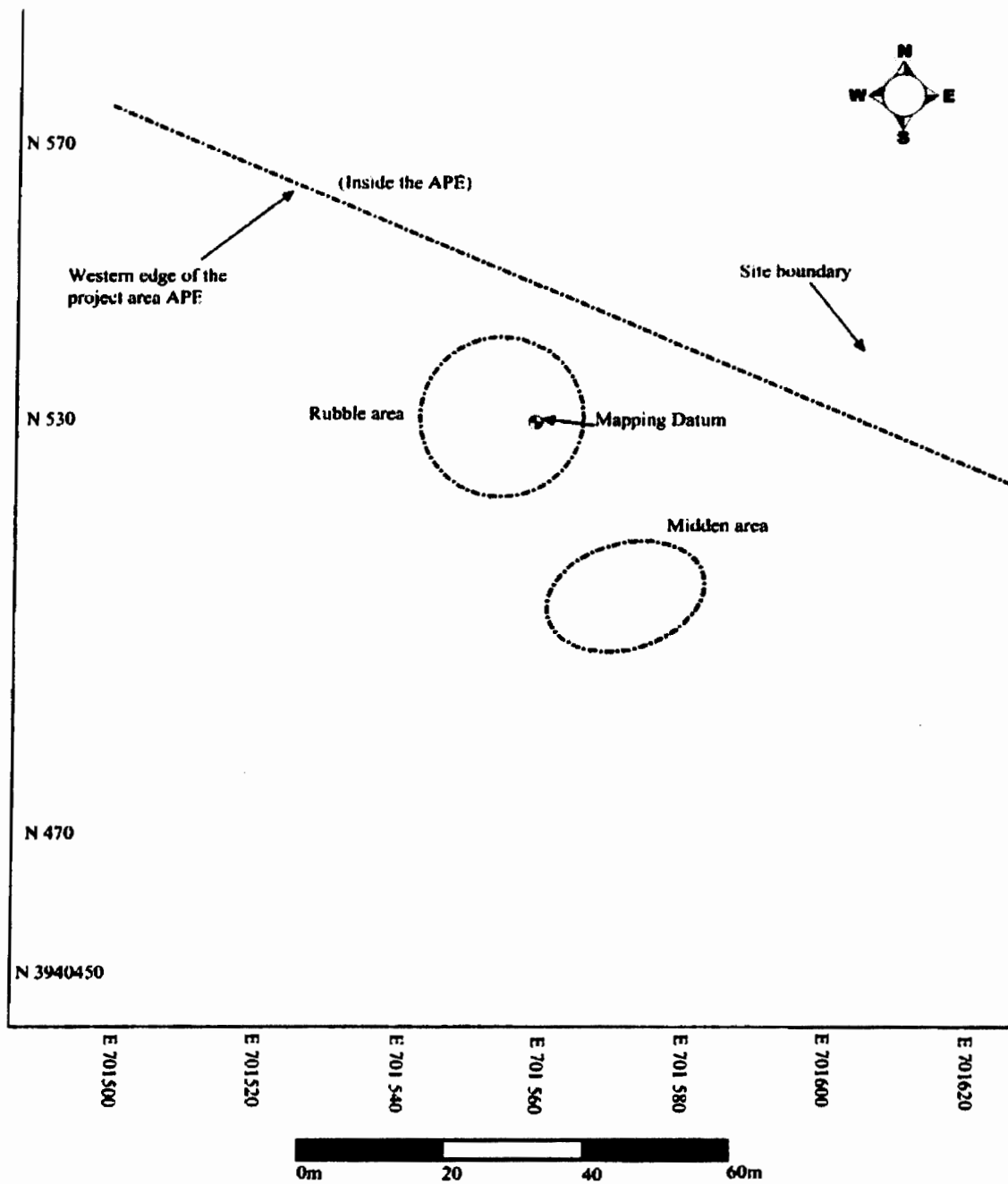
12. NARRATIVE DESCRIPTION

This is a large site consisting of a rubble mound (Feature 1), with visible surface wall alignments indicating the presence of subsurface rooms, a defined midden area (Feature 2), and a broad artifact scatter. The rubble mound measure 19 m x 12 m and is oriented in a northeast-southwesterly direction and is located within the northern third of the site area. The rubble mound is characterized by a dense concentration of light grey colored sandstone rocks with some exhibiting signs of having been shaped. There are at least 6 rooms present within the rubble mound that are indicated by surface visible sandstone rock alignments and upright sandstone slabs suggesting walls. The sides of the rubble mound are scattered with sandstone rocks indicative of collapsed walls. A large midden (Feature 2) area is located 10 m. southeast of the rubble mound and extends 19 m x 17 m. The midden area is defined by a very dense concentration of artifacts. A 2 x 2 m artifact analysis unit was established within the midden area and revealed 40 Red Mesa B/w bowl sherds, 40 Red Mesa B/w jar sherds, 40 Gallup B/w jar sherds, 40 Gallup B/w bowl sherds, 40 Escavada B/w bowl sherds, 30 Escavada B/w jar sherds, 30 Puerco B/w bowl sherds, 30 Puerco B/w jar sherds, 10 Reserve B/w jar sherds, 15 Tularosa B/w bowl sherds, 10 Tularosa B/w jar sherds, 15 plain whiteware jar sherds, 10 Puerco B/r bowl sherds, 15 Wingate B/r bowl sherds, 10 plain redware bowl sherds, 40 indented corrugated jar sherds, and 10 plain grayware sherds. Overall artifact densities at this site are in the thousands with ceramics predominating. Thermally altered sandstone fragments are also visible on the site's surface. The site exhibits a strong PII temporal affiliation that most likely extends into early PIII times. An arroyo cut is located on the northern edge of the site area and for the most part defines the northern extent of the site. The proposed waterline right-of-way crosses the northern edge of the site area.

Please note that this site is associated with NMCRIS Activity No. 122105. The APE for #122105 changed from 85 acres to a total of 170 acres after the NAIF record for NMCRIS 122105 had been submitted for SHPO review. Thus, this site (Site LA172267) is considered within the now expanded APE for this overall project, and two NMCRIS Activity Numbers are to be referenced for this project (122105 and 123069).

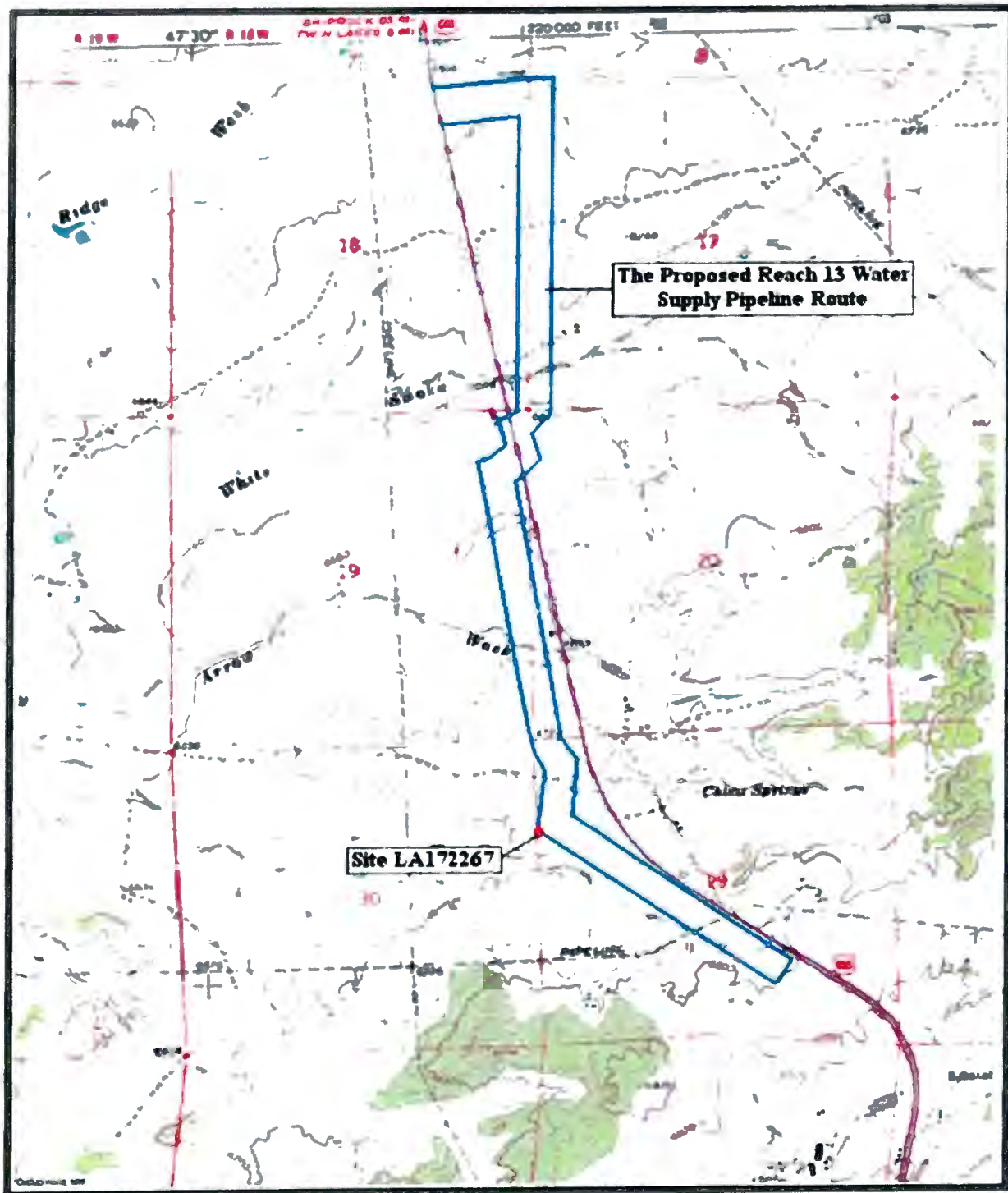
13. SITE RECORD ATTACHMENTS

☒ site location map (USGS 7.5' topo; required) ☒ sketch map or site plan (required) ☐ continuation forms?
☐ other materials (itemize): _____



Planview of Site LA172267

LA172267



Location of Site LA172267. USGS Gallup West, New Mexico (1963), PE 1979, 7.5-minute topographic quadrangle. Scale 1:24,000.

ARCHAEOLOGICAL INVENTORY REPORT DOCUMENTATION PAGE (HPD APR/93)

1. HPD REPORT NO.	
2. TITLE OF REPORT: <i>A Cultural Resources Survey for the Tri-State Ya-Ta-Hey Transmission Line Right-of-way Renewal, The Navajo Nation, McKinley County, New Mexico</i> (P3planning Project No. P3-01-011)	3. FIELDWORK DATES: May 28, 2013 May 29, 2013 4. REPORT DATE: July 2013
5. CONSULTANT NAME AND ADDRESS: P3planning LLC 6100 4 th Street NW, No. 442 Albuquerque, NM 87107	6. PERMIT NO.: B13221 7. CONSULTANT REPORT NO.: P3-01-011
8. SPONSOR NAME AND ADDRESS: Mr. Curtis Miller Environmental Planner Tri-State G&T PO Box 33695 Denver, CO 80234	9. SPONSOR PROJECT NO.: 10. AREA OF EFFECT: 13.51 acres TOTAL AREA SURVEYED: 25.92 acres

11. LOCATION (MAP ATTACHED):

a. Chapters: Rock Springs
b. Agency:
c. County: McKinley

d. State: New Mexico

e. Land Status: Navajo Nation Tribal Trust and Tribal Fee
f. UTM Zone : 12
g. Legal: The two Navajo Nation Allotments (1482 and 1483) are located in Section 30 in Township (T) 16 North (N), Range (R) 18 West (W). The Navajo Fee Land portion is located in Section 25 in T 16N, R 19W.
h. 7.5' Map(s): *Gallup West, New Mexico* USGS quadrangle
i. Lead Agency: NNHPD

12. Report Attachments

a. Description of Undertaking:

Tri-State Generation and Transmission Association (Tri-State) is renewing right-of-way (ROW) easements for the Ya-Ta-Hey 115-kilovolt (kV) transmission line crossing Navajo Nation Indian Allotments 1482 and 1483—and across a piece of Navajo Fee land—in the Rock Springs Chapter of The Navajo Nation. The total length of the ROW renewal is roughly 2.14 miles. The renewed easement will be for the term of 25 years and cover the routine operation of the transmission line. As part of the renewal process for the ROW, Tri-State is working with The Navajo Nation and the Bureau of Indian Affairs (BIA), which provides technical assistance to the Tribe on leasing and ROW issues. BIA's involvement requires Tri-State to comply with various federal regulations, including the National Environmental Policy Act and National Historic Preservation Act (NHPA). Tri-State contracted with P3planning to help fulfill the BIA's obligations under Section 106 of the NHPA. Per consultation with The Navajo Nation and the BIA, and in consideration of BIA guidelines, these obligations included completing a cultural resource investigation of the easement. The attached report presents the results of the cultural resource investigations along Tri-State's ROW across lands owned by The Navajo Nation.

The Navajo Nation, with input from BIA, defined the area of potential effects (APE) as Tri-State's 115kV

transmission line easement on BLM public lands (the line easement is approximately 100 ft [30 m] wide) plus an additional area extending 50 ft (15 meters [m]) beyond the ROW. The APE and survey area totaled 2.9 acres and consisted solely of Tri-State (existing) POW on lands under the jurisdiction of The Navajo Nation.

b. Existing Data Review:

On February 12, 2013, P3planning conducted a pre-field records search with The Navajo Nation Historic Preservation Department in Window Rock, Arizona to obtain information on all previously conducted surveys and recorded archaeological sites located within 1640 ft (500 m) of the project area. The same search was conducted with the New Mexico Cultural Resource Information System (NMCNIS) at the Archaeological Records Management Section (ARMS) to ensure that all known cultural resources and inventories were accounted for. Current listings of the NRHP and New Mexico State Register of Cultural Properties were also consulted to determine the presence of any cultural properties or districts within the APE. The purpose of the records review was to determine the location of known cultural properties that might be affected by the proposed undertaking and to derive expectations as to the nature and frequency of resources that might be encountered during the field survey.

The records searches indicated that one previous survey and one previously identified resource are located within the project area; seven previously recorded archaeological sites and four prior cultural resource investigations are shown in The Navajo Nation's database within 1640 ft (500 m) of the APE (see Tables 1 and 2 of the report). The NMCNIS database only shows three previous archaeological sites and five surveys. The single previously recorded site (LA 172267—now assigned NM-Q 31-48) is not in either database, but was located through consultation with ARMS—and through the literature search. Most of the previous investigations in the vicinity of the project area are surveys associated with the installation of waterlines and/or home-sites.

c. Area Environmental & Cultural Setting:

The project area is located in the Navajo Section of the Colorado Plateau physiographic province (Hawley 1986). The Colorado Plateau is roughly centered on the Four-corners region of the Southwestern United States—within western Colorado, northwestern New Mexico, southern and eastern Utah, and northern Arizona. This Navajo Section of the Colorado Plateau includes volcanic fields to the southwest and dramatic monelines and synclines to the south, east, and west. These geological features compose the Gallup Basin. Expansive rolling plains on highly eroded sandstone mesas and cuestas often characterize the Navajo section of the basin. Shiprock—located 75 miles north of the project area—is a prominent and culturally important monadnock formation on the Colorado Plateau. The Navajo Section is bounded to the west by the Chuska Mountains, to the north by the San Juan Mountains, to the east by the Rio Grande Rift, and to the south by the Zuni Mountains. The San Juan River—located 90 miles to the north—is the major hydrologic feature of the Navajo Section. However, the project area and surrounding environs are drained by hundreds of intermittent and ephemeral arroyos, draws, and washes that feed into the Puerco River located west of Gallup. Some of the major drainages include Black Ridge Wash, Burned Death Wash, and Defiance Draw. In fact, these—along with many of the unnamed small drainages—have significantly incised the landscape over the past 100 years (possibly due to overgrazing).

Elevation ranges dramatically in the Navajo Section: from 4,700 ft above mean sea level (amsl) around the Four Corners, to over 9,916 ft amsl at Chromo Mountain on the Continental Divide (100 miles northeast of the project). Within the current project area, elevation ranges from 6,520 to 6,700 ft amsl.

Surface geology in the project area includes Quaternary alluvial and aeolian deposits with underlying horizontal Cretaceous materials from the Mesa Verde group. Both the Menefee and Crevasse Canyon formations are composed of shales and sandstone that form much of the local exposed bedrock. These two formations also serve much of the local extractive coal development in the greater Gallup area.

The mean annual precipitation in the greater Gallup area averages around 9 inches. Most of the rain falls in the

summer months in the form of outcrops of snow-capped timberline conifers. The summer months of December and January also contribute some moisture—mostly in the form of snowfall.

The project area traverses approximately 4.2 miles of Great Basin Desert Scrubland—or Juniper Savanna (Dick Pedie 1992). This ecological zone is characterized by cold temperate desertland with big sagebrush (*Artemisia* spp.), saltbush (*Atriplex* spp.), winterfat (*Cercanthe latifolia*), tumble mustard (*Sisymbrium albusimum*), Indian ricegrass (*Oryzopsis hymenoides*), cholla (*Opuntia* spp.), prickly pear cactus (*Opuntia polyacantha*), globemallows (*Sphaeralcea* spp.), snakeweed (*Canisleria serotina*) and grama grasses (*Bouteloua* spp.). In addition, interspersed junipers (*Juniperus* spp.) and piñon pine (*Pinus* spp.) can be found throughout the scrubland, which is thought to be a result of grazing over the past 100 years.

Animals found throughout this community include the black-tailed jackrabbit (*Lepus americanus*), dark kangaroo mouse (*Microdipodops megacephalus*), Ord's kangaroo rat (*Dipodomys ordii*), mule deer (*Odocoileus hemionus*), coyote (*Canis latrans*), rattlesnakes (*Crotalus* spp.), gopher snakes (*Pituophis* spp.) and many other species. Avian fauna include: sage sparrow (*Amispiza belli*), sage thrasher (*Oreoscoptes montanus*), piñon jays (*Gymnorhinus cyanocephalus*), red-tail hawks (*Buteo jamaicensis*), ravens (*Corvus corax*) and countless other migratory and year-round residents.

In general, the project area is typical of the physical and natural environments of the Navajo Section of the Great Basin. P3planning identified many of the species noted above—as have other researchers in the area. In addition, the project is bisected by a number of heavily incised arroyos. Exposed bedrock was noted on top of ridges, and deep deposits of sandy soils were noted in cut-banks, and other eroded surfaces. Also, industry and residents have a deep relationship with the area. This can be seen with members of The Navajo Nation living and working on their allotments—and grazing horses and cattle in the area. In addition, industry such as electric transmission, generation, and distribution are notable—as are the extractive industries such as coal mining and natural gas exploration. Illegal dumping is also a problem in the area—and across New Mexico. Modern trash was noted throughout—most often in the larger arroyos.

d. Field Methods:

P3planning archaeologists conducted a 100-percent pedestrian cultural resource survey of the APE for the proposed undertaking. The project area was inspected by walking parallel transects spaced no more than 15 meters apart to cover the project area and buffer zone.

13. CULTURAL RESOURCE FINDINGS:

a. Location/Identification of Each Resource:

A total of one previously recorded archaeological site (NM-Q-31-48/LA 172267), two newly recorded archaeological sites (NM-Q-31-49, and NM-Q-31-50), and six Isolated Occurrences (IOs) were documented during the current inventory.

b. Evaluation of Significance of Each Resource:

Isolated Occurrences

All of the IOs are prehistoric and were located in the western portion of the project area. And while the spatial distribution of these artifacts provides information on the general prehistoric use of the project area, these resources lack additional data potential and are not likely to increase our understanding of prehistory. They are therefore recommended ineligible for listing on the NHP under any criteria. No further investigations are recommended for these resources.

Previously Recorded Site

NM-Q-31-48 (LA 172267 / Temp: P3-01-011-03) is a large structural prehistoric site that includes a rubble mound and midden area. Based on the presence of the collapsed pueblo and both the size and diversity of the artifact assemblage, the likelihood of intact subsurface cultural deposits is considered to be high. If such deposits are present, additional materials could yield valuable information on site function, temporal affiliation, ceramic and lithic technological organization, and prehistoric land use in the area. The site was determined to be *eligible* to the NRHP under Criterion D in 2012. No change in this determination is warranted.

Newly Recorded Sites

NM-Q-31-49 (Temp: P3-01-011-01) is a small structural prehistoric site that includes a small thermal feature and a diffuse artifact scatter. Based on the presence of the single feature, and the diversity of the artifact assemblage, the likelihood of intact subsurface cultural deposits is considered to be high. If such deposits are present, additional materials could yield valuable information on site function, temporal affiliation, ceramic and lithic technological organization, and prehistoric land use in the area. The site is therefore recommended *eligible* to the NRHP under Criterion D.

NM-Q-31-50 (Temp: P3-01-011-02) is a moderately sized multicomponent site that includes three small thermal features and a diffuse prehistoric and historic artifact scatter. Based on the noted features and the diversity of the prehistoric artifact assemblage, the likelihood of intact subsurface cultural deposits is considered to be high. If such deposits are present, additional materials could yield valuable information on site function, temporal affiliation, ceramic and lithic technological organization, and prehistoric land use in the area. The site is therefore recommended *eligible* to the NRHP under Criterion D. The historic component, while interesting, is not likely to yield any new insights into the lives of people in the early-to-middle twentieth century. As such, we recommend the historic component of NM-Q-31-50 as non-contributing to the site's eligibility.

14. MANAGEMENT SUMMARY (RECOMMENDATIONS):

Due to their limited data potential, the IOs are not likely to increase our understanding of the prehistory of the area. They are, therefore, recommended ineligible for listing in the NRHP under any criteria and no further management considerations are recommended for these resources.

Of the three sites located within the current project area, all are recommended as eligible to the NRHP under Criterion D for their potential to yield additional data that may address important research questions and contribute to our understanding of the prehistory of the region.

P3planning recommends that the sites be avoided by ground-disturbing activities and that vehicular traffic within site boundaries is restricted to existing access roads. Furthermore, it is recommended that maintenance personnel do not turn vehicles around within the site areas and avoid using access roads that traverse sites during inclement weather when surface deposits are particularly prone to disturbance.

If these recommendations are followed, the proposed undertaking will have *no adverse effect* on the qualities that may qualify the archaeological sites for inclusion in the NRHP. In the event that structures must be replaced within site boundaries and the recommendations described here cannot be followed, efforts must be coordinated with The Navajo Nation's Historic Preservation Department and the BIA. Site boundaries will be provided to Tri-State maintenance personnel in order to facilitate the avoidance of these resources.

If these recommendations are followed, subject to consultation and comment, the proposed ROW renewal will have *no adverse effect* on any of the historic properties within the APE. If buried cultural deposits are encountered during future project activities, work should cease immediately and The Navajo Nation Tribal Historic Preservation Officer and the BIA should be notified. The proposed project complies with the provisions of the NHPA of 1966, as amended through 1992, and the Archaeological Resources Protection Act of 1979, and all applicable regulations. The attached report is consistent with federal and tribal standards for cultural resource management.

15. CERTIFICATION:

General Charge Name: Nicholas Parker, PI

SIGNATURE: _____ DATE: July 30, 2013

Direct Charge Name: Nicholas Parker, PI

SIGNATURE: _____ DATE: July 30, 2013

Table 1 Project Area Information

Tri-State Ya-Ta-Hey Transmission Line Right-of-way Renewal	
Project Location	The two Navajo Nation Allotments (1482 and 1483) are located in Section 30 in T 16N, R 18W. The Navajo Fee Land portion is located in Section 25 in T 16N, R 19W. All Navajo Nation Lands in McKinley County, New Mexico
USGS Quadrangle 7.5' Map	<i>Gallup West, New Mexico</i> USGS Map Code: 35108-E7
Project UTM Coordinates (See Figure A.2, all points are Zone 12, NAD 83)	BOP West end of project 697890 E 3941128 N EOP East end of project 701501 E 3940637 N
Transmission-line Easement Dimensions	<p>Allotment 1482, Section 30, T 16N, R 18W, NMPM, McKinley County, New Mexico</p> <ul style="list-style-type: none"> • 50-ft.-wide right-of-way; 2,601.07 ft. in length; 2.9856 acres, more or less <p>Allotment 1483, Section 30, T 16N, R 18W, NMPM, McKinley County, New Mexico</p> <ul style="list-style-type: none"> • 50-ft.-wide right-of-way; 3,283.93 ft. in length; 4.2997 acres, more or less (including anchor easement) <p>Navajo Fee land, Section 25, T 16N, R 19W, NMPM, McKinley County, New Mexico</p> <ul style="list-style-type: none"> • 50-ft.-wide right-of-way; 5,407.80 ft. in length; 6.2073 acres, more or less and anchor easement of 0.0199 acres, more or less (total of 6.2272 acres)
Total Project Area	13.51 acres
Total Surveyed Area	25.92 acres

Table 2 Site Evaluation Table

NNHPD Site Number	National Register of Historic Places 36C FR 60.4				ARPA	AIRFA
	50 years old	Integrity	Criterion	Exclusions		
NM-Q-31-48 (LA 172267)	Yes	Yes	Criterion D	None	Yes	Potential
NM-Q-31-49	Yes	Yes	Criterion D	None	Yes	No
NM-Q-31-50	Yes	Yes	Criterion D	None	Yes	No

Table 3 Site Recommendation Summary

NNHPD Site Number	Recommendations	Monitoring Recommended
NM-Q-31-48 (LA 172267)	P3planning recommends that the site be avoided by all future ground-disturbing activities—although the pueblo and midden area are located approximately 25 m north of Tri-State’s ROW and on private property. Furthermore, it is recommended that vehicular traffic be restricted to the existing access road. Personnel should avoid turning vehicles around within the site boundaries, and the portion of the access road located within the site should be avoided during inclement weather when wet road conditions increase the potential for subsurface disturbance. If these recommendations are followed, subject to consultation and comment, the proposed ROW renewal—and future maintenance of the transmission line—will have <i>no adverse effect</i> on the site.	No
NM-Q-31-49	P3planning recommends that the site be avoided by all future ground-disturbing activities. Furthermore, it is recommended that vehicular traffic be restricted to the existing access road. Personnel should avoid turning vehicles around within the site boundaries, and the portion of the access road located within the site should be avoided during inclement weather when wet road conditions increase the potential for subsurface disturbance. If these recommendations are followed, subject to consultation and comment, the proposed ROW renewal—and future maintenance of	No

NNHPD Site Number	Recommendations	Monitoring Recommended
NM-Q-31-50	<p>the transmission line will have <i>no adverse effect</i> on the site.</p> <p>P3 planning recommends that the site be avoided by all future ground-disturbing activities. Furthermore, it is recommended that vehicular traffic be restricted to the existing access road. Personnel should avoid turning vehicles around within the site boundaries, and the portion of the access road located within the site should be avoided during inclement weather when wet road conditions increase the potential for subsurface disturbance. If these recommendations are followed, subject to consultation and comment, the proposed ROW renewal—and future maintenance of the transmission line —will have <i>no adverse effect</i> on the site.</p>	No

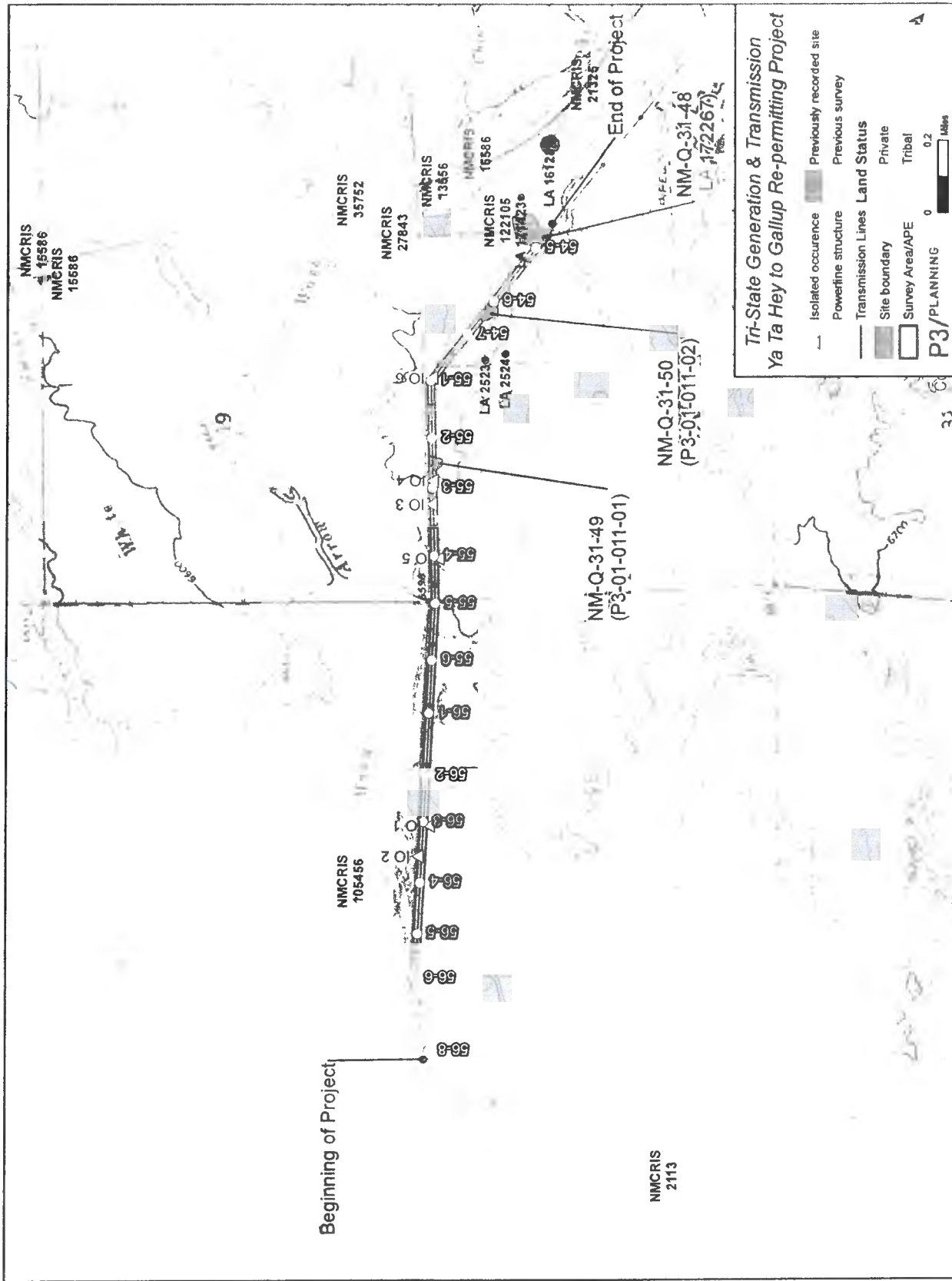


Figure A1. Project area map showing previously recorded sites and surveys.

Navajo Nation Archaeology Department

Site Survey and Management Form

SITE NO.: NM-Q-31-48 (LA 172267/Temp: P3-01-011-03) DATE RECORDED: May 29, 2013

PROJECT NO. & NAME: A Cultural Resources Survey for the Tri-State Ya-Ta-Hey Transmission Line Right-of-way Renewal, The Navajo Nation, McKinley County, New Mexico (P3planning Project No. P3-01-011)

ORGANIZATION: P3planning LLC

ARCHAEOLOGIST (S): Nicholas Parker and William Penner

USGS MAP REFERENCE: Gallup West, New Mexico, USGS Map Code 35108-E7

LEGAL DESCRIPTION: SE/4, SE/4, NE/4 of Section 30, Township 16 North, Range 18 West, NMPM

UTM COORDINATES (ZONE 12): 3940700 N, 701497 E

STATE: NM COUNTY: McKinley CHAPTER: Rock Springs

LAND STATUS: Indian Allotment

GROUND VISIBILITY: Kind and extent of cover ? 20% vegetation cover

TOPOGRAPHY: The site is situated at an elevation of 6715 ft amsl on the upper slope of a small hill/ridge and has a southern aspect. Slopes measure between 2 and 7 percent. A series of small arroyos cut southward; another large arroyo is located just north of the pueblo rubble mound and trends east-to-west. From the site area, there are expansive views to the east, south, and west.

DRAINAGE: Unnamed drainages surround site; Arrow Wash located to the north

ELEVATION (FT/M): 6,715 ft amsl Slope and Direction: 2 to 7° South

SEDIMENT TYPE: Surface sediments consist of loosely consolidated aeolian silty sand and appear highly erodible.

VEGETATION PRESENT: Desert-scrubland vegetation covers approximately 20 percent of the ground surface and is dominated by scattered one-seed junipers, piñon pines, broom snakeweed, sand sage, chamisa, prickly pear, and several range grasses.

CULTURAL AFFILIATION:

1) Anasazi, Pueblo II period

SITE TYPE:

1) NM-Q-31-48 is a large prehistoric site consisting of a multi-room pueblo rubble mound, a midden, and thousands of artifacts.

PERIOD (S) OF OCCUPATION (Date if known):

1) Anasazi, Pueblo II period (ca. AD 900-1100)

Navajo Nation Archaeology Department

Site Survey and Management Form

DIMENSIONS OF SITE (L X W): 180 x 120 m TOTAL AREA (SQ.M): 21,600 m

ARCHITECTURE PRESENT?: Yes DESCRIBE: The most prominent feature of NM-Q-31-48 is a large pueblo rubble mound measuring 19 m x 12 m located in the northern portion of the site. The mound is oriented northeast-to-southwest and contains a series of buried and distinct chambers. ZCRE states that there are at least six rooms present, and, based on our review and the size of the mound, this seems reasonable. The mound itself is made of light-gray shaped and unshaped sandstone. ZCRE also notes some upright slabs.

ARTIFACT OBSERVED/COUNTED: Field analysis included a sample of the thousands of artifacts observed on the ground surface. Types noted include: Red Mesa, Escavada, Reserve, Puerco, Tularosa Black-on-white wares; Puerco and Wingate Black-on-red wares; St. Johns Polychrome; and indented corrugated and numerous other plain-ware sherds. Vessels include large and small jars, bowls, and mugs exhibiting a diversity of slips, tempers, and finishes. The densest concentration of ceramics is located within 15 m of the rubble mound, although artifacts are noted as far as 40 m south of the site (and 10 m north of the mound). The southern distribution is clearly related to slope-wash as many artifacts can be seen in disturbed contexts within the on-site arroyo cuts.

In addition to the thousands of ceramics, a small number of flaked (< 30) and thermally altered stone (n=5) was noted. The flaked-stone assemblage was limited to late-stage-reduction debitage; some fire-cracked sandstone was also noted in the vicinity of the rubble mound. Materials included mottled chert, chalcedony, and some petrified wood. No formal tools or groundstone was identified. Also, no thermal features or staining was noted.

COLLECTION MADE? No OF WHAT?: N/A METHOD: N/A

PHOTOS: Digital Download 1, Frames 15-20

SITE DESCRIPTION: NM-Q-31-48 is a large prehistoric site consisting of a multi-room pueblo rubble mound, a midden, and thousands of artifacts dating from the Pueblo II period (A.D. 900–1100; Figure A.2). The site is situated at an elevation of 6715 ft amsl on the upper slope of a small hill/ridge and has a southern aspect. Slopes measure between 2 and 7 percent. A series of small arroyos cut southward; another large arroyo is located just north of the pueblo rubble mound and trends east-to-west. From the site area, there are expansive views to the east, south, and west. The Tri-State transmission line, Structure 54-5, and a two-track access road all are located along the southern portion of the site—well away from the rubble mound, features, and significant artifact concentrations. Vegetation in the immediate vicinity covers approximately 20 percent of the ground surface and includes scattered one-seed junipers, piñon pines, broom snakeweed, sand sage, chamisa, prickly pear, and several range grasses. Surface sediments consist of loosely consolidated aeolian silty sand and appear highly erodible. Observed sources of disturbance include aeolian erosion and down-cutting from a number of arroyos; however, the site is estimated to remain approximately 51 to 75 percent intact.

ZCRE (Dongoke 2012) originally recorded the site in 2012 in support of the Navajo-Gallup Pipeline Project—although it does not currently appear on the ARMS database. Based on diagnostic artifacts, the site was assigned a Pueblo II (A.D. 900–1100) cultural/temporal affiliation, and was determined to be eligible to the NRHP under Criterion D for its information potential. However, there are issues with ZCRE's current report, despite the recorded concurrence with the Bureau of Reclamation (the lead federal agency) and the New Mexico State Historic Preservation Officer. This relates to ZCRE submitting two separate reports with slightly differing

Navajo Nation Archaeology Department

Site Survey and Management Form

results under the same NMCRIS number (although referencing two separate actions, NMCRIS 122105 and 123069). To help resolve this issue, and to clarify our results, P3planning met with ARMS representative Ms. Cordelia Snow following our field investigation. What we determined is that ZCRE conducted a series of surveys (see NMCRIS 122105 and 123069) for the same project—expanding their APE and uploaded sites from only one phase of their project (although ARMS shows the total survey area). Unless ZCRE submits a new, inclusive document (and uploads all related GIS shapefiles), future researchers should fully review both ZCRE reports to ensure a complete understanding of their survey, results, and recommendations.

It should also be noted that much of this site is located on private property owned by Gamereo Associates. P3planning/Tri-State did not have permission to survey on their lands, and therefore our recording is limited to ZCRE's summary and our interpretations of the site from Tri-State's ROW.

The most prominent feature of NM-Q-31-48 is a large pueblo rubble mound measuring 19 m x 12 m located in the northern portion of the site. The mound is oriented northeast-to-southwest and contains a series of buried and distinct chambers. ZCRE states that there are at least six rooms present, and, based on our review and the size of the mound, this seems reasonable. The mound itself is made of light-gray shaped and unshaped sandstone. ZCRE also notes some upright slabs.

Oriented due south of the pueblo is a large and expansive midden containing thousands of ceramics. Types noted include: Red Mesa, Escavada, Reserve, Puerco, Tularosa Black-on-white wares; Puerco and Wingate Black-on-red wares; St. Johns Polychrome; and indented corrugated and numerous other plain-ware sherds. Vessels include large and small jars, bowls, and mugs exhibiting a diversity of slips, tempers, and finishes. The densest concentration of ceramics is located within 15 m of the rubble mound, although artifacts are noted as far as 40 m south of the site (and 10 m north of the mound). The southern distribution is clearly related to slope-wash as many artifacts can be seen in disturbed contexts within the on-site arroyo cuts.

In addition to the thousands of ceramics, a small number of flaked (< 30) and thermally altered stone (n=5) was noted. The flaked-stone assemblage was limited to late-stage-reduction debitage; some fire-cracked sandstone was also noted in the vicinity of the rubble mound. Materials included mottled chert, chalcedony, and some petrified wood. No formal tools or groundstone was identified. Also, no thermal features or staining was noted.

The cultural/temporal affiliation of the site remains unchanged by the current site update. This is based on the presence of thousands of diagnostic ceramics, including many classic black-on-white specimens. As such, this Pueblo II habitation represents an area of intensive living, processing, and storing. And while formal tools were not identified, this may be due to modern collecting—or prehistoric scavenging of useful materials. The location of the site on the top of a hill/ridge may have made it a desirable vantage point from which to monitor the movement of wild game, or other humans—such as at nearby (and contemporary) sites NM-Q-31-49 and NM-Q-31-50.

CONDITION OF SITE: Good (51-75% intact)

CAUSES OF DISTURBANCE: The site is in good condition with some moderate disturbance from water erosion. A two-track road and Tri-State's transmission line are located along the southern extent of the site—although roughly 25 m from the rubble mound and midden (both located on private property).

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LOCATION OF SITE RELATIVE TO PROJECT AREA: Project consists solely of a right-of-way renewal; no ground disturbing activities are part of this undertaking. But as stated above, Tri-State's infrastructure is located at least 25 m from the rubble mound and midden.

EXTENT OF INVESTIGATION TO DATE: Survey

RESEARCH POTENTIAL: NM-Q-31-48 is a large structural prehistoric site that includes a rubble mound and midden area. Based on the presence of the collapsed pueblo and both the size and diversity of the artifact assemblage, the likelihood of intact subsurface cultural deposits is considered to be high. If such deposits are present, additional materials could yield valuable information on site function, temporal affiliation, ceramic and lithic technological organization, and prehistoric land use in the area. The site was determined to be eligible to the NRHP under Criterion D in 2012. No change in this determination is warranted.

RECOMMENDATIONS: P3 planning recommends that the site be avoided by all future ground-disturbing activities—although the pueblo and midden area are located approximately 25 m north of Tri-State's ROW and on private property. Furthermore, it is recommended that vehicular traffic be restricted to the existing access road. Personnel should avoid turning vehicles around within the site boundaries, and the portion of the access road located within the site should be avoided during inclement weather when wet road conditions increase the potential for subsurface disturbance. If these recommendations are followed, subject to consultation and comment, the proposed ROW renewal—and future maintenance of the transmission line—will have no adverse effect on the site.

SITE ASSESSMENT UNDER 36 CFR 60.4 (NATIONAL REGISTER) :

INTEGRITY: Good

CRITERIA: D

EXCLUSIONS: None

SITE ASSESSMENT UNDER 43 CFR 7.3 (ARPA): The site is over 100 years old and protection under ARPA is warranted.

SITE ASSESSMENT UNDER AIRFA: The site may possess qualities meriting protection under AIRFA.

PROVIDE A SITE MAP

(Including site designation, North Arrow, scale, recognizable features, landmarks and relationship to project area)

HOW CAN THE SITE BE REACHED ? SEE ATTACHED USGS QUAD

OTHER COMMENTS

(Ethnographic data, etc.)



Legend: NM-Q-31-48 (LA 172267)

- | | | |
|---------------|---------------------|------------------------------|
| Site boundary | Site datum | Rubble mound (likely pueblo) |
| Road edge | Thermal feature | Midden |
| Survey area | Powerline structure | |
| Contours | | |

*Tri-State Generation & Transmission
Ya Ta Hey to Gallup Re-permitting Project*



0 20
Meters

P3/PLANNING

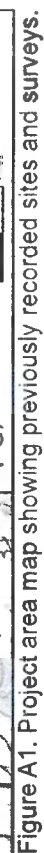


Figure A1. Project area map showing previously recorded sites and surveys.

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Site Survey and Management Form
Site NM-Q-31-48 Photos



Pueblo Rubble Mound; View facing east



Sherd in on-site arroyo; View facing north

LABORATORY OF ANTHROPOLOGY SITE RECORD

1

1. IDENTIFICATION & OWNERSHIP

LA Number: 172267 (contact ARMS for site registration)☐ Site Update? (complete at least Sections 1-4)Site Name(s): Reach 13 -Field Site No. 5Other Site Number(s):

_____Agency Assigning Number:

_____Current Site Owner(s): PrivateSite Type: StructuralOccupation Type: Prehistoric

2. RECORDING INFORMATION

NMCRIIS Activity No.: 123069 Field Site Number: 5Site Marker? ☐ (specify ID#): _____Recorder(s): K. Dongoske, K. Bowekaty, and E. BowekatyAgency: ZCRE Recording Date (dd-MMM-yyyy): 07-Feb-2012Site Accessibility (choose one): ☒ accessible ☐ buried (sterile overburden) ☐ flooded ☐ urbanized ☐ not accessibleSurface Visibility (% visible; choose one): ☐ 0% ☐ 1-25% ☐ 26-50% ☒ 51-75% ☐ 76-99% ☐ 100%

Remarks: _____

Recording Activities:

☒ sketch mapping☐ photography☐ instrument mapping (e.g., total station mapping)☐ shovel or trowel tests, probes☐ surface collection (controlled or uncontrolled)☐ test excavation☒ in-field artifact analysis☐ excavation (data recovery)☐ other activities (specify): _____

Description of Analysis or Excavation Activities: _____

Photographic Documentation: _____

Surface Collections (choose one):

☐ uncontrolled surface collection☒ no surface collection☐ controlled (sample: <100%)☐ collections of specific items only☐ other method (describe): _____☐ controlled (complete 100%)

Records Inventory:

☒ site location map☐ excavation, collection, analysis records☒ field journals, notes☒ sketch map(s)☐ photos, slides, and associated records☐ NM Historic Building Inventory form☐ instrument map(s)☐ other records: _____Repository for Original Records: Zuni Cultural Resource EnterpriseRepository for Collected Artifacts: None collected

3. CONDITION

Archaeological Status: ☐ surface collection ☐ test excavation ☐ partial excavation ☐ complete excavationDisturbance Sources: ☐ wind erosion ☒ water erosion ☐ bioturbation ☐ vandalism ☐ construction/land development☐ other source (specify): _____

Vandalism:

☐ defaced glyphs☐ damaged/defaced building☐ surface disturbance☐ manual excavation☐ mechanical excavation☐ other vandalism (specify): _____Percentage of Site Intact (choose one): ☐ 0% ☐ 1-25% ☐ 26-50% ☐ 51-75% ☒ 76-99% ☐ 100%Observations on Site Condition: Overall the site is in very good condition.

4. RECOMMENDATIONS (for Performer/Recorder use only)

National Register Eligibility (choose one):

☒ eligible☐ not eligible☐ not sure

Applicable Criteria:

☐ (a)☐ (c)☐ (b)☒ (d)

Basis for Recommendation: Site contains a room block, rubble area, and dense artifact scatter indicating that the site contains subsurface integrity and features that will yield scientifically important information about the prehistoric past.

Assessment of Project Impact: The right-of-way for the proposed water line runs through the northern portion of the site boundary and will impact the site.

Treatment Recommendations: avoidance

5. SHPO CONSULTATIONS (for SHPO and Sponsor use only)Sponsor NR Determination: ☒ eligible ☐ not eligible ☐ not determinedApplicable Criteria: ☐ (a) ☐ (b) ☐ (c) ☒ (d)Sponsor Staff: J Tuomey Date (dd-MMM-yyyy): 21 MAY 2012

Sponsor Remarks: Although this site lies within the 400' survey corridor the construction corridor ROW will not enter the site boundary. To ensure avoidance an archaeological monitor will be required during construction activities

SHPO NR Concurrence: ☒ eligible ☐ not eligible ☐ not determinedApplicable Criteria: ☐ (a) ☐ (b) ☐ (c) ☐ (d)HPD Staff: JRE Date (dd-MMM-yyyy): 12 JUN 2012 HPD Log No: 94542Register Status: ☐ listed on National Register ☐ listed on State Register ☐ formal determination of eligibility

State Register No.: _____

SHPO Remarks: _____

6. LOCATION

Source Graphics:

☒ USGS 7.5' (1:24,000) topo maps☐ rectified aerial photos (Scale: _____)☐ other topo maps (Scale: _____)☐ unrectified aerial photos (Scale: _____)☐ GPS unitGPS accuracy (choose one): ☐ < 1.0 m ☐ 1-10 m ☐ 10-100 m ☐ >100 m☐ other source (describe): _____

UTM Coordinates (@ center of site; at least one set of coordinates required):

Map-based Coordinates Datum: NAD27 Zone: _____ E: _____ N: _____GPS-based Coordinates Datum: NAD27 Zone: 12 E: 701,561 N: 3,940,534

Directions to Site: The site is located on the western side of SR 491 between Gallup and Ya Ta He. The site is situated on a west-northwesterly trending ridge that is located approximately 150 meters from highway 491. In highway R-O-W? ☐

Town (if in city limits): _____ State: NM County: McKinley

LA 114,201

USGS Quadrangle Name

Date

USGS Code

Gallup West, 1963 (PR 1979)

PLSS

Meridian	Unplatted	Township	Range	Section	% Sections			Protracted?
New Mexico	<input type="checkbox"/>	T 16 N	R 18 W	29	SW	NW	NW	<input type="checkbox"/>
New Mexico	<input type="checkbox"/>	T _____	R _____	—	—	—	—	<input type="checkbox"/>
New Mexico	<input type="checkbox"/>	T _____	R _____	—	—	—	—	<input type="checkbox"/>
New Mexico	<input type="checkbox"/>	T _____	R _____	—	—	—	—	<input type="checkbox"/>

7. PHYSICAL DESCRIPTION

Site Dimensions: 145 x 105 meters Basis for Dimensions (choose one): ☐ estimated ☒ measured

Site Area: 15,225 sq m Basis for Area (choose one): ☐ estimated ☒ measured Elevation: 6765 feet

Site Boundaries Complete? (choose one): ☒ Yes ☐ No (explain): _____

Basis for Site Boundaries: ☒ distribution of archeological features & artifacts ☐ modern features or ground disturbance
☐ property lines ☐ topographic features ☐ other (specify): _____

Depositional/Erosional Environment: ☐ alluvial ☒ aeolian ☒ colluvial ☐ residual ☐ no deposition (on bedrock)
☐ other process (describe): _____

Stratigraphy & Depth of Archeological Deposits (choose one): ☒ unknown/not determined
☐ no subsurface deposits present ☐ subsurface deposits present ☐ stratified subsurface deposits present

Estimated Depth of Deposits: _____

Basis for Depth Determinations: ☐ estimated ☐ shovel/trowel tests ☐ core/auger tests ☐ excavations
☐ road or arroyo cuts ☐ rodent burrows ☐ other observations (describe): _____

Observations on Subsurface Archeological Deposits: _____

Local Vegetation (list species in decreasing order of dominance):

Overstory: Pinon

Understory: Sagebrush, grasses, and cacti

Vegetation Community (choose one or two) ☐ forest ☐ woodland ☐ grassland ☐ scrubland ☒ desert scrubland ☐ marshland
☐ other community (specify): _____

Topographic Location:

<input type="checkbox"/> bench	<input type="checkbox"/> dune	<input type="checkbox"/> low rise	<input checked="" type="checkbox"/> ridge
<input type="checkbox"/> alluvial fan	<input type="checkbox"/> blowout	<input type="checkbox"/> flood plain/valley	<input type="checkbox"/> rockshelter
<input type="checkbox"/> arroyo/wash	<input type="checkbox"/> canyon rim	<input type="checkbox"/> foothill/mountain front	<input type="checkbox"/> mesa/butte
<input type="checkbox"/> badlands	<input type="checkbox"/> cave	<input type="checkbox"/> hill slope	<input type="checkbox"/> mountain
<input type="checkbox"/> base of cliff	<input type="checkbox"/> cliff/scarp/bluff	<input type="checkbox"/> hill top	<input type="checkbox"/> open canyon floor
<input type="checkbox"/> base of talus slope	<input type="checkbox"/> constricted canyon	<input type="checkbox"/> lava flow (malpais)	<input type="checkbox"/> plain/flat
<input type="checkbox"/> other location (describe): _____		<input type="checkbox"/> playa	<input type="checkbox"/> saddle
			<input type="checkbox"/> talus slope
			<input type="checkbox"/> terrace

Observations on Site Setting: The site is situated on a west-northwesterly trending ridge and is approximately 150 meters west of highway 491.

8. ASSEMBLAGE DATA

Assemblage Content (all components)

Lithics

- ☒ lithic debitage
☐ chipped-stone tools
☐ diagnostic projectile points
☐ non-local lithic material
☐ stone-tool manufacturing items
 (cores, hammerstones, etc.)
☒ ground-stone tools
☐ other stone tools

☐ Other items (specify): _____

Prehistoric Ceramics

- ☐ whole ceramic vessels
☒ diagnostic ceramics
☐ other prehistoric ceramics

Historic Artifacts

- ☐ diagnostic glass artifacts
☐ other glass artifacts
☐ diagnostic metal artifacts
☐ other metal artifacts
☐ whole ceramic vessel
☐ diagnostic ceramics
☐ other historic ceramics

Other Artifacts and Materials

- ☐ bone tools
☐ faunal remains
☐ macrobotanical remains
☐ perishable artifacts
☐ ornaments
☐ figurines
☐ mineral specimens
☐ architectural stone
☐ burned adobe
☐ fire-cracked rock/burned caliche

Assemblage Size (all components):

artifact class

estimated frequency

artifact class	0	1s	10s	100s	1000s	>10,000	*Counts (if <100)
lithic artifacts (choose one): (include debitage)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
prehistoric ceramics (choose one):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
historic artifacts (choose one):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
total assemblage size (choose one):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

Dating Potential: ☒ radiocarbon ☐ dendrochronology ☐ archeomagnetism ☐ obsidian hydration
☒ relative techniques (e.g. seriation, diagnostics, etc.) ☐ other methods (specify): _____

Assemblage Remarks: _____

9. CULTURAL/TEMPORAL AFFILIATIONS

TOTAL NUMBER OF COMPONENTS DEFINED: 1

COMPONENT #1 (EARLIEST)

Cultural Affiliation: _____

Basis for Temporal Affiliations (choose one): ☐ not applicable ☐ based on associated chronometric data or historic records
☒ associated diagnostic artifact or feature types ☐ based on analytically derived assemblage data or archeological experience

*Period of Occupation: (*see NMCRIS Guidelines for valid periods, default occupation dates, and phase/complex names)

	Period Name	Begin Date	End Date
Earliest Period:	<u>PII</u>	<u>900 AD</u>	<u>1200 AD</u>
Latest Period (if any):	<u>PII</u>		

Dating Status: ☐ radiocarbon ☐ dendrochronology ☐ archaeomagnetism ☐ obsidian hydration
☒ relative techniques (e.g. seriation, diagnostics, etc.) ☐ other methods (specify) _____

Basis for Cultural/Temporal Affiliation: Decorated ceramics

Component Type: Features/artifact scatter

Remarks: The site consists of a rubble mound with at least six subsurface rooms indicated by surface wall alignments, a dense midden area, and an associated artifact scatter.

*Associated Phase/Complex Name(s): _____

COMPONENT #2

Cultural Affiliation _____

Basis for Temporal Affiliations (choose one):

☐ not applicable☐ based on associated chronometric data or historic records☐ associated diagnostic artifact or feature types☐ based on analytically derived assemblage data or archeological experience

*Period of Occupation: (*see NMCRIS Guidelines for valid periods, default occupation dates, and phase/complex names)

Period Name

Begin Date

End Date

Earliest Period: _____

Latest Period (if any): _____

Dating Status:

☐ radiocarbon☐ dendrochronology☐ archaeomagnetism☐ obsidian hydration☐ relative techniques (e.g. seriation, diagnostics, etc.)☐ other methods (specify) _____

Basis for Cultural/Temporal Affiliation: _____

Component Type: _____

Remarks: _____

*Associated Phase/Complex Name(s): _____

10. FEATURE DATA

(see NMCRIS User's guide for a list of valid feature types)

Feature Type	Reliable ID ?	# Observed	Assoc. Comp. #s	Feature ID, Notes
Rubble Mound	Yes	1		
Midden Area	Yes	1		

Feature Remarks: _____

11. REFERENCES

Written Sources of Information: _____

Additional Sources of Information: _____

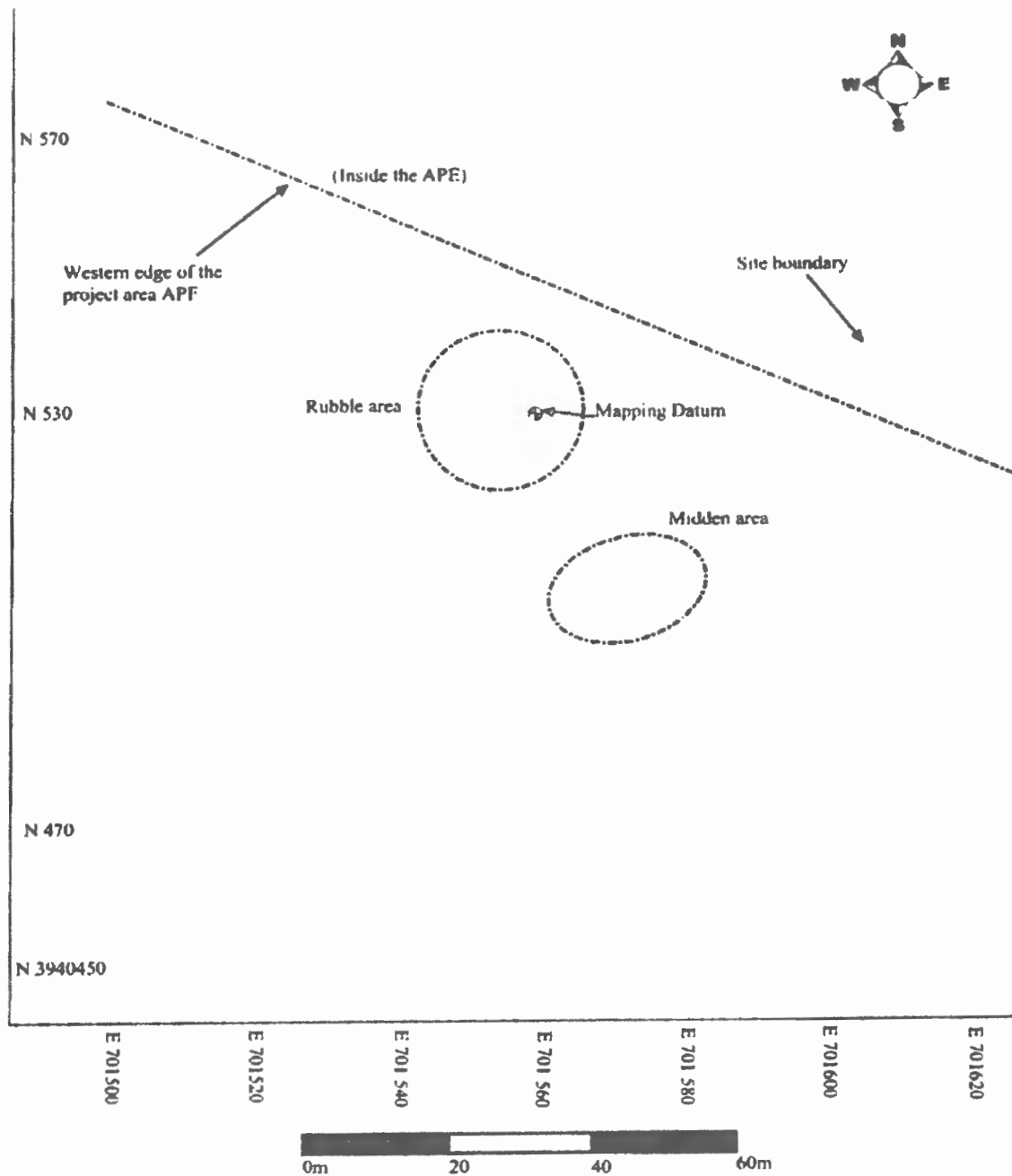
12. NARRATIVE DESCRIPTION

This is a large site consisting of a rubble mound (Feature 1), with visible surface wall alignments indicating the presence of subsurface rooms, a defined midden area (Feature 2), and a broad artifact scatter. The rubble mound measure 19 m x 12 m and is oriented in a northeast southwesterly direction and is located within the northern third of the site area. The rubble mound is characterized by a dense concentration of light grey colored sandstone rocks with some exhibiting signs of having been shaped. There are at least 6 rooms present within the rubble mound that are indicated by surface visible sandstone rock alignments and upright sandstone slabs suggesting walls. The sides of the rubble mound are scattered with sandstone rocks indicative of collapsed walls. A large midden (Feature 2) area is located 10 m. southeast of the rubble mound and extends 19 m x 17 m. The midden area is defined by a very dense concentration of artifacts. A 2 x 2 m artifact analysis unit was established within the midden area and revealed 40 Red Mesa B/w bowl sherds, 40 Red Mesa B/w jar sherds, 40 Gallup B/w jar sherds, 40 Gallup B/w bowl sherds, 40 Escavada B/w bowl sherds, 30 Escavada B/w jar sherds, 30 Puerco B/w bowl sherds, 30 Puerco B/w jar sherds, 10 Reserve B/w jar sherds, 15 Tularosa B/w bowl sherds, 10 Tularosa B/w jar sherds, 15 plain whiteware jar sherds, 10 Puerco B/r bowl sherds, 15 Wingate B/r bowl sherds, 10 plain redware bowl sherds, 40 indented corrugated jar sherds, and 10 plain grayware sherds. Overall artifact densities at this site are in the thousands with ceramics predominating. Thermally altered sandstone fragments are also visible on the site's surface. The site exhibits a strong PII temporal affiliation that most likely extends into early PIII times. An arroyo cut is located on the northern edge of the site area and for the most part defines the northern extent of the site. The proposed waterline right-of-way crosses the northern edge of the site area.

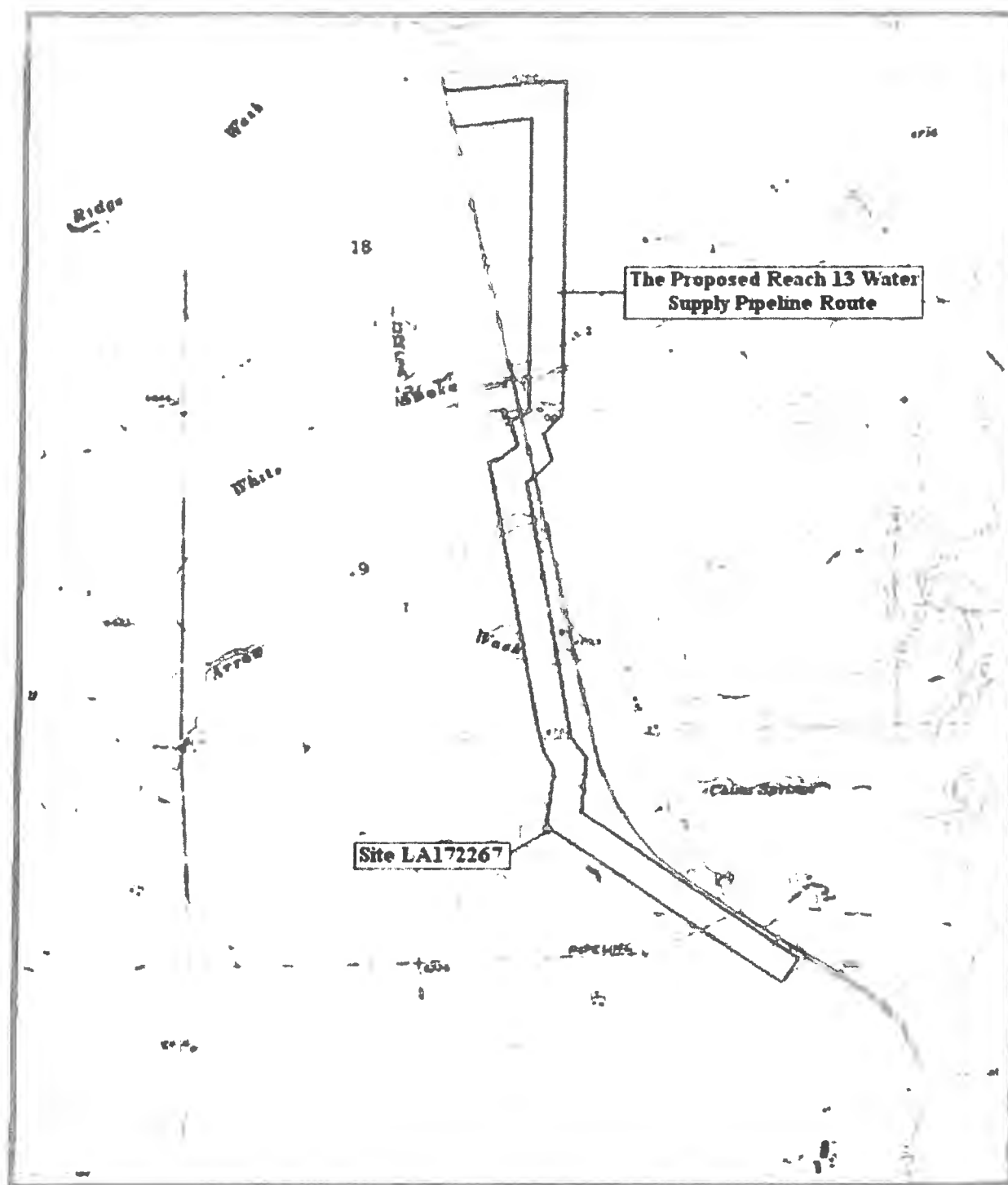
Please note that this site is associated with NMCRIS Activity No. 122105. The APE for #122105 changed from 85 acres to a total of 170 acres after the NAIF record for NMCRIS 122105 had been submitted for SHPO review. Thus, this site (Site LA172267) is considered within the now expanded APE for this overall project, and two NMCRIS Activity Numbers are to be referenced for this project (122105 and 123069).

13. SITE RECORD ATTACHMENTS

- ☒ site location map (USGS 7.5' topo; required) ☒ sketch map or site plan (required) ☐ continuation forms?
☐ other materials (itemize): _____



Planview of Site LA172267



Location of Site LA172267. USGS Gallup West, New Mexico (1963), PE 1979, 7.5-minute topographic quadrangle. Scale 1:24,000

Navajo Nation Archaeology Department

Site Survey and Management Form

SITE NO.: NM-Q-31-49 (Temp: P3-01-011-01) DATE RECORDED: May 29, 2013

PROJECT NO. & NAME: A Cultural Resources Survey for the Tri-State Ya-Ta-Hey Transmission Line Right-of-way Renewal, The Navajo Nation, McKinley County, New Mexico (P3planning Project No. P3-01-011)

ORGANIZATION: P3planning LLC

ARCHAEOLOGIST (S): Nicholas Parker and William Penner

USGS MAP REFERENCE: Gallup West, New Mexico, USGS Map Code 35108-E7

LEGAL DESCRIPTION: NE/4, NW/4, NW/4 of Section 30, Township 16 North, Range 18 West, NMPM

UTM COORDINATES (ZONE 12): 3941099 N, 700482 E

STATE: NM COUNTY: McKinley CHAPTER: Rock Springs

LAND STATUS: Indian Allotment

GROUND VISIBILITY: Kind and extent of cover ? 20% vegetation cover

TOPOGRAPHY: The site is situated at an elevation of 6710 ft amsl on the knob of a small hill and has broad and sweeping views to the west and south.

DRAINAGE: Unnamed drainages surround site; Arrow Wash is located to the northeast

ELEVATION (FT/M): 6,710 ft amsl Slope and Direction: 1 to 3° West and South

SEDIMENT TYPE: Surface sediments consist of loosely consolidated aeolian silty sand and appear highly erodible. The site also has exposed sandstone bedrock and a series of large boulders.

VEGETATION PRESENT: Desert-scrubland vegetation covers approximately 30 percent of the ground surface and is dominated by scattered one-seed junipers, piñon pines, broom snakeweed, sand sage, chamisa, prickly pear, and several range grasses.

CULTURAL AFFILIATION:

1) Anasazi, Pueblo II period

SITE TYPE:

1) NM-Q-31-49 is a small prehistoric site consisting of a small thermal feature and a diffuse artifact scatter.

PERIOD (S) OF OCCUPATION (Date if known):

1) Anasazi, Pueblo II period (ca. AD 900-1100)

DIMENSIONS OF SITE (L X W): 60 x 40 m TOTAL AREA (SQ.M): 2,400 m²

ARCHITECTURE PRESENT ? : No DESCRIBE:

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ARTIFACT OBSERVED/COUNTED: Field analysis included a complete assessment of all artifacts observed on the ground surface.

A series of formal tools identified on the site. These included a single sandstone one-hand mano with ground and pecked facets measuring 12 cm x 8 cm x 5 cm. In addition, a petrified wood biface was discovered 2 m from the thermal feature. It was intact and measured 7 cm x 4 cm x 0.8 cm. A third tool consisted of a broken Desert Side-notched projectile point composed of chert and measuring 2.3 cm x 1.6 cm x 0.3 cm. This point has a broad temporal association (late archaic to proto-historic), but based on the other artifacts, it is most likely from the Pueblo II period. Two petrified wood lithic-reduction cores—both measuring roughly 12 cm x 8 cm x 5 cm—were also identified along the exposed bedrock portion of the site.

In addition to the formal lithic tools, a number of late-stage lithic-reduction flakes were identified. These included mottled and brown chert (n=7), petrified wood (n=7), and quartzite (n=2).

Also of note was a moderate density of ceramics—mostly dating to the Pueblo II period (A.D. 900–1100). These included indented corrugated (n=13), Gallup/Red Mesa Black-on-white (n=4), and a number of plainware sherds (n=10). Vessels include large and small jars and bowls. The sherds, much like the lithics, are spread over the entire site with moderately more noted in the southern area—along the exposed bedrock and near the location of the previously noted projectile point.

COLLECTION MADE ? No OF WHAT ? : N/A METHOD: N/A

PHOTOS: Digital Download 1, Frames 1-5

SITE DESCRIPTION: NM-Q-31-49 is a small prehistoric site consisting of a small thermal feature and a diffuse artifact scatter dating from the Pueblo II period (A.D. 900–1100; Figure A.3). The site is situated at an elevation of 6710 ft amsl on the knob of a small hill and has broad and sweeping views to the west and south. Slopes measure between 1 and 3 percent. Two bladed access roads define the northern extent of the site and Tri-State's transmission line spans the outer margins. Structures 55-3 and 55-2 are located approximately 75 m outside of the boundaries to the east and west. Vegetation in the immediate vicinity covers approximately 30 percent of the ground surface and includes scattered one-seed junipers, piñon pines, broom snakeweed, sand sage, chamisa, prickly pear, and several range grasses. Surface sediments consist of loosely consolidated aeolian silty sand and appear highly erodible. The site also has exposed sandstone bedrock and a series of large boulders. Observed sources of disturbance include aeolian erosion and road maintenance; however, the site is estimated to remain approximately 51 to 75 percent intact.

The sole identifiable feature on the site consists of an ashy stain measuring 1 m x 40 cm within the bladed road surface. A number of ceramic and lithic artifacts were noted within 5 m of the stain—concentrated on and around a push-pile just west of the feature. No fire-cracked rock was identified.

A series of formal tools were also identified on the site. These included a single sandstone one-hand mano with ground and pecked facets measuring 12 cm x 8 cm x 5 cm. In addition, a petrified wood biface was discovered 2 m from the thermal feature. It was intact and measured 7 cm x 4 cm x 0.8 cm. A third tool consisted of a broken Desert Side-notched projectile point composed of chert and measuring 2.3 cm x 1.6 cm x 0.3 cm. This point has a broad temporal

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Site Survey and Management Form

association (late archaic to proto-historic), but based on the other artifacts, it is most likely from the Pueblo II period. Two petrified wood lithic-reduction cores—both measuring roughly 12 cm x 8 cm x 5 cm—were also identified along the exposed bedrock portion of the site.

In addition to the formal lithic tools, a number of late-stage lithic-reduction flakes were identified. These included mottled and brown chert (n=7), petrified wood (n=7), and quartzite.

Also of note was a moderate density of ceramics—mostly dating to the Pueblo II period (A.D. 900–1100). These included indented corrugated (n=13), Gallup/Red Mesa Black-on-white (n=4), and a number of plainware sherds (n=10). Vessels include large and small jars and bowls. The sherds, much like the lithics, are spread over the entire site with moderately more noted in the southern area—along the exposed bedrock and near the location of the previously noted projectile point.

The cultural/temporal affiliation of the site appears consistent with other materials located in the area, such as at NM-Q-31-48 and NM-Q-31-50. Further, the Pueblo II classification is based on the presence of diagnostic ceramics, including many classic black-on-white specimens, and the single Desert Side-notched projectile point. As such, this site appears to represent a short-term Pueblo II encampment that served as a living, processing, and storing area. The location of the site on a prominent hill may have made it a desirable vantage point from which to monitor the movement of wild game, or other humans—such as at nearby (and contemporary) sites NM-Q-31-48 and NM-Q-31-50.

CONDITION OF SITE: Good (51-75% intact)

CAUSES OF DISTURBANCE: The site is in good condition with some moderate disturbance from aeolian erosion and road maintenance.

LOCATION OF SITE RELATIVE TO PROJECT AREA: Project consists solely of a right-of-way renewal; no ground disturbing activities are part of this undertaking.

EXTENT OF INVESTIGATION TO DATE: Survey

RESEARCH POTENTIAL: NM-Q-31-49 is a small structural prehistoric site that includes a small thermal feature and a diffuse artifact scatter. Based on the presence of the single feature, and the diversity of the artifact assemblage, the likelihood of intact subsurface cultural deposits is considered to be high. If such deposits are present, additional materials could yield valuable information on site function, temporal affiliation, ceramic and lithic technological organization, and prehistoric land use in the area. The site is therefore recommended *eligible* to the NRHP under Criterion D.

RECOMMENDATIONS: P3planning recommends that the site be avoided by all future ground-disturbing activities. Furthermore, it is recommended that vehicular traffic be restricted to the existing access road. Personnel should avoid turning vehicles around within the site boundaries, and the portion of the access road located within the site should be avoided during inclement weather when wet road conditions increase the potential for subsurface disturbance. If these recommendations are followed, subject to consultation and comment, the proposed ROW renewal—and future maintenance of the transmission line—will have *no adverse effect* on the site.

Navajo Nation Archaeology Department

Site Survey and Management Form

SITE ASSESSMENT UNDER 36 CFR 60.4 (NATIONAL REGISTER) :

INTEGRITY: Good

CRITERIA: D

EXCLUSIONS: None

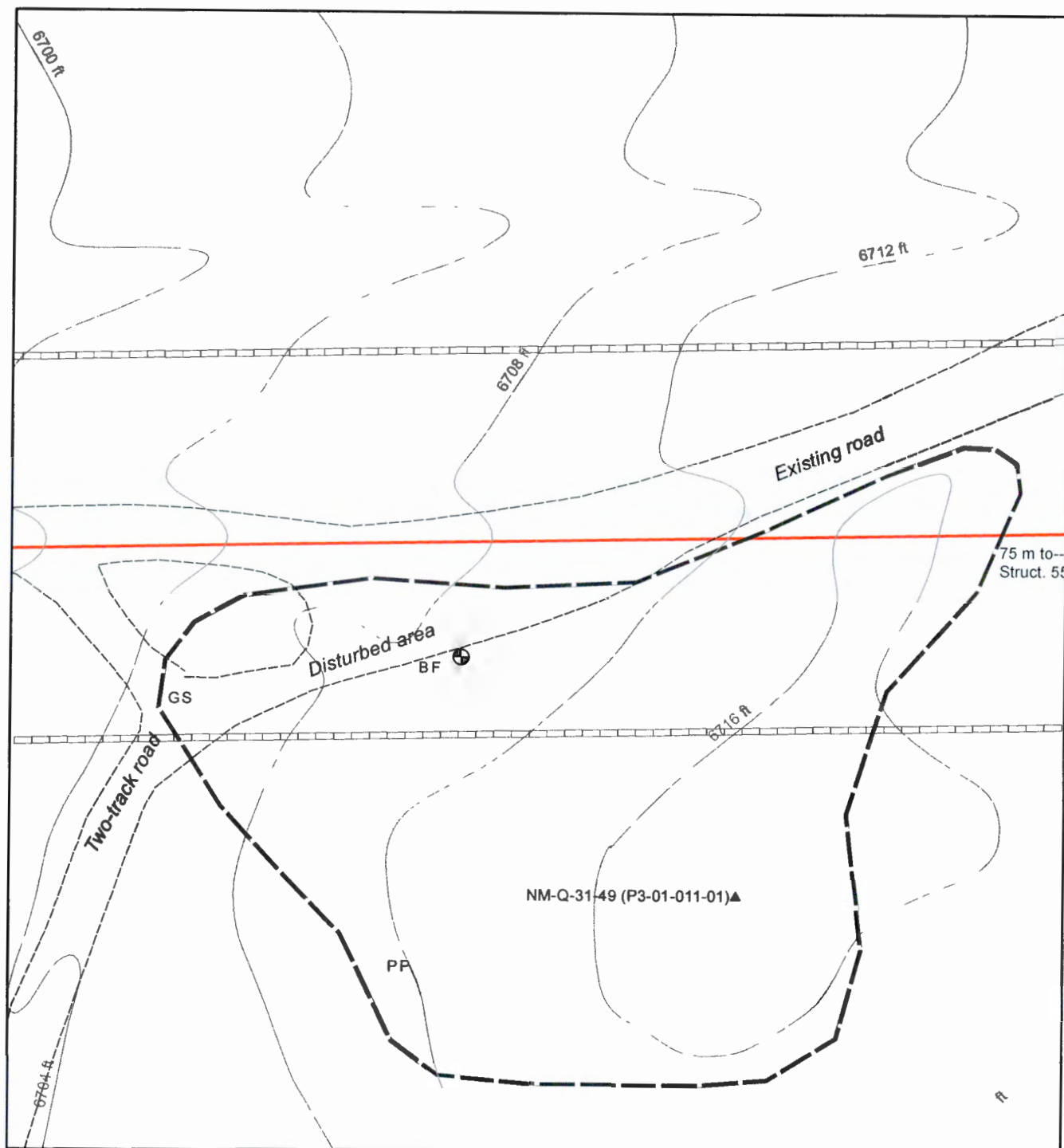
SITE ASSESSMENT UNDER 43 CFR 7.3 (ARPA): The site is over 100 years old and protection under ARPA is warranted.

SITE ASSESSMENT UNDER AIRFA: The site does not possess qualities meriting protection under AIRFA.

PROVIDE A SITE MAP (Including site designation, North Arrow, scale, recognizable features, landmarks and relationship to project area)

HOW CAN THE SITE BE REACHED ? SEE ATTACHED USGS QUAD

OTHER COMMENTS (Ethnographic data, etc.)



Legend: NM-Q-31-49 (P3-01-011-01)

- | | |
|---------------|---------------------|
| Site boundary | Site datum |
| Road edge | Thermal feature |
| Survey area | GS Mano |
| Contours | PP Projectile point |
| | BF Biface |

Tri-State Generation & Transmission
Ya Ta Hey to Gallup Re-permitting Project



P3/PLANNING

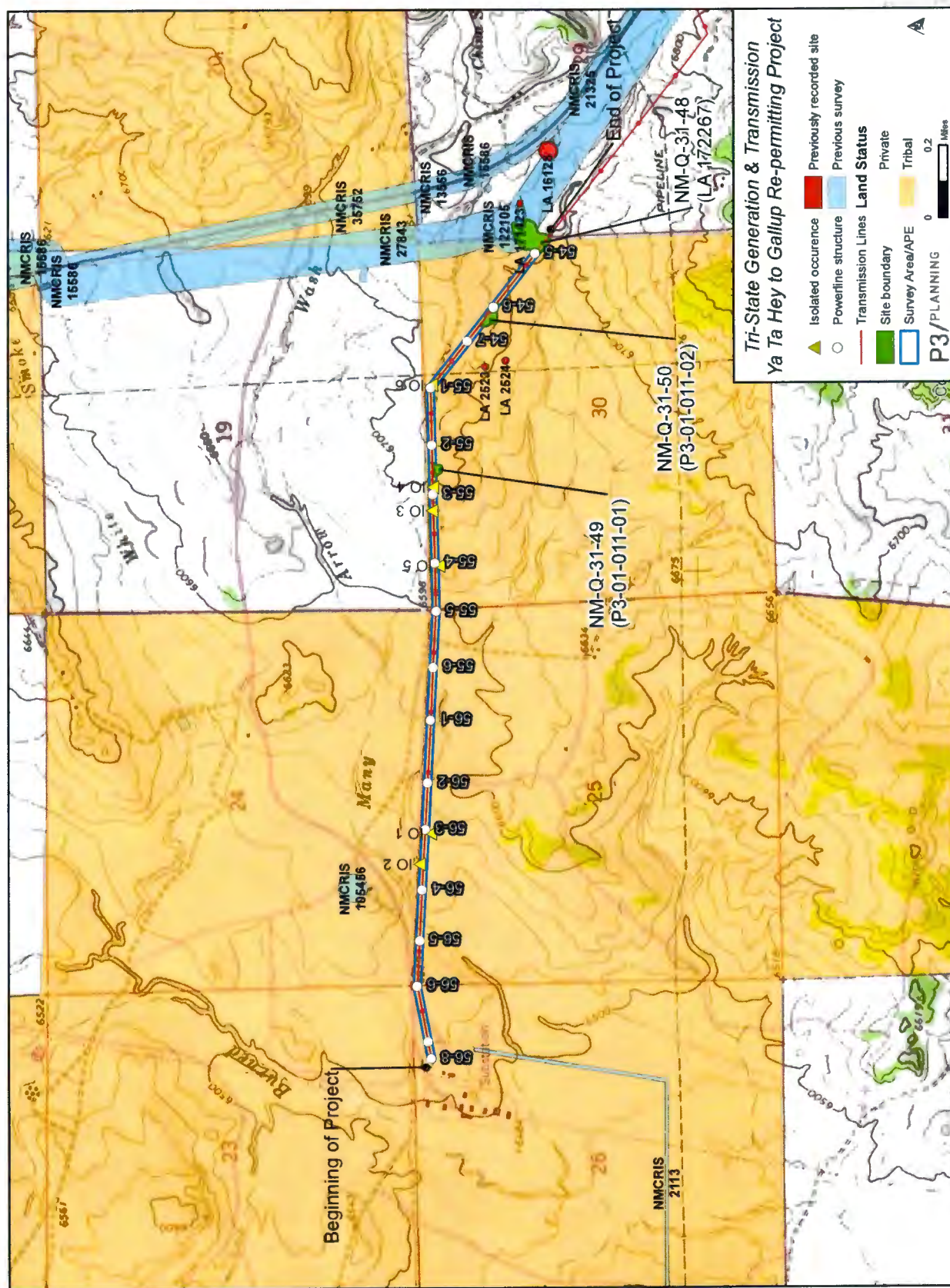


Figure A1. Project area map showing previously recorded sites and surveys.

Navajo Nation Archaeology Department

Site Survey and Management Form
Site NM-Q-31-49 Photos



Site Overview; View facing west



Desert side-notched projectile point

Navajo Nation Archaeology Department

Site Survey and Management Form

SITE NO.: NM-Q-31-50 (Temp: P3-01-011-02) DATE RECORDED: May 29, 2013

PROJECT NO. & NAME: A Cultural Resources Survey for the Tri-State Ya-Ta-Hey Transmission Line Right-of-way Renewal, The Navajo Nation, McKinley County, New Mexico (P3planning Project No. P3-01-011)

ORGANIZATION: P3planning LLC

ARCHAEOLOGIST (S): Nicholas Parker and William Penner

USGS MAP REFERENCE: Gallup West, New Mexico, USGS Map Code 35108-E7

LEGAL DESCRIPTION: SW/4, NE/4, NE/4 of Section 30, Township 16 North, Range 18 West, NMPM

UTM COORDINATES (ZONE 12): 3940864 N, 701153 E

STATE: NM COUNTY: McKinley CHAPTER: Rock Springs

LAND STATUS: Indian Allotment

GROUND VISIBILITY: Kind and extent of cover ? 20% vegetation cover

TOPOGRAPHY: The site is situated at an elevation of 6725 ft amsl on the eastern slope of a small hill.

DRAINAGE: Unnamed drainages surround site; Arrow Wash is located to the northeast

ELEVATION (FT/M): 6,725 ft amsl Slope and Direction: 1 to 7° East

SEDIMENT TYPE: Surface sediments consist of loosely consolidated aeolian silty sand and appear highly erodible. The site also has series of large boulders.

VEGETATION PRESENT: Desert-scrubland vegetation covers approximately 30 percent of the ground surface and is dominated by scattered one-seed junipers, piñon pines, broom snakeweed, sand sage, chamisa, prickly pear, and several range grasses.

CULTURAL AFFILIATION:

- 1) Anasazi, Pueblo II period
- 2) Historic (early-to-middle twentieth century)

SITE TYPE:

- 1) Prehistoric artifact scatter dating from the Pueblo II period (A.D. 900–1100)
- 2) Early-to-middle twentieth century artifact scatter

PERIOD (S) OF OCCUPATION (Date if known):

- 1) Anasazi, Pueblo II period (ca. AD 900-1100)
- 2) Early-to-middle twentieth century

DIMENSIONS OF SITE (L X W): 124 x 63 m TOTAL AREA (SQ.M): 7,812 m²

Navajo Nation Archaeology Department

Site Survey and Management Form

ARCHITECTURE PRESENT ? : No DESCRIBE:

ARTIFACT OBSERVED/COUNTED: Field analysis included a complete assessment of all artifacts observed on the ground surface.

A number of historic artifacts were identified within the site boundaries. These included milk glass (n=8), bottle glass (n=10), sun-colored amethyst glass (n=6), an enamelware bowl fragment, solder-dot cans (n=4), sanitary cans (n=10), tobacco tins (n=1), and a single Nehi orange soda can.

In addition to the historic materials, there is a moderate density of prehistoric ceramics—mostly dating to the Pueblo II period (A.D. 900–1100). These included indented corrugated (n=4), Gallup Black-on-white (n=12), Red Mesa Black-on-white (n=3), and a number of plainware sherds (n=5). Vessels include large and small jars and bowls. And while materials are located throughout the entire site area, they are concentrated on the hill-slope in the western extent of the site.

And while not a dominant component of the site, a small number of lithics were also identified. These were limited to late-stage-reduction flakes composed of chert (n=2), petrified wood (n=3), and chalcedony (n=1). No formal tools or groundstone were noted.

COLLECTION MADE ? No OF WHAT ? : N/A METHOD: N/A

PHOTOS: Digital Download 1, Frames 6-9

SITE DESCRIPTION: NM-Q-31-50 is a moderately sized multicomponent site consisting of three small thermal features and a diffuse prehistoric/historic artifact scatter dating from the Pueblo II period (A.D. 900–1100) and early-to-middle twentieth century (Figure A.4). NM-Q-31-50 is situated at an elevation of 6725 ft amsl on the eastern slope of a small hill. On-site gradients measure between 1 and 7 percent. A single bladed access road bisects the site and Tri-State's transmission line spans the outer margins. Structure 54-6 is located within the eastern extent of the site, but not in within the feature or artifact concentration areas. Vegetation in the immediate vicinity covers approximately 20 percent of the ground surface and includes scattered one-seed junipers, piñon pines, broom snakeweed, sand sage, chamisa, prickly pear, and several range grasses. Surface sediments consist of loosely consolidated aeolian silty sand and appear highly erodible. The site also has series of large boulders. Observed sources of disturbance include aeolian erosion and road maintenance. In fact, a small push-pile/bladed area is located along the road margins in the western extent of the site; however, NM-Q-31-50 is estimated to remain approximately 51 to 75 percent intact.

The three identifiable features consist of distinct and isolated ashy stains along the eastern extent of the site boundary. A few ceramic, lithic, and glass artifacts were noted within 10 m of the respective stains—although the greatest concentration of materials is located up-slope and away from the features. No fire-cracked rock was identified. The features are as follows:

Feature 1 is located on the north side of the two-track access road and measures 25 cm x 30 cm. No charcoal was noted, although a single corrugated sherd was identified within 1 m of the stain. A small number of lithic and ceramic artifacts were also noted within 10 m of the feature.

Navajo Nation Archaeology Department

Site Survey and Management Form

Feature 2 is an ashy/charcoal deposit just south of two-track access road. The stain measures 50 cm x 50 cm and modern bottle glass appears in close proximity. This feature is most likely historic-to-recent.

Feature 3 is an ashy stain measuring 20 cm x 25 cm with no associated artifacts.

In addition to the features, a number of historic artifacts were identified within the site boundaries. These included milk glass (n=8), bottle glass (n=10), sun-colored amethyst glass (n=6), an enamelware bowl fragment, solder-dot cans (n=4), sanitary cans (n=10), tobacco tins (n=1), and a single Nehi orange soda can. Based on the low-density of historic artifacts, it appears that these materials represent short-term encampments associated with nearby state highway 491 (formerly NM 666), hunting or herding by local Navajo, or ancillary activities from the nearby miners/residents in Gamerco.

In addition to the historic materials, there is a moderate density of prehistoric ceramics—mostly dating to the Pueblo II period (A.D. 900–1100). These included indented corrugated (n=4), Gallup Black-on-white (n=12), Red Mesa Black-on-white (n=3), and a number of plainware sherds (n=5). Vessels include large and small jars and bowls. And while materials are located throughout the entire site area, they are concentrated on the hill-slope in the western extent of the site.

And while not a dominant component of the site, a small number of lithics were also identified. These were limited to late-stage-reduction flakes composed of chert (n=2), petrified wood (n=3), and chalcedony (n=1). No formal tools or groundstone were noted.

The prehistoric cultural/temporal affiliation of the site appears consistent with other materials located in the area, such as at NM-Q-31-48 and NM-Q-31-49. Further, the Pueblo II classification is based on the presence of diagnostic ceramics, including many classic black-on-white specimens. As such, this site appears to represent a short-term Pueblo II encampment that served as a living, processing, and storing area. The location of the site on the eastern slope of a small hill may have made it a desirable vantage point from which to monitor the movement of wild game, or other humans—such as at nearby (and contemporary) sites NM-Q-31-48 and NM-Q-31-49.

Further, the historic materials are consistent with twentieth-century artifacts found across New Mexico and the Western US—often near roads where camping was typical for travelers. The artifacts do not appear associated with ranching or homesteading and therefore do not likely contribute any new information to our understanding of early-to-middle twentieth century behavior.

CONDITION OF SITE: Good (51-75% intact)

CAUSES OF DISTURBANCE: Observed sources of disturbance include aeolian erosion and road maintenance. In fact, a small push-pile/bladed area is located along the road margins in the western extent of the site.

LOCATION OF SITE RELATIVE TO PROJECT AREA: Project consists solely of a right-of-way renewal; no ground disturbing activities are part of this undertaking.

EXTENT OF INVESTIGATION TO DATE: Survey

Navajo Nation Archaeology Department

Site Survey and Management Form

RESEARCH POTENTIAL: NM-Q-31-50 is a moderately sized multicomponent site that includes three small thermal features and a diffuse prehistoric and historic artifact scatter. Based on the noted features and the diversity of the prehistoric artifact assemblage, the likelihood of intact subsurface cultural deposits is considered to be high. If such deposits are present, additional materials could yield valuable information on site function, temporal affiliation, ceramic and lithic technological organization, and prehistoric land use in the area. The site is therefore recommended *eligible* to the NRHP under Criterion D. The historic component, while interesting, is not likely to yield any new insights into the lives of people in the early-to-middle twentieth century. As such, we recommend the historic component of NM-Q-31-50 as non-contributing to the site's eligibility.

RECOMMENDATIONS: P3planning recommends that the site be avoided by all future ground-disturbing activities. Furthermore, it is recommended that vehicular traffic be restricted to the existing access road. Personnel should avoid turning vehicles around within the site boundaries, and the portion of the access road located within the site should be avoided during inclement weather when wet road conditions increase the potential for subsurface disturbance. If these recommendations are followed, subject to consultation and comment, the proposed ROW renewal—and future maintenance of the transmission line—will have *no adverse effect* on the site.

SITE ASSESSMENT UNDER 36 CFR 60.4 (NATIONAL REGISTER) :

INTEGRITY: Good

CRITERIA: D

EXCLUSIONS: None

SITE ASSESSMENT UNDER 43 CFR 7.3 (ARPA): The site is over 100 years old and protection under ARPA is warranted.

SITE ASSESSMENT UNDER AIRFA: The site does not possess qualities meriting protection under AIRFA.

PROVIDE A SITE MAP

(Including site designation, North Arrow, scale, recognizable features, landmarks and relationship to project area)

HOW CAN THE SITE BE REACHED ? SEE ATTACHED USGS QUAD

OTHER COMMENTS

(Ethnographic data, etc.)

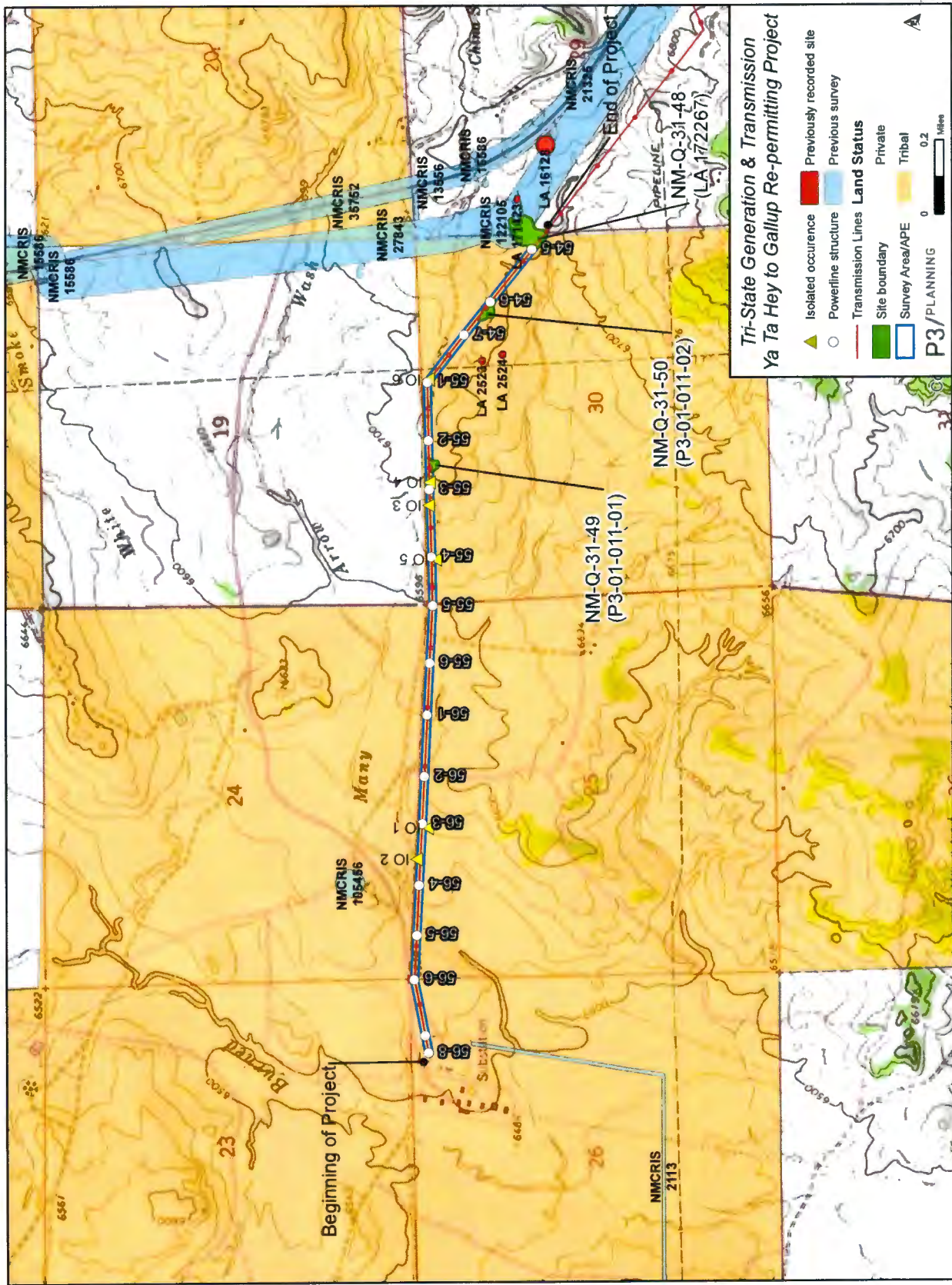
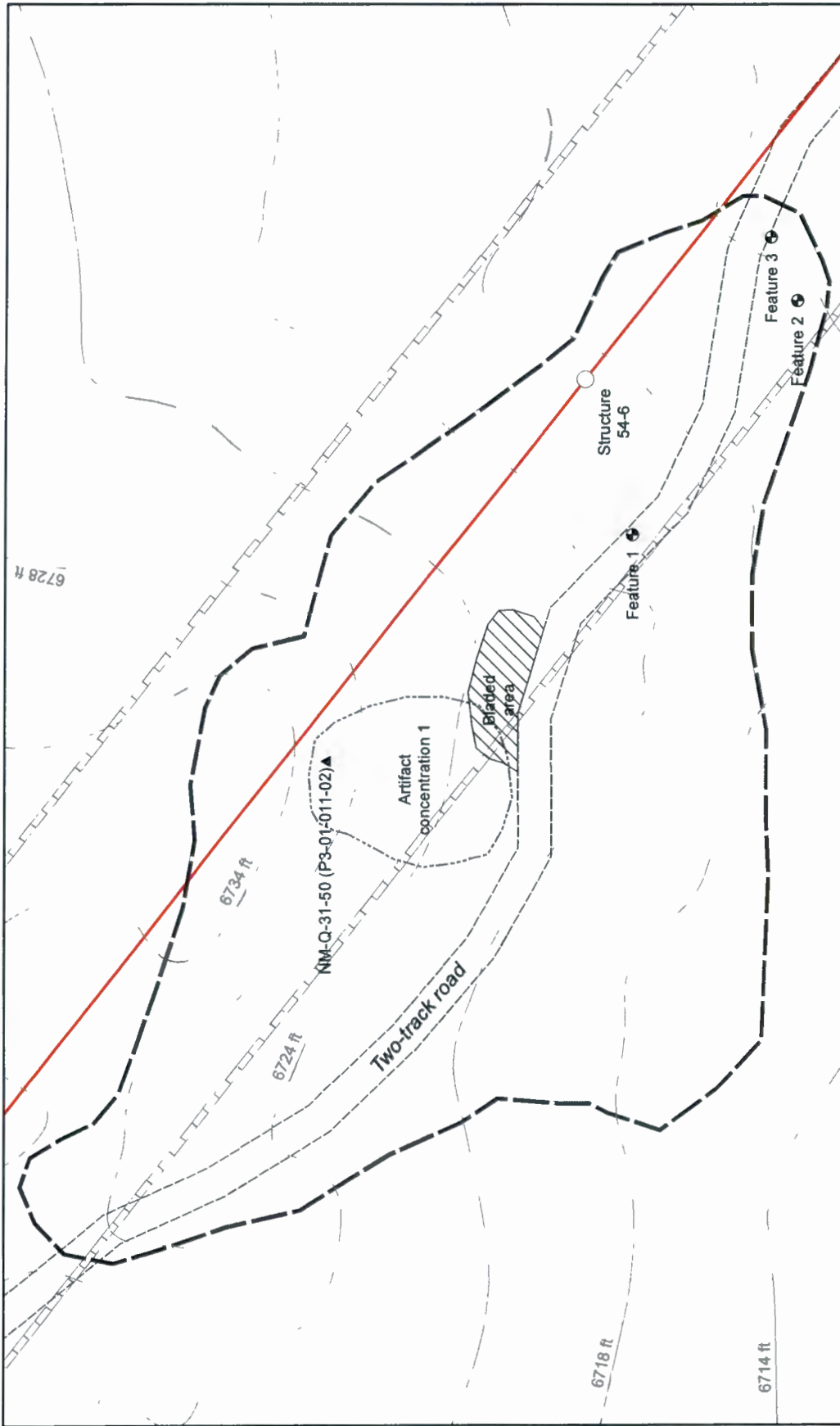


Figure A1. Project area map showing previously recorded sites and surveys.



Legend: NM-Q-31-50 (P3-01-011-02)

- Site boundary
- Road edge
- Survey area
- Contours
- Site datum
- Thermal feature
- Powerline structure
- Artifact concentration
- Bladed area

Tri-State Generation & Transmission
Ya Ta Hey to Gallup Re-permitting Project



P3/PLANNING

DATE 7/10/2011

Navajo Nation Archaeology Department

Site Survey and Management Form
Site NM-Q-31-50 Photos



Central portion of the site with bare soils and sparse vegetation; View facing west



Feature 1: Asy stain within two-track;
Located on north side of road



United States Department of the Interior
Bureau of Indian Affairs
Navajo Region
P. O. Box 1060
Gallup, New Mexico 87305-1060



NOV 19 2013

MC: 620 Division of Environmental, Cultural and Safety Management

Mr. Joseph J. Gallik
Tri-State Generation & Transmission Association, Inc.
P.O. Box 33695
Denver, Colorado 80233-0695

Dear Mr. Gallik:

The Tri-State Generation and Transmission Association, Inc. (Tri-State) request for categorical exclusion, **EA-13-138**, received November 1, 2013, for the Tri-State Gallup to Ya-Ta-Hey Transmission Line Right-of-Way Renewal on Indian Trust Allotments 1482 and 1483 and Navajo Fee Land, McKinley County, New Mexico, has been reviewed in the Division of Environmental, Cultural and Safety Management, Navajo Regional Office. The length of the transmission line is approximately 11,292.8 feet within a 50-foot wide ROW encompassing 13.5125 acres of land.

The Navajo Nation Department of Fish and Wildlife (NNDFW) was consulted on the proposed renewal of the Tri-State grant of right-of-way for the existing 115kV electric transmission line. The NNDFW issued Biological Resources Compliance Form (BRCF), NNDFW Review No. 13PTPL-01 recommending approval of the project. There are no avoidance/mitigation measures and/or conditions of compliance stated in the BRCF.

The Navajo Nation Historic Preservation Department (NNHPD) issued Cultural Resources Compliance Form, NNHPD No. HPD-13-627 stating that no historic properties will be affected if conditions stated in the CRCF are followed.

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.

The request for categorical exclusion is approved based on information provided in the environmental documents. Council on Environmental Quality (CEQ) Regulations, 40 CFR 1508.4, 25 CFR 169.22, Service Lines (telephone, water, electric power, gas and other utilities), and 516 DM 10 (Department Manual), 10.5 Categorical Exclusions, F. Rights-of-Way, (3), "Renewals, assignments and conversions of existing rights-of-way where there would be essentially no change in use and continuation would not lead to environmental degradation" allow the proposed power transmission line right-of-way renewal to be categorically excluded.

The project Categorical Exclusion, with supporting documents, designated as **EA-13-138**, is on file and available for review in Room 129, Division of Environmental, Cultural and Safety Management, Navajo Regional Office, Bureau of Indian Affairs, 301 West Hill Street, Gallup, New Mexico, 87301.

If you have questions or require additional information, you may contact Ms. Harrilene J. Yazzie, Navajo Regional NEPA Coordinator, at (505) 863-8287.

Sincerely,

A handwritten signature in black ink, consisting of a series of loops and a long horizontal stroke extending to the right.

Regional Director, Navajo

Enclosure

EXCEPTION CHECKLIST FOR BIA CATEGORICAL EXCLUSIONS

Project: Tri-State Gallup to Ya-Ta-Hey Transmission Line Right-of-Way Renewal, Navajo Nation Indian Allotments 1482 and 1483, and Navajo Fee Land, McKinley County, New Mexico

Date: 10/21/2013

Nature of Proposed Action:

Tri-State Generation and Transmission Association (Tri-State) is renewing right-of-way (ROW) easements for their 115-kilovolt (kV) transmission line across Navajo Nation Indian Allotments 1482 and 1483, Section 30, T16N, R18W, NMPM and Navajo Fee Land, Section 25, T16N, R19W, NMPM, McKinley County, New Mexico. The renewed easement will be for the term of 25 years and cover the routine operation of the transmission line. As part of the renewal process for the ROW, Tri-State is working with the Bureau of Indian Affairs (BIA) on ROW issues. BIA's involvement requires Tri-State to comply with various federal regulations, including the National Environmental Policy Act (NEPA). Tri-State contracted with P3/Planning to help fulfill the BIA's obligations under NEPA. Per consultation with the BIA and The Navajo Nation Historic Preservation Department, and in consideration of BIA guidelines, these obligations included completing a categorical exclusion (CE) for the ROW renewal along with a cultural resource survey of the easement. The Navajo Nation biological and cultural resource compliance forms have been signed and are attached to support the evaluation of exemptions cited below.

Exclusion category and number: 516 DM 10.5 F (3). Renewals, assignments and conversions of existing rights-of-way where there would be essentially no change in use and continuation would not lead to environmental degradation.

Evaluation of Exceptions to use of Categorical Exclusion:

- | | | |
|---|-------------|---------------|
| 1. This action would have significant adverse effects on public health or safety. | No <u>X</u> | Yes <u> </u> |
| 2. This action would have an adverse effect on unique geographical features such as wetlands, wild or scenic rivers, refuges, floodplains, rivers placed on nationwide river inventory, or prime or unique farmlands. | No <u>X</u> | Yes <u> </u> |
| 3. The action will have highly controversial environmental effects. | No <u>X</u> | Yes <u> </u> |
| 4. The action will have highly uncertain environmental effects or involve unique or unknown environmental risk. | No <u>X</u> | Yes <u> </u> |

- | | | |
|---|-------------|-----------|
| 5. This action will establish a precedent for future actions. | No <u>X</u> | Yes _____ |
| 6. This action is related to other actions with individually insignificant but cumulatively significant environmental effects. | No <u>X</u> | Yes _____ |
| 7. This action will affect properties listed or eligible for listing in the National Register of Historic Places. | No <u>X</u> | Yes _____ |
| 8. This action will affect a species listed or proposed to be listed as endangered or threatened. | No <u>X</u> | Yes _____ |
| 9. This action threatens to violate federal, state, local, or tribal law or requirements imposed for protection of the environment. | No <u>X</u> | Yes _____ |
| 10. This action will have a disproportionately high and adverse effect on low income or minority populations. | No <u>X</u> | Yes _____ |
| 11. This action will limit access to, and ceremonial use of Indian sacred sites on federal lands by Indian religious practitioners, or significantly adversely affect the physical integrity of such sacred sites. | No <u>X</u> | Yes _____ |
| 12. This action will contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area, or may promote the introduction, growth, or expansion of the range of such species. | No <u>X</u> | Yes _____ |

A "yes" to any of the above exceptions will require that an EA be prepared.

NEPA Action - - - CE X EA _____

Preparer's Name and Title: Curtis Miller, Environmental Planner, Tri-State Generation and Transmission Association, Inc.

Area Archeologist Concurrence with Item 7: _____

Concur: _____
Regional Director/Superintendent

Date: _____

Concur: _____
Regional Office/Agency Environmental Coordinator

Date: _____

CULTURAL RESOURCES COMPLIANCE FORM

THE NAVAJO NATION
HISTORIC PRESERVATION DEPARTMENT
PO BOX 4950
WINDOW ROCK, ARIZONA 86515

ROUTE COPIES TO:



P3 Planning

NNHPD NO. **HPD-13-627**

OTHER PROJECT NO.: **P3-01-011**

PROJECT TITLE: A Cultural Survey for the Tri-State Ya-Ta-Hey Transmission Line Right-of-Way Renewal, the Navajo Nation, McKinley County, New Mexico (P3planning Project No. P3-01-011)

LEAD AGENCY: BIA/NR

SPONSOR: Mr. Curtis Miller, Environmental Planner Tri-State G&T, PO Box 33695, Denver, CO 80234

PROJECT DESCRIPTION: Tri-State Generation and Transmission Association (Tri-State) is renewing right-of-way (ROW) easements for the Ya-Ta-Hey 115-kilovolt (kV) transmission line. The total length of the ROW is 2.14-miles with a 50-ft wide right-of-way. An additional 50-ft was added beyond the ROW. The renewal of the lease is for 25-years and covers the routine operation of the transmission line. Future ground disturbance will be intensive and extensive with the use of heavy equipment.

LAND STATUS: Navajo Tribal Fee Land, Allotments 1482 & 1483

CHAPTER: Rock Springs

LOCATION: T.16N, R.18W - Sec. 30; T.16N, R.19W, Sec. 25; Gallup West Quadrangle, McKinley County, New Mexico NMPM

PROJECT ARCHAEOLOGIST: Nicolas Parker & William Penner

NAVAJO ANTIQUITIES PERMIT NO: B13221

DATE INSPECTED: 05/28/2013 - 05/29/2013

DATE OF REPORT: 07/30/2013

TOTAL ACREAGE INSPECTED: 25.92 ac.

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

LIST OF CULTURAL RESOURCES FOUND:

(3) Sites (NM-Q-31-48, NM-Q-31-49, NM-Q-31-50);

(6) Isolated Occurrences (IO)

LIST OF ELIGIBLE PROPERTIES:

(3) Sites (NM-Q-31-48, NM-Q-31-49, NM-Q-31-50)

LIST OF NON-ELIGIBLE PROPERTIES:

(6) IO

LIST OF ARCHAEOLOGICAL RESOURCES:

(3) Sites (NM-Q-31-48, NM-Q-31-49, NM-Q-31-50)

EFFECT/CONDITIONS OF COMPLIANCE: No historic properties will be affected with the following conditions:

Sites NM-Q-31-48, NM-Q-31-49, NM-Q-31-50:

1. Markers will be placed along access roads to ensure future maintenance patrols abide by the following stipulations:
2. All ground disturbing/maintenance activities will avoid the sites.
3. All vehicular traffic will be restricted to the existing access roads within site boundaries. Drive arounds are not allowed within site boundaries.

In the event of a discovery ["discovery" means any previously unidentified or incorrectly identified cultural resources including but not limited to archaeological deposits, human remains, or locations reportedly associated with Native American religious/traditional beliefs or practices], all operations in the immediate vicinity of the discovery must cease, and the Navajo Nation Historic Preservation Department must be notified at (928) 871-7147.

FORM PREPARED BY: Tamara Billie

FINALIZED: September 4, 2013

Notification to

Proceed Recommended:

Yes ☒ No ☐

Conditions:

Yes ☒ No ☐

The Navajo Nation
Historic Preservation Office

Date

Navajo Region Approval:

Yes ☒ No ☐

BIA - Navajo Regional Office

Date

TLM 9/20/13

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.: Tri-State's 115 kV Transmission Line Right-of-Way Renewal

DESCRIPTION: Tri-State Generation and Transmission Association, Inc. proposes a right-of-way renewal of an existing 115kV electric transmission line. The length of the transmission line is approximately 11,292.8 feet within a 50-ft. wide ROW, or 13.5125 acres.

LOCATION: Allotment 1482 & 1483, Sec. 30, T16N, R18W, NMPM and Navajo Fee Land, Sec. 25, T16N, R19W, NMPM, McKinley County, New Mexico

REPRESENTATIVE: Nicholas Parker, Principal, P3 Planning

ACTION AGENCY: Tri-State Generation and Transmission Association, Inc.

B.R. REPORT TITLE / DATE / PREPARER: Request for a concurrence/07 MAR 2013/Nicholas Parker

SIGNIFICANT BIOLOGICAL RESOURCES FOUND: Area 3. No effect determination.

POTENTIAL IMPACTS

NESL SPECIES POTENTIALLY IMPACTED: NA

FEDERALLY-LISTED SPECIES AFFECTED: NA

OTHER SIGNIFICANT IMPACTS TO BIOLOGICAL RESOURCES: NA


AVOIDANCE / MITIGATION MEASURES: NA

CONDITIONS OF COMPLIANCE*: NA

FORM PREPARED BY / DATE: Pamela A. Kyselka/25 MAR 2013

COPIES TO: (add categories as necessary)

☐ _____ ☐ _____

2 NTC § 164 Recommendation: <input checked="" type="checkbox"/> Approval <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)	Signature  Gloria M. Tom, Director, Navajo Nation Department of Fish and Wildlife	Date 3/25/13
--	--	-----------------

***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



OFFICE OF THE PUBLIC REGULATION COMMISSION

CERTIFICATE OF MERGER

OF

PIAINS ELECTRIC GENERATION AND TRANSMISSION COOPERATIVE, INC.

3204906

The Public Regulation Commission certifies that duplicate originals of the Articles of Merger attached hereto, duly signed and verified pursuant to the provisions of the:

RURAL ELECTRIC COOPERATIVE ACT
(62-15-1 to 62-15-32 NMSA 1978)

have been received and are found to conform to law.

Accordingly, by virtue of the authority vested in it by law the Public Regulation Commission issues this Certificate of Merger and attaches hereto a duplicate original of the Articles of Merger.

Dated: JUNE 30, 2000

In testimony whereof, the State Public Regulation Commission of the State of New Mexico has caused this certificate to be signed by its Chairman and the seal of said Commission to be affixed at the City of Santa Fe

Bill Pope

Chairman

Joe R. Proctor

for Bureau Chief

**ARTICLES OF MERGER
OF
PLAINS ELECTRIC GENERATION
AND TRANSMISSION COOPERATIVE, INC.
AND
TRI-STATE GENERATION AND
TRANSMISSION ASSOCIATION, INC.
EXECUTED PURSUANT TO THE NEW MEXICO
RURAL ELECTRIC COOPERATIVE ACT AND
THE COLORADO COOPERATIVE ASSOCIATIONS ACT**



PLAINS ELECTRIC GENERATION AND TRANSMISSION COOPERATIVE, INC. ("Plains"), a rural electric cooperative organized under NMSA 1978, Chapter 62, Article 15 (as amended the "New Mexico Act") and being, pursuant to Section 2 of the New Mexico Act, a cooperative for purposes of the New Mexico Act, and **TRI-STATE GENERATION AND TRANSMISSION ASSOCIATION, INC.** ("Tri-State"), a cooperative association organized under the Article 55 of Title 7 of the Colorado Revised Statutes (as amended, the "Colorado Act"), the Colorado Act being similar to the New Mexico Act, and being pursuant to Section 2 of the New Mexico Act, a cooperative for purposes of Sections 13, 14, 15, and 19 of the New Mexico Act, the respective governing boards and members having approved a merger of Plains into Tri-State, state:

(1) Plains is the merging cooperative. The address of Plains' principal office is 2401 Aztec Road NE, Albuquerque, New Mexico 87107 and Plains' articles of incorporation were filed in the office of the State Corporation Commission, predecessor to the Public Regulation Commission, on November 26, 1951.

(2) Tri-State is the surviving cooperative and the address of its principal office is 1100 West 116th Avenue, Westminster, Colorado 80234.

(3) The merging cooperative elects to be merged into the surviving cooperative.

(4) The terms and conditions of the merger and the mode of carrying the same into effect, including the manner and basis of converting the memberships in the merging cooperative in the surviving cooperative and the issuance of certificates of membership in respect of such converted memberships and other provisions not inconsistent with the New Mexico Act deemed necessary or advisable for the conduct of the business and affairs of the surviving cooperative are set forth in the Plan of Merger annexed hereto as Annex A and incorporated herein by reference.

(5) The proposed merger and articles of merger for each the New Mexico Act and the Colorado Act have been approved by the required majorities of those members of each cooperative voting thereon at special meetings called in accordance with the New Mexico Act and the Colorado Act, respectively. Annexed hereto as Annex B-1 and Annex B-2 and incorporated herein by reference are affidavits, respectively, by president or vice president of each Plains and Tri-State stating that the provisions of Section 14 of the New Mexico Act and the comparable section of the Colorado Act have been duly complied with.

EXECUTED this 22nd day of June, 2000 and effective the 30th day of June, 2000.

**PLAINS ELECTRIC GENERATION
AND TRANSMISSION COOPERATIVE, INC.**

By: [Signature]
Its: President

ATTESTED TO:

By: Jay W. Cox
Its: Assistant Secretary

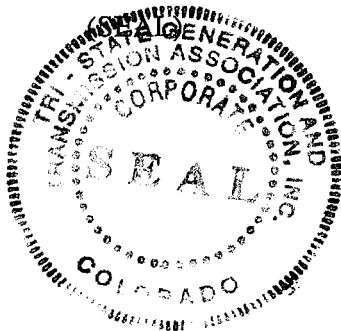
(SEAL)

**TRI-STATE GENERATION AND
TRANSMISSION ASSOCIATION, INC.**

By: [Signature]
Its: President

ATTESTED TO:

By: Darryl D. Stout
Its Secretary



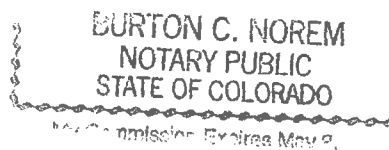
STATE OF COLORADO)
)SS.
COUNTY OF ADAMS)

The foregoing instrument was acknowledged before me this 22nd day of June, 2000, by Tony Casados, Jr., President of Plains Electric Generation and Transmission Cooperative, Inc., a New Mexico rural electric cooperative, on behalf of said cooperative. Witness my hand and official seal.


Notary Public

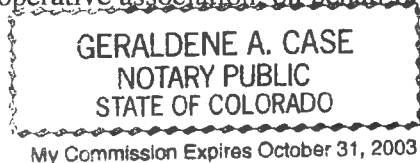
My Commission Expires:

May 9, 2003
(SEAL)



STATE OF COLORADO)
)SS.
COUNTY OF ADAMS)

The foregoing instrument was acknowledged before me this 22nd day of June, 2000, by H. J. Thompson, President of Tri-State Generation and Transmission Association, Inc., a Colorado cooperative association, on behalf of said association. Witness my hand and official seal.



Geraldene A. Case
Notary Public

My Commission Expires:

October 31, 2003

(SEAL)

**ANNEX A
TO
ARTICLES OF MERGER**

PLAN OF MERGER

THIS PLAN OF MERGER (this "Plan") is dated as of June 30, 2000, and is by and between **PLAINS ELECTRIC GENERATION AND TRANSMISSION COOPERATIVE, INC.** ("Plains") and **TRI-STATE GENERATION AND TRANSMISSION ASSOCIATION, INC.** ("Tri-State"), each of which may be referred to herein as a "Constituent Cooperative" and both of which may be collectively referred to herein as the "Constituent Cooperatives".

WHEREAS, Plains is a rural electric cooperative organized under Article 15 of Chapter 62 of the New Mexico Statutes Annotated (1978) (as amended, the "New Mexico Act"), and Tri-State is a cooperative association organized under Article 55 of Title 7 of the Colorado Revised Statutes (as amended, the "Colorado Act"); and

WHEREAS, the Board of Trustees and the members of Plains and the Board of Directors and the members of Tri-State have approved and adopted this Plan and the transactions contemplated herein in the manner required by their respective Articles of Incorporation and Bylaws and by the New Mexico Act and the Colorado Act.

NOW, THEREFORE, in consideration of the foregoing and the mutual covenants and agreements of the parties contained herein, the parties hereto agree as follows:

Section 1. The Merger. On the Effective Time (as defined in Section 8), Plains and Tri-State shall combine through merger (the "Merger") in accordance with the applicable provisions of the New Mexico Act and the Colorado Act; and Tri-State, whose Articles of Incorporation and Bylaws each shall be amended and restated in their entirety as further provided herein, shall be the surviving cooperative and shall continue to exist by virtue of, and shall be governed by, the Colorado Act.

Section 2. Articles of Merger. On or before the Effective Time, Plains and Tri-State each shall execute two sets of articles of merger (the "Articles of Merger") setting forth the information required by and otherwise in compliance with, respectively, the New Mexico Act and the Colorado Act. The Articles of Merger shall provide that the Merger shall become effective on the Effective Time, and shall be filed (i) with the New Mexico Public Regulation Commission as required by the New Mexico Act, and (ii) with the Colorado Secretary of State and the County Clerk of Adams County, Colorado as required by the Colorado Act.

Section 3. Effect of Merger. From and after the Effective Time, without any further action by the Constituent Cooperatives or any of their respective members: (a) Tri-State, as the surviving cooperative in the Merger, shall have all of the rights, privileges, immunities and powers, and shall be subject to all the duties and liabilities, of a cooperative organized under the Colorado Act; (b) Tri-State, as the surviving cooperative in the Merger, shall possess all of the rights, privileges, immunities and franchises, of a public as well as a private nature, of each Constituent Cooperative,

and all property, real, personal and mixed, and all debts due on whatever account, including all choses in action, and each and every other interest of or belonging to or due to each Constituent Cooperative, shall be deemed to be and hereby is vested in Tri-State, without further act or deed, and the title to any property, or any interest therein, vested in either Constituent Cooperative, shall not revert or be in any way impaired by reason of the Merger; (c) Tri-State shall be responsible and liable for all of the liabilities and obligations of each Constituent Cooperative, and any claim existing or action or proceeding pending by or against one of the Constituent Cooperatives may be prosecuted as if the Merger had not taken place or Tri-State may be substituted in its place; (d) neither the rights of creditors nor any liens upon the property of either of the Constituent Cooperatives shall be impaired by the Merger; and (e) the Merger shall have all other effects set forth in the New Mexico Act and the Colorado Act and the Transaction Agreement dated March 18, 1999, by and between Plains and Tri-State (as amended, the "Transaction Agreement"); all with the effect and to the extent provided in the applicable provisions of the New Mexico Act and the Colorado Act.

Section 4. Articles of Incorporation; Bylaws. From and after the Effective Time, pursuant to the Articles of Merger and without any further action by the Constituent Cooperatives or any of their respective members, the Articles of Incorporation of Tri-State, as the surviving cooperative in the Merger, shall be amended and restated in their entirety to read as set forth in Exhibit 1 attached hereto and made a part hereof (the "Surviving Entity Articles"). From and after the Effective Time, without any further action by the Constituent Cooperatives or any of their respective members, the Bylaws of Tri-State, as the surviving cooperative in the Merger, shall be amended and restated in their entirety to read as set forth in Exhibit B attached to the Transaction Agreement (the "Surviving Entity Bylaws"), a copy of which was provided to the respective members of each Constituent Cooperative in connection with their consideration of the Merger.

Section 5. Board of Directors. From and after the Effective Time, without any further action by the Constituent Cooperatives or any of their respective members, each person serving as a director or trustee of one of the Constituent Cooperatives immediately prior to the Effective Time (other than any trustee representing a member of Plains which has selected the PNM Option, as defined in the Transaction Agreement) shall become a director of Tri-State, as the surviving cooperative in the Merger, to serve in accordance with the Surviving Entity Bylaws.

Section 6. Exchange, Redesignation and Conversion and Continuation of Equity Interests and Memberships. On the Effective Time, the manner and basis of exchanging and continuing the equity interests, patronage equity interests (including all entitlements to patronage refunds), all other allocated equity interests, and unallocated capital reserves of Plains and Tri-State (the "Plains Equity Interests" or the "Tri-State Equity Interests", as the case may be), and membership interests in Plains and Tri-State, for equity interests and membership interests in Tri-State (the "Plains Membership Interests" or the "Tri-State Membership Interests," as the case may be), shall be as follows:

(a) **Exchange of Plains Membership Interests.** As of the Effective Time, without any further action by the Constituent Cooperatives or any of their respective members, each member of Plains (other than any member of Plains which has selected the PNM Option) shall become and be a member of Tri-State, with such incidents of membership as are set forth in the Surviving Entity Articles and the Surviving Entity Bylaws,

and to such extent, all Plains Membership Interests of such members of Plains shall be exchanged for Membership Interests in Tri-State, as the surviving cooperative in the Merger.

(b) **Continuation of Tri-State Membership Interests.** As of the Effective Time, without any further action by the Constituent Cooperatives or any of their respective members, each member of Tri-State shall be and continue as a member of the Surviving Entity, with such incidents of membership as are set forth in the Surviving Entity Articles and the Surviving Entity Bylaws, and all Tri-State Membership Interests shall continue as Membership Interests in Tri-State, as the surviving cooperative in the Merger.

(c) **Plains Equity Interests.** As of the Effective Time, without any further action by the Constituent Cooperatives or any of their respective members, all Plains Equity Interests standing on the books of Plains immediately prior to the Effective Time shall not be credited on the books of Tri-State, as the surviving cooperative in the Merger.

(d) **Continuation of Tri-State Equity Interests.** As of the Effective Time, without any further action by the Constituent Cooperatives or any of their respective members, all Tri-State Equity Interests standing on the books of Tri-State immediately prior to the Effective Time shall be determined and continued as equal Equity Interests in Tri-State at their stated dollar amount on a dollar-for-dollar basis, including as follows:

- (i) **Patronage Equity Interests.** All patronage certificates and all other allocated or to be allocated patronage equity interests (including all entitlements to patronage refunds) standing on the books of Tri-State immediately prior to the Effective Time shall continue to be equal patronage certificates, allocated or to be allocated patronage equity interests, entitlements to patronage refunds, or other equal patronage equity interests on the books of Tri-State, at their stated dollar amount on a dollar-for-dollar basis, and in such denominations or other designations or series so as to preserve (as Tri-State deems necessary) the year of issue and other terms and conditions of the original issuance.
- (ii) **Patronage Payable and Capital Reserves.** All patronage payable (not continued above), capital reserves and all other unallocated equity interests standing on the books of Tri-State immediately prior to the Effective Time shall continue to be equal patronage payable, capital reserves or other equal allocated or unallocated equity interests on the books of Tri-State at their stated dollar amount on a dollar-for-dollar basis, and in such denominations or other designations or series so as to preserve (if applicable and as Tri-State deems necessary) the year of issue and other terms and conditions of the original issuance (if applicable).
- (iii) **Net Effect.** The net effect of the continuation of Tri-State Equity Interests as equal Equity Interests in Tri-State shall be that the holders of Tri-State Equity Interests standing on the books of Tri-State immediately prior to the Effective Time shall hold and will continue to have the same and equal Equity Interests

in Tri-State immediately following the Effective Time, in terms of stated dollar amount on a dollar-for-dollar basis, year of issue and other rights and preferences, and that the patronage payable, capital reserves and other unallocated Tri-State Equity Interests, standing on its books immediately prior to the Effective Time, shall continue to be the same identical and equal Equity Interest in Tri-State immediately following the Effective Time, in terms of the stated dollar amount on a dollar-for-dollar basis, and other rights and preferences.

(e) **Surviving Entity Articles and Bylaws to Govern.** Membership in Tri-State issued in exchange for Plains Membership Interests as described above, and Membership in Tri-State and Equity Interests in Tri-State continued and credited with respect to Tri-State Membership Interests and Tri-State Equity Interests as described above, shall in all instances be governed by the provisions of the Surviving Entity Articles and the Surviving Entity Bylaws.

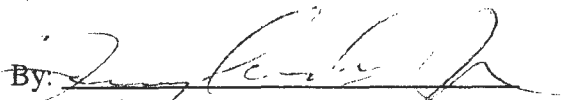
Section 7. Further Assurances. From time to time and after the Effective Time, as and when requested by Tri-State, or its successors or assigns, Plains shall execute and deliver or cause to be executed and delivered all such deeds and other instruments, and shall take or cause to be taken all such further action or actions, as Tri-State, or its successors or assigns, may deem necessary or desirable in order to vest in and confirm to Tri-State, or its successors or assigns, title to and possession of all of the properties, rights, privileges, powers and franchises referred to in Section 3 of this Plan, and otherwise to carry out the intent and purposes of this Plan. If Tri-State shall at any time deem that any further assignments or assurances or any other acts are necessary or desirable to vest, perfect or confirm of record or otherwise the title to any property or to enforce any claims of Plains or Tri-State vested in Tri-State pursuant to this Plan, the officers of Tri-State from time to time, or their successors or assigns, are hereby specifically authorized as attorneys-in-fact of each Plains and Tri-State (which appointment is irrevocable and coupled with an interest), to execute and deliver any and all such deeds, assignments and assurances and to do all such other acts in the name and on behalf of each of Plains and Tri-State, or otherwise, as such officer shall deem necessary or appropriate to accomplish such purpose.

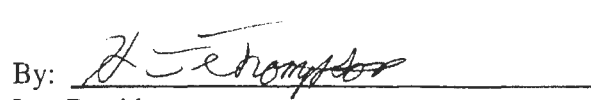
Section 8. Effective Date. The Merger shall become effective at 11:59 p.m. Mountain Time on June 30, 2000 (the "Effective Time").

IN WITNESS WHEREOF, this Plan has been agreed to and executed by the duly authorized representatives of Plains and Tri-State, as of the date first set forth above.

**PLAINS ELECTRIC GENERATION AND
TRANSMISSION COOPERATIVE, INC.**

**TRI-STATE GENERATION AND
TRANSMISSION ASSOCIATION, INC.**

By: 
Its: President

By: 
Its: President

**EXHIBIT 1
TO
PLAN OF MERGER**

**AMENDED AND RESTATED
ARTICLES OF INCORPORATION
OF
TRI-STATE GENERATION AND TRANSMISSION ASSOCIATION, INC.**

**ARTICLE I
NAME**

The name of this Corporation is TRI-STATE GENERATION AND TRANSMISSION ASSOCIATION, INC.

**ARTICLE II
PURPOSES**

This Corporation is organized for the purposes of:

- (a) Generating, manufacturing, purchasing, acquiring and accumulating electric power and energy for its members and transmitting, distributing, furnishing, selling and disposing of such electric power and energy primarily to its members, provided that this Corporation may dispose of its electric power and energy to other than members insofar as it may have excess power and energy which can be disposed of on an interchange or sales basis for the ultimate benefit of its members; and
- (b) Any other lawful purpose.

**ARTICLE III
DURATION**

This Corporation shall have perpetual existence.

**ARTICLE IV
PRINCIPAL PLACE OF BUSINESS**

The principal office of this Corporation shall be 1100 West 116th Avenue, Westminster, Colorado 80234, and this Corporation may maintain offices and operations at such other place or places in the United States as the Board of Directors may from time to time decide.

ARTICLE V MEMBERSHIP AND VOTING

Section 1. Membership. Membership in this Corporation shall be limited to any cooperatively-owned power supplier, public power district or other entity accepted for membership by the Board of Directors of this Corporation in accordance with of the Bylaws of this Corporation.

Section 2. Voting. Each member shall be entitled to one (1) vote and no more upon each matter submitted to a vote at a meeting of the members. Proxy voting, voting by mail, and cumulative voting shall not be permitted. At all meetings of the members at which a quorum is present all questions shall be decided by a vote of a majority of the members voting thereon, except as otherwise provided by applicable law, these Articles of Incorporation or the Bylaws of this Corporation.

ARTICLE VI ORGANIZATIONAL STRUCTURE

This Corporation is formed without any purpose of direct gain or profit to itself, and it shall be operated on a cooperative, non-profit basis for the mutual benefit of its members. This Corporation's operations shall be conducted such that all members furnish capital for this Corporation through their patronage. This Corporation shall be obligated to account on a patronage basis to all its members as provided in the Bylaws. In no event shall this Corporation permit non-member sales on a patronage basis. In the event of dissolution, the disposition of the net earnings and the assets of this Corporation shall be as provided in the Bylaws.

ARTICLE VII BOARD OF DIRECTORS

Section 1. Number and Qualifications. The business and affairs of this Corporation shall be managed by a Board of Directors. Except as set forth in Article XIII of the Bylaws, the number of directors shall equal the number of members of this Corporation and one (1) director shall be elected by each member. The names and post office addresses of the current directors of this Corporation, who shall manage the business and affairs of this Corporation until the next annual meeting of members or until their successors shall have been elected and shall have qualified according to law and the Bylaws of this Corporation, are:

Mr. Lyle Adair, Director
P.O. Box 2007
Gallup, NM 87301

Mr. Lloyd E. Barling, Director
P.O. Box 5
Meeteetse, WY 82433

Mr. Harold Baca, Director
P.O. Box 1331
Socorro, NM 87801

Mr. Robert Bledsoe, Director
Box 435
Hugo, CO 80821

Mr. James Boyd Jr., Director
151 State Highway 66
Longmont, CO 80501

Mr. Tony Casados, Director
P.O. Box 186
Tierra Amarilla, NM 87575

Mr. Wayne Child, Director
9816 Child Road
Cheyenne, WY 82009

Mr. Wayne R. Cobb, Director
HCR 75, Box 32
Merriman, NE 69218

Mr. Louis Costello, Director
7780 Highway 135
Gunnison, CO 81230

Mr. Jay W. Cox, Director
P.O. Box 77
Winston, NM 87943

Mr. William W. Dalles, Director
179 Dalles Lane
Laramie, WY 82070-9725

Mr. Bernard Fehringer, Director
631 Road 115
Sidney, NE 69162-4108

Mr. Jack Finnerty, Director
285 Slater Road
Wheatland, WY 82201

Mr. R.W. Gillespie, Director
P.O. Box 218
Springer, NM 87747

Mr. A. W. Gnatkowski, Director
Box 48 Ancho Route
Carrizozo, NM 88301

Mr. Leroy Gonzales, Director
P.O. Box 416
Peñasco, NM 87553

Mr. Rick L. Gordon, Director
P.O. Box 518
Simla, CO 80835-0518

Mr. Ed Hansen, Director
4554 County Road 74E
Livermore, CO 80536

Mr. Timothy Hoffner, Director
7513 Road 6
Wiggins, CO 80654

Mr. Harold Hopkin, Director
203 Lane 10-1/2
Powell, WY 82435

Mr. Donald Johnson, Director
37488 County Road 18
Holyoke, CO 80734

Mr. James H. Johnson, Director
P.O. Box 3135
Winter Park, CO 80482

Mr. Hal Keeler, Director
4555 Solana Road SE
Deming, NM 88030

Mr. Everett D. Kilmer, Director
Box 714
Lusk, WY 82225

Mr. Gary Kniss, Director
Route 2, Box 336
Bayard, NE 69334

Mr. Gerald W. Lorenz, Director
Route 1, Box 30
San Acacio, CO 81151

Mr. Gary L. Merrifield, Director
Box 152
Buena Vista, CO 81211

Mr. Davin Montoya, Director
7463 Highway 160
Hesperus, CO 81326

Mr. Christopher Moore, Director
P.O. Box 1491
Montrose, CO 81402

Mr. Marcellino Ortiz, Director
P.O. Box 117
Rowe, NM 87562

Mr. David R. Salazar, Director
P.O. Box 1052
Española, NM 87532

Mr. C. Jim Soehner, Director
38566 County Road 13
Wray, CO 80758

Mr. Wid Stevenson, Director
HCR 62, Box 39
Amistad, NM 88410

Mr. Darryl D. Stout, Director
P.O. Box 1056
Meeker, CO 81641

Mr. Harold Thompson, Director
P.O. Box 9
Jeffrey City, WY 82310-0009

Mr. Jerry Underwood, Director
7000 Valley Road
Alliance, NE 69301

Mr. Donald Tripple, Director
250511 County Road S
Gering, NE 69341

Mr. Travis Waller, Director
P.O. Box 7586
Pueblo West, CO 81007

Ms. Kristi Westfall, Director
P.O. Box 212
Ouray, CO 81427

Mr. Gary Wood, Director
P.O. Box 556
Cloudfcroft, NM 88317

Mr. Bill Wright, Director
47818 Road X
Walsh, CO 81090-0267

Mr. Robert Yeik, Director
Route 2, Box 317
Torrington, WY 82240

Mr. Jack N. Young, Director
P.O. Box 443
Monticello, UT 84535

Mr. Terry Zeigler, Director
P.O. Box 618
Grant, NE 69140

Section 2. Director's Terms. Except as hereafter provided, the term of each director shall be from the time he or she is elected by his or her member and the fact of such election is certified to this Corporation by such member, in writing, until his or her member elects some other person to serve and the fact of such election is certified to this Corporation by such member in writing. Notwithstanding the foregoing, a person shall be eligible to be elected a director, and shall be eligible to remain a director, only if he or she has the qualifications set forth in the Bylaws. In addition, a director may be removed from the Board of Directors by the members in the manner provided in the Bylaws.

Section 3. Director Liability. No director of this Corporation shall be personally liable to this Corporation or its members for monetary damages for breach of fiduciary duty as a director, except for liability:

- (a) for a breach of the director's duty of loyalty to this Corporation or its members;
- (b) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law;
- (c) for a transaction from which the director derived an improper personal benefit; or
- (d) for an act or omission occurring prior to the date when the provisions of this Section (or predecessor thereto) became effective.

It is the intention of the members of this Corporation to eliminate or limit the personal liability of the directors of this Corporation to the greatest extent permitted under Colorado law. If amendments to the Colorado Revised Statutes are passed after the effective date of this Section which authorize cooperatives to act to further limit or eliminate the personal liability of directors, then the liability of the directors of this Corporation shall be limited or eliminated to the greatest extent permitted by the Colorado Revised Statutes, as so amended. Any repeal or modification of this Section by the members of this Corporation shall not adversely affect any right of or any protection available to a director of this Corporation which is in existence at the time of such repeal or modification.

Section 4. Indemnification. This Corporation shall indemnify persons who are or were directors and officers, and may indemnify employees and agents, to the full extent allowed by law, as set forth in the Bylaws.

ARTICLE VIII BYLAWS

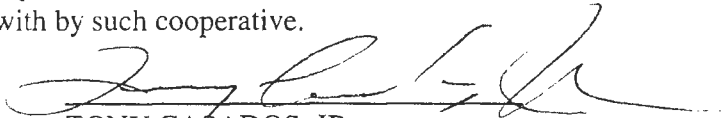
The Bylaws of this Corporation may be altered, amended or repealed by the members or the directors of this Corporation in the manner specified in the Bylaws.

**ANNEX B-1
TO
ARTICLES OF MERGER**

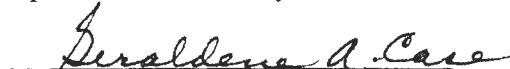
AFFIDAVIT

STATE OF COLORADO)
)SS.
COUNTY OF ADAMS)

TONY CASADOS, JR. being first duly sworn and upon oath, states that he is president of Plains Electric Generation and Transmission Cooperative, Inc. ("Plains"), a rural electric cooperative organized under the Rural Electric Cooperative Act; that the proposition for the merger of Plains into Tri-State Generation and Transmission Association, Inc. ("Tri-State") and the foregoing Articles of Merger ("Articles"), including the Plan of Merger annexed thereto as Annex A, were first approved by Plains' members at a special meeting, the notice of which set forth full particulars concerning the proposed merger, the proposed merger and proposed Articles having been approved by the required majority of those members voting thereon at such meeting; and that the provisions of NMSA 1978 Section 62-15-14 and of the comparable section of Article 55 of Title 7 of the Colorado Revised Statutes have been duly complied with by such cooperative.


TONY CASADOS, JR.

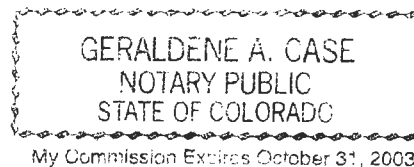
The foregoing instrument was acknowledged before me this 22nd day of June, 2000, by Tony Casados, Jr., President of Plains Electric Generation and Transmission Cooperative, Inc., a New Mexico rural electric cooperative, on behalf of said cooperative. Witness my hand and official seal.


Notary Public

My Commission Expires:

October 31, 2003

(SEAL)

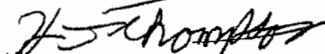


**ANNEX B-2
TO
ARTICLES OF MERGER**

AFFIDAVIT

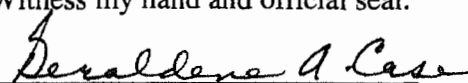
STATE OF COLORADO)
)SS.
COUNTY OF ADAMS)

H. J. THOMPSON, being first duly sworn and upon oath, states that he is president of Tri-State Generation and Transmission Association, Inc. ("Tri-State"), a cooperative association organized on a non-profit basis under Article 55 of Title 7 of the Colorado Revised Statutes (as amended the "Colorado Act") and pursuant to NMSA 1978, Section 62-15-2, as amended by laws 1988, Chapter 46, Section 1, a "cooperative" for the purposes of NMSA 1978, Sections 62-15-13, 62-15-14, 62-15-15- and 62-15-19; that the proposition for the merger of Plains Electric Generation and Transmission Cooperative, Inc. ("Plains") into Tri-State and the Plan of merger annexed as Annex A to the foregoing Articles of Merger, including articles of merger ("articles") consistent with the Colorado Act, were first approved by the Tri-State Board of Directors and thereafter submitted to a vote of Tri-State's members at a special meeting, the notice of which set forth full particulars concerning the proposed merger, the proposed merger and proposed Articles having been approved by the required majority of those members voting thereon at such meeting; and that the provisions of NMSA 1978 Section 62-15-14 and of the comparable section of Article 55 of Title 7 of the Colorado Revised Statutes have been duly complied with by such cooperative.



H. J. THOMPSON

The foregoing instrument was acknowledged before me this 22nd day of June, 2000, by H. J. Thompson, President of Tri-State Generation and Transmission Association, Inc., a Colorado cooperative association, on behalf of said association. Witness my hand and official seal.



Notary Public

My Commission Expires:

October 31, 2003

(SEAL)

