

**RESOLUTION OF THE
RESOURCES AND DEVELOPMENT COMMITTEE
23rd Navajo Nation Council --- Fourth Year, 2018**

AN ACTION

**RELATING TO RESOURCES AND DEVELOPMENT COMMITTEE; APPROVING
RIGHTS-OF-WAY TO ARIZONA PUBLIC SERVICE COMPANY TO OPERATE AND
MAINTAIN THE TUBA CITY 69KV LINE, THE TUBA CITY TO GLEN CANYON
69KV LINE, THE CHOLLA-KEAMS CANYON, AZ, 69KV LINE AND THE
CHOLLA-LEUPP-FLAGSTAFF, AZ, 230KV LINE LOCATED ON TRIBAL TRUST
LAND (NAVAJO AND COCONINO COUNTIES, ARIZONA)**

BE IT ENACTED:

SECTION ONE. AUTHORITY

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

SECTION TWO. FINDINGS

- A. The Arizona Public Service Company, P.O. Box 539333 M.S. 3286, Phoenix, Arizona 85072-3933 has submitted right-of-way applications to operate and maintain the Tuba City 69kv Line, the Tuba City to Glen Canyon 69kv Line, the Cholla-Keams Canyon, AZ 69kv Line and the Cholla-Leupp-Flagstaff, AZ 230kv Line Located On Tribal Trust Land (Navajo and Coconino Counties, Arizona). The applications are attached hereto and incorporated herein as **Exhibits A-1, A-2, A-3 and A-4**.
- B. The proposed rights-of-way consist of Navajo Nation Trust Lands located in Navajo and Coconino Counties, Arizona and the location is more particularly described on the survey maps contained in **Exhibits A-1, A-2, A-3 and A-4**.
- C. The Navajo Nation provided consent for a right-of-way associated with the Cholla-Leupp-Flagstaff, AZ 230kv Line ("230kv Line") in the Four Corners Power Plant (FCPP) 2011 lease amendments, although the Navajo Nation and Arizona

Public Service Company disagreed as to whether the "covenant not to regulate" contained in the lease amendments applied to the 230kv Line; The Nation and Arizona Public Service Company have now resolved the dispute and have agreed that the 230kv Line right-of-way will be governed exclusively by the terms and conditions, incorporated herein as **Exhibit E**, which include the application of Navajo Nation law.

- D. The Arizona Public Service Company has agreed upon compensation satisfactory to the Navajo Nation.
- E. The Resources and Development Committee finds the agreed-upon compensation is in the Navajo Nation's best interest.
- F. The Resources and Development Committee finds a waiver of valuation, 25 C.F.R. § 169.110(a), is in the best interest of the Navajo Nation.
- G. The Cultural Resources Compliance Forms are attached as **Exhibits B-1, B-2, B-3 and B-4**.
- H. The Environmental Assessments attached as **Exhibits C-1, C-2, C-3 and C-4**.
- I. The application for the right-of-way as submitted by the Arizona Public Service Company has been reviewed by the Fish and Wildlife; Historic Preservation; Minerals; Navajo Nation Environmental Protection; Division of Natural Resources and the Department of Justice and "Approved" or found "Sufficient". See **Exhibit D**.


SECTION THREE. APPROVAL

- A. The Resources and Development Committee of the Navajo Nation Council hereby grants approval of Rights-of-Way to Arizona Public Service Company to operate and maintain the Tuba City 69kv Line, the Tuba City to Glen Canyon 69kv Line, the Cholla-Keams Canyon, AZ, 69kv Line and the Cholla-Leupp-Flagstaff, AZ, 230kv Line Located On Tribal Trust Land (Navajo and Coconino Counties, Arizona). The location is more particularly described on the map attached hereto as **Exhibits A-1, A-2, A-3 and A-4**.
- B. The Resources and Development Committee of the Navajo Nation Council hereby approves the Rights-of-Way subject to, but not limited to, the terms and conditions incorporated herein as **Exhibit E**.

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

CERTIFICATION

I, hereby, certify that the following resolution was duly considered by the Resources and Development Committee of the 23rd Navajo Nation Council at a duly called meeting at the Budget and Finance Conference Room, Window Rock, Navajo Nation (Arizona), at which a quorum was present and that same was passed by a vote of 3 in favor, 0 opposed, 1 abstained on this 16th day of April 2018.



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

Motion: Honorable Davis Filfred
Second: Honorable Leonard Pete

**UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF INDIAN AFFAIRS**

RIGHT-OF-WAY APPLICATION



COMES NOW THE APPLICANT, **Arizona Public Service Company (APS)**, having a residence or principal place of business at PO Box 53933 M.S. 3286, Phoenix, AZ, 85072), on this **12th** day of **June, 2017**, who hereby petitions the Bureau of Indian Affairs and respectfully files under the terms and provisions of the Act of February 5, 1948 (62 Stat. 17; 25 USC 323-328), and Departmental Regulations 25 CFR 169, an application for right-of-way until **December 31, 2035**, for the following purposes and reasons:

Continued ownership, operation, maintenance, and removal of the Tuba City 69kV sub-transmission line within the external boundaries of the Navajo Nation and across tribal trust lands in the State of Arizona; together with all ancillary and appurtenant equipment, substations, facilities, and access routes.

69kV Right-of-Way Length:	35.36 miles, more or less
69kV Right-of-Way Width:	40 feet
69kV Right-of-Way Area:	171.440 acres, more or less

Substation Area:	1.850 acres, more or less
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Total Area:	173.290 acres, more or less
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Said right-of-way to be in length, in width, and in size (or area), as shown on map of definite location, attached hereto, and made a part hereof.

SAID APPLICANTS UNDERSTAND AND EXPRESSLY AGREE TO THE FOLLOWING STIPULATIONS:

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

5. To clear and keep clear the lands within the right-of-way to the extent compatible with the purpose of the right-of-way; and dispose of all vegetative and other material cut, uprooted, or otherwise accumulated during the construction and maintenance of the project.

6. To take soil and resource conservation protection measures, including weed control, on the land covered by the right-of-way.

7. To do everything reasonable within its power to prevent and suppress fires on or near the lands to be occupied under the right-of-way.

8. To build and repair such roads, fences and trails as may be destroyed or injured by construction work and to build and maintain necessary and suitable crossings for all roads and trails that intersect the works constructed, maintained, or operated under the right-of-way.

9. That upon revocation or termination of the right-of-way, the applicants shall, so far as is reasonably possible, restore the land to its original condition.

10. To at all times keep the Secretary informed of their addresses, and in case of corporations, of the addresses of their principal places of business and the names and addresses of their principal officers.

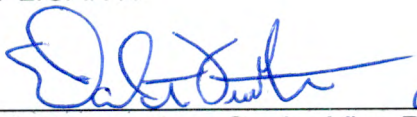
11. That the applicants will not interfere with the use of the lands by or under the authority of the landowners for any purpose not inconsistent with the primary purpose for which the right-of-way is granted.

THE APPLICANTS FURTHER STIPULATE AND EXPRESSLY AGREE AS FOLLOWS:

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

DATE: June 12, 2017

APPLICANT:

 06/29/17
Daniel Froetscher, Senior Vice President Transmission, Distribution and Customers

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF INDIAN AFFAIRS

RIGHT-OF-WAY APPLICATION MUST IDENTIFY [§169.102 (a)]:

1. Applicant Name and Address:

2. Tract(s) or parcel(s) affected by the right-of-way:

3. General Location (easement location):

4. Purpose:

5. Term (Renewal, if applicable):

6. Identify ownership of permanent improvements associated with the right-of-way and the responsibility for constructing, operating, maintaining, and managing permanent improvements under §169.105:

REQUIRED SUPPORTING DOCUMENTS [§169.102(b)]:

1. Accurate legal description of the right-of-way, its boundaries, and parcels associated with the right-of-way;
2. A map of definite location of the right-of-way; [169.102(b)(2)]; survey plat signed by professional surveyor or engineering showing the location, size, and extent of the ROW and other related parcels, with respect to each affected parcel of individually owned land, tribal land, or BIA land and with reference to the public surveys under 25 U.S.C. § 176, 43 U.S.C. § 2 and § 1764, and showing existing facilities adjacent to the proposed project.
3. Bond(s), insurance, and/or other security meeting the requirements of § 169.103;
4. Record that notice of the right-of-way was provided to all Indian landowners;
5. Record of consent that right-of-way meets the requirements of §169.107, or a statement documenting a request for a right-of-way without consent under §169.107(b);

6. If applicable, a valuation meeting the requirements of §§ 169.110, .112, .114;
7. With each application, if the applicant is a corporation, limited liability company, partnership, joint venture, or other legal entity, except a tribal entity, information such as organizational documents, certificates, filing records, and resolutions, demonstrating that:
 - a. The representative has authority to execute the application;
 - b. The right-of-way will be enforceable against the applicant; and
 - c. The legal entity is in good standing and authorized to conduct business in the jurisdiction where the land is located.
8. Current environmental and archaeological reports, surveys, and site assessments, as needed to facilitate compliance with applicable Federal and tribal environmental and land use requirements;
9. If required, a statement from the appropriate tribal authority that the proposed right-of-way is in conformance with applicable tribal law.

THE APPLICANT FURTHER STIPULATES AND EXPRESSLY AGREES AS FOLLOWS:

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

Applicant Point of Contact Information:

Name: _____

Address: _____

State: _____ Zip: _____

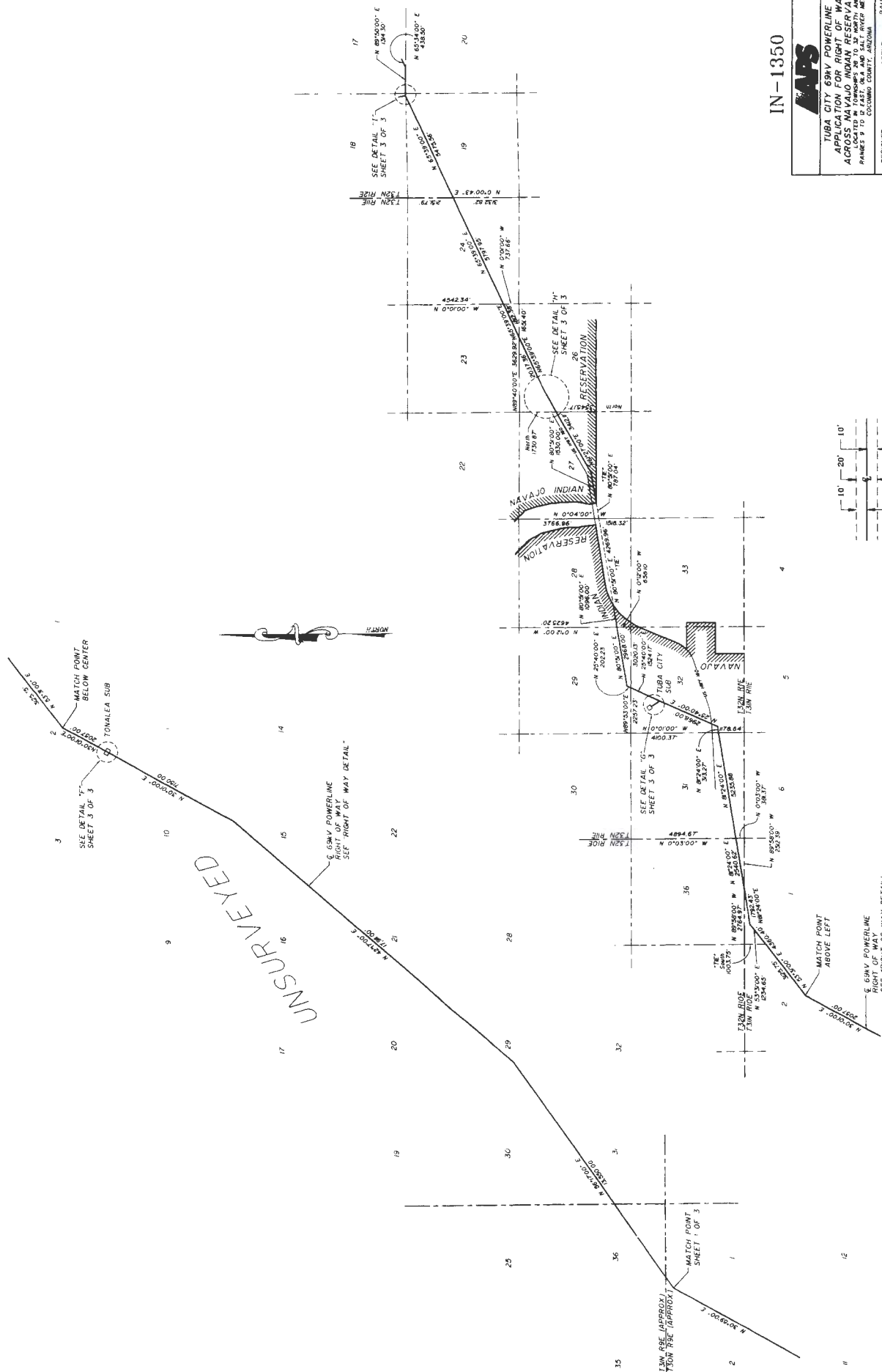
Phone: _____

Email: _____

Date: _____

Applicant: _____ (Signature)

_____ (Print Name)



IN-1350

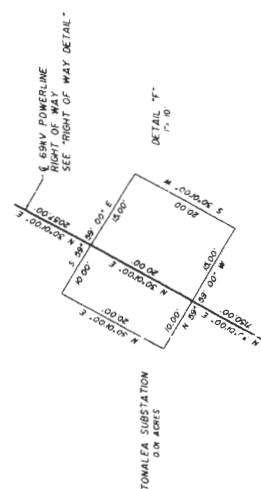
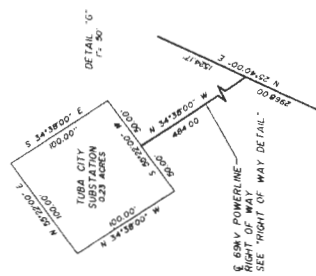
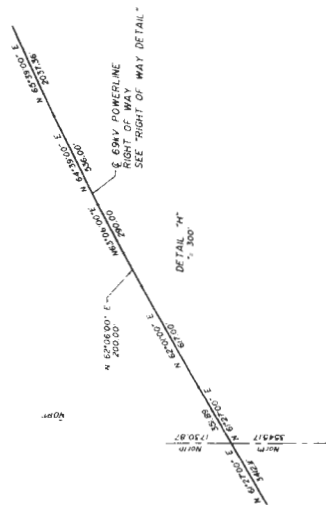
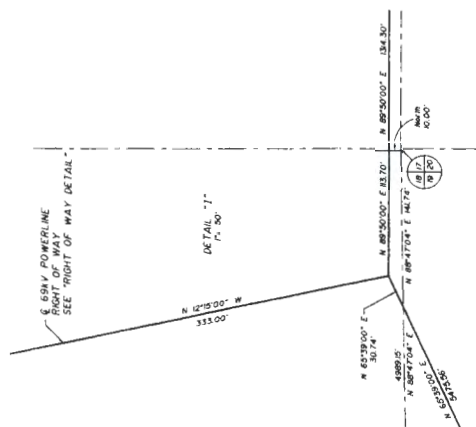
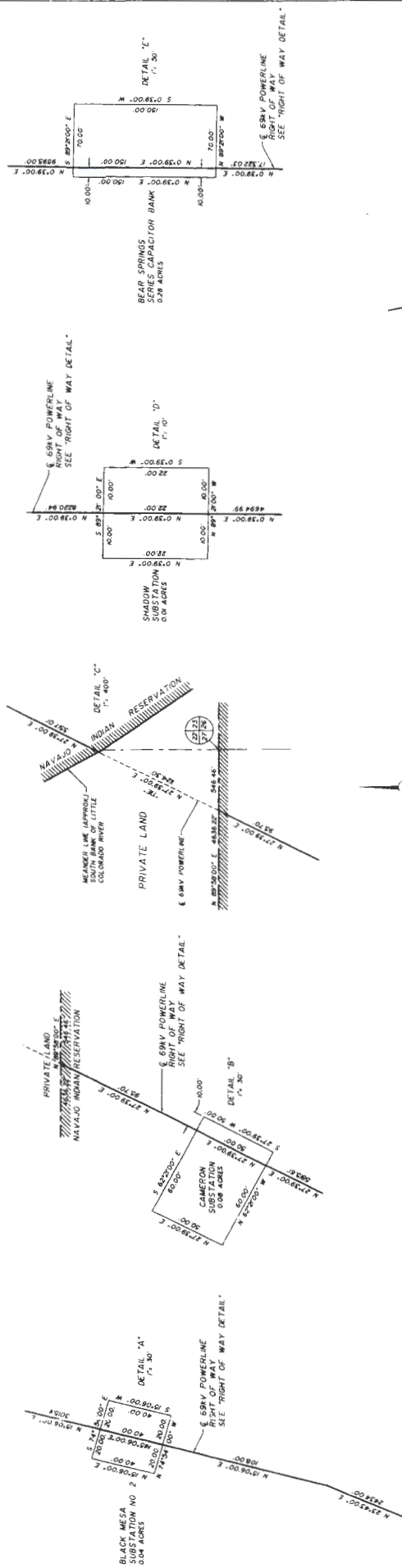


**TUBA CITY 69KV POWERLINE
APPLICATION FOR RIGHT OF WAY
ACROSS NAVAJO INDIAN RESERVATION
LOCATED IN TOWNSHIPS 28 TO 32 NORTH AND
RANGES 9 TO 12 EAST, GILA AND SALT RIVER MERIDIAN
COCONINO COUNTY, ARIZONA**

DESIGNED	_____	AGENT	_____	RAUSCH
DRAWN	_____	APPROVED	_____	
DATE	10-25-03	JOB NO	_____	
SCALE	1" = 2000'	SHEET	2	OF 3

E-156027

RIGHT OF WAY DETAIL

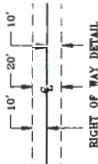


IN-1350



TUBA CITY 69KV POWERLINE
APPLICATION FOR RIGHT OF WAY
ACROSS NAVAJO INDIAN RESERVATION
RANGES 9 TO 10 EAST, RANGES 4 AND 5 NORTH
DOUGLAS COUNTY, ARIZONA

DESIGNED BY J.A. AGENT
DRAWN BY J.A. AGENT
SCALE AS NOTED
SHEET 3 OF 3



E-156027

W. H. [Signature]

TRIBAL CONSENT TO GRANT OF RIGHT OF WAY

The Navajo Tribe of Indians, hereinafter referred to as "Tribe," as landowner, hereby gives its consent to the grant of a right of way for a duration of twenty-five (25) years to the Arizona Public Service Company, a corporation, hereinafter referred to as "Company," for the purpose of constructing and maintaining a 69 kv power line across Tribal land from a point near the intersection of Highway 89 with the southern boundary of the Navajo Reservation to the Rare Metal Corporation of America mill site near Tuba City, Arizona, and in addition gives its consent to the immediate commencement of construction of said power line. The above consents are given upon the following conditions:

1. The above consents will not be effective until the Company shall have endorsed its acceptance of the conditions thereof at the end of this document and caused the signature of the officer so endorsing on its behalf to be acknowledged before a notary public.
2. The Company will pay to the Tribe simultaneously upon acceptance of this consent the sum of \$3,700.00 as double the estimated total damages, consisting of \$5.00 per pole at ten (10) poles per mile for the said right of way, estimated at thirty-seven (37) miles in length. One half of this sum will be retained as compensation to the Tribe, and the remaining half, after deducting any actual damages which may be caused to the Tribe, the United States, or to

private persons occupying Tribal land, will be returned to the Company upon satisfactory completion of the said power line and compliance with the conditions hereof and all applicable regulations. In the event of any dispute as to the extent of such damages the opinion of the General Superintendent at Window Rock, Arizona, shall be conclusive.

3. The Company will comply with 25 CFR, 1954 Supp., 256.7 and all applicable regulations.

4. If at any time during the life of the right of way the Company should be declared insolvent and go into bankruptcy or receivership or make an assignment to creditors, any and all interests of the Company in the power line installed over the right of way shall forthwith be forfeited to the Tribe. There shall be no sale, transfer, or conveyance of the right of way or of the power line installed thereon to any other person, corporation, or association, whatsoever, without the consent of the Navajo Tribal Council.

5. In connection with the construction and maintenance of the power line over the right of way above consented to, the Company will employ Navajo Indians in all positions for which they are available and qualified.

IN WITNESS WHEREOF the Acting Chairman of the Navajo Tribal Council has signed his name hereto on behalf of the Navajo Tribe of Indians this 11th day of October, 1955.

THE NAVAJO TRIBE OF INDIANS

By Scott Preston
Acting Chairman
Navajo Tribal Council

The above conditions are hereby accepted this 4th
day of NOVEMBER, 1955.

ARIZONA PUBLIC SERVICE COMPANY

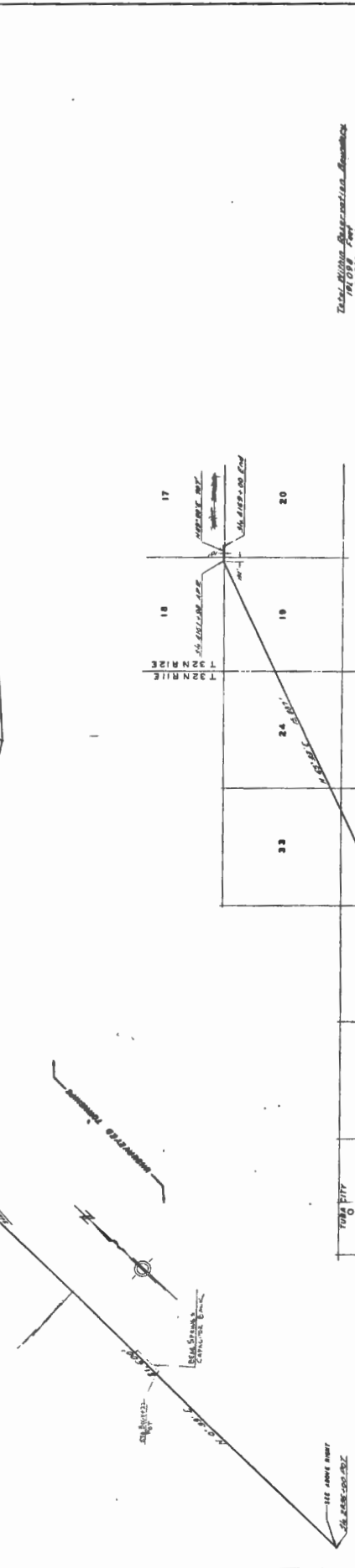
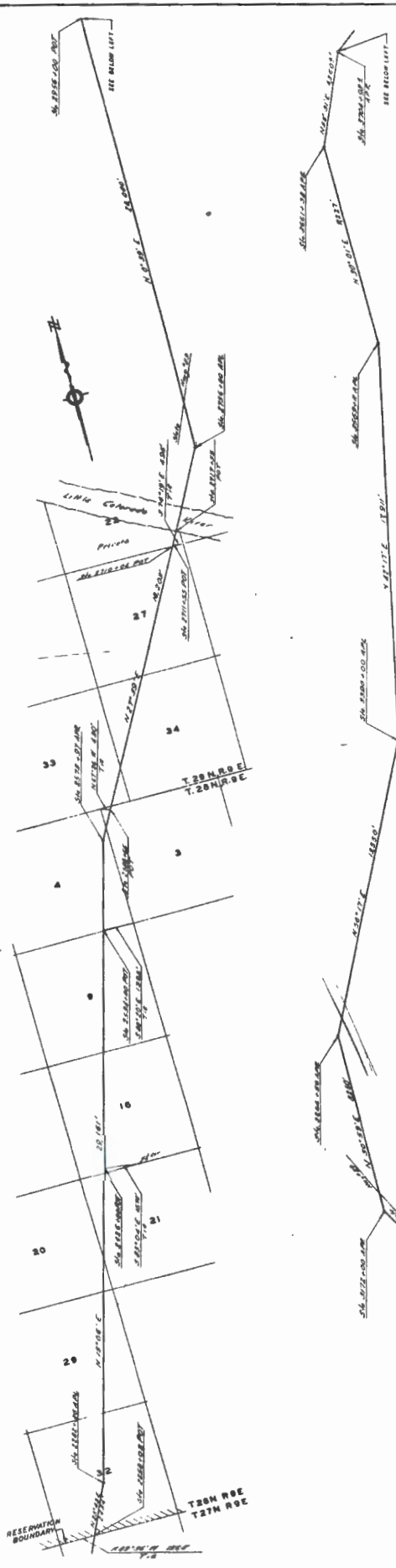
By [Signature]
Title

Attest [Signature]
Title Assistant Secretary

State of Arizona: SS
County of Apache:

This instrument was acknowledged before me this 11th
day of October, 1955 by Scott Preston, who acknowledged to me that he
is acting Chairman of the Navajo Tribal Council and that he executed
said instrument in his official capacity, on behalf of the Navajo Tribe
of Indians.

[Signature]
Notary Public



THIS SURVEY WAS MADE COMMENCING ON THE 12TH DAY OF JAN. 1935, AND ENDING ON THE 22ND DAY OF JAN. 1935.

THIS SURVEY WAS MADE COMMENCING ON THE 12TH DAY OF JAN. 1935, AND ENDING ON THE 22ND DAY OF JAN. 1935.

THIS SURVEY WAS MADE COMMENCING ON THE 12TH DAY OF JAN. 1935, AND ENDING ON THE 22ND DAY OF JAN. 1935.

TUBA CITY 69 KV TRANSMISSION LINE
APPLICATION FOR RIGHT OF WAY IN THE
NAVAJO INDIAN RESERVATION
 FROM THE SAN JUAN RIVER TO THE
 ARIZONA PUBLIC SERVICE COMPANY
 TUBA CITY, ARIZONA
 JAN. 12, 1935

STATE OF ARIZONA, COUNTY OF MARICOPA, SS.
 I, J. C. POLICE, being duly sworn, says he is by occupation an electrical engineer employed by the ARIZONA PUBLIC SERVICE COMPANY and that this map was prepared under his supervision and that he is a duly licensed engineer under the laws of the State of Arizona. He further deposes and swears that the above shown HEREON, THE LOCATION AND DESIGN OF THE WORKS DESCRIBED IN THE ACCOMPANYING APPLICATION TO THE BEST OF HIS KNOWLEDGE AND BELIEF, CORRECTLY REPRESENTS ALL OTHER MATTERS SHOWN HEREON AND BELIEF. HE IS A FEASIBLE AND PRACTICABLE PLAN FOR THE FULLEST ECONOMIC UTILIZATION OF THE POWER RESOURCES AVAILABLE.

John R. Lee
 ENGINEER

SUBSCRIBED AND SWORN TO BEFORE ME THIS 22ND DAY OF JAN. 1935.
 MY COMMISSION EXPIRES JAN. 12, 1935.
 NOTARY PUBLIC
 THIS IS TO CERTIFY THAT *J. C. POLICE*, WHO SUBSCRIBED THE ABOVE APPLICATION, IS A DULY LICENSED ENGINEER UNDER THE LAWS OF THE STATE OF ARIZONA, AND THAT THIS MAP WAS PREPARED UNDER HIS SUPERVISION AND THAT HE IS A FEASIBLE AND PRACTICABLE PLAN FOR THE FULLEST ECONOMIC UTILIZATION OF THE POWER RESOURCES AVAILABLE.

ARIZONA PUBLIC SERVICE COMPANY
 BY *John R. Lee*
 VICE PRESIDENT

ATTEST:
John R. Lee
 ASST. SECRETARY



29
9E
27-

IN REPLY REFER TO:

IN-21

UNITED STATES
DEPARTMENT OF THE INTERIOR

BUREAU OF INDIAN AFFAIRS

GALLUP AREA OFFICE
Post Office Box 1260
Gallup, New Mexico

MAR 23 1956

Arizona Public Service Company
Post Office Box 2591
Phoenix, Arizona

Attention: T. J. Frost
Chief Right-of-Way Agent

Dear Sirs:

Permission is hereby given pursuant to 25 CFR, 1954 Supplement, 256.4 and 256.5, to survey and proceed with construction work on the substation at Cameron, Arizona, at the site orally agreed upon in the meeting in Window Rock on March 14, 1956, between Mr. Frost and Mr. Poe of your Company, and Mr. Spaulding, Mr. Long and Mr. Hand of the Navajo Agency, and Mr. Davis, attorney for the Navajo Tribe; and with construction work on the substation at Tuba City, Arizona, at the site orally agreed upon by Mr. Frost of your Company and Mr. South, Tuba City Subagency Superintendent, on March 15, 1956. Permission is also given for construction and/or immediate operation of existing and proposed power lines as shown in Exhibit "A" attached to the proposed "Power Line Easement Agreement" left by your representatives with the Navajo Agency at the meeting of March 14.

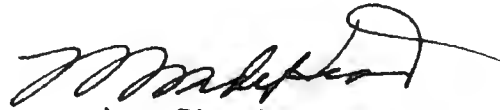
The signature of the Acting Chairman of the Navajo Tribal Council to this letter shall serve as written consent of the landowner to the permission herein granted, as required by 25 CFR 256.3 (a) and under authority of the Resolution of the Navajo Tribal Council of November 5, 1947 (vols I and II, p. 177).

No damages are estimated at this time to result from your proposed operations; hence you are not required to make any deposit for such purpose.


The permission herein granted shall terminate six months after the date of this letter. It is understood that during such period a franchise may be negotiated with the Navajo Tribal Council to replace this temporary permission.

It is further to be understood that the permission herein granted extends only to areas under the lawful jurisdiction of the Navajo Agency and of the Navajo Tribe.

Sincerely yours,

A handwritten signature in dark ink, appearing to read "M. M. [unclear]", with a large, stylized loop at the end.

Area Director

A handwritten signature in dark ink, appearing to read "Scott Preston", with a stylized flourish at the end.
Acting Chairman, Navajo Tribal Council

Arizona PUBLIC SERVICE Company

Cameron Substation

A parcel of land 50 feet by 50 feet situated in the Northeast quarter of Section 27, Township 29 North, Range 9 East of the Gila and Salt River Base and Meridian, more particularly described as follows:

Beginning at the Northeast corner of said Section 27; thence Westerly along the section line 546.46 feet to a point; thence South $27^{\circ} 39'$ West 292 feet to a point; thence North $62^{\circ} 21'$ West 20 feet to the true point of beginning; thence North $62^{\circ} 21'$ West 50 feet; thence South $27^{\circ} 29'$ West 50 feet; thence South $62^{\circ} 21'$ East 50 feet; thence North $27^{\circ} 39'$ East 50 feet to the true point of beginning. This parcel of land to be known as the Cameron Substation.

TRIBAL XXX
INDIVIDUALLY OWNED _____
GOVERNMENT OWNED _____
RIGHT-OF-WAY IN-37

GRANT OF EASEMENT FOR RIGHT-OF-WAY

KNOW ALL MEN BY THESE PRESENTS:

That the United States of America for and on behalf of the Indian Owners of the lands described in Exhibit "A" hereof, acting by and through the Area Director, Bureau of Indian Affairs, Department of the Interior, Window Rock, Arizona, hereinafter referred to as "Grantor", under authority contained in Commissioner's Redelelegation Order 10 BIAM Section 3.1, and pursuant to the provisions of the Act of February 5, 1948 (62 Stat. 17, 25 U.S.C. §§ 323-328), and Part 161, Title 25, Code of Federal Regulations, in consideration of \$113.00*** and other good and valuable consideration, the receipt of which is acknowledged does hereby grant to ARIZONA

PUBLIC SERVICE COMPANY, an Arizona corporation, of Phoenix, hereinafter referred to as "Grantee", an easement for a right-of-way for the following purposes(s), namely:

Construction, operation and maintenance of electrical capacitor bank at Bear Springs

_____, over, across, in and upon the following described lands located in the County of Coconino, State of Arizona.

The said easement, as shown on the Map(x) No. C-24441, consisting of one sheet, marked Exhibit "A" attached hereto, is limited to and more particularly described as a right of way sixty feet in width, lying thirty feet on each side of the following described center line:

BEGINNING at a point in unsurveyed Section 23, Township 30 North, Range 9 East, Gila and Salt River Base and Meridian, from which the Northeast corner of Section 27, Township 29 North, Range 9 East bears S 3° 13' 41" W 35,346.70 feet; thence North 0° 39' East, 1,136 feet, said right of way comprising 1.56 acres; more or less, portions consisting in, more or less of the

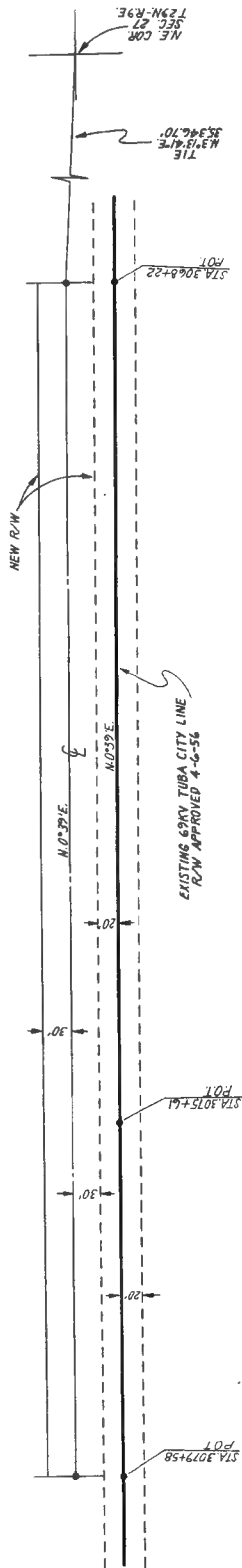
E X H I B I T "A"

DESCRIPTION OF RIGHT OF WAY

BEAR SPRINGS CAPACITOR BANK

A right of way 60 feet in width lying 30 feet on each side
of the following described center line:

BEGINNING at a point in unsurveyed Section 23, Township 30 North,
Range 9 East, Gila and Salt River Base and Meridian, from which the
Northeast corner of Section 27, Township 29 North, Range 9 East
bears S 3° 13' 41" W 35,346.70 feet; thence N 0° 39' E 1,136 feet,
said right of way comprising 1.56 acres more or less.



JAMES E. BUTTS, STATES HE IS BY OCCUPATION A REGISTERED LAND SURVEYOR EMPLOYED BY THE ARIZONA PUBLIC SERVICE COMPANY TO MAKE THE SURVEY OF THE CAPACITOR BANK, AS DESCRIBED AND SHOWN ON THIS MAP; THAT THE SURVEY OF SAID WORKS WAS MADE BY HIM (OR UNDER HIS SUPERVISION) AND UNDER AUTHORITY, COMMENCING ON THE 23RD DAY OF JANUARY 1987, AND ENDING ON THE 27TH DAY OF JANUARY 1987; AND THAT SUCH SURVEY IS ACCURATELY REPRESENTED UPON THIS MAP.



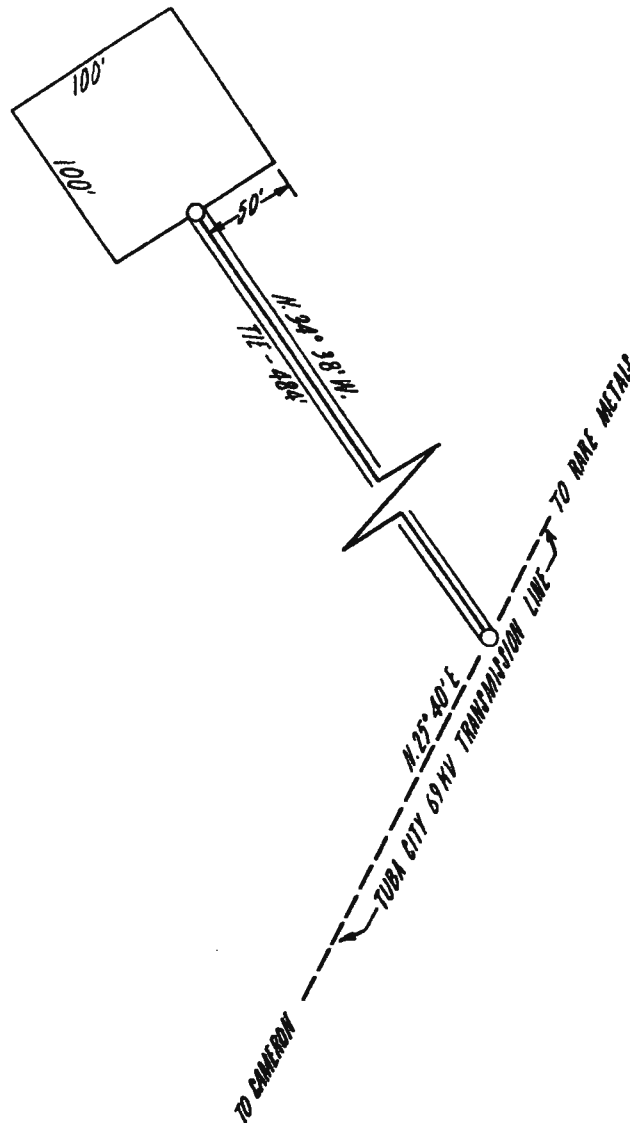
THIS IS TO CERTIFY THAT JAMES E. BUTTS, WHO SUBSCRIBED THE STATEMENT HEREON IS THE PERSON EMPLOYED BY THE UNDERSIGNED APPLICANT TO PREPARE THIS MAP, WHICH HAS BEEN ADOPTED BY THE APPLICANT AS THE APPROXIMATE FINAL LOCATION OF THE WORKS THEREBY SHOWN; AND THAT THIS MAP IS FILED AS A PART OF THE COMPLETE APPLICATION, AND IN ORDER THAT THE APPLICANT MAY OBTAIN THE BENEFITS OF ACT OF FEB. 5 1948; AND I FURTHER CERTIFY THAT THE RIGHT-OF-WAY HEREIN DESCRIBED IS DESIRED FOR A CAPACITOR BANK.

ARIZONA PUBLIC SERVICE COMPANY
William H. Hansen
MANAGER, LAND DEPARTMENT

NOTE: RIGHT OF WAY WIDTH TO BE 30 FEET ON EACH SIDE OF THE CENTER-LINE OF POWER LINE. TOTAL DISTANCE OF RIGHT OF WAY ON FEDERAL LAND .25 MILES.

IN-37

NO.	DATE	REVISION	OWN	CHK	UD	APPD	APPRO	WA
BEAR SPRINGS CAPACITOR BANK LOCATED ON NAVAJO INDIAN RESERVATION ARIZONA PUBLIC SERVICE COMPANY PHOENIX								
SCALE 1"=100'		DATE NOVEMBER 23, 1987		DRAWING NO. C-24441				
OWN REC	APP	CHK	APP	CHK	APP	CHK	APP	CHK
ENGINEERING MANAGER		S.E.		SHEET 1 OF 1				



DESIGNATION
TUBA CITY SUB

DRAWN BY	A.L.P.
CHECKED BY	R.J.S.

ARIZONA PUBLIC SERVICE COMPANY

PROPERTY PLAT

PART OF NW1/4 SEC.32 T.32N., R.11E

COCONINO COUNTY

SCALE: 1" = 100'

OCT. 29, 1976

A-52604

UNITED STATES
DEPT. OF THE INT.
Bureau of Indian Affairs
Navajo Agency
Window Rock, Arizona
APPROVED X-6-56 for a period
of 25 years from this date, subject to the provisions
of the Act of Feb. 5, 1948 (62 Stat. 17), and Departmental
Regulations, 25 C.F.R. 1955 Pocket Supplement, part 256,
and subject further to Tribal Consent to Grant of Right of Way
dated October 11, 1955.
Chairman, Navajo Tribal Council
General Superintendent

DWG
E-10363



2-9E
27-1

UNITED STATES
DEPARTMENT OF THE INTERIOR

BUREAU OF INDIAN AFFAIRS

GALLUP AREA OFFICE
Post Office Box 1260
Gallup, New Mexico

IN REPLY REFER TO:

MAR 22 1956

Arizona Public Service Company
Post Office Box 2591
Phoenix, Arizona

Attention: T. J. Frost
Chief Right-of-Way Agent

Dear Sirs:

Permission is hereby given pursuant to 25 CFR, 1954 Supplement, 256.4 and 256.5, to survey and proceed with construction work on the substation at Cameron, Arizona, at the site orally agreed upon in the meeting in Window Rock on March 14, 1956, between Mr. Frost and Mr. Poe of your Company, and Mr. Spaulding, Mr. Long and Mr. Hand of the Navajo Agency, and Mr. Davis, attorney for the Navajo Tribe; and with construction work on the substation at Tuba City, Arizona, at the site orally agreed upon by Mr. Frost of your Company and Mr. South, Tuba City Subagency Superintendent, on March 15, 1956. Permission is also given for construction and/or immediate operation of existing and proposed power lines as shown in Exhibit "A" attached to the proposed "Power Line Easement Agreement" left by your representatives with the Navajo Agency at the meeting of March 14.

The signature of the Acting Chairman of the Navajo Tribal Council to this letter shall serve as written consent of the landowner to the permission herein granted, as required by 25 CFR 256.3 (a) and under authority of the Resolution of the Navajo Tribal Council of November 5, 1947 (vols I and II, p. 177).

No damages are estimated at this time to result from your proposed operations; hence you are not required to make any deposit for such purpose.

The permission herein granted shall terminate six months after the date of this letter. It is understood that during such period a franchise may be negotiated with the Navajo Tribal Council to replace this temporary permission.

IN-21

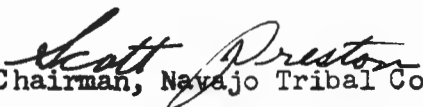
1

It is further to be understood that the permission herein granted extends only to areas under the lawful jurisdiction of the Navajo Agency and of the Navajo Tribe.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "M. M. [unclear]", written in dark ink.

Area Director

A handwritten signature in cursive script, appearing to read "Scott Preston", written in dark ink.

Acting Chairman, Navajo Tribal Council

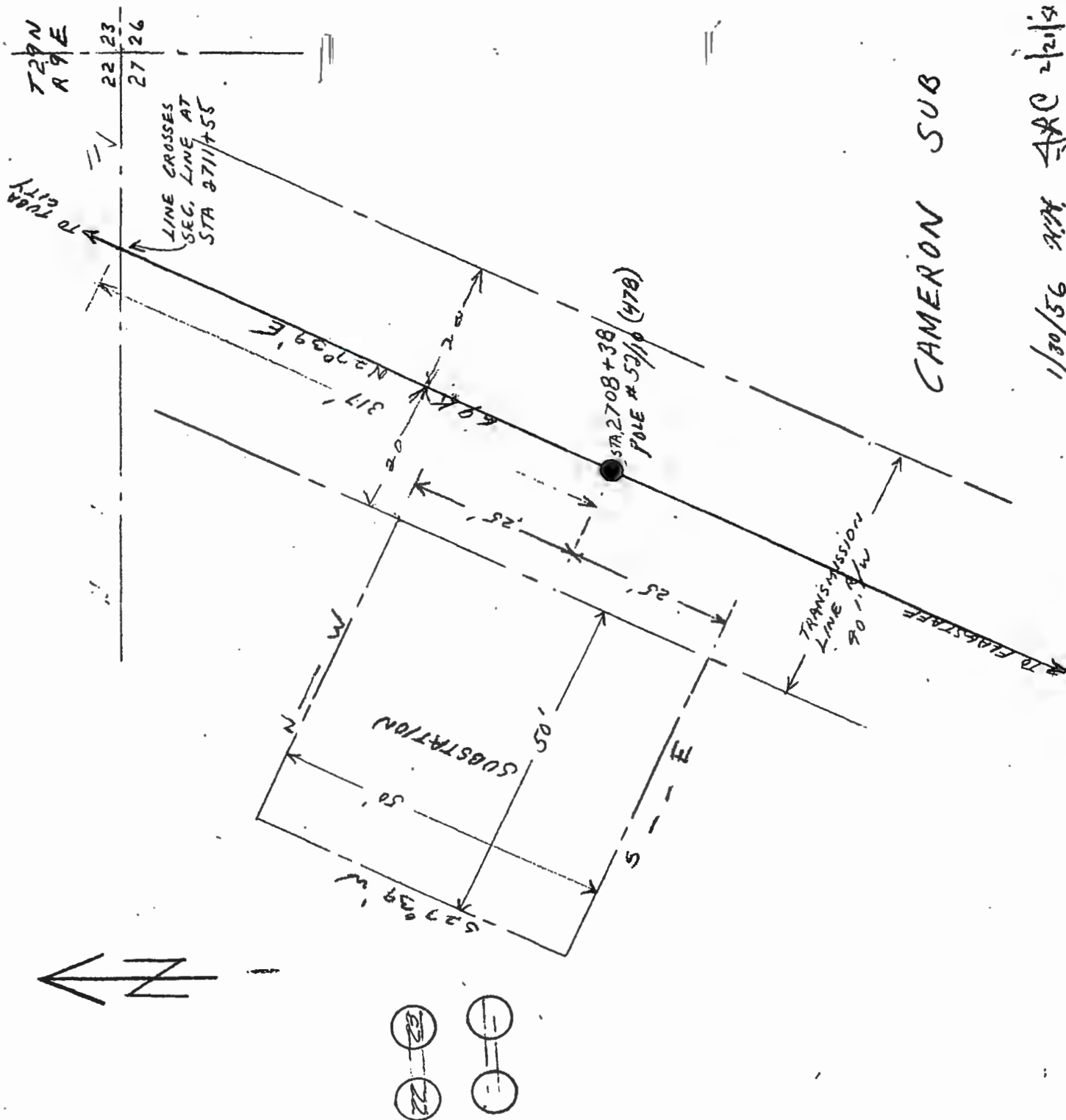
Arizona PUBLIC SERVICE Company

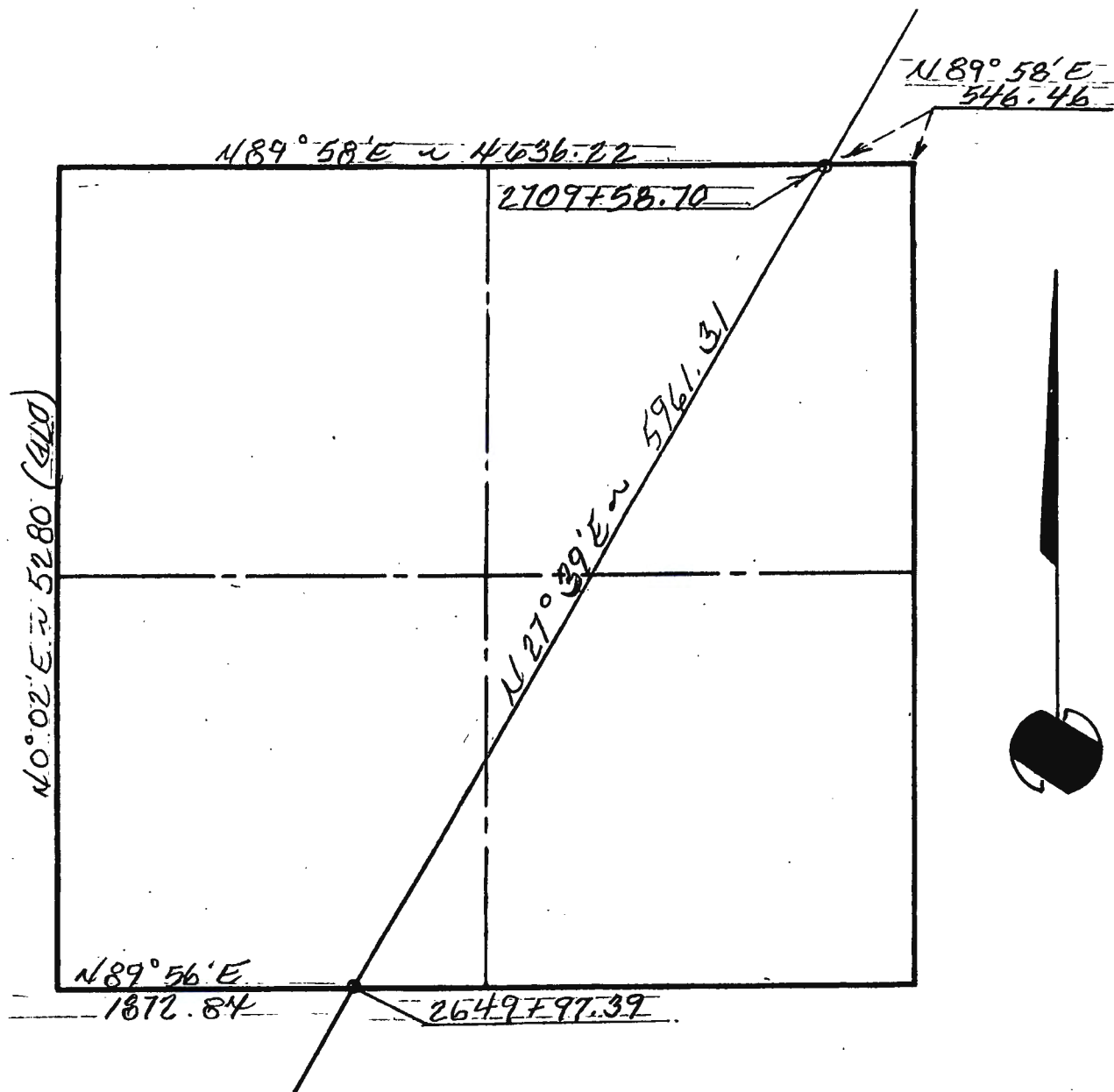
Cameron Substation

A parcel of land 50 feet by 50 feet situated in the Northeast quarter of Section 27, Township 29 North, Range 9 East of the Mla and Salt River Base and Meridian, more particularly described as follows:

Beginning at the Northeast corner of said Section 27; thence Westerly along the section line 546.46 feet to a point; thence South $27^{\circ} 39'$ West 292 feet to a point; thence North $62^{\circ} 21'$ West 20 feet to the true point of beginning; thence North $62^{\circ} 21'$ West 50 feet; thence South $27^{\circ} 29'$ West 50 feet; thence South $62^{\circ} 21'$ East 50 feet; thence North $27^{\circ} 39'$ East 50 feet to the true point of beginning. This parcel of land to be known as the Cameron Substation.

CAMERON SUB





SKETCH SHOWING LOCATION OF PROPOSED POWER LINE
CROSSING WILKINSON TRUST LAND IN SEC. 27, T 29N R 9E

G & S R B & M

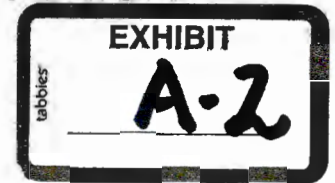
ARIZONA PUBLIC SERVICE COMPANY

PHOENIX, ARIZONA

mbB 12/6/95

**UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF INDIAN AFFAIRS**

RIGHT-OF-WAY APPLICATION



COMES NOW THE APPLICANT, **Arizona Public Service Company (APS)**, having a residence or principal place of business at PO Box 53933 M.S. 3286, Phoenix, AZ, 85072), on this **12th** day of **June, 2017**, who hereby petitions the Bureau of Indian Affairs and respectfully files under the terms and provisions of the Act of February 5, 1948 (62 Stat. 17; 25 USC 323-328), and Departmental Regulations 25 CFR 169, an application for right-of-way until **December 31, 2035**, for the following purposes and reasons:

Continued ownership, operation, maintenance, and removal of the Page 69kV sub-transmission line within the external boundaries of the Navajo Nation and across tribal trust lands in the State of Arizona; together with all ancillary and appurtenant equipment, facilities, substations, and access routes.

Right-of-Way Length:	62.126 miles, more or less
Right-of-Way Width:	40 feet
Area:	301.217 acres, more or less

Said right-of-way to be in length, in width, and in size (or area), as shown on map of definite location, attached hereto, and made a part hereof.

SAID APPLICANTS UNDERSTAND AND EXPRESSLY AGREE TO THE FOLLOWING STIPULATIONS:

1. To maintain the right-of-way in a workmanlike manner.
2. To pay promptly all damages and compensation, in addition to the deposit made pursuant to § 169.4, determined by the Secretary to be due the landowners and authorized users and occupants of the land due to the survey, granting, construction and maintenance of the right-of-way.
3. To indemnify the landowners and authorized users and occupants against any liability for loss of life, personal injury and property damage arising from the construction, maintenance, occupancy or use of the lands by the applicants, their employees, contractors and their employees, or subcontractors and their employees.
4. To restore the lands as nearly as may be possible to their original condition upon the completion of construction, to the extent compatible with the purpose for which the right-of-way was granted.
5. To clear and keep clear the lands within the right-of-way to the extent compatible with the purpose of the right-of-way; and dispose of all vegetative and other material cut, uprooted, or otherwise accumulated during the construction and maintenance of the project.

6. To take soil and resource conservation protection measures, including weed control, on the land covered by the right-of-way.

7. To do everything reasonable within its power to prevent and suppress fires on or near the lands to be occupied under the right-of-way.

8. To build and repair such roads, fences and trails as may be destroyed or injured by construction work and to build and maintain necessary and suitable crossings for all roads and trails that intersect the works constructed, maintained, or operated under the right-of-way.

9. That upon revocation or termination of the right-of-way, the applicants shall, so far as is reasonably possible, restore the land to its original condition.

10. To at all times keep the Secretary informed of their addresses, and in case of corporations, of the addresses of their principal places of business and the names and addresses of their principal officers.


11. That the applicants will not interfere with the use of the lands by or under the authority of the landowners for any purpose not inconsistent with the primary purpose for which the right-of-way is granted.

THE APPLICANTS FURTHER STIPULATE AND EXPRESSLY AGREE AS FOLLOWS:

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

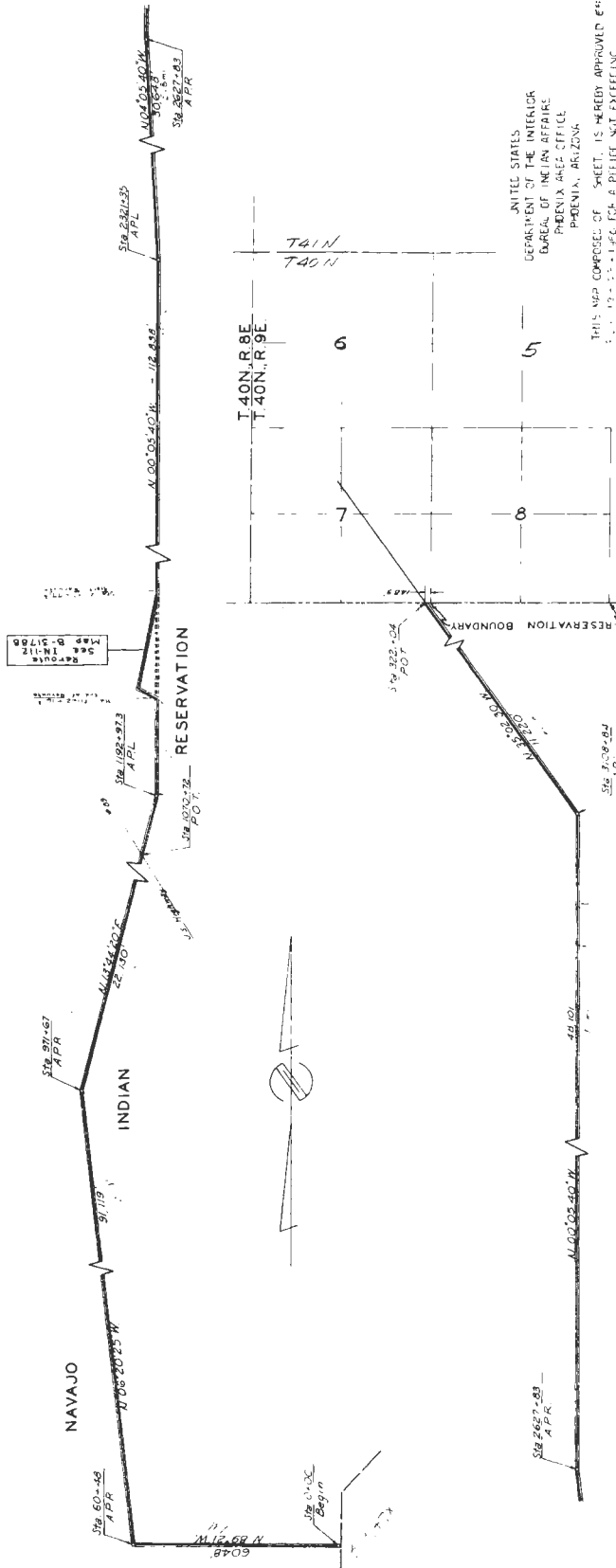
DATE: June 12, 2017

APPLICANT:


Daniel Froetscher, Senior Vice President Transmission, Distribution and Customers

REQUIRED SUPPORTING DOCUMENTS:

1. (X) Written consent of landowner. **(Forthcoming from Navajo Nation)**
2. (X) Map (plats) of definite location **(GIS exhibits attached. Shape files available upon request.)**
3. (X) Deposit of estimated damages or compensation (See 169.4 and 169.14). **(No damages—existing facilities.)**
4. (X) Evidence of Authority of Officers to Execute Papers **(ROW Form 94-4)**
5. (X) For corporation or business, requirements of 25 CFR 169.4 and 169.5 (unless previously filed):
 - a. State certified copy of corporate charter or articles of incorporation. **(previously filed)**
 - b. Certified copy of corporate resolution, by-laws, articles of partnership or association authorizing signatory to file the application. **(ROW Form 94-4)**



ENGINEER'S AFFIDAVIT

STATE OF ARIZONA, COUNTY OF MARICOPA, SS: JAMES E. BUTTS, being duly sworn, says that he is a REGISTERED LAND SURVEYOR, EMPLOYED BY ARIZONA PUBLIC SERVICE COMPANY TO SURVEY OR SUPERVISE THE SURVEY OF THE ROUTE OF A PROPOSED 230 KV TRANSMISSION LINE.

THIS TRANSMISSION LINE IS TO BE INSTALLED IN A RIGHT OF WAY OF 120 FEET IN WIDTH, THE CENTER LINE OF WHICH IS THE SUBJECT OF THIS SURVEY.

THE SURVEY STARTS ON THE NAVAJO INDIAN RESERVATION AT THE SURVEY STATION 0+00 AT A POINT ON AN EXISTING POWER LINE, THENCE N. 69° 21' W. A DISTANCE OF 6048 FEET, THENCE N. 06° 20' 25" W. A DISTANCE OF 91,119 FEET, THENCE N. 3° 44' 20" E. A DISTANCE OF 22,120 FEET, THENCE N. 22° 51' 40" W. A DISTANCE OF 112,038 FEET, THENCE N. 00° 05' 40" W. A DISTANCE OF 30,648 FEET, THENCE N. 35° 02' 30" W. A DISTANCE OF 11,220 FEET, WHERE THE RIGHT OF WAY LEAVES THE NAVAJO RESERVATION AND ENTERS THE SALT RIVER BASE AND MERIDIAN.

THE TOTAL LENGTH OF THE SURVEY IS 62,462.5 FEET. THE TOTAL LENGTH WITHIN THE NAVAJO INDIAN RESERVATION IS 61,045 FEET. THE SURVEY WITHIN THE RESERVATION WAS BEGUN 9-1-1960 AND COMPLETED 1-15-61.

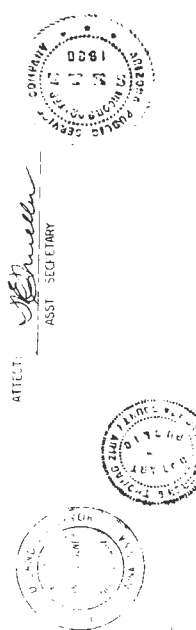
SUBSCRIBED AND SWORN TO BEFORE ME THIS 31ST DAY OF JULY, 1961. JAMES E. BUTTS, REGISTERED LAND SURVEYOR. JAMES E. BUTTS, JURY PUBLIC.

APPLICANT'S CERTIFICATE

THIS IS TO CERTIFY THAT THE ROUTE OF THIS PROPOSED 230KV TRANSMISSION LINE CROSSES THE NAVAJO INDIAN RESERVATION, THAT THE RIGHT OF RIGHT OF WAY ENGINEER HEREON, "AT THE WIDTH OF RIGHT OF WAY" AND TERMINUS OF SURVEY, LENGTH AND LOCATION OF SURVEY, ACCURACY OF THE SURVEY AND MAP ARE TRUTHFULLY REPRESENTED THEREIN ACCORDING TO RECORDS AND MEASUREMENTS, AND THE DESIGN OF THE TRANSMISSION LINE IN THE ACCOMPANYING APPLICATION, CORRECTLY REPRESENTS A SAFE, ACCORDING AND FEASIBLE PLAN FOR THE FULLEST ECONOMIC UTILIZATION OF THE POWER RECESSES AVAILABLE FOR 62,000,000 WATTS, OF WHICH 61,000,000 WATTS ARE WITHIN THE NAVAJO INDIAN RESERVATION. THIS MAP WAS BEEN PREPARED TO BE FILLED IN ACCORDANCE TO THE ACT OF FEB. 5, 1946 (62 STAT. 177), AND IN ACCORDANCE WITH DEPARTMENTAL REGULATIONS 25 CFR 161.

BY: JAMES E. BUTTS, JURY PUBLIC. VICE PRESIDENT

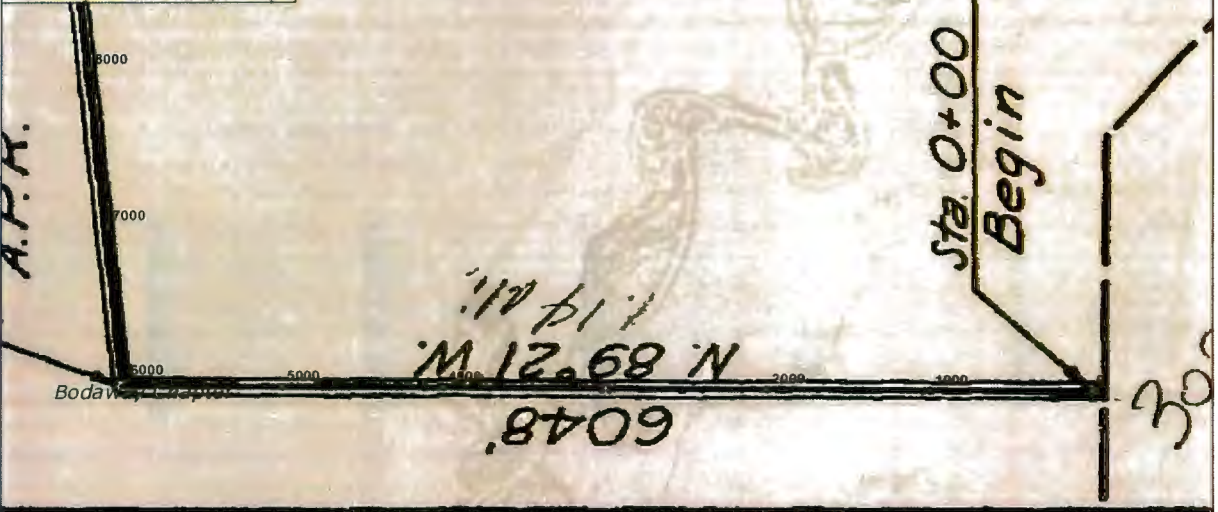
ATTN: JAMES E. BUTTS, JURY PUBLIC. ASST. SECRETARY



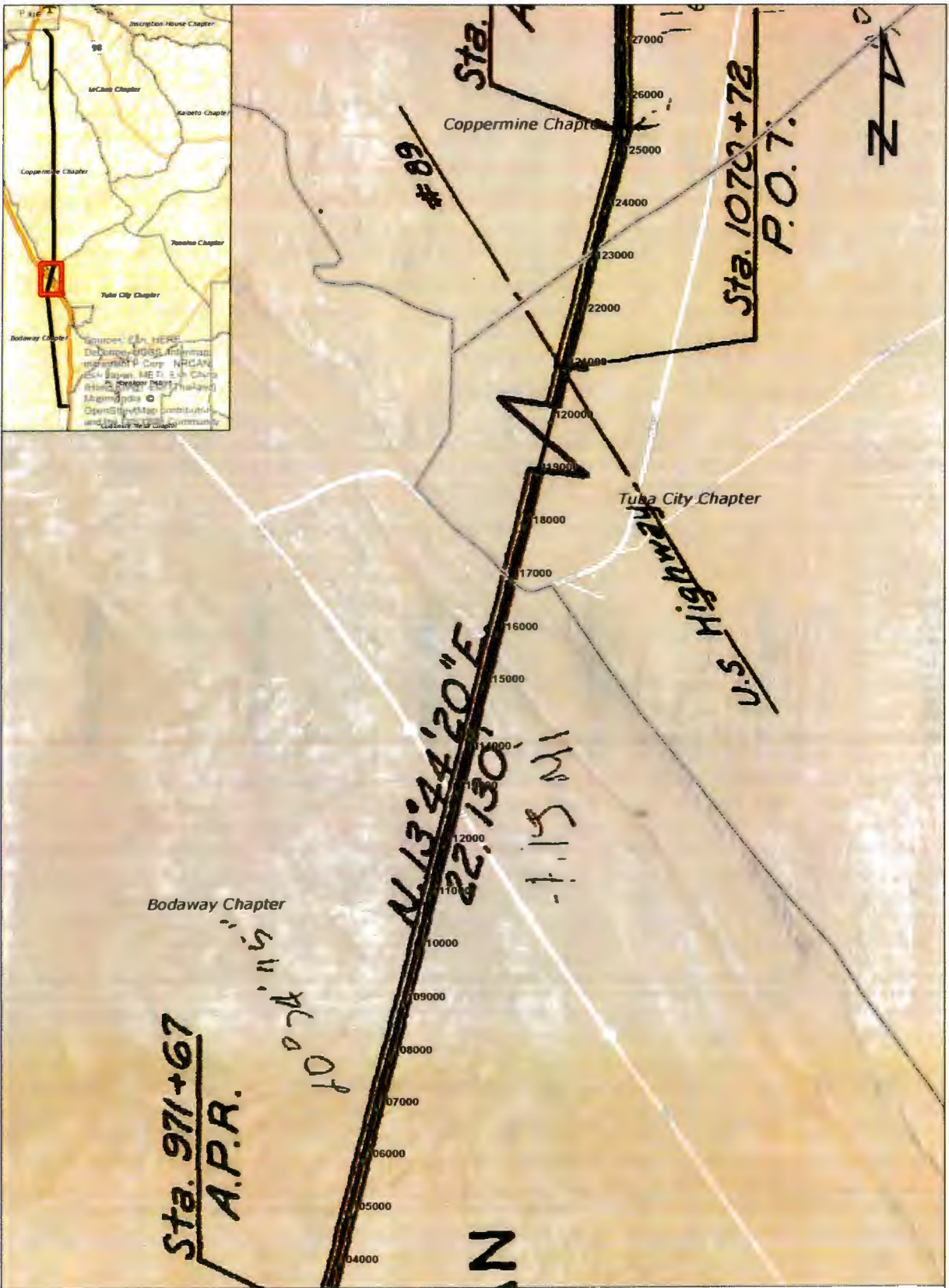
TUBA CITY TO GLEN CANYON
230KV TRANSMISSION LINE
APPLICATION FOR RIGHT OF WAY ON
NAVAJO INDIAN RESERVATION LAND
TOWNSHIPS 31 TO 40 NORTH, RANGES 8 & 9 EAST
GILA & SALT RIVER BASE AND MERIDIAN
ARIZONA PUBLIC SERVICE COMPANY
PHOENIX, ARIZONA
DRAWN BY WBA
CHECKED BY M.T.
APRIL 18 1961
SCALE 1"=2000'

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF INDIAN AFFAIRS
PHOENIX AREA OFFICE
PHOENIX, ARIZONA
THIS MAP COMPOSED OF SHEET, IS HEREBY APPROVED EXCEPT
FOR A PORTION FOR A PORTION NOT EXCEEDING
FOURTEEN PERCENT OF THE PROVISIONS OF THE ACT
OF FEBRUARY 5, 1946 (62 STAT. 177) AND DEPARTMENT
REGULATIONS 25 CFR 61, AND SUBJECT TO ANY PRIOR
WARRANT EXISTING RIGHT OF ADVERSE CLAIM, AND
SUBJECT TO THE PROVISIONS OF THE NAVAJO TRIBAL
COMMITTEE RESOLUTION NO. 46-77-56, 11-15-61.

DATE: 10-1-61
BY: JAMES E. BUTTS, JURY PUBLIC
SUPERINTENDENT



Page 1 of 9

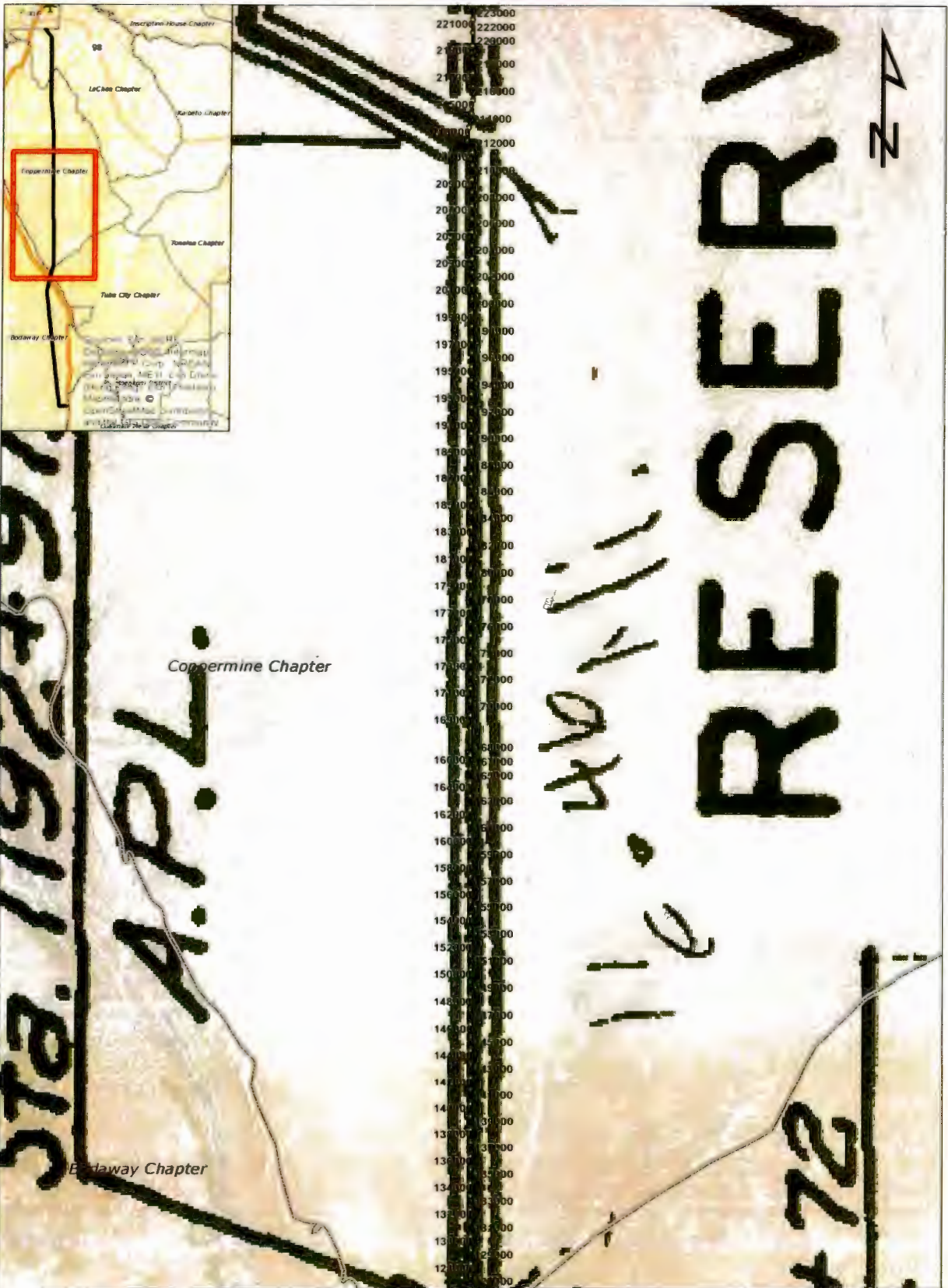


Page 69 kV Transmission Route

- Stations in feet(derived from GIS)
- Tuba City To Page 69kV Line
- Boundary
- Township & Range
- Section



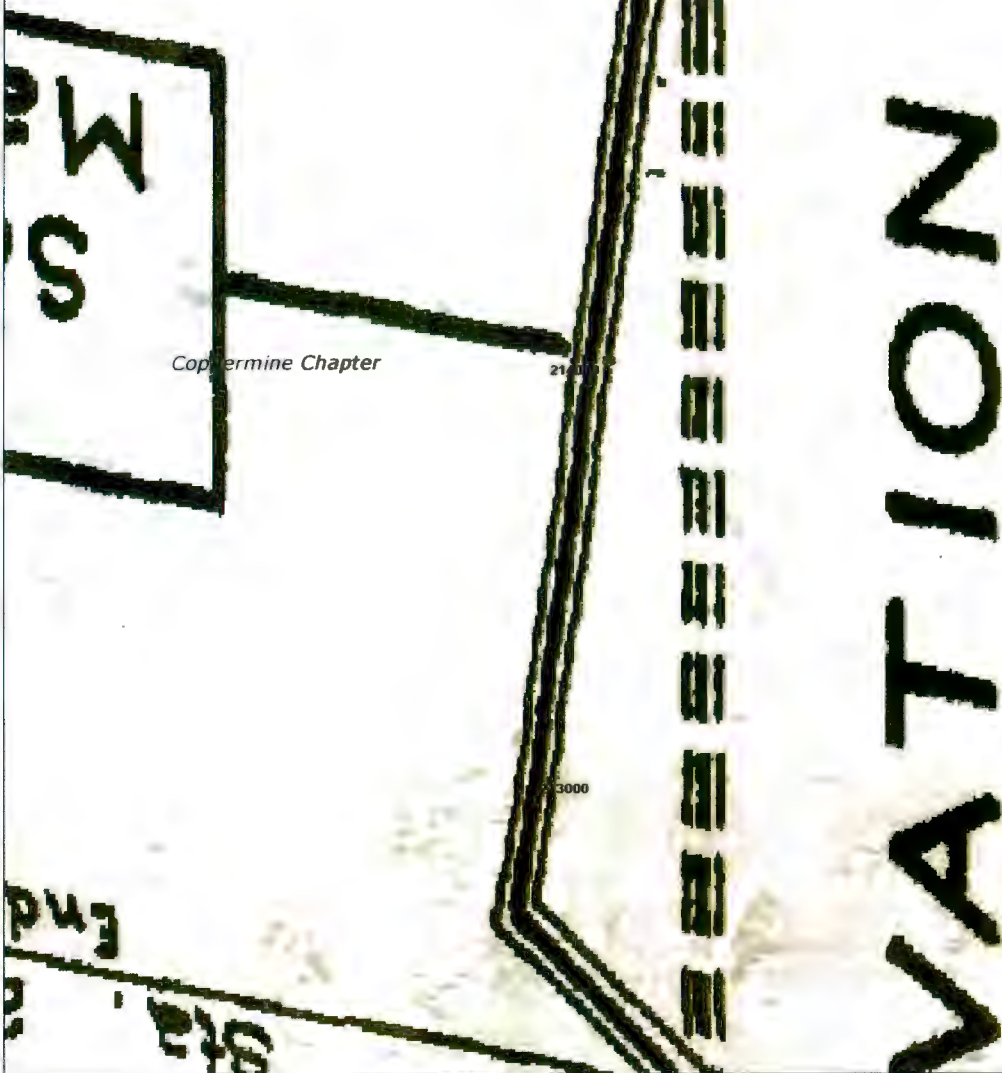
1 inch = 1,667 feet



Page 69 kV Transmission Route

- Stations in feet(derived from GIS)
- Township & Range
- Tuba City To Page 69kV Line
- Boundary
- Section



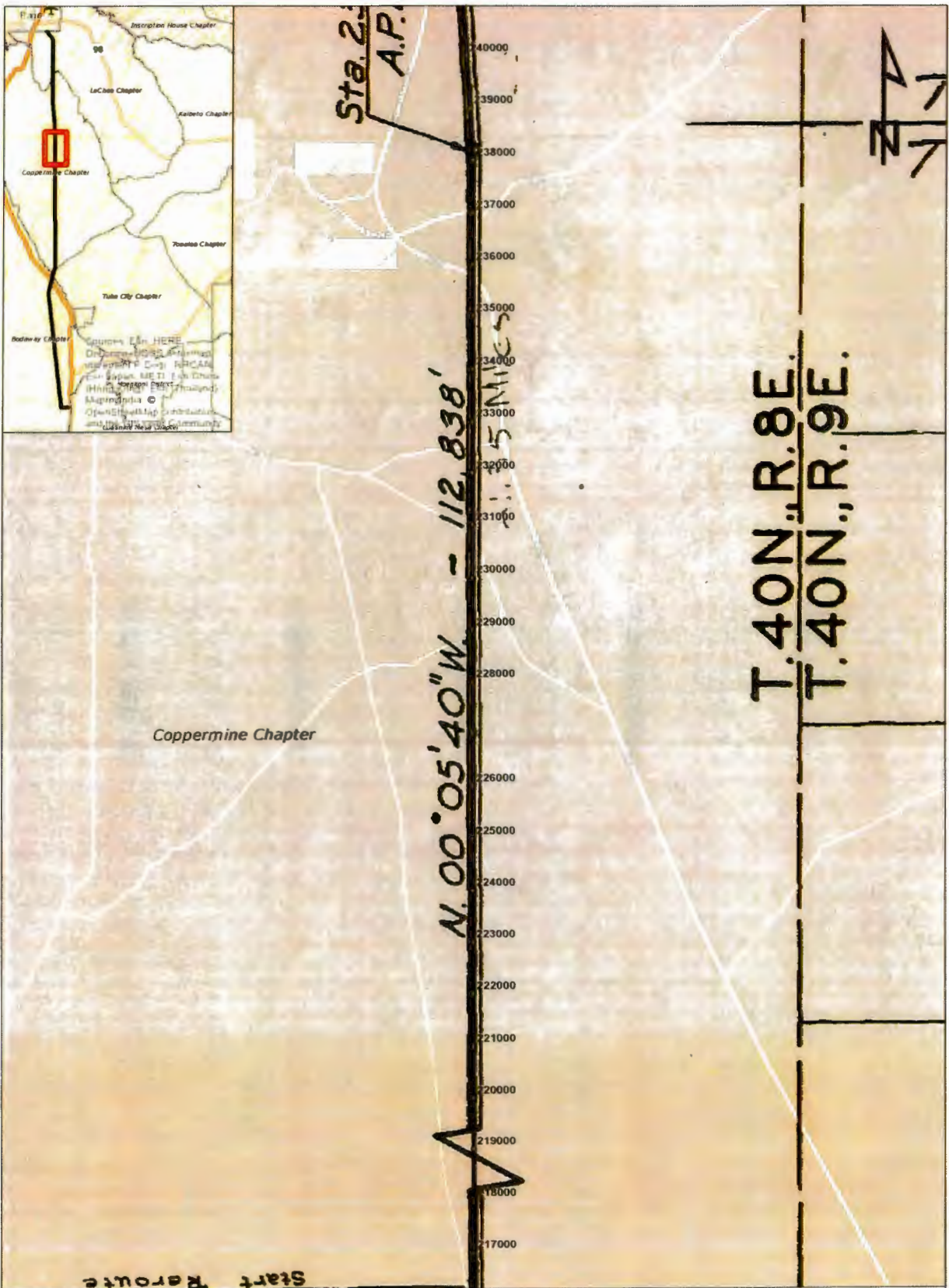


Page 69 kV Transmission Route

- Stations in feet(derived from GIS)
- Tuba City To Page 69kV Line
- Boundary
- Township & Range Section



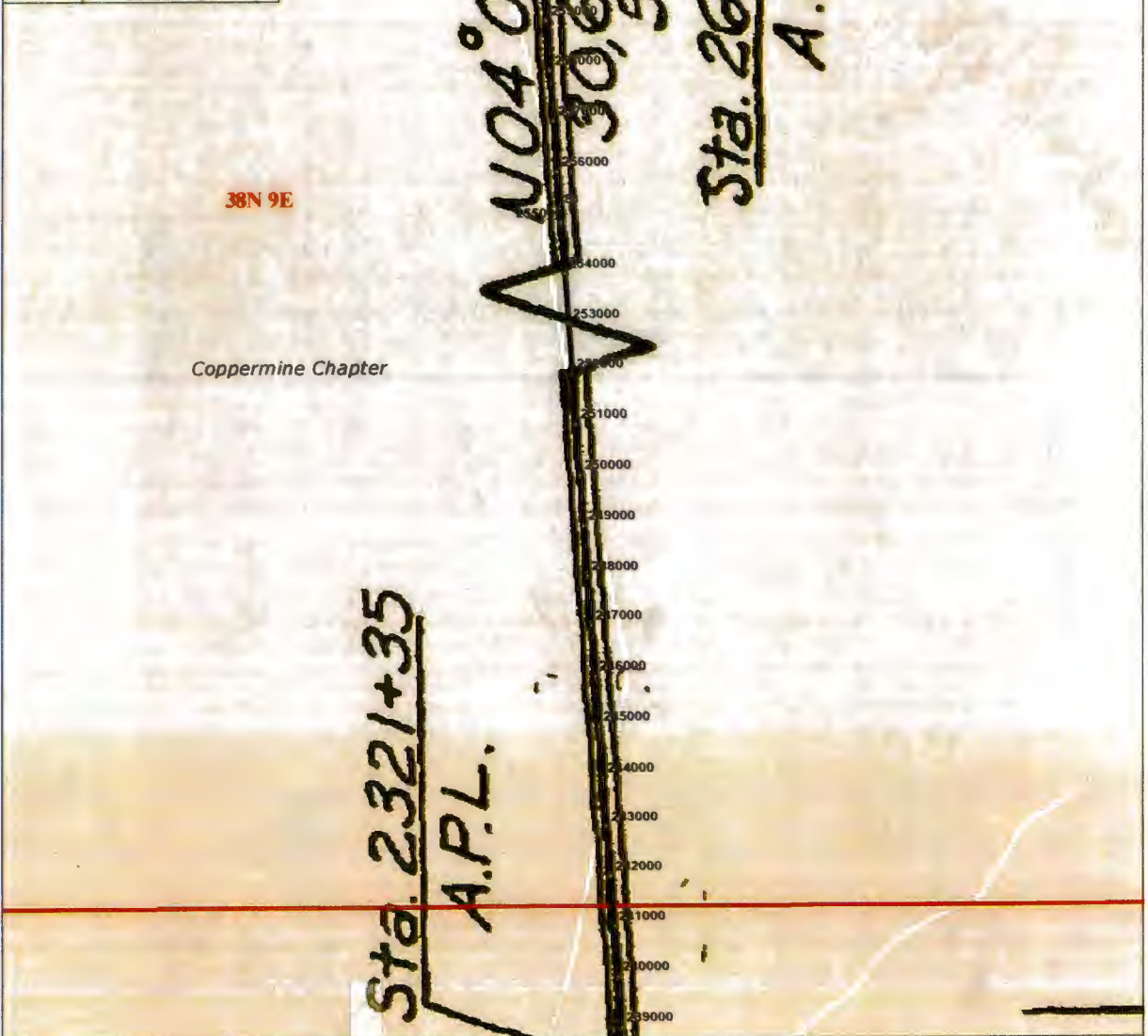
1 inch = 277 feet



Page 69 kV Transmission Route

- Stations in feet(derived from GIS)
- Tuba City To Page 69kV Line
- Boundary
- Township & Range
- Section

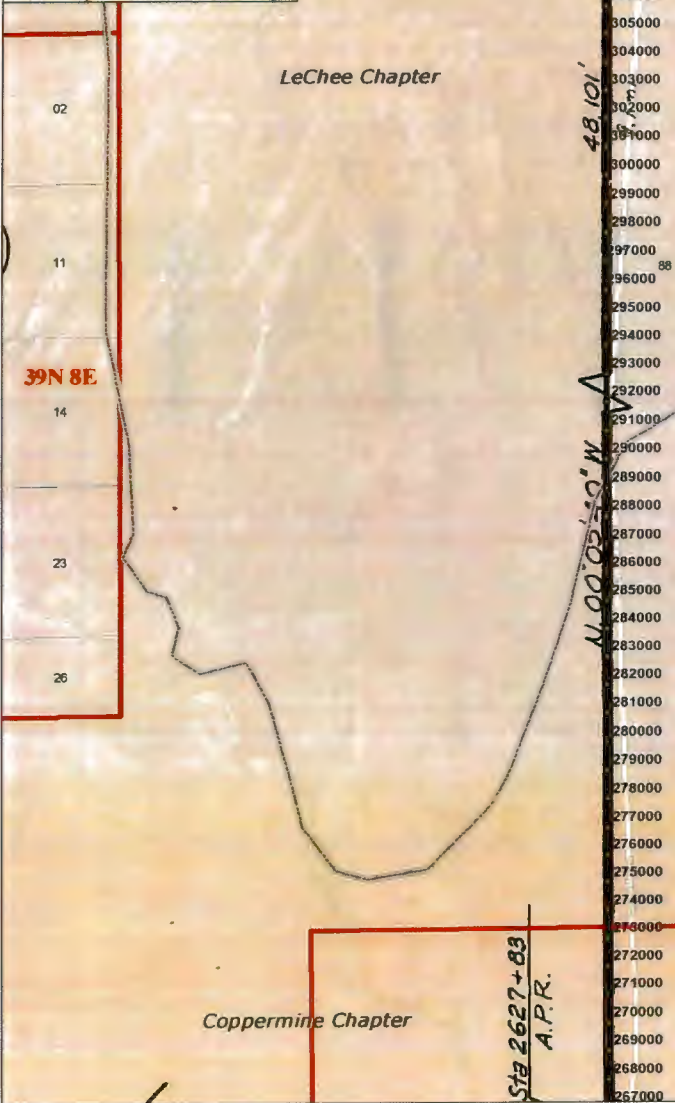




Page 69 kV Transmission Route

- Stations in feet(derived from GIS)
- Tuba City To Page 69kV Line
- Boundary
- Township & Range
- Section





APPLICANT'S

THIS IS TO CERTIFY THAT
230KV TRANSMISSION LINE
RESERVATION, THAT I HAVE
ENGINEER HEREON, THAT THE
FIXING TERMINI OF SURVEY
SURVEY, ACCURACY OF THE
FULLY REPRESENTED HEREIN
INTENSIONS, AND THE DESI

ENGINEER'S AFFIDAVIT

E OF ARIZONA COUNTY OF MARICOPA, SS:
E. BUTTS, BEING DULY SWORN, SAYS THAT HE IS A
ERED LAND SURVEYOR, EMPLOYED BY ARIZONA PUBLIC
E COMPANY TO SURVEY OF SUPERVISE THE SURVEY OF
UTE OF A PROPOSED 230 KV TRANSMISSION LINE.

RANSMISSION LINE IS TO BE INSTALLED IN A RIGHT
OF 120 FEET IN WIDTH, THE CENTER LINE OF WHICH
SUBJECT OF THIS SURVEY.

- Stations in feet(derived from GIS)
- Township & Range
- Tuba City To Page 69kV Line
- Boundary
- Section





Page 69 kV Transmission Route

- Stations in feet(derived from GIS)
- Tuba City To Page 69kV Line
- Boundary
- Township & Range Section



TRIBAL _____ XX
INDIVIDUALLY OWNED _____
GOVERNMENT OWNED _____
RIGHT-OF-WAY _____ IN-112

GRANT OF EASEMENT FOR RIGHT-OF WAY

KNOW ALL MEN BY THESE PRESENTS:

That the United States of America for and on behalf of the Indian Owners of the lands described in exhibit "A" hereof, acting by and through the Area Director, Bureau of Indian Affairs, Department of the Interior, Window Rock, Arizona, hereinafter referred to as "Grantor", under authority contained in Commissioner's Redeleagation Order 10 BIAM Section 3.1, and pursuant to the provisions of the Act of February 5, 1948 (62 Stat. 17, 25 U.S.C. §§323-328), and Part 161, Title 25, Code of Federal Regulations, in consideration of \$260.00*** and other good and valuable consideration, the receipt of which is acknowledged does hereby grant to ARIZONA PUBLIC SERVICE COMPANY, Phoenix, Arizona, hereinafter referred to as "Grantee", an easement for a right-of-way for the following purpose(s), namely: Reroute of 230 (69) KV Electric Transmission Line, Tuba City-Glen Canyon, over, across, in and upon the following described lands located in the County of Coconino, State of Arizona.

The said easement, as shown on the Map (x) No. (x). B-31788 marked Exhibit "A" attached hereto, is limited to and more particularly described as:

A strip of land one hundred (100') feet in width, being fifty (50') feet on each side of the centerline and located within the Navajo Indian Reservation in Section 33, Township 37 North, Range 9 East, Coconino County, Arizona.

BEGINNING at a point on the South line of Section Seven (7), Township Forty (40) North, Range Nine (9) East, 148.9 feet West of Southeast corner thereof; thence South 35°2'30" East, 11,220 feet; thence South 0°5'40" East, 48,101 feet; thence South 4°5'40" East, 30,648 feet; thence South 0°5'40" East, 22,357.8 feet to the TRUE POINT OF BEGINNING of the easement herein described;

Thence South 7°34'00" West, 3,120 feet;
Thence South 41°30'20" East, 625 feet;

Comprising 8.597 acres, more or less.

This easement is subject to any valid existing right or adverse claim and is ~~without dedication or to the public~~ for a term of years ending on April 10, 2022, so long as said easement shall be actually used for the purpose above specified; PROVIDED, that this right-of-way shall be terminable in whole or in part by the Grantor for any of the following causes upon 30 days' written notice and failure of the Grantee within said notice period to correct the basis for termination (25 CFR 161.20):

- A. Failure to comply with any term or condition of the grant or the applicable regulations.
- B. A nonuse of the right-of-way for a consecutive two-year period for the purpose for which it was granted.
- C. An abandonment of the right-of-way.
- D. Failure of the Grantee, upon the completion of construction, to file with the Grantor an affidavit of completion pursuant to 25 CFR 161.16.
- E. Failure to comply with stipulations contained in memorandum of the Chairman, Navajo Tribal Council, dated June 29, 1971.
- F.
- G.

The conditions of this easement shall extend to and be binding upon and shall inure to the benefit of the heirs, representatives, successors, and assigns of the Grantee.

IN WITNESS WHEREOF, Grantor has executed this grant of easement this _____ day of APR 10 1972, 19 _____.

UNITED STATES OF AMERICA

By John J. Brown
(Name)
ACTING
ASSISTANT Area Director
(Title)

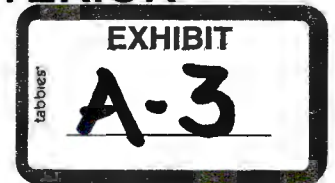
U.S. DEPARTMENT OF THE INTERIOR
Bureau of Indian Affairs
Navajo Area Office
Window Rock, Arizona 86515

6.25



**UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF INDIAN AFFAIRS**

RIGHT-OF-WAY APPLICATION



COMES NOW THE APPLICANT, **Arizona Public Service Company (APS)**, having a residence or principal place of business at PO Box 53933 M.S. 3286, Phoenix, AZ, 85072), on this **12th** day of **June, 2017**, who hereby petitions the Bureau of Indian Affairs and respectfully files under the terms and provisions of the Act of February 5, 1948 (62 Stat. 17; 25 USC 323-328), and Departmental Regulations 25 CFR 169, an application for right-of-way until **December 31, 2035**, for the following purposes and reasons:

Continued ownership, operation, maintenance, and removal of the Cholla to Keams Canyon 69kV sub-transmission line within the external boundaries of the Navajo Nation and across tribal trust lands and allotted lands in the State of Arizona; together with all ancillary and appurtenant equipment, facilities, substations, and access routes.

Trust Land Area:

Right-of-Way Length:	37.563 miles, more or less
Right-of-Way Width:	40 feet
Right-of-Way Area:	182.12 acres, more or less

Allotted Land Area:

Right-of-Way Length:	2.033 miles, more or less
Right-of-Way Width:	40 feet
Right-of-Way Area:	9.857 acres, more or less

Said right-of-way to be in length, in width, and in size (or area), as shown on map of definite location, attached hereto, and made a part hereof.

SAID APPLICANTS UNDERSTAND AND EXPRESSLY AGREE TO THE FOLLOWING STIPULATIONS:

1. To maintain the right-of-way in a workmanlike manner.
2. To pay promptly all damages and compensation, in addition to the deposit made pursuant to § 169.4, determined by the Secretary to be due the landowners and authorized users and occupants of the land due to the survey, granting, construction and maintenance of the right-of-way.
3. To indemnify the landowners and authorized users and occupants against any liability for loss of life, personal injury and property damage arising from the construction, maintenance, occupancy or use of the lands by the applicants, their employees, contractors and their employees, or subcontractors and their employees.

4. To restore the lands as nearly as may be possible to their original condition upon the completion of construction, to the extent compatible with the purpose for which the right-of-way was granted.
5. To clear and keep clear the lands within the right-of-way to the extent compatible with the purpose of the right-of-way; and dispose of all vegetative and other material cut, uprooted, or otherwise accumulated during the construction and maintenance of the project.
6. To take soil and resource conservation protection measures, including weed control, on the land covered by the right-of-way.
7. To do everything reasonable within its power to prevent and suppress fires on or near the lands to be occupied under the right-of-way.
8. To build and repair such roads, fences and trails as may be destroyed or injured by construction work and to build and maintain necessary and suitable crossings for all roads and trails that intersect the works constructed, maintained, or operated under the right-of-way.
9. That upon revocation or termination of the right-of-way, the applicants shall, so far as is reasonably possible, restore the land to its original condition.
10. To at all times keep the Secretary informed of their addresses, and in case of corporations, of the addresses of their principal places of business and the names and addresses of their principal officers.
11. That the applicants will not interfere with the use of the lands by or under the authority of the landowners for any purpose not inconsistent with the primary purpose for which the right-of-way is granted.

THE APPLICANTS FURTHER STIPULATE AND EXPRESSLY AGREE AS FOLLOWS:

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

DATE: June 12, 2017

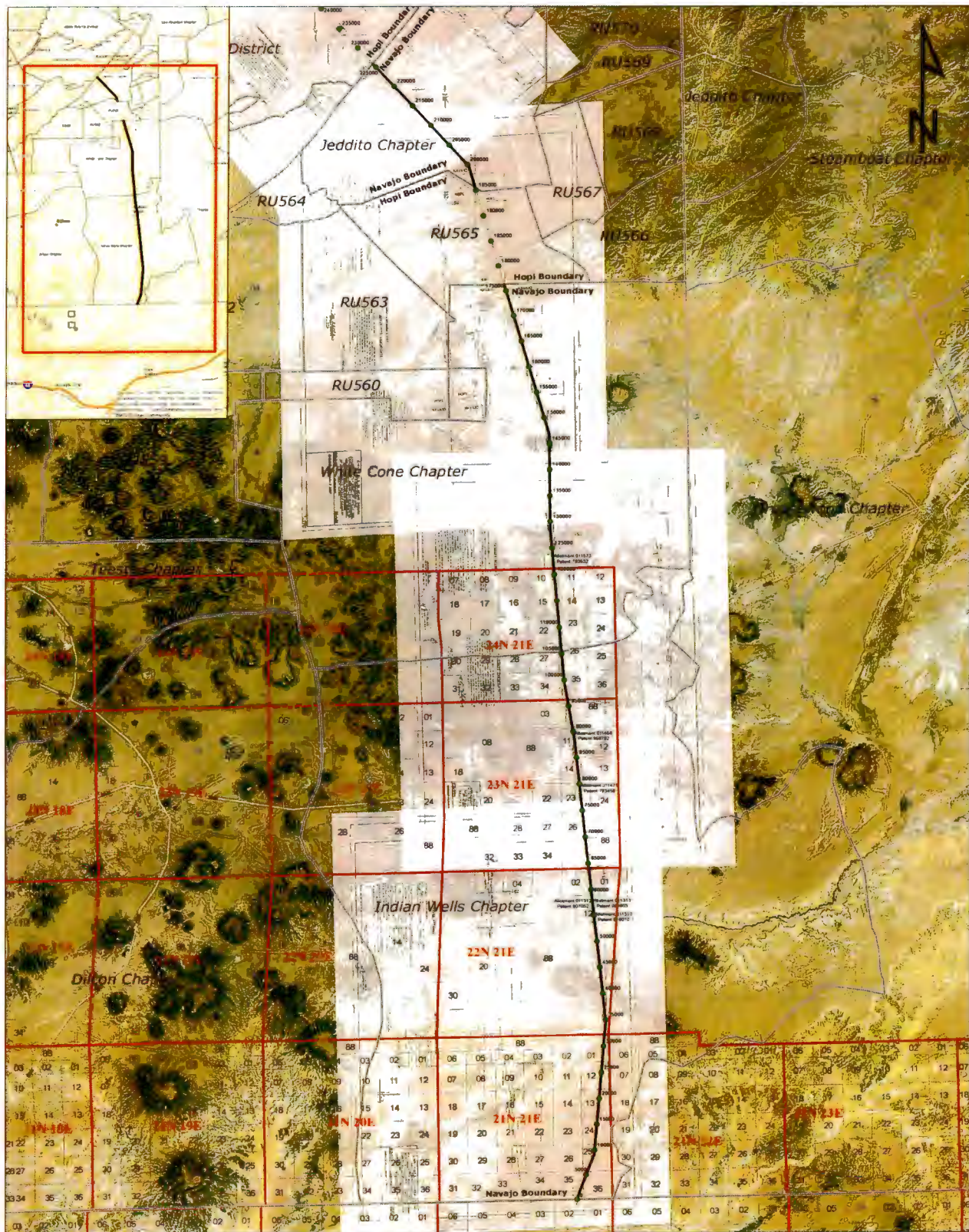
APPLICANT:

 06/29/17

Daniel Froetscher, Senior Vice President Transmission, Distribution and Customers

REQUIRED SUPPORTING DOCUMENTS:

1. (X) Written consent of landowner. **(Forthcoming from Navajo Nation)**
2. (X) Map (plats) of definite location **(GIS exhibits attached. Shape files available upon request.)**
3. (X) Deposit of estimated damages or compensation (See 169.4 and 169.14). **(No damages—existing facilities.)**
4. (X) Evidence of Authority of Officers to Execute Papers **(ROW Form 94-4)**
5. (X) For corporation or business, requirements of 25 CFR 169.4 and 169.5 (unless previously filed):
 - a. State certified copy of corporate charter or articles of incorporation. **(previously filed)**
 - b. Certified copy of corporate resolution, by-laws, articles of partnership or association authorizing signatory to file the application. **(ROW Form 94-4)**



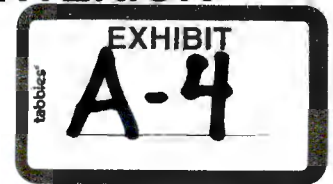
Cholla to Keams 69 kV Overview



1 inch = 8,000 feet

**UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF INDIAN AFFAIRS**

RIGHT-OF-WAY APPLICATION



COMES NOW THE APPLICANT, **Arizona Public Service Company (APS)**, having a residence or principal place of business at PO Box 53933 M.S. 3286, Phoenix, AZ, 85072), on this **12th** day of **June, 2017**, who hereby petitions the Bureau of Indian Affairs and respectfully files under the terms and provisions of the Act of February 5, 1948 (62 Stat. 17; 25 USC 323-328), and Departmental Regulations 25 CFR 169, an application for right-of-way until **December 31, 2035**, for the following purposes and reasons:

Continued ownership, operation, maintenance, and removal of the Leupp 230kV transmission line within the external boundaries of the Navajo Nation and across tribal trust lands in the State of Arizona; together with all ancillary and appurtenant equipment, facilities, substations, and access routes.

230kV Right-of-Way Length:	28.891 miles, more or less
230kV Right-of-Way Width:	100 feet
230kV Right-of-Way Area:	350.195 acres, more or less

Substation and Feeder Length:	351.79 feet, more or less
Substation and Feeder Width:	150 feet
Substation and Feeder Area:	1.211 acres, more or less

Total Area:	351.406 acres, more or less
--------------------	------------------------------------

Said right-of-way to be in length, in width, and in size (or area), as shown on map of definite location, attached hereto, and made a part hereof.

SAID APPLICANTS UNDERSTAND AND EXPRESSLY AGREE TO THE FOLLOWING STIPULATIONS:

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

5. To clear and keep clear the lands within the right-of-way to the extent compatible with the purpose of the right-of-way; and dispose of all vegetative and other material cut, uprooted, or otherwise accumulated during the construction and maintenance of the project.

6. To take soil and resource conservation protection measures, including weed control, on the land covered by the right-of-way.

7. To do everything reasonable within its power to prevent and suppress fires on or near the lands to be occupied under the right-of-way.

8. To build and repair such roads, fences and trails as may be destroyed or injured by construction work and to build and maintain necessary and suitable crossings for all roads and trails that intersect the works constructed, maintained, or operated under the right-of-way.

9. That upon revocation or termination of the right-of-way, the applicants shall, so far as is reasonably possible, restore the land to its original condition.

10. To at all times keep the Secretary informed of their addresses, and in case of corporations, of the addresses of their principal places of business and the names and addresses of their principal officers.

11. That the applicants will not interfere with the use of the lands by or under the authority of the landowners for any purpose not inconsistent with the primary purpose for which the right-of-way is granted.

THE APPLICANTS FURTHER STIPULATE AND EXPRESSLY AGREE AS FOLLOWS:

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

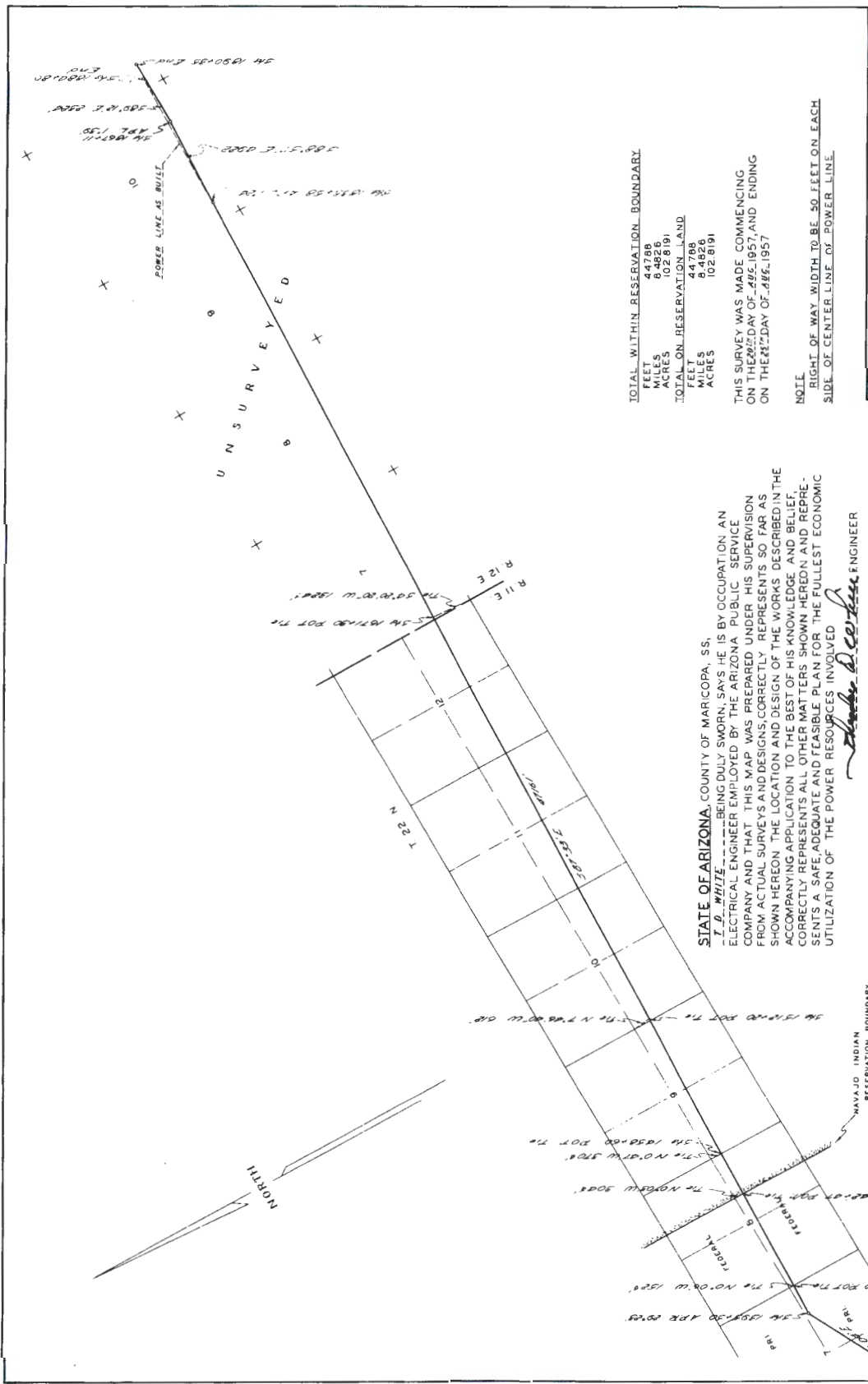
DATE: June 12, 2017

APPLICANT:


06/29/17
Daniel Froetscher, Senior Vice President Transmission, Distribution and Customers

REQUIRED SUPPORTING DOCUMENTS:

1. (X) Written consent of landowner. **(Forthcoming from Navajo Nation)**
2. (X) Map (plats) of definite location **(GIS exhibits attached. Shape files available upon request.)**
3. (X) Deposit of estimated damages or compensation (See 169.4 and 169.14). **(No damages—existing facilities.)**
4. (X) Evidence of Authority of Officers to Execute Papers **(ROW Form 94-4)**
5. (X) For corporation or business, requirements of 25 CFR 169.4 and 169.5 (unless previously filed):
 - a. State certified copy of corporate charter or articles of incorporation. **(previously filed)**
 - b. Certified copy of corporate resolution, by-laws, articles of partnership or association authorizing signatory to file the application. **(ROW Form 94-4)**



TOTAL WITHIN RESERVATION BOUNDARY
FEET 44788
MILES 8.4826
ACRES 102.6191
TOTAL ON RESERVATION LAND
FEET 44788
MILES 8.4826
ACRES 102.6191

THIS SURVEY WAS MADE COMMENCING
ON THE 24TH DAY OF FEB. 1957, AND ENDING
ON THE 24TH DAY OF FEB. 1957

NOTE:
RIGHT OF WAY WIDTH TO BE 50 FEET ON EACH
SIDE OF CENTER LINE OF POWER LINE

FLAGSTAFF TO LEUPP
230 KV TRANSMISSION LINE
APPLICATION FOR RIGHT OF WAY IN THE
NAVAJO INDIAN RESERVATION
TOWNSHIP 22 NORTH-RANGES 11-12 EAST
GILA & SALT RIVER BASE AND MERIDIAN
ARIZONA PUBLIC SERVICE COMPANY
PHOENIX, ARIZONA

DRAWN BY T.J.J. CHECKED BY P.E.S. AUGUST 24, 1957
SCALE 1" = 200'

STATE OF ARIZONA, COUNTY OF MARICOPA, SS,
I, D. WHITE, BEING DULY SWORN, SAYS HE IS BY OCCUPATION AN
ELECTRICAL ENGINEER EMPLOYED BY THE ARIZONA PUBLIC SERVICE
COMPANY AND THAT THIS MAP WAS PREPARED UNDER HIS SUPERVISION
FROM ACTUAL SURVEYS AND DESIGNS CORRECTLY REPRESENTS SO FAR AS
SHOWN HEREON THE LOCATION AND DESIGN OF THE WORKS DESCRIBED IN THE
ACCOMPANYING APPLICATION TO THE BEST OF HIS KNOWLEDGE AND BELIEF
CORRECTLY REPRESENTS ALL OTHER MATTERS SHOWN HEREON AND REPRE-
SENTS A SAFE, ADEQUATE AND FEASIBLE PLAN FOR THE FULLEST ECONOMIC
UTILIZATION OF THE POWER RESOURCES INVOLVED

William D. White
ELECTRICAL ENGINEER

SUBSCRIBED AND SWORN TO BEFORE ME THIS 22ND DAY OF AUG. 1957

MY COMMISSION EXPIRES APRIL 10, 1960 *William D. White* NOTARY PUBLIC

THIS IS TO CERTIFY THAT I, D. WHITE, WHO SUBSCRIBED THE
AFFIDAVIT HEREON IS THE PERSON EMPLOYED BY THE UNDERSIGNED APPLI-
CANT TO PREPARE THIS MAP, WHICH MAP HAS BEEN ADOPTED BY THE
APPLICANT AS THE APPROXIMATE FINAL LOCATION OF THE WORKS THEREBY
SHOWN, AND THAT THIS MAP IS FILED AS A PART OF THE COMPLETE APPLICATION

ARIZONA PUBLIC SERVICE COMPANY

BY *W.D. White*
VICE PRESIDENT

APPLICATION IS MADE PURSUANT TO
THE PROVISION OF THE ACT OF FEB. 5, 1948
(62 STAT. 17 AND DEPARTMENTAL REGULATIONS
25 C.F.R. 1955 CUM POCKET SUPP. 256).

ATTEST
W.D. White
ASST. SECRETARY



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF INDIAN AFFAIRS

~~XXXXXXXXXXXXXXXXXXXX~~

~~XXXXXXXXXXXXXXXXXXXX~~

Navajo Agency, Window Rock, Arizona

THIS MAP COMPOSED OF 1 SHEET, IS HEREBY APPROVED, effective from Sept. 21, 1960 FOR A PERIOD NOT EXCEEDING 50 YEARS PURSUANT TO THE PROVISIONS OF THE ACT OF FEBRUARY 5, 1948. (62 STAT. 17) AND DEPARTMENT REGULATIONS 25 CFR 161. AND SUBJECT TO ANY PRIOR VALID EXISTING RIGHT OR ADVERSE CLAIM, AND SUBJECT TO THE PROVISIONS OF THE NAVAJO TRIAL COMMITTEE RESOLUTION NO.

FEB 13 1962 -

DATE

K. W. Dixon

ACTING General SUPERINTENDENT

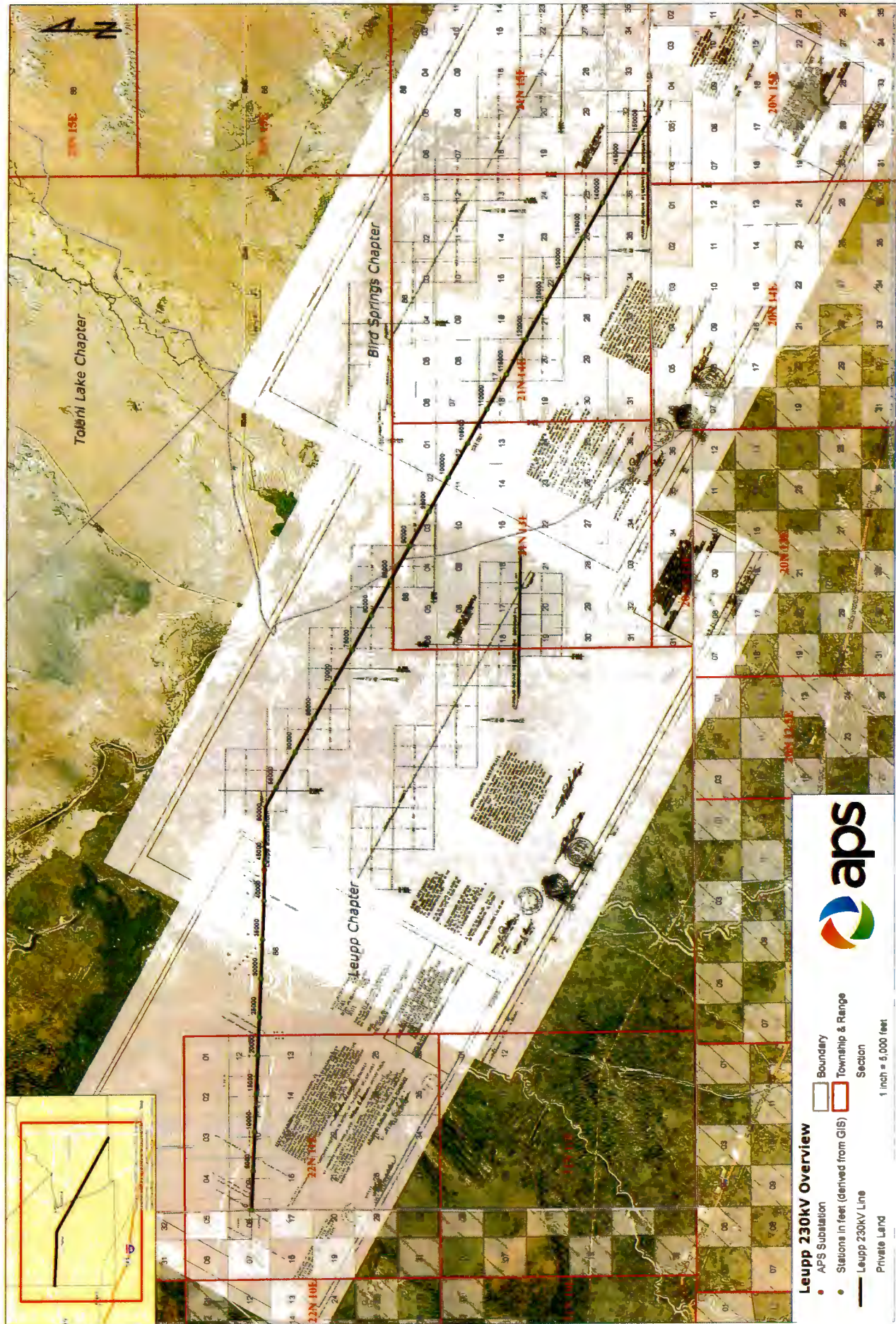
IN-7

LEUPP TO CHOLLA STEAM PLANT
230KV TRANSMISSION LINE
APPLICATION FOR RIGHT OF WAY IN THE
NAVAJO INDIAN RESERVATION
TOWNSHIP 21 NORTH-RANGE 15 EAST
GILA & SALT RIVER BASE AND MERIDIAN
ARIZONA PUBLIC SERVICE COMPANY
PHOENIX, ARIZONA

DRAWN BY W.R.R.
TRACED BY W.R.R.

CHECKED BY W. T.

DEC. 22, 1960
SCALE 1"=2000'



Leupp 230kV Overview

- APS Substation
- Stations in feet (derived from GIS)
- Leupp 230kV Line
- Private Land



Boundary
 Township & Range
 Section

1 inch = 5,000 feet

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF INDIAN AFFAIRS

Handwritten:
H. H. Brown
Way
Roster

Chairman,
Navajo Tribal Council
and
General Superintendent
Navajo Agency
Window Rock, Arizona

Flagstaff - Leupp Transmission Line

IN-4 (Placed on as identification 2/23/61)
230 kv Transmission-Electric Line

Dear Sirs:

There is submitted herewith for consideration and approval papers for
right of way applied for by: Arizona Public Service Co. Box 2591
Phoenix, Arizona
Pipeline, highway, etc.

covering lands under the NAVAJO AGENCY, WINDOW ROCK, ARIZONA, more particularly shown in the application and
maps attached hereto. Tribal land only.

Permission to construct was granted: (Date) September 12, 1957.

Amount deposited by the Applicant: \$ 2000.00

IN SUPPORT of this application there are enclosed the following papers:

1. Application dated September 9, 1957.
2. Line tracings and print copies of map of definite location
3. Field Inspection Report as to completion and damages
4. Consents of landowners
5. Schedule of Damages and certified to by Branch of Realty
6. Affidavit of Completion.

REMARKS: Survey and construction of transmission line cleared by Water and Power Development
of the Office of the Secretary of the Interior by wire dated August 13, 1957.

Respectfully submitted this 20th day of March, 19 59
with recommendation that it be approved.

CONSENT GRANTED AS TO TRIBAL LANDS

ACTIVE Scott Christal
Chairman, Navajo Tribal Council

Date: 3-20-59

Respectfully

APPROVED:

For a period not to exceed 50 years
from September 12, 1957.
Pursuant to the provisions of the Act of
Feb. 5, 1948 (62 Stat. 17)
and Department Regulations, 25 CFR, Part 161,
subject to any prior, valid, existing right
or adverse claim. And subject further to conditions
in letter of consent to construct dated Sept. 12, 1957.

Glenn R. Landbloom
General Superintendent, Navajo Agency

Date: MAR 23 1959

W. H. Long
Agency Realty Officer
Window Rock, Arizona

Handwritten:
Copy 7 our face-sheet
information from
approved file
IN-4

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF INDIAN AFFAIRS

EVIDENCE OF AUTHORITY OF OFFICERS TO EXECUTE PAPERS (FORM 94-4)

(To be sworn to by the President or Secretary of a Corporation and sealed with its seal)

I solemnly swear that Daniel Froetscher was, on the 12th day of June, 2017,

the duly appointed Senior Vice President Transmission, Distribution and Customers of
Arizona Public Service Company,

a corporation organized under the laws of the State of Arizona, at which time he executed the application for, and in behalf of, said corporation;

For construction, continued ownership, operation, maintenance, relocation, and removal of facilities for transmission and distribution of electric power, together with all ancillary and appurtenant equipment, substations, and access routes

covering certain Restricted Indian lands in the State of Arizona; that he was fully empowered to execute said instrument and all papers in connection therewith, and that his action in executing the same binds the said corporation to full performance of all obligations thereunder.

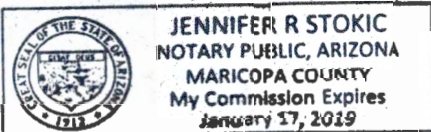
[CORPORATE SEAL]

[Signature]
Name
Corporate Secretary
Title
June 13, 2017
Date

STATE OF Arizona)
COUNTY OF Maricopa) SS.

Subscribed and sworn to before me this 13th day of June, 2017.

[Signature]
NOTARY PUBLIC





ARIZONA PUBLIC SERVICE

TIM BLUMENTRITT, SR/WA
*Land Agent Sr.
Land Services Department*

July 07, 2017

PO Box 53933 MS 3286
Phoenix, AZ 85072-3933

T: 602.371.7880
C: 602.616.7250
F: 602.371.6586
tim.blum@aps.com

Attn: Elerina Yazzie
Navajo Nation
General Land Development
Navajo Boulevard W008-247
Building 4
Window Rock, AZ 86515



Re: Applications for Right-of-way (ROW) for Western Distribution System Lines

Dear Ms. Yazzie:

Please find enclosed four (4) applications for ROW for the following power lines:

- 1) **Tuba City 69kV** – This 35.36-mile line crosses the southern boundary of the Navajo Nation near Gray Mountain and extends to Tuba City. The 40-foot ROW includes several pole-mounted "substations." The Cameron, Bear Springs, and Tuba City Substation sites lie outside of the 40-foot ROW and are integral to the operation of this line. Surveys and other documentation of the original ROW, which expired April 6, 1981, are included.
- 2) **Page 69kV** – This 62.126-mile line taps off of the Tuba City 69kV line about 12 miles southwest of Tuba City and extends to the northern boundary of the Navajo Nation near Page. The original 120-foot ROW was re-routed slightly to accommodate the building of the 500kV lines from Navajo Generating Station in 1972. The original ROW expired December 23, 2010. The small ROW for the re-route is not set to expire until April 10, 2022, but this portion should be included in, and superseded by, the new ROW grant. There is no need to maintain separate grants going forward. At the request of the Navajo Nation, the original 120-foot width of the ROW is reduced to 40 feet in this application. Surveys and other documentation of the original ROWs are included.
- 3) **Cholla-Keams Canyon 69kV** – This 39.596-mile line crosses the southern boundary of the Navajo Nation about 20 miles northeast of Joseph City and extends to the Keams Canyon substation located on the Hopi Reservation. The line crosses six allotments (2.033 miles) leaving 37.563 miles on tribal trust land. APS will work with the BIA to acquire consent from the landowners of these six parcels. Surveys and other documentation of the original 50-foot-wide ROW, which expired September 22, 2011, are included. At the request of the Navajo Nation, the original 50-foot width of the ROW is reduced to 40 feet in this application.
- 4) **Leupp 230kV** – This 28.957-mile line crosses the southern boundary of the Navajo Nation about 11 miles northwest of Winslow and exits the western boundary of the Navajo Nation about 13 miles west of Leupp. The line serves the El Paso Natural Gas compressor station and includes a substation located within the 100-foot ROW as well as another located on El Paso's leased parcel. Surveys and other documentation of the two original ROW grants that comprise this line are included. These grants expired September 12, 2007 and September 21, 2010.

In addition to the original surveys, we have included up-to-date GIS exhibits showing the location of each of these lines. Shape files are available upon request.

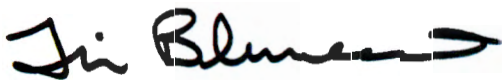
Also included is the following supporting documentation: BIA ROW Form 94-4 – Signature Authority.

During the 2010 negotiations for renewal of the Four Corners Plant, and during subsequent negotiations, the Navajo Nation agreed to provide their consent to the issuance of these rights-of-way from the date of expiration of the former grant until December 31, 2035. Compensation for the expired rights-of-way as well as for the prospective term was also agreed upon.

APS has worked with Navajo EPA to update environmental studies on these lines. The NNEPA has recommended conditional approval of the Environmental Assessments.

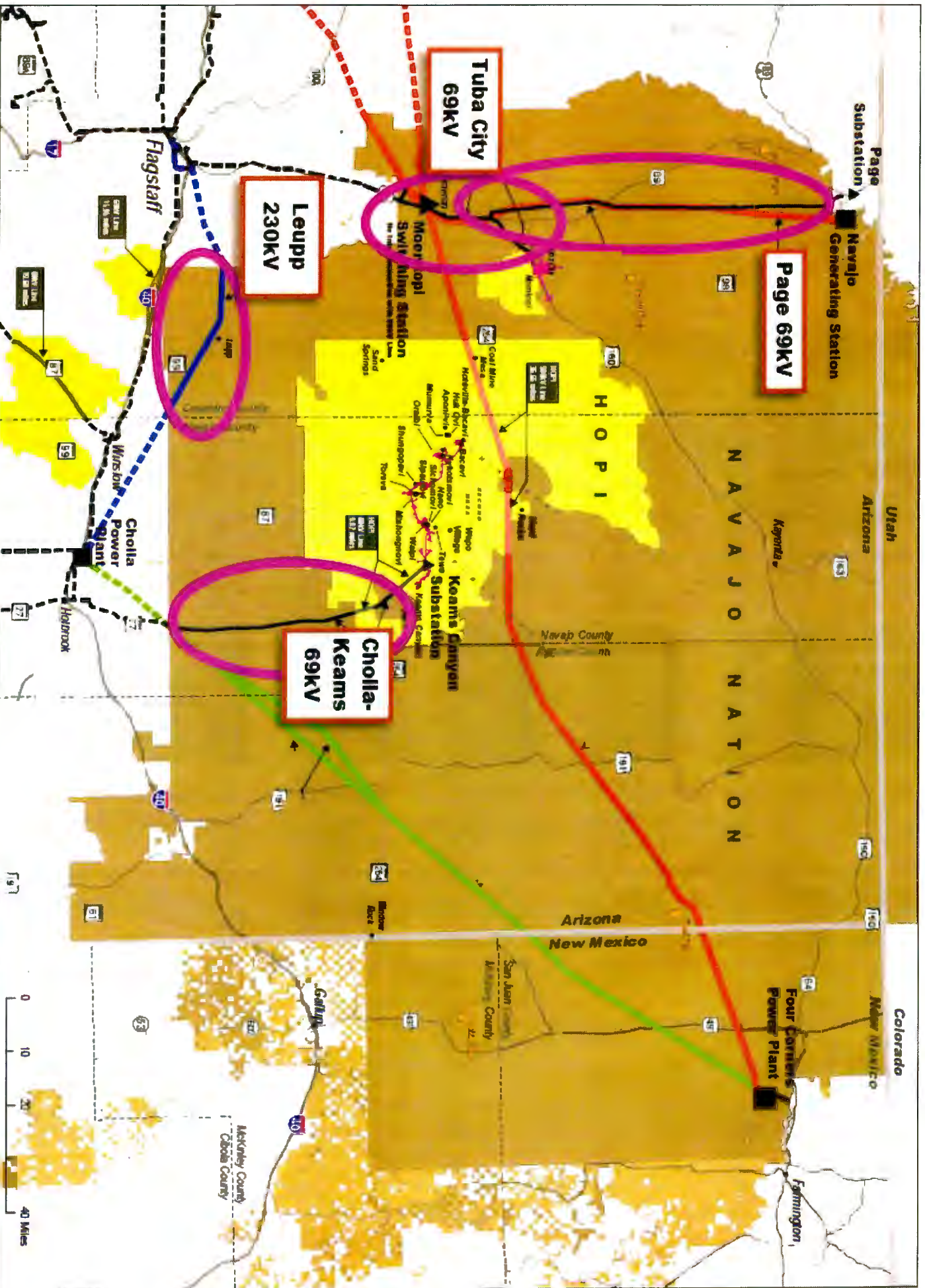
If you have any questions or need any additional information, please contact me directly at the above phone number or email address. Thank you for your assistance.

Sincerely,

A handwritten signature in black ink, reading "Tim Blumentritt". The signature is fluid and cursive, with a long horizontal stroke at the end.

Tim Blumentritt
Land Agent Sr.

Enclosures



**Right-of-Way Application for
Western Distribution System**
For illustration only - Not to Scale



THE NAVAJO NATION
HISTORIC PRESERVATION DEPARTMENT

PO Box 4950, Window Rock, Arizona 86515
TEL: (928) 871-7198 FAX: (928) 871-7886

EXHIBIT

B-1

CULTURAL RESOURCES COMPLIANCE FORM

ROUTE COPIES TO:

☒ LSD

NNHPD NO.: HPD-16-846

OTHER PROJECT NO.: LSD 075107 (NE-5b)

PROJECT TITLE: A Cultural Resource Inventory of 94.33 Miles (571.73 Acres) of Navajo Nation Land for the Arizona Public Service NE-5 (Sandvig-Powell) 69-kV Transmission Line, Coconino County, Arizona

LEAD AGENCY: BIA/NR

SPONSOR: TIM BLUMENTRITT, SR/WA, Arizona Public Service, Land Services Department, PO Box 53933 MS 3286, Phoenix, AZ 85072-3933

PROJECT DESCRIPTION: A 94.33-mile long and 50-ft wide (571.73-acres) segment of transmission line belonging to APS NE-5 (Sandvig-Powell Line) was inventoried for vegetation-maintenance activities within the project corridor. In addition, APS may conduct maintenance or construction projects within the limits of the project corridor. Vegetation maintenance will be performed with mechanical mowing equipment mounted on track hoe or a rubber-tired front-end loader and by hand-cutting using chainsaws. All vegetation activities will be confined to the 50-ft wide corridor with the exception of possible hazard-tree removal, which would be accomplished using hand cutting and chainsaws. If any disturbances that cannot be confined to the project corridor will be covered in a separate inventory. Ground disturbance will be intensive & extensive with the use of heavy equipment.

LAND STATUS:	Navajo Tribal Trust				
CHAPTERS:	Bodaway/Gap, Cameron, Coalmine Mesa, Coppermine, LeChee, Tuba City				
LOCATION:	Project areas are located on the Cameron South, Cameron North, Shadow Mountain Well, Moenave SE, Moenkopi, Willow Springs, The Gap, Toh Bih Nosteny, Dove Spring, Dead Monkey Ridge & White Dome Quadrangles, Coconino County, Arizona G&SRPM				
TOWNSHIP	RANGE	SECTION(S)	TOWNSHIP	RANGE	SECTION(S)
T.28N	R.9E	3,4, 9,16, 20, 21, 29, 30, 31 & 32	T.32.5N	R. 9E	5,8, 17, 20, 29, & 32
T.29N	R.9E	22, 27, 33 & 34	T.33N	R. 9E	4, 9, 16, 21, 28, 29 & 32
T.30N	R.9E	1, 2, 3, 10, 11, 14, 23, 26, & 35	T.34N	R. 9E	4, 9, 16, 21, 28 & 33
T.31N	R.9E	9, 16, 21, 27, 28, 34 & 36	T.35N	R. 9E	4, 9, 16, 21, 28 & 33
T.31N	R.10E	1, 2, 10, 11, 15, 20, 21, 29, 30 & 31	T.36N	R. 9E	4, 9, 16, 21, 28 & 33
T.32N	R.9E	4, 5, 8, 9, 16, 21, 28, 32 & 33	T.37N	R. 9E	4, 9, 16, 21, 28 & 33
T.32N	R.10E	36	T.38N	R. 9E	Unplatted
T.32N	R.11E	31 & 32	T.38N	R. 9E	7, 17 & 18

PROJECT ARCHAEOLOGIST:	Joshua C. Whiting, David E. Purcell, J. Scott Courtright
NAVAJO ANTIQUITIES PERMIT NO.:	B09186
DATE INSPECTED:	06/04/2009 – 08/04/2009
DATE OF REPORT:	02/28/2011 <i>Revised</i> 08/03/2012
TOTAL ACREAGE INSPECTED:	571.73 – ac
METHOD OF INVESTIGATION:	Class III pedestrian inventory with transects spaced <u>15</u> m apart.
LIST OF CULTURAL RESOURCES FOUND:	<p>(44) Sites (AZ-K-53-4, AZ-K-12-23, AZ-K-12-26, AZ-K-12-27, AZ-K-21-120, AZ-K-28-46, AZ-K-28-52, AZ-K-28-53, AZ-K-28-54, AZ-K-37-46, AZ-K-37-55, AZ-K-37-56, AZ-K-44-12, AZ-K-44-14, AZ-K-44-47, AZ-K-53-30, AZ-K-58-23, AZ-K-58-24, AZ-N-5-12, AZ-N-5-33, AZ-N-12-54, AZ-K-12-24, AZ-K-21-118, AZ-K-21-119, AZ-K-28-55, AZ-K-37-54, AZ-K-44-44, AZ-K-12-22, AZ-K-12-25, AZ-K-28-51, AZ-K-37-53, AZ-K-44-43, AZ-K-44-46, AZ-K-53-28, AZ-K-53-29, AZ-K-53-31, AZ-K-59-14, AZ-N-12-12, AZ-N-12-13, AZ-N-12-55, AZ-N-12-56, AZ-N-5-39, AZ-N-5-40, AZ-N-5-41)</p> <p>(14) In-Use Sites (IUS);</p> <p>(93) Isolated Occurrences</p>
LIST OF ELIGIBLE PROPERTIES:	(20) Sites (AZ-K-12-23, AZ-K-12-24, AZ-K-12-26, AZ-K-12-27, AZ-K-21-120, AZ-K-28-46, AZ-K-28-53, AZ-K-28-54, AZ-K-37-46, AZ-K-37-55, AZ-K-37-56, AZ-K-44-12, AZ-K-44-14, AZ-K-44-47, AZ-K-53-4, AZ-K-53-30, AZ-K-58-23, AZ-K-58-24, AZ-N-5-12, AZ-N-5-33)
LIST OF UNEVALUATED/UNDETERMINED PROPERTIES:	(7) Sites (AZ-K-28-55, AZ-K-44-44, AZ-K-37-54, AZ-K-21-118, AZ-K-21-119, AZ-K-28-52, AZ-N-12-54)
LIST OF NON-ELIGIBLE PROPERTIES:	<p>(17) Sites (AZ-K-12-22, AZ-K-12-25, AZ-K-28-51, AZ-K-37-53, AZ-K-44-43, AZ-K-44-46, AZ-K-53-28, AZ-K-53-29, AZ-K-53-31, AZ-K-59-14, AZ-N-12-12, AZ-N-12-13, AZ-N-12-55, AZ-N-12-56, AZ-N-5-39, AZ-N-5-40, AZ-N-5-41)</p> <p>(14) IUS</p> <p>(93) IO</p>
LIST OF ARCHAEOLOGICAL RESOURCES:	(21) Sites (AZ-K-12-23, AZ-K-12-24, AZ-K-12-26, AZ-K-21-120, AZ-K-28-46, AZ-K-28-53, AZ-K-37-46, AZ-K-37-55, AZ-K-37-56, AZ-K-44-12, AZ-K-44-47, AZ-K-58-24, AZ-N-5-12, AZ-N-5-33, AZ-K-28-55, AZ-K-44-44, AZ-K-37-54, AZ-K-21-118, AZ-K-21-119, AZ-K-28-52, AZ-N-12-54)



THE NAVAJO NATION
HISTORIC PRESERVATION DEPARTMENT

PO Box 4950, Window Rock, Arizona 86515
TEL: (928) 871-7198 FAX: (928) 871-7886



CULTURAL RESOURCES COMPLIANCE FORM

ROUTE COPIES TO:

NNHPD NO.: HPD-16-846

☒ LSD

OTHER PROJECT NO.: LSD 075107 (NE-5b)

PROJECT TITLE: A Cultural Resource Inventory of 94.33 Miles (571.73 Acres) of Navajo Nation Land for the Arizona Public Service NE-5 (Sandvig-Powell) 69-kV Transmission Line, Coconino County, Arizona

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PROJECT ARCHAEOLOGIST:	Joshua C. Whiting, David E. Purcell, J. Scott Courtright
NAVAJO ANTIQUITIES PERMIT NO.:	B09186
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LIST OF ARCHAEOLOGICAL RESOURCES:	(21) Sites (AZ-K-12-23, AZ-K-12-24, AZ-K-12-26, AZ-K-21-120, AZ-K-28-46, AZ-K-28-53, AZ-K-37-46, AZ-K-37-55, AZ-K-37-56, AZ-K-44-12, AZ-K-44-47, AZ-K-58-24, AZ-N-5-12, AZ-N-5-33, AZ-K-28-55, AZ-K-44-44, AZ-K-37-54, AZ-K-21-118, AZ-K-21-119, AZ-K-28-52, AZ-N-12-54)

EFFECT/CONDITIONS OF COMPLIANCE: No Adverse Effect with the following conditions:

Sites AZ-K-12-23, AZ-K-12-24, AZ-K-12-26, AZ-K-12-27, AZ-K-21-120, AZ-K-28-46, AZ-K-37-46, AZ-K-37-55, AZ-K-37-56, AZ-K-44-12, AZ-K-44-14, AZ-K-44-47, AZ-K-53-4, AZ-K-58-23, AZ-K-58-24, AZ-N-5-12, AZ-N-5-33, AZ-K-28-55, AZ-K-44-44, AZ-K-37-54, AZ-K-21-118, AZ-K-21-119, AZ-K-28-52, AZ-N-12-54:

1. Site boundaries will be flagged by a qualified archeologist prior to ground disturbing activities.
2. Only hand cutting of vegetation will be allowed within the buffered area of the sites, and cut material be scattered, not piled in the project area.
3. Vehicles will remain on existing roads within the buffered site areas. Rubber-tired vehicles within sites will be prohibited.
4. If sites cannot be avoided, these sites should be subjected to an appropriate data recovery program in consultation with NNHPD.

Sites AZ-K-28-53, AZ-K-28-54, AZ-K-53-30:

1. Site boundaries & key features will be flagged by a qualified archeologist prior to ground disturbing activities.
2. A qualified archaeologist will monitor all ground disturbing activities within 50-ft of the site boundaries.
3. A report will be submitted to NNHPD within 30-day of the monitoring activities.

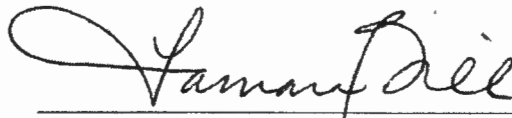
Sites AZ-K-12-22, AZ-K-12-25, AZ-K-28-51, AZ-K-37-53, AZ-K-44-43, AZ-K-44-46, AZ-K-53-28, AZ-K-53-29, AZ-K-53-31, AZ-K-59-14, AZ-N-12-12, AZ-N-12-13, AZ-N-12-55, AZ-N-12-56, AZ-N-5-39, AZ-N-5-40, AZ-N-5-41:
No further work is warranted.

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

FORM PREPARED BY: **Tamara Billie**
FINALIZED: October 21, 2016

Notification to Proceed
Recommended
Conditions:

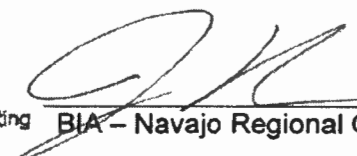
☒ Yes ☐ No
☒ Yes ☐ No

 10/21/16

The Navajo Nation Date
Historic Preservation Office

 Navajo Region Approval

☒ Yes ☐ No

 OCT 24 2016

Acting BIA - Navajo Regional Office Date

THE NAVAJO NATION
HISTORIC PRESERVATION DEPARTMENT

PO Box 4950, Window Rock, Arizona 86515
TEL: (928) 871-7198 FAX: (928) 871-7886

CULTURAL RESOURCES COMPLIANCE FORM



ROUTE COPIES TO:	NNHPD NO.: HPD-16-844
<input checked="" type="checkbox"/> LSD	OTHER PROJECT NO.: LSD 075107 (NE-1c)

PROJECT TITLE: A Cultural Resource Inventory of 39.34 Miles (238.42 Acres) of Navajo Nation Land for the Arizona Public Service NE-1 (Cholla – Keams Canyon) 69-kV Transmission Line, Navajo County, Arizona

LEAD AGENCY: BIA/NR

SPONSOR: Tim Blumentritt, SR/WA, Arizona Public Service, Land Services Department, PO Box 53933 MS 3286, Phoenix, AZ 85072-3933

PROJECT DESCRIPTION: A 39.34-mile long and 50-ft wide (238.42-acres) segment of transmission line belonging to APS NE-1 (Cholla – Keams Canyon) was inventoried for vegetation-maintenance activities within the project corridor. In addition, APS may conduct maintenance or construction projects within the limits of the project corridor. Vegetation maintenance will be performed with mechanical mowing equipment mounted on track hoe or a rubber-tired front-end loader and by hand-cutting using chainsaws. All vegetation activities will be confined to the 50-ft wide corridor with the exception of possible hazard-tree removal, which would be accomplished using hand cutting and chainsaws. If any disturbances that cannot be confined to the project corridor will be covered in a separate inventory. Ground disturbance will be intensive & extensive with the use of heavy equipment.

LAND STATUS:	Navajo Tribal Trust, Indian Allotments
CHAPTERS:	Jeddito, Indian Wells, White Cone
LOCATION:	Project areas are located on the Five Buttes, Indian Wells, Jeddito Spring, Mitten Peak, Tsin Naan Tee & White Cone Quadrangles, Navajo County, Arizona G&SRPM

TOWNSHIP	RANGE	SECTION(S)	TOWNSHIP	RANGE	SECTION(S)
T.21N	R.21E	2	T.25N	R.21E	3, 4, 10, 22, 27 & 34
T.21N	R.21E	1, 12, 13, 24, 25, 35, & 36	T.26N	R. 21E	20, 21, 28 & 33
T.22N	R.21E	1, 12, 13, 24, 25, & 36	T.27N	R. 20E	10, 11, 13, 14, & 24
T.23N	R.21E	2, 11, 12, 13, 24, 25, & 36	T.37N	R. 21E	19, 30, 31, & 32
T.24N	R.21E	2, 11, 14, 23, 26 & 35			

PROJECT ARCHAEOLOGIST:	David E. Purcell, Jessica Walker
NAVAJO ANTIQUITIES PERMIT NO.:	B09185
DATE INSPECTED:	08/04/2009 – 10/14/2009

DATE OF REPORT:	05/23/2011 Revised 08/03/2012
TOTAL ACREAGE INSPECTED:	571.73 – ac
METHOD OF INVESTIGATION:	Class III pedestrian inventory with transects spaced <u>15</u> m apart.
LIST OF CULTURAL RESOURCES FOUND:	<p>(26) Sites (AZ-O-10-96, AZ-O-10-98, AZ-O-10-99, AZ-O-23-60, AZ-O-23-62, AZ-O-23-64, AZ-O-23-66, AZ-O-40-43, AZ-O-40-45, AZ-O-41-72, AZ-O-41-73, AZ-O-41-74, AZ-O-41-77, AZ-O-56-2, AZ-O-56-13, AZ-O-41-76, AZ-O-56-7, AZ-O-23-61, AZ-O-23-63, AZ-O-23-65, AZ-O-23-67, AZ-O-41-75, AZ-O-10-97, AZ-O-24-13, AZ-O-25-17, AZ-O-40-44)</p> <p>(10) In-Use Sites (IUS);</p> <p>(33) Isolated Occurrences</p>
LIST OF ELIGIBLE PROPERTIES:	(17) Sites (AZ-O-10-96, AZ-O-10-98, AZ-O-10-99, AZ-O-23-60, AZ-O-23-62, AZ-O-23-64, AZ-O-23-66, AZ-O-40-43, AZ-O-40-45, AZ-O-41-72, AZ-O-41-73, AZ-O-41-74, AZ-O-56-2, AZ-O-41-76, AZ-O-56-7, AZ-O-41-77, AZ-O-56-13)
LIST OF UNEVALUATED/UNDETERMINED PROPERTIES:	(5) Sites (AZ-O-23-61, AZ-O-23-63, AZ-O-23-65, AZ-O-23-67, AZ-O-41-75)
LIST OF NON-ELIGIBLE PROPERTIES:	<p>(4) Sites (AZ-O-10-97, AZ-O-24-13, AZ-O-25-17, AZ-O-40-44)</p> <p>(10) IUS</p> <p>(33) IO</p>
LIST OF ARCHAEOLOGICAL RESOURCES:	(20) Sites (AZ-O-10-96, AZ-O-10-98, AZ-O-10-99, AZ-O-23-60, AZ-O-23-62, AZ-O-23-64, AZ-O-23-66, AZ-O-40-43, AZ-O-40-45, AZ-O-41-72, AZ-O-41-73, AZ-O-41-74, AZ-O-56-2, AZ-O-41-76, AZ-O-56-7, AZ-O-23-61, AZ-O-23-63, AZ-O-23-65, AZ-O-23-67, AZ-O-41-75)

EFFECT/CONDITIONS OF COMPLIANCE: No Adverse Effect with the following conditions:

Sites AZ-O-10-96, AZ-O-10-98, AZ-O-10-99, AZ-O-23-60, AZ-O-23-62, AZ-O-23-64, AZ-O-23-66, AZ-O-40-43, AZ-O-40-45, AZ-O-41-72, AZ-O-41-73, AZ-O-41-74, AZ-O-56-2, AZ-O-41-76, AZ-O-56-7, AZ-O-41-77, AZ-O-56-13, AZ-O-23-61, AZ-O-23-63, AZ-O-23-65, AZ-O-23-67, AZ-O-41-75 :

1. Site boundaries will be flagged by a qualified archeologist prior to ground disturbing activities.
2. Only hand cutting of vegetation will be allowed within the buffered area of the sites, and cut material be scattered, not piled in the project area.
3. Vehicles will remain on existing roads within the buffered site areas. Rubber-tired vehicles within sites will be prohibited.
4. If sites cannot be avoided, these sites should be subjected to an appropriate data recovery program in consultation with NNHPD.

CULTURAL RESOURCES COMPLIANCE FORM

EXHIBIT

B-4

ROUTE COPIES TO:	NNHPD NO.: HPD-16-1063
<input checked="" type="checkbox"/> ESMI	OTHER PROJECT NO.: ESMI 1205-06/1857-16 & LS 1-075107/Task 11

PROJECT TITLE: Cultural Resources Inventory of Existing Leupp 230-1kV Transmission Line and Substation Proposed for Permit Renewal on the Navajo Nation, Coconino County, Arizona

LEAD AGENCY: BIA/NR

SPONSOR: Arizona Public Service, PO Box 53933, Mail Station 3286, Phoenix, Arizona 85072-3933

PROJECT DESCRIPTION: APS is proposing to renew their easement permit for an existing 230-1kV overhead transmission line and substation. The length of the line across tribal land is approximately 29.04-miles long and the permit right-of-way is 100-ft. The associated substation covers an area measuring 150x125-ft. The total permitted area covers 352.42-acres.

LAND STATUS:	Navajo Tribal Trust						
CHAPTERS:	Leupp & Birdsprings						
LOCATIONS:	Grand Falls SW, Grand Falls SE, Old Leupp, Tucker Mesa NW, Tucker Mesa NE, Coconino County, Arizona G&SRPM						
T.	<u>22</u>	N.,	R.	<u>11</u>	E-	Sec.	<u>8-12:</u>
T.	<u>22</u>	N.,	R.	<u>12</u>	E-	Sec.	<u>7-13</u>
T.	<u>22</u>	N.,	R.	<u>12½</u>	E-	Sec.	<u>15, 14, 23, 24</u>
T.	<u>22</u>	N.,	R.	<u>13</u>	E-	Sec.	<u>30-33</u>
T.	<u>21</u>	N.,	R.	<u>13</u>	E-	Sec.	<u>2-4, 11, 12</u>
T.	<u>21</u>	N.,	R.	<u>14</u>	E-	Sec.	<u>7, 18, 17, 20-22, 25-27, 36</u>
T.	<u>21</u>	N.,	R.	<u>15</u>	E-	Sec.	<u>31, 32</u>
PROJECT ARCHAEOLOGIST:	Daniel K. Newsome & Lanell Poseyesva						
NAVAJO ANTIQUITIES PERMIT NO.:	AB-1						
DATE INSPECTED:	09/04/2007 & 11/12/2008						
DATE OF REPORT:	09/14/16						
TOTAL ACREAGE INSPECTED:	525.49 – ac						
METHOD OF INVESTIGATION:	Class III pedestrian inventory with transects spaced <u>15</u> m apart.						
LIST OF CULTURAL RESOURCES FOUND:	<p>(19) Sites AZ-N-41-1, AZ-N-41-2, AZ-N-42-29, AZ-N-41-41, AZ-O-48-72, AZ-N-42-27, AZ-N-42-28, AZ-N-42-30, AZ-N-41-31, AZ-N-41-32, AZ-N-41-33, AZ-O-48-45/46, AZ-O-48-47, AZ-N-42-35, AZ-N-42-36, AZ-N-42-37, AZ-N-42-38, AZ-N-41-39, AZ-N-41-40</p> <p>(47) Isolated Occurrences (IO)</p> <p>(1) In-Use Site (IUS)</p>						

LIST OF ELIGIBLE PROPERTIES:	(13) Sites AZ-N-42-29, AZ-N-41-41, AZ-O-48-72, AZ-N-42-27, AZ-N-42-28, AZ-N-42-30, AZ-N-41-32, AZ-O-48-45/46, AZ-O-48-47, AZ-N-42-36, AZ-N-42-37, AZ-N-42-38, AZ-N-41-40
LIST OF PROPERTIES UNEVALUATED/UNDETERMINED:	(1) Site AZ-N-41-39
LIST OF NON-ELIGIBLE PROPERTIES:	(5) Sites AZ-N-41-1, AZ-N-41-2, AZ-N-41-31, AZ-N-41-33, AZ-N-42-35 (47) IO (1) IUS
LIST OF ARCHAEOLOGICAL RESOURCES:	(12) Sites AZ-N-42-29, AZ-N-41-41, AZ-O-48-72, AZ-N-42-30, AZ-N-41-32, AZ-O-48-45/46, AZ-O-48-47, AZ-N-42-36, AZ-N-42-37, AZ-N-42-38, AZ-N-41-39, AZ-N-41-40

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

Sites AZ-N-41-41, AZ-O-48-72, AZ-N-42-30, AZ-O-48-45/46, AZ-N-41-39 (Pole locations are located within site boundaries):

1. A qualified archaeologist, prior to ground disturbing activities will flag site boundaries & features.
2. A qualified archaeologist within 50-ft of site boundaries will monitor site.
3. A monitoring report will be submitted to NNHPD within 30-days of monitoring activities.

Sites AZ-N-42-29, AZ-N-42-27, AZ-N-42-28, AZ-N-41-32, AZ-O-48-47, AZ-N-42-36, AZ-N-42-37, AZ-N-42-38, AZ-N-41-40:

1. If any ground disturbing activities are planned near these sites, a qualified archaeologist will flag them prior to disturbance.
2. Sites will be avoided by all ground disturbing activities by a minimum of 50-ft from the 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) 871-7198.

FORM PREPARED BY: Tamara Billie

FINALIZED: January 4, 2017

Notification to Proceed
Recommended
Conditions:

☒ Yes ☐ No

☒ Yes ☐ No

The Navajo Nation
Historic Preservation Office

Date

Navajo Region Approval

☒ Yes ☐ No

BIA - Navajo Regional Office

Date

Tamara Billie 01/04/17

[Signature] 1/10/17

1/9/2017

EFFECT/CONDITIONS OF COMPLIANCE: No Adverse Effect with the following conditions:

Sites AZ-K-12-23, AZ-K-12-24, AZ-K-12-26, AZ-K-12-27, AZ-K-21-120, AZ-K-28-46, AZ-K-37-46, AZ-K-37-55, AZ-K-37-56, AZ-K-44-12, AZ-K-44-14, AZ-K-44-47, AZ-K-53-4, AZ-K-58-23, AZ-K-58-24, AZ-N-5-12, AZ-N-5-33, AZ-K-28-55, AZ-K-44-44, AZ-K-37-54, AZ-K-21-118, AZ-K-21-119, AZ-K-28-52, AZ-N-12-54:

1. Site boundaries will be flagged by a qualified archeologist prior to ground disturbing activities.
2. Only hand cutting of vegetation will be allowed within the buffered area of the sites, and cut material be scattered, not piled in the project area.
3. Vehicles will remain on existing roads within the buffered site areas. Rubber-tired vehicles within sites will be prohibited.
4. If sites cannot be avoided, these sites should be subjected to an appropriate data recovery program in consultation with NNHPD.

Sites AZ-K-28-53, AZ-K-28-54, AZ-K-53-30:

1. Site boundaries & key features will be flagged by a qualified archeologist prior to ground disturbing activities.
2. A qualified archaeologist will monitor all ground disturbing activities within 50-ft of the site boundaries.
3. A report will be submitted to NNHPD within 30-day of the monitoring activities.

Sites AZ-K-12-22, AZ-K-12-25, AZ-K-28-51, AZ-K-37-53, AZ-K-44-43, AZ-K-44-46, AZ-K-53-28, AZ-K-53-29, AZ-K-53-31, AZ-K-59-14, AZ-N-12-12, AZ-N-12-13, AZ-N-12-55, AZ-N-12-56, AZ-N-5-39, AZ-N-5-40, AZ-N-5-41:

No further work is warranted.

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

FORM PREPARED BY: **Tamara Billie**
FINALIZED: October 21, 2016

Notification to Proceed
Recommended
Conditions:

☒ Yes ☐ No
☒ Yes ☐ No

 10/21/16

The Navajo Nation
Historic Preservation Office Date

 Navajo Region Approval

☒ Yes ☐ No

 OCT 24 2016

Acting BIA - Navajo Regional Office Date



ENVIRONMENTAL ASSESSMENT

FLAGSTAFF TO TUBA CITY (NE-5)
69KV SUB-TRANSMISSION LINE
PERMIT RENEWAL

ON THE NAVAJO NATION
COCONINO COUNTY, ARIZONA

Prepared for
ARIZONA PUBLIC SERVICE

SUBMITTED TO
NAVAJO NATION LAND
DEPARTMENT

Prepared by
EnviroSystems Management, Inc.

Environmental Planning • Regulatory Compliance

January 4, 2017



ENVIRONMENTAL ASSESSMENT

FLAGSTAFF TO TUBA CITY (NE-5) 69kV
SUB-TRANSMISSION LINE PERMIT RENEWAL

ON THE
NAVAJO NATION, COCONINO COUNTY, ARIZONA

Prepared for

ARIZONA PUBLIC SERVICE
PO Box 53933, MS 3286
Phoenix, Arizona 85072-3286
(602) 371-7880

Submitted to

NAVAJO NATION LAND DEPARTMENT
PO BOX 2249
WINDOW ROCK, ARIZONA 86515
(928) 871-6401

Prepared by

ENVIROSYSTEMS MANAGEMENT, INC.
23 East Fine Avenue
Flagstaff, Arizona 86001
(928) 226-0236
www.esmaz.com

Navajo Nation Department of Fish and Wildlife Special Permit No. 965
EnviroSystems Management Project and Report No. 1856-16

January 4, 2017

TABLE OF CONTENTS

1.0 PURPOSE AND NEED FOR THE ACTION	1
1.1 Introduction.....	1
1.2 Summary of Proposed Action.....	1
1.3 Purpose and Need for Proposed Action.....	1
1.4 Location of Proposed Action	1
2.0 ALTERNATIVES INCLUDING THE PROPOSED ACTION	2
2.1 No Action Alternative.....	2
2.2 Proposed Action Alternative.....	2
3.0 AFFECTED ENVIRONMENT	4
3.1 Land Resources	4
3.1.1 Topography and Geology	4
3.1.2 Soils.....	4
3.2 Water Resources	5
3.3 Air Resources.....	5
3.3.1 Air Quality	5
3.3.2 Visibility	6
3.3.3 Climate/Meteorology	6
3.4 Biological Resources	6
3.4.1 Vegetation	6
3.4.2 Wildlife	8
3.4.3 Wildlife Sensitivity Area Designation	9
3.4.4 Species Analysis	10
3.5 Cultural Resources	12
3.6 Socioeconomic Conditions	14
3.6.1 Environmental Justice.....	14
3.6.2 Indian Trust Assets	15
3.7 Hazardous Materials and Solid Waste.....	15
3.8 Resource/Land Use Patterns	15
3.8.1 Agriculture	15
3.8.2 Mining.....	16
3.8.3 Transportation Use Network.....	16
3.9 Other Values	16
3.9.1 Public Health and Safety.....	16
3.9.2 Visual Settings	16
4.0 ENVIRONMENTAL CONSEQUENCES.....	17
4.1 Land resources	17
4.2 Water Resources	17
4.3 Air Resources.....	18
4.4 Biological Resources	18
4.5 Cultural Resources.....	20
4.6 Socioeconomic Conditions	21
4.7 Hazardous Materials and Solid Waste	21

4.8 Resource/Land Use Patterns	22
4.9 Other Values	22
5.0 CONCLUSIONS REGARDING SIGNIFICANCE.....	23
6.0 CONSULTATION AND COORDINATION.....	24
6.1 Personnel.....	24
6.2 Departmental Consultation and Coordination	24
7.0 REFERENCES.....	24
8.0 SIGNATURE OF DOCUMENT PREPARER.....	27

APPENDIX A. Biological Resources Compliance Form

APPENDIX B. EnviroSystems Cultural Resources Compliance Form

APPENDIX C. Logan Simpson Cultural Resources Compliance Form

List of Figures

Figure 1. Project area map showing the project location.....	3
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List of Tables

Table 1. Plants Identified During the Biological Field Survey.....	7
Table 2. Wildlife Sightings or Sign Identified During the Biological Field Survey	9
Table 3. Summary of Special Status Species Analysis Findings.....	10
Table 4. Summary of Archaeological Sites Documented during the 2005 and 2009 Inventories.....	13
Table 5. Socioeconomic Composition of the Project Vicinity in Comparison to the U.S., State, County, and Navajo Nation.....	14

1.0 PURPOSE AND NEED FOR THE ACTION

1.1 INTRODUCTION

Arizona Public Service Company (APS) requested a permit renewal for an existing 36.19-mile right-of-way, sub-transmission line, and associated facilities on Navajo Tribal lands from the Navajo Nation boundary to Tuba City. The project requires an Environmental Assessment (EA) to be prepared for the Navajo Nation Land Department (NNLD) in accordance with the requirements of the National Environmental Policy Act (NEPA), the Council on Environmental Quality (CEQ) Guidelines for Implementing NEPA (40 CFR Parts 1500-1508), Bureau of Indian Affairs (BIA), Navajo Regional Office Branch of Environmental Services, Environmental Assessment Document Content and Format Instructions, and other relevant federal and tribal laws and regulations. This EA discloses the direct, indirect, and cumulative environmental impacts that would result from the Proposed Action and the NEPA-required No Action Alternative.

1.2 SUMMARY OF PROPOSED ACTION

Arizona Public Service Company has requested a permit renewal for a right-of-way easement for an existing 36.19-mile sub-transmission line (APS line NE-5) and associated facilities on Navajo Tribal lands. Approximately 35 miles occur on Navajo Nation lands and about 1 mile occurs on Hopi Tribal land. The sub-transmission line runs from south of Cameron to Tuba City, Arizona. Permitting and environmental compliance for the 1 mile on Hopi Tribal land will be addressed separately from the portion occurring on Navajo Nation lands that is addressed in this document.

The right-of-way would be used for continued operation and maintenance of the existing overhead 69kV sub-transmission line which supplies electricity to the communities of Cameron, Tuba City, and the surrounding area within Coconino County, Arizona. No new construction or rebuilds are anticipated with the permit renewal and this analysis assumes no ground-disturbing activities will be required at this time.

1.3 PURPOSE AND NEED FOR PROPOSED ACTION

The purpose and need of the right-of-way easement permit renewal is to allow continued operation and maintenance of the existing overhead 69kV sub-transmission line, substations, and appurtenant facilities, along with the right to ingress thereto and egress therefrom on existing roads.

1.4 LOCATION OF PROPOSED ACTION

The 36.19-mile sub-transmission line begins at the Navajo Nation boundary near Gray Mountain, and extends northeastward to Tuba City and the village of Moenkopi, terminating just west of the Rare Metals facility in Coconino County, Arizona. A 1-mile section crosses Hopi Reservation land near Tuba City and will be addressed separately with the Hopi Tribe. The sub-transmission line location, from south to north, is legally described as follows:

- T28N, R9E, Sections 3, 4, 9, 16, 20, 21, 29, and 32;
- T29N, R9E, Sections 2, 11, 14, 22, 23, 27, 33, and 34;
- T30N, R9E, Sections 1, 2, 11, 14, 23, 26, and 35;

- T31N, R9E, Section 36;
- T31N, R10E, Sections 1, 2, 10, 11, 15, 16, 20, 21, 29, 30, and 31;
- T32N, R10E, Section 36;
- T32N, R11E, Sections 23, 24, 26, 27, 28, 29, 31, and 32;
- T32N, R12E, Sections 17, 18, and 19.

The project is depicted on the *Tuba City, AZ* and *Cameron, AZ* 7.5-minute quadrangles, Gila and Salt River Baseline and Meridian (Figure 1). The sub-transmission line right-of-way is 20 feet wide and covers approximately 89 acres, including the four pole-mounted sub-stations.

2.0 ALTERNATIVES INCLUDING THE PROPOSED ACTION

The analysis of the potential impacts of the permit renewal for an existing 36.19-mile sub-transmission line operation, maintenance, and right-of-way on Navajo Tribal lands includes a Proposed Action Alternative and a No Action Alternative.

2.1 NO ACTION ALTERNATIVE

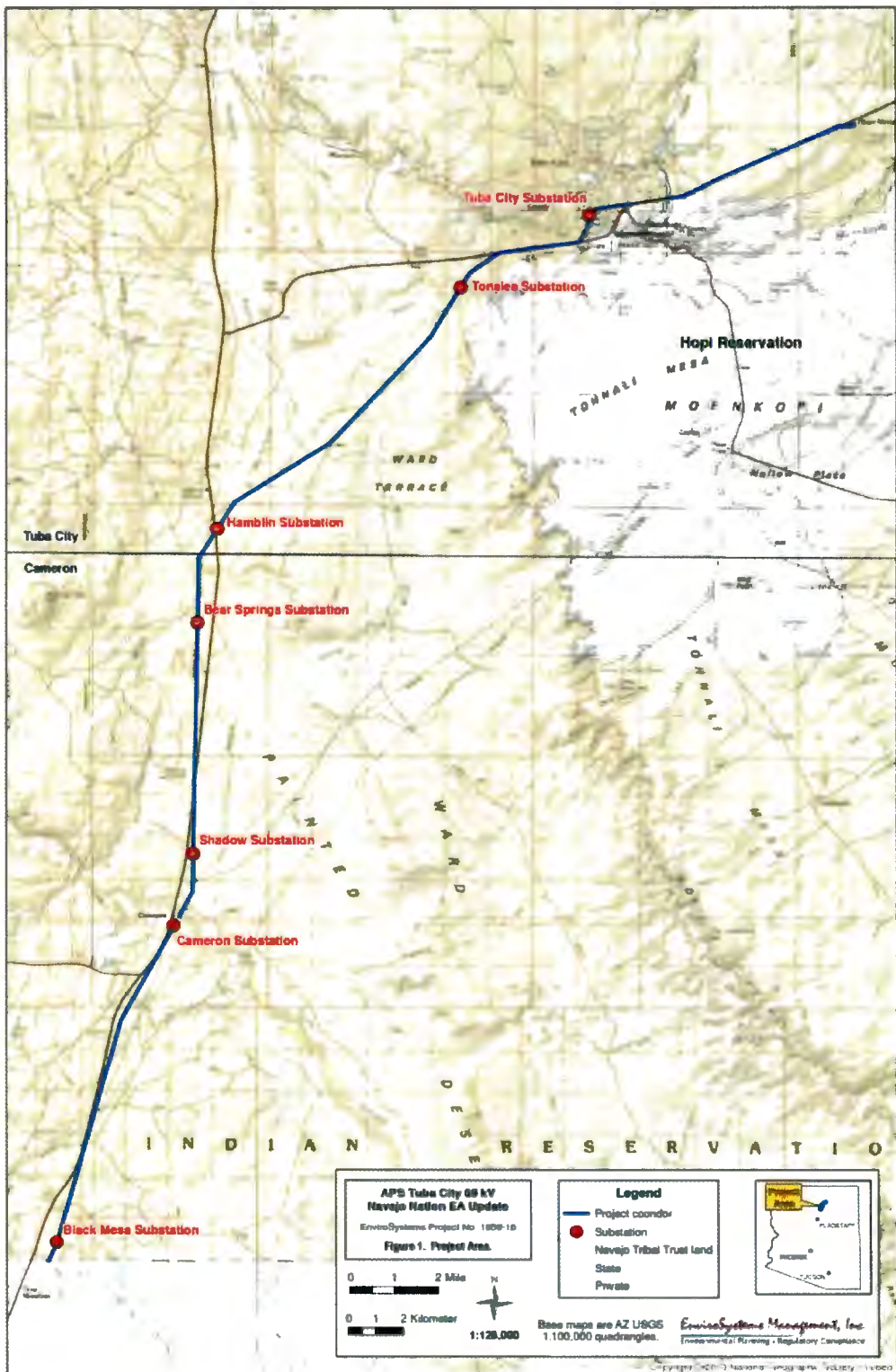
Under the No Action Alternative, the APS permit for the existing 36.19-mile sub-transmission line, right-of-way, and associated substations would not be renewed, so that the land would remain as is. Without the easement permit renewal, APS's ability to operate and maintain the Flagstaff–Tuba City 69kV sub-transmission line would be limited. The Navajo Nation could also require APS to remove their facilities from Navajo Tribal lands. This would result in reduced or loss of access to electrical power for the communities of Cameron, Tuba City, and other outlying areas.

2.2 PROPOSED ACTION ALTERNATIVE

APS is requesting a permit renewal for the existing 36.19-mile 69kV sub-transmission line on Navajo Tribal lands and seeks to continue use of the sub-transmission line along with the right to ingress and egress from these facilities using existing roads. Approximately 35 miles occur on Navajo Nation lands and about 1 mile occurs on Hopi Tribal land.

The total area of effect for the sub-transmission line and substations on Navajo Tribal lands is approximately 89 acres, which includes Navajo Indian Reservation/Tribal Trust lands and the Navajo Tuba City Administrative Area.

Figure 1. Project area map showing the project location



3.0 AFFECTED ENVIRONMENT

The affected environment outlines the physical, biological, cultural, social, and economic environments that may be affected or potentially affected by the No Action or Proposed Action alternatives. Each resource topic is evaluated for current or existing conditions, which provide the scientific and analytical basis for the impact comparisons given in Chapter 4.0, Environmental Consequences.

3.1 LAND RESOURCES

3.1.1 Topography and Geology

The existing 36.19-mile sub-transmission line is located within the Colorado Plateau physiographic province (Hendricks 1985). The Colorado Plateau is characterized by high elevations, large areas of exposed bedrock, extensive horizontal beds of sedimentary deposits, and areas of volcanic activity (Cordell 1984). The surficial geology of the area is characterized by Tertiary sediments of the Bidahochi and Chinle formations, commonly capped by patches of Quaternary surficial deposits; Triassic and Jurassic delta, floodplain, and sand dune deposits; and Cretaceous marine and near-shore deposits (Chronic 1983). In general, these formations consist of fine sands, silts, and clays (Hendricks 1985). Topography along the sub-transmission line consists of shallow, rolling hillsides interspersed with several drainages that trend northeast to southwest. Elevation in the project area ranges from approximately 4,090 to 5,085 feet above mean sea level (amsl).

The dominant substrate throughout the project area is sandstone, shale, and limestone derived primarily from the Chinle, Moenkopi, and Kaibab formations. Three miles north of Gray Mountain, there is a small amount of conglomerate from the Shinarump Formation and some shale mixed in from the Chinle Formation. Beginning at the junction of U.S. Highway (US) 89 and US 160, the landscape begins to give way to Navajo Sandstone. There are also several sand and sand/silt flats along Moenkopi Wash near Tuba City. Several intermittent streams/washes are spanned by the project corridor.

3.1.2 Soils

Soils in the project area are loamy alluvial soils consisting of fine sands, silts, and clays with petrified wood and sandstone cobble inclusions. Because of the sub-transmission line extent, it crosses many soil types derived from weathered shale, volcanic and sedimentary rock, mixed alluvium from siltstone, sandstone, or mudstone, or eolian sands (NRCS 2016). In general, these soils have moderate potential to produce adequate forage plants for livestock grazing (Hendricks 1985), but forage is limited by low amounts of precipitation. The average total precipitation in the Cameron area is 5.66 inches, whereas the average total precipitation is 6.40 inches near Tuba City (WRCC 2010).

No prime or unique farmland occurs within the project area (approximately 89 acres). Much of the project is on eroded land composed of sandy upland terraces and/or escarpments (NRCS 2016). Numerous ephemeral drainages cut deeply through the easily eroded soil in the lower areas. The loose and sandy surface soils are prone to wind erosion and sediment transport during heavy precipitation events.

3.2 WATER RESOURCES

The project area is located within the Little Colorado River Watershed and Little Colorado River Plateau Groundwater Basin (ADWR 2016). Major drainages spanned by the project right-of-way include the Little Colorado River, Five Mile Wash, Moenkopi Wash, and Pasture Canyon. A number of smaller tributary drainages and springs also lie within and near the project area. Most of these drainages, including the Little Colorado River, are dry during much of the year. Water is present mainly during brief rainstorms and in regards to the Little Colorado River runoff from spring snow-melt from the White Mountains (Arizona/New Mexico border). The project area does not contain Outstanding Arizona Waters (ADEQ 2016a). This information was obtained through reviewing existing literature sources (ADEQ 2016a; ADWR 2016; USACOE 1987, 2008); reviewing the Cameron North (3511-H4), Cameron South (35111-G4), Moenave SE (36111-A3), Moenkopi (36111-A2), Shadow Mountain Well (36111-A4), and Tuba City (36111-B2), Arizona, 7.5' USGS quadrangles maps; and conducting a site visit.

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate map panels were reviewed and no special flood hazard areas occur within the project area. The entire proposed project area lies in Zone D, which is described as "areas in which flood hazards are undetermined, but possible" (FEMA 2007). Additionally, the U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory was reviewed and freshwater forested/shrub wetlands and riverine wetlands were identified (USFWS 2016). The freshwater forested/shrub wetlands identified were classified as PSS2J, which is characterized as non-tidal wetlands dominated by woody vegetation less than 6m tall with intermediate flooding. These areas were identified in several of the washes the project right-of-way crosses. The riverine wetlands were classified as R4SBC which is characterized by intermittent flow with isolated pools in a streambed which has seasonal flooding. The area identified was the Little Colorado River floodplain. The project right-of-way crosses this area just north of Cameron.

No known wells, water lines, sewer lines, or septic systems occur within the project area.

3.3 AIR RESOURCES

3.3.1 Air Quality

The proposed project site is located in the Northern Arizona Intrastate Air Quality Control Region, which is identified as a Class II airshed. The site is currently in compliance with National Ambient Air Quality Standards set by the U.S. Environmental Protection Agency (USEPA 2016a). Attainment areas have no recorded violations of the federal health standards for ambient air quality. Non-attainment areas are those that do not meet National Ambient Air Quality Standards. The nearest non-attainment area is located in Gila County, approximately 105 miles south of the project area (ADEQ 2016b). Lands designated as Class I areas, which are afforded the highest level of protection from air pollutants; consist of national wilderness areas, parks, and wildlife refuges. The closest Federal Class I area is Grand Canyon National Park, which is located approximately 20 miles northwest of the project area (ADEQ 2016b).

The existing air quality in the project area is typical of undeveloped regions in the western United States. In general, air quality is good, though short-term degradation can result from vehicular traffic, dust storms, wildfires, and land-disturbing activities. Fugitive dust is generated by the erosive force of winds blowing across the area. Heavy summer traffic on US 89, in

addition to generally lighter traffic on US 160 can increase pollutant levels. Emissions from wildfires and the burning of vegetation and refuse can also reduce air quality and contribute to regional haze.

3.3.2 Visibility

Visibility is good to excellent in the project area. Occasionally, regional haze contributes to perceptible reductions in long-distance visibility. Such haze may emanate from a variety of sources typical of a rural environment such as smoke from burning vegetation and refuse, wildfires, and wind-blown and fugitive dust, usually from vehicles driving on dirt roads. Summer dust storms are sometimes severe and can result in substantial but temporary reductions to visibility, both locally and regionally.

3.3.3 Climate/Meteorology

The project area is located in a semi-arid region with annual precipitation that averages only 5.66 inches per year near Cameron and 6.40 inches per year near Tuba City (WRCC 2010). In summer, temperatures are generally in the upper 90s (degrees Fahrenheit) during the day and low 60s at night. In winter, temperatures range from the mid-40s during the day to the low 20s at night (WRCC 2010).

Meteorology plays an important role in the formation, transport, and dispersal of airborne pollution. During years with reduced precipitation, strong winds tend to increase the levels of wind-blown dust. During the colder winter months, temperature inversions often result in smoke accumulation in localized areas due to the increased use of wood-burning stoves and fireplaces in homes. In summer, slow-moving, high-pressure systems can contribute to regional haze forming over vast areas of the Southwest.

3.4 BIOLOGICAL RESOURCES

To assess the potential for special status species and their habitats, the project area was surveyed by a qualified EnviroSystems biologist. Prior to the field survey, a list of special-status species was obtained from the Navajo Nation Department of Fish and Wildlife (NNDFW) and the available literature was reviewed. The results of the field survey and analysis of potential impacts to all special status species were documented in a Biological Evaluation (EnviroSystems 2016). The Biological Evaluation was submitted to NNDFW for review and concurrence of the findings and a Biological Resources Compliance Form was issued (Appendix A).

3.4.1 Vegetation

The dominant plant community throughout the project area is Great Basin Desertscrub (Brown 1994). The most common vegetation species observed during field surveys were saltbush (*Atriplex* spp.), broom snakeweed (*Gutierrezia sarothrae*), rubber rabbitbrush (*Ericameria nauseosa*), sagebrush (*Artemisia* spp.) and Cutler's Mormon tea (*Ephedra cutleri*). Other plants noted frequently during the survey include buckwheat (*Eriogonum* spp.), small-leaf globemallow (*Sphaeralcea parvifolia*), desert trumpet (*Eriogonum inflatum*), and desert lycium (*Lycium andersonii*). Bunchgrass species commonly observed include galleta grass (*Pleuraphis jamesii*), Indian rice grass (*Achnatherum hymenoides*), low woollygrass (*Dasyochloa pulchella*), and dropseed (*Sporobolus* spp.). Blackbrush (*Coleogyne ramosissima*) also occurred at the northern end of the project corridor. Semi-riparian vegetation exists where the corridor crosses the Little

Colorado River and Moenkopi Wash with vegetation mainly consisting of non-native salt cedar (*Tamarix ramosissima*); however, a single Fremont cottonwood (*Populus fremontii*) occurred near Tuba City. A complete list of plants detected in the survey area appears in Table 1.

Table 1. Plants Identified during the Biological Field Survey

Common Name	Scientific Name
Trees	
Fremont's cottonwood	<i>Populus fremontii</i>
Shrubs/Sub-shrubs	
rubber rabbitbrush	<i>Ericameria nauseosa</i>
big sagebrush	<i>Artemisia tridentata</i>
Bigelow sage	<i>Artemisia biglovii</i>
broom snakeweed	<i>Gutierrezia sarothrae</i>
four-wing saltbush	<i>Atriplex canescens</i>
shadscale	<i>Atriplex confertifolia</i>
saltbush	<i>Atriplex spp.</i>
cliff rose	<i>Purshia stansburiana</i>
blackbrush	<i>Coleogyne ramosissima</i>
black greasewood	<i>Sarcobatus vermiculatus</i>
Cutler's Mormon tea	<i>Ephedra cutleri</i>
crisp-leaf buckwheat	<i>Eriogonum corymbosum</i>
buckwheat	<i>Eriogonum sp.</i>
pale desert thorn	<i>Lycium pallidum</i>
fragrant sumac	<i>Rhus aromatica</i>
Forbs	
small-leaf globemallow	<i>Sphaeralcea parvifolia</i>
milkvetch	<i>Astragalus sp.</i>
popcorn flower	<i>Cryptantha nevadensis</i>
pigweeds	<i>Amaranthus spp.</i>
common cocklebur	<i>Xanthium strumarium</i>
rose heath	<i>Chaetopappa ericoides</i>
evening primrose	<i>Oenothera pallida</i>
woolly plantain	<i>Plantago patagonica</i>
milkweed	<i>Asclepias sp.</i>
sulfur-flower buckwheat	<i>Eriogonum umbellatum</i>
desert trumpet	<i>Eriogonum inflatum</i>
goosefoot	<i>Chenopodium spp.</i>
Cacti, Agave, & Succulents	
prickly pear cactus	<i>Opuntia spp.</i>
banana yucca	<i>Yucca bacata</i>
narrowleaf yucca	<i>Yucca angustissima</i>
rattail cholla	<i>Cylindropuntia whipplei</i>
Grasses	

Common Name	Scientific Name
black grama	<i>Bouteloua eriopoda</i>
sixweeks grama	<i>Bouteloua barbata</i>
James' galleta	<i>Pleuraphis jamesii</i>
Indian ricegrass	<i>Achnatherum hymenoides</i>
low woollygrass	<i>Dasyochloa pulchella</i>
Alkali sacaton	<i>Sporobolus airoides</i>
spike dropseed	<i>Sporobolus contractus</i>
sand dropseed	<i>Sporobolus cryptandrus</i>
Invasive Species	
Russian thistle	<i>Salsola tragus</i>
Russian olive	<i>Elaeagnus angustifolia</i>
mustard	<i>Brassica</i> sp.
salt cedar	<i>Tamarix</i> sp.
camelthorn	<i>Alhagi maurorum</i>
London rocket	<i>Sisymbrium irio</i>
lamb's quarter	<i>Chenopodium album</i>
silverleaf nightshade	<i>Solanum elaeagnifolium</i>
white horehound	<i>Marrubium vulgare</i>
redstem stork's bill	<i>Erodium cicutarium</i>
red brome	<i>Bormus madritensis</i>
halogeton	<i>Halogeton glomeratus</i>
fireweed	<i>Kochia scoparia</i>
Siberian elm	<i>Ulmus pumila</i>
mesquite	<i>Prosopis</i> sp.

3.4.2 Wildlife

The 36.19-mile sub-transmission line right-of-way and the surrounding vicinity provide habitat for a variety of mammals, reptiles, and birds. Black-tailed jackrabbit (*Lepus californicus*), desert cottontail (*Sylvilagus audubonii*), wild horse (*Equus ferus*), prairie falcon (*Falco mexicanus*), red-tail hawk (*Buteo jamaicensis*), common raven (*Corvus corax*), and a variety of small songbirds were detected in the project area. Burrows, tracks, and scat of several mammal species including coyote (*Canis latrans*), mule deer (*Odocoileus hemionus*), kangaroo rats (*Dipodomys* spp.), Wupatki pocket mouse (*Perognathus amplus*), and woodrat (*Neotoma* sp.) were also detected during the biological field survey. However, no prairie dog (*Cynomys* sp.) burrows or colonies were observed, suggesting that there would be no prey/habitat available for the black-footed ferret (*Mustela nigripes*). The biological field survey occurred early in the breeding season for migratory birds; however, no active nests were detected. A complete list of wildlife detected in the proposed project area appears in Table 2.

Table 2. Wildlife Sightings or Sign Identified during the Biological Field Survey

Common Name	Scientific Name
Birds	
prairie falcon	<i>Falco mexicanus</i>
red-tailed hawk	<i>Buteo jamaicensis</i>
common raven	<i>Corvus corax</i>
horned lark	<i>Eremophila alpestris</i>
black-throated sparrow	<i>Amphispiza bilineata</i>
chipping sparrow	<i>Spizella passerina</i>
Lincoln's sparrow	<i>Melospiza lincolnii</i>
white-crowned sparrow	<i>Zonotrichia leucophrys</i>
mourning dove	<i>Zenaida macroura</i>
mallard	<i>Anas platyrhynchos</i>
house finch	<i>Haemorhous mexicanus</i>
Say's phoebe	<i>Sayornis saya</i>
house sparrow	<i>Passer domesticus</i>
Eurasian collard dove	<i>Streptopelia decaocto</i>
Mammals	
blacktail jackrabbit	<i>Lepus californicus</i>
desert cottontail	<i>Sylvilagus audubonii</i>
Ord's kangaroo rat	<i>Dipodomys ordii</i>
woodrat	<i>Neotoma spp.</i>
Wupatki pocket mouse	<i>Perognathus amplus</i>
mule deer	<i>Odocoileus hemionus</i>
coyote	<i>Canis latrans</i>
wild horse	<i>Equus ferus</i>
Reptiles	
collard lizard	<i>Crotaphytus collaris</i>

3.4.3 Wildlife Sensitivity Area Designation

The entire Navajo Nation is divided into six types of wildlife areas (NNDFW 2008):

- Area 1 – Highly Sensitive Area,
- Area 2 – Moderately Sensitive Area,
- Area 3 – Less Sensitive Area,
- Area 4 – Community Development Area,
- Area 5 – Biological Preserve, and
- Area 6 – Recreation Area.

The 36.19-mile sub-transmission line right-of-way crosses several areas, including Areas 1, 2, 3, and 4. Area 1 contains the best habitat for endangered and rare plant, animal, and game species and the highest concentration of special status species on the Navajo Nation (NNDFW 2016a). Development in this area is restricted with allowances only when no other reasonable alternative outside the area is available (NNDFW 2008). Area 2 also has a high concentration of rare,

endangered, sensitive, and game species, but allows for development to ensure the habitats in Area 1 do not become fragmented (NNDFW 2008). Area 3 has a low and fragmented concentration of species of concern and provides “islands” of habitat (NNDFW 2008). Area 4 is designated as the community development area, such that the areas surrounding existing communities do not support habitat for species of concern and development can proceed without further biological evaluation (NNDFW 2008).

3.4.4 Species Analysis

According to the NNDFW consultation letter (NNDFW 2016a), and the USFWS IPaC lists there were a total of 29 wildlife and plant species of concern with potential to occur within the project vicinity. The existing literature was reviewed for each species in order to determine if each species and/or their habitat may be affected by permit renewal. The biological field survey was also used to verify potential habitat for each species. A total of 17 species were found to occur or have potential habitat within the existing right-of-way. The remaining 12 species were excluded from further analysis due to lack of habitat within the project area.

A biological field survey of approximately 89 acres was performed by EnviroSystems to determine the presence of any sensitive species and/or preferred habitat within the existing right-of-way and associated substations. A small buffer area surrounding the outer border of the right-of-way was also surveyed for the sole purpose of assuring that a thorough biological survey was conducted. EnviroSystems also consulted with NNDFW for raptor species that are known to occur within one mile of the project area. The results of the biological field survey and a finding of effect for each species of concern are presented in Table 3.

Table 3. Summary of Special-Status Species Analysis Findings

Scientific Name	Common Name	Habitat Presence in Project Area	Finding
Amphibians			
<i>Lithobates pipens</i>	Northern leopard frog	Permanent water is limited and may only occur near the water treatment facility south of Tuba City	No effect to the species or its habitat
Birds			
<i>Aquila chrysaetos</i>	Golden eagle	May provide foraging habitat in proximity to nesting features; no ground disturbance activities planned to impact available habitat	No effect to the species or its habitat
<i>Buteo regalis</i>	Ferruginous hawk	Near open scrublands and woodlands that may provide foraging sites, nesting substrate available outside project ROW	No effect to the species or its habitat
<i>Cinclus mexicanus</i>	American dipper	Permanent water is limited and may only occur near the water treatment facility south of Tuba City, but is unlikely to support this species	No effect to the species or its habitat
<i>Coccyzus americanus</i>	Western yellow-billed cuckoo	Permanent water is limited and may only occur near the water treatment facility south of Tuba City, but is unlikely to support this species	No effect to the species or its habitat

Scientific Name	Common Name	Habitat Presence in Project Area	Finding
<i>Dendroica petechia</i>	Yellow warbler	Riparian vegetation may be available in Moenkopi Wash, but no vegetation removed for proposed project	No effect to the species or its habitat
<i>Empidonax traillii eximius</i>	Southwestern willow flycatcher	Permanent water is limited and may only occur near the water treatment facility south of Tuba City, but is unlikely to support this species	No effect to the species or its habitat
<i>Falco peregrinus</i>	Peregrine falcon	Potential nesting and foraging habitat available nearby in LCR drainage and local buttes, but not within existing ROW	No effect to the species or its habitat
Mammals			
<i>Perognathus amplus</i>	Wupatki Arizona pocket mouse	Potential desertscrub habitat available throughout existing ROW, regular maintenance may cause minimal disturbance to low vegetation	May affect individuals, not likely to adversely affect species or its habitat
Plants			
<i>Amsonis peeblesii</i>	Peebles' blue-star	Potential desertscrub habitat available throughout existing ROW, no ground disturbance or vegetation removal beyond regular line maintenance	No effect to the species or its habitat
<i>Asclepias welshii</i>	Welsh's milkweed	Potential desertscrub habitat available throughout existing ROW, no ground disturbance or vegetation removal beyond regular line maintenance	No effect to the species or its habitat
<i>Astragalus beathii</i>	Beath's milkvetch	Potential desertscrub habitat available throughout existing ROW, no ground disturbance or vegetation removal beyond regular line maintenance	May affect individuals, not likely to adversely affect species or its habitat
<i>Errazurizia rotundata</i>	Round dunebroom	Potential desertscrub habitat available throughout existing ROW, no ground disturbance or vegetation removal beyond regular line maintenance	No effect to the species or its habitat
<i>Pediocactus peeblesianus fickeiseniae</i>	Fickeisen plains cactus	Potential habitat available is available near Cameron, where several individuals were observed outside of the existing ROW, no ground disturbance to occur to effect habitat	May affect individuals, not likely to adversely affect species or its habitat
<i>Puccinellia parishii</i>	Parish's alkali grass	Potential habitat occurs in Moenkopi wash and other small drainages, however no ground disturbance activities to affect habitat	No effect to the species or its habitat
Reptiles			
<i>Lampropeltis triangulum</i>	Milk snake	Potential habitat occurs throughout project area, no ground disturbance or vegetation removal beyond regular maintenance to affect habitat	No effect to the species or its habitat
<i>Thamnophis eques megalops</i>	Northern Mexican gartersnake	Potential habitat is very limited and may only occur in Moenkopi Wash, where no ground disturbance would occur	No effect to the species or its habitat

3.5 CULTURAL RESOURCES

The existing sub-transmission line was inventoried for cultural resources on two separate occasions over the past 11 years. In 2005 EnviroSystems surveyed all 35 miles of the line as well as areas around six existing substations on the Navajo Nation between Gray Mountain and Rare Metals (Lane and Neal 2006). This survey included a single 15-meter-wide/50-foot transect. Including the substations, the total acreage surveyed was 212.24. From June to August 2009, Logan Simpson (known as Logan Simpson Design at the time) surveyed the line on the Navajo Reservation between Gray Mountain and the Tuba City Substation (the portion concerning this document), as well as the section of line that trends north from Moenkopi Wash and through the Gap to the Powell Substation in Page (Whiting et al. 2012). The entire 50-foot-wide project corridor was surveyed by maintaining a single 15-m-wide/50-foot transect centered on the existing sub-transmission line structures.

Combined, the two inventories account for documentation of 14 archaeological sites, which are summarized in Table 4. Six sites are considered eligible to the National Register of Historic Places (National Register or NRHP) and eight were determined not eligible. The Navajo Nation Historic Preservation Department (NNHPD) Cultural Resources Compliance Form (CRCF) for the EnviroSystems survey is found in Appendix B, and the CRCF for the Logan Simpson inventory is in Appendix C.

The EnviroSystems inventory resulted in the documentation of one new site (AZ-K-58-21), three newly recorded segments of previously recorded US 89 (AZ I:3:10[ASM] and later AZ-K-53-4), one previously recorded prehistoric site (AZ-N-5-12), 20 isolated occurrences of cultural materials, and four in-use sites. Although Site AZ-K-53-4/AZ I:3:10(ASM) has been determined eligible for placement on the National Register, the three newly recorded segments were determined to be not eligible as non-contributing components to the overall eligibility of the site due to the lack of integrity of materials, workmanship, design, association, setting, and feeling. The other two sites were determined to be eligible to the National Register; all three sites were redocumented by Logan Simpson.

The Logan Simpson survey resulted in the documentation of eight new sites, six previously recorded sites, 23 isolated occurrences of cultural materials, and 12 in-use sites (two previously documented by EnviroSystems) between Gray Mountain and the Tuba City Substation. Newly recorded sites include the APS NE-5 69kV sub-transmission line (AZ-K-12-27), seven segments of old US Highway 160 (AZ-K-58-23), a concentration of mining features (AZ-K-59-14), an abandoned electrical substation (AZ-N-5-39), an abandoned gas station (AZ-N-5-40), a prehistoric petroglyph panel (AZ-N-12-54), a trash dump with features (AZ-N-12-55), and a dirt road (AZ-N-12-56). Documented previously recorded sites include five segments of US 89 (AZ-K-53-4, EnviroSystems documented US 89 under the existing Arizona State Museum site number AZ I:3:10[ASM]), an Anasazi temporary camp (AZ-K-58-24) originally documented by EnviroSystems as Site AZ-K-58-21, a prehistoric artifact scatter and abandoned Navajo homesite (AZ-N-5-12) that had been revisited by EnviroSystems, an Anasazi artifact scatter (AZ-N-5-41), an abandoned Navajo homesite (AZ-N-12-12), and a road (AZ-N-12-13).

The five segments of US 89 (AZ-K-53-4) documented by Logan Simpson were considered to contribute to the overall eligibility of the highway (even though three of the five segments were

in part the same as those documented by EnviroSystems and found to be ineligible). National Register-eligible sites include AZ-K-12-27 (Criterion A), AZ-K-58-23 (Criterion D), AZ-K-58-24 (documented by EnviroSystems as AZ-K-58-21; Criterion D), AZ-N-5-12 (Criterion D), and AZ-N-12-54 (Criterion D). The eight National Register-ineligible sites are less than 50 years old and/or fail to meet National Register Criteria A through D.

The 43 documented isolated occurrences are not considered significant, and their research potential has been exhausted by the survey-level recording. The 14 in-use sites within the project right-of-way include 7 homesites, 2 trash dumps, 2 corrals, 1 agricultural field, a series of fallow and active cornfields near Moenkopi Wash, and 1 ATV/motorcycle track.

Table 4. Summary of Archaeological Sites Documented during the 2005 and 2009 Inventories

Site Number	Site Type	Cultural Affiliation	National Register Status	Comments
Previously Recorded Sites				
AZ-K-53-4	U.S. Highway 89	Euroamerican (1911–present)	Eligible	5 segments
AZ-N-5-12	Lithic scatter & abandoned Navajo homesite	Unknown prehistoric; Navajo (1960–1980)	Eligible	Poles 54/2 & 54/3 in boundary
AZ-N-5-41	Artifact scatter	Anasazi (A.D. 1070–1150)	Not Eligible	Pole 61/10 in boundary
AZ-N-12-12	Abandoned Navajo homesite	Navajo (1960s–1980s)	Not Eligible	Pole 51/6 in boundary
AZ-N-12-13	Road	Navajo/Unknown	Not Eligible	–
Newly Recorded Sites				
AZ-K-12-27	APS NE-5 line	Euroamerican	Eligible	–
AZ-K-58-21/24	Artifact scatter & features	Anasazi (A.D. 1075–1125); Navajo (post–A.D. 1500)	Eligible	Pole 73/12 in boundary
AZ-K-58-23	old U.S. Highway 160/ Navajo Route 6731	Euroamerican (1926–present)	Eligible	7 segments
AZ-K-59-14	Mining features	Euroamerican/Unknown	Not Eligible	Poles 65/1–65/3 in boundary
AZ-N-5-39	Abandoned electrical substation	Euroamerican/Unknown	Not Eligible	Pole 59/9 in boundary
AZ-N-5-40	Abandoned gas station	Euroamerican (1911–1950s)	Not Eligible	
AZ-N-12-54	Petroglyph	Unknown prehistoric	Undetermined (treated as Eligible)	Pole 45/5 in boundary
AZ-N-12-55	Trash dump & features	Navajo (1960s–present)	Not Eligible	Pole 51/3 in boundary
AZ-N-12-56	Road	Euroamerican (1920–present)	Not Eligible	–

3.6 SOCIOECONOMIC CONDITIONS

The project area is located in Coconino County, Arizona within the Navajo Nation. The sub-transmission line crosses through the Cameron, Coalmine Canyon, and Tuba City chapters. Development, particularly in the Cameron Chapter area, is ongoing and includes residential, commercial, community, educational, agricultural, and recreational projects (Cameron Chapter 2016). All chapters are part of the Bureau of Indian Affairs (BIA) Western Navajo Agency and are designated as part of the Bennett Freeze area. The Cameron Chapter has a total population of 1,231 and covers approximately 238,523 acres in a remote and relatively isolated area in the southwest corner of the Navajo Nation. Commercial and/or industrial developments are very limited. The major employers include the Cameron Trading Post with 75 employees and the Cameron Chapter House with 11 employees. Local natural resources include wood, uranium, and water from the Little Colorado River (Cameron Chapter website 2005:<http://cameron.nndes.org>). The Tuba City Chapter covers approximately 237,557 acres. Historically, it was ranked as the second largest chapter in terms of population. Tuba City serves as an administrative center for Navajo Nation government program services, the Indian Health Service, BIA, and other organizations. This concentration of government services has created a hub for commercial establishments and activities. The Coalmine Canyon Chapter is very remote and has limited development and services as well as any information regarding population and employment.

3.6.1 Environmental Justice

Executive Order 12898, dated February 11, 1994, established the requirement to address environmental justice concerns within the context of federal agency operations. Environmental justice concerns include any adverse effect on minority and low-income populations within a given study area that result from the Proposed Action. Key indicators reviewed for environmental justice include minority populations, poverty rates, and income within a community. Table 5 shows the race and ethnicity of the population in the project area and vicinity according to the 2010 Census (USCB 2010).

Table 5. Socioeconomic Composition of the Project Vicinity in Comparison to the U.S., State, County, and Navajo Nation

Area	Race (Percentages)						Poverty	Income	Unemployment
	White	African American	American Indian or Alaska Native	Asian	Pacific Islander	Some Other Race	% Individuals in Poverty	Per Capita Income	Unemployment Rate (%)
United States ¹	72.4	12.6	0.9	4.8	0.2	9.1	15.6	28,555	9.2
Arizona ¹	73.0	4.1	4.6	2.8	0.2	15.3	18.2	25,537	9.9
Coconino County ¹	61.7	1.2	27.3	1.4	0.1	8.3	23.8	23,459	9.7
Navajo Nation ¹	2.0	0	96.0	0	0	2.0	37.7	10,547	15.6

(1) Based on data from the U.S. Census Bureau, Census 2010 Summary

Table 5 also includes the percentage of individuals and families living in poverty in and surrounding the project area. According to the 2010 Census, 15.6% of the population lived in poverty in the United States, whereas the Navajo Nation (37.7%) has a much higher percentage.

Navajo Nation also has substantially lower per capita incomes (\$10,547) than the state of Arizona (\$25,537) and the United States (\$28,555).

3.6.2 Indian Trust Assets

Indian Trust Assets (ITAs) are legal interests in assets held in trust by the United States for Native American tribes or individual Native Americans. Assets are anything owned that have monetary value. The asset need not be owned outright, but could be some other type of property interest such as a lease or right of use. Assets can be real property, physical assets, or intangible property rights. The United States has an Indian Trust responsibility to protect and maintain rights reserved or granted to Native American tribes or individuals by treaties, statutes, and Executive Orders (EOs). The trust responsibility requires that all federal agencies take all actions reasonably necessary to protect trust assets. Trust assets include but are not limited to land resources, water rights, minerals, and hunting and fishing rights. With the exception of a small area of private land near Cameron and a 1-mile stretch crossing the Hopi Reservation, the remainder of the project area is located on Navajo Nation Tribal lands.

3.7 HAZARDOUS MATERIALS AND SOLID WASTE

There are no known landfills, or hazardous waste sites adjacent to the project area. Additionally, there are no underground or aboveground petroleum storage tanks within the project area (ADEQ 2016b). No indications of recognized environmental conditions or solid waste dumping were observed at the time of the survey.

About a ¼ mile southeast of the project area's end on the south side of US 160 is a sizeable mound of tailings ponds associated with a uranium mine and mill. The area is fenced and is currently undergoing cleanup as part of the Uranium Mill Tailings Remediation Act Project. The source of contamination was the residual tailings remaining after the uranium was extracted during the milling process.

3.8 RESOURCE/LAND USE PATTERNS

The project area is located on variable terrain with evidence of historic and current livestock grazing. The site is not suitable for timber management with a limited availability of woody trees for fuelwood collection.

3.8.1 Agriculture

A previously active agricultural field containing squash and corn is located within the project corridor just 4 meters south of the US 160 right-of-way fence, north of Moenkopi Wash and several miles southeast of Tuba City. In addition, a series of fallow and active cornfields are located on the north side of Moenkopi Wash less than a mile southwest from the first described field. Many of the fields contain silt berms and waffled areas used to trap irrigated water flowing from Moenkopi Wash. The northwestern edge of these fields is fenced and generally follows an existing graded dirt road. The sub-transmission line crosses some of these fields. Livestock grazing, including cattle, sheep, and goats, occurs throughout the surrounding area and occasional livestock use the project area. Based on soil descriptions and visual observation, rangeland conditions appear fair to poor. Grazing activities are regulated by the local chapter's Grazing Committee.

3.8.2 Mining

No critical mineral resources are located within the project corridor. Uranium deposits are known to exist east of the project corridor's northern termination point. A number of abandoned buildings associated with past mining activities involving these uranium deposits are also located in this area near the northeast end of the project corridor. This site is known as Rare Metals and covers approximately 105 acres, which provided limited employee housing for those working at the Tuba City Mill. These facilities were built in 1955/56 by Rare Metals Corporation of America to provide uranium to the United States government. Rare Metals Corporation merged with El Paso Natural Gas Company in 1962 and operated the mill until 1966. None of the Rare Metals site is located within the project right-of-way.

A number of borrow and gravel pits occur along the project right-of-way. The borrow pits were used to gather fill material needed to construct, upgrade, and maintain US 89 and US 160. The gravel pits are also used for road maintenance purposes. No currently active borrow or gravel pits occur within the project corridor.

3.8.3 Transportation Use Network

For the most part, the project right-of-way parallels US 89 and US 160. The main exception is south of the junction between the two highways, where the sub-transmission line cuts away from US 89 roughly 5 miles south from the junction and heads northeast, paralleling BIA Road 6731 and joining US 160 roughly 6½ miles east of the junction. Along its entire route, the project right-of-way crosses US 89 two times and US 160 three times. Other than these crossings, the sub-transmission line runs outside the highway rights-of-way when paralleling them. The sub-transmission line also crosses a number of paved roads in the Tuba City area and a number of graveled (e.g., BIA 6731) and dirt, secondary roads along the project area.

3.9 OTHER VALUES

3.9.1 Public Health and Safety

A significant amount of electricity is transported along this 69kV sub-transmission line, with greater concentrations housed at the substations. Those poles with substations have signs that provide a warning of their high voltage content, and are fenced to restrict public access. The sub-transmission lines are approximately 50-60 feet overhead, and supported by 65-foot wooden poles. The substations are also pole mounted approximately 20-40 feet above the ground surface, and fenced. A number of the poles are adjacent to US 89 and US 160.

3.9.2 Visual Settings

The terrain surrounding the project corridor is dominated by dissected sandstone formations, mesas, and alluvial terraces. Vegetation is sparse and consists primarily of desert shrub communities. The most sensitive viewsheds are usually from transportation corridors such as US 89 and US 160. These travelways represent linear concentrations of public viewing. A viewshed analysis using ArcGIS revealed that most of the project area is visible from US 89 or US 160, along with other utility lines, including two larger transmission lines. The overhead sub-transmission line and associated poles and substations dominate the visual setting of the immediate project corridor. Because the project area viewshed varies in its distance from the

highways, the distance zone varies from “Immediate Foreground” (less than 300 feet) to “Background” (more than 4 miles; USDA 1995).

4.0 ENVIRONMENTAL CONSEQUENCES

4.1 LAND RESOURCES

No Action Alternative – Direct, Indirect, and Cumulative Effects

Under the No Action Alternative, the APS permit for the existing 36.19-mile sub-transmission line, right-of-way, and associated substations would not be renewed, so that the land would remain as is. Without the easement permit renewal, APS’s ability to operate and maintain the Tuba City 69kV sub-transmission line would be limited. The Navajo Nation could also require APS to remove their facilities from Navajo Tribal lands. This would result in reduced or loss of access to electrical power for the communities of Cameron, Tuba City, and other outlying areas. As a result, no direct, indirect, or cumulative effects to land resources within the project area would occur.

Proposed Action – Direct, Indirect, and Cumulative Effects

The proposed project is for right-of-way easement renewal only. There are no plans for additional development along the right-of-way that could potentially impact land resources. All maintenance of the existing sub-transmission line, substations, and appurtenant facilities would involve the use of existing roads. While vehicle travel on such roads to access the right-of-way could result in some soil compaction and erosion, impacts would be minimal and only occur on previously disturbed areas. In addition, soil and resource conservation and protection measures, including weed control, applied to the land covered by the right-of-way would reduce adverse impacts to land resources. APS would also engage in fire prevention measures on the easement areas, which would further reduce the potential for soil erosion.

4.2 WATER RESOURCES

No Action Alternative – Direct, Indirect, and Cumulative Effects

Under the No Action Alternative, the APS permit for the existing 36.19-mile sub-transmission line, right-of-way, and associated substations would not be renewed, so that the land would remain as is. Without the easement permit renewal, APS’s ability to operate and maintain the Tuba City 69kV sub-transmission line would be limited. The Navajo Nation could also require APS to remove their facilities from Navajo Tribal lands. This would result in reduced or loss of access to electrical power for the communities of Cameron, Tuba City, and other outlying areas. As a result, no direct, indirect, or cumulative effects to water resources within the project area would occur.

Proposed Action – Direct, Indirect, and Cumulative Effects

No adverse effects to surface, ground, or drinking water resources are anticipated. While the project right-of-way crosses major drainages including the Little Colorado River, Five Mile Wash, Moenkopi Wash, Pasture Canyon, and a number of smaller unnamed drainages, the overhead sub-transmission line completely straddles all drainages along the project corridor. All the identified wetlands occur within these drainages where the sub-transmission line would span the area. As a result, no maintenance activities would occur in these drainages that could impact

water resources. The project area does not occur within any special flood hazard areas, therefore no floodplain impacts would occur. As a result, no direct, indirect, or cumulative effects to water resources within the project area would occur.

4.3 AIR RESOURCES

No Action Alternative – Direct, Indirect, and Cumulative Effects

Under the No Action Alternative, the APS permit for the existing 36.19-mile sub-transmission line, right-of-way, and associated substations would not be renewed, so that the land would remain as is. Without the easement permit renewal, APS's ability to operate and maintain the Tuba City 69kV sub-transmission line would be limited. The Navajo Nation could also require APS to remove their facilities from Navajo Tribal lands. This would result in reduced or loss of access to electrical power for the communities of Cameron, Tuba City, and other outlying areas. As a result, no direct, indirect, or cumulative effects to air resources within the project area would occur.

Proposed Action – Direct, Indirect, and Cumulative Effects

The Proposed Action is for right-of-way easement renewal only. There are no plans for additional development along the right-of-way that could potentially impact air resources. Continued operation and maintenance of the Tuba City 69kV sub-transmission line would not contribute to air pollution in any way.

4.4 BIOLOGICAL RESOURCES

No Action Alternative – Direct, Indirect, and Cumulative Effects

Under the No Action Alternative, the APS permit for the existing 36.19-mile sub-transmission line, right-of-way, and associated substations would not be renewed, so that the land would remain as is. Without the easement permit renewal, APS's ability to operate and maintain the Tuba City 69kV sub-transmission line would be limited. The Navajo Nation could also require APS to remove their facilities from Navajo Tribal lands. This would result in reduced or loss access to electrical power for the communities of Cameron, Tuba City, and other outlying areas. As a result, no direct, indirect, or cumulative effects to biological resources within the project area would occur.

Proposed Action – Direct, Indirect, and Cumulative Effects

The Proposed Action is for right-of-way easement renewal only. There are no plans for additional development along the right-of-way that could potentially impact biological resources. While suitable habitat exists for a number of special status plant species within and adjacent to the project right-of-way, if present, such species would tend to occur in the undisturbed areas. Since no new construction is proposed and all maintenance activities, including travel by vehicles to access the sub-transmission line, substations, and appurtenant facilities, would occur on previously disturbed surfaces, impacts to vegetation (including special status plant species) would be minimal to nonexistent. Pre-construction surveys following the established species protocol is recommended prior to future construction projects for the Fickeisen plains cactus and Beath milkvetch in the areas surrounding Cameron.

Impacts to wildlife would also be minimal, as no new construction activities are proposed. While a few small animals such as lizards, snakes, and rodents, could be killed by vehicles accessing the sub-transmission line for maintenance purposes, more mobile animals, such as birds, antelope, and rabbits would move out of harm's way during maintenance activities within the project right-of-way. It is possible that during spring migration (mainly the month of May but extending to June 15), migrating southwestern willow flycatchers may use tamarisk thickets within those portions of the project corridor crossing the Little Colorado River and Moenkopi Wash. Restricting any maintenance activities that would disturb these tamarisk thickets to times outside the migration period (i.e., any time outside of May 1-June 15) would eliminate the potential for such impacts. The results of the field investigation and Biological Evaluation (EnviroSystems 2016) concluded that the Proposed Action would have no effects on any special status species or habitat.

EnviroSystems recommends the following conservation management, mitigation measures, and BMPs during maintenance and operation activities to prevent the establishment of non-native plant species, and reduce any potential impacts to special status species:

- Operation and maintenance equipment including trucks, bulldozers, and excavators (no ATVs or passenger vehicles) would be kept free of noxious/invasive weed species by washing equipment prior to entering the construction site, prior to moving equipment from infested to non-infested areas of the project, and prior to departing the site.
- Major operational activities should be conducted outside of areas where known populations of invasive species exist.
- Where contact with a population of invasive weeds is unavoidable, APS would ensure that the population is treated prior to any activity in the area.
- All operation /maintenance activities would be confined to the established right-of-way area. The use of best management practices during construction/maintenance would be implemented to limit effects to land, water (surface and ground), and biological resources.
- Any major dust generated during operation and maintenance would be controlled by watering and/or other standard dust abatement measures before, during, and after construction/maintenance. Basic vehicular traffic on ROW roads would not need to be mitigated.
- All trash, food items, and other solid waste would be contained in closed containers and removed daily.
- All future construction would occur outside of the Migratory Bird breeding season (March 15-August 15) or pre-action surveys to determine nesting will be required and completed. The surveys would include a 50-meter (165-foot) buffer outside the edge of disturbance. Removal or disturbance of nesting habitat (i.e. trees and shrubs) will not be allowed within 50 meters of an active nest at any point in time beginning from the avian egg incubation period and lasting until fledging is complete (juveniles fly from the nest and do not return).
- Future construction in the Cameron area would require pre-construction protocol-level surveys for special status plant species and follow the Navajo Nation Natural Heritage Program 200-foot buffer around established plants.

- All operation and maintenance activities will follow the Navajo Nation Golden and Bald Eagle Nest Protection Regulations including potential seasonal restrictions between February 1 and July 15, if an occupied nest is located less than one mile from the right-of-way.
- All operation and maintenance activities will follow the Ferruginous Hawk Management Guidelines, including limited seasonal restrictions between March 1 and July 31, if an occupied nest is within one mile of the right-of-way.
- Any new power line construction within Raptor Sensitive Areas (R.S.A.s) will abide by Raptor Electrocutation Prevention Regulations that include raptor-safe power pole design standards to protect golden eagles, bald eagles, and ferruginous hawks

With adherence to the above mitigation/conservation measures, no substantial direct, indirect, or cumulative effects to biological resources are anticipated from the Proposed Action.

4.5 CULTURAL RESOURCES

No Action Alternative – Direct, Indirect, and Cumulative Effects

Under the No Action Alternative, the APS permit for the existing 36.19-mile sub-transmission line, right-of-way, and associated substations would not be renewed, so that the land would remain as is. Without the easement permit renewal, APS's ability to operate and maintain the Tuba City 69kV sub-transmission line would be limited. The Navajo Nation could also require APS to remove their facilities from Navajo Tribal lands. This would result in reduced or loss of access to electrical power for the communities of Cameron, Tuba City, and other outlying areas. As a result, no direct, indirect, or cumulative effects to cultural resources within the project area would occur.

Proposed Action – Direct, Indirect, and Cumulative Effects

The two recent cultural resources inventories (Lane and Neal 2006; Whiting et al. 2012) conducted along the APS 69kV sub-transmission line between the Navajo Nation boundary north of Gray Mountain and Tuba City yielded six National Register-eligible sites (AZ-K-12-27, AZ-K-53-4, AZ-K-58-23, AZ-K-58-21/AZ-K-58-24, AZ-N-5-12, and AZ-N-12-54), 43 isolated occurrences of cultural material, and 14 in-use sites. The boundaries of four of the six (excluding AZ-K-12-27 [the 69kV line itself] and AZ-K-53-4 [US 89]) National Register-eligible sites should be flagged prior to ground-disturbing pole replacement or maintenance activities, and vehicular access should be confined to existing roads within the marked sites areas. Only hand cutting of vegetation would be allowed within the buffered area of the sites, and cut material is to be scattered not piled in the project ROW. Of the eligible sites, three (AZ-L-58-21/24, AZ-N-5-12, AZ-N-12-54) contain poles within their boundaries and one site (AZ-K-12-27) is the line itself (see Table 4 above). If poles need to be replaced within the three sites, a Navajo Nation-permitted archaeologist should inspect the pole locations prior to construction to ensure that there would be no adverse effects from pole replacement or access to the poles.

Site AZ-K-12-27 is the APS NE-5 69kV powerline recommended eligible by Logan Simpson under Criterion A for its association with the electrification and development of northern Arizona. Logan Simpson states, "While the transmission line has been modernized and lacks integrity of materials and workmanship, it still retains integrity of location, design, setting (in most areas), feeling, and association." Transmission lines require periodic maintenance and

improvement to retain their functionality. It is argued that the NE-5 line retains sufficient integrity to convey its historic appearance and function. The APS NE-5 line is not recommended eligible for listing under any other criteria.” Therefore, since the line lacks integrity of materials and workmanship due to modernization and prior maintenance, pole replacement would not adversely affect the existing line which has been subject to numerous improvements through time. The 43 isolated occurrence and eight National Register-ineligible sites require no further management considerations, and all 14 in-use sites should be avoided with vehicles confined to existing and in-use roadways. With the implementation of these mitigation measures no direct, indirect, or cumulative effects to cultural resources within the project area would occur.

4.6 SOCIOECONOMIC CONDITIONS

No Action Alternative – Direct, Indirect, and Cumulative Effects

Under the No Action Alternative, the APS permit for the existing 36.19-mile sub-transmission line, right-of-way, and associated substations would not be renewed, so that the land would remain as is. Without the easement permit renewal, APS’s ability to operate and maintain the Tuba City 69kV sub-transmission line would be limited. The Navajo Nation could also require APS to remove their facilities from Navajo Tribal lands. This would result in reduced or loss of access to electrical power for the communities of Cameron, Tuba City, and other outlying areas, which would significantly affect minority and low-income populations. No other direct, indirect, or cumulative effects to socioeconomic conditions would occur.

Proposed Action – Direct, Indirect, and Cumulative Effects

The sub-transmission line is the only primary source of electricity serving residences and businesses in Cameron, Tuba City, and the surrounding area. The proposed action would allow for such services to continue and the areas served to maintain their current power consumption levels (with possible growth in the future). Local businesses would remain operational, providing jobs and services to those living in the area, and homes would continue to be provided electricity necessary for everyday activities (lighting, heating, refrigeration, etc.).

Since the entire project corridor crosses through areas with high-density minority populations and low-income levels, no disproportionate adverse impacts would occur to these populations from implementing the Proposed Action. In fact, the jobs and services made possible from a reliable electricity source are important for the well-being of minority and low-income populations in the project area.

4.7 HAZARDOUS MATERIALS AND SOLID WASTE

No Action Alternative – Direct, Indirect, and Cumulative Effects

Under the No Action Alternative, the APS permit for the existing 36.19-mile sub-transmission line, right-of-way, and associated substations would not be renewed, so that the land would remain as is. Without the easement permit renewal, APS’s ability to operate and maintain the Tuba City 69kV sub-transmission line would be limited. The Navajo Nation could also require APS to remove their facilities from Navajo Tribal lands. This would result in reduced or loss of access to electrical power for the communities of Cameron, Tuba City, and other outlying areas. As a result, no direct, indirect, or cumulative effects related to hazardous materials or solid waste would occur.

Proposed Action – Direct, Indirect, and Cumulative Effects

No hazardous materials occur within the project corridor. The uranium cleanup near Rare Metals is outside the project right-of-way. Maintenance and operation of the sub-transmission line may generate small amounts of solid waste and waste oils. These materials will be disposed of in accordance with tribal regulations. No direct, indirect, or cumulative impacts are anticipated in relation to hazardous materials and solid waste.

4.8 RESOURCE/LAND USE PATTERNS**No Action Alternative – Direct, Indirect, and Cumulative Effects**

Under the No Action Alternative, the APS permit for the existing 36.19-mile sub-transmission line, right-of-way, and associated substations would not be renewed, so that the land would remain as is. Without the easement permit renewal, APS's ability to operate and maintain the Tuba City 69kV sub-transmission line would be limited. The Navajo Nation could also require APS to remove their facilities from Navajo Tribal lands. This would result in reduced or loss of access to electrical power for the communities of Cameron, Tuba City, and other outlying areas. As a result, no direct, indirect, or cumulative effects to resource/land use patterns would occur.

Proposed Action – Direct, Indirect, and Cumulative Effects

The two small agricultural fields currently identified as partially within or directly adjacent to the project corridor would be avoided during maintenance activities where possible; that is, no new disturbance will be introduced and access will be kept to existing roads. It is anticipated, however, that any potential inadvertent damage to the crops and associated land would be negligible.

Due to the low speeds adhered to by the drivers of maintenance vehicles when accessing the project corridor, accidents involving livestock would be highly unlikely.

No active mines are currently located within the project corridor, and the potential for new mining is low, therefore, the proposed project would have no impacts to mining.

Even though the sub-transmission line crosses US 89 and US 160 in a total of five places (as well as crossing various smaller roads), it is entirely overhead, and continued operation would not impact travel on such routes. Maintaining and operating the sub-transmission line would involve vehicles traveling between the project right-of-way and the local transportation system, which should not cause any significant disruption in traffic patterns. The use of maintenance vehicles would be infrequent, and drivers would use all precautions to ensure that the flow of traffic would not be disrupted when traveling between existing roadways and the project corridor. Therefore, no direct, indirect, and cumulative impacts to resource and land use patterns are expected.

4.9 OTHER VALUES**No Action Alternative – Direct, Indirect, and Cumulative Effects**

Under the No Action Alternative, the APS permit for the existing 36.19-mile sub-transmission line, right-of-way, and associated substations would not be renewed, so that the land would remain as is. Without the easement permit renewal, APS's ability to operate and maintain the

Tuba City 69kV sub-transmission line would be limited. The Navajo Nation could also require APS to remove their facilities from Navajo Tribal lands. This would result in reduced or loss of access to electrical power for the communities of Cameron, Tuba City, and other outlying areas. The loss of reliable electrical power sources may directly impact public health and safety in these communities. No indirect, or cumulative effects to public health and safety or visual settings would occur.

Proposed Action – Direct, Indirect, and Cumulative Effects

The Proposed Action is not expected to pose additional public health or safety risks. The sub-transmission line is approximately 50-60 feet overhead, and supported by 65-foot wooden poles. The substations are also pole mounted approximately 20-40 feet above the ground surface, and fenced, reducing public access. These structures have been in place for many years and pose no new public health or safety risks. No indirect, or cumulative effects to public health and safety are anticipated.

The overhead sub-transmission line and associated poles and substations dominate the visual setting of the immediate project corridor. Because the project area viewshed varies in its distance from the highways, the distance zone varies from “Immediate Foreground” (less than 300 feet) “Background” (more than 4 miles; USDA 1995). However, these facilities have been in place for many years, and the visual setting would now be affected by the permit renewal or ongoing maintenance and operation. No indirect, or cumulative effects to visual setting is anticipated.

5.0 CONCLUSIONS REGARDING SIGNIFICANCE

The requested sub-transmission line right-of-way permit renewal by APS will not significantly impact any natural or cultural resources within or around the project area. No significant historic properties, traditional cultural places, or religious sites were identified during the previous cultural resources inventories that cannot be avoided by all current operation and maintenance activities. One federally listed and one tribally listed plant species were found near the existing right-of-way; however, as the Proposed Action only includes a permit renewal and no new construction activities, these species would not be negatively impacted. No other listed species of concern were identified within the project area. Any long-term environmental impacts resulting from the project are likely to be extremely minimal, however none are anticipated. No additional visual impacts will result from continued use of the existing sub-transmission line, and there are no effects to air and water quality. The benefits to the community that would result from the project remaining in operation are major, and the Proposed Action would allow for the supply of electricity to continue and areas served to maintain their current power consumption levels (with possible growth in the future). Local businesses would remain operational, providing jobs and services to those living in the area, and homes would continue to be provided electricity necessary for everyday activities. Therefore, the project is likely to have continued, major beneficial economic and sociocultural impacts and a negligible adverse environmental impact.

6.0 CONSULTATION AND COORDINATION

6.1 PERSONNEL

EnviroSystems Management, Inc. of Flagstaff, Arizona, prepared this EA including the following personnel:

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- Keith Pohs, Project Manager
- Mark Daniels, Senior Ecologist
- Jean Marie Rieck, Biologist/Environmental Planner
- Alysse Lerager, NEPA Specialist
- Lynn A. Neal, Senior Archaeologist
- Travis Ellison, GIS Analyst

6.2 DEPARTMENTAL CONSULTATION AND COORDINATION

The following individuals and tribal offices were consulted during the development of the biological and cultural resource reports that contributed to the content of this EA:

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8.0 SIGNATURE OF DOCUMENT PREPARER

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APPENDIX A

Biological Resources Compliance Form

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

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

PROJECT NAME & NO.: Tuba City 69kV Sub-Transmission Line Permit Renewal

DESCRIPTION: APS proposes to renew the right-of-way for the Tuba City 69kV sub-transmission line. The ROW is 36.19 miles in length and 20 ft. wide (88 acres).

LOCATION: Tuba City, Coalmine Mesa, & Cameron Chapters, Coconino County, Arizona

REPRESENTATIVE: Sarah Hurteau, EnviroSystems Management, Inc. for Arizona Public Service

ACTION AGENCY: Bureau of Indian Affairs and Navajo Nation

B.R. REPORT TITLE / DATE / PREPARER: Tuba City 69kV Sub-Transmission Line Permit Renewal/18 JUL 2016/Sarah Hurteau

SIGNIFICANT BIOLOGICAL RESOURCES FOUND: Areas 1-4.

POTENTIAL IMPACTS

NESL SPECIES POTENTIALLY IMPACTED: NA

FEDERALLY-LISTED SPECIES AFFECTED: NA

OTHER SIGNIFICANT IMPACTS TO BIOLOGICAL RESOURCES: NA

AVOIDANCE / MITIGATION MEASURES: [1] APS will follow the conservation measures outlined for migratory birds and the Fickeisen Pincushion Cactus (*Pediocactus peeblesianus* var. *fickeiseniae*).

CONDITIONS OF COMPLIANCE*: NA

FORM PREPARED BY / DATE: Pamela A. Kyselka/12 SEP 2016

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

9/12/16

*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

APPENDIX B

EnviroSystems Cultural Resources Compliance Form

CULTURAL RESOURCES COMPLIANCE FORM
HISTORIC PRESERVATION DEPARTMENT
PO BOX 4950
WINDOW ROCK, ARIZONA 86515

ROUTING: COPIES TO

AZ

SHPO

REAL PROPERTY MGT/330

XX

ESMI

NNHPD NO. **HPD-06-429**

OTHER PROJECT NO.

ESMI-05-1103

PROJECT TITLE: Cultural Resources Inventory of the 36-Mile APS Tuba City 69KV Powerline Proposed for Permit Renewal between Gray Mountain and Rare Metals, Coconino County, Arizona

LEAD AGENCY: Arizona Public Service Company

SPONSOR: Arizona Public Service Company, PO Box 53933, Mail Station 3016, Phoenix, Arizona 82072-3933

PROJECT DESCRIPTION: The proposed undertaking will involve a permit renewal for the Tuba City 69kV - powerline. The length of the powerline is 36.19-miles (191,098-ft), 35-miles (184,917-ft) of which is on Navajo Nation Land. The right-of-way is 20-ft wide. The project also includes five existing substations and a capacitor bank. No ground disturbing activities will occur.

LAND STATUS: Tribal Trust

CHAPTER: Cameron, Bodaway-Gap, Tuba City

LOCATION: T28N, R9E - Sec. 3, 4, 9, 16, 20, 21, 29 & 32; T29N, R9E - Sec. 2, 11, 14, 23, 27, 33 & 34; T30N, R9E - Sec. 1, 2, 11, 14, 23, 26, & 35; T31N, R9E - Sec. 36; T31N, R10E - Sec. 1, 2, 10, 11, 15, 16, 20, 21 & 29-31; T32N, R10E - Sec. 36; T32N, R11E - Sec. 23, 24, 26-29, 31 & 32; T32N, R12E - Sec. 18 & 19; Cameron South, Cameron North, Shadow Mountain Well, Moenave SE, Moenkopi & Tuba City Quadrangles; Coconino County, Arizona G&SRPM&B

PROJECT ARCHAEOLOGIST: Elizabeth Lane & Lynn A. Neal

NAVAJO ANTIQUITIES PERMIT NO.: AB-1

DATE INSPECTED: July 19-20, 2005 & August 15, 2005

DATE OF REPORT: July 31, 2006

TOTAL ACREAGE INSPECTED: 212.2 ac

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

LIST OF CULTURAL RESOURCES FOUND:

(3) Sites (AZ-K-58-21, AZ-N-5-12, AZ-I-3:10); (4) In-Use Sites (IUS 1-4) & (20) Isolated Occurrences (IO 1-20)

LIST OF ELIGIBLE PROPERTIES:

(2) Sites (AZ-K-58-21, AZ-N-5-12)

LIST OF NON-ELIGIBLE PROPERTIES:

(1) Site (AZ-I-3:10); (4) IUS & (20) IO

LIST OF ARCHAEOLOGICAL RESOURCES:

(2) Sites (AZ-K-58-21, AZ-N-5-12)

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

All future maintenance/ground disturbing activities within the powerline right-of-way will be done so with consultation with the Navajo Nation Historic Preservation Department.

Sites AZ-K-58-21 & AZ-N-5-12:

1. Sites will be flagged by a qualified archaeologist prior to any ground disturbing activities.
2. No vehicular traffic will be allowed within site boundaries.
3. All power poles/cables, etc will be hand carried across the site.
4. No new power poles will be placed within site boundaries.
5. All construction activities within 50-ft of site boundaries will be monitored by a qualified archaeologist.
6. Markers will be placed along the access road to assure future maintenance patrols do not drive through site.

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) 871-7132.

FORM PREPARED BY: TAMARA BILLIE

FINALIZED: June 29, 2007

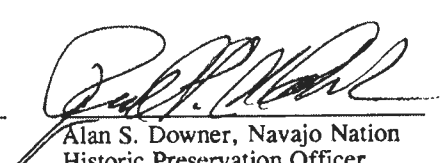
Notification to

Proceed Recommended:

Yes XX No

Conditions:

Yes XX No


Alan S. Downer, Navajo Nation
Historic Preservation Officer

7-1-07
Date

Navajo Region Approval:

Yes X No


Acting Regional Director

7/12/07
Date

100 7/11/07

APPENDIX C

Logan Simpson Cultural Resources Compliance Form



**THE NAVAJO NATION
HISTORIC PRESERVATION DEPARTMENT**

PO Box 4950, Window Rock, Arizona 86515
TEL: (928) 871-7198 FAX: (928) 871-7886

CULTURAL RESOURCES COMPLIANCE FORM

ROUTE COPIES TO:	NNHPD NO.: <u>HPD-16-846</u>
<input checked="" type="checkbox"/> LSD	OTHER PROJECT NO.: <u>LSD 075107 (NE-5b)</u>

PROJECT TITLE: A Cultural Resource Inventory of 94.33 Miles (571.73 Acres) of Navajo Nation Land for the Arizona Public Service NE-5 (Sandvig-Powell) 69-kV Transmission Line, Coconino County, Arizona

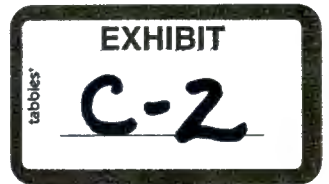
LEAD AGENCY: BIA/NR

SPONSOR: TIM BLUMENTRITT, SRWA, Arizona Public Service, Land Services Department, PO Box 53933 MS 3286, Phoenix, AZ 85072-3933

PROJECT DESCRIPTION: A 94.33-mile long and 50-ft wide (571.73-acres) segment of transmission line belonging to APS NE-5 (Sandvig-Powell Line) was inventoried for vegetation-maintenance activities within the project corridor. In addition, APS may conduct maintenance or construction projects within the limits of the project corridor. Vegetation maintenance will be performed with mechanical mowing equipment mounted on track hoe or a rubber-tired front-end loader and by hand-cutting using chainsaws. All vegetation activities will be confined to the 50-ft wide corridor with the exception of possible hazard-tree removal, which would be accomplished using hand cutting and chainsaws. If any disturbances that cannot be confined to the project corridor will be covered in a separate inventory. Ground disturbance will be intensive & extensive with the use of heavy equipment.

LAND STATUS:		Navajo Tribal Trust			
CHAPTERS:		Bodaway/Gap, Cameron, Coalmine Mesa, Coppermine, LeChee, Tuba City			
LOCATION:		Project areas are located on the Cameron South, Cameron North, Shadow Mountain Well, Moenave SE, Moenkopi, Willow Springs, The Gap, Toh Bih Nosteny, Dove Spring, Dead Monkey Ridge & White Dome Quadrangles, Coconino County, Arizona G&SRPM			
TOWNSHIP	RANGE	SECTION(S)	TOWNSHIP	RANGE	SECTION(S)
T.28N	R.9E	3,4, 9,16, 20, 21, 29, 30, 31 & 32	T.32.5N	R. 9E	5,8, 17, 20, 29, & 32
T.29N	R.9E	22, 27, 33 & 34	T.33N	R. 9E	4, 9, 16, 21, 28, 29 & 32
T.30N	R.9E	1, 2, 3, 10, 11, 14, 23, 26, & 35	T.34N	R. 9E	4, 9, 16, 21, 28 & 33
T.31N	R.9E	9, 16, 21, 27, 28, 34 & 36	T.35N	R. 9E	4, 9, 16, 21, 28 & 33
T.31N	R.10E	1, 2, 10, 11, 15, 20, 21, 29, 30 & 31	T.36N	R. 9E	4, 9, 16, 21, 28 & 33
T.32N	R.9E	4, 5, 8, 9, 16, 21, 28, 32 & 33	T.37N	R. 9E	4, 9, 16, 21, 28 & 33
T.32N	R.10E	36	T.38N	R. 9E	Unplatted
T.32N	R.11E	31 & 32	T.38N	R. 9E	7, 17 & 18

PROJECT ARCHAEOLOGIST:	Joshua C. Whiting, David E. Purcell, J. Scott Courtright
NAVAJO ANTIQUITIES PERMIT NO.:	B09186
DATE INSPECTED:	06/04/2009 – 08/04/2009
DATE OF REPORT:	02/28/2011 <i>Revised</i> 08/03/2012
TOTAL ACREAGE INSPECTED:	571.73 – ac
METHOD OF INVESTIGATION:	Class III pedestrian inventory with transects spaced <u>15</u> m apart.
LIST OF CULTURAL RESOURCES FOUND:	<p>(44) Sites (AZ-K-53-4, AZ-K-12-23, AZ-K-12-26, AZ-K-12-27, AZ-K-21-120, AZ-K-28-46, AZ-K-28-52, AZ-K-28-53, AZ-K-28-54, AZ-K-37-46, AZ-K-37-55, AZ-K-37-56, AZ-K-44-12, AZ-K-44-14, AZ-K-44-47, AZ-K-53-30, AZ-K-58-23, AZ-K-58-24, AZ-N-5-12, AZ-N-5-33, AZ-N-12-54, AZ-K-12-24, AZ-K-21-118, AZ-K-21-119, AZ-K-28-55, AZ-K-37-54, AZ-K-44-44, AZ-K-12-22, AZ-K-12-25, AZ-K-28-51, AZ-K-37-53, AZ-K-44-43, AZ-K-44-46, AZ-K-53-28, AZ-K-53-29, AZ-K-53-31, AZ-K-59-14, AZ-N-12-12, AZ-N-12-13, AZ-N-12-55, AZ-N-12-56, AZ-N-5-39, AZ-N-5-40, AZ-N-5-41)</p> <p>(14) In-Use Sites (IUS);</p> <p>(93) Isolated Occurrences</p>
LIST OF ELIGIBLE PROPERTIES:	<p>(20) Sites (AZ-K-12-23, AZ-K-12-24, AZ-K-12-26, AZ-K-12-27, AZ-K-21-120, AZ-K-28-46, AZ-K-28-53, AZ-K-28-54, AZ-K-37-46, AZ-K-37-55, AZ-K-37-56, AZ-K-44-12, AZ-K-44-14, AZ-K-44-47, AZ-K-53-4, AZ-K-53-30, AZ-K-58-23, AZ-K-58-24, AZ-N-5-12, AZ-N-5-33)</p>
LIST OF UNEVALUATED/UNDETERMINED PROPERTIES:	<p>(7) Sites (AZ-K-28-55, AZ-K-44-44, AZ-K-37-54, AZ-K-21-118, AZ-K-21-119, AZ-K-28-52, AZ-N-12-54)</p>
LIST OF NON-ELIGIBLE PROPERTIES:	<p>(17) Sites (AZ-K-12-22, AZ-K-12-25, AZ-K-28-51, AZ-K-37-53, AZ-K-44-43, AZ-K-44-46, AZ-K-53-28, AZ-K-53-29, AZ-K-53-31, AZ-K-59-14, AZ-N-12-12, AZ-N-12-13, AZ-N-12-55, AZ-N-12-56, AZ-N-5-39, AZ-N-5-40, AZ-N-5-41)</p> <p>(14) IUS</p> <p>(93) IO</p>
LIST OF ARCHAEOLOGICAL RESOURCES:	<p>(21) Sites (AZ-K-12-23, AZ-K-12-24, AZ-K-12-26, AZ-K-21-120, AZ-K-28-46, AZ-K-28-53, AZ-K-37-46, AZ-K-37-55, AZ-K-37-56, AZ-K-44-12, AZ-K-44-47, AZ-K-58-24, AZ-N-5-12, AZ-N-5-33, AZ-K-28-55, AZ-K-44-44, AZ-K-37-54, AZ-K-21-118, AZ-K-21-119, AZ-K-28-52, AZ-N-12-54)</p>



ENVIRONMENTAL ASSESSMENT

TUBA CITY—PAGE 69KV SUB-TRANSMISSION LINE AND SUBSTATION PERMIT RENEWAL

**ON THE NAVAJO NATION,
COCONINO COUNTY,
ARIZONA**

**Prepared for
ARIZONA PUBLIC SERVICE**

**Submitted to
Navajo Nation Land
Department**

Prepared by
EnviroSystems Management, Inc.
Environmental Planning • Regulatory Compliance

December 1, 2016



ENVIRONMENTAL ASSESSMENT
TUBA CITY–PAGE 69KV SUB-TRANSMISSION LINE
AND SUBSTATION PERMIT RENEWAL

ON THE
NAVAJO NATION, COCONINO COUNTY, ARIZONA

Prepared for

ARIZONA PUBLIC SERVICE
PO Box 53933, MS 3286
Phoenix, Arizona 85072-3286

For submittal to

NAVAJO NATION LAND DEPARTMENT
P.O. Box 2249
Window Rock, Arizona 86515
(928) 871-6401

Prepared by

ENVIROSYSTEMS MANAGEMENT, INC.
23 East Fine Avenue
Flagstaff, Arizona 86001
(928) 226-0236
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Navajo Nation Department of Fish and Wildlife Special Permit No. 965
EnviroSystems Management Project and Report No. 1858-16

December 1, 2016

TABLE OF CONTENTS

1.0 PURPOSE AND NEED FOR THE ACTION	1
1.1 Introduction.....	1
1.2 Summary of Proposed Action.....	1
1.3 Purpose and Need for Proposed Action.....	1
1.4 Location of Proposed Action	1
2.0 ALTERNATIVES INCLUDING THE PROPOSED ACTION	6
2.1 No Action Alternative.....	6
2.2 Proposed Action Alternative.....	6
3.0 AFFECTED ENVIRONMENT	6
3.1 Land Resources.....	6
3.1.1 Topography and Geology	6
3.1.2 Soils.....	6
3.2 Water Resources	7
3.3 Air Resources.....	7
3.3.1 Air Quality	7
3.3.2 Visibility	8
3.3.3 Climate/Meteorology	8
3.4 Biological Resources	8
3.4.1 Vegetation	8
3.4.2 Wildlife.....	11
3.4.3 Wildlife Sensitivity Area Designation.....	12
3.4.4 Species Analysis	12
3.5 Cultural Resources.....	14
3.6 Socioeconomic Conditions	16
3.6.1 Environmental Justice.....	16
3.6.2 Indian Trust Assets	17
3.7 Hazardous Materials and Solid Waste.....	17
3.8 Resource/Land Use Patterns	17
3.8.1 Agriculture	17
3.8.2 Mining.....	18
3.8.3 Transportation Use Network.....	18
3.9 Other Values	18
3.9.1 Public Health and Safety.....	18
3.9.2 Visual Settings	18
4.0 ENVIRONMENTAL CONSEQUENCES	18
4.1 Land Resources.....	18
4.2 Water Resources	19
4.3 Air Resources.....	19
4.4 Biological Resources	20
4.5 Cultural Resources.....	21
4.6 Socioeconomic Conditions	22
4.7 Hazardous Materials and Solid Waste.....	23

4.8 Resource/Land Use Patterns	23
4.9 Other Values	24
5.0 CONCLUSIONS REGARDING SIGNIFICANCE.....	24
6.0 CONSULTATION AND COORDINATION.....	24
6.1 Personnel.....	24
6.2 Departmental Consultation and Coordination	25
7.0 REFERENCES.....	25
8.0 SIGNATURE OF DOCUMENT PREPARER.....	27

APPENDIX A. Biological Resources Compliance Form

APPENDIX B. Cultural Resources Compliance Form

List of Figures

Figure 1a. Project Location North	3
Figure 1b. Project Location Central.....	4
Figure 1c. Project Location South	5

List of Tables

Table 1. Plants Identified During the Biological Field Survey.....	9
Table 2. Wildlife Sightings or Sign Identified During the Biological Field Survey.	11
Table 3. Summary of Special-Status Species Analysis Findings.	13
Table 4. Socioeconomic Composition of the Project Vicinity (Navajo Nation) to the U.S., State, and County.	17

1.0 PURPOSE AND NEED FOR THE ACTION

1.1 INTRODUCTION

Arizona Public Service Company (APS) is applying to the Navajo Nation to renew its permit for an easement on Navajo Nation Tribal Trust land, which requires an Environmental Assessment (EA) to be prepared for the Navajo Nation Land Department (NNLD) in accordance with the requirements of the National Environmental Policy Act (NEPA), the Council on Environmental Quality (CEQ) Guidelines for Implementing NEPA (40 CFR Parts 1500-1508), Bureau of Indian Affairs (BIA), Navajo Regional Office Branch of Environmental Services, Environmental Assessment Document Content and Format Instructions, and other relevant federal and tribal laws and regulations. The EA discloses the direct, indirect, and cumulative environmental impacts that would result from the Proposed Action and the NEPA-required No Action Alternative.

1.2 SUMMARY OF PROPOSED ACTION

APS is applying to the Navajo Nation for a renewal of its easement permit for a powerline and substation on Navajo Nation Tribal Trust land, Coconino County, Arizona. The right-of-way (ROW) easement is for the overhead 65.04-mile-long APS Tuba City-Page 69kV sub-transmission line (APS line NE-5) as well as a short spur line to a substation near the community of Coppermine. The ROW would be used for operation and routine maintenance of the existing powerline, which supplies power from the Navajo Generating Station to area communities. The powerline ROW is 20 feet wide covering 157.67 acres. The substation measures 120-foot by 80-foot in size and covers another 0.22 acres. No new construction is associated with the permit renewal.

1.3 PURPOSE AND NEED FOR PROPOSED ACTION

The ROW would be used for continued operation and maintenance of the existing overhead 69kV powerline which supplies power to area communities from the Navajo Generating Station, along with the right to ingress and egress on existing roads.

1.4 LOCATION OF PROPOSED ACTION

The powerline runs south from Page, Arizona to a point approximately 13 miles southwest of Tuba City, Arizona (Figures 1a-1c). The line crosses portions of the LeChee, Coppermine, and Bodaway-Gap chapters of the Navajo Nation. The powerline extends from the reservation boundary near Page in a general southerly direction for approximately 18 miles, where a short (~0.5 mi.) spur line branches off to a substation near Coppermine. From this junction the main sub-transmission line continues south for approximately 24 miles, crosses U.S. Highway (US) 89 near The Gap, then continues south for another 22 miles before making a sharp turn to the east for a mile to join another distribution line near US 89, approximately 5 miles south of its junction with US 160. The powerline location is legally described, running north to south, as follows:

T40N, R9E, Sections 6, 7, 17, 18, 20, 29, and 32;
T39N, R9E, Sections 5, 8, 17, 20, 29, 32, and 33;
T38N, R9E, Sections 4, 9, 16, 21, 28, and 33;

T37N, R9E, Sections 4, 9, 16, 21, 28, and 33;
T36N, R9E, Sections 4, 9, 16, 21, 28, and 33;
T35N, R9E, Sections 4, 9, 16, 21, 28, and 33;
T34N, R9E, Sections 4, 9, 16, 21, 28, 29, and 32;
T33&1/2N, R9E, Sections 29 and 32;
T33N, R9E, Sections 5, 8, 17, 20, 29, and 32;
T32N, R9E, Sections 5, 8, 9, 16, 21, 28, and 33;
T31N, R9E, Sections 4, 9, 16, 21, 27, 28, and 34;
T30N, R9E, Sections 3, 10, and 11;

The project area is included on the White Dome, Dead Monkey Ridge, Dove Spring, Toh Bih Nosteny, The Gap, Willow Springs, Shadow Mountain Well, and Cameron North, AZ 7.5-minute quadrangles, Gila and Salt River Baseline and Meridian (Figures 1a-c). The powerline ROW is 20 feet wide covering 157.67 acres. The substation measures 120-foot by 80-foot in size and covers another 0.22 acres.

Figure 1a. Project Location North



Figure 1b. Project Location Central

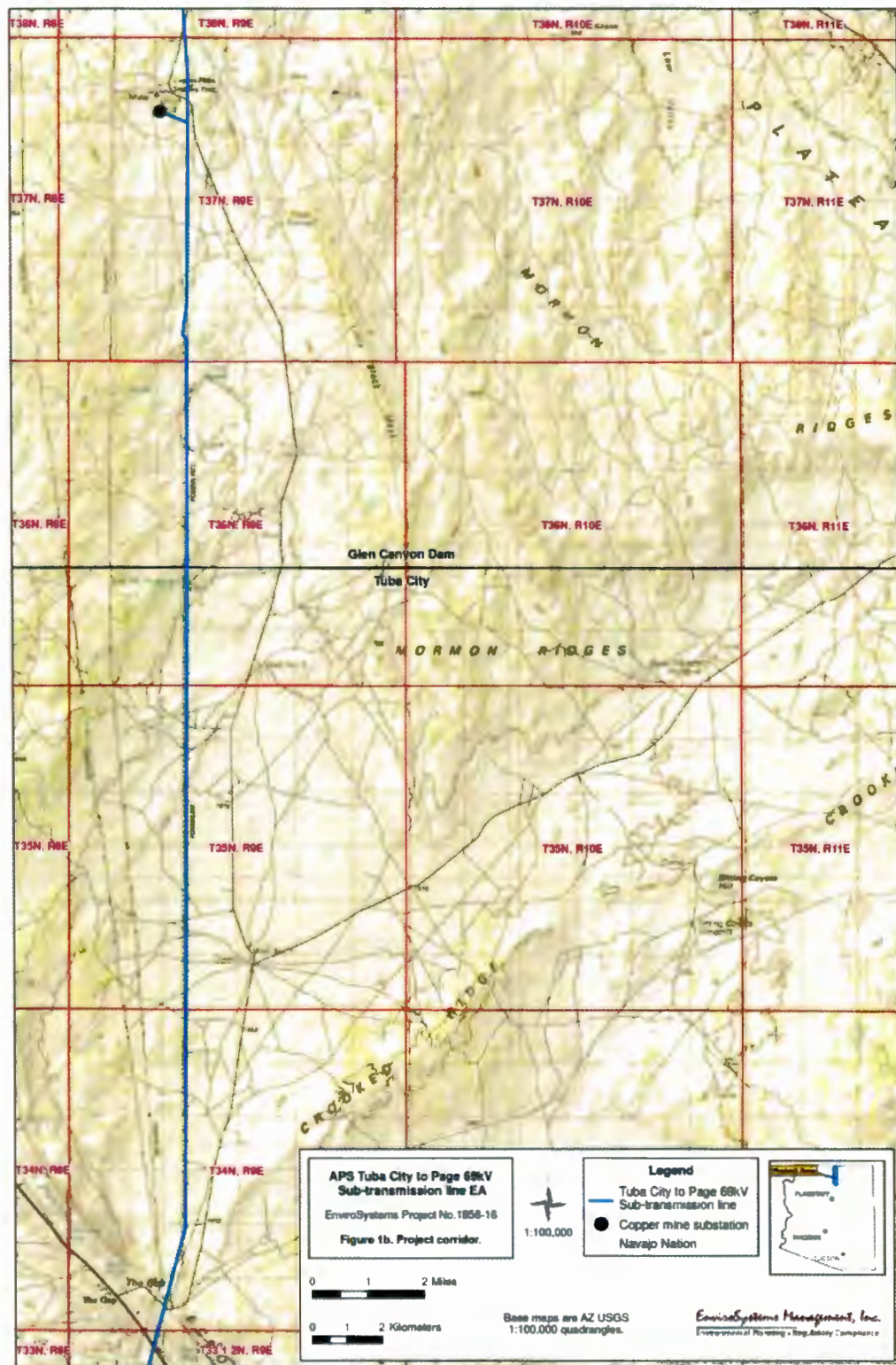
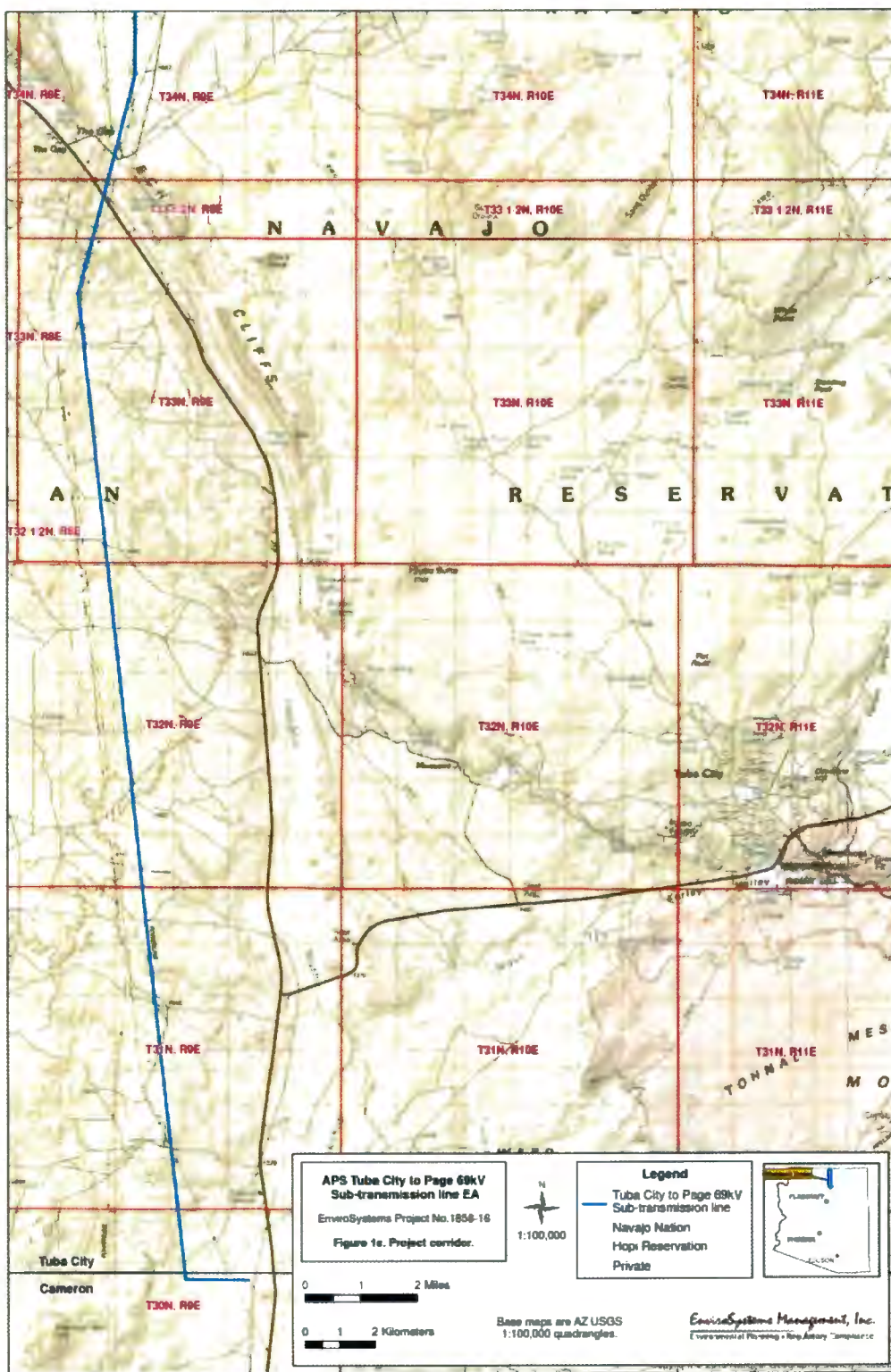


Figure 1c. Project Location South



2.0 ALTERNATIVES INCLUDING THE PROPOSED ACTION

The analysis of the potential impacts of the permit renewal includes a Proposed Action Alternative and a No Action Alternative.

2.1 NO ACTION ALTERNATIVE

The No Action Alternative is required by NEPA and provides a baseline with which to compare any proposed activities. Under the No Action Alternative, the ROW easement would not be renewed. APS would not be allowed to operate and maintain the powerline, degrading the reliability of electrical power in the region served by the transmission line.

2.2 PROPOSED ACTION ALTERNATIVE

The Proposed Action involves a renewal of the current ROW easement for the Tuba City-Page 69kV powerline. Renewal of the ROW easement would allow operation and routine maintenance of the existing overhead 69kV transmission line and substation within the project area, along with the right to access such structures using existing roads. No new construction is associated with the permit renewal.

3.0 AFFECTED ENVIRONMENT

The affected environment outlines the physical, biological, cultural, social, and economic environment that may be affected or potentially affected by the Proposed Action. Each resource topic is evaluated for current or existing conditions, which provide the scientific and analytical basis for the impact comparisons given in Chapter 4.0, Environmental Consequences.

3.1 LAND RESOURCES

3.1.1 Topography and Geology

The existing 65.04-mile powerline is located within the Colorado Plateau physiographic province (Hendricks 1985). The Colorado Plateau is characterized by high elevations, large areas of exposed bedrock, extensive horizontal beds of sedimentary deposits, and areas of volcanic activity (Cordell 1984). The surficial geology of the area is characterized by Triassic rocks of the Chinle Formation, Jurassic rocks of the Glen Canyon and San Rafael groups, and Holocene surficial deposits associated with modern fluvial systems (Richard et al. 2000). Topography along the powerline consists of rolling hills and shallow basins in the portion along the Kaibito Plateau between Page and The Gap, a series of steep cliffs and narrow canyons in the immediate vicinity of The Gap, and rolling hills and flat plains bisected by shallow drainages in the portion west of Highway 89. Elevation in the project area ranges from approximately 4,290 to 6,120 feet above mean sea level (amsl).

3.1.2 Soils

Because of the powerline extent, it crosses many soil types derived from the various underlying parent materials (NRCS 2016). Soils in the northern portion of the project area are sands with inclusions and occasional outcrops of sandstone parent material. South of The Gap the soil includes more clay and inclusions of cobbles and petrified wood from the various members of the Chinle Formation. In general, these soils have low to good potential to produce adequate

forage plants for livestock grazing (Hendricks 1985), but forage is limited by low amounts of precipitation.

No prime or unique farmland occurs within the project area (approximately 158 acres). The powerline crosses arid lands with loose soils, which are primarily used for grazing.

3.2 WATER RESOURCES

The project area is located within the Colorado and Little Colorado River Watersheds, and the Little Colorado River Plateau and Coconino Plateau Groundwater Basins (ADEQ 2016; ADWR 2016). The project corridor crosses several ephemeral drainages and one significant tributary of the Little Colorado River, Moenkopi Wash. Water in these channels is present mainly during summer monsoonal precipitation and larger winter storms. The nearest major waterways are the Colorado River, located approximately 3 miles west of the northern end of the project area, and the Little Colorado River, about 6.5 miles southwest of the southern end. No Outstanding Arizona Waters occur within or near the project area (ADEQ 2016).

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate map panels were reviewed and no special flood hazard areas occur within the project area. The entire proposed project area lies in Zone D, which is described as “areas in which flood hazards are undetermined, but possible” (FEMA 2016). Additionally, the U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory was reviewed and freshwater scrub-shrub wetlands and riverine wetlands were identified (USFWS 2016). The freshwater scrub-shrub wetlands identified were classified as PSS2J, which is characterized as non-tidal wetlands dominated by needle-leaved deciduous woody vegetation (in this case tamarisk) less than 6 meters tall with intermediate flooding. These areas were identified in Moenkopi Wash at the southern end of the project area. The riverine wetlands (in Moenkopi Wash and numerous small ephemeral drainages) were classified as R4SBC or R4SBJ, which are characterized by intermittent flow with isolated pools in a streambed which has seasonal flooding.

No known wells, water lines, sewer lines, or septic systems occur within the project area.

3.3 AIR RESOURCES

3.3.1 Air Quality

The project area is located in the Northern Arizona Intrastate Air Quality Control Region, which is identified as a Class II airshed. The site is currently in compliance with National Ambient Air Quality Standards set by the U.S. Environmental Protection Agency (ADEQ 2016). Attainment areas have no recorded violations of the federal health standards for ambient air quality. Non-attainment areas are those that do not meet National Ambient Air Quality Standards. The nearest non-attainment area is located in Gila County, approximately 120 miles south of the project area (ADEQ 2016). Lands designated as Class I areas, which are afforded the highest level of protection from air pollutants, consist of national wilderness areas, parks, and wildlife refuges. The closest Federal Class I area is Grand Canyon National park, which is located approximately 10 miles west of the project area near the northern end (ADEQ 2016).

The existing air quality in the project area is typical of undeveloped regions in the western United States. In general, air quality is good, though short-term degradation can result from vehicular traffic, dust storms, and land-disturbing activities. Fugitive dust is generated by the erosive force of winds blowing across the area. Moderate traffic on US 89 and localized traffic on other area roads can increase levels of vehicular-related contaminants. Emissions from wildfires and the burning of vegetation and refuse can also reduce air quality and contribute to regional haze.

3.3.2 Visibility

Visibility is generally good along the project corridor, allowing expansive views of the surrounding region. Occasionally, regional haze contributes to perceptible reductions in long-distance visibility. Such haze may emanate from a variety of sources typical of a rural environment such as smoke from burning vegetation and refuse, wildfires, and wind-blown and fugitive dust, usually from vehicles driving on dirt roads. Additionally, emissions from the Navajo Generating Station near Page can sometimes impair visibility in the northern portion of the project area. Summer dust storms are sometimes severe and can result in substantial but temporary reductions to visibility, both locally and regionally.

3.3.3 Climate/Meteorology

The project area is within a desert environment, with an average of 6.4 – 7.4 inches/year of precipitation (higher in the central portion on the Kaibito Plateau, and lower to the north and south), mostly in the form of rain (WRCC 1976). Summer temperatures generally reach the low 90s during the day and into the 50s at night. Daytime temperature highs are generally in the 40s to low 50s in the winter, with nighttime temperatures dipping into the low 20s (WRCC 1976).

Meteorology plays an important role in the formation, transport, and dispersal of airborne pollution. During years with reduced precipitation, strong winds tend to increase the levels of wind-blown dust. During the colder winter months, temperature inversions often result in smoke accumulation in localized areas due to the increased use of wood-burning stoves and fireplaces in homes. In summer, slow-moving, high-pressure systems can contribute to regional haze forming over vast areas of the Southwest.

3.4 BIOLOGICAL RESOURCES

To assess the potential for special-status species and their habitats, the project area was surveyed by a qualified EnviroSystems biologist. Prior to the field survey, a list of special-status species was obtained from the Navajo Nation Department of Fish and Wildlife (NNDFW 2016) and available literature was reviewed. The results of the field survey and analysis of potential impacts to all special status species were documented in a Biological Evaluation (EnviroSystems 2016). The Biological Evaluation was submitted to NNDFW for review and concurrence of findings. A Biological Resources Compliance Form was issued on October 3, 2016 (Appendix A).

3.4.1 Vegetation

The dominant biotic community found throughout the project area is Great Basin Desertscrub, with a small portion of Great Basin Conifer Woodland at the higher elevations on the Kaibito Plateau (Brown 1994). The most common vegetation species observed in the Great Basin

Desertscrub include saltbush (*Atriplex* spp.), blackbrush (*Coleogyne ramosissima*), Mormon tea (*Ephedra* spp.), prickly pear cactus (*Opuntia* sp.), purple threeawn (*Aristida purpurea*), annual bursage (*Ambrosia acanthicarpa*), and wooly plantain (*Plantago patagonica*). Species commonly encountered in the Great Basin Conifer Woodland include Utah juniper (*Juniperus osteosperma*), pinyon pine (*Pinus edulis*), sand sagebrush (*Artemisia filifolia*), snakeweed (*Gutierrezia sarothrae*), sandhill muhly (*Muhlenbergia pungens*), Indian ricegrass (*Achnatherum hymenoides*), needle and thread (*Hesperostipa comata*), scarlet globemallow (*Sphaeralcea coccinea*), and yucca (*Yucca* spp.). Other vegetation scattered throughout the project area in shallow canyons includes fragrant sumac (*Rhus aromatica*), cliffrose (*Purshia stansburyana*), and desert princesplume (*Stanleya pinnata*). Wetland obligate vegetation occurring within Moenkopi Wash includes exotic salt cedar (*Tamarix chinensis*) and Russian olive (*Elaeagnus angustifolia*). Table 1 presents a complete list of plants identified in the project area.

Table 1. Plants Identified During the Biological Field Survey

COMMON NAME	SCIENTIFIC NAME
TREES	
one-seed juniper	<i>Juniperus monosperma</i>
Utah juniper	<i>Juniperus osteosperma</i>
pinyon pine	<i>Pinus edulis</i>
SHRUBS/SUB-SHRUBS	
Bigelow sage	<i>Artemisia bigelovii</i>
sand sagebrush	<i>Artemisia filifolia</i>
four-wing saltbush	<i>Atriplex canescens</i>
shadscale saltbush	<i>Atriplex confertifolia</i>
rough brickellbush	<i>Brickellia microphylla</i> var. <i>scabra</i>
Greene rabbitbrush	<i>Chrysothamnus greenei</i>
blackbrush	<i>Coleogyne ramosissima</i>
Cutler Mormon tea	<i>Ephedra cutleri</i>
Torrey Mormon tea	<i>Ephedra torreyana</i>
green ephedra	<i>Ephedra viridis</i>
rubber rabbitbrush	<i>Ericameria nauseosa</i>
buckwheat	<i>Eriogonum</i> spp.
Apache plume	<i>Fallugia paradoxa</i>
broom snakeweed	<i>Gutierrezia sarothrae</i>
desert thorn	<i>Lycium andersonii</i>
pale wolfberry	<i>Lycium pallidum</i>
dune broom	<i>Parryella filifolia</i>
gilia penstemon	<i>Penstemon ambiguus</i>
Stansbury cliffrose	<i>Purshia stansburiana</i>
fragrant sumac	<i>Rhus aromatica</i>
broom groundsel	<i>Senecio spartioides</i>
turpentine broom	<i>Thamnosma montana</i>

COMMON NAME	SCIENTIFIC NAME
FORBS	
annual bursage	<i>Ambrosia acanthicarpa</i>
milkvetch	<i>Astragalus</i> spp.
rose heath	<i>Chaetopappa ericoides</i>
Fendler spurge	<i>Chamaesyce fendleri</i>
Wright birdsbeak	<i>Cordylanthus wrightii</i>
popcorn flower	<i>Cryptantha</i> spp.
buckwheat	<i>Eriogonum</i> spp.
hairy false goldenaster	<i>Heterotheca villosa</i>
yellow cutleaf	<i>Hymenopappus filifolius</i>
flaxflower skyrocket	<i>Ipomopsis longiflora</i>
peppergrass	<i>Lepidium</i> sp.
yellow bristle flax	<i>Linum aristatum</i>
rusty lupine	<i>Lupinus pusillus</i>
purple tansyaster	<i>Machaeranthera canescens</i>
notchleaf scorpionweed	<i>Phacelia crenulata</i>
woolly plantain	<i>Plantago patagonica</i>
rosemary mint	<i>Poliomintha incana</i>
scarlet globemallow	<i>Sphaeralcea coccinea</i>
desert princesplume	<i>Stanleya pinnata</i>
small wirelettuce	<i>Stephanomeria exigua</i>
CACTI, AGAVE, & SUCCULENTS	
rattail cholla	<i>Cylindropuntia whipplei</i>
hedgehog cactus	<i>Echinocereus</i> sp.
prickly pear cactus	<i>Opuntia</i> spp.
banana yucca	<i>Yucca baccata</i>
Navajo yucca	<i>Yucca baileyi</i>
GRASSES	
Indian ricegrass	<i>Achnatherum hymenoides</i>
desert needlegrass	<i>Achnatherum speciosum</i>
purple three-awn	<i>Aristida purpurea</i>
blue grama	<i>Bouteloua gracilis</i>
low woollygrass	<i>Dasyochloa pulchella</i>
needle and thread	<i>Hesperostipa comata</i>
sandhill muhly	<i>Muhlenbergia pungens</i>
James' galleta	<i>Pleuraphis jamesii</i>
sand dropseed	<i>Sporobolus cryptandrus</i>
sixweeks fescue	<i>Vulpia octoflora</i>
NON-NATIVE SPECIES	
cheatgrass	<i>Bromus tectorum</i>

COMMON NAME	SCIENTIFIC NAME
Russian olive	<i>Elaeagnus angustifolia</i>
saltlover	<i>Halogeton glomeratus</i>
Russian thistle	<i>Salsola tragus</i>
tamarisk	<i>Tamarix chinensis</i>

3.4.2 Wildlife

The project area provides habitat for a variety of wildlife species. Animals observed during the survey include the whiptail lizard (*Aspidoscelis velox*), blacktail jackrabbit (*Lepus californicus*), kit fox (*Vulpes macrotis*), American kestrel (*Falco sparverius*), red-tailed hawk (*Buteo jamaicensis*), and many other species. Burrows, tracks, and scat of several mammal species were detected including coyote (*Canis latrans*) and woodrat (*Neotoma* sp.). No active nests were found during the surveys, although a pair of kestrels were observed defending a presumed nest on a cliff face at the base of Dead Monkey Ridge. Table 2 presents a complete list of wildlife species detected in the project area.

Table 2. Wildlife Sightings or Sign Identified During the Biological Field Survey

COMMON NAME	SCIENTIFIC NAME
BIRDS	
American crow	<i>Corvus brachyrhynchos</i>
American kestrel	<i>Falco sparverius</i>
ash-throated flycatcher	<i>Myiarchus cinerascens</i>
black-throated sparrow	<i>Amphispiza bilineata</i>
blue-gray gnatcatcher	<i>Poliophtila caerulea</i>
common raven	<i>Corvus corax</i>
Eurasian collared-dove	<i>Streptopelia decaocto</i>
great-tailed grackle	<i>Quiscalus mexicanus</i>
horned lark	<i>Eremophila alpestris</i>
house finch	<i>Haemorhous mexicanus</i>
house sparrow	<i>Passer domesticus</i>
juniper titmouse	<i>Baeolophus ridgwayi</i>
lark sparrow	<i>Chondestes grammacus</i>
mourning dove	<i>Zenaida macroura</i>
northern flicker	<i>Colaptes auratus</i>
northern mockingbird	<i>Mimus polyglottos</i>
peregrine falcon	<i>Falco peregrinus</i>
pinyon jay	<i>Gymnorhinus cyanocephalus</i>
plumbeous vireo	<i>Vireo plumbeus</i>
red-tail hawk	<i>Buteo jamaicensis</i>
rock wren	<i>Salpinctes obsoletus</i>
Say's phoebe	<i>Sayornis saya</i>
spotted towhee	<i>Pipilo maculatus</i>

COMMON NAME	SCIENTIFIC NAME
turkey vulture	<i>Cathartes aura</i>
western kingbird	<i>Tyrannus verticalis</i>
western scrub-jay	<i>Aphelocoma californica</i>
white-throated swift	<i>Aeronautes saxatalis</i>
MAMMALS	
blacktail jackrabbit	<i>Lepus californicus</i>
coyote	<i>Canis latrans</i>
desert cottontail	<i>Sylvilagus audubonii</i>
kit fox	<i>Vulpes macrotis</i>
woodrat	<i>Neotoma sp.</i>
REPTILES	
collared lizard	<i>Crotaphytus collaris</i>
fence lizard	<i>Sceloperus sp.</i>
whiptail lizard	<i>Aspidoscelis sp.</i>

3.4.3 Wildlife Sensitivity Area Designation

The Navajo Nation is divided into six types of wildlife areas: Area 1 – Highly Sensitive Area, Area 2 – Moderately Sensitive Area, Area 3 – Less Sensitive Area, Area 4 – Community Development Area, Area 5 – Biological Preserve, and Area 6 – Recreation Area (NNDFW 2016). Most of the project area is located within land designated as Area 3 – Less Sensitive Area, which has a low and fragmented concentration of species of concern. Portions of the project area around The Gap and Moenkopi Wash, however, are designated as Area 1 – Highly Sensitive Area or Area 2 – Moderately Sensitive Area, both of which have higher concentrations of species of concern and increased restrictions on development (NNDFW 2016).

3.4.4 Species Analysis

According to the NNDFW consultation letter (NNDFW 2016), and the USFWS IPaC lists there were a total of 22 wildlife and plant species of concern with potential to occur within the project vicinity. The existing literature was reviewed for each species in order to determine if each species and/or their habitat may be affected by permit renewal. The biological field survey was also used to verify potential habitat for each species. A total of 12 species were found to occur or have potential habitat within the existing right-of-way. The remaining 10 species were excluded from further analysis due to lack of habitat within the project area.

In addition, a biological field survey of the project was performed by EnviroSystems biologists June 20-23, 2016 to determine the presence/absence of any sensitive species and/or preferred habitat within the existing sub-transmission line right-of-way. A small buffer area surrounding the project area was also surveyed for the sole purpose of assuring that a thorough biological survey was conducted. EnviroSystems also consulted with NNDFW for raptor species that are known to occur within one mile of the project area. The results of the biological field survey and a finding for each species of concern are presented in Table 3.

Table 3. Summary of Special-Status Species Analysis Findings

COMMON NAME	SCIENTIFIC NAME	HABITAT PRESENCE IN PROJECT AREA	FINDING
MAMMALS			
Wupatki pocket mouse	<i>Perognathus amplus cineris</i>	Potential desertscrub habitat available throughout existing ROW; regular maintenance may cause minimal disturbance to low vegetation	May affect individuals, not likely to adversely affect species or its habitat
BIRDS			
golden eagle	<i>Aquila chrysaetos</i>	No nesting habitat within project boundary, only potential foraging habitat. Permit renewal would not remove any potential habitat	No effect to the species or its habitat
ferruginous hawk	<i>Buteo regalis</i>	Potential habitat occurs within the project boundary, however the permit renewal would not remove any habitat	No effect to the species or its habitat
southwestern willow flycatcher	<i>Empidonax traillii extimus</i>	Potential habitat occurs within the project boundary in Moenkopi Wash, however the permit renewal would not remove any habitat	No effect to the species or its habitat
peregrine falcon	<i>Falco peregrinus</i>	No nesting habitat within project boundary, only potential foraging habitat. Permit renewal would not remove any potential habitat	No effect to the species or its habitat
California condor	<i>Gymnogyps californianus</i>	No nesting habitat within project boundary, only potential foraging habitat. Permit renewal would not remove any potential habitat	No effect to the species or its habitat
REPTILES & AMPHIBIANS			
northern leopard frog	<i>Lithobates pipiens</i>	Potential habitat occurs within the project boundary in Moenkopi Wash, however the permit renewal would not remove any habitat	No effect to the species or its habitat
PLANTS			
Peebles' blue-star	<i>Amsonia peeblesii</i>	Potential habitat occurs within the project boundary, however the permit renewal would not remove any habitat	No effect to the species or its habitat
Welsh's milkweed	<i>Asclepias welshii</i>	Potential habitat occurs within the project boundary, however the permit renewal would not remove any habitat	No effect to the species or its habitat
Beath milk-vetch	<i>Astragalus beathii</i>	Potential habitat occurs within the project boundary, however the permit renewal would not remove any habitat	No effect to the species or its habitat
round dunebroom	<i>Errazurizia rotundata</i>	Potential habitat occurs within the project boundary, however the permit renewal would not remove any habitat	No effect to the species or its habitat

COMMON NAME	SCIENTIFIC NAME	HABITAT PRESENCE IN PROJECT AREA	FINDING
Parish's alkali grass	<i>Puccinellia parishii</i>	Potential habitat occurs within the project boundary, however the permit renewal would not remove any habitat	No effect to the species or its habitat

3.5 CULTURAL RESOURCES

The existing Navajo Nation portion of the Tuba City to Page APS 69kV overhead sub-transmission powerline was inventoried for cultural resources from June through August 2009 by Logan Simpson (LS, known as Logan Simpson Design at the time; Whiting et al. 2012). During 2009, LS surveyed all 62.65 miles south from the Navajo Nation boundary near LeChee to near Moenkopi Wash where the line connects with the Tuba City to Flagstaff portion of the APS 69kV line. The survey was conducted using a single 15-meter-wide (50-foot) transect centered on the existing transmission line structures resulting in a 50-foot-wide inventoried project corridor.

The LS inventory resulted in the documentation of 26 new sites and six previously recorded sites. Additionally, two in-use sites and 70 isolated occurrences of cultural materials were documented. Of the 32 total sites, 10 are multicomponent, 10 are affiliated with the Navajo, eight are affiliated with the Anasazi, three are Euroamerican, and one is unknown prehistoric (Table 4). Multicomponent site include locales containing diverse features types and/or artifact scatters ranging from the Archaic to Navajo periods. Navajo sites consist of abandoned homesites, trash dumps, a lambing pen, and locales containing various feature types and/or artifact scatters. The Anasazi sites are habitations or artifact scatters, and the three Euroamerican sites are linear infrastructure (US 89, Navajo Route [N] 20, and the APS 69kV sub-transmission line). The unknown prehistoric site contains a probable deflated hearth and flaked and ground stone artifacts.

Of the 32 LS redocumented previous sites and newly recorded sites, 17 have been determined eligible to the National Register of Historic Places (National Register), nine are National Register-ineligible, and six are undetermined (see Appendix B, Cultural Resources Compliance Form). Of the 17 National Register-eligible sites, 15 meet National Register Criterion D, one meets Criteria A and D, and one meets Criterion A. The National Register eligibility status of the six undetermined sites is pending following archaeological testing to determine the nature and extent of subsurface deposits.

The nine National Register-ineligible sites are less than 50 years old and/or fail to meet National Register Criteria A through D. The 70 isolated occurrences are not considered significant, and their research potential has been exhausted by the survey-level recording. The two in-use sites located within the project corridor are a homesite with a large work shed and small orchard and a check dam and stock pond.

Table 4. Summary of Archaeological Sites Documented during the 2009 Inventory

Site Number	Site Type	Cultural Affiliation	National Register Status	Comments
Previously Recorded Sites				
AZ-K-28-46	Habitation	Anasazi	Eligible	Pole 36/6 in boundary
AZ-K-37-46	Artifact scatter	Anasazi	Eligible	Pole 36/3 in boundary
AZ-K-44-12	Rock art, quarry, & mining	Unknown prehistoric, Navajo	Eligible	—
AZ-K-44-14	Abandoned homesite	Navajo	Eligible	Pole 23/3 in boundary
AZ-K-53-4	U.S. Highway 89	Euroamerican	Eligible	2 segments
AZ-N-5-33	Habitation & abandoned homesite	Anasazi, Navajo	Eligible	Poles 1/4-1/3 in boundary
Newly Recorded Sites				
AZ-K-12-22	Trash dump	Navajo	Not Eligible	—
AZ-K-12-23	Habitation	Anasazi	Eligible	—
AZ-K-12-24	Artifact scatter	Anasazi	Undetermined	—
AZ-K-12-25	Abandoned homesite	Navajo	Not Eligible	—
AZ-K-12-26	Navajo Route 20	Euroamerican	Eligible	8 segments
AZ-K-12-27	APS NE-5 line	Euroamerican	Eligible	—
AZ-K-21-118	Artifact scatter & abandoned homesite	Anasazi, Navajo	Undetermined	—
AZ-K-21-119	Artifact scatter	Anasazi	Undetermined	—
AZ-K-21-120	Artifact scatter with feature & Navajo campsite	Archaic, Anasazi, Navajo	Eligible	—
AZ-K-28-51	Artifact scatter	Anasazi	Not Eligible	—
AZ-K-28-52	Artifact scatter and feature	Unknown prehistoric	Eligible	—
AZ-K-28-53	Artifact scatter & features, rock art, sweat lodge	Anasazi, Navajo	Eligible	Pole 45/1 in boundary
AZ-K-28-54	Sweat lodge & artifact scatter	Navajo	Eligible	—
AZ-K-28-55	Artifact scatter, corral, & rock art	Unknown prehistoric, Navajo	Undetermined	—
AZ-K-37-53	Petroglyphs & artifact scatter	Navajo	Not Eligible	—
AZ-K-37-54	Artifact scatter	Anasazi	Undetermined	—
AZ-K-37-55	Artifact scatter	Anasazi	Eligible	Pole 29/5 in boundary
AZ-K-37-56	Habitation & camp	Anasazi, Navajo	Eligible	—
AZ-K-44-43	Trash dump & corral	Navajo	Not Eligible	—
AZ-K-44-44	Artifact scatter & camp	Archaic, Anasazi, Navajo	Undetermined	Pole 27/2 in boundary
AZ-K-44-46	Quarry & trash dump	Unknown prehistoric, Navajo	Not Eligible	—
AZ-K-44-47	Artifact scatter & sweat lodge	Anasazi, Navajo	Eligible	—
AZ-K-53-28	Trash dump	Navajo	Not Eligible	—
AZ-K-53-29	Lambing pen	Navajo	Not Eligible	—
AZ-K-53-30	Abandoned homesite	Navajo	Eligible	—
AZ-K-53-31	Trash dump	Navajo	Not Eligible	—

3.6 SOCIOECONOMIC CONDITIONS

The project area is located in Navajo Nation, Coconino County, Arizona, and crosses through the LeChee, Coppermine, and Bodaway-Gap chapters of the Navajo Nation. All three chapters are part of the BIA Western Navajo Agency. The LeChee Chapter has a total population of 1,660 people and covers approximately 293,013 acres. Tourism is the major industry in the region, as 2.9 million visitors come to recreate on Lake Powell and to tour such attractions as Antelope Canyons. Antelope Point Marina is located in the chapter, and several jeep and walking tour business are owned by chapter residents. Additionally, the Navajo Generating Station is located in the LeChee Chapter, and provides employment to Navajo people from the chapter and surrounding areas (LeChee Chapter 2016; Navajo Times 2013a).

The Coppermine Chapter has a population of 590 people and covers approximately 240,000 acres. It takes its name from a once thriving copper mine which employed up to 90 people in its heyday, but closed in 1968. A trading post was also located near the site for many years, but it too closed in the late 1980s. Currently there are no businesses located in the chapter, and the primary occupation is livestock grazing (Coppermine Chapter 2016; Navajo Times 2013b).

The Bodaway-Gap Chapter has a population of 963 people and a land area of approximately 561,586 acres. The only existing commercial developments in the Chapter are the gas station/convenience store and trading post at The Gap, although the site of the proposed Escalade Development, at the confluence of the Little Colorado and Colorado Rivers, lies within the chapter as well. Otherwise, the local economy is based on grazing (Bodaway-Gap Chapter 2016; Navajo Times 2012).

The southernmost portion of the Coppermine Chapter, and the majority of the Bodaway-Gap Chapter lie within the former Bennett Freeze Area, which blocked virtually all property development and upkeep in the area for over 40 years. While the freeze was officially lifted in 2009, political difficulties continue to delay much-needed action on property maintenance and development in the area, and sub-standard housing and lack of economic opportunity weigh heavily on local communities.

The sub-transmission line provides power for some of the communities through which it passes. The Navajo Nation also collects revenue from APS for the sub-transmission line in the form of ROW fees.

3.6.1 Environmental Justice

Executive Order 12898, dated February 11, 1994, established the requirement to address environmental justice concerns within the context of federal agency operations. Environmental justice concerns include any adverse effect on minority and low-income populations within a given study area that result from the Proposed Action. Key indicators reviewed for environmental justice include minority populations, poverty rates, and income within a community. Table 4 shows the race and ethnicity of the population in the project area and vicinity according to the 2010 Census (USCB 2010).

Table 5. Socioeconomic Composition of the Project Vicinity (Navajo Nation) to the U.S., State, and County

Area	Race (Percentages)						Poverty	Income	Unemployment
	White	African American	American Indian or Alaska Native	Asian	Pacific Islander	Some Other Race	% Individuals in Poverty	Per Capita Income	Unemployment Rate (%)
United States ¹	72.4	12.6	0.9	4.8	0.2	9.1	15.6	28,555	9.2
Arizona ¹	73.0	4.1	4.6	2.8	0.2	15.3	18.2	25,537	9.9
Coconino County ¹	61.7	1.2	27.3	1.4	0.1	8.3	23.8	23,459	9.7
Navajo Nation ¹	2.0	0	96.0	0	0	2.0	37.7	10,547	15.6

(1) Based on data from the U.S. Census Bureau, Census 2010 Summary.

Table 4 also includes the percentage of individuals and families living in poverty in and surrounding the project area. According to the 2010 Census, 15.6% of the population lived in poverty in the United States, whereas the Navajo Nation (37.7%) has a much higher percentage. The Navajo Nation also has a substantially lower per capita income (\$10,547) than the State of Arizona (\$25,537) and the United States (\$28,555).

3.6.2 Indian Trust Assets

Indian Trust Assets (ITAs) are legal interests in assets held in trust by the United States for Native American tribes or individual Native Americans. Assets are anything owned that have monetary value. The asset need not be owned outright but could be some other type of property interest such as a lease or right of use. Assets can be real property, physical assets, or intangible property rights. The United States has an Indian Trust responsibility to protect and maintain rights reserved or granted to Native American tribes or individuals by treaties, statutes, and Executive Orders (EOs). The trust responsibility requires that all federal agencies take all actions reasonably necessary to protect trust assets. Trust assets include but are not limited to land resources, water rights, minerals, and hunting and fishing rights.

3.7 HAZARDOUS MATERIALS AND SOLID WASTE

There are no known landfills, or hazardous waste sites adjacent to the project area. Additionally, there are no underground or aboveground petroleum storage tanks within the project area (ADEQ 2016). No indications of recognized environmental conditions or solid waste dumping were observed at the time of the survey.

3.8 RESOURCE/LAND USE PATTERNS

The project area is located on variable terrain with evidence of historic and current livestock grazing. The site is not suitable for timber management.

3.8.1 Agriculture

Livestock grazing, including cattle, sheep, horses, and goats, occurs throughout the surrounding region and livestock occasionally utilize the project area. Based on soil descriptions and visual observation during field surveys of the project corridor, rangeland conditions appear fair to poor.

Grazing activities within the project area are regulated by the respective Chapter's Grazing Committee. No commercial farming occurs within or in the vicinity of the project area.

3.8.2 Mining

No active mines occur within the project corridor, although there is an abandoned copper mine in the central portion of the project area on the Kaibito Plateau near the community of Coppermine.

3.8.3 Transportation Use Network

From the northern end of the project area the sub-transmission line generally follows Navajo Route (NR) 20, crossing the highway several times. Passing through a natural break in the Echo Cliffs, the line crosses US 89 about 1 mile south of The Gap, and then runs broadly parallel to the federal highway before making a sharp turn to the west to connect with another sub-transmission line just west of the highway at the southern end of the project area. The powerline remains outside road ROWs except when it crosses NR 20, US 89, and a number of unpaved roads at various locations along the powerline corridor.

3.9 OTHER VALUES

3.9.1 Public Health and Safety

A substantial amount of electricity is transported along this 69kV sub-transmission line, with greater concentrations housed in the substation. The substation has signs that provide ample warning of the high voltage content. The powerline is overhead, approximately 50-60 feet high and supported by 65-foot tall wooden poles which precludes access by the general public.

3.9.2 Visual Settings

With the exception of the passage through the gap in the Echo Cliffs and several small canyon crossings in the southern part of the sub-transmission line, the terrain surrounding most of the project area exhibits broad, flat topography, allowing expansive views of the surrounding region. Vegetation is generally sparse and consists primarily of low-growing desert scrub and pinyon-juniper woodland communities. In the northern half of the project area the overhead powerline, associated poles, and substation dominate the visual setting within the immediate project corridor. However, through the southern half of the project area the sub-transmission line runs parallel and in close proximity to 2-4 high voltage transmission lines on large metal towers, which dominate the visual setting for many miles around.

4.0 ENVIRONMENTAL CONSEQUENCES

4.1 LAND RESOURCES

No Action Alternative – Direct, Indirect, and Cumulative Effects

Under the No Action Alternative, the APS permit for the existing 65.04-mile-long 69kV sub-transmission line, ROW, and associated substation would not be renewed. Without the easement permit renewal, APS' ability to operate and maintain the Tuba City-Page 69kV sub-transmission line would be limited. The Navajo Nation could also require APS to remove their facilities. This would result in no access to electrical power for communities in the area. As a result, no direct, indirect, or cumulative effects to land resources within the project area would occur.

Proposed Action – Direct, Indirect, and Cumulative Effects

The proposed project is for ROW easement renewal only. There are no plans for additional development along the ROW that could potentially impact land resources. All maintenance of the existing sub-transmission line, substation, and appurtenant facilities would involve the use of existing roads. While vehicle travel on such roads to access the ROW could result in some soil compaction and erosion, impacts would be minimal and only occur on previously disturbed areas. In addition, soil and resource conservation and protection measures, including weed control, applied to the land covered by the ROW would reduce adverse impacts to land resources. APS would also engage in fire prevention measures on the easement areas, which would further reduce the potential for soil erosion.

4.2 WATER RESOURCES**No Action Alternative – Direct, Indirect, and Cumulative Effects**

Under the No Action Alternative, the APS permit for the existing 65.04-mile-long 69kV sub-transmission line, ROW, and associated substation would not be renewed. Without the easement permit renewal, APS' ability to operate and maintain the Tuba City-Page 69kV sub-transmission line would be limited. The Navajo Nation could also require APS to remove their facilities. This would result in no access to electrical power for communities in the area. As a result, no direct, indirect, or cumulative effects to water resources within the project area would occur.

Proposed Action – Direct, Indirect, and Cumulative Effects

No adverse effects to surface, ground, or drinking water resources are anticipated. The overhead powerline completely spans all the minor drainages along the project corridor. For these minor drainages, no maintenance activities would occur that could impact water resources. The only significant drainage along the project corridor is Moenkopi Wash, and two poles are located in the freshwater scrub-shrub wetlands identified therein. These wetlands would be avoided when feasible to prevent impact to wetland habitat. If emergency maintenance activities within the wetland are deemed necessary, APS would contact NNHP before any work is carried out. No drinking water would be impacted as a result of the project. As a result, no direct, indirect, or cumulative impacts to water resources are anticipated.

4.3 AIR RESOURCES**No Action Alternative – Direct, Indirect, and Cumulative Effects**

Under the No Action Alternative, the APS permit for the existing 65.04-mile-long 69kV sub-transmission line, ROW, and associated substation would not be renewed. Without the easement permit renewal, APS' ability to operate and maintain the Tuba City-Page 69kV sub-transmission line would be limited. The Navajo Nation could also require APS to remove their facilities. This would result in no access to electrical power for communities in the area. As a result, no direct, indirect, or cumulative effects to air resources within the project area would occur.

Proposed Action – Direct, Indirect, and Cumulative Effects

The Proposed Action is for ROW easement renewal only. While a small amount of fugitive dust would be generated by maintenance vehicles occasionally accessing the project corridor on existing dirt roads, this effect is negligible given the large network of regularly traveled unpaved roads in the vicinity of the project. There are no plans for additional development along the

ROW that could potentially impact air resources in a more substantial fashion. Continued operation and maintenance of the Tuba City-Page 69kV sub-transmission would not therefore contribute to air pollution in any meaningful way.

4.4 BIOLOGICAL RESOURCES

No Action Alternative – Direct, Indirect, and Cumulative Effects

Under the No Action Alternative, the APS permit for the existing 65.04-mile-long 69kV sub-transmission line, ROW, and associated substation would not be renewed. Without the easement permit renewal, APS' ability to operate and maintain the Tuba City-Page 69kV sub-transmission line would be limited. The Navajo Nation could also require APS to remove their facilities. This would result in no access to electrical power for communities in the area. As a result, no direct, indirect, or cumulative effects to biological resources within the project area would occur.

Proposed Action – Direct, Indirect, and Cumulative Effects

The Proposed Action is for ROW easement renewal only. There are no plans for additional development along the ROW that could potentially impact biological resources. While suitable habitat exists for a number of special status plant species within and adjacent to the project ROW, if present, such species would tend to occur in the undisturbed areas. Because no new construction is proposed and all maintenance activities, including travel by vehicles to access the sub-transmission line, substation, and appurtenant facilities, would occur on previously disturbed surfaces, impacts to vegetation (including special status plant species) would be minimal to nonexistent.

Impacts to wildlife would also be minimal, as no new construction activities are proposed. While a few small animals such as lizards, snakes, and rodents, could be killed by vehicles accessing the sub-transmission line for maintenance purposes, more mobile animals, such as birds, antelope, and rabbits would move out of harm's way during maintenance activities within the project ROW. It is possible that during spring migration (mainly the month of May but extending to June 15), migrating southwestern willow flycatchers may use tamarisk thickets within the portion of the project corridor crossing Moenkopi Wash. Restricting any maintenance activities that would disturb these tamarisk thickets to times outside the migration period (i.e., any time outside of May 1-June 15) would eliminate the potential for such impacts. The results of the field investigation and Biological Evaluation (EnviroSystems 2016) concluded that the Proposed Action is not likely to affect any special status species or habitat.

EnviroSystems recommends the following conservation management, mitigation measures, and BMPs during maintenance and operation activities to prevent the establishment of non-native plant species, and reduce any potential impacts to special status species:

- Operation and maintenance equipment including trucks, bulldozers, and excavators (no ATVs or passenger vehicles) would be kept free of noxious/invasive weed species by washing equipment prior to entering the construction site, prior to moving equipment from infested to non-infested areas of the project, and prior to departing the site.
- Major operational activities should be conducted outside of areas where known populations of invasive species exist.

- Where contact with a population of invasive weeds is unavoidable, APS would ensure that the population is treated prior to any activity in the area.
- All operation /maintenance activities would be confined to the established ROW area. The use of best management practices during construction/maintenance would be implemented to limit effects to land, water (surface and ground), and biological resources.
- Any major dust generated during operation and maintenance would be controlled by watering and/or other standard dust abatement measures before, during, and after construction/maintenance. Basic vehicular traffic on ROW roads would not need to be mitigated.
- All trash, food items, and other solid waste would be contained in closed containers and removed daily.
- All future construction would occur outside of the Migratory Bird breeding season (March 15-August 15) or pre-action surveys to determine nesting would be required and completed. The surveys would include a 50-meter (165-foot) buffer outside the edge of disturbance. Removal or disturbance of nesting habitat (i.e. trees and shrubs) would not be allowed within 50 meters of an active nest at any point in time beginning from the avian egg incubation period and lasting until fledging is complete (juveniles fly from the nest and do not return).
- All operation and maintenance activities would follow the Navajo Nation Golden and Bald Eagle Nest Protection Regulations including potential seasonal restrictions between February 1 and July 15, if an occupied nest is located less than one mile from the ROW.
- All operation and maintenance activities would follow the Ferruginous Hawk Management Guidelines, including limited seasonal restrictions between March 1 and July 31, if an occupied nest is within one mile of the ROW.
- Any new power line construction within Raptor Sensitive Areas (R.S.A.s) would abide by Raptor Electrocution Prevention Regulations that include raptor-safe power pole design standards to protect golden eagles, bald eagles, and ferruginous hawks

With adherence to the above mitigation/conservation measures, no substantial direct, indirect, or cumulative effects to biological resources are anticipated from the Proposed Action.

4.5 CULTURAL RESOURCES

No Action Alternative – Direct, Indirect, and Cumulative Effects

Under the No Action Alternative, the APS permit for the existing 65.04-mile-long 69kV sub-transmission line ROW easement and associated substation would not be renewed. Without the easement permit renewal, APS' ability to operate and maintain the Tuba City-Page 69kV sub-transmission line would be limited. The Navajo Nation could also require APS to remove their facilities. This would result in no access to electrical power for communities in the area. As a result, no direct, indirect, or cumulative effects to cultural resources within the project area would occur.

Proposed Action – Direct, Indirect, and Cumulative Effects

The recent Logan Simpson cultural resources inventory (Whiting et al. 2012) of the Page to Tuba City portion of the APS 69kV overhead powerline yielded 26 new sites and six previously

recorded sites. Of these, 17 are National Register-eligible, six are undetermined, and nine are National Register-ineligible. The boundaries of 14 of the 17 (excluding AZ-K-12-27 [the 69kV line itself], AZ-K-12-26 [N 20], AZ-K-53-4 [US 89A],) National Register-eligible sites and all six undetermined sites should be flagged prior to ground-disturbing pole replacement or maintenance activities, and vehicular access should be confined to existing roads within the marked site areas. Only hand cutting of vegetation would be allowed within the buffered area of the sites, and cut material is to be scattered not piled in the project ROW. Of the eligible or undetermined sites, seven contain poles within their boundaries and one site (AZ-K-12-27) is the line itself (see Table 4 above). If poles need to be replaced within the seven sites containing poles, a Navajo Nation-permitted archaeologist should inspect the pole locations prior to construction to ensure that there would be no adverse effects from pole placement or access to the poles.

Site AZ-K-12-27 is the APS NE-5 69kV powerline recommended eligible by Logan Simpson under Criterion A for its association with the electrification and development of northern Arizona. LS states, "While the transmission line has been modernized and lacks integrity of materials and workmanship, it still retains integrity of location, design, setting (in most areas), feeling, and association. Transmission lines require periodic maintenance and improvement to retain their functionality. It is argued that the NE-5 line retains sufficient integrity to convey its historic appearance and function. The APS NE-5 line is not recommended eligible for listing under any other criteria." Therefore, since the line lacks integrity of materials and workmanship due to modernization and prior maintenance, pole replacement would not adversely affect the existing line which has been subject to numerous improvements through time. The 70 isolated occurrence and nine National Register-ineligible sites require no further management considerations, and the two in-use sites should be avoided with vehicles confined to existing and in-use roadways. With the implementation of these mitigation measures no direct, indirect, or cumulative effects to cultural resources within the project area would occur.

4.6 SOCIOECONOMIC CONDITIONS

No Action Alternative – Direct, Indirect, and Cumulative Effects

Under the No Action Alternative, the APS permit for the existing 65.04-mile-long 69kV sub-transmission line, ROW, and associated substation would not be renewed. Without the easement permit renewal, APS' ability to operate and maintain the Tuba City-Page 69kV sub-transmission line would be limited. The Navajo Nation could also require APS to remove their facilities. This would result in no access to electrical power for communities in the area. This would have a major effect on the socioeconomics of these communities as well as minority and low-income populations.

Proposed Action – Direct, Indirect, and Cumulative Effects

The Proposed Action would not result in disproportionate impacts to low-income populations, nor would it impact minority populations. It would not adversely affect the region's lifestyle, cultural values, or community infrastructure. The 69kV powerline supplies electricity to communities in the area, and renewal of the permit would enable continuing service to those communities. The Proposed Action would also result in direct beneficial effects to the Navajo Nation, which would continue to receive revenue in the form of ROW fees. No direct, indirect, or cumulative negative impacts to socioeconomic conditions are anticipated.

4.7 HAZARDOUS MATERIALS AND SOLID WASTE

No Action Alternative – Direct, Indirect, and Cumulative Effects

Under the No Action Alternative, the APS permit for the existing 65.04-mile-long 69kV sub-transmission line, ROW, and associated substation would not be renewed. Without the easement permit renewal, APS' ability to operate and maintain the Tuba City-Page 69kV sub-transmission line would be limited. The Navajo Nation could also require APS to remove their facilities. This would result in no access to electrical power for communities in the area. As a result, no direct, indirect, or cumulative effects to hazardous materials and solid waste within the project area would occur.

Proposed Action – Direct, Indirect, and Cumulative Effects

No hazardous materials are known to occur within the project corridor. Maintenance and operation of the transmission line and substation may generate small amounts of solid waste and waste oils. These materials would be disposed of in accordance with tribal regulations. No direct, indirect, or cumulative impacts are anticipated in relation to hazardous materials and solid waste.

4.8 RESOURCE/LAND USE PATTERNS

No Action Alternative – Direct, Indirect, and Cumulative Effects

Under the No Action Alternative, the APS permit for the existing 65.04-mile-long 69kV sub-transmission line, ROW, and associated substation would not be renewed. Without the easement permit renewal, APS' ability to operate and maintain the Tuba City-Page 69kV sub-transmission line would be limited. The Navajo Nation could also require APS to remove their facilities. This would result in no access to electrical power for communities in the area. As a result, minor to moderate direct, indirect, or cumulative effects to resource/land use patterns within the project area would occur.

Proposed Action – Direct, Indirect, and Cumulative Effects

Due to the low speeds adhered to by drivers of maintenance vehicles when accessing the project corridor, no accidents involving livestock are anticipated.

Because no active mines are located within the project corridor, and the potential for new mining is low, the proposed project would have no impacts to mining.

The powerline spans all roads that it crosses, including NR 20 and US 89, so operation of the powerline would not impact travel on such routes. Maintaining and operating the transmission line would involve vehicles traveling between the project ROW and the local transportation system, which should not cause any major disruption in traffic patterns. The use of maintenance vehicles would be infrequent, and drivers would use all precautions to ensure that the flow of traffic would not be disrupted when traveling between existing roadways and the project corridor. Therefore, no direct, indirect, and cumulative impacts to resource and land use patterns are expected.

4.9 OTHER VALUES

No Action Alternative – Direct, Indirect, and Cumulative Effects

Under the No Action Alternative, the APS permit for the existing 65.04-mile-long 69kV sub-transmission line, ROW, and associated substation would not be renewed. Without the easement permit renewal, APS' ability to operate and maintain the Tuba City-Page 69kV sub-transmission line would be limited. The Navajo Nation could also require APS to remove their facilities. This would result in no access to electrical power for communities in the area. As a result, no direct, indirect, or cumulative effects to public health and safety or visual settings would occur.

Proposed Action – Direct, Indirect, and Cumulative Effects

Though a substantial amount of electricity is transported along the powerline, the powerline is mounted on 60-foot-tall poles and out of the public's reach, therefore posing no threat to public health and safety. Furthermore, the substation has signs that provide warnings of its high voltage content.

The powerline and substation have been a visual feature in the project area's landscape for half a century. Operation and routine maintenance of the existing structures would not alter the current visual makeup of the landscape. No direct, indirect, or cumulative effects to other values are anticipated.

5.0 CONCLUSIONS REGARDING SIGNIFICANCE

The requested sub-transmission line ROW permit renewal by APS would not significantly impact any natural or cultural resources within or around the project area. No significant historic properties, traditional cultural places, or religious sites were identified during the previous cultural resources inventories that cannot be avoided by all current operation and maintenance activities. No listed species of concern were identified within the project area. Any long-term environmental impacts resulting from the project are likely to be extremely minimal, however none are anticipated. No additional visual impacts would result from continued use of the existing sub-transmission line, and there are no effects to air and water quality. The benefits to the community that would result from the project remaining in operation are substantial, and the Proposed Action would allow for the supply of electricity to continue and areas served to maintain their current power consumption levels (with possible growth in the future). Local businesses would remain operational, providing jobs and services to those living in the area, and homes would continue to be provided electricity necessary for everyday activities. Therefore, the project is likely to have continued, major beneficial socioeconomic and sociocultural impacts and a negligible environmental impact.

6.0 CONSULTATION AND COORDINATION

6.1 PERSONNEL

EnviroSystems Management, Inc. of Flagstaff, Arizona conducted field investigations and research analyses associated with production of this EA, including the following personnel:

- Stephanie Treptow, Principal-In-Charge

- Keith Pohs, Project Manager
- Mark Daniels, Senior Ecologist/Environmental Engineer
- Lynn A. Neal, Senior Archaeologist
- Travis Ellison, GIS Analyst

6.2 DEPARTMENTAL CONSULTATION AND COORDINATION

The following individuals and tribal offices were consulted during the development of the biological and cultural resource reports that contributed to the content of this EA:

Tamara Billie, Senior Archaeologist, and other personnel, Navajo Nation Historic Preservation Department, P.O. Box 4950, Window Rock, Arizona 86515, (928) 871-7139

Pamela Kyselka, Environmental Reviewer, Navajo Natural Heritage Program, Navajo Department of Fish and Wildlife, P.O. Box 1480, Window Rock, Arizona 86515

Chad Smith, Zoologist, Navajo Natural Heritage Program, Navajo Nation Department of Fish and Wildlife, P.O. Box 1480, Window Rock, Arizona 86515.

Rita Whitehorse-Larson, Senior Environmental Specialist, Navajo Nation Environmental Protection Agency, P.O. Box 339, Window Rock, Arizona 86515

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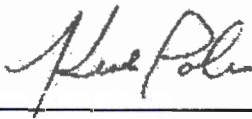
8.0 SIGNATURE OF DOCUMENT PREPARER

PREPARED BY:

A handwritten signature in black ink, appearing to read 'Mark Daniels', written over a horizontal line.

Mark Daniels, Senior Ecologist/Environmental Engineer
EnviroSystems Management, Inc.
23 East Fine Avenue
Flagstaff, Arizona 86001
(928) 226-0236
mdaniels@esmaz.com

REVIEWED BY:

A handwritten signature in black ink, appearing to read 'Keith Pohs', written over a horizontal line.

Keith Pohs, Natural Resources Program Director
EnviroSystems Management, Inc.
23 East Fine Avenue
Flagstaff, Arizona 86001
(928) 226-0236
kpohs@esmaz.com

APPENDIX A

Biological Resources Compliance Form

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

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

PROJECT NAME & NO.: Tuba City-Page 69kV Sub-Transmission Line & Substation Right-of-Way Renewal

DESCRIPTION: APS proposes to renew the right-of-way for the Tuba City-Page 69kV sub-transmission line & substation. The ROW is 65.04 miles in length and 20 ft. wide (157.67 acres). The substation size is unknown.

LOCATION: T40N, R09E, Sections 6, 7, 17, 18, 20, 29, & 32;

T39N, R09E, Sections 5, 8, 17, 20, & 29;

T39N, R09E, Sections 29 & 32;

T38N, R09E, Sections 4, 9, 16, 21, 28, & 33;

T37N, R09E, Sections 4 & 9;

T37N, R09E, Sections 8, 9, 16, 21, 28, & 33;

T36N, R09E, Sections 4, 9, 16, & 21;

T36N, R09E, Sections 21, 28, & 33;

T35N, R09E, Sections 4, 9, 16, 21, 28, & 33;

T34N, R09E, Section 4;

T34N, R09E, Sections 4, 9, 16, 21, 28, 29, & 32;

T33½N, R09E, Sections 29 & 32;

T33N, R09E, Sections 5 & 8;

T33N, R09E, Sections 8, 17, 20, 29, & 32;

T32N, R09E, Sections 5, 8, 9, 16, 21, & 28;

T32N, R09E, Sections 28 & 33;

T31N, R09E, Sections 4, 9, 16, 21, 27, 28, & 34;

T30N, R09E, Sections 3 & 10;

T30N, R09E, Section 10 & 11;

LeChee, Coppermine, Bodaway/Gap Chapters, Coconino County, Arizona

REPRESENTATIVE: Mark Daniels, EnviroSystems Management, Inc.

ACTION AGENCY: Bureau of Indian Affairs and Navajo Nation

B.R. REPORT TITLE / DATE / PREPARER: BE of the 65.04-Mile Long APS Tuba City-Page 69kV Sub-Transmission Line and Substation/18 JUL 2016/EnviroSystems Management, Inc.

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SIGNIFICANT BIOLOGICAL RESOURCES FOUND: Area 1, 2, & 3. Raptor Sensitive Area (RSA) at two (2) location along the sub-transmission line.

POTENTIAL IMPACTS

NESL SPECIES POTENTIALLY IMPACTED: [I] Aquila chrysaetos (Golden Eagle) G3, GBENPR, REPR, BGEPA, MBTA.

FEDERALLY-LISTED SPECIES AFFECTED: NA

OTHER SIGNIFICANT IMPACTS TO BIOLOGICAL RESOURCES: NA


AVOIDANCE / MITIGATION MEASURES: Na

CONDITIONS OF COMPLIANCE*: APS shall retrofit existing facilities for raptor safety as upgrades occur in Sections 5 & 8 T39N R09E, Sections 17, 18, 20, 29, & 32 T40N R09E, Sections 9, 16, 21, 28, 29, & 32, T34N R09E, Section 29 & 32 T33½N R09E, and Sections 5, 8, 17, & 20 T33N, R09E per Raptor Electrocutation Prevention Regulations (REPR).

FORM PREPARED BY / DATE: Pamela A. Kyselka/30 SEP 2016

COPIES TO: (add categories as necessary)

☒ B1rs ☐ _____

<u>2 NTC § 164 Recommendation:</u>	Signature	Date
<input type="checkbox"/> Approval	 Gloria M. Tom, Director, Navajo Nation Department of Fish and Wildlife	10/3/16
<input checked="" type="checkbox"/> Conditional Approval (with memo)		
<input type="checkbox"/> Disapproval (with memo)		
<input type="checkbox"/> Categorical Exclusion (with request letter)		
<input type="checkbox"/> None (with memo)		

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

Representative's signature

Date



**PRESIDENT
RUSSELL BEGAYE
VICE PRESIDENT
JONATHAN NEZ**

NAVAJO FISH AND WILDLIFE P.O. BOX 1480 WINDOW ROCK, AZ 86515

30 September 2016

16envs103

Mark Daniels, Senior Ecologist/Environmental Engineer
EnviroSystems Management, Inc.
23 Fine Avenue
Flagstaff, Arizona 86001

Dear Mark,

The Navajo Nation Department of Fish and Wildlife (NNDFW) reviewed the biological evaluation that you prepared for Arizona Public Service Company's proposal to renew the APS Tuba City – Page 69kV Sub-Transmission Line and Substation right-of-way easement located in Coconino County, Arizona. The proposed ROW renewal is approved with the following condition that APS shall retrofit existing facilities for raptor safety as upgrades occur in Sections 5 & 8 T39N R09E, Sections 17, 18, 20, 29, & 32 T40N R09E, Sections 9, 16, 21, 28, 29, & 32, T34N R09E, Section 29 & 32 T33½N R09E, and Sections 5, 8, 17, & 20 T33N, R09E per Raptor Electrocution Prevention Regulations (REPR).

Please contact me at 928-871-7065 with any questions that you have concerning the review of this project.

Sincerely,

Pamela A. Kyseika, Wildlife Biologist
Navajo Natural Heritage Program

CONCURRENCE

Gloria Tom, Director
Department of Fish and Wildlife

10/3/16
Date

APPENDIX B

Cultural Resources Compliance Form



**THE NAVAJO NATION
HISTORIC PRESERVATION DEPARTMENT**

PO Box 4950, Window Rock, Arizona 86515
TEL: (928) 871-7198 FAX: (928) 871-7886

CULTURAL RESOURCES COMPLIANCE FORM

ROUTE COPIES TO:	NNHPD NO.: HPD-16-846
<input checked="" type="checkbox"/> LSD	OTHER PROJECT NO.: LSD 075107 (NE-5b)

PROJECT TITLE: A Cultural Resource Inventory of 94.33 Miles (571.73 Acres) of Navajo Nation Land for the Arizona Public Service NE-5 (Sandvig-Powell) 69-kV Transmission Line, Coconino County, Arizona

LEAD AGENCY: BIA/NR

SPONSOR: TIM BLUMENTRITT, SR/WA, Arizona Public Service, Land Services Department, PO Box 53933 MS 3286, Phoenix, AZ 85072-3933

PROJECT DESCRIPTION: A 94.33-mile long and 50-ft wide (571.73-acres) segment of transmission line belonging to APS NE-5 (Sandvig-Powell Line) was inventoried for vegetation-maintenance activities within the project corridor. In addition, APS may conduct maintenance or construction projects within the limits of the project corridor. Vegetation maintenance will be performed with mechanical mowing equipment mounted on track hoe or a rubber-tired front-end loader and by hand-cutting using chainsaws. All vegetation activities will be confined to the 50-ft wide corridor with the exception of possible hazard-tree removal, which would be accomplished using hand cutting and chainsaws. If any disturbances that cannot be confined to the project corridor will be covered in a separate inventory. Ground disturbance will be intensive & extensive with the use of heavy equipment.

LAND STATUS:	Navajo Tribal Trust
CHAPTERS:	Bodaway/Gap, Cameron, Coalmine Mesa, Coppermine, LeChee, Tuba City
LOCATION:	Project areas are located on the Cameron South, Cameron North, Shadow Mountain Well, Moenave SE, Moenkopi, Willow Springs, The Gap, Toh Bih Nosteny, Dove Spring, Dead Monkey Ridge & White Dome Quadrangles, Coconino County, Arizona G&SRPM

TOWNSHIP	RANGE	SECTION(S)	TOWNSHIP	RANGE	SECTION(S)
T.28N	R.9E	3,4, 9,16, 20, 21, 29, 30 , 31 & 32	T.32.5N	R. 9E	5,8, 17, 20, 29, & 32
T.29N	R.9E	22, 27, 33 & 34	T.33N	R. 9E	4, 9, 16, 21, 28, 29 & 32
T.30N	R.9E	1, 2, 3, 10, 11, 14, 23, 26, & 35	T.34N	R. 9E	4, 9, 16, 21, 28 & 33
T.31N	R.9E	9, 16, 21, 27, 28, 34 & 36	T.35N	R. 9E	4, 9, 16, 21, 28 & 33
T.31N	R.10E	1, 2, 10, 11, 15, 20, 21, 29, 30 & 31	T.36N	R. 9E	4, 9, 16, 21, 28 & 33
T.32N	R.9E	4, 5, 8, 9, 16, 21, 28, 32 & 33	T.37N	R. 9E	4, 9, 16, 21, 28 & 33
T.32N	R.10E	36	T.38N	R. 9E	Unplatted
T.32N	R.11E	31 & 32	T.38N	R. 9E	7, 17 & 18

PROJECT ARCHAEOLOGIST:	Joshua C. Whiting, David E. Purcell, J. Scott Courtright
NAVAJO ANTIQUITIES PERMIT NO.:	B09186
DATE INSPECTED:	06/04/2009 – 08/04/2009
DATE OF REPORT:	02/28/2011 <i>Revised</i> 08/03/2012
TOTAL ACREAGE INSPECTED:	571.73 – ac
METHOD OF INVESTIGATION:	Class III pedestrian inventory with transects spaced <u>15</u> m apart.
LIST OF CULTURAL RESOURCES FOUND:	<p>(44) Sites (AZ-K-53-4, AZ-K-12-23, AZ-K-12-26, AZ-K-12-27, AZ-K-21-120, AZ-K-28-46, AZ-K-28-52, AZ-K-28-53, AZ-K-28-54, AZ-K-37-46, AZ-K-37-55, AZ-K-37-56, AZ-K-44-12, AZ-K-44-14, AZ-K-44-47, AZ-K-53-30, AZ-K-58-23, AZ-K-58-24, AZ-N-5-12, AZ-N-5-33, AZ-N-12-54, AZ-K-12-24, AZ-K-21-118, AZ-K-21-119, AZ-K-28-55, AZ-K-37-54, AZ-K-44-44, AZ-K-12-22, AZ-K-12-25, AZ-K-28-51, AZ-K-37-53, AZ-K-44-43, AZ-K-44-46, AZ-K-53-28, AZ-K-53-29, AZ-K-53-31, AZ-K-59-14, AZ-N-12-12, AZ-N-12-13, AZ-N-12-55, AZ-N-12-56, AZ-N-5-39, AZ-N-5-40, AZ-N-5-41)</p> <p>(14) In-Use Sites (IUS);</p> <p>(93) Isolated Occurrences</p>
LIST OF ELIGIBLE PROPERTIES:	(20) Sites (AZ-K-12-23, AZ-K-12-24, AZ-K-12-26, AZ-K-12-27, AZ-K-21-120, AZ-K-28-46, AZ-K-28-53, AZ-K-28-54, AZ-K-37-46, AZ-K-37-55, AZ-K-37-56, AZ-K-44-12, AZ-K-44-14, AZ-K-44-47, AZ-K-53-4, AZ-K-53-30, AZ-K-58-23, AZ-K-58-24, AZ-N-5-12, AZ-N-5-33)
LIST OF UNEVALUATED/UNDETERMINED PROPERTIES:	(7) Sites (AZ-K-28-55, AZ-K-44-44, AZ-K-37-54, AZ-K-21-118, AZ-K-21-119, AZ-K-28-52, AZ-N-12-54)
LIST OF NON-ELIGIBLE PROPERTIES:	<p>(17) Sites (AZ-K-12-22, AZ-K-12-25, AZ-K-28-51, AZ-K-37-53, AZ-K-44-43, AZ-K-44-46, AZ-K-53-28, AZ-K-53-29, AZ-K-53-31, AZ-K-59-14, AZ-N-12-12, AZ-N-12-13, AZ-N-12-55, AZ-N-12-56, AZ-N-5-39, AZ-N-5-40, AZ-N-5-41)</p> <p>(14) IUS</p> <p>(93) IO</p>
LIST OF ARCHAEOLOGICAL RESOURCES:	(21) Sites (AZ-K-12-23, AZ-K-12-24, AZ-K-12-26, AZ-K-21-120, AZ-K-28-46, AZ-K-28-53, AZ-K-37-46, AZ-K-37-55, AZ-K-37-56, AZ-K-44-12, AZ-K-44-47, AZ-K-58-24, AZ-N-5-12, AZ-N-5-33, AZ-K-28-55, AZ-K-44-44, AZ-K-37-54, AZ-K-21-118, AZ-K-21-119, AZ-K-28-52, AZ-N-12-54)

EFFECT/CONDITIONS OF COMPLIANCE: No Adverse Effect with the following conditions:

Sites AZ-K-12-23, AZ-K-12-24, AZ-K-12-26, AZ-K-12-27, AZ-K-21-120, AZ-K-28-46, AZ-K-37-46, AZ-K-37-55, AZ-K-37-56, AZ-K-44-12, AZ-K-44-14, AZ-K-44-47, AZ-K-53-4, AZ-K-58-23, AZ-K-58-24, AZ-N-5-12, AZ-N-5-33, AZ-K-28-55, AZ-K-44-44, AZ-K-37-54, AZ-K-21-118, AZ-K-21-119, AZ-K-28-52, AZ-N-12-54:

1. Site boundaries will be flagged by a qualified archeologist prior to ground disturbing activities.
2. Only hand cutting of vegetation will be allowed within the buffered area of the sites, and cut material be scattered, not piled in the project area.
3. Vehicles will remain on existing roads within the buffered site areas. Rubber-tired vehicles within sites will be prohibited.
4. If sites cannot be avoided, these sites should be subjected to an appropriate data recovery program in consultation with NNHPD.

Sites AZ-K-28-53, AZ-K-28-54, AZ-K-53-30:

1. Site boundaries & key features will be flagged by a qualified archeologist prior to ground disturbing activities.
2. A qualified archaeologist will monitor all ground disturbing activities within 50-ft of the site boundaries.
3. A report will be submitted to NNHPD within 30-day of the monitoring activities.

Sites AZ-K-12-22, AZ-K-12-25, AZ-K-28-51, AZ-K-37-53, AZ-K-44-43, AZ-K-44-46, AZ-K-53-28, AZ-K-53-29, AZ-K-53-31, AZ-K-59-14, AZ-N-12-12, AZ-N-12-13, AZ-N-12-55, AZ-N-12-56, AZ-N-5-39, AZ-N-5-40, AZ-N-5-41:
No further work is warranted.

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

FORM PREPARED BY: **Tamara Billie**
FINALIZED: October 21, 2016

Notification to Proceed
Recommended
Conditions:

☒ Yes ☐ No
☒ Yes ☐ No

 10/21/16

The Navajo Nation
Historic Preservation Office Date

Navajo Region Approval

 ☒ Yes ☐ No

Acting

BIA - Navajo Regional Office

OCT 24 2016

Date



ENVIRONMENTAL ASSESSMENT

CHOLLA TO KEAMS CANYON 69KV SUB-TRANSMISSION LINE PERMIT RENEWAL

**ON THE NAVAJO NATION,
NAVAJO COUNTY, ARIZONA**

**Prepared for
ARIZONA PUBLIC SERVICE**

**Submitted to
Navajo Nation Land
Department**

**Prepared by
*EnviroSystems Management, Inc.***

Environmental Planning • Regulatory Compliance

November 28, 2016



ENVIRONMENTAL ASSESSMENT

CHOLLA TO KEAMS CANYON 69kV
SUB-TRANSMISSION LINE PERMIT RENEWAL

ON THE
NAVAJO NATION, NAVAJO COUNTY, ARIZONA

Prepared for

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Navajo Nation Department of Fish and Wildlife Special Permit No. 965
EnviroSystems Management Project and Report No. 1859-16

November 28, 2016

TABLE OF CONTENTS

1.0 PURPOSE AND NEED FOR THE ACTION	1
1.1 Introduction.....	1
1.2 Summary of Proposed Action.....	1
1.3 Purpose and Need for Proposed Action	1
1.4 Location of Proposed Action	1
2.0 ALTERNATIVES INCLUDING THE PROPOSED ACTION	3
2.1 No Action Alternative.....	3
2.2 Proposed Action Alternative.....	3
3.0 AFFECTED ENVIRONMENT	6
3.1 Land Resources	6
3.1.1 Topography and Geology	6
3.1.2 Soils	6
3.2 Water Resources	6
3.3 Air Resources.....	7
3.3.1 Air Quality.....	7
3.3.2 Visibility	7
3.3.3 Climate/Meteorology.....	8
3.4 Biological Resources	8
3.4.1 Vegetation	8
3.4.2 Wildlife.....	10
3.4.3 Wildlife Sensitivity Area Designation	11
3.4.4 Species Analysis.....	12
3.5 Cultural Resources	12
3.6 Socioeconomic Conditions	14
3.6.1 Environmental Justice	14
3.6.2 Indian Trust Assets	15
3.7 Hazardous Materials and Solid Waste	15
3.8 Resource/Land Use Patterns	15
3.8.1 Agriculture.....	16
3.8.2 Mining	16
3.8.3 Transportation Use Network	16
3.9 Other Values	16
3.9.1 Public Health and Safety	16
3.9.2 Visual Settings.....	16
4.0 ENVIRONMENTAL CONSEQUENCES.....	17
4.1 Land Resources	17
4.2 Water Resources	17
4.3 Air Resources.....	18
4.4 Biological Resources	18
4.5 Cultural Resources	20
4.6 Socioeconomic Conditions	21
4.7 Hazardous Materials and Solid Waste	21

4.8 Resource/Land Use Patterns	21
4.9 Other Values	22
5.0 CONCLUSIONS REGARDING SIGNIFICANCE.....	24
6.0 CONSULTATION AND COORDINATION.....	25
6.1 Personnel.....	25
6.2 Departmental Consultation and Coordination	25
7.0 REFERENCES.....	26
8.0 SIGNATURE OF DOCUMENT PREPARER.....	28

APPENDIX A. Biological Resources Compliance Form

APPENDIX B. Cultural Resources Compliance Form

List of Figures

Figure 1a. Project Area Map (Southern Portion)	3
Figure 1b. Project Area Map (Northern Portion).....	4

List of Tables

Table 1. Plants Identified during the Biological Field Survey.....	9
Table 2. Wildlife Sightings or Sign Identified during the Biological Field Survey	10
Table 3. Summary of Special Status Species Analysis Findings.....	12
Table 4. Summary of Archaeological Sites Documented during the 2009 Inventory	13
Table 5. Socioeconomic Composition of the Project Vicinity in Comparison to the U.S., State, County, and Navajo Nation.....	15

1.0 PURPOSE AND NEED FOR THE ACTION

1.1 INTRODUCTION

Arizona Public Service Company (APS) requested a permit renewal for an existing 39.34-mile sub-transmission line right-of-way (ROW) on Navajo Tribal Trust lands from the Navajo Nation boundary north of Holbrook to Keams Canyon, Navajo County, Arizona. The project requires an Environmental Assessment (EA) to be prepared for the Navajo Nation Land Department (NNLD) in accordance with the requirements of the National Environmental Policy Act (NEPA), the Council on Environmental Quality (CEQ) Guidelines for Implementing NEPA (40 CFR Parts 1500-1508), Bureau of Indian Affairs (BIA), Navajo Regional Office Branch of Environmental Services, Environmental Assessment Document Content and Format Instructions, and other relevant federal and tribal laws and regulations. This EA discloses the direct, indirect, and cumulative environmental impacts that would result from the Proposed Action and the NEPA-required No Action Alternative.

1.2 SUMMARY OF PROPOSED ACTION

APS has requested a permit renewal for a ROW easement of an existing 39.34-mile sub-transmission line (APS line NE-1) on Navajo Tribal Trust lands. The sub-transmission line runs from north of Holbrook to Keams Canyon, paralleling State Route (SR) 77 / Navajo Route (N) 6 then SR 264 at its northern end. Approximately 3 miles occur on Hopi Tribal lands and permitting and environmental compliance will be addressed separately from the portion occurring on Navajo Nation lands addressed in this document.

The ROW would be used for continued operation and maintenance of the existing overhead 69kV sub-transmission line which supplies electricity to the communities of Indian Wells, White Cone, Jeddito, Keams Canyon, and the surrounding area of the Navajo Nation within Navajo County, Arizona. No new construction or rebuilds are anticipated with the permit renewal and this analysis assumes no ground-disturbing activities would be required at this time.

1.3 PURPOSE AND NEED FOR PROPOSED ACTION

The purpose and need of the ROW easement permit renewal is to allow continued operation and maintenance of the existing overhead 69kV sub-transmission line, along with the right to ingress thereto and egress therefrom on existing roads.

1.4 LOCATION OF PROPOSED ACTION

The 39.34-mile sub-transmission line is located approximately 20 miles northeast of Holbrook, Arizona beginning at the border of Navajo Nation Trust Lands, and extends northward towards Keams Canyon, Arizona. A 3-mile portion crosses Hopi Reservation lands south of Keams Canyon and is addressed separately with the Hopi Tribe. The sub-transmission line's location, from south to north, is legally described as follows:

- T21N, R21E, Sections 1, 12, 13, 24, 25, 35, and 36; Mitten Peak 7.5-minute quadrangle
- T22N, R21E, Sections 1, 12, 13, 24, 25, and 36; Five Buttes 7.5-minute quadrangle
- T23N, R21E, Sections 2, 11, 12, 13, 24, 25, and 36; Indian Wells 7.5-minute quadrangle

- T24N, R21E, Sections 2, 11, 14, 23, 26, and 35; Indian Wells 7.5-minute quadrangle
- T25N, R21E, Sections 3, 4, 10, 15, 22, 27, and 34; White Cone 7.5-minute quadrangle
- T26N, R21E, Sections 21, 28, and 33; Tsin Naan Tee 7.5-minute quadrangle
- T27N, R21E, Sections 19, 30, 31, and 32; Jeddito Spring 7.5-minute quadrangle
- T27N, R20E, Sections 10, 11, 13, 14, and 24; Keams Canyon 7.5-minute quadrangle
- Gila and Salt River Baseline and Meridian.

The sub-transmission line ROW is 20 feet wide and covers approximately 95 acres (Figures 1a and 1b).

2.0 ALTERNATIVES INCLUDING THE PROPOSED ACTION

The analysis of the potential impacts of the permit renewal for an existing 39.34-mile sub-transmission line operation, maintenance, and ROW on Navajo Tribal Trust lands includes a Proposed Action Alternative and a No Action Alternative.

2.1 NO ACTION ALTERNATIVE

Under the No Action Alternative, the APS permit for the existing 39.34-mile sub-transmission line and ROW easement would not be renewed.. Without the easement permit renewal, APS' ability to operate and maintain the Cholla to Keams Canyon 69kV sub-transmission line would be limited. The Navajo Nation could also require APS to remove their facilities. This would result in no access to electrical power for the communities of Indian Wells, White Cone, Jeddito, Keams Canyon, and other outlying areas.

2.2 PROPOSED ACTION ALTERNATIVE

APS is requesting a permit renewal for the existing 39.34-mile 69kV sub-transmission line on Navajo Tribal Trust lands and seeks to continue use of the sub-transmission line along with the right to ingress and egress from these facilities using existing roads. Approximately 36 miles occur on Navajo Nation Lands and about three miles occurs on Hopi Tribal Lands.

The total area of effect for the sub-transmission line on Navajo tribal lands is approximately 95 acres, which includes Navajo Indian Reservation lands and Navajo Tribal Trust lands.

Figure 1a. Project Area Map (Southern Portion)

Figure 1b. Project Area Map (Northern Portion)



3.0 AFFECTED ENVIRONMENT

The affected environment outlines the physical, biological, cultural, social, and economic environment that may be affected or potentially affected by the Proposed Action. Each resource topic is evaluated for current or existing conditions, which provide the scientific and analytical basis for the impact comparisons given in Chapter 4.0, Environmental Consequences.

3.1 LAND RESOURCES

3.1.1 Topography and Geology

The existing 39.34-mile sub-transmission line is located within the Colorado Plateau physiographic province (Hendricks 1985). The Colorado Plateau is characterized by high elevations, large areas of exposed bedrock, extensive horizontal beds of sedimentary deposits, and areas of volcanic activity (Cordell 1984). The surficial geology of the area is characterized by Tertiary sediments of the Bidahochi and Chinle formations, commonly capped by patches of Quaternary surficial deposits; Triassic and Jurassic delta, floodplain, and sand dune deposits; and Cretaceous marine and near-shore deposits (Chronic 1983). In general, these formations consist of fine sands, silts, and clays (Hendricks 1985). Topography along the sub-transmission line consists of shallow, rolling hillsides interspersed with several drainages that trend northeast to southwest. Elevation in the project area ranges from approximately 5,475 to 6,700 feet above mean sea level (amsl).

3.1.2 Soils

Soils in the project area are loamy alluvial soils consisting of fine sands, silts, and clays with petrified wood and sandstone cobble inclusions. Because of the sub-transmission line extent, it crosses many soil types derived from weathered shale, volcanic and sedimentary rock, mixed alluvium from siltstone, sandstone, or mudstone, or eolian sands (NRCS 2016). In general, these soils have moderate potential to produce adequate forage plants for livestock grazing (Hendricks 1985), but forage is limited by low amounts of precipitation.

No prime or unique farmland occurs within the project area (approximately 95 acres). This project is land subject to wind and water erosion and is composed of sandy upland terraces and/or escarpments (NRCS 2016).

3.2 WATER RESOURCES

The project area is located within the Little Colorado River Watershed and Little Colorado River Plateau Groundwater Basin (ADWR 2016). Major drainages spanned by the project ROW include the Pueblo Colorado Wash, Bidahochi Wash, Na Ah Tee Wash, and Jeddito Wash. A number of smaller tributary drainages and springs also lie within and near the project area. Most of these drainages, including the Pueblo Colorado Wash, are dry during much of the year. Water is present mainly during runoff from spring snow-melt from high-elevation areas and summer monsoonal precipitation. The project area does not contain Outstanding Arizona Waters (ADEQ 2016a). This information was obtained through reviewing existing literature sources (ADEQ 2016a; ADWR 2016; USACOE 1987, 2008), reviewing the Five Buttes (35110-C1), Indian Wells (35110-D1), Jeddito Spring (35110-F2), Keams Canyon (35110-G2), Mitten Peak (35110-

B1), Tsin Naan Tee (35110-F1), and White Cone (35110-E1), Arizona 7.5' USGS quadrangles maps, and conducting a site visit.

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate map panels were reviewed and no special flood hazard areas occur within the project area. Much of the sub-transmission line runs through an area of Undetermined Flood Hazard. The remainder of the proposed project area lies in Zone D, which is described as “areas in which flood hazards are undetermined, but possible” (FEMA 2007). Additionally, the U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory was reviewed and freshwater forested / shrub wetlands and Riverine wetlands were identified (USFWS 2016). The freshwater forested / shrub wetlands identified were classified as PSS2J, which is characterized as non-tidal wetlands dominated by woody vegetation less than 6 meters tall with intermediate flooding. These areas were identified in several of the washes the project ROW crosses.

No known wells, water lines, sewer lines, or septic systems occur within the project area.

3.3 AIR RESOURCES

3.3.1 Air Quality

The proposed project site is located in the Northern Arizona Intrastate Air Quality Control Region, which is identified as a Class II airshed. The site is currently in compliance with National Ambient Air Quality Standards set by the U.S. Environmental Protection Agency (USEPA 2016). Attainment areas have no recorded violations of the federal health standards for ambient air quality. Non-attainment areas are those that do not meet National Ambient Air Quality Standards. The nearest non-attainment area is located in Gila County, approximately 88 miles southwest of the project area (ADEQ 2016b). Lands designated as Class I areas, which are afforded the highest level of protection from air pollutants, consist of national wilderness areas, parks, and wildlife refuges. The closest Federal Class I area is Petrified Forest National Park, which is located approximately 10 miles east of the most southerly point of the project area (ADEQ 2016b).

The existing air quality in the project area is typical of undeveloped regions in the western United States. In general, air quality is good, though short-term degradation can result from vehicular traffic, dust storms, wildfires, and land-disturbing activities. Fugitive dust is generated by the erosive force of winds blowing across the area. Heavy summer traffic on Interstate 40, in addition to generally lighter traffic on SR 77 / N 6 can increase pollutant levels. Emissions from wildfires and the burning of vegetation and refuse can also reduce air quality and contribute to regional haze.

3.3.2 Visibility

Visibility is good to excellent in the project area. Occasionally, regional haze contributes to perceptible reductions in long-distance visibility. Such haze may emanate from a variety of sources typical of a rural environment such as smoke from burning vegetation and refuse, wildfires, and wind-blown and fugitive dust, usually from vehicles driving on dirt roads. Summer dust storms are sometimes severe and can result in substantial but temporary reductions to visibility, both locally and regionally.

3.3.3 Climate/Meteorology

The project area is located in a semi-arid region with annual precipitation that averages only 8.32 inches per year near Holbrook and 10.17 inches per year near Keams Canyon (WRCC 2016). In summer, temperatures are generally in the low 90s (degrees Fahrenheit) during the day and high 50s at night. In winter, temperatures range from the mid-40s during the day to the high teens at night (WRCC 2016).

Meteorology plays an important role in the formation, transport, and dispersal of airborne pollution. During years with reduced precipitation, strong winds tend to increase the levels of wind-blown dust. During the colder winter months, temperature inversions often result in smoke accumulation in localized areas due to the increased use of wood-burning stoves and fireplaces in homes. In summer, slow-moving, high-pressure systems can contribute to regional haze forming over vast areas of the Southwest.

3.4 BIOLOGICAL RESOURCES

To assess the potential for special-status species and their habitats, the project area was surveyed by a qualified EnviroSystems biologist. Prior to the field survey, a list of special-status species was obtained from the Navajo Nation Department of Fish and Wildlife (NNDFW 2016) and available literature was reviewed. The results of the field survey and analysis of potential impacts to all special status species were documented in a Biological Evaluation (EnviroSystems 2016). The Biological Evaluation was submitted to NNDFW for review and concurrence of findings. A Biological Resources Compliance Form was signed and issued on September 29, 2016 (Appendix A).

3.4.1 Vegetation

The 39.34-mile sub-transmission line crosses several vegetation types. The majority of the project area consists of the Plains and Great Basin Grasslands biotic community (Brown 1994). Plains and Great Basin grasslands historically formed a dense canopy of grassland species that frequently carried lightning-caused fires quickly over the landscape. These biotic communities in the Southwest are found on high level plains, intervening low hillsides, rises, ridges, and mesas. The natural succession of these communities result in a climax grass-forb association.

Grassland species most commonly found in this community include blue grama (*Bouteloua gracilis*), squirreltail (*Elymus elymoides*), Indian ricegrass (*Oryzopsis hymenoides*), galleta grass (*Pleuraphis jamesii*), purple three-awn (*Aristida purpurea*), sand dropseed (*Sporobolus cryptandrus*), and others. Shrub species commonly include four-wing saltbush (*Atriplex canescens*), sagebrush (*Artemisia* sp.), winterfat (*Krascheninnikovia lanata*), cholla (*Cylindropuntia* sp.), Navajo yucca (*Yucca baileyi*), rabbitbrush (*Ericameria* sp.), and snakeweed (*Gutierrezia* sp.). At higher elevations, the project area traverses a moderately dense Great Basin Conifer Woodland biotic community (Brown 1994). This community includes many of the same grassland species in the understory but also includes one-seed juniper (*Juniperus monosperma*) and pinyon pine (*Pinus edulis*).

The sub-transmission line also passes through the Great Basin Desertscrub biotic community (Brown 1994). This includes many of the same shrub species found in grassland areas, but also includes rubber rabbitbrush (*Ericameria nauseosa*), shadscale (*Atriplex confertifolia*), and big

sage (*Artemisia tridentata*). Other shrub species include Mormon tea (*Ephedra viridis*), cliff rose (*Purshia stansburyana*), and Russian thistle (*Salsola tragus*). Common succulent species in the project area include prickly pear cactus (*Opuntia* sp.) and banana yucca (*Yucca bacata*), rattail cholla (*Cylindropuntia whipplei*), and hedgehog cactus (*Echinocereus* sp.). The grass portion of the community is dominated by matted grama (*Bouteloua simplex*), galleta (*Pleuraphis rigida*), and Indian ricegrass (*Achnatherum hymenoides*). Table 1 presents a complete list of plants identified in the project area.

Table 1. Plants Identified during the Biological Field Survey

COMMON NAME	SCIENTIFIC NAME
TREES	
one-seed juniper	<i>Juniperus monosperma</i>
pinyon pine	<i>Pinus edulis</i>
SHRUBS/SUB-SHRUBS	
rubber rabbitbrush	<i>Ericameria nauseosa</i>
big sagebrush	<i>Artemisia tridentata</i>
Bigelow sage	<i>Artemisia bigelovii</i>
broom snakeweed	<i>Gutierrezia sarothrae</i>
four-wing saltbush	<i>Atriplex canescens</i>
saltbush	<i>Atriplex</i> spp.
cliff rose	<i>Purshia stansburyana</i>
desert thorn	<i>Lycium andersonii</i>
green ephedra	<i>Ephedra viridis</i>
buckwheat	<i>Eriogonum</i> sp.
black sagebrush	<i>Artemisia nova</i>
FORBS	
desert globemallow	<i>Sphaeralcea ambigua</i>
silverleaf nightshade	<i>Solanum elaeagnifolium</i>
penstemon	<i>Penstemon</i> spp.
ipomopsis	<i>Ipomopsis</i> spp.
milkvetch	<i>Astragalus</i> sp.
popcorn flower	<i>Cryptantha</i> sp.
King's lupine	<i>Lupinus kingii</i>
rose heath	<i>Chaetopappa ericoides</i>
fleabane	<i>Erigeron</i> spp.
spectacle pod	<i>Dimorphocarpa wislizenii</i>
sego lily	<i>Calochortus nuttallii</i>
evening primrose	<i>Oenothera pallida</i>
woolly plantain	<i>Plantago patagonica</i>
hog potato	<i>Hoffmannseggia glauca</i>
Indian paintbrush	<i>Castilleja integra</i>
blanket flower	<i>Gaillardia pulchella</i>

COMMON NAME	SCIENTIFIC NAME
goosefoot	<i>Chenopodium</i> spp.
CACTI, AGAVE, & SUCCULENTS	
prickly pear cactus	<i>Opuntia</i> spp.
cholla	<i>Cylindropuntia</i> spp.
banana yucca	<i>Yucca baccata</i>
Navajo yucca	<i>Yucca baileyi</i>
rattail cholla	<i>Cylindropuntia whipplei</i>
hedgehog cactus	<i>Echinocereus</i> sp.
GRASSES	
blue grama	<i>Bouteloua gracilis</i>
matted grama	<i>Bouteloua simplex</i>
James' galleta	<i>Pleuraphis jamesii</i>
Indian ricegrass	<i>Achnatherum hymenoides</i>
low woollygrass	<i>Dasyochloa pulchella</i>
purple three-awn	<i>Aristida purpurea</i>
sand dropseed	<i>Sporobolus cryptandrus</i>
squirreltail	<i>Elymus elymoides</i>
NON-NATIVE SPECIES	
Russian thistle	<i>Salsola tragus</i>
cheatgrass	<i>Bromus tectorum</i>
mustard	<i>Brassica</i> sp.
salt cedar	<i>Tamarix</i> sp.
storksbill	<i>Erodium cicutarium</i>

3.4.2 Wildlife

The project area provides habitat for a variety of wildlife species. Species detected by individuals seen or heard include black-tailed jackrabbit (*Lepus californicus*), spotted ground squirrel (*Spermophilus spilosoma*), common raven (*Corvus corax*), western kingbird (*Tyrannus verticalis*), horned lark (*Eremophila alpestris*), and other small bird species. Burrows, tracks, and scat of several mammal species detected including coyote (*Canis latrans*), fox (*Vulpes* sp.), mule deer (*Odocoileus hemionus*), and woodrat (*Neotoma* sp.). However, no prairie dog (*Cynomys* sp.) burrows or colonies were observed, suggesting that there would be no prey or habitat available to the Federally listed black-footed ferret (*Mustela nigripes*). In addition, there were no large cliffs or standing water within the proposed project area and no active nests were detected. Table 2 presents a complete list of wildlife species detected in the project area.

Table 2. Wildlife Sightings or Sign Identified during the Biological Field Survey

COMMON NAME	SCIENTIFIC NAME
BIRDS	
American kestrel	<i>Falco sparverius</i>
red-tailed hawk	<i>Buteo jamaicensis</i>

COMMON NAME	SCIENTIFIC NAME
common raven	<i>Corvus corax</i>
turkey vulture	<i>Cathartes aura</i>
American crow	<i>Corvus brachyrhynchos</i>
western kingbird	<i>Tyrannus verticalis</i>
horned lark	<i>Eremophila alpestris</i>
black-throated sparrow	<i>Amphispiza bilineata</i>
yellow warbler	<i>Setophaga petechia</i>
mourning dove	<i>Zenaida macroura</i>
bushtit	<i>Psaltiriparus minimus</i>
mountain bluebird	<i>Sialia currucoides</i>
western bluebird	<i>Sialia mexicana</i>
house finch	<i>Haemorhous mexicanus</i>
pinyon jay	<i>Gymnorhinus cyanocephalus</i>
northern mockingbird	<i>Mimus polyglottos</i>
broad-tailed hummingbird	<i>Selasphorus platycercus</i>
western meadowlark	<i>Sturnella neglecta</i>
blue-gray gnatcatcher	<i>Poliophtila caerulea</i>
violet-green swallow	<i>Tachycineta thalassina</i>
loggerhead shrike	<i>Lanius sudovicianus</i>
lark sparrow	<i>Chodestes grammacus</i>
European starling	<i>Sturnis vulgaris</i>
MAMMALS	
blacktail jackrabbit	<i>Lepus californicus</i>
desert cottontail	<i>Sylilagus audubonii</i>
kangaroo rat	<i>Dipodomys spp.</i>
woodrat	<i>Neotoma spp.</i>
spotted ground squirrel	<i>Spermophilus spilosoma</i>
mule deer	<i>Odocoileus hemionus</i>
fox	<i>Vulpes sp</i>
coyote	<i>Canis latrans</i>
wild horse	<i>Equus ferus</i>
REPTILES	
lizards	<i>Sceloporus sp</i>
collard lizard	<i>Crotaphytus collaris</i>

3.4.3 Wildlife Sensitivity Area Designation

The Navajo Nation is divided into six types of designated wildlife areas as defined by the NNDFW: Area 1 – Highly Sensitive Area, Area 2 – Moderately Sensitive Area, Area 3 – Less Sensitive Area, Area 4 – Community Development Area, Area 5 – Biological Preserve, and Area 6 – Recreation Area (NNDFW 2008). The entire project area is located within land designated as

Area 3 – Less Sensitive Area, which has a low and fragmented concentration of species of concern (NNDFW 2008).

3.4.4 Species Analysis

According to the NNDFW consultation letter (NNDFW 2016), and the USFWS IPaC lists there were a total of 15 wildlife and plant species of concern with potential to occur within the project vicinity. The existing literature was reviewed for each species in order to determine if each species and/or their habitat may be affected by permit renewal. The biological field survey was also used to verify potential habitat for each species. A total of 5 species were found to occur or have potential habitat within the existing ROW. The remaining 10 species were excluded from further analysis due to lack of habitat within the project area.

A biological field survey of approximately 95 acres was performed by EnviroSystems to determine the presence of any sensitive species and/or preferred habitat within the existing ROW and associated substations. A small buffer area surrounding the outer border of the ROW was also surveyed for the sole purpose of assuring that a thorough biological survey was conducted. EnviroSystems also consulted with NNDFW for raptor species that are known to occur within one mile of the project area. The results of the biological field survey and a finding is presented in Table 3.

Table 3. Summary of Special Status Species Analysis Findings

SCIENTIFIC NAME	COMMON NAME	HABITAT PRESENCE IN PROJECT AREA	FINDING
BIRDS			
<i>Aquila chrysaetos</i>	Golden eagle	No nesting habitat within project boundary, only potential foraging habitat. Permit renewal would not remove any potential habitat	No effect to the species or its habitat
<i>Buteo regalis</i>	Ferruginous hawk	No nesting habitat within project boundary, only potential foraging habitat. Permit renewal would not remove any potential habitat	No effect to the species or its habitat
<i>Falco peregrinus</i>	Peregrine falcon	No nesting habitat within project boundary, only potential foraging habitat. Permit renewal would not remove any potential habitat	No effect to the species or its habitat
<i>Vireo vicinior</i>	Gray vireo	Potential foraging and nesting habitat exists within the project area. Permit renewal would not remove any potential foraging or nesting habitat	No effect to the species or its habitat
PLANTS			
<i>Salvia pachyphylla</i> <i>ssp eremopictus</i>	Arizona rose sage	Potential habitat occurs within the project boundary, however the permit renewal would not remove any habitat	No effect to the species or its habitat

3.5 CULTURAL RESOURCES

The existing Navajo Nation portion of the Cholla to Keams Canyon APS 69kV overhead sub-transmission line was inventoried for cultural resources from August through October 2009 by

Logan Simpson (LS, known as Logan Simpson Design at the time; Purcell and Walker 2012). During 2009, LS surveyed all 39.34 miles of the line including one long and continuous segment on Navajo Nation land between the Hopi Reservation and private/state land and a shorter segment within a Navajo Nation inholding in the vicinity of Jeddito surrounded by the Hopi Reservation. The survey was conducted using a single 15-meter-wide transect centered on the existing transmission line structures resulting in a 50-foot-wide inventoried project corridor.

The LS inventory resulted in documentation of 23 new sites and three previously recorded sites. Additionally, 10 in-use sites and 33 isolated occurrences of cultural materials were documented. Of the 26 total sites, 14 are affiliated with the Anasazi, six are multicomponent, four are Euroamerican, and two are Navajo (Table 4). Anasazi sites range from artifact scatters to habitations, whereas the multicomponent sites include habitations to artifact scatters with various features. Of particular importance is a pottery firing complex affiliated with the Anasazi and Hopi. Euroamerican sites include three roads (including SR 77/N 6) and the APS 69kV sub-transmission line. Both Navajo locales are abandoned homesites.

Of the 26 LS redocumented previous sites and newly recorded sites, 17 have been determined eligible to the National Register of Historic Places (National Register), five are undetermined, and four are National Register-ineligible (see Appendix B, Cultural Resources Compliance Form). Of the 17 National Register-eligible sites, 15 meet National Register Criterion D, one meets National Register Criteria A, B and D, and one meets National Register Criterion A. The National Register-eligibility status of the five undetermined sites is pending following archaeological testing to determine the nature and extent of subsurface deposits.

The four National Register-ineligible sites are less than 50 years old and/or fail to meet National Register Criteria A through D. The 33 isolated occurrences are not considered significant, and their research potential has been exhausted by the survey-level recording. The 10 in-use sites located within the project corridor include occupied homesites, trash dumps, levees, stock tanks, miscellaneous outbuildings, a fence, and a cornfield.

Table 4. Summary of Archaeological Sites Documented during the 2009 Inventory

Site Number	Site Type	Cultural Affiliation	National Register Status	Comments
Previously Recorded Sites				
AZ-O-41-77	Road – SR 77 / N 6	Euroamerican	Eligible	7 Segments
AZ-O-56-2	Artifact scatter	Anasazi	Eligible	-
AZ-O-56-7	Habitation	Anasazi	Eligible	Poles 29/8 & 29/9 in boundary
Newly Recorded Sites				
AZ-O-10-96	Artifact scatter & feature	Anasazi, Navajo	Eligible	Pole 70/5A in boundary
AZ-O-10-97	Homesite	Navajo	Not Eligible	-
AZ-O-10-98	Artifact scatter & features; sweat lodge	Anasazi, Hopi, Navajo	Eligible	Pole 70/1 in boundary
AZ-O-10-99	Pottery firing complex	Anasazi, Hopi	Eligible	-

Site Number	Site Type	Cultural Affiliation	National Register Status	Comments
AZ-O-23-60	Habitation	Anasazi	Eligible	Pole 68/1 in boundary
AZ-O-23-61	Artifact scatter	Anasazi	Undetermined	Pole 67/7 in boundary
AZ-O-23-62	Artifact scatter	Anasazi	Eligible	-
AZ-O-23-63	Artifact scatter	Anasazi	Undetermined	-
AZ-O-23-64	Artifact scatter & features	Unknown prehistoric, Navajo	Eligible	-
AZ-O-23-65	Artifact scatter & features	Anasazi, Navajo	Undetermined	-
AZ-O-23-66	Habitation	Anasazi	Eligible	Pole 68/6 in boundary
AZ-O-23-67	Artifact scatter	Anasazi	Undetermined	Pole 68/5 in boundary
AZ-O-24-13	Homesite	Navajo	Not Eligible	-
AZ-O-25-17	Dirt road	Euroamerican	Not Eligible	-
AZ-O-40-43	Habitation	Anasazi	Eligible	Pole 48/1 in boundary
AZ-O-40-44	Road	Euroamerican	Not Eligible	-
AZ-O-40-45	Habitation	Anasazi	Eligible	Pole 47/2 in boundary
AZ-O-41-72	Habitation	Basketmaker II, Navajo	Eligible	Pole 35/8 in boundary
AZ-O-41-73	Artifact scatter	Anasazi	Eligible	Poles 40/3-40/4 in boundary
AZ-O-41-74	Artifact scatter & feature	Anasazi	Eligible	-
AZ-O-41-75	Artifact scatter	Anasazi	Undetermined	-
AZ-O-41-76	Artifact scatter	Anasazi	Eligible	Pole 38/7 in boundary
AZ-O-56-13	APS NE-01 sub-transmission line	Euroamerican	Eligible	-

3.6 SOCIOECONOMIC CONDITIONS

The project area is located in Navajo County, Arizona within the Navajo Nation. The sub-transmission line crosses through the Indian Wells, Whitecone, and Jeddito Chapters. All chapters are part of the BIA Ft. Defiance Agency. Population of the Indian Wells Chapter is 989, Whitecone Chapter is 1,284, and Jeddito Chapter is 1,180 based on the 2010 Census data (BIA 2016). The major economic activity in this area of the Navajo Nation is grazing. Development of the area comprising these chapters is ongoing but is currently limited and includes some residential, community, and agricultural projects. There are limited employment opportunities with the nearest BIA office in Ft. Defiance and the nearest population centers in Holbrook and Winslow, Arizona.

3.6.1 Environmental Justice

Executive Order 12898, dated February 11, 1994, established the requirement to address environmental justice concerns within the context of federal agency operations. Environmental justice concerns include any adverse effect on minority and low-income populations within a given study area that result from the Proposed Action. Key indicators reviewed for environmental justice include minority populations, poverty rates, and income within a

community. Table 5 shows the race and ethnicity of the population in the project area and vicinity according to the 2010 Census (USCB 2010).

Table 5. Socioeconomic Composition of the Project Vicinity in Comparison to the U.S., State, County, and Navajo Nation

Area	Race (Percentages)						Poverty	Income	Unemployment
	White	African American	American Indian or Alaska Native	Asian	Pacific Islander	Some Other Race	% Individuals in Poverty	Per Capita Income	Unemployment Rate (%)
United States ¹	72.4	12.6	0.9	4.8	0.2	9.1	15.6	28,555	9.2
Arizona ¹	73.0	4.1	4.6	2.8	0.2	15.3	18.2	25,537	9.9
Navajo County ¹	49.3	0.9	43.4	0.5	0.1	5.9	25.3	16,355	19.9
Navajo Nation ¹	2.0	0	96.1	0	0	2.0	37.7	10,547	15.6

(1) Based on data from the U.S. Census Bureau, Census 2010 Summary.

Table 5 also includes the percentage of individuals living in poverty in and surrounding the project area. According to the 2010 Census, 15.6% of the population lived in poverty in the United States, whereas the Navajo Nation (37.7%) and Navajo County (25.3%) have much higher percentages. The Navajo Nation and Navajo County also have substantially lower per capita incomes (\$10,547 and \$16,355), respectively, than the State of Arizona (\$25,537) and the United States (\$28,555).

3.6.2 Indian Trust Assets

Indian Trust Assets (ITAs) are legal interests in assets held in trust by the United States for Native American tribes or individual Native Americans. Assets are anything owned that have monetary value. The asset need not be owned outright but could be some other type of property interest such as a lease or right of use. Assets can be real property, physical assets, or intangible property rights. The United States has an Indian Trust responsibility to protect and maintain rights reserved or granted to Native American tribes or individuals by treaties, statutes, and Executive Orders (EOs). The trust responsibility requires that all federal agencies take all actions reasonably necessary to protect trust assets. Trust assets include but are not limited to land resources, water rights, minerals, and hunting and fishing rights.

3.7 HAZARDOUS MATERIALS AND SOLID WASTE

There are no known landfills, hazardous waste sites, or toxic substances adjacent to the project area. Additionally, there are no underground or aboveground petroleum storage tanks within the project area (ADEQ 2016b). No indications of recognized environmental conditions or solid waste dumping were observed at the time of the survey.

3.8 RESOURCE/LAND USE PATTERNS

The project area is located on variable terrain with evidence of historic and current livestock grazing. The site is not suitable for timber management.

3.8.1 Agriculture

Livestock grazing is known to occur within the project area and in the surrounding area. Limited other agricultural activities such as crop cultivation are known to occur nearby.

3.8.2 Mining

There are no known mining activities within the boundary of the project area, or the vicinity.

3.8.3 Transportation Use Network

SRs 77 and 264 are the primary access route to the existing ROW, as they parallel each other in a north-south direction. Many smaller dirt or gravel roads cross the ROW that are used for local travel and residential access.

3.9 OTHER VALUES**3.9.1 Public Health and Safety**

A significant amount of electricity is transported along this 69kV sub-transmission line. The sub-transmission lines are approximately 50-60 feet overhead and supported by 65-foot wooden poles. A number of the poles are adjacent to SR 77.

3.9.2 Visual Settings

The terrain surrounding the project corridor is dominated by dissected sandstone formations, mesas, and alluvial terraces. Vegetation is sparse and consists primarily of desert shrub communities. The most sensitive viewsheds are usually from transportation corridors such as SR 77. This travelway represents a linear concentration of public viewing. A viewshed analysis using ArcGIS revealed that most of the project area, , along with other utility lines including a larger transmission line, is visible from SR 77. The sub-transmission line is not visible from SR 264 due to topography. The overhead sub-transmission line and associated poles are discernible in the visual setting of the immediate project corridor. The project area viewshed varies in its distance from the highway. The distance zone varies from "Immediate Foreground" (less than 300 feet) to "Middleground" (less than 4 miles; USDA 1995).

4.0 ENVIRONMENTAL CONSEQUENCES

4.1 LAND RESOURCES

No Action Alternative – Direct, Indirect, and Cumulative Effects

Under the No Action Alternative, the APS permit for the existing 39.34-mile sub-transmission line and ROW easement would not be renewed. Without the easement permit renewal, APS' ability to operate and maintain the Cholla to Keams Canyon 69kV sub-transmission line would be limited. The Navajo Nation could also require APS to remove their facilities. This would result in no access to electrical power for the communities of Indian Wells, White Cone, Jeddito, Keams Canyon, and other outlying areas. As a result, no direct, indirect, or cumulative effects to land resources within the project area would occur.

Proposed Action – Direct, Indirect, and Cumulative Effects

The proposed project is for ROW easement renewal only. There are no plans for additional development along the ROW that could potentially impact land resources. All maintenance of the existing sub-transmission line would involve the use of existing roads. While vehicle travel on such roads to access the ROW could result in some soil compaction and erosion, impacts would be minimal and only occur on previously disturbed areas. In addition, soil and resource conservation and protection measures, including weed control applied to the land covered by the ROW would reduce adverse impacts to land resources. APS would also engage in fire prevention measures on the easement areas, which would further reduce the potential for soil erosion.

4.2 WATER RESOURCES

No Action Alternative – Direct, Indirect, and Cumulative Effects

Under the No Action Alternative, the APS permit for the existing 39.34-mile sub-transmission line and right-of-way easement would not be renewed. Without the easement permit renewal, APS' ability to operate and maintain the Cholla to Keams Canyon 69kV sub-transmission line would be limited. The Navajo Nation could also require APS to remove their facilities. This would result in no access to electrical power for the communities of Indian Wells, White Cone, Jeddito, Keams Canyon, and other outlying areas. As a result, no direct, indirect, or cumulative effects to water resources within the project area would occur.

Proposed Action – Direct, Indirect, and Cumulative Effects

No adverse effects to surface, ground, or drinking water resources are anticipated. While the project ROW crosses major drainages including the Pueblo Colorado Wash, Bidahochi Wash, Na Ah Tee Wash, and Jeddito Wash, and a number of smaller unnamed drainages, the overhead sub-transmission line completely straddles all drainages along the project corridor. All the identified wetlands occur within these drainages where the sub-transmission line would span the area. As a result, no maintenance activities would occur in these drainages that could impact water resources. The project area does not occur within any special flood hazard areas, therefore no floodplain impacts would occur. As a result, no direct, indirect, or cumulative effects to water resources within the project area would occur.

4.3 AIR RESOURCES

No Action Alternative – Direct, Indirect, and Cumulative Effects

Under the No Action Alternative, the APS permit for the existing 39.34-mile sub-transmission line and right-of-way easement would not be renewed. Without the easement permit renewal, APS' ability to operate and maintain the Cholla to Keams Canyon 69kV sub-transmission line would be limited. The Navajo Nation could also require APS to remove their facilities. This would result in no access to electrical power for the communities of Indian Wells, White Cone, Jeddito, Keams Canyon, and other outlying areas. As a result, no direct, indirect, or cumulative effects to air resources within the project area would occur.

Proposed Action – Direct, Indirect, and Cumulative Effects

The Proposed Action is for ROW easement renewal only. There are no plans for additional development along the ROW that could potentially impact air resources. Continued operation and maintenance of the Cholla to Keams Canyon 69kV sub-transmission line would not contribute to air pollution in any way.

4.4 BIOLOGICAL RESOURCES

No Action Alternative – Direct, Indirect, and Cumulative Effects

Under the No Action Alternative, the APS permit for the existing 39.34-mile sub-transmission line and right-of-way easement would not be renewed. Without the easement permit renewal, APS' ability to operate and maintain the Cholla to Keams Canyon 69kV sub-transmission line would be limited. The Navajo Nation could also require APS to remove their facilities. This would result in no access to electrical power for the communities of Indian Wells, White Cone, Jeddito, Keams Canyon, and other outlying areas. As a result, no direct, indirect, or cumulative effects to biological resources within the project area would occur.

Proposed Action – Direct, Indirect, and Cumulative Effects

The Proposed Action is for ROW easement renewal only. There are no plans for additional development along the ROW that could potentially impact biological resources. While suitable habitat exists for a number of special status species within and adjacent to the project ROW, if present, such species would tend to occur in the undisturbed areas. Because no new construction is proposed and all maintenance activities, including travel by vehicles to access the sub-transmission line, would occur on previously disturbed surfaces, impacts to vegetation (including special status plant species) would be minimal to nonexistent. The Proposed Action is not anticipated to negatively affect wildlife populations. The project area contains wildlife habitat of moderate to low value. The general vegetation community is not unique or rare across the landscape and there are no water resources on the site. Similar habitat is available in abundance surrounding the proposed project area.

Under the Navajo Nation Biological Resource Land Use Clearance Policies and Procedures (NNDFW 2008) the project area is located within land designated as Area 3 or Low Sensitivity (NNDFW 2016). These areas have low and fragmented concentrations of special status species.

The results of the field investigation and Biological Evaluation (EnviroSystems 2016) concluded that the Proposed Action would have no effects on any special status species or habitat.

EnviroSystems recommends the following conservation measure, mitigation measures, and BMPs during operation activities to prevent the establishment of non-native plant species, and reduce any potential impacts to special status species:

- Operation and maintenance equipment including trucks, bulldozers, and excavators (no ATVs or passenger vehicles) would be kept free of noxious/invasive weed species by washing equipment prior to entering the construction site, prior to moving equipment from infested to non-infested areas of the project, and prior to departing the site.
- Major operational activities should be conducted outside of areas where known populations of invasive species exist.
- Where contact with a population of invasive weeds is unavoidable, APS would ensure that the population is treated prior to any activity in the area.
- All operation /maintenance activities would be confined to the established ROW area. The use of best management practices during construction and/or maintenance would be implemented to limit effects to land, water (surface and ground), and biological resources.
- Any major dust generated during operation and maintenance would be controlled by watering and/or other standard dust abatement measures before, during, and after construction/maintenance. Basic vehicular traffic on ROW roads would not need to be mitigated.
- All trash, food items, and other solid waste would be contained in closed containers and removed daily.
- All future construction would occur outside of the Migratory Bird breeding season (March 15-August 15) or pre-action surveys to determine nesting would be required and completed. The surveys would include a 50-meter (165-foot) buffer outside the edge of disturbance. Removal or disturbance of nesting habitat (i.e. trees and shrubs) would not be allowed within 50 meters of an active nest at any point in time beginning from the avian egg incubation period and lasting until fledging is complete (juveniles fly from the nest and do not return).
- Future construction in the Cameron area would require pre-construction protocol-level surveys for special status plant species and follow the Navajo Nation Natural Heritage Program 200-foot buffer around established plants.
- All operation and maintenance activities would follow the Navajo Nation Golden and Bald Eagle Nest Protection Regulations including potential seasonal restrictions between February 1 and July 15, if an occupied nest is located less than one mile from the right-of-way.
- All operation and maintenance activities would follow the Ferruginous Hawk Management Guidelines, including limited seasonal restrictions between March 1 and July 31, if an occupied nest is within one mile of the right-of-way.
- Any new power line construction within Raptor Sensitive Areas (RSAs) would abide by Raptor Electrocution Prevention Regulations that include raptor-safe power pole design standards to protect golden eagles, bald eagles, and ferruginous hawks

With adherence to the above mitigation/conservation measures, no substantial direct, indirect, or cumulative effects to biological resources are anticipated from the Proposed Action.

4.5 CULTURAL RESOURCES

No Action Alternative – Direct, Indirect, and Cumulative Effects

Under the No Action Alternative, the APS permit for the existing 39.34-mile sub-transmission line and right-of-way easement would not be renewed. Without the easement permit renewal, APS' ability to operate and maintain the Cholla to Keams Canyon 69kV sub-transmission line would be limited. The Navajo Nation could also require APS to remove their facilities. This would result in no access to electrical power for the communities of Indian Wells, White Cone, Jeddito, Keams Canyon, and other outlying areas. As a result, no direct, indirect, or cumulative effects to cultural resources within the project area would occur.

Proposed Action – Direct, Indirect, and Cumulative Effects

The recent cultural resources inventory (Purcell and Walker 2012) of the Cholla to Keams Canyon 69kV sub-transmission line yielded 23 new sites and three previously recorded sites. Of these, 17 are National Register-eligible, five are undetermined, and four are National Register-ineligible. The boundaries of 15 of the 17 (excluding AZ-O-56-13, the 69kV line itself and AZ-O-41-77, SR 77/N 6) National Register-eligible sites and all five undetermined sites should be flagged prior to ground-disturbing pole replacement or maintenance activities, and vehicular access should be confined to existing roads within the marked site areas. Only hand cutting of vegetation would be allowed within the buffered area of the sites, and cut material is to be scattered not piled in the project ROW. Of the eligible or undetermined sites, 12 contain poles within their boundaries and one site (AZ-O-56-13) is the line itself (see Table 4 above). If poles need to be replaced within the 12 sites containing poles, a Navajo Nation-permitted archaeologist should inspect the pole locations prior to construction to ensure that there would be no adverse effects from pole placement or access to the poles.

Site AZ-O-56-13 is the Cholla to Keams Canyon APS 69kV sub-transmission line recommended eligible by Logan Simpson under Criterion A for its association with the electrification and development of northern Arizona. LS states, "While the transmission line has been modernized and lacks integrity of materials and workmanship, it still retains integrity of location, design, setting (in most areas), feeling, and association. Transmission lines require periodic maintenance and improvement to retain their functionality. It is argued that this line retains sufficient integrity to convey its historic appearance and function. The APS line is not recommended eligible for listing under any other criteria." Therefore, since the line lacks integrity of materials and workmanship due to modernization and prior maintenance, pole replacement would not adversely affect the existing line which has been subject to numerous improvements through time. The 33 isolated occurrences and four National Register-ineligible sites require no further management consideration, and the 10 in-use sites should be avoided with vehicles confined to existing and in-use roadways. With the implementation of these mitigation measures no direct, indirect, or cumulative effects to cultural resources within the project area would occur.

4.6 SOCIOECONOMIC CONDITIONS

No Action Alternative – Direct, Indirect, and Cumulative Effects

Under the No Action Alternative, the APS permit for the existing 39.34-mile sub-transmission line and right-of-way easement would not be renewed. Without the easement permit renewal, APS' ability to operate and maintain the Cholla to Keams Canyon 69kV sub-transmission line would be limited. The Navajo Nation could also require APS to remove their facilities. This would result in no access to electrical power for the communities of Indian Wells, White Cone, Jeddito, Keams Canyon, and other outlying areas. This would have a major effect on the socioeconomics of these communities as well as minority and low-income populations.

Proposed Action – Direct, Indirect, and Cumulative Effects

The sub-transmission line is the only primary source of electricity serving residences and businesses in Indian Wells, White Cone, Jeddito, and the surrounding area. The proposed action would allow for such services to continue and the areas served to maintain their current power consumption levels (with possible growth in the future). Local businesses would remain operational, providing jobs and services to those living in the area, and homes would continue to be provided electricity necessary for everyday activities (lighting, heating, refrigeration, etc.).

Because the entire project corridor crosses through areas with high-density minority populations and low-income levels, no disproportionate adverse impacts would occur to these populations from implementing the Proposed Action. In fact, the services made possible from a reliable electricity source are important for the well-being of minority and low-income populations in the project area.

4.7 HAZARDOUS MATERIALS AND SOLID WASTE

No Action Alternative – Direct, Indirect, and Cumulative Effects

Under the No Action Alternative, the APS permit for the existing 39.34-mile sub-transmission line and right-of-way easement would not be renewed. Without the easement permit renewal, APS' ability to operate and maintain the Cholla to Keams Canyon 69kV sub-transmission line would be limited. The Navajo Nation could also require APS to remove their facilities. This would result in no access to electrical power for the communities of Indian Wells, White Cone, Jeddito, Keams Canyon, and other outlying areas. As a result, no direct, indirect, or cumulative effects to hazardous materials and solid waste within the project area would occur.

Proposed Action – Direct, Indirect, and Cumulative Effects

No hazardous materials occur within the project corridor. Maintenance and operation of the sub-transmission line may generate small amounts of solid waste and waste oils. These materials would be disposed of in accordance with tribal regulations. No direct, indirect, or cumulative impacts are anticipated in relation to hazardous materials and solid waste.

4.8 RESOURCE/LAND USE PATTERNS

No Action Alternative – Direct, Indirect, and Cumulative Effects

Under the No Action Alternative, the APS permit for the existing 39.34-mile sub-transmission line and right-of-way easement would not be renewed. Without the easement permit renewal,

APS' ability to operate and maintain the Cholla to Keams Canyon 69kV sub-transmission line would be limited. The Navajo Nation could also require APS to remove their facilities. This would result in no access to electrical power for the communities of Indian Wells, White Cone, Jeddito, Keams Canyon, and other outlying areas. As a result, minor to moderate direct, indirect, or cumulative effects to resource/land use patterns would occur.

Proposed Action – Direct, Indirect, and Cumulative Effects

There is limited agriculture surrounding the sub-transmission line easement, and no new disturbance would be introduced, as access would be kept to existing roads. It is anticipated, however, that any potential inadvertent damage to the crops and associated land would be negligible.

Due to the low speeds adhered to by the drivers of maintenance vehicles when accessing the project corridor, accidents involving livestock would be highly unlikely.

No active mines are currently located within the project corridor, and the potential for new mining is low, therefore, the proposed project would have no impacts to mining.

Even though the sub-transmission line crosses SR 77 in a total of four places (as well as crossing various smaller roads), it is entirely overhead and continued operation would not impact travel on such routes. Maintaining and operating the sub-transmission line would involve vehicles traveling between the project right-of-way and the local transportation system, which should not cause any significant disruption in traffic patterns. The use of maintenance vehicles would be infrequent, and drivers would use all precautions to ensure that the flow of traffic would not be disrupted when traveling between existing roadways and the project corridor. Therefore, no direct, indirect, and cumulative impacts to resource and land use patterns are expected.

4.9 OTHER VALUES

No Action Alternative – Direct, Indirect, and Cumulative Effects

Under the No Action Alternative, the APS permit for the existing 39.34-mile sub-transmission line and ROW easement would not be renewed. Without the easement permit renewal, APS' ability to operate and maintain the Cholla to Keams Canyon 69kV sub-transmission line would be limited. The Navajo Nation could also require APS to remove their facilities. This would result in reduced access to electrical power for the communities of Indian Wells, White Cone, Jeddito, Keams Canyon, and other outlying areas. As a result, no direct, indirect, or cumulative effects to public health and safety or visual setting would occur.

Proposed Action – Direct, Indirect, and Cumulative Effects

The Proposed Action is not expected to pose additional public health or safety risks. The sub-transmission line is 50-60 feet overhead and supported by 65-foot wooden poles. The substations are also pole mounted approximately 20-40 feet above the ground surface, and fenced, reducing public access. These structures have been in place for many years and pose no new public health or safety risks. No indirect, or cumulative effects to public health and safety are anticipated.

The overhead sub-transmission line and associated poles are discernible in the visual setting of the immediate project corridor. Because the project area viewshed varies in its distance from the

highways, the distance zone varies from “Immediate Foreground” (less than 300 feet) “Middleground” (less than 4 miles; USDA 1995). However, these facilities have been in place for decades, and the visual setting would not be affected by the permit renewal or ongoing maintenance and operation. No indirect, or cumulative effects to visual setting is anticipated.

5.0 CONCLUSIONS REGARDING SIGNIFICANCE

The requested sub-transmission line ROW permit renewal by APS would not significantly impact any natural or cultural resources within or around the project area. No significant historic properties, traditional cultural places, or religious sites were identified during the previous cultural resources inventories that cannot be avoided by all current operation and maintenance activities. No listed species of concern were identified within the project area. Any long-term environmental impacts resulting from the project are likely to be extremely minimal, however none are anticipated. No additional visual impacts would result from continued use of the existing sub-transmission line, and there are no effects to air and water quality. The benefits to the community that would result from the project remaining in operation are major, and the Proposed Action would allow for the supply of electricity to continue and areas served to maintain their current power consumption levels (with possible growth in the future). Local businesses would remain operational, providing jobs and services to those living in the area, and homes would continue to be provided electricity necessary for everyday activities. Therefore, the project is likely to have continued, major beneficial socioeconomic and sociocultural impacts and a negligible environmental impact.

6.0 CONSULTATION AND COORDINATION

6.1 PERSONNEL

EnviroSystems Management, Inc. of Flagstaff, Arizona conducted field investigations and research analyses associated with production of this EA, including the following personnel:

- Stephanie Treptow, Principal-In-Charge
- Keith Pohs, Project Manager
- Sarah Hurteau, Senior Biologist
- Mark Daniels, Senior Ecologist
- Alysse Lerager, NEPA Specialist
- Lynn A. Neal, Senior Archaeologist
- Stewart Deats, Archaeologist
- Travis Ellison, GIS Analyst

6.2 DEPARTMENTAL CONSULTATION AND COORDINATION

The following individuals and tribal offices were consulted during the development of the biological and cultural resource reports that contributed to the content of this EA:

Multiple personnel, Navajo Nation Historic Preservation Department, PO Box 4950, Window Rock, Arizona 86515

Pamela Kyselka, Environmental Reviewer, Navajo Natural Heritage Program, Navajo Department of Fish and Wildlife, PO Box 1480, Window Rock, Arizona 86515

Dexter Prall, GIS Supervisor, Navajo Natural Heritage Program, Navajo Department of Fish and Wildlife, PO Box 1480, Window Rock, Arizona 86515

Rita Whitehorse-Larson, Senior Environmental Specialist, Navajo Nation Environmental Protection Agency, PO Box 339, Window Rock, Arizona 86515

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8.0 SIGNATURE OF DOCUMENT PREPARER

PREPARED BY:



Sarah Hurteau, M.S., Senior Biologist
EnviroSystems Management, Inc.
23 East Fine Avenue
Flagstaff, Arizona 86001
(928) 226-0236

REVIEWED BY:



Keith Pohs, M.S., Program Director
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23 East Fine Avenue
Flagstaff, Arizona 86001
(928) 226-0236
kpohs@esmaz.com

APPENDIX A

Biological Resources Compliance Form

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

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

PROJECT NAME & NO.: Cholla to Keams Canyon 69kV Sub-Transmission Line Permit Renewal

DESCRIPTION: APS proposes to renew the right-of-way for the Tuba City 69kV sub-transmission line. The ROW is 39.33 miles in length and 20 ft. wide (95 acres).

LOCATION: Jeddito, White Cone, & Indian Wells Chapters, Navajo County, Arizona

REPRESENTATIVE: Sarah Hurteau, EnviroSystems Management, Inc. for Arizona Public Service

ACTION AGENCY: Bureau of Indian Affairs and Navajo Nation

B.R. REPORT TITLE / DATE / PREPARER: Cholla to Keams Canyon 69kV Sub-Transmission Line Permit Renewal/18 JUL 2016/Sarah Hurteau

SIGNIFICANT BIOLOGICAL RESOURCES FOUND: Areas 3.

POTENTIAL IMPACTS

NESL SPECIES POTENTIALLY IMPACTED: NA

FEDERALLY-LISTED SPECIES AFFECTED: NA

OTHER SIGNIFICANT IMPACTS TO BIOLOGICAL RESOURCES: NA

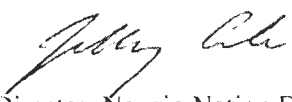
AVOIDANCE / MITIGATION MEASURES: APS will follow the conservation measures outlined for migratory birds.

CONDITIONS OF COMPLIANCE*: APS shall retrofit existing facilities for raptor safety as upgrades occur on the Cholla to Keams Canyon 69kV Sub-Transmission Line per Raptor Electrocution Prevention Regulations (REPR).

FORM PREPARED BY / DATE: Pamela A. Kyselka/12 SEP 2016

COPIES TO: (add categories as necessary)

☒ BS, rx ☐ _____

<p>2 NTC § 164 Recommendation:</p> <p><input type="checkbox"/> Approval</p> <p><input checked="" type="checkbox"/> Conditional Approval (with memo)</p> <p><input type="checkbox"/> Disapproval (with memo)</p> <p><input type="checkbox"/> Categorical Exclusion (with request letter)</p> <p><input type="checkbox"/> None (with memo)</p>	<p>Signature</p> <p style="text-align: center;"></p> <p>Gloria M. Tom, Director, Navajo Nation Department of Fish and Wildlife</p>	<p>Date <u>9/29/16</u></p>
---	---	-----------------------------------

*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



**PRESIDENT
RUSSELL BEGAYE
VICE PRESIDENT
JONATHAN NEZ**

NAVAJO FISH AND WILDLIFE P.O. BOX 1480 WINDOW ROCK, AZ 86515

12 September 2016

16envs106

Sarah Hurteau, Senior Biologist
EnviroSystems Management, Inc.
500 Marquette Avenue NW, Suite 1200
Albuquerque, New Mexico 87102

Dear Sarah,

The Navajo Nation Department of Fish and Wildlife (NNDFW) reviewed the biological evaluation that you prepared for Arizona Public Service Company's proposal to renew the Cholla to Keams Canyon 69kV Sub-Transmission Line right-of-way easement located in Navajo County, Arizona. The proposed ROW renewal is approved with the condition that APS shall retrofit existing facilities for raptor safety as upgrades occur on the Cholla to Keams Canyon 69kV Sub-Transmission Line per Raptor Electrocution Prevention Regulations (REPR).

Please contact me at 928-871-7065 with any questions that you have concerning the review of this project.

Sincerely,

Pamela A. Kyselka, Wildlife Biologist
Navajo Natural Heritage Program

CONCURRENCE

Gloria Tom, Director
Department of Fish and Wildlife

9/30/16
Date

xc: CONS-100-16
 BIA

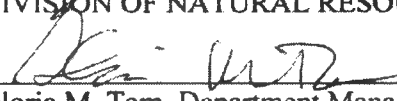
THE NAVAJO NATION



RUSSELL BEGAYE
JONATHAN NEZ

MEMORANDUM

TO : Jeffery Cole, Wildlife Manager
Department of Fish and Wildlife
DIVISION OF NATURAL RESOURCES

FROM : 
Gloria M. Tom, Department Manager II
Department of Fish and Wildlife
DIVISION OF NATURAL RESOURCES

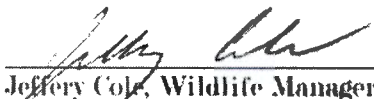
DATE : September 30, 2016

SUBJECT : DELEGATION OF AUTHORITY

I will be on Sick Leave Friday, September 30, 2016. Therefore, I am hereby delegating you to act in the capacity of the Director, Department of Fish and Wildlife, effective 8:00 am on Friday, September 30, 2016. This delegation shall end at 5:00 p.m. on Friday, September 30, 2016.

Your authority will cover the review and signing off of all routine documents pertaining to the Department of Fish and Wildlife, except for issues that you feel should have the attention of the Director.

ACKNOWLEDGEMENT:


Jeffery Cole, Wildlife Manager
Department of Fish & Wildlife

APPENDIX B

Cultural Resources Compliance Form



**THE NAVAJO NATION
HISTORIC PRESERVATION DEPARTMENT**

PO Box 4950, Window Rock, Arizona 86515
TEL: (928) 871-7198 FAX: (928) 871-7886

CULTURAL RESOURCES COMPLIANCE FORM

ROUTE COPIES TO:	NNHPD NO.: <u>HPD-16-844</u>
<input checked="" type="checkbox"/> LSD	OTHER PROJECT NO.: <u>LSD 075107 (NE-1c)</u>

PROJECT TITLE: A Cultural Resource Inventory of 39.34 Miles (238.42 Acres) of Navajo Nation Land for the Arizona Public Service NE-1 (Cholla – Keams Canyon) 69-kV Transmission Line, Navajo County, Arizona

LEAD AGENCY: BIA/NR

SPONSOR: Tim Blumentritt, SR/WA, Arizona Public Service, Land Services Department, PO Box 53933 MS 3286, Phoenix, AZ 85072-3933

PROJECT DESCRIPTION: A 39.34-mile long and 50-ft wide (238.42-acres) segment of transmission line belonging to APS NE-1 (Cholla – Keams Canyon) was inventoried for vegetation-maintenance activities within the project corridor. In addition, APS may conduct maintenance or construction projects within the limits of the project corridor. Vegetation maintenance will be performed with mechanical mowing equipment mounted on track hoe or a rubber-tired front-end loader and by hand-cutting using chainsaws. All vegetation activities will be confined to the 50-ft wide corridor with the exception of possible hazard-tree removal, which would be accomplished using hand cutting and chainsaws. If any disturbances that cannot be confined to the project corridor will be covered in a separate inventory. Ground disturbance will be intensive & extensive with the use of heavy equipment.

LAND STATUS:	Navajo Tribal Trust, Indian Allotments				
CHAPTERS:	Jeddito, Indian Wells, White Cone				
LOCATION:	Project areas are located on the Five Buttes, Indian Wells, Jeddito Spring, Mitten Peak, Tsin Naan Tee & White Cone Quadrangles, Navajo County, Arizona G&SRPM				
TOWNSHIP	RANGE	SECTION(S)	TOWNSHIP	RANGE	SECTION(S)
T.21N	R.21E	2	T.25N	R.21E	3, 4, 10, 22, 27 & 34
T.21N	R.21E	1, 12, 13, 24, 25, 35, & 36	T.26N	R. 21E	20, 21, 28 & 33
T.22N	R.21E	1, 12, 13, 24, 25, & 36	T.27N	R. 20E	10, 11, 13, 14, & 24
T.23N	R.21E	2, 11, 12, 13, 24, 25, & 36	T.37N	R. 21E	19, 30, 31, & 32
T.24N	R.21E	2, 11, 14, 23, 26 & 35			

PROJECT ARCHAEOLOGIST:	David E. Purcell, Jessica Walker
NAVAJO ANTIQUITIES PERMIT NO.:	B09185
DATE INSPECTED:	08/04/2009 – 10/14/2009

DATE OF REPORT:	05/23/2011 Revised 08/03/2012
TOTAL ACREAGE INSPECTED:	571.73 – ac
METHOD OF INVESTIGATION:	Class III pedestrian inventory with transects spaced <u>15</u> m apart.
LIST OF CULTURAL RESOURCES FOUND:	<p>(26) Sites (AZ-O-10-96, AZ-O-10-98, AZ-O-10-99, AZ-O-23-60, AZ-O-23-62, AZ-O-23-64, AZ-O-23-66, AZ-O-40-43, AZ-O-40-45, AZ-O-41-72, AZ-O-41-73, AZ-O-41-74, AZ-O-41-77, AZ-O-56-2, AZ-O-56-13, AZ-O-41-76, AZ-O-56-7, AZ-O-23-61, AZ-O-23-63, AZ-O-23-65, AZ-O-23-67, AZ-O-41-75, AZ-O-10-97, AZ-O-24-13, AZ-O-25-17, AZ-O-40-44)</p> <p>(10) In-Use Sites (IUS);</p> <p>(33) Isolated Occurrences</p>
LIST OF ELIGIBLE PROPERTIES:	(17) Sites (AZ-O-10-96, AZ-O-10-98, AZ-O-10-99, AZ-O-23-60, AZ-O-23-62, AZ-O-23-64, AZ-O-23-66, AZ-O-40-43, AZ-O-40-45, AZ-O-41-72, AZ-O-41-73, AZ-O-41-74, AZ-O-56-2, AZ-O-41-76, AZ-O-56-7, AZ-O-41-77, AZ-O-56-13)
LIST OF UNEVALUATED/UNDETERMINED PROPERTIES:	(5) Sites (AZ-O-23-61, AZ-O-23-63, AZ-O-23-65, AZ-O-23-67, AZ-O-41-75)
LIST OF NON-ELIGIBLE PROPERTIES:	<p>(4) Sites (AZ-O-10-97, AZ-O-24-13, AZ-O-25-17, AZ-O-40-44)</p> <p>(10) IUS</p> <p>(33) IO</p>
LIST OF ARCHAEOLOGICAL RESOURCES:	(20) Sites (AZ-O-10-96, AZ-O-10-98, AZ-O-10-99, AZ-O-23-60, AZ-O-23-62, AZ-O-23-64, AZ-O-23-66, AZ-O-40-43, AZ-O-40-45, AZ-O-41-72, AZ-O-41-73, AZ-O-41-74, AZ-O-56-2, AZ-O-41-76, AZ-O-56-7, AZ-O-23-61, AZ-O-23-63, AZ-O-23-65, AZ-O-23-67, AZ-O-41-75)


EFFECT/CONDITIONS OF COMPLIANCE: No Adverse Effect with the following conditions:

Sites AZ-O-10-96, AZ-O-10-98, AZ-O-10-99, AZ-O-23-60, AZ-O-23-62, AZ-O-23-64, AZ-O-23-66, AZ-O-40-43, AZ-O-40-45, AZ-O-41-72, AZ-O-41-73, AZ-O-41-74, AZ-O-56-2, AZ-O-41-76, AZ-O-56-7, AZ-O-41-77, AZ-O-56-13, AZ-O-23-61, AZ-O-23-63, AZ-O-23-65, AZ-O-23-67, AZ-O-41-75 :

1. Site boundaries will be flagged by a qualified archeologist prior to ground disturbing activities.
2. Only hand cutting of vegetation will be allowed within the buffered area of the sites, and cut material be scattered, not piled in the project area.
3. Vehicles will remain on existing roads within the buffered site areas. Rubber-tired vehicles within sites will be prohibited.
4. If sites cannot be avoided, these sites should be subjected to an appropriate data recovery program in consultation with NNHPD.

FORM PREPARED BY: Tamara Billie
FINALIZED: October 21, 2016

Lamar Bell 10/21/16
The Navajo Nation Date
Historic Preservation Office

☒ Yes ☐ No 
Acting BIA – Navajo Regional Office OCT 24 2016
Date

ENVIRONMENTAL ASSESSMENT

LEUPP 230-1KV TRANSMISSION LINE AND SUBSTATION PERMIT RENEWAL ON THE NAVAJO NATION, COCONINO COUNTY, ARIZONA

Prepared for
ARIZONA PUBLIC SERVICE

Submitted to
NAVAJO NATION LAND
DEPARTMENT

Prepared by
EnviroSystems Management, Inc.

Environmental Planning • Regulatory Compliance

February 24, 2017



ENVIRONMENTAL ASSESSMENT

**LEUPP 230-1KV TRANSMISSION LINE AND SUBSTATION
PERMIT RENEWAL ON THE
NAVAJO NATION, COCONINO COUNTY, ARIZONA**

Prepared for

ARIZONA PUBLIC SERVICE
PO Box 53933, MS 3286
Phoenix, Arizona 85072-3286
(602) 371-7880

Submitted to

NAVAJO NATION LAND DEPARTMENT
P.O. Box 2249
Window Rock, AZ 86515
Phone: (928) 871-6401

Prepared by

ENVIROSYSTEMS MANAGEMENT, INC.
23 East Fine Avenue
Flagstaff, Arizona 86001
(928) 226-0236
www.esmaz.com

Navajo Nation Department of Fish and Wildlife Special Permit No. 965
Navajo Nation Historic Preservation Department Annual Blanket Permit No. AB-1
EnviroSystems Management Project and Report No. 12-5-06/1857-16

February 24, 2017

TABLE OF CONTENTS

1.0 PURPOSE AND NEED FOR THE ACTION	1
1.1 Introduction.....	1
1.2 Summary of Proposed Action.....	1
1.3 Purpose and Need for Proposed Action.....	1
1.4 Location of Proposed Action	1
2.0 ALTERNATIVES INCLUDING THE PROPOSED ACTION	2
2.1 No Action Alternative.....	2
2.2 Proposed Action Alternative.....	2
3.0 AFFECTED ENVIRONMENT	2
3.1 Land Resources.....	2
3.1.1 Topography and Geology	2
3.1.2 Soils.....	4
3.2 Water Resources	4
3.3 Air Resources.....	4
3.3.1 Air Quality	4
3.3.2 Visibility	5
3.3.3 Climate/Meteorology	5
3.4 Biological Resources	5
3.4.1 Vegetation	6
3.4.2 Wildlife.....	7
3.4.3 Wildlife Sensitivity Area Designation.....	8
3.4.4 Species Analysis	8
3.5 Cultural Resources	10
3.6 Socioeconomic Conditions	11
3.6.1 Environmental Justice.....	12
3.6.2 Indian Trust Assets	12
3.7 Hazardous Materials and Solid Waste.....	13
3.8 Resource/Land Use Patterns	13
3.8.1 Agriculture	13
3.8.2 Mining.....	13
3.8.3 Transportation Use Network.....	13
3.9 Other Values	13
3.9.1 Public Health and Safety.....	13
3.9.2 Visual Settings	13
4.0 ENVIRONMENTAL CONSEQUENCES	14
4.1 Land Resources.....	14
4.2 Water Resources	14
4.3 Air Resources.....	15
4.4 Biological Resources	15
4.5 Cultural Resources.....	17
4.6 Socioeconomic Conditions	18
4.7 Hazardous Materials and Solid Waste.....	18

4.8 Resource/Land Use Patterns	19
4.9 Other Values	19
5.0 CONCLUSIONS REGARDING SIGNIFICANCE.....	20
6.0 CONSULTATION AND COORDINATION.....	21
6.1 Personnel.....	21
6.2 Departmental Consultation and Coordination	21
7.0 REFERENCES.....	22
8.0 SIGNATURE OF DOCUMENT PREPARER.....	24
 APPENDIX A. Biological Resources Compliance Form	
APPENDIX B. Cultural Resources Compliance Form	

List of Figures

Figure 1. Project Location.....	3
---------------------------------	---

List of Tables

Table 1. Plants Identified during the Biological Field Survey.....	6
Table 2. Wildlife Sightings or Sign Identified during the Biological Field Survey	8
Table 3. Summary of Special-Status Species Analysis Findings	9
Table 5. Socioeconomic Composition of the Project Vicinity (Navajo Nation) to the U.S., State, and County	12

1.0 PURPOSE AND NEED FOR THE ACTION

1.1 INTRODUCTION

Arizona Public Service Company (APS) is applying to the Navajo Nation to renew its permit for a right-of-way (ROW) on Navajo Nation Tribal Trust land, which requires an Environmental Assessment (EA) to be prepared for the Navajo Nation Environmental Protection Agency (NNEPA) in accordance with the requirements of the National Environmental Policy Act (NEPA), the Council on Environmental Quality (CEQ) Guidelines for Implementing NEPA (40 CFR Parts 1500-1508), Bureau of Indian Affairs (BIA), Navajo Regional Office Branch of Environmental Services, Environmental Assessment Document Content and Format Instructions, and other relevant federal and tribal laws and regulations. The EA discloses the direct, indirect, and cumulative environmental impacts that would result from the Proposed Action and the NEPA-required No Action Alternative.

1.2 SUMMARY OF PROPOSED ACTION

APS is applying to the Navajo Nation for a renewal of its ROW permit for a powerline and substation on Navajo Nation Tribal Trust land, Coconino County, Arizona. The ROW is for the overhead 29.04-mile-long APS Leupp 230-1kV high voltage (HV) transmission line (also referred to as APS line 230-1 and Coconino to Cholla 230kV) and substation. The ROW will be used for operation and routine maintenance of the existing overhead 230kV powerline, which supplies power from the Cholla Power Plant to Flagstaff and other area communities, as well as an El Paso Corporation natural gas compressor station near Leupp. The powerline ROW is 100 feet wide covering 352 acres. The substation measures 150 feet by 125 feet in size and covers another 0.43 acre. No new construction is associated with the permit renewal.

1.3 PURPOSE AND NEED FOR PROPOSED ACTION

The ROW will be used for continued operation and maintenance of the existing overhead 230kV powerline which supplies power to an El Paso Corporation natural gas compressor station, along with the right to ingress and egress on existing roads.

1.4 LOCATION OF PROPOSED ACTION

The powerline is located south of Leupp and north of Two Guns, Arizona between the Little Colorado River and Interstate 40. The line crosses the southern portion of the Leupp and Tsidi To'ii (Bird Springs) chapters of the Navajo Nation. The powerline extends from the reservation boundary near South Sheba Crater in a general easterly direction for 9.9 miles and then continues southeast for another 19 miles to the reservation boundary north-northwest of Winslow. The associated substation, which services the El Paso Corporation compressor station, is within the Leupp Chapter approximately 4.8 miles west of the community of Leupp. The powerline location is legally described, running west to east, as follows:

T22N, R11E, Sections 8, 9, 10, 11, and 12; T22N, R12E Sections 7, 8, 9, 10, 11, 12, and 13;
T22N, R12 1/2E, Sections 14, 15, 23, and 24; T22N, R13E, Sections 30, 32, and 33;
T21N, R13E, Sections 3, 4, 11, and 12; T21N, R14E, Sections 7, 17, 18, 20, 21, 22, 25, 26, 27,
and 36; T21N, R15E, Sections 31 and 32.

The project area is included on the Grand Falls SW, Grand Falls SE, Old Leupp, Tucker Mesa NW, Tucker Mesa NE, and Winslow NW, AZ 7.5 minute quadrangles, Gila and Salt River Baseline and Meridian (*Figure 1*). The powerline ROW is 100 feet wide covering 352 acres. The substation measures 150 feet by 125 feet in size and covers another 0.43 acre.

2.0 ALTERNATIVES INCLUDING THE PROPOSED ACTION

The analysis of the potential impacts of the permit renewal includes a Proposed Action Alternative and a No Action Alternative.

2.1 NO ACTION ALTERNATIVE

The No Action Alternative is required by NEPA and provides a baseline with which to compare any proposed activities. Under the No Action Alternative, the ROW permit would not be renewed. APS would not be allowed to operate and maintain the powerline, degrading the reliability of electrical power in the region served by the transmission line (Flagstaff and surrounding areas).

2.2 PROPOSED ACTION ALTERNATIVE

The Proposed Action involves a renewal of the current ROW permit for the Leupp 230-1kV powerline. Renewal of the ROW permit would allow operation and routine maintenance of the existing overhead 230kV transmission line and substation within the project area, along with the right to access such structures using existing roads. No new construction is associated with the permit renewal.

3.0 AFFECTED ENVIRONMENT

The affected environment outlines the physical, biological, cultural, social, and economic environments that may be affected or potentially affected by the Proposed Action. Each resource topic is evaluated for current or existing conditions, which provide the scientific and analytical basis for the impact comparisons given in Chapter 4.0, Environmental Consequences.

3.1 LAND RESOURCES

3.1.1 Topography and Geology

The existing 29.04-mile powerline is located within the Colorado Plateau physiographic province (Hendricks 1985). The Colorado Plateau is characterized by high elevations, large areas of exposed bedrock, extensive horizontal beds of sedimentary deposits, and areas of volcanic activity (Cordell 1984). The surficial geology of the area is characterized by Pliocene to Holocene basaltic rocks of the San Francisco Volcanic Field; Permian and Triassic sedimentary rocks derived from the Kaibab, Moenkopi, and Chinle formations; and Holocene surficial deposits associated with modern fluvial systems (Richard et al. 2000). Topography along the powerline consists of shallow, rolling hillsides, and small drainages in the portions west and south of Leupp, and extensive flat playas divided by low mesas to the southeast of State Route 99. Elevation in the project area ranges from 4,715 to 5,710 feet above mean sea level (amsl).



3.1.2 Soils

Because of the powerline extent, it crosses many soil types derived from the various underlying parent materials (NRCS 2016). Soils in the western portion of the project area are loamy sands with inclusions and occasional outcrops of parent material including cinders, limestone, or sandstone. In the playas to the southeast the soil includes more clay and inclusions of petrified wood from the Chinle Formation. In general, these soils have low to fair potential to produce adequate forage plants for livestock grazing (Hendricks 1985), but forage is limited by low amounts of precipitation. The average total precipitation in the Leupp area is 6.50 inches (WRCC 1981).

No prime or unique farmland occurs within the project area (approximately 352 acres). The powerline crosses arid lands with loose soils, which are primarily used for grazing.

3.2 WATER RESOURCES

The project area is located within the Little Colorado River Watershed and Little Colorado River Plateau Groundwater Basin (ADEQ 2016; ADWR 2016). The project corridor crosses several ephemeral tributaries of the Little Colorado River, the largest of which occurs in Diablo Canyon. Water is present mainly during runoff from spring snow-melt (in the case of Diablo Canyon) and summer monsoonal precipitation. The nearest major waterway is the Little Colorado River, located north and east of the project area, approaching to within approximately 1 mile just southeast of Leupp and again at the southeastern end of the project area. No Outstanding Arizona Waters occur within or near the project area (ADEQ 2016).

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate map panels were reviewed and no special flood hazard areas occur within the project area. The entire proposed project area lies in Zone D, which is described as “areas in which flood hazards are undetermined, but possible” (FEMA 2016). Additionally, the U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory was reviewed and freshwater emergent wetlands and riverine wetlands were identified (USFWS 2016). The freshwater emergent wetland identified (in Diablo Canyon) was classified as PEM1J, which is characterized as non-tidal wetlands dominated by emergent vegetation with intermediate flooding. The riverine wetlands (in Diablo Canyon and numerous other small tributaries of the Little Colorado River) were classified as R4SBC or R4SBJ, which are characterized by intermittent flow with isolated pools in a streambed which has seasonal flooding. Finally, another wetland may exist in a playa at the far eastern end of the project corridor. The USFWS has mapped a lacustrine wetland in the southern portion of the playa, terminating at the southern boundary of the Navajo Nation. Site observations suggest that the entire playa should be considered as part of this wetland, which is classified as L2USJ, an intermittently-flooded lake with unconsolidated shorelines.

No known wells, water lines, sewer lines, or septic systems occur within the project area.

3.3 AIR RESOURCES

3.3.1 Air Quality

The project area is located in the Northern Arizona Intrastate Air Quality Control Region, which is identified as a Class II airshed. The site is currently in compliance with National Ambient Air Quality Standards set by the U.S. Environmental Protection Agency (ADEQ 2016). Attainment

areas have no recorded violations of the federal health standards for ambient air quality. Non-attainment areas are those that do not meet National Ambient Air Quality Standards. The nearest non-attainment area is located in Gila County, approximately 65 miles southwest of the project area (ADEQ 2016). Lands designated as Class I areas, which are afforded the highest level of protection from air pollutants; consist of national wilderness areas, parks, and wildlife refuges. The closest Federal Class I area is the Sycamore Canyon Wilderness Area, which is located approximately 40 miles southwest of the project area (ADEQ 2016).

The existing air quality in the project area is typical of undeveloped regions in the western United States. In general, air quality is good, though short-term degradation can result from vehicular traffic, dust storms, and land-disturbing activities. Fugitive dust is generated by the erosive force of winds blowing across the area. Heavy traffic on I-40 and localized traffic on Leupp Road and State Route 99 can increase levels of vehicular-related contaminants. Emissions from wildfires and the burning of vegetation and refuse can also reduce air quality and contribute to regional haze.

3.3.2 Visibility

Visibility is generally good along the project corridor, allowing expansive views of the surrounding region. Occasionally, regional haze contributes to perceptible reductions in long-distance visibility. Such haze may emanate from a variety of sources typical of a rural environment such as smoke from burning vegetation and refuse, wildfires, and wind-blown and fugitive dust, usually from vehicles driving on dirt roads. Summer dust storms are sometimes severe and can result in substantial but temporary reductions to visibility, both locally and regionally.

3.3.3 Climate/Meteorology

The project area is within a desert environment, with an average of 6.50 inches/year of precipitation, mostly in the form of rain. Summer temperatures generally reach the low 90s during the day and into the 50s at night. Daytime temperature highs are generally in the 40s in the winter, with nighttime temperatures dipping into the high teens (WRCC 2016).

Meteorology plays an important role in the formation, transport, and dispersal of airborne pollution. During years with reduced precipitation, strong winds tend to increase the levels of wind-blown dust. During the colder winter months, temperature inversions often result in smoke accumulation in localized areas due to the increased use of wood-burning stoves and fireplaces in homes. In summer, slow-moving, high-pressure systems can contribute to regional haze forming over vast areas of the Southwest.

3.4 BIOLOGICAL RESOURCES

To assess the potential for special-status species and their habitats, the project area was surveyed by a qualified EnviroSystems biologist. Prior to the field survey, a list of special-status species was obtained from the Navajo Nation Department of Fish and Wildlife (NNDFW 2016) and the available literature was reviewed. The results of the field survey and analysis of potential impact to all special status species were documented in a Biological Evaluation (EnviroSystems 2016). The Biological Evaluation was submitted to NNDFW for review and concurrence of the

findings. A Biological Resources Compliance Form was issued on August 25, 2016 (*Appendix A*).

3.4.1 Vegetation

The dominant biotic communities found throughout the project area are Plains and Great Basin Grasslands and Great Basin Desertscrub (Brown 1994). The most common vegetation species observed in the Plains and Great Basin Grasslands were black grama (*Bouteloua eriopoda*), galleta grass (*Pleuraphis jamesii*), rubber rabbitbrush (*Ericameria nauseosa*), and sand dropseed (*Sporobolus cryptandrus*). Species most commonly encountered in the Great Basin Desertscrub include saltbush (*Atriplex* spp.), Mojave seablite (*Suaeda nigra*), purple threeawn (*Aristida purpurea*), and alkali sacaton (*Sporobolus airoides*). Other vegetation scattered throughout the project area includes Indian ricegrass (*Achnatherum hymenoides*), needle and thread (*Hesperostipa comata*), cliffrose (*Purshia stansburyana*), snakeweed (*Gutierrezia sarothrae*), Navajo yucca (*Yucca baileyi*), and prickly pear (*Opuntia* spp.). Wetland obligate vegetation occurring within Diablo Canyon and at the far eastern portion of the transmission line on Navajo Nation Tribal Trust land includes exotic salt cedar (*Tamarix chinensis*). *Table 1* presents a complete list of plants identified in the project area.

Table 1. Plants Identified during the Biological Field Survey

COMMON NAME	SCIENTIFIC NAME
SHRUBS/SUB-SHRUBS	
Bigelow sage	<i>Artemisia bigelovii</i>
four-wing saltbush	<i>Atriplex canescens</i>
saltbush	<i>Atriplex</i> spp.
Greene rabbitbrush	<i>Chrysothamnus greenei</i>
Torrey Mormon tea	<i>Ephedra torreyana</i>
rubber rabbitbrush	<i>Ericameria nauseosa</i>
buckwheat	<i>Eriogonum</i> sp.
Apache plume	<i>Fallugia paradoxa</i>
broom snakeweed	<i>Gutierrezia sarothrae</i>
winterfat	<i>Krascheninnikovia lanata</i>
Stansbury cliffrose	<i>Purshia stansburiana</i>
skunkbush sumac	<i>Rhus trilobata</i>
black greasewood	<i>Sarcobatus vermiculatus</i>
Mojave seablite	<i>Suaeda nigra</i>
FORBS	
snowball sand-verbena	<i>Abronia fragrans</i>
Peebles blue-star	<i>Amsonia peeblesii</i>
Louisiana sagewort	<i>Artemisia ludoviciana</i>
milkvetch	<i>Astragalus</i> spp.
Indian paintbrush	<i>Castilleja</i> sp.
baby aster	<i>Chaetopappa ericoides</i>
popcorn flower	<i>Cryptantha</i> sp.

COMMON NAME	SCIENTIFIC NAME
tansymustard	<i>Descurainia</i> sp.
spreading fleabane	<i>Erigeron divergens</i>
common sunflower	<i>Helianthus annuus</i>
yellow desert-dandelion	<i>Malacothrix sonchoides</i>
scurfy mallow	<i>Malvella lepidota</i>
whitestem stickleaf	<i>Mentzelia albicaulis</i>
evening primrose	<i>Oenothera pallida</i>
notchleaf scorpionweed	<i>Phacelia crenulata</i>
woolly plantain	<i>Plantago patagonica</i>
globemallow	<i>Sphaeralcea</i> spp.
desert princesplume	<i>Stanleya pinnata</i>
wirelettuce	<i>Stephanomeria</i> sp.
CACTI, AGAVE, & SUCCULENTS	
prickly pear cactus	<i>Opuntia</i> spp.
banana yucca	<i>Yucca baccata</i>
Navajo yucca	<i>Yucca baileyi</i>
GRASSES	
Indian ricegrass	<i>Achnatherum hymenoides</i>
purple three-awn	<i>Aristida purpurea</i>
black grama	<i>Bouteloua eriopoda</i>
low woollygrass	<i>Dasyochloa pulchella</i>
squirreltail	<i>Elymus elymoides</i>
needle and thread	<i>Hesperostipa comata</i>
James' galleta	<i>Pleuraphis jamesii</i>
alkali sacaton	<i>Sporobolus airoides</i>
sand dropseed	<i>Sporobolus cryptandrus</i>
NON-NATIVE SPECIES	
camelthorn	<i>Alhagi maurorum</i>
red brome	<i>Bromus rubens</i>
saltlover	<i>Halogeton glomeratus</i>
prickly lettuce	<i>Lactuca serriola</i>
Russian thistle	<i>Salsola tragus</i>
tamarisk	<i>Tamarix chinensis</i>
yellow salsify	<i>Tragopogon dubius</i>

3.4.2 Wildlife

The project area provides habitat for a variety of wildlife species. Animals observed during the surveys included the whiptail lizard (*Aspidoscelis velox*), blacktail jackrabbit (*Lepus californicus*), Gunnison's prairie dog (*Cynomys gunnisoni*), raven (*Corvus corax*), red-tailed hawk (*Buteo jamaicensis*), and many other species. Burrows, tracks, and scat of several mammal species were detected including coyote (*Canis latrans*), Rocky Mountain elk (*Cervus elaphus*),

and woodrat (*Neotoma* sp.). The only active nests found during the surveys were two raven nests on poles in the central and southeastern portions of the line. Table 2 presents a complete list of wildlife species detected in the project area.

Table 2. Wildlife Sightings or Sign Identified during the Biological Field Survey

COMMON NAME	SCIENTIFIC NAME
BIRDS	
black-throated sparrow	<i>Amphispiza bilineata</i>
burrowing owl	<i>Athene cunicularia</i>
common raven	<i>Corvus corax</i>
horned lark	<i>Eremophila alpestris</i>
lark sparrow	<i>Chodestes grammacus</i>
mourning dove	<i>Zenaida macroura</i>
red-tail hawk	<i>Buteo jamaicensis</i>
rock wren	<i>Salpinctes obsoletus</i>
western kingbird	<i>Tyrannus verticalis</i>
western meadowlark	<i>Sturnella neglecta</i>
MAMMALS	
blacktail jackrabbit	<i>Lepus californicus</i>
coyote	<i>Canis latrans</i>
desert cottontail	<i>Sylvilagus audubonii</i>
Gunnison's prairie dog	<i>Cynomys gunnisoni</i>
Rocky Mountain elk	<i>Cervus elaphus</i>
woodrat	<i>Neotoma</i> sp.
REPTILES	
common lesser earless lizard	<i>Holbrookia maculata</i>
fence lizard	<i>Sceloperus</i> sp.
plateau striped whiptail	<i>Aspidoscelis velox</i>

3.4.3 Wildlife Sensitivity Area Designation

The Navajo Nation is divided into six types of wildlife areas: Area 1 – Highly Sensitive Area, Area 2 – Moderately Sensitive Area, Area 3 – Less Sensitive Area, Area 4 – Community Development Area, Area 5 – Biological Preserve, and Area 6 – Recreation Area (NNDFW 2016). The project area is located within land designated as Areas 3 – Less Sensitive Area and 4 – Community Development Area, both of which have a low and fragmented concentration of species of concern (NNDFW 2016).

3.4.4 Species Analysis

According to the NNDFW consultation letter (NNDFW 2016), and the USFWS IPaC lists there were a total of 15 wildlife and plant species of concern with potential to occur within the project vicinity. The existing literature was reviewed for each species in order to determine if each species and/or their habitat may be affected by permit renewal. The biological field survey was also used to verify potential habitat for each species. A total of 11 species were found to occur or

have potential habitat within the existing right-of-way. The remaining four species were excluded from further analysis due to lack of habitat within the project area.

In addition, biological field survey of the project was performed by EnviroSystems biologists May 11, 24, 25, and June 14, 2016 to determine the presence/absence of any sensitive species and/or preferred habitat within the existing transmission line right-of-way. A small buffer area surrounding the project area was also surveyed for the sole purpose of assuring that a thorough biological survey was conducted. EnviroSystems also consulted with NNDFW for raptor species that are known to occur within one mile of the project area. The results of the biological field survey and a finding of effect for each species of concern are presented in *Table 3*.

Table 3. Summary of Special-Status Species Analysis Findings

COMMON NAME	SCIENTIFIC NAME	HABITAT PRESENCE IN PROJECT AREA	FINDING
MAMMALS			
black-footed ferret	<i>Mustela nigripes</i>	Potential habitat occurs within the project boundary, however the permit renewal would not remove any habitat	No effect to the species or its habitat
BIRDS			
golden eagle	<i>Aquila chrysaetos</i>	No nesting habitat within project boundary, only potential foraging habitat. Permit renewal will not remove any potential habitat	No effect to the species or its habitat
burrowing owl	<i>Athene cunicularia</i>	Habitat and individuals occur within the project boundary, however the permit renewal would not remove any habitat	May affect individuals, not likely to adversely affect species or its habitat
ferruginous hawk	<i>Buteo regalis</i>	No nesting habitat within project boundary, only potential foraging habitat. Permit renewal will not remove any potential habitat	No effect to the species or its habitat
mountain plover	<i>Charadrius montanus</i>	Potential habitat occurs within the project boundary, however the permit renewal would not remove any habitat	No effect to the species or its habitat
southwestern willow flycatcher	<i>Empidonax traillii extimus</i>	Potential habitat occurs near the project area in the Little Colorado River channel, however the permit renewal would not remove any habitat	No effect to the species or its habitat
yellow-billed cuckoo	<i>Coccyzus americanus</i>	Potential habitat occurs near the project area in the Little Colorado River channel, however the permit renewal would not remove any habitat	No effect to the species or its habitat
REPTILES & AMPHIBIANS			
northern leopard frog	<i>Lithobates pipiens</i>	Potential habitat occurs near the project area in the Little Colorado River channel, however the permit renewal would not remove any habitat	No effect to the species or its habitat
northern Mexican gartersnake	<i>Thamnophis eques megalops</i>	Potential habitat occurs near the project area in the Little Colorado River channel, however the permit renewal would not remove any habitat	No effect to the species or its habitat

COMMON NAME	SCIENTIFIC NAME	HABITAT PRESENCE IN PROJECT AREA	FINDING
PLANTS			
Peebles' blue-star	<i>Amsonia peeblesii</i>	Habitat and individuals occur within the project boundary, however the permit renewal would not remove any habitat	May affect individuals, not likely to adversely affect species or its habitat
Arizona rose sage	<i>Salvia pachyphylla</i> ssp. <i>eremopictus</i>	Potential habitat occurs within the project boundary, however the permit renewal would not remove any habitat	No effect to the species or its habitat

3.5 CULTURAL RESOURCES

The Navajo Nation portion of the existing Leupp 230-1kV transmission line was inventoried for cultural resources in 2007 by EnviroSystems (Newsome and Poseyesva 2016) and in 2008 by Logan Simpson (no report; data compiled by EnviroSystems). Inventory of the Leupp 230-1kV resulted in the documentation of 19 archaeological sites, 47 isolated occurrences, and one in-use property.

Of the 19 total sites, 12 are prehistoric and primarily affiliated with the Anasazi or Northern Sinagua, four are multicomponent, and three are likely of Navajo affiliation (*Table 4*). The Anasazi sites are habitations or artifact scatters. The multicomponent sites include locales containing diverse features types and/or artifact scatters ranging from the Anasazi to historic Navajo periods. The Navajo sites consist of a sheep pen, possible animal pen or windbreak, and a trash/refuse dump.

Thirteen of the 19 sites have been determined eligible to the National Register of Historic Places (National Register), five are National Register-ineligible, and one is undetermined and will be treated as if it were eligible (see *Appendix B*, Cultural Resources Compliance Form). The 47 isolated occurrences and one in-use site (consisting of a small sheep pen and four horse corrals) are not eligible to the National Register.

Table 4. Archaeological Sites within and adjacent to Leupp 230-1kV Transmission Line Permit Renewal Inventory Area

Site Number	Site Type	Cultural Affiliation / Dates	NRHP Eligibility	Pole Structure within Site
Previously Recorded Sites (revisited by EnviroSystems)				
AZ-N-41-1	Flaked Stone Scatter / Lithic Source Area	Unknown Prehistoric	Not Eligible	No
AZ-N-41-2	Lithic Source Area	Unknown Prehistoric	Not Eligible	Yes
Previously Recorded Sites (revisited by Logan Simpson)				
AZ-N-42-29	Fieldhouse with other Rock Features	Anasazi or Northern Sinagua / A.D. 1025–1225 (Pueblo II-III)	Eligible	No
AZ-N-41-41	Multicomponent Features & Artifact Scatter	Anasazi / A.D. 1070–1180 (Pueblo II-III); Navajo / ca. early to mid 1900s	Eligible	Yes
AZ-O-48-72	Multicomponent Features & Artifact Scatter	Unknown Prehistoric & Historic	Eligible	Yes

Newly Recorded Sites (by EnviroSystems)				
AZ-N-42-27	Sheep Pen	Navajo/ca. 1940s–1950s?	Eligible	No
AZ-N-42-28	Possible Windbreak or Animal Pen	Navajo/ca. 1940s–1950s?	Eligible	No
AZ-N-42-29	<i>Is listed above under Previously Recorded Sites by Logan Simpson since Logan Simpson redocumented it.</i>			
AZ-N-42-30	Sherd Scatter	Anasazi or Northern Sinagua / A.D. 1150–1225 (Pueblo III)	Eligible	Yes
AZ-N-41-31	Artifact Scatter	Anasazi / A.D. 1075–1200 (Pueblo II–III)	Not Eligible	No
AZ-N-41-32	Flaked Stone Scatter	Possible Archaic	Eligible	No
AZ-N-41-33	Trash Dump	Likely Navajo / ca. 1957	Not Eligible	No
AZ-O-48-45/46	Artifact Scatter; Erosion Control Features	Anasazi / A.D. 800–1300 (Pueblo I–III) Navajo or Euroamerican / ca. 1930s–1940s	Eligible (<i>historic component only</i>)	Yes
AZ-O-48-47	Artifact Scatter; Possible Burial Location	Anasazi / A.D. 1050–1275 (Pueblo II–III); Navajo / Historic–Modern	Eligible	No
Newly Recorded Sites (by Logan Simpson)				
AZ-N-42-35	Sherd Scatter	Anasazi / A.D. 1070–1180 (Pueblo II–III)	Not Eligible	No
AZ-N-42-36	Masonry Structure & Artifact Scatter	Anasazi / A.D. 1050–1150 (Pueblo II)	Eligible	No
AZ-N-42-37	Artifact Scatter	Anasazi / A.D. 1070–1180 (Pueblo II–III)	Eligible	No
AZ-N-42-38	Artifact Scatter	Anasazi / A.D. 1120–1200 (Pueblo III)	Eligible	No
AZ-N-41-39	Multicomponent Features & Artifact Scatter	Anasazi / A.D. 1025–1150 (Pueblo II–III); Navajo / Historic–Modern	Undetermined	Yes
AZ-N-41-40	Artifact Scatter	Anasazi / A.D. 1065–1100 (Pueblo II)	Eligible	No (<i>but pole just outside to east</i>)

3.6 SOCIOECONOMIC CONDITIONS

The project area is located in Navajo Nation, Coconino County, Arizona, and crosses through the Leupp and Tsidi To'ii (Bird Springs) chapters of the Navajo Nation. Both chapters are part of the Western Navajo Agency. The Leupp Chapter has a total population of 970 people and covers approximately 303,746 acres. The community of Leupp is becoming one of the Navajo Nation's major growth centers, focusing on high-tech industries. Tooh Dineh Industries manufactures computer peripherals for information, communication, and transportation industries. An industrial park has been developed and is available for occupancy by light industries and offices. Major employers include Tooh Dineh Industries, Leupp Schools, Flagstaff Unified School District, the Navajo Nation, El Paso Natural Gas, and Transwestern Pipeline Company (Leupp Chapter 2016; ADOC 2009).

The Tsidi To'ii Chapter has a total population of 795 people and covers approximately 194,588 acres. Major employers include the Little Community Singer School, Transwestern Pipeline Company, the Senior Citizens Center, the Head Start Program, and Adult-in-Home Care (Navajo Nation 2013; Navajo Times 2012; Tsidi To'ii Chapter 2007).

The transmission line provides power for an El Paso Corporation natural gas compressor station located within the Leupp Chapter. The line does not provide power for any other facilities on the Navajo Reservation. However, the transmission line is a major electrical feeder into Flagstaff, Arizona, terminating at the Coconino Substation near Northern Arizona University. Renewal of

the ROW permit would enable continuing service to a large portion of the Flagstaff area. The renewal would also provide continuing revenue to the Navajo Nation in the form of ROW fees.

3.6.1 Environmental Justice

Executive Order 12898, dated February 11, 1994, established the requirement to address environmental justice concerns within the context of federal agency operations. Environmental justice concerns include any adverse effect on minority and low-income populations within a given study area that result from the Proposed Action. Key indicators reviewed for environmental justice include minority populations, poverty rates, and income within a community. *Table 5* shows the race and ethnicity of the population in the project area and vicinity according to the 2010 Census (USCB 2010).

Table 5. Socioeconomic Composition of the Project Vicinity (Navajo Nation) to the U.S., State, and County

Area	Race (Percentages)						Poverty	Income	Unemployment
	White	African American	American Indian or Alaska Native	Asian	Pacific Islander	Some Other Race	% Individuals in Poverty	Per Capita Income	Unemployment Rate (%)
United States ¹	72.4	12.6	0.9	4.8	0.2	9.1	15.6	28,555	9.2
Arizona ¹	73.0	4.1	4.6	2.8	0.2	15.3	18.2	25,537	9.9
Coconino County ¹	61.7	1.2	27.3	1.4	0.1	8.3	23.8	23,459	9.7
Navajo Nation ¹	2.0	0	96.0	0	0	2.0	37.7	10,547	15.6

(1) Based on data from the U.S. Census Bureau, Census 2010 Summary.

Table 5 also includes the percentage of individuals and families living in poverty in and surrounding the project area. According to the 2010 Census, 15.6% of the population lived in poverty in the United States, whereas the Navajo Nation (37.7%) has a much higher percentage. Navajo Nation also has substantially lower per capita incomes (\$10,547) than the state of Arizona (\$25,537) and the United States (\$28,555).

3.6.2 Indian Trust Assets

Indian Trust Assets (ITAs) are legal interests in assets held in trust by the United States for Native American tribes or individual Native Americans. Assets are anything owned that have monetary value. The asset need not be owned outright, but could be some other type of property interest such as a lease or right of use. Assets can be real property, physical assets, or intangible property rights. The United States has an Indian Trust responsibility to protect and maintain rights reserved or granted to Native American tribes or individuals by treaties, statutes, and Executive Orders (EOs). The trust responsibility requires that all federal agencies take all actions reasonably necessary to protect trust assets. Trust assets include but are not limited to land resources, water rights, minerals, and hunting and fishing rights.

3.7 HAZARDOUS MATERIALS AND SOLID WASTE

There are no known landfills, hazardous waste sites, or toxic substances adjacent to the project area. Additionally, there are no underground or aboveground petroleum storage tanks within the project area (ADEQ 2016). A small, illegal dump site was encountered within the powerline ROW during the survey in the western portion of the project area approximately 10 miles west of Leupp. However, the minimal quantity of material present (no more than 2-3 cubic yards) and the nature of the trash (household waste such as empty cans and bottles, and a few used tires) did not appear to pose a threat of contamination with hazardous materials, at least in any significant quantities.

3.8 RESOURCE/LAND USE PATTERNS

The project area is located on variable terrain with evidence of historic and current livestock grazing. The site is not suitable for timber management.

3.8.1 Agriculture

Livestock grazing, including cattle, sheep, and goats, occurs throughout the surrounding region and livestock occasionally utilize the project area. Based on soil descriptions and visual observation during field surveys of the project corridor, rangeland conditions appear fair to poor. Grazing activities within the project area are regulated by the respective Chapter's Grazing Committee. No commercial farming occurs within or in the vicinity of the project area.

3.8.2 Mining

No active mines occur within the project corridor.

3.8.3 Transportation Use Network

From the far western end of the powerline to approximately 4 miles west of Sunrise, Arizona, the project corridor generally follows Navajo Route (NR) 15, crossing the road several times. At this point, the powerline heads southeast, crosses State Route (SR) 99, and generally parallels the southwest side of NR 2 to the end of the line on the Navajo Nation. The powerline remains outside road ROWs except when it crosses NR 15, SR 99, and a number of unpaved roads at various locations along the powerline corridor.

3.9 OTHER VALUES

3.9.1 Public Health and Safety

A significant amount of electricity is transported along this 230kV powerline, with greater concentrations housed in the substation. The substation has signs that provide ample warning of the high voltage content. The powerline is overhead, approximately 50-60 feet high and supported by dual 65-foot tall wooden poles which precludes access by the general public.

3.9.2 Visual Settings

The terrain surrounding the project corridor generally exhibits broad, flat topography, allowing expansive views of the surrounding region. Vegetation is generally sparse and consists primarily of grassland and desert scrub communities. The overhead powerline, associated poles, and substation dominate the visual setting within the immediate project corridor.

4.0 ENVIRONMENTAL CONSEQUENCES

4.1 LAND RESOURCES

No Action Alternative – Direct, Indirect, and Cumulative Effects

Under the No Action Alternative, the APS permit for the existing 29.04-mile HV transmission line, right-of-way, and associated substation would not be renewed, so that the land would remain as is. Without the permit renewal, APS' ability to operate and maintain the Leupp 230-1kV HV transmission line would be limited. The Navajo Nation could also require APS to remove their facilities from Navajo Tribal Trust lands. This would result in the reduction or loss of access to electrical power for Flagstaff and other area communities, as well as the El Paso Corporation natural gas compressor station. As a result, no direct, indirect, or cumulative effects to land resources within the project area would occur.

Proposed Action – Direct, Indirect, and Cumulative Effects

The proposed project is for right-of-way permit renewal only. There are no plans for additional development along the right-of-way that could potentially impact land resources. All maintenance of the existing transmission line, substations, and appurtenant facilities would involve the use of existing roads. While vehicle travel on such roads to access the right-of-way could result in some soil compaction and erosion, impacts would be minimal and only occur on previously disturbed areas. In addition, soil and resource conservation and protection measures, including weed control, applied to the land covered by the right-of-way would reduce adverse impacts to land resources. APS would also engage in fire prevention measures within the ROW areas, which would further reduce the potential for soil erosion.

4.2 WATER RESOURCES

No Action Alternative – Direct, Indirect, and Cumulative Effects

Under the No Action Alternative, the APS permit for the existing 29.04-mile HV transmission line, right-of-way, and associated substation would not be renewed, so that the land would remain as is. Without the permit renewal, APS' ability to operate and maintain the Leupp 230-1kV HV transmission line would be limited. The Navajo Nation could also require APS to remove their facilities from Navajo Tribal Trust lands. This would result in the reduction or loss of access to electrical power for Flagstaff and other area communities, as well as the El Paso Corporation natural gas compressor station. As a result, no direct, indirect, or cumulative effects to water resources within the project area would occur.

Proposed Action – Direct, Indirect, and Cumulative Effects

No adverse effects to surface, ground, or drinking water resources are anticipated. The overhead powerline completely spans all drainages along the project corridor, including Diablo Canyon. No maintenance activities would occur in any drainage that could impact water resources. Identified wetland habitat within the project area will be avoided. If emergency maintenance activities within either wetland are deemed necessary, APS will contact NNHP before any work is carried out. No drinking water will be impacted as a result of the project. As a result, no direct, indirect, or cumulative impacts to water resources are anticipated.

4.3 AIR RESOURCES

No Action Alternative – Direct, Indirect, and Cumulative Effects

Under the No Action Alternative, the APS permit for the existing 29.04-mile HV transmission line, right-of-way, and associated substation would not be renewed, so that the land would remain as is. Without the permit renewal, APS' ability to operate and maintain the Leupp 230-1kV HV transmission line would be limited. The Navajo Nation could also require APS to remove their facilities from Navajo Tribal Trust lands. This would result in the reduction or loss of access to electrical power for Flagstaff and other area communities, as well as the El Paso Corporation natural gas compressor station. Loss of power to the compressor station could result in the facility having to produce its own electrical power with additional internal combustion engines, and a concomitant increase in local air pollutant emissions. However the compressor station is already a major source of air pollutants, and the effect of such a change on local air quality would likely be insignificant. No other direct, indirect, or cumulative effects to air resources within the project area would occur.

Proposed Action – Direct, Indirect, and Cumulative Effects

The Proposed Action is for right-of-way permit renewal only. While a small amount of fugitive dust will be generated by maintenance vehicles occasionally accessing the project corridor on existing dirt roads, this effect is insignificant given the large network of regularly traveled unpaved roads in the vicinity of the project. There are no plans for additional development along the right-of-way that could potentially impact air resources in a more significant fashion. Continued operation and maintenance of the Leupp 230kV transmission line would not therefore contribute to air pollution in any meaningful way.

4.4 BIOLOGICAL RESOURCES

No Action Alternative – Direct, Indirect, and Cumulative Effects

Under the No Action Alternative, the APS permit for the existing 29.04-mile HV transmission line, right-of-way, and associated substation would not be renewed, so that the land would remain as is. Without permit renewal, APS' ability to operate and maintain the Leupp 230-1kV HV transmission line would be limited. The Navajo Nation could also require APS to remove their facilities from Navajo Tribal Trust lands. This would result in the reduction or loss of access to electrical power for Flagstaff and other area communities, as well as the El Paso Corporation natural gas compressor station. As a result, no direct, indirect, or cumulative effects to biological resources within the project area would occur.

Proposed Action – Direct, Indirect, and Cumulative Effects

The Proposed Action is for right-of-way permit renewal only. There are no plans for additional development along the right-of-way that could potentially impact biological resources. During the biological survey two special-status species and their habitat were found within the ROW for the existing 29.04-mile transmission line and substation, as well as suitable habitat for several other species. While some species individuals may experience temporary effects due to regular operation and maintenance of the transmission line and substation, with implementation of the conservation measures described below no adverse effects to federally protected species or NNDFW special-status species will occur as a result of the proposed project.

While suitable habitat exists for two special status plant species within and adjacent to the project right-of-way, and one of these species was encountered and mapped (Peebles blue star, NESL G4), such species would generally tend to occur in the undisturbed areas away from the ROW. Since no new construction is proposed and all maintenance activities, including travel by vehicles to access the transmission line and substation, would occur on previously disturbed surfaces, impacts to vegetation (including special status plant species) would be minimal to nonexistent. With regard to the Peebles blue star populations encountered during the biological survey (see Figure 1 for locations), the following conservation measure should be followed to avoid affecting individuals or populations: no ground disturbance should be conducted within a 200 ft. buffer of the two populations to avoid habitat destruction. Both populations are located in drainages between transmission line poles, without a parallel access road, so avoidance of the populations should not require any special precautions beyond being aware of their presence.

Impacts to wildlife would also be minimal, as no new construction activities are proposed. While a few small animals such as lizards, snakes, and rodents, could be killed by vehicles accessing the transmission line for maintenance purposes, more mobile animals, such as birds, antelope, and rabbits would move out of harm's way during maintenance activities within the project right-of-way. Consideration must be given, however, to avoid harming burrowing owls (NESL G4; also covered by the MBTA) in the vicinity of the prairie dog colony where they were observed (see Figure 1). For this species, the section of ROW intersecting the prairie dog colony should be avoided entirely during the nesting season of March 1 – August 15. Outside of the nesting season, activities which may impact the habitat should be preceded by pre-construction monitoring surveys.

EnviroSystems recommends the following conservation management, mitigation measures, and BMPs during maintenance and operation activities to prevent the establishment of non-native plant species, and reduce any potential impacts to special status species:

- Operation and maintenance equipment including trucks, bulldozers, and excavators (no ATVs or passenger vehicles) would be kept free of noxious/invasive weed species by washing equipment prior to entering the construction site, prior to moving equipment from infested to non-infested areas of the project, and prior to departing the site.
- Major operational activities should be conducted outside of areas where known populations of invasive species exist.
- Where contact with a population of invasive weeds is unavoidable, APS would ensure that the population is treated prior to any activity in the area.
- All operation /maintenance activities would be confined to the established right-of-way area. The use of best management practices during construction/maintenance would be implemented to limit effects to land, water (surface and ground), and biological resources.
- Any major dust generated during operation and maintenance would be controlled by watering and/or other standard dust abatement measures before, during, and after construction/maintenance. Basic vehicular traffic on ROW roads would not need to be mitigated.
- All trash, food items, and other solid waste would be contained in closed containers and removed daily.

- All future construction would occur outside of the Migratory Bird breeding season (March 1 – August 31) or pre-action surveys to determine nesting will be required and completed. The surveys would include a 50-meter (165-foot) buffer outside the edge of disturbance. Removal or disturbance of nesting habitat (i.e. trees and shrubs) will not be allowed within 50 meters of an active nest at any point in time beginning from the avian egg incubation period and lasting until fledging is complete (juveniles fly from the nest and do not return).
- All operation and maintenance activities will follow the Navajo Nation Golden and Bald Eagle Nest Protection Regulations including potential seasonal restrictions between February 1 and July 15, if an occupied nest is located less than one mile from the right-of-way.
- All operation and maintenance activities will follow the Ferruginous Hawk Management Guidelines, including limited seasonal restrictions between March 1 and July 31, if an occupied nest is within one mile of the right-of-way.
- Any new power line construction within Raptor Sensitive Areas (R.S.A.s) will abide by Raptor Electrocution Prevention Regulations that include raptor-safe power pole design standards to protect golden eagles, bald eagles, and ferruginous hawks

With adherence to the above mitigation/conservation measures, no substantial direct, indirect, or cumulative effects to biological resources are anticipated from the Proposed Action.

4.5 CULTURAL RESOURCES

No Action Alternative – Direct, Indirect, and Cumulative Effects

Under the No Action Alternative, the APS permit for the existing 29.04-mile HV transmission line, right-of-way, and associated substation would not be renewed, so the land would remain as is. Without permit renewal, APS' ability to operate and maintain the Leupp 230-1kV HV transmission line would be limited. The Navajo Nation could also require APS to remove their facilities from Navajo Tribal Trust lands. This would result in the reduction or loss of access to electrical power for Flagstaff and other area communities, as well as the El Paso Corporation natural gas compressor station. As a result, no direct, indirect, or cumulative effects to cultural resources within the project area would occur.

Proposed Action – Direct, Indirect, and Cumulative Effects

The 2007/2008 cultural resources inventory (Newsome and Poseyesva 2016) of the Leupp 230-1 kV powerline yielded 19 archaeological sites. Of these, 13 are National Register-eligible, one is undetermined, and five are National Register-ineligible. (1) These sites are to be avoided by all ground-disturbing activities by a minimum of 50 feet. (2) The boundaries of the 13 National Register-eligible sites and one undetermined site should be identified/flagged by a qualified archaeologist prior to any ground-disturbing pole replacement or maintenance activities in the vicinity of them, and (3) vehicular access should be confined to existing roads within the marked site areas. (4) Only hand cutting of vegetation would be allowed within the site areas, and cut material is to be scattered not piled in the project ROW.

Of the eligible or undetermined sites, five contain pole structures within their boundaries (AZ-N-41-39, AZ-N-41-41, AZ-N-42-30, AZ-O-48-45/46, AZ-O-48-72; see Table 4 above). If poles need to be replaced within these five sites, (1) a qualified (Navajo Nation-permitted)

archaeologist should inspect the pole locations prior to construction to ensure that there would be no adverse effects from pole placement or access to the poles. (2) Site boundaries and features to be avoided should be marked by a qualified archaeologist prior to ground-disturbing activities. (3) For activities within 50 feet of these site boundaries, an archaeological monitor should be present, and (4) a monitoring report will be submitted to NNHPD within 30 days of any monitoring activities.

The 47 isolated occurrences and five National Register-ineligible sites require no further management considerations, and the one in-use site should generally be avoided with vehicles confined to existing and in-use roadways. With the implementation of these mitigation measures, no direct, indirect, or cumulative effects to cultural resources within the project area would occur.

4.6 SOCIOECONOMIC CONDITIONS

No Action Alternative – Direct, Indirect, and Cumulative Effects

Under the No Action Alternative, the APS permit for the existing 29.04-mile HV transmission line, right-of-way, and associated substation would not be renewed, so that the land would remain as is. Without the permit renewal, APS' ability to operate and maintain the Leupp 230-1kV HV transmission line would be limited. The Navajo Nation could also require APS to remove their facilities from Navajo Tribal Trust lands. This would result in the reduction or loss of access to electrical power for Flagstaff and other area communities, as well as the El Paso Corporation natural gas compressor station. No direct, indirect, or cumulative effects to socioeconomic conditions within the project area would occur.

Proposed Action – Direct, Indirect, and Cumulative Effects

The Proposed Action will not result in disproportionate impacts to low-income populations, nor will it impact minority populations. It will not adversely affect the region's lifestyle, cultural values, or community infrastructure. The 230kV powerline, which terminates at the Coconino Substation near Northern Arizona University, Flagstaff, Coconino County, Arizona, is a primary source of electricity for the Flagstaff community. Renewal of the permit would enable continuing service to a large portion of Flagstaff and the surrounding area. Flagstaff businesses would remain operational and continue to be able to provide jobs and services to those living in the region, including the Navajo Nation. The Proposed Action would also result in direct beneficial effects to the Navajo Nation, who would continue to receive revenue in the form of ROW fees. No direct, indirect, or cumulative negative impacts to socioeconomic conditions are anticipated.

4.7 HAZARDOUS MATERIALS AND SOLID WASTE

No Action Alternative – Direct, Indirect, and Cumulative Effects

Under the No Action Alternative, the APS permit for the existing 29.04-mile HV transmission line, right-of-way, and associated substation would not be renewed, so that the land would remain as is. Without permit renewal, APS' ability to operate and maintain the Leupp 230-1kV HV transmission line would be limited. The Navajo Nation could also require APS to remove their facilities from Navajo Tribal Trust lands. This would result in the reduction or loss of access to electrical power for Flagstaff and other area communities, as well as the El Paso Corporation natural gas compressor station. As a result, no direct, indirect, or cumulative effects to hazardous materials or solid waste within the project area would occur.

Proposed Action – Direct, Indirect, and Cumulative Effects

No hazardous materials associated with the project occur within the project corridor. Maintenance and operation of the transmission line and substation may generate small amounts of solid waste and waste oils. These materials will be disposed of in accordance with tribal regulations. No direct, indirect, or cumulative impacts are anticipated in relation to hazardous materials and solid waste.

4.8 RESOURCE/LAND USE PATTERNS**No Action Alternative – Direct, Indirect, and Cumulative Effects**

Under the No Action Alternative, the APS permit for the existing 29.04-mile HV transmission line, right-of-way, and associated substation would not be renewed, so that the land would remain as is. Without the permit renewal, APS' ability to operate and maintain the Leupp 230-1kV HV transmission line would be limited. The Navajo Nation could also require APS to remove their facilities from Navajo Tribal Trust lands. This would result in the reduction or loss of access to electrical power for Flagstaff and other area communities, as well as the El Paso Corporation natural gas compressor station. No direct, indirect, or cumulative effects to resource/land use patterns within the project area would occur.

Proposed Action – Direct, Indirect, and Cumulative Effects

Due to the low speeds adhered to by drivers of maintenance vehicles when accessing the project corridor, no accidents involving livestock are anticipated.

Since no active mines are located within the project corridor, and the potential for new mining is low, the proposed project would have no impacts to mining.

The powerline spans all roads that it crosses, including NR 15 and SR 99, so operation of the powerline would not impact travel on such routes. Maintaining and operating the transmission line would involve vehicles traveling between the project right-of-way and the local transportation system, which should not cause any significant disruption in traffic patterns. The use of maintenance vehicles would be infrequent, and drivers would use all precautions to ensure that the flow of traffic would not be disrupted when traveling between existing roadways and the project corridor. Therefore, no direct, indirect, and cumulative impacts to resource and land use patterns are expected.

4.9 OTHER VALUES**No Action Alternative – Direct, Indirect, and Cumulative Effects**

Under the No Action Alternative, the APS permit for the existing 29.04-mile HV transmission line, right-of-way, and associated substation would not be renewed, so that the land would remain as is. Without the permit renewal, APS' ability to operate and maintain the Leupp 230-1kV HV transmission line would be limited. The Navajo Nation could also require APS to remove their facilities from Navajo Tribal Trust lands. This would result in the reduction or loss of access to electrical power for Flagstaff and other area communities, as well as the El Paso Corporation natural gas compressor station. No direct, indirect, or cumulative effects to public health and safety or visual settings would occur.

Proposed Action – Direct, Indirect, and Cumulative Effects

Though a significant amount of electricity is transported along the powerline, the powerline is mounted on 60-foot-tall poles and out of the public's reach, therefore posing no threat to public health and safety. Furthermore, the substation has signs that provide warnings of its high voltage content.

The powerline and substation have been a visual feature in the project area's landscape for half a century. Operation and routine maintenance of the existing structures would not alter the current visual makeup of the landscape. No direct, indirect, or cumulative effects to other values are anticipated.

5.0 CONCLUSIONS REGARDING SIGNIFICANCE

The Proposed Action is not anticipated to have substantial impacts to any resources described above except to socioeconomic resources, where continued, beneficial impacts are anticipated. Two tribally listed species (burrowing owl and Peebles blue star) were encountered during the biological survey, but adherence to the conservation guidelines described above and in the associated Biological Evaluation prepared for the project (EnviroSystems 2016) should prevent a significant impact to either species as a result of continued operation and maintenance of the transmission line and substation.

The Leupp 230-1kV transmission line, which terminates at the Coconino Substation near Northern Arizona University, Flagstaff, Arizona, is a primary source of electricity for the Flagstaff community. Renewal of the permit would enable continuing service to a large portion of Flagstaff and the surrounding region. This would allow Flagstaff businesses to remain operational and continue to provide jobs and services to those living in the region, including the Navajo Nation. Additionally, renewal of the ROW permit will ensure continuing service to the El Paso Corporation natural gas compressor station west of Leupp. The Proposed Action would result in beneficial effects to the Navajo Nation, who would continue to receive revenue in the form of ROW permit fees.

6.0 CONSULTATION AND COORDINATION

6.1 PERSONNEL

EnviroSystems Management, Inc. of Flagstaff, Arizona conducted field investigations and research analyses associated with production of this EA, including the following personnel:

- Stephanie Treptow, Principal-In-Charge
- Keith Pohs, Project Manager
- Mark Daniels, Senior Ecologist/Environmental Engineer
- Lynn A. Neal, Senior Archaeologist
- Lanell Poseyesva, Archaeologist
- Travis Ellison, GIS Analyst

6.2 DEPARTMENTAL CONSULTATION AND COORDINATION

The following individuals and tribal offices were consulted during the development of the biological and cultural resource reports that contributed to the content of this EA:

Tamara Billie, Senior Archaeologist, and other personnel, Navajo Nation Historic Preservation Department, P.O. Box 4950, Window Rock, Arizona 86515, (928) 871-7139

Pamela Kyselka, Environmental Reviewer, Navajo Natural Heritage Program, Navajo Department of Fish and Wildlife, P.O. Box 1480, Window Rock, Arizona 86515

Chad Smith, Zoologist, Navajo Natural Heritage Program, Navajo Nation Department of Fish and Wildlife, P.O. Box 1480, Window Rock, Arizona 86515.

Rita Whitehorse-Larson, Senior Environmental Specialist, Navajo Nation Environmental Protection Agency, P.O. Box 339, Window Rock, Arizona 86515

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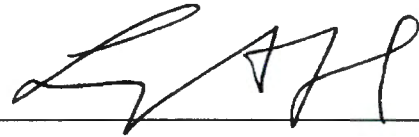
8.0 SIGNATURE OF DOCUMENT PREPARER

PREPARED BY:



Mark Daniels, Senior Ecologist/Environmental Engineer
EnviroSystems Management, Inc.
23 East Fine Avenue
Flagstaff, Arizona 86001
(928) 226-0236
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REVIEWED BY:



Lynn A. Neal, M.A./RPA, Program Director
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APPENDIX A
BIOLOGICAL RESOURCES COMPLIANCE FORM



RECEIVED AUG 29 2016

**PRESIDENT
RUSSELL BEGAYE
VICE PRESIDENT
JONATHAN NEZ**

NAVAJO FISH AND WILDLIFE P.O. BOX 1480 WINDOW ROCK, AZ 86515

23 August 2016

16envs105

Mark Daniels, Senior Ecologist/Environmental Engineer
EnviroSystems Management, Inc.
23 Fine Avenue
Flagstaff, Arizona 86001

Dear Mark,

The Navajo Nation Department of Fish and Wildlife (NNDFW) reviewed the biological evaluation that you prepared for Arizona Public Service Company's proposal to renew the APS Leupp 230kV Transmission Line and Substation right-of-way easement located in Coconino County, Arizona. The proposed ROW renewal is approved with the following condition that APS shall retrofit existing facilities for raptor safety as upgrades occur in Section 24, T22N, R12½E and Sections 30, 31, & 32, T22N, R13E per Raptor Electrocutation Prevention Regulations (REPR).

Please contact me at 928-871-7065 with any questions that you have concerning the review of this project.

Sincerely,

Pamela A. Kyselka, Wildlife Biologist
Navajo Natural Heritage Program

CONCURRENCE

Gloria Tom, Director
Department of Fish and Wildlife

8/25/16

Date

**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.: Leupp 230kV Transmission Line Right-of-Way Renewal

DESCRIPTION: APS proposes to renew the right-of-way for the Leupp 230kV transmission line and substation. The ROW is 28.9 miles in length and 100 ft. wide (459.31 acres). The substation is 150 ft. x 125 ft. (0.43 acre).

LOCATION: T22N, R11E, Sections 8, 9, 10, 11, & 12;

T22N, R12E, Sections 7, 8, 9, 10, 11, 12, & 13;

T22N, R12½E, Sections 14, 15, 23, & 24;

T22N, R13E, Sections 30, 32, & 33;

T21N, R13E, Sections 3, 4, 11, & 12;

T21N, R14E, Sections 7, 17, 18, 20, 21, 22, 25, 26, 27, & 36;

T21N, R15E, Sections 31 & 32; G&SRB&M

Leupp & Birdsprings Chapters, Coconino County, Arizona

REPRESENTATIVE: Mark Daniels, EnviroSystems Management, Inc.

ACTION AGENCY: Bureau of Indian Affairs and Navajo Nation

B.R. REPORT TITLE / DATE / PREPARER: NA

SIGNIFICANT BIOLOGICAL RESOURCES FOUND: Area 3 & 4. Raptor Sensitive Area (RSA) south of Leupp on 3.69 miles of transmission line.

POTENTIAL IMPACTS

NESL SPECIES POTENTIALLY IMPACTED: [1] *Aquila chrysaetos* (Golden Eagle) G3, GBENPR, REPR, BGEPA, MBTA.

FEDERALLY-LISTED SPECIES AFFECTED: NA

OTHER SIGNIFICANT IMPACTS TO BIOLOGICAL RESOURCES: NA


AVOIDANCE / MITIGATION MEASURES: Na

CONDITIONS OF COMPLIANCE*: APS shall retrofit existing facilities for raptor safety as upgrades occur in Section 24, T22N, R12½E and Sections 30, 31, & 32, T22N, R13E per Raptor Electrocution Prevention Regulations (REPR).

FORM PREPARED BY / DATE: Pamela A. Kyselka/23 AUG 2016

COPIES TO: (add categories as necessary)

☒ BIA ☐ _____

<u>2 NTC § 164 Recommendation:</u> <input type="checkbox"/> Approval <input checked="" type="checkbox"/> Conditional Approval (with memo) <input type="checkbox"/> Disapproval (with memo) <input type="checkbox"/> Categorical Exclusion (with request letter) <input type="checkbox"/> None (with memo)	Signature  Gloria M. Tom, Director, Navajo Nation Department of Fish and Wildlife	Date 8/25/16
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*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

APPENDIX B
CULTURAL RESOURCES COMPLIANCE FORM

.

CULTURAL RESOURCES COMPLIANCE FORM

ROUTE COPIES TO:

☒ ESMI

NNHPD NO.: HPD-16-1063

OTHER PROJECT NO.: ESMI 1205-06/1857-16 & LS 1-075107/Task 11

PROJECT TITLE: Cultural Resources Inventory of Existing Leupp 230-1kV Transmission Line and Substation Proposed for Permit Renewal on the Navajo Nation, Coconino County, Arizona

LEAD AGENCY: BIA/NR

SPONSOR: Arizona Public Service, PO Box 53933, Mail Station 3286, Phoenix, Arizona 85072-3933

PROJECT DESCRIPTION: APS is proposing to renew their easement permit for an existing 230-1kV overhead transmission line and substation. The length of the line across tribal land is approximately 29.04-miles long and the permit right-of-way is 100-ft. The associated substation covers an area measuring 150x125-ft. The total permitted area covers 352.42-acres.

LAND STATUS:	Navajo Tribal Trust						
CHAPTERS:	Leupp & Birdsprings						
LOCATIONS:	Grand Falls SW, Grand Falls SE, Old Leupp, Tucker Mesa NW, Tucker Mesa NE, Coconino County, Arizona G&SRPM						
<i>T.</i>	<u>22</u>	<i>N.</i>	<i>R.</i>	<u>11</u>	<i>E-</i>	<i>Sec.</i>	<u>8-12;</u>
<i>T.</i>	<u>22</u>	<i>N.</i>	<i>R.</i>	<u>12</u>	<i>E-</i>	<i>Sec.</i>	<u>7-13</u>
<i>T.</i>	<u>22</u>	<i>N.</i>	<i>R.</i>	<u>12½</u>	<i>E-</i>	<i>Sec.</i>	<u>15, 14, 23, 24</u>
<i>T.</i>	<u>22</u>	<i>N.</i>	<i>R.</i>	<u>13</u>	<i>E-</i>	<i>Sec.</i>	<u>30-33</u>
<i>T.</i>	<u>21</u>	<i>N.</i>	<i>R.</i>	<u>13</u>	<i>E-</i>	<i>Sec.</i>	<u>2-4, 11, 12</u>
<i>T.</i>	<u>21</u>	<i>N.</i>	<i>R.</i>	<u>14</u>	<i>E-</i>	<i>Sec.</i>	<u>7, 18, 17, 20-22, 25-27, 36</u>
<i>T.</i>	<u>21</u>	<i>N.</i>	<i>R.</i>	<u>15</u>	<i>E-</i>	<i>Sec.</i>	<u>31, 32</u>
PROJECT ARCHAEOLOGIST:				Daniel K. Newsome & Lanell Poseyesva			
NAVAJO ANTIQUITIES PERMIT NO.:				AB-1			
DATE INSPECTED:				09/04/2007 & 11/12/2008			
DATE OF REPORT:				09/14/16			
TOTAL ACREAGE INSPECTED:				525.49 – ac			
METHOD OF INVESTIGATION:				Class III pedestrian inventory with transects spaced <u>15</u> m apart.			
LIST OF CULTURAL RESOURCES FOUND:				(19) Sites AZ-N-41-1, AZ-N-41-2, AZ-N-42-29, AZ-N-41-41, AZ-O-48-72, AZ-N-42-27, AZ-N-42-28, AZ-N-42-30, AZ-N-41-31, AZ-N-41-32, AZ-N-41-33, AZ-O-48-45/46, AZ-O-48-47, AZ-N-42-35, AZ-N-42-36, AZ-N-42-37, AZ-N-42-38, AZ-N-41-39, AZ-N-41-40			
				(47) Isolated Occurrences (IO)			
				(1) In-Use Site (IUS)			

LIST OF ELIGIBLE PROPERTIES:	(13) Sites AZ-N-42-29, AZ-N-41-41, AZ-O-48-72, AZ-N-42-27, AZ-N-42-28, AZ-N-42-30, AZ-N-41-32, AZ-O-48-45/46, AZ-O-48-47, AZ-N-42-36, AZ-N-42-37, AZ-N-42-38, AZ-N-41-40
LIST OF PROPERTIES UNEVALUATED/UNDETERMINED:	(1) Site AZ-N-41-39
LIST OF NON-ELIGIBLE PROPERTIES:	(5) Sites AZ-N-41-1, AZ-N-41-2, AZ-N-41-31, AZ-N-41-33, AZ-N-42-35 (47) IO (1) IUS
LIST OF ARCHAEOLOGICAL RESOURCES:	(12) Sites AZ-N-42-29, AZ-N-41-41, AZ-O-48-72, AZ-N-42-30, AZ-N-41-32, AZ-O-48-45/46, AZ-O-48-47, AZ-N-42-36, AZ-N-42-37, AZ-N-42-38, AZ-N-41-39, AZ-N-41-40

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

Sites AZ-N-41-41, AZ-O-48-72, AZ-N-42-30, AZ-O-48-45/46, AZ-N-41-39 (Pole locations are located within site boundaries):

1. A qualified archaeologist, prior to ground disturbing activities will flag site boundaries & features.
2. A qualified archaeologist within 50-ft of site boundaries will monitor site.
3. A monitoring report will be submitted to NNHPD within 30-days of monitoring activities.

Sites AZ-N-42-29, AZ-N-42-27, AZ-N-42-28, AZ-N-41-32, AZ-O-48-47, AZ-N-42-36, AZ-N-42-37, AZ-N-42-38, AZ-N-41-40:

1. If any ground disturbing activities are planned near these sites, a qualified archaeologist will flag them prior to disturbance.
2. Sites will be avoided by all ground disturbing activities by a minimum of 50-ft from the 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) 871-7198.

FORM PREPARED BY: Tamara Billie

FINALIZED: January 4, 2017

Notification to Proceed
Recommended
Conditions:

☒ Yes ☐ No

☒ Yes ☐ No


The Navajo Nation
Historic Preservation Office

Date

Navajo Region Approval

☒ Yes ☐ No

BIA - Navajo Regional Office

Date

 1/9/2017

1/10/17

**EXECUTIVE OFFICIAL REVIEW**Title of Document: APS, ROW for Western Dist Sys Lines Contact Name: YAZZIE, ELERINA BProgram/Division: DIVISION OF NATURAL RESOURCESEmail: michellehoskie@frontier.com Phone Number: 928-871-6447☐ **Business Site Lease** Sufficient Insufficient

- | | | | |
|---|-------------|---|---|
| 1. Division: _____ | Date: _____ | □ | □ |
| 2. Office of the Controller: _____ | Date: _____ | □ | □ |
| (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: _____ | □ | □ |

☐ **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: _____ | □ | □ |
| 2. Office of the Attorney General: _____ | Date: _____ | □ | □ |

☐ **Fund Management Plan, Expenditure Plans, Carry Over Requests, Budget Modifications**

- | | | | |
|---|-------------|---|---|
| 1. Office of Management and Budget: _____ | Date: _____ | □ | □ |
| 2. Office of the Controller: _____ | Date: _____ | □ | □ |
| 3. Office of the Attorney General: _____ | Date: _____ | □ | □ |

☐ **Navajo Housing Authority Request for Release of Funds**

- | | | | |
|--|-------------|---|---|
| 1. NNEPA: _____ | Date: _____ | □ | □ |
| 2. Office of the Attorney General: _____ | Date: _____ | □ | □ |

☐ **Lease Purchase Agreements**

- | | | | |
|--|-------------|---|---|
| 1. Office of the Controller: _____ | Date: _____ | □ | □ |
| (recommendation only) | | | |
| 2. Office of the Attorney General: _____ | Date: _____ | □ | □ |

☐ **Grant Applications**

- | | | | |
|---|-------------|---|---|
| 1. Office of Management and Budget: _____ | Date: _____ | □ | □ |
| 2. Office of the Controller: _____ | Date: _____ | □ | □ |
| 3. Office of the Attorney General: _____ | Date: _____ | □ | □ |

☐ **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: _____ | □ | □ |
| 2. Office of the Attorney General: _____ | Date: _____ | □ | □ |

☐ **Relinquishment of Navajo Membership**

- | | | | |
|--|-------------|---|---|
| 1. Land Department: _____ | Date: _____ | □ | □ |
| 2. Elections: _____ | Date: _____ | □ | □ |
| 3. Office of the Attorney General: _____ | Date: _____ | □ | □ |

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

Sufficient Insufficient

1. Division:	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>
2. Office of the Attorney General:	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>

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

1. NLD	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>
2. F&W	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>
3. HPD	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>
4. Minerals	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>
5. NNEPA	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>
6. DNR	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>
7. DOJ	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>

☐ **Rights of Way**

1. NLD	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>
2. F&W	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>
3. HPD	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>
4. Minerals	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>
5. NNEPA	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>
6. Office of the Attorney General:	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>
7. OPVP	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>

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

1. Minerals	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>
2. OPVP	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>
3. NLD	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>

☐ **Assignment of Mineral Lease**

1. Minerals	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>
2. DNR	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>
3. DOJ	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>

☒ **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: _____	<input type="checkbox"/>	<input type="checkbox"/>
2. F&W	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>
3. HPD	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>
4. Minerals	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>
5. NNEPA	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>
6. DNR	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>
7. DOJ <i>AG</i>	<i>V. P. B. B. L. T.</i>	Date: <i>1-12-18</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8. OPVP	<i>D</i>	Date: <i>11-8-18</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

☐ **OTHER:**

1. _____	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>
2. _____	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>
3. _____	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>
4. _____	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>
5. _____	_____	Date: _____	<input type="checkbox"/>	<input type="checkbox"/>



RESUBMITTAL
(NND 1017)

NAVAJO NATION DEPARTMENT OF JUSTICE

DOCUMENT REVIEW REQUEST FORM



DOJ
01-05-18 @ 329
DATE / TIME
<input type="checkbox"/> 7 Day Deadline
DOC #: 008462 #2
SAS #:
UNIT: Nnm




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

CLIENT TO COMPLETE			
DATE OF REQUEST: 01-05-18		ENTITY/DIVISION: DNR	
CONTACT NAME: AKHTAR Zaman / m / sk		DEPARTMENT: Minerals / GLDD	
PHONE NUMBER: 871-7098		E-MAIL: zamanakh@nchod.com	
TITLE OF DOCUMENT: 164 Doc. No 8462 - APS ROW for Western Dist.			
DOJ SECRETARY TO COMPLETE			
DATE/TIME IN UNIT: 1.5.18 Aprm		REVIEWING ATTORNEY/ADVOCATE: April Quinn 1.17.18	
DATE/TIME OUT OF UNIT: 1.12.18 10:40 am			
DOJ ATTORNEY / ADVOCATE COMMENTS			
Legally sufficient. Please see enclosed DOJ memo.			
REVIEWED BY: (PRINT)		DATE / TIME	
Quinn		1/11/18 5:03 pm	
SURNAMED BY: (PRINT)		DATE / TIME	
V Blackhat		1/12/18 3:00 AM	
DOJ Secretary Called: Charmaine for Document Pick Up on 1-12-18 at 10am By: B			
PICKED UP BY: (PRINT)		DATE / TIME:	
Charmayne M. Tom		1/12/18 @ 11:03am	

NNDJ/DRRF-July 2013

COMPLETED

Tier 1 Document Voting Results

User Name (Facility)	Job Title	Department	Vote Cast	Comments	Replies	Vote Date	Signature
Eugenia Quintana EPA (Navajo Land Title Data System - Windowrock AZ)	Air and Toxics - Reviewer	Navajo Nation Environmental Protection Agency	Approved	1. Copy(ies) of the EA(s) is/are lacking. If the NLD has a copy of the EA, please forward a copy to the NNEPA reviewers. APS indicated that NNEPA had recommended conditional approval of the EA, but it appears that was back in 2010. An EA should have been finalized by 2017.	1. No Reply	29-Aug-2017	
Lee Anna Martinez EPA (Navajo Land Title Data System - Windowrock AZ)	Water Quality - Reviewer	Navajo Nation Environmental Protection Agency	Approved	1. Please consult our office should your project impact any waterways, ephemeral or perennial. A Clean Water Act Section 401 Permit may be needed. It is strongly encourage to discuss with our office. The project lines indicate along a number of waterways. You may contact us at (928) 871-7690.	1. No Reply	05-Sep-2017	
Najamh Tariq (Navajo Land Title Data System - Windowrock AZ)	Approver	Department of Water Resources	Approved	no comments	No Reply	26-Aug-2017	
Pam Kyselka F&W (Navajo Land Title Data System - Windowrock AZ)	Technical Review	Fish and Wildlife	Approved	1. #16envs102, #16envs103, and #16envs106	1. No Reply	25-Aug-2017	

Pam Maples Storage Navajo Nation Approved 1. With 1. No 01-Sep-2017
EPA Tanks Environmental Conditions! Reply
(Navajo Land Program - Protection
Title Data Reviewer Agency
System -
Windowrock
AZ)

Patricia Maples

Patrick Water Navajo Nation Approved 1. Renewal of 1. No 29-Aug-2017
Antonio EPA Quality - Environmental ROWs for 1. No
(Navajo Land Supervisor Protection existing distribution Reply
Title Data Agency lines. No new
System - construction
Windowrock expected.
AZ)

Patricia Maples

Robert Allan Deputy DNR Approved 1. CONDITIONAL- 1. No 08-Sep-2017
DNR Director Administration -1. insert Reply
(Navajo Land DNR attached Terms
Title Data and Conditions
System - 2. insert BRCF
Windowrock and CRCF--
AZ) (HHPD
approved
package)

Robert O. Allan






Tamara Billie HPD Historic Approved 1. Vote 1. No Reply 04-Oct-2017
NNHP Reviewer Preservation
(Navajo Land Department
Title Data
System -
Windowrock
AZ)

Tamara Billie

Yolanda Public Navajo Nation Approved no comments No Reply 28-Aug-2017
Barney EPA Water Environmental
(Navajo Land System Protection
Title Data Supervision Agency
System - Program
Windowrock
AZ)

Yolanda Barney

Tier 2 Document Voting Results

User Name (Facility)	Job Title	Department	Vote Cast	Comments	Replies	Vote Date	Signature
Bidtah N. Becker (FBFA)	FBFA Users	FBFA Action Team	Approved	1. I have marked sufficient AFTER the Environmental Assessment (EA) was provided to NNEPA to review. Ms. Quintana of NNEPA reviewed the EA and determined that EA preparer did an effective job at preparing an EA for each of the line routes GLDD: in the future, please ensure that EAs are uploaded for ROWs. Thank you.	1. No Reply	28-Nov-2017	
Richard Begay NNHP (Navajo Land Title Data System - Windowrock AZ)	Navajo Nation Historic Preservation Officer	Historic Preservation Department	Approved	no comments	No Reply	11-Oct-2017	
Ronnie Ben EPA (Navajo Land Title Data System - Windowrock AZ)	Underground Injection Control - Reviewer	Navajo Nation Environmental Protection Agency	Approved	1. Conditional Approval contingent on compliance with all NNEPA and US EPA environmental laws.	1. No Reply	11-Oct-2017	
Sam Diswood (Navajo Land Title Data System - Windowrock AZ)	Technical Review	Fish and Wildlife	Approved	no comments	No Reply	11-Oct-2017	
Steven Prince MIN (Navajo Land Title Data System - Windowrock AZ)	Technical Reviewer	Navajo Nation Minerals Management	Approved	1. Please permanently attach the uploaded Terms & Conditions document to the approved application.	1. No Reply	18-Oct-2017	

W. Mike Manager III NLD
Halona Navajo Land Administration
(Navajo Land Department
Title Data
System -
Windowrock
AZ)

Approved *no*
 comments

No
Reply

16-Oct-2017

A handwritten signature in blue ink, appearing to read "Dahn", is written over a horizontal line.



P.O. BOX 3089, WINDOW ROCK, NAVAJO NATION, AZ 86515
TEL (928) 871-7993 ~ FAX: (928)871-7783

MEMORANDUM

To : NLTDS Reviewers

From :


Patricia Maples, Environmental Specialist
NNEPA Leaking Storage Tank Program

Date : October 5, 2017

**Ref: Navajo Land Title Data System Electronic 164 Process Review
Project No. NA-15-T51, Waterline Extensions at Red
Mesa, San Juan County, Utah**

Pkt #: 006_L003_00008462__zip_16_07_48

To Whom it May concern

Navajo Nation Environmental Protection Agency Leaking Storage Tank Program (NNEPA/LSTP) would like the developer to be aware that petroleum dispensing sites and both former and currently being remediated petroleum contaminated sites may be present within the proposed areas.

NNEPA/LSTP must be notified immediately if petroleum contamination is discovered during any activities anywhere within the specified reach or right of way area(s).

A table of Location coordinates is provided below.

If you have any questions, please call the program at 928-871-7993.

C: Diane Malone, Department Manager, NNEPA WRCD
Warren Roan, Environmental Specialist NNEPA
Ms. Rebecca Jamison, USEPA Region IX Project Officer
NNEPA Files



Navajo Nation Environmental Protection Agency
Surface and Ground Water Protection Department

P O Box 339, Window Rock, AZ 86515
Phone: 928-871-7692 • Fax: 928-871-7496
Email: ronnieben@navajo-nsn.gov



President

Vice-President

TO: Tim Blumentritt, Land Agent SR WA
Land Service Department, APS
PO Box 53933 MS 3286
Phoenix AZ 85072-3933

FROM:


Ronnie Ben, Department Manager Environmental Reviewer & Approver
Surface and Ground Water Protection Department
Navajo Nation EPA

DATE: October 11, 2017

SUBJECT: Environmental Assessments for ROW for Arizona Public Service proposed projects: Tuba City 69kV, Page 69kV, Cholla-Keams Canyon 69kV, and Leupp 230 kV.

The Navajo Nation Environmental Protection Agency (NNEPA) has reviewed and recommends Conditional Approval for the proposal "SUBJECT". Conditional Approval is based on compliance with all NNEPA and EPA environmental laws

1. The Navajo Nation Clean Water Act
 - a. Three environmental statutes authorize the EPA to "treat tribes as states" (TAS) – the Safe Drinking Water Act (SDWA), and the Clean Water Act (CWA). Although the Navajo Nation has TAS for various sections under these statutes, thus activities under the CWA regulations promulgated under 40 CFR § 401, 404 and 402.
 - b. Section 401 Certification
The ACOE collaborates with the NNEPA on the review 404 applications. The ACOE will not authorize commencement of construction activities within the waters of the U.S. and/or the Waters of the Navajo Nation until NNEPA has granted a 401 permit.

Contact for 401 Certification is LeeAnna Martinez, Lead 401 Cert Coordinator, WQ NPDES Program, NNEPA office at (928) 871-7700 or at lamartinez@navajo-nsn.gov
 - c. Under Section 402 of the CWA, the NPDES General Stormwater Permit
If total land surface disturbance is greater than 10 acres, coverage is required under the federal Construction General Permit for storm water discharges associated with construction sites. A Notice of

Intent (NOI) submitted to DESI PA 14 days prior to earthmoving and storm water pollution prevention plan developed prior to NOI submission

2. Navajo Nation Safe Drinking Water Act

- a. All proposed drinking water projects will need to be permitted by the PWSSP-NNI PA. All proposed drinking water projects (extensions, upgrades, new wells, new public water systems, etc.) must comply with the design review and construction permit requirements of the PWSSP pursuant to Sections 150 and 601 of the NN Primary Drinking Water Regulations.

- b. All proposed wastewater projects will need to be permitted by the Domestic Wastewater Program-NNI PA. Extensions, upgrades, new sewer infrastructure, septic tanks, and other wastewater infrastructure must comply with the design review and construction permit requirements pursuant to Section 201 of the Domestic Wastewater Program. For more info contact Yolanda Hootch, (928)871-7862.

3. NN Air Pollution Prevention and Control Act.

- a. Suppressing dust to lessen air impacts to community members and public location or proposed project site. Developers should ensure they maintain a state General Air Permit for the equipment that will generate emissions.

4. NN Pesticide Act

- a. Before applying any chemical, contact NN Pesticide Program, at (928)871-7862.

NN Solid Waste Act

- a. Any Solid Waste generated from project sites, contact NN Solid Waste Program at (928)871-7993.

NN Storage Tank Act

- a. Any storage tanks within the project site, contact the DESI Program at (928)871-7993.

If you have any question, you may contact Ronnie Ben, Department Manager, Surface and Ground Water Protection Department at (928)871-7700 or email rben@navajonations.gov



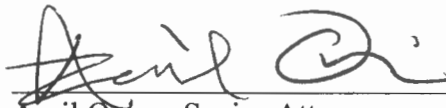
NAVAJO NATION DEPARTMENT OF JUSTICE
OFFICE OF THE ATTORNEY GENERAL

ETHEL B. BRANCH
ATTORNEY GENERAL

CHERIE ESPINOSA
ACTING DEPUTY ATTORNEY GENERAL

MEMORANDUM

TO: Reviewers

FROM: 
April Quinn, Senior Attorney
Natural Resources Unit, Department of Justice

DATE: January 11, 2018

SUBJECT: **Document No. 008462 – Arizona Public Service Company Rights-of-Way for Western Electrical Transmission Lines System**

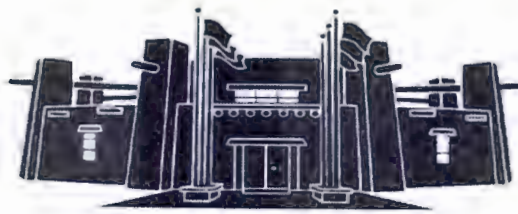
The Department of Justice (DOJ) has deemed the above referenced document legally sufficient. The Terms and Conditions associated with these rights-of-way were the result of a lengthy negotiation process between the Nation and Arizona Public Service Company (APS). DOJ provided assistance to the Nation during the negotiations and also assisted in the drafting of the Terms and Conditions.

Among other things, the Terms and Conditions require APS to comply with BIA's regulations pertaining to rights-of-way (*i.e.*, 25 C.F.R. Part 169). However, in consultation with the Nation's Minerals Department, DOJ recommends that the Resources and Development Committee (RDC) consent to a waiver of appraisal in accordance with 25 C.F.R. § 169.110. Specifically, DOJ recommends RDC find that the Nation:

- 1) Has agreed upon compensation satisfactory to the Nation;
- 2) Waives valuation; and
- 3) Has determined that accepting such agreed-upon compensation and waiving valuation is in the Nation's best interest.

If you have any questions pertaining to this recommendation or anything else related to the above mentioned document, please contact me at 928-871-6347 or aquinn@nndoj.org.

cc Mariana Kahn, Attorney, Office of Legislative Counsel



MEMORANDUM

DATE: April 3, 2018

TO: Tom Platero, Director
Office of Legislative Services

Shammie Begay, Legislative Advisor
Office of Legislative Services

FROM: Mariana Kahn
Mariana Kahn, Attorney
Office of Legislative Counsel

SUBJECT: **Confidential paragraph numbers 3(a), 3(b), 3(d), and 3(e) in the Terms and Conditions, Exhibit E; AN ACTION RELATING TO RESOURCES AND DEVELOPMENT; AN ACTION RELATING TO RESOURCES AND DEVELOPMENT; APPROVING RIGHTS-OF-WAY TO ARIZONA PUBLIC SERVICE COMPANY TO OPERATE AND MAINTAIN THE TUBA CITY 69KV LINE, THE TUBA CITY TO GLEN CANYON 69KV LINE, THE CHOLLA-KEAMS CANYON, AZ 69KV LINE AND THE CHOLLA-LEUPP-FLAGSTAFF, AZ 230KV LINE LOCATED ON TRIBAL TRUST LAND (NAVAJO AND COCONINO COUNTIES, ARIZONA)**

PLEASE NOTE THAT THE NAVAJO NATION DEPARTMENT OF JUSTICE HAS DETERMINED THAT THE CONSIDERATION IN PARAGRAPH NUMBERS 3(a), 3(b), 3(d), and 3(e) IN THE TERMS AND CONDITIONS, **EXHIBIT E**, ATTACHED TO THIS PROPOSED RESOLUTION, ARE **CONFIDENTIAL**. THE CONSIDERATION FIGURES LISTED IN THE TERMS AND CONDITIONS PARAGRAPH NUMBER 3(a), 3(b), 3(d), and 3(e) HAVE BEEN REDACTED. The Navajo Nation Department of Justice memorandum is attached.

Title 2 Section 164 (A)(6) states: "Any matters or exhibits determined by the Navajo Nation Department of Justice to be confidential shall be properly marked "confidential" and shall not be placed on the website or otherwise released."

In addition, 2 N.N.C. §110(F) states:

"Confidential matter means a matter which violates the Navajo Nation Privacy and Access to Information Act or whose unauthorized disclosure could be prejudicial or detrimental to the legal or financial interest of the Navajo Nation government or its entities. The Navajo Department of Justice shall determine what matters qualify as confidential. Matters determined to be confidential shall not be released without the written approval of the Attorney General or his designee."

Because Exhibit E's consideration figures has been determined to be confidential, please instruct the Office of Legislative Services staff:

- The un-redacted Exhibit E, the Terms and Conditions, will be distributed to the delegates at the Resources and Development Committee meeting;
- The Legislative Services staff is to retrieve the confidential exhibit after the proposed resolution has been acted upon by the Resources and Development Committee.

Please contact me at (928) 871-7166 if you have questions regarding the confidentiality issues.

Thank you for your service to the Navajo Nation.

Attachment: Navajo Nation Department of Justice memorandum dated March 27, 2018.




NAVAJO NATION DEPARTMENT OF JUSTICE
OFFICE OF THE ATTORNEY GENERAL

ETHEL B. BRANCH
ATTORNEY GENERAL

CHERIE ESPINOSA
ACTING DEPUTY ATT. GENERAL

MEMORANDUM

TO: Mariana Kahn, Attorney
Office of Legislative Counsel

FROM: 
April Quinn, Attorney
Natural Resources Unit, Department of Justice

DATE: March 27, 2018

SUBJECT: Document No. 008462 – APS ROW for Western Dist. System Lines

The above referenced rights-of-way were the result of negotiations between the Navajo Nation Minerals Department on behalf of the Navajo Nation and the Arizona Public Service Company. The Minerals Department has requested that the dollar amounts contained in the Terms and Conditions of this agreement, specifically in Sections 3(a), 3(b), 3(d) and 3(e), be redacted as the agreement moves through the legislative process. The Navajo Nation Privacy Act allows for information to "remain confidential at the request of any party to the contract, lease or other agreement." See 2 N.N.C. § 85(A)(12). In accordance with § 85(A)(12), the Department of Justice deems the dollar amounts contained in the Terms and Conditions § 3(a), 3(b), 3(d) and 3(e) confidential and recommends that the dollar amounts in these sections be redacted.

NRI DNR I and Right of W APS ROW I 7 Memo MKahn-E 46 ROW D: 4

RESOURCES AND DEVELOPMENT COMMITTEE

Special Meeting

April 16, 2018

ROLL CALL

VOTE TALLY SHEET:

Legislation # 0123-18: An Action Relating to Resources and Development; Approving Rights-of-Way to Arizona Public Service Company to Operate and Maintain the Tuba City 69Kv Line, The Tuba City to Glen canyon 69 Kv Line, The Cholla-Keams Canyon, Arizona 69 Kv Line and the Cholla-Leupp-Flagstaff, Arizona 230 Kv Line Located on Tribal Trust Land (Navajo and Coconino Counties, Arizona) *Honorable Walter Phelps*

MAIN MOTION: Davis Filfred S: Walter Phelps V: 3-0-1 (CNV)

ROLL CALL VOTE TALLY:

YEAS: Davis Filfred; Leonard H. Pete and Walter Phelps

NAYS: NONE

NOT VOTING/EXCUSED: Jonathan Perry, Benjamin Bennett and Alton Joe Shepherd (Presiding)

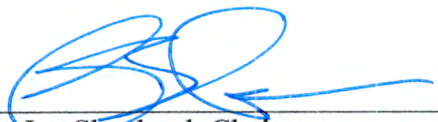
AMENDMENT # 1:

Motion: Walter Phelps S: Davis Filfred V: 3-0-1 (CNV)

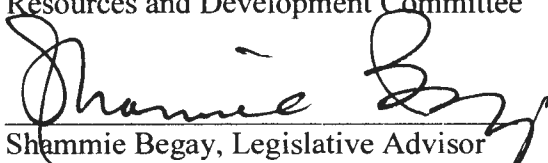
YEAS: Davis Filfred; Leonard H. Pete and Walter Phelps

NAYS: NONE

NOT VOTING/EXCUSED: Jonathan Perry, Benjamin Bennett and Alton Joe Shepherd (Presiding)



Alton Joe Shepherd, Chairperson
Resources and Development Committee



Shammie Begay, Legislative Advisor
Resources and Development Committee