

RECLAMATION

Managing Water in the West

Drought Relief Well at Taos Pueblo Environmental Assessment and Finding of No Significant Impact



Albuquerque Area Office



August 5, 2005

Background:

The purpose of the proposed project is to provide funding for a drought relief well for Taos Pueblo during times of drought. The project is needed to supply the pueblo with a source of additional non-potable water during times of drought for other community needs to include, fire protection, livestock watering, road construction and construction. Extreme water shortages have forced Taos to pursue federal assistance under the Reclamation Emergency Drought Relief Act of 1991, Public Law 102-250. This proposed well is located in Taos Pueblo, Taos County, New Mexico.

The well would be drilled by a private contractor and would be approximately 250' ± deep with 10" casing. Equipment needed for this phase of the construction would include a drill rig. The total impact for the area is an estimated 1 acre. An enclosure will be erected to limit vandalism and damage.

The Taos Pueblo selected the proposed well location and depth based on considerations of water availability and ability to operate the well without impacting other permitted well pumpers.

Mission Statement

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

- 1.1 Federal Action
- 1.2 Purpose and Need

I. PROPOSED ACTION AND ALTERNATIVES

- 2.1 Proposed Action
- 2.2 Alternative 1
- 2.3 No Action Alternative

II. AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

- 3.1 Water Supply for Taos Pueblo
- 3.2 Land
- 3.3 Water/Hydrology
- 3.4 Vegetation
- 3.5 Wildlife
- 3.6 Social Considerations
- 3.7 Cultural Resources
- 3.8 Threatened and Endangered Species
- 3.9 Indian Trusts Assets
- 3.10 Environmental Justice
- 3.11 Cumulative Effects

III. CONSULTATION AND COORDINATION

- 4.1 Agencies and Persons Consulted
- 4.2 List of Preparers

IV. REFERENCES

- 5.0 Bureau of Reclamation References

V. APPENDICES

- 6.1 Photos
- 6.2 Maps of Proposed Action
- 6.3 Cultural Report from BIA



1.0 PURPOSE AND NEED FOR AGENCY ACTION

1.1 FEDERAL ACTION

The Bureau of Reclamation proposes to provide funding to assist Taos Pueblo (Taos), New Mexico, with the proposed activity of construction and installation of drought relief well. The proposed project site is identified on Map 1 (Appendix 6.2). This well would mainly serve to support community need to include fire protection, livestock, road construction, and construction during times of drought.

1.2 PURPOSE AND NEED STATEMENT

The purpose of the proposed project is to provide funding for drought relief well for Taos Pueblo during times of drought. The project is needed to supply the pueblo with a source of additional water during times of drought for other community needs to include, fire protection, livestock watering, road construction and construction. Extreme water shortages have forced Taos to pursue federal assistance under the Reclamation Emergency Drought Relief Act of 1991, Public Law 102-250 and the Native American Program.

1.3 RELEVANT STATUTES, REGULATIONS, AND OTHER PLANS

This draft Environmental Assessment (EA) was prepared by Reclamation, Albuquerque Area Office, in compliance with all applicable Federal Statutes, Regulations, and Executive Orders, including the following:

- Archaeological Resources Protection Act of 1979 (16 U.S.C. 470)
- Clean Water Act of 1972 and Amendments of 1977 (CWA)
- Clean Air Act of 1972, as amended (42 U.S.C. 7401 *et seq.*)
- Endangered Species Act of 1973, (ESA) as amended (16 U.S.C. 1531 *et seq.*)
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations, 1994
- Floodplain Management (Executive Order 11988)
- National Environmental Policy Act (NEPA) of 1969, as amended (42 U.S.C. 4321 *et seq.*)
- Regulations for Implementing the Procedural Provisions of NEPA (40 CFR 1500 *et seq.*)
- Native American Graves Protection and Repatriation Act of 1990 (25 U.S.C. 3001 *et seq.*)
- Protection and Enhancement of the Cultural Environment (Executive Order 11593)
- Protection of Wetlands (Executive Order 11990)
- Reclamation NEPA Handbook, 2005

This draft EA also reflects compliance with all applicable State of New Mexico and local regulations, statutes, policies and standards for conserving the environment.



2.0 PROPOSED ACTION AND ALTERNATIVES

This section describes the Proposed Action, alternative 1, alternative 2, and the no action alternative. The proposed action was requested for emergency drought assistance under the Reclamation Emergency Drought Relief Act of 1991, Public Law 102-250.

2.1 PROPOSED ACTION

The proposed action consists of obtaining federal funding and drilling an observation well and a production well which would include installing turnouts on the existing road, constructing drill pad areas and pump house, and establishing a temporary staging area. Reclamation would provide funding for the production well installation for the Pueblo of Taos and other activities will be funded by other agencies. The location of this proposed activity is shown on Map 1 (Appendix 6.2) and photographs of the area are shown in Appendix 6.1. The proposed well is located in Taos County, New Mexico directly off Little Deer Horn Road in the Taos Pueblo (Global Positioning System (GPS) coordinates N36° 26.124' W105° 32.896') with a delivery point GPS coordinates N36° 26.118', W105° 22.898'. The contractor would construct a 250± foot deep well with a 10 inch casing to provide supplemental water. The cost of the proposed project includes a pump with a capacity of 440 ± gallons per minute.

Currently there is access to the proposed well site for the drilling rig along Little Deer Horn Road. Additional roads would not be needed for construction but drilling pads will need to be constructed. Less than 400 feet of power line (underground installation) would be required to provide a three phase power supply for the new pump house (approximately 10'x 10'), which would be surrounded by a 6 foot chain link fence for security. A staging area during the construction phase would be required to park equipment. The length of this staging area would be an additional 50 feet from the existing well road, with limited need for contouring. The area expected to be cleared for the drilling pad will be 1/3 acre. The total area potentially disturbed by construction would be approximately 1 acre, is flat, and was previously farmed with crops. Any drilling or water quality related permits would be the responsibility of the tribe and/or contractor to obtain, including the National Pollution Discharge Elimination System (NPDES) general permit. This NPDES general permit would apply to this project because the total project area is approximately one acre. A limited number of plant species would be disturbed but are considered plentiful in the area. Most of these plants would be non-native trees and some grasses and weeds. Chinese elms, woods rose, chokecherry, aspen and cottonwood trees were also identified on the project site or in the construction area.

2.2 ALTERNATIVE 1: DIFFERENT SITE

This alternative involves drilling a well at another site known as One Tree Area off Spider Rock Road (GPS coordinates N36° 25.350', W105° 33.157'). This proposed alternative was not considered reasonable or prudent because the depth to groundwater was too deep compared to the preferred well to provide a good source of water and therefore not as cost effective. This



Drought Relief Well at Taos Pueblo Environmental Assessment (EA)
alternative does not meet the purpose and need for action and will no longer be assessed through
out the document.

August 5, 2005

2.3 NO ACTION ALTERNATIVE

The No Action alternative is “the future without the federal project”. It consists of Reclamation not providing any funds and not drilling the wells. Without Reclamation assistance, current conditions will exist with the Pueblo of Taos searching for supplemental water sources elsewhere to avoid continued water shortages in future drought years. It is also likely that it will create additional hardship (physical and economical) on the community.



Table I
Summary of Resource Effects by Alternative

Affected Resource	No Action	Proposed Action (Preferred Alternative)
Water Supply	No direct effect on area water supplies.	Potential sustainable source of water supply for drought relief
Land	No Effect	Temporary effect ; approximately one acre of ground disturbance during construction phase
Water/Hydrology	Loss of livestock due to drought conditions, inferior fire protection and construction	Potential source of water, 10' ± to groundwater with no interruption to surrounding wells expected.
Vegetation	Loss of crops	Potentially provide long-term benefits through the provision of additional water supplies to the Pueblo
Wildlife	No Effect	Short-term disturbance during drilling activities; long-term displacement of wildlife at the well site and disbursement of wildlife to adjacent, widespread habitat.
Social Considerations	Loss of income due to no crops being farmed	Potentially provide long-term benefits through the provision of additional water supplies to the Pueblo
Cultural Resources	No Effect	No effect. Previously disturbed area, once farmland.
Threatened and Endangered Species	No Effect	No effect. No known occurrences of listed species in the projects sites, no critical habitats important to these species present.
Indian Trust Assets	No Effect	No adverse effect. Supplementing drought relief water supplies by installing a well will help develop the Pueblos' water supply and strengthen their water rights, which are trust assets. The project will be constructed on Pueblo land and the Pueblo is in support of this project.
Environmental Justice	No Effect	No Effect
Cumulative Effects	No Effect	No adverse effects anticipated.



3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1 WATER SUPPLY FOR TAOS PUEBLO

The proposed action consists of obtaining federal funding and drilling a well which would include turnouts for an existing road and constructing two drill pad areas and a staging area. Reclamation will provide funding for a well installation for Taos Pueblo. The purpose of the proposed action is to seek and provide a reliable drought relief water supply for the Taos Pueblo. This new well could produce a continued source of water in times of drought and normal seasons for the local community. The No Action alternative would provide no improvement to the water supply for Taos Pueblo. If the No Action alternative is implemented, Taos Pueblo would likely experience economic hardships during times of water shortages.

3.2 LAND

There are no unique or special interest landscape features at the proposed well installation site that would be adversely affected or degraded by the localized changes associated with well installation. No major road construction would be required to access the well site. New road construction is typically the primary cause of major landscape alterations. The drilling site is not a wetland and does not contain other sensitive vegetation or habitat. The current landscape within the proposed drilling site is disturbed and populated with Chinese elms, woods rose, chokecherry, aspen and cottonwood trees. This particular landscape is widespread and common throughout Taos County. The proposed drill pad would disturb approximately $\frac{1}{3}$ acre of ground. Erosion is expected to be minimal due to limited land contour. If the No Action alternative is implemented, no land disturbance will occur.

3.3 WATER/HYDROLOGY

The precise limits of the deep aquifer vary across Taos Valley (Banet, 1998). Most of the currently-operating wells in the Taos area are developed in the shallower Lama and Chamita formations, at a depth of less than 500 feet. (Bureau of Reclamation 1999).

Shallow wells, springs, and wetlands all are important sources of local water supply for a variety of users, as well as an integral part of the historic landscape and way of life in the Taos area. However, they may dry up during times of drought. Deep wells offer the best reliable source of water that could be developed with the fewest adverse effects. The potential for ground water contamination from well drilling activities will be avoided by following state-approved well construction practices. (Bureau of Reclamation 1999).

Depth to ground water at the proposed location for the new wells is $10\pm$ feet. Due to the gradient of the location, next to the Rio Pueblo, the 94 surrounding wells within a 1500' radius will not be impacted by these proposed observation and production wells. The wells in the surrounding area start at 7,120 feet elevation and drop to 7,000 feet at the new site.



3.4 VEGETATION

A vegetative study was conducted to assess impacts of the proposed road addition and drill pad. This site, having previously been disturbed, contains a variety of grasses, trees and weeds. Some of the grasses located in the proposed well location are; Western wheatgrass (*Agropyron smithii*), Blue grama (*Bouteloua gracilis*), and Mountain muhly (*Muhlenbergia montanus*). Shrubs in the area include woods rose (*Rosa woodsii*), chokecherry (*Prunus virginiana*) and trees in the area include quaking aspen (*Populus tremuloides*), Chinese elms (*Ulmus pumila*), and narrow leaf cottonwoods (*Populus angustifolia*). No harvestable trees or shrubs taller than three feet are located at the proposed drilling site. If the No Action alternative is implemented, no vegetation removal would occur.

3.5 WILDLIFE

The proposed action would temporarily disturb and displace wildlife on or near the area during turnout installation and drilling activities. The clearing of grasses to construct the turnouts and drill pad would displace wildlife habitat in the immediate area. The area surrounding the proposed project experiences moderate human activity, and does not appear to support substantial numbers of wildlife. No evidence of burrowing or nesting was observed on site. No wildlife species were observed on the potential site during the field observation. If the No Action alternative is implemented, no wildlife will be displaced.

3.6 SOCIAL CONSIDERATIONS

Taos County is one of about 3,141 counties and county equivalents in the United States. It has 2,203.2 sq. miles in land area and a population density of 14.0 persons per square mile. In the last three decades of the 1900s its population grew by 71.2%.

In 2002 accommodation and food services were the largest of 20 major employment sectors with an average wage per job of \$12,217. Per capita income grew by 12.9% between 1991 and 2001 (adjusted for inflation). (www.epodunk.com/cgi-bin/genInfo)

The proposed action could potentially provide long-term benefits to Taos Pueblo residents by securing a more dependable water supply for drought relief and other community uses. The proposed action would minimally degrade the aesthetics of the immediate area by altering the natural state of the land where turnouts and drill pads are proposed to be constructed. The proposed site is on a previously disturbed location. There are a few residences adjacent to the location of the proposed action. It is likely that these residents will hear heavy machinery during construction.

If the No Action alternative is implemented there would be no impacts from the drilling program on the area's aesthetics or noise levels, but the potential long-term benefits of the drilling program for water supply in the Taos Pueblo would be foregone. The aesthetics of the area

3.7 CULTURAL RESOURCES

Reclamation conducted a check in the Archaeological Records Management Section (ARMS) and found no recorded sites within the proposed project site. Bureau of Indian Affairs also produced a report dated December 5, 2003 (see 6.3). This proposed well site was previously plowed and farmed. No cultural resources were identified. It was determined the proposed action would have no effect to cultural resources due to the previous disturbance of the site location.

If cultural resources are encountered during site construction or drilling activities, work will stop and the Reclamation Area Archaeologist, the Taos Pueblo Cultural Affairs Director and the New Mexico State Historic Preservation Office will be notified immediately. If the No Action alternative is implemented, then no cultural resources will be affected.

3.8 THREATENED AND ENDANGERED SPECIES

The site of the proposed action has no indication of the presence of threatened and endangered species nor contains suitable habitat. The proposed action would have no effect on federally-listed species. If the No Action alternative is implemented, there would be no effect to federally-listed species.

Table 2. Federally Endangered and Threatened Species that occur or historically occurred in Taos County in New Mexico (April 3, 2003)

Endangered	Threatened
Black-footed ferret (<i>Mustela nigripes</i>)	Canada lynx (<i>Lynx canadensis</i>)
Interior least tern (<i>Sterna antillarum</i>)	Bald eagle (<i>Haliaeetus leucocephalus</i>)
Southwestern willow flycatcher (<i>Empidonax traillii extimus</i>)	Mexican spotted owl (<i>Strix occidentalis lucida</i>)
Rio Grande silvery minnow (<i>Hybognathus amarus</i>)	

Black-footed ferret (*Mustela nigripes*)

The Black-footed ferret lives in an open habitat; the same habitat as prairie dogs. Their main food sources are prairie dogs. Black-footed ferrets reside in grassland and shrub vegetation. There where no indication of prairie dogs presence within the proposed site. No Black-footed ferrets have been observed at the proposed site.

Interior least tern (*Sterna antillarum*)



The Interior least tern occurs in the Rio Grande System as a migrant, though rarely. They use barren to sparsely vegetated sandbars along rivers, sand and gravel pits, or lake and reservoir shorelines from late April to August. There is no river system habitat on the proposed site, and no Interior least terns have been observed.

Southwestern willow flycatcher (*Empidonax traillii extimus*)

Riparian communities provide nesting, foraging, and migratory habitat for the Southwestern willow flycatcher. They are insectivores that forage within and occasionally above dense riparian vegetation. There is no riparian habitat on the proposed site, and no Southwestern willow flycatchers have been observed.

Rio Grande silvery minnow (*Hybognathus amarus*)

The Rio Grande silvery minnow are located in the Rio Grande basin of New Mexico, Texas, and Mexico. Historic habitat for the minnow was located as far north as above Cochiti Reservoir. There is no habitat at the proposed site for the Rio Grande silvery minnow. No known collections of the minnow have occurred in the Taos area.

Canada lynx (*Lynx Canadensis*)

Habitat for the Canada lynx is varied. They can be found in the open forest, rocky areas, or coniferous forest with thick understory. They can be located, when inactive, in hollow trees, under stumps, or in thick brush. This type of habitat is not present at the proposed site, no evidence has been observed and no Canada lynx have been sighted.

Bald eagle (*Haliaeetus leucocephalus*)

Bald eagle habitat consists of nests up high on rocky ledges or in large trees. The species appears inland near rivers and lakes. Bald eagle habitat is not located on the proposed site and none have been observed.

Mexican spotted owl (*Strix occidentalis lucida*)

Mexican spotted owls are residents in the mountains of New Mexico. Roosting sites possess the following characteristics: big logs, high canopy closure (preferably closed), great densities and basal areas of both trees and snags. Mexican spotted owl habitat is not present at the proposed site and none have been observed.

3.8.1 EFFECTS DETERMINATION

Reclamation has determined that the proposed action would have “No Effect” to any federally listed species or their habitats.

3.9 INDIAN TRUST ASSETS (ITA)

Indian Trust Assets are “legal interests” in assets held in trust by the U.S. Government for



individual Indians or tribes. Lands, minerals, water rights, hunting and fishing rights, claims, titles or money are some of the assets held in ITAs. As assets held in trust, ITAs cannot be sold, leased or alienated without the expressed approval of the U.S. Government. Secretarial Order 3175 and Reclamation policy require that Reclamation evaluate and assess impacts of a proposed project on ITAs. The proposed drilling activity will help strengthen Taos Pueblos' water rights and improve their drought relief water supply, thus having a beneficial impact on these particular Indian Trust Assets. The Pueblo supports this project and its construction and presence on trust lands. There would be no adverse effect on other Indian Trust Assets. Construction effects will be temporary and localized to the site of well installations. Potential effects on vegetation, wildlife, and other trust assets will be temporary during drilling.

3.10 ENVIRONMENTAL JUSTICE

The proposed action could positively affect minority and low-income populations. The proposed location would not displace this population, nor would they be required to directly or indirectly finance this project. The project would enrich those populations with non-potable drought relief water. It would also encourage this population to maintain habitation within Taos Pueblo. The No Action alternative would increase the possibility of this population being relocated as hardships (limited drought relief water for other community purposes) increase.

3.11 CUMULATIVE EFFECTS

The proposed site has been previously disturbed by farming. An additional 400 ft of wiring from underground lines would be needed to provide power to the new pump house located in the same field. The pump house would be fenced to prevent vandalism. No increase of fragmentation of the land would occur at the proposed well site. No additional cumulative effects of the proposed action are expected.

There are 94 existing wells within 1500 feet of the proposed well site. If the No Action alternative is implemented, no cumulative effects are expected to occur.

4.0 CONSULTATION AND COORDINATION

4.1 AGENCIES AND PERSONS CONSULTED

This Environmental Assessment was prepared in consultation and coordination with the following entities:

- Taos Pueblo (Water Resources Management)
- Bureau of Reclamation, Albuquerque Area Office (Archaeologist and Biologist)
- New Mexico Office of the State Engineer
- BIA Southwest Region Office (Hydrologist)

4.2 PREPARERS

Jeff Hanson	Reclamation, Archaeologist	PhD Anthropology, meets Secretary of Interior standards, 23 years experience	Survey proposed site location
Mark Hungerford	Reclamation Archaeologist	BS Anthropology, 12 years experience	ARMS search, maps and edit EA
Mick Porter	Biologist	PhD Biology, 20 years experience	Write, review and edit EA
Jennifer Montano	USFS, Hydrologist	BS Biology, Pending MS in Water Resources, 1 year experience	Write, review and edit EA
Marsha Carra	Reclamation, Environmental Protection Specialist	BS Anthropology/ Geography 15 years experience	Write, review and edit EA
Joe Alderete	Civil Engineering Tech	33 yrs experience	Review and edit EA, site survey
Viola Sanchez	Reclamation, Native American Coordinator	BS, MS Civil Engineering, 17 yrs experience	Review and edit EA, site survey



5.0 BUREAU OF RECLAMATION LITERATURE CITED

Banet, C, 1998. Technical Studies conducted to assist settlement discussions in *NM v Abeyta*: Drilling Program – Pueblo Portion. U.S. Department of Interior, Bureau of Indian Affairs, Albuquerque Area Office, Branch of Water Rights.

Bureau of Reclamation. 1999. Environmental Assessment for Taos Deep Exploratory Wells Project. Albuquerque Area Office.

Epodunk, June 2004. www.epodunk.com/cgi-bin. Taos County, NM.

6.0 APPENDICES

- 6.1 Photos of Site Location
- 6.2 Map of Proposed Action
- 6.3 BIA Memorandum December 5, 2003 – Completion of Cultural Resources Compliance for Drought Relief Well at Taos Pueblo



6.1 Photos of proposed well site



Proposed drought relief well site.

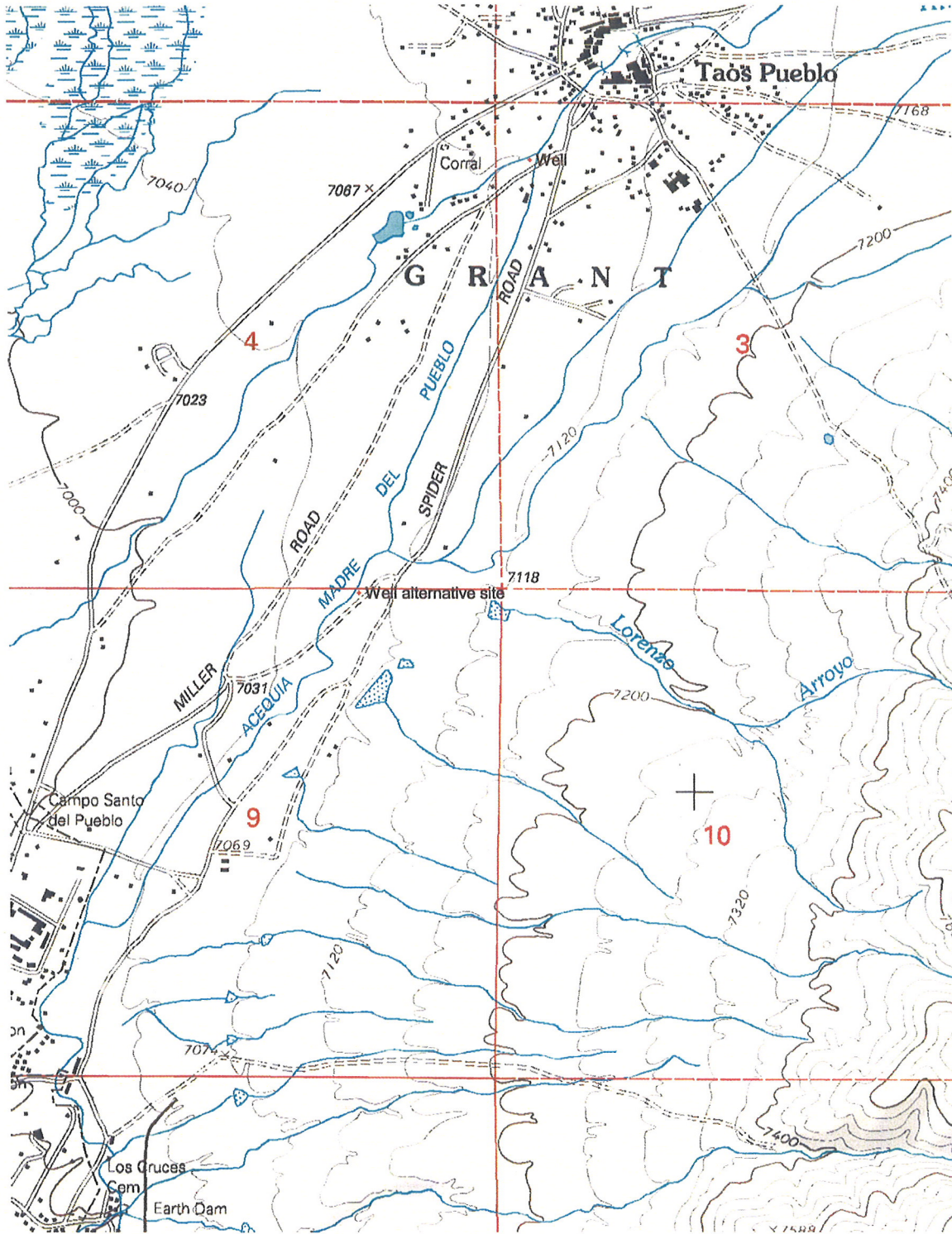


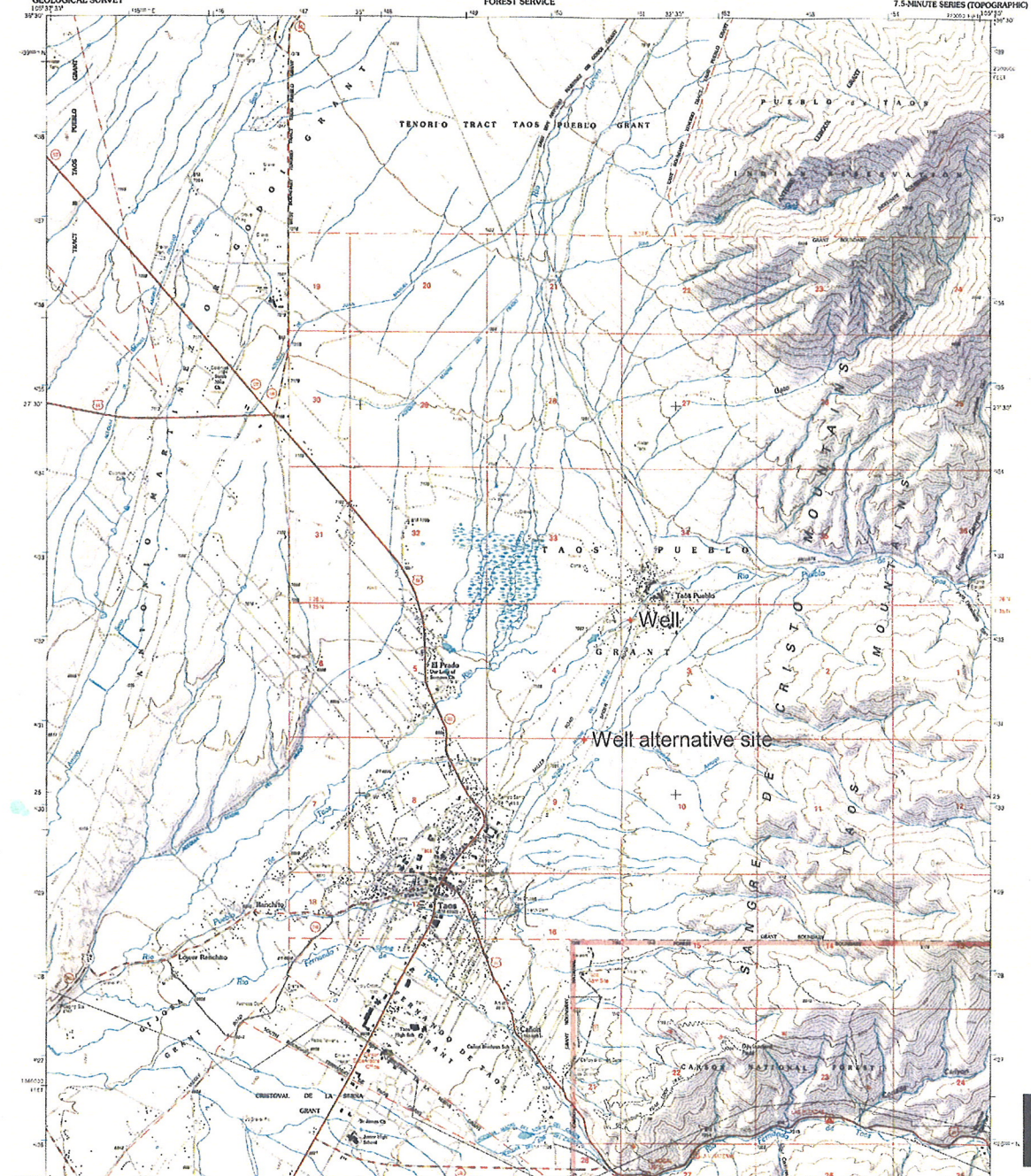
This is a photo of vegetation on the lot of proposed drought relief well as of July 2005. Trees in the area include Chinese elms, woods rose, chokecherry and one aspen was seen.



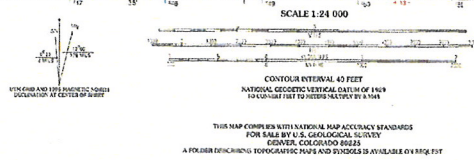
Access road (Little Deer Horn Road) next to lot where wells would be installed/drilled. Turnout for access would be at the orange flag in the photo.

6.2 Maps of Area





Produced by the U. S. Geological Survey
 Identified by the U.S. Forest Service
 Areas outside the National Forest System lands may not have been revised
 since 1957. Partial releases by U.S. Forest Service 1999.
 Contour from aerial photography taken 1961. Planed from aerial photography
 taken 1957. Partial releases by U.S. Forest Service 1999.
 North American Datum of 1983 (NAD 83). Projection and 16,300-foot scale.
 They show contour lines, spot elevations, and drainage patterns. The
 1500-foot Universal Transverse Mercator scale, zone 13.
 North American Datum of 1983 (NAD 83) is shown by dashed corner dots.
 The values of the dots between NAD 83 and NAD 29 for 7 1/2 minute
 quadrangles are obtained from National Geospatial Intelligence Agency
 (NGA) data.
 The National Forest System lands within the National Forest
 boundaries are shown in blue. National or State boundaries
 This map is a digital data base or computer file. Public lands are
 subject to change and deletion, and may have been reclassified, check
 with local offices. Obtain permission before reusing printed lands.



UNADJUSTED LOCATION

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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ROADS AND BOARDS

- Interstate
- U.S.
- State
- County
- National Forest, suitable for passenger cars
- National Forest, suitable for high clearance vehicles
- National Forest Trail
- Primary highway
- Secondary highway
- Light-duty road
- Trail
- Driv
- Compassionate (one-way)
- Unimproved 4-wheel drive
- Trail
- Gate

TAOS, NM
1995

DATA OHS 1983 - BLS/ES/1983





August 5, 2005

UNITED STATES GOVERNMENT
memorandum

DATE: DEC 05 2003
REPLY TO:
ATTN OF: Deputy Regional Director
SUBJECT: Completion of Cultural Resources Compliance for a Drought Relief Well at Taos Pueblo
TO: Regional Hydrologist

Attached is a report prepared by Mr. Peter J. McKenna, Archeologist, entitled, "Cultural Resource Survey: A proposed Drought Relief Well on the Rio Pueblo, Taos Pueblo, New Mexico."

No evidence of potentially significant cultural resources was encountered during the requisite survey. Because the area is small, previously disturbed by agriculture and run-off events, and was stipulated as the desired tract by a Taos Pueblo official, we do not feel this action has the potential to effect localities of traditional, religious or cultural significance to the Pueblo of Taos. Therefore, we have determined that no historic properties will be affected and the proposed project should be allowed to proceed as planned. This decision is in keeping with our Memorandum of Agreement Exclusion #2 with the New Mexico State Historic Preservation Officer, dated September 11, 1990. We have informed the Pueblo of Taos and the New Mexico State Historic Preservation Officer of our decision and have provided them with a copy of this report for their files.

The proposed undertaking is in compliance with the provisions of § 106 of the National Historic Preservation Act (16 U.S.C. 470) and its implementing regulations (36 CFR 800). The proposed project may proceed under the following stipulations:

1. All land altering activity must be confined to the areas surveyed for cultural resources.
2. If subterranean cultural resources are encountered, land altering activities will be halted and the Regional Archeologist notified immediately.

These stipulations must be followed or project suspensions will be issued. The responsibility of project sponsors is to notify subcontractors of the project boundaries and stipulations. Any change in project boundaries will require additional survey and repetition of the compliance procedures.

If you have any questions, please contact Mr. Peter J. McKenna, Natural Resources Services, at (505) 346-7111.

Acting 
Deputy Regional Director

Attachment



TA04-023
NMCRIS 85806

Bureau of Indian Affairs
Southwest Regional Office
Cultural Resources Survey Report

Cultural Resource Survey: A Proposed Drought Relief Well on the Rio Pueblo, Taos Pueblo, New Mexico

Preparer: Peter J. McKenna, Archeologist, Southwest Regional Office, Bureau of Indian Affairs

Survey Archeologist: Peter J. McKenna

Other Parties: Mr. Nelson Cordova, Taos Pueblo Water Rights

Date of Report: 6 Nov 03 **Date of survey:** 5 Nov 03

PROJECT INFORMATION

Sponsor Name and Address: BIA Southwest Region, Branch of Rights Protection, P.O. Box 26567, Albuquerque, NM 87125

Project Name/Designation: Taos Pueblo Drought Relief Well

Description of Undertaking: The Geohydrology Section of the Southwest Region proposes to drill one drought-relief well along the east side of the Rio Pueblo just south of old Taos Pueblo. No new access preparation is required.

Nature of Federal Involvement: Drilling of well.

Size of Project Area: The tract of land selected for the well is a roughly rectangular piece of land some 180m by 30-85m wide. The tract contains 2.6 acres.

PROJECT LOCATION

State: New Mexico **County:** Taos **Reservation:** Taos Pueblo

USGS Quadrangle: Taos NM, 1964, 7.5' (1:24000)

Legal Description: T 25N R 13E Sec. 3 NE,NW,NW

UTM Coordinates: Well center Zone 13 451020E 4032260N

Distance/Direction from local landmarks/geographic features: The well locality will be sandwiched between the Rio Pueblo on the west, the Phia-no Ditch on the east and by residential developments on the north and south. The Deer Horn Road flanks



the Phia-no Ditch immediately to the east and it's intersection with Spider Rock Road is about 50m north; old Taos Pueblo is about 3-4 blocks north of the project area.

ENVIRONMENTAL SETTING

Topographic Situation: Flat bottom land of the Rio Pueblo drainage.

Drainage: Rio Pueblo de Taos.

Geology and Soils: Alluvium and riverain colluvial deposits; dark brown clay loams.

Vegetation Communities and Local Flora: Riparian bosque featuring narrow leaf cottonwood, alders, box elder, Chinese elm, Rocky Mountain juniper, some Gambel's oak, wild rose, rabbit brush, Apache plume, wild grape, Virginia creeper, cockleburs, mustards, orchard grass, cheat grass, alfalfa and other annuals/forbs.

Elevation: 7090 ft.

SURVEY

Dimensions & Acreage: Same as project area.

Survey Method: The development bounded area was walked in zig-zagged parallel transects spaced at 10-15m intervals.

Previous Surveys: None of the immediate project area.

Previous Disturbance: The tract for the well was described by Taos Pueblo authorities as having been an old field. This field area has recovered vegetatively to some degree but dirt piles from ditch cleaning are evident over much of the eastern side of the tract. The area has also seen repeated overbanking and disturbance by runoff from the Rio Pueblo. Today the area is largely a party site with numerous "weeny fire" scars, informal hearths and scattered refreshment containers.

CULTURAL RESOURCES

Sites: None.

Isolated Occurrences: None **Isolated Artifacts:** None.

RECOMMENDATIONS



3

The archeological survey of a proposed drought relief well on Taos Pueblo lands identified no cultural resources in the project areas. Because no significant properties were identified no historic properties will be affected and it is recommend the project proceed as planned with the following stipulations:

1. All land altering activities be confined to the areas surveyed for cultural resources.
2. If subterranean cultural resources are encountered, land alteration be halted and the Regional Archeologist notified immediately.

Attachments: Project Location Map: Figure 1



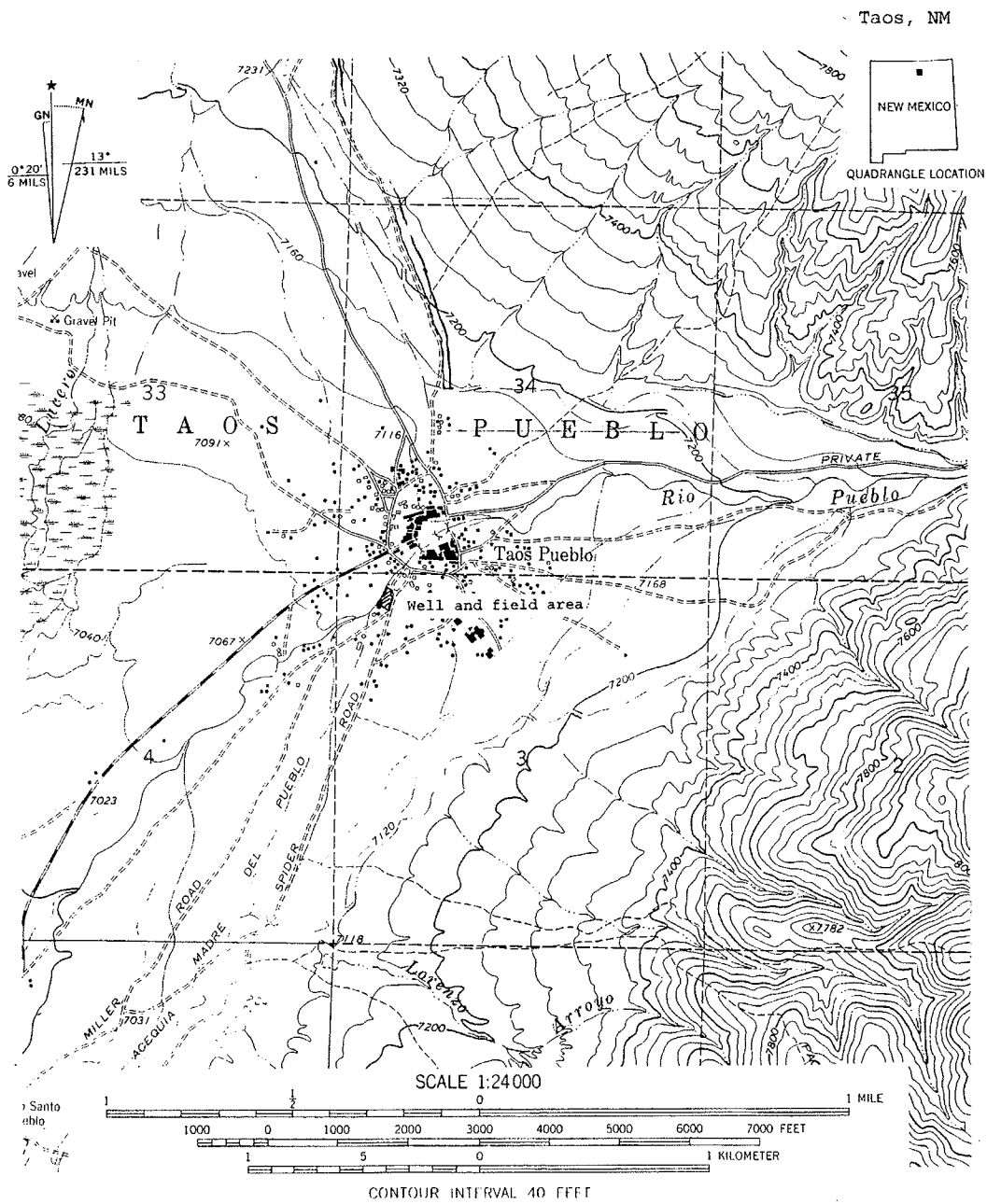


Figure 1. Location of a proposed drought relief well along the Rio Pueblo at Taos Pueblo, New Mexico.



**U.S. Department of the Interior
Bureau of Reclamation
Albuquerque Area Office
Albuquerque, New Mexico**

FINDING OF NO SIGNIFICANT IMPACT

**Drought relief Water Well at Taos Pueblo
Taos County, New Mexico**

Lon Robertson
Manager, Environment Division

August 9, 2005
Date

Connie A. Rupp
Area Manager, Albuquerque, New Mexico

August 9, 2005
Date

FONSI Number: AAO-05-003

Summary of the Proposed Action

The Bureau of Reclamation has prepared an Environmental Assessment (EA) for the funding of construction and installation of a pump house, drilling site, staging area, and drought relief well. Taos Pueblo continues to experience dry periods due to drought conditions. Reclamation would be funding the proposed drought relief well project under the Emergency Drought Relief Program and the Native American Program.

Background

The purpose of the proposed project is to provide funding for a drought relief well for Taos Pueblo during times of drought. The project is needed to supply the pueblo with a source of additional water during times of drought for other community needs to include, fire protection, livestock watering, road construction and construction. Extreme water shortages have forced Taos to pursue federal assistance under the Reclamation Emergency Drought Relief Act of 1991, Public Law 102-250. This proposed well is located in Taos Pueblo, Taos County, New Mexico.

The well would be drilled by a private contractor and would be approximately 250' ± deep with 10" casing. Equipment needed for this phase of the construction would include a drill rig. The total impact for the area is an estimated 1 acre. An enclosure will be erected to limit vandalism and damage.

The Taos Pueblo selected the proposed well location and depth based on considerations of water availability and ability to operate the well without impacting other permitted well pumpers.

Environmental Impacts

The following resources and socioeconomic factors were evaluated in detail in the Environmental Assessment for anticipated impacts from installation of a drought relief well project: land, hydrology, vegetation, wildlife, social considerations, cultural resources, threatened and endangered species, Indian Trust Assets, environmental justice and cumulative effects. The following resources are discussed further:

Land

No impact would occur to geography or geology as a result of the proposed action as this occurs in a previously disturbed area. The construction and installation of the proposed pump house, drill site, staging area, and wells would be built so that no mitigation measures would be needed. Soils and vegetation disturbance would be kept to a minimum, with vegetation cover left undisturbed whenever possible. Erosion is expected to be minimal due to limited land contour.

The land for the proposed action is not utilized for grazing or farming. Impact due to the proposed action would not be significant.

Water/Hydrology

The 94 surrounding wells within a 1500' radius will not be impacted by these proposed wells. Any drilling or water quality related permits would be the responsibility of the tribe and/or contractor to obtain, including the National Pollution Discharge Elimination System (NPDES) general permit.

Vegetation

Construction activities that disturb vegetation would be kept to a minimum within the proposed, previously disturbed site. Associated impacts would be considered temporary and not significant.

Wildlife

The proposed action is expected to temporarily disturb and displace wildlife on or near the area during construction and drilling activities.

Social Considerations

The proposed action would have a slight beneficial impact on employment because of the construction of the transmission lines but no significant impacts on long-term demographic trends.

Cultural Resources

A cultural resources/archaeological survey were not completed as the proposed site is a previously disturbed site. A search in the Archaeological Records Management Section was conducted and no sites were identified. No significant or eligible historic properties were located. It was determined that the proposed action would have no effect on cultural resources.

Threatened and Endangered Species

The proposed action is expected to have no effect on federally listed threatened or endangered species.

Indian Trust Assets

The water supply and water rights associated with the proposed well are Indian Trust Assets which will be benefited from the proposed project. The Pueblo supports this project and its construction and presence on trust lands. Therefore, no adverse impact to Indian Trust Assets would result from the proposed action. The proposed action would utilize existing easements for the majority of construction and operations activities.

Environmental Justice

In following the Executive Order 12898 of 1994, "Federal Actions to Address Environmental Justice in Minority Populations," the proposed action could positively affect minority and low-income populations. The project would enrich those populations with drought relief water.

Cumulative Impacts

Cumulative impacts as a result of the construction and installation of a pump house, drilling site, staging area, and drilling wells are expected to be minimal. The drill sites would be in a previously disturbed field. Selection of this site was based on proximity to need and previous ground disturbance. A chain link fence would be constructed around the pump house to prevent vandalism.

Conclusion

Based on the analysis present in the EA, Reclamation finds that there would be not significant impacts associated with the proposed action. Reclamation makes this Finding of No Significant Impact (FONSI) pursuant to the National Environmental Policy Act (NEPA) of 1969 (42 U.S.C. 4321 et seq.) and the Council on Environmental Quality implementing regulations (40 CFR 1500). Reclamation has determined that the proposed action does not constitute a major Federal action that would significantly affect the human environment. Therefore, no environmental impact statement will be prepared for this proposal.