

CULTURAL RESOURCE INVENTORY FOR THE CITY OF AZTEC  
SEWER OUTFALL LINE IN SAN JUAN COUNTY, NEW MEXICO

By  
Jesse Murrell

*Prepared for:*

SME Environmental, Inc.  
555 Rivergate Lane B1-101  
Durango, Colorado 81301

*On behalf of:*

City of Aztec  
303 South Ash Street  
Aztec, New Mexico 87410

*Submitted to:*

New Mexico Environment Department  
and  
New Mexico Department of Transportation  
Environmental Design Division

*Submitted by:*

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Principal Investigator  
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Farmington, New Mexico 87499

New Mexico General Archaeological Investigation Permit Number NM-12-224-S



Report Number 2012-SME-01  
October 2012

## NMCRIS INVESTIGATION ABSTRACT FORM (NIAF)

<b>1. NMCRIS Activity No.:</b> 125442	<b>2a. Lead (Sponsoring) Agency:</b> New Mexico Environment Department	<b>2b. Other Permitting Agency(ies):</b> New Mexico Department of Transportation	<b>3. Lead Agency Report No.:</b>												
<b>4. Title of Report:</b> Cultural Resource Inventory for the City of Aztec Sewer Outfall Line in San Juan County, New Mexico <b>Author(s)</b> Jesse Murrell			<b>5. Type of Report</b> <input type="checkbox"/> Negative <input checked="" type="checkbox"/> Positive												
<b>6. Investigation Type</b> <input type="checkbox"/> Research Design <input checked="" type="checkbox"/> Survey/Inventory <input type="checkbox"/> Test Excavation <input type="checkbox"/> Excavation <input type="checkbox"/> Collections/Non-Field Study <input type="checkbox"/> Overview/Lit Review <input type="checkbox"/> Monitoring <input type="checkbox"/> Ethnographic study <input type="checkbox"/> Site specific visit <input type="checkbox"/> Other															
<b>7. Description of Undertaking (what does the project entail?):</b> The City of Aztec proposes to construct a 7192 foot (ft; 2192 meter [m]) replacement sewer line within a 60-ft-wide (18-m-wide) easement. The replacement sewer line will be within the easement of the existing sewer line. Approximately 1680 ft (512 m) of the line would be bored underground to avoid surface resources and excess surface disturbance. Since the installation of the original sewer line, buildings at A-1 Mini Storage located at 600 South Oliver Drive have been constructed over the existing sewer line. The proposed sewer line will be re-routed around A-1 Mini Storage, leaving the existing sewer line located under the buildings in place. The area of potential effect (APE) measures 10.0 acres (ac; 4.0 hectares [ha]). Construction of the proposed sewer line will require clearing of a right-of-way, developing temporary use areas within the easement, trenching and boring, laying of pipeline, testing, and backfilling the pipeline. Mechanical equipment will be used during all phases of construction.		<b>8. Dates of Investigation:</b> 30 September 2012  <b>9. Report Date:</b> 13 October 2012													
<b>10. Performing Agency/Consultant:</b> El Morro CRM, LLC <b>Principal Investigator:</b> Jesse Murrell <b>Field Supervisor:</b> Jesse Murrell <b>Field Personnel Names:</b>		<b>11. Performing Agency/Consultant Report No.:</b> El Morro CRM Report Number 2012-SME-01  <b>12. Applicable Cultural Resource Permit No(s):</b> New Mexico General Archaeological Investigation Permit Number 236-2920-12-C													
<b>13. Client/Customer (project proponent):</b> SME Environmental, Inc. <b>Address:</b> 555 Rivergate Lane, B1-101, Durango, CO 81301 <b>Phone:</b> (970) 259-9595		<b>14. Client/Customer Project No.:</b>													
<b>15. Land Ownership Status (<u>Must</u> be indicated on project map):</b> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="width: 50%;">Land Owner</th> <th style="width: 25%;">Acres Surveyed</th> <th style="width: 25%;">Acres in APE</th> </tr> </thead> <tbody> <tr> <td>Private and Municipal</td> <td style="text-align: center;">26.8</td> <td style="text-align: center;">10.0</td> </tr> <tr> <td style="text-align: right;"><b>TOTALS</b></td> <td style="text-align: center;">26.8</td> <td style="text-align: center;">10.0</td> </tr> </tbody> </table>				Land Owner	Acres Surveyed	Acres in APE	Private and Municipal	26.8	10.0	<b>TOTALS</b>	26.8	10.0			
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17. Survey Data:

- a. Source Graphics  NAD 27  NAD 83  
 USGS 7.5' (1:24,000) topo map  Other topo map, Scale:  
 GPS Unit Accuracy  <1.0m  1-10m  10-100m  >100m

b. USGS 7.5' Topographic Map Name USGS Quad Code

Flora Vista, New Mexico	36108-G1
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c. County(ies): San Juan County, New Mexico

17. Survey Data (continued):

d. Nearest City or Town: Aztec, New Mexico

e. Legal Description:

Township (N/S)	Range (E/W)	Section	¼	¼	¼
30N	11W	8	S½	SW	SW
30N	11W	8	NE	SW	SW
30N	11W	8	N½	SE	SW
30N	11W	8	NW	SW	SE
30N	11W	8	S½	NW	SE
30N	11W	8	S½	NE	SE
30N	11W	9	W½	NW	SW
30N	11W	9	SW	SW	NW
30N	11W	17	NW	NW	NW

Projected legal description? Yes [ ], No [ X ] Unplatted [ ]

f. Other Description (e.g. well pad footages, mile markers, plats, land grant name, etc.):

18. Survey Field Methods:

- Intensity:  100% coverage  <100% coverage  
Configuration:  block survey units  linear survey units (l x w): 7352 by 160 ft  other survey units (specify):  
Scope:  non-selective (all sites recorded)  selective/thematic (selected sites recorded)  
Coverage Method:  systematic pedestrian coverage  other method (describe)  
Survey Interval (m): 15 m Crew Size: 1 Fieldwork Dates: 30 September 2012  
Survey Person Hours: 4 Recording Person Hours: 4 Total Hours: 8

Additional Narrative: The APE consisted of a proposed 7192 ft of sewer outfall line surrounded by a 30-ft buffer for an easement with a total width of 60 ft. The survey area included a 50-ft buffer of the APE for a total width of 160 ft.

19. Environmental Setting (NRCS soil designation; vegetative community; elevation; etc.): The project area is located within the City of Aztec, New Mexico between the Animas River to the south and US 550 to the north and between Oliver Street to the west and the Chaco Street bridge or "Money Saving" bridge to the east. The proposed line follows the Elledge Mill ditch for much of its course. It is situated at elevations ranging between 5700 and 5780 ft (1737 and 1762 m) above mean sea level on the gentle south-facing slope of the northern terrace of the Animas River above the floodplain. Arroyo-dissected mesas and ridges lie to the north. The project area falls roughly between the confluences of Estes Arroyo and Kochis Arroyo with the Animas River. The surface geologic map units of area include Holocene alluvium and Pleistocene terrace gravels. NRCS classifies the soils as Fruitland loam, Walrees loam, Werlog loam, Fruitland sandy loam, and Turley clay loam from roughly the northeast to the southwest across the project area. The area falls within a urban/farmland/open waters vegetative community. Observed vegetation includes Fremont cottonwood, elm, Russian olive, salt cedar, rabbitbrush, sagebrush, saltbush, Russian thistle, cattail, blackeyed Susan, and cheatgrass.

20a. Percent Ground Visibility: 70 to 0 percent and impassable b. Condition of Survey Area (grazed, bladed, undisturbed, etc.): The survey area has been impacted by land development associated with the growth of the City of Aztec.

21. CULTURAL RESOURCE FINDINGS  Yes, See Page 3  No, Discuss Why:

22. Required Attachments (check all appropriate boxes):

- USGS 7.5 Topographic Map with sites, isolates, and survey area clearly drawn
- Copy of NMCRIS Mapserver Map Check
- LA Site Forms - new sites (with sketch map & topographic map)
- LA Site Forms (update) - previously recorded & un-relocated sites (first 2 pages minimum)
- Historic Cultural Property Inventory Forms
- List and Description of isolates, if applicable
- List and Description of Collections, if applicable

23. Other Attachments:  
 Photographs and Log

Other Attachments  
(Describe): Historic Water Delivery System Inventory (HWDSIF) Form for the Elledge Mill ditch (LA 68214)

**24. I certify the information provided above is correct and accurate and meets all applicable agency standards.**

**Principal Investigator/Responsible Archaeologist:** Jesse B. Murrell, RPA

**Signature** \_\_\_\_\_

**Date** 13 October 2012 **Title (if not PI):**

**25. Reviewing Agency:  
Reviewer's Name/Date**

**Accepted ( ) Rejected ( )**

**Tribal Consultation (if applicable):**  Yes  No

**26. SHPO**

**Reviewer's Name/Date:**

**HPD Log #:**

**SHPO File Location:**

**Date sent to ARMS:**

## CULTURAL RESOURCE FINDINGS

*[fill in appropriate section(s)]*

<b>1. NMCRIS Activity No.:</b> 125442	<b>2. Lead (Sponsoring) Agency:</b> New Mexico Environment Department	<b>3. Lead Agency Report No.:</b>
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### SURVEY RESULTS:

**Sites discovered and registered:** 0

**Sites discovered and NOT registered:** 0

**Previously recorded sites revisited** (*site update form required*): 2

**Previously recorded sites not relocated** (*site update form required*): LA 15235

**TOTAL SITES VISITED:** 2

**Total isolates recorded:** 0      **Non-selective isolate recording?**

**Total structures recorded** (*new and previously recorded, including acequias*): 2

### MANAGEMENT SUMMARY

A total of two previously recorded sites—LA 68214 and LA 122905—were encountered and updated during the survey. Site LA 68214 is an in-use segment of the Elledge Mill ditch. The ditch was updated using a Historic Water Delivery System Inventory Form (HWDSIF) rather than a Laboratory of Anthropology (LA) site record. Prior to this recording, it appears that a HWDSIF had not been completed for the resource. During the most recent previous recording, the ditch was recommended to be NRHP eligible under Criteria A and C. During the current investigation, no reason was found to reevaluate this recommendation. Site LA 122905 is the in-use Chaco Street bridge (New Mexico Department of Transportation [NMDOT] Bridge No. 119) over the Animas River. A State Historic Preservation Office (SHPO) determination of eligibility (DOE) for site LA 122905 was made on 16 May 2008. The site was determined to be eligible for listing in the NRHP under Criteria A and C. There was no reason to reevaluate the SHPO DOE.

A single previously recorded site—LA 15235—was not relocated in the current survey area. The site was originally encountered in an area currently occupied by the Aztec Wastewater Treatment Facility. During the most recent previous update (NMCRIS Activity No. 104774), no surface manifestation of the site was observed and the recorder offered no treatment recommendations for a wastewater facilities improvement project. NRHP eligibility was not determined. During construction for the improvements to the facility, prehistoric human remains were discovered within or in close proximity to the site. The remains were reinterred at site LA 168259 (NMCRIS Activity No. 118867). During the current investigation, no surface manifestation of the site was observed. It is unknown if potential subsurface archaeological deposits retain integrity and NRHP eligibility remains undetermined.

The proposed undertaking crosses New Mexico Department of Transportation (NMDOT) right of way at a point where New Mexico Highway (NM) 516 crosses the Animas River. NM 516 is carried over the river by NMDOT bridges 6219 (southbound lanes) and 6220 (northbound lanes). These bridges were constructed in 1960 and are potentially eligible for NRHP and SRCP listing; however, the NMDOT Environmental Design Division did not require an evaluation of eligibility during the current investigation.

The proposed undertaking should have *no adverse effect* on historic properties if the recommendations offered below are followed. The project proponents intend to bore under the Elledge Mill ditch (LA 68214). The ditch should not be impacted. Construction activities will take place under the Chaco Street bridge (LA 122905) and at a sufficient distance from its surface features. The bridge should not be impacted. This is also the case with NMDOT bridges 6219 and 6220. During the original construction of the Chaco Street bridge, buried archaeological remains were discovered. Bridge construction was moved to avoid additional remains. For this reason along with the close proximity of two prehistoric sites (LA 15185 and LA 15186), which were not encountered in the current survey area, it is recommended that all initial ground-disturbing construction activities within 100 ft (30 m) of the sites are monitored by an archaeologist listed on the SHPO's Directory of Qualified Personnel. The archaeologist should also monitor all initial ground-disturbing construction activities within LA 15235 and the Aztec Wastewater Treatment Facility. If unanticipated discoveries are made during the course of monitoring, then all construction in the area should cease and SHPO staff should be contacted for guidance concerning the treatment of the resource.

**IF REPORT IS NEGATIVE YOU ARE DONE AT THIS POINT.**

### SURVEY LA NUMBER LOG

#### Sites Discovered:

LA No.	Field/Agency No.	Eligible? (Y/N, applicable criteria)

#### Previously recorded revisited sites:

LA No.	Field/Agency No.	Eligible? (Y/N, applicable criteria)
68214		Y, Criteria A and C
122905		Y, Criteria A and C

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## INTRODUCTION

On 24 September 2012, SME Environmental, Inc. on behalf of the City of Aztec requested that El Morro CRM, LLC (El Morro) complete a cultural resource inventory for the proposed construction of the Aztec sewer outfall line. The project area falls on private and municipal land in the City of Aztec, New Mexico. The project is sponsored by state funding procured from the New Mexico Environment Department. The New Mexico Cultural Properties Act [18-6-1 NMSA] provides for the preservation and protection of cultural properties in manner conforming with the National Historic Preservation Act as amended (NHPA). Section 18-6-8.1 requires state agencies to provide the State Historic Preservation Office (SHPO) with an opportunity to participate in the planning of undertakings to avoid or minimize adverse effects on properties listed on the State Register of Cultural Properties and National Register of Historic Places (NRHP). The purpose of the inventory, which consists of a records review and pedestrian survey, was to identify historic properties within or adjacent to the area of potential effect (APE), assess eligibility for listing on the NRHP, and make recommendations regarding potential effect.

The project area is located within the City of Aztec, New Mexico between the Animas River to the south and US 550 to the north and between Oliver Street to the west and the Chaco Street bridge to the east. The area is depicted on the United States Geological Survey (USGS) 7.5-minute topographic quadrangle of Flora Vista, New Mexico (36108-G1) in Sections 8, 9, and 17 of Township 30 North and Range 11 West, New Mexico Principal Meridian.

The City of Aztec proposes to construct a 7192 foot (ft; 2192 meter [m]) replacement sewer line within a 60-ft-wide (18-m-wide) easement. The replacement sewer line will be within the easement of the existing sewer line. Approximately 1680 ft (512 m) of the line would be bored underground to avoid surface resources and excess surface disturbance. Since the installation of the original sewer line, buildings at A-1 Mini Storage located at 600 South Oliver Drive have been constructed over the existing sewer line. The proposed sewer line will be re-routed around A-1 Mini Storage, leaving the existing sewer line located under the buildings in place. The area of potential effect (APE) measures 10.0 acres (ac; 4.0 hectares [ha]). Construction of the proposed sewer line will require clearing of a right-of-way, developing temporary use areas within the easement, trenching and boring, laying of pipeline, testing, and backfilling the pipeline. Mechanical equipment will be used during all phases of construction.

El Morro Principal Investigator Jesse Murrell completed an internet-based review of New Mexico Cultural Resource Information System (NMCRIS) records on 30 September 2012. Murrell completed the pedestrian survey on the same date. The survey area consisted of the APE with a 50-ft-wide (15-m-wide) buffer. In total, the survey area measured 26.8 ac (10.8 ha).

A total of two previously recorded sites—LA 68214 and LA 122905—were encountered and updated during the survey. Site LA 68214 was recommended to be NRHP eligible under Criteria A and C. The State Historic Preservation Office (SHPO) determined that site LA 122905 was eligible for listing in the NRHP under Criteria A and C. A single previously recorded site—LA 15235—was not relocated in the current survey area. It is unknown if potential subsurface archaeological deposits retain integrity and NRHP eligibility remains undetermined. The

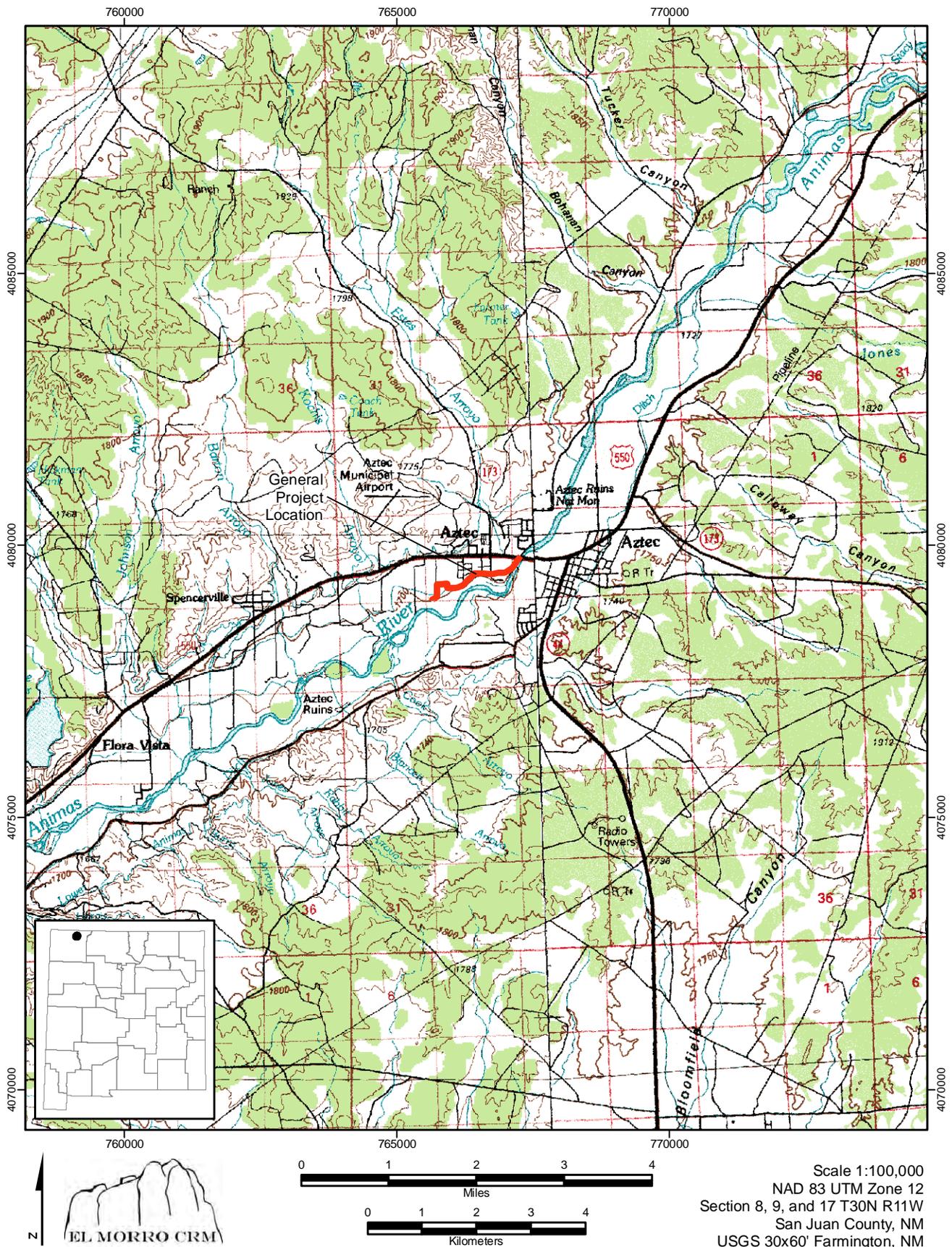


Figure 1. Aztec Sewer Outfall Line (NMCRIS No. 125442) General Project Location Map.

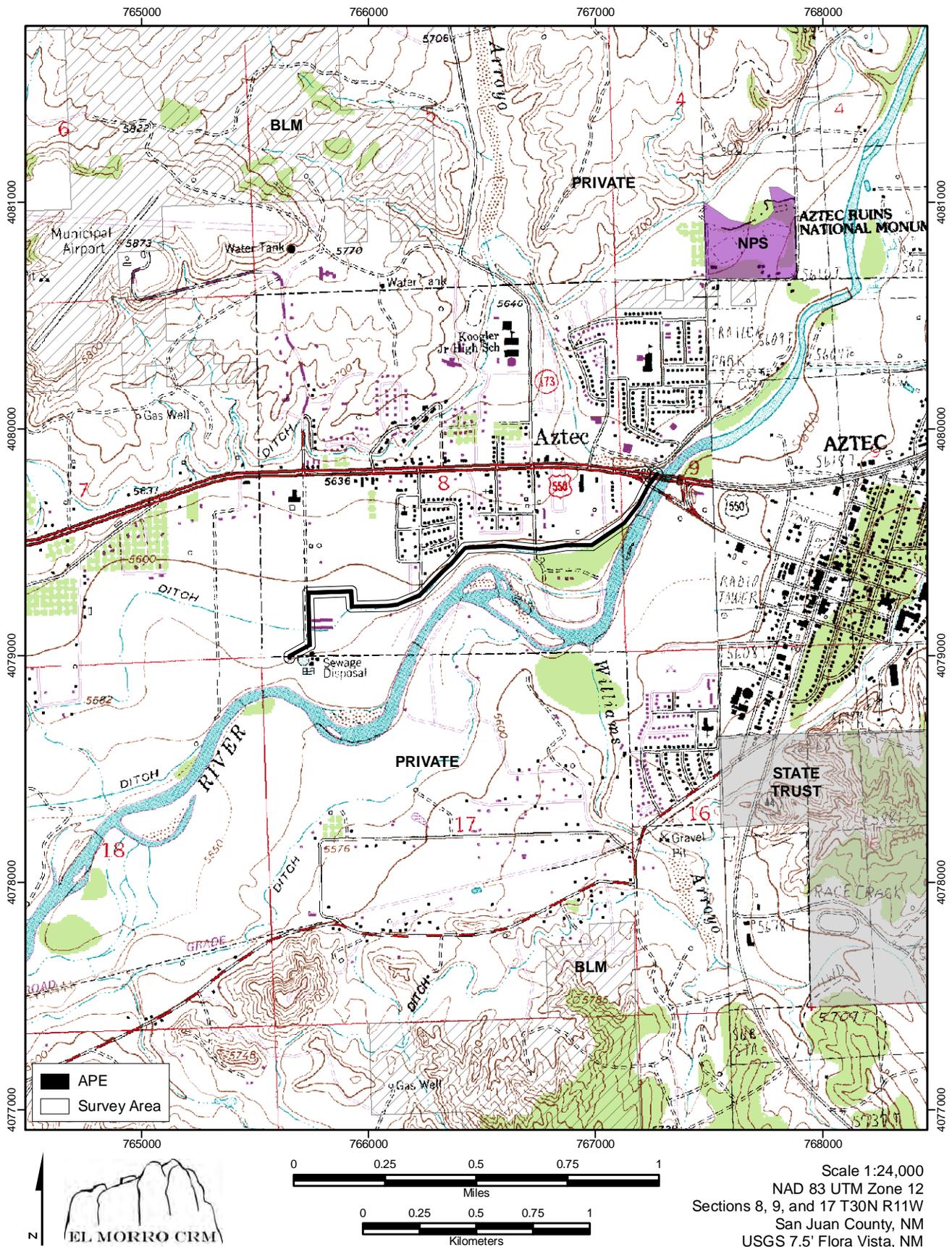


Figure 2. Aztec Sewer Outfall Line (NMCRIS No. 125442) Project Area Map.

proposed undertaking should have *no adverse effect* on historic properties if the recommendations for construction monitoring offered below are followed.

## ENVIRONMENTAL SETTING

The project area is located within the City of Aztec, New Mexico between the Animas River to the south and US 550 to the north and between Oliver Street to the west and the Chaco Street bridge or "Money Saving" bridge to the east. The proposed line follows the Elledge Mill ditch for much of its course. It is situated at elevations ranging between 5700 and 5780 ft (1737 and 1762 m) above mean sea level on the gentle south-facing slope of the northern terrace of the Animas River above the floodplain. Arroyo-dissected mesas and ridges lie to the north. The project area falls roughly between the confluences of Estes Arroyo and Kochis Arroyo with the Animas River. The river falls within the San Juan Basin of the larger Colorado Plateau physiographic unit.

The surface geologic map units of area include Holocene alluvium and Pleistocene terrace gravels (Manley *et al.* 1987). The alluvium is stream-deposited clay, silt, sand, and gravel along valley bottoms and low terraces that is up to 10 m (33 ft) thick. The terrace gravel is well-sorted outwash and pediment gravel varying in thickness from 3–17 m (10–56 ft; Manley *et al.* 1987).

The Natural Resource Conservation Service (NRCS 2012) classifies the soils as Fruitland loam, Walrees loam, Werlog loam, Fruitland sandy loam, and Turley clay loam from roughly the northeast to the southwest across the project area. Fruitland soils are slope alluvium derived from sandstone and shale. They are sandy loam on the surface with underlying fine sandy loam. Walrees loam is derived from mixed alluvium with loam underlain by stratified gravelly sand. Werlog loam is derived from mixed alluvium with loam underlain by stratified fine sandy loam to clay loam and then by stratified sand to cobbly sand. Turley clay loam is thick fan alluvium derived from sandstone and shale (NRCS 2012).

The area falls within a urban/farmland/open waters vegetative community. Observed vegetation includes Fremont cottonwood (*Populus fremontii*), elm (*Ulmus*), Russian olive (*Elaeagnus angustifolia*), salt cedar (*Tamarix*), rabbitbrush (*Chrysothamnus* spp.), sagebrush (*Artemisia* spp.), saltbush (*Atriplex* spp.), Russian thistle (*Salsola kali*), cattail (*Typha*), blackeyed Susan (*Rudbeckia hirta*), and cheatgrass (*Bromus tectorum*). Representative small mammals include raccoon (*Procyon*) and skunk (*Mephitis*) as well as a variety of rodents (*Cynomys*, *Geomys*, etc.). A variety of birds as well as amphibians and reptiles, which include turtles, snakes, lizards, and toads, occur within the area. Among the more conspicuous birds is the common raven (*Corvus corax*). In addition, domestic animals such as cattle (*Bos*) and horses (*Equus*) graze within the general area. Residents also keep domestic dogs (*Canus familiaris*) and cats (*Felis domestica*).

The climate is characterized as semi-arid. For the Aztec Ruins National Monument weather station, annual average maximum temperature is 67.8 degrees Fahrenheit (°F; 19.8 degrees Celsius [°C]), while annual average minimum temperature is 34.9°F (1.6°C; Western Regional Climate Center [WRCC] 2012). Annual average total precipitation is 9.8 inches (in; 24.9 centimeters [cm]). July, August, and September are the only months that receive over 1 in (2.5 cm) of precipitation on average (WRCC 2012).

Extremely dense groundcover rendered a portion of the survey area impassable with no ground surface visibility. This portion, which is located on the northwestern side of Elledge Mill ditch and north of the eastern tip of Animas River Park, was excluded from survey. The alluvial depositional processes at work in the area could result in differential site burial and exposure over time. Archaeological site visibility would change accordingly.

## CULTURE HISTORY

The sites revealed during the field survey have a Pueblo III period (A.D. 1100 to 1300) and U.S. Territorial to Recent Historic period (A.D. 1848 to present) cultural affiliation; therefore, the focus of this section will be a brief account of these periods in the immediate area of Aztec, New Mexico.

Aztec Ruins National Monument is a world renowned Ancestral Puebloan site, which has been the subject of archaeological inquiry since the early twentieth century. The site largely dates to the Pueblo III period. It is located along the Animas River approximately 0.75 miles (1.20 kilometers) upstream from the current project area. Aztec North is a 100-room great house presumably built by local Puebloan groups in vernacular style of cobbles and adobe mortar in the A.D. 1090s–1100 (Reed 2011:244). Recent research suggests that, by A.D. 1100, Chacoan groups arrived to begin construction of the 400-room Aztec West in Chacoan style masonry. During A.D. 1125–1140, Chacoan groups begin construction of the 350-room Aztec East also in the Chacoan style. From A.D. 1100–1140, this community expands throughout the Animas, La Plata, and San Juan drainages in the Middle San Juan region (Reed 2011:244). This community retained social and economic ties to Chaco Canyon.

Pueblo III sites located along the Animas River, such as LA 15185, LA 15186, and LA 15235, were undoubtedly affiliated with the Aztec great house community center. Small roomblock sites likely represent outlying farmsteads that were part of the Aztec community. These were likely built in local vernacular style (see Brown and Paddock 2011:207–209). By the end of the Pueblo III period the Aztec area was largely depopulated and remained so until the entry of Navajo groups. The timing of the Navajo entry into the general area is debatable but generally thought to occur after A.D. 1500 leaving approximately two centuries of little discernable human activity in the Aztec area.

The Treaty of Guadalupe Hidalgo of 1848 ended the Mexican-American War and gave the United States ownership of the northern portion of what is now New Mexico. The Gadsden Purchase of 1853 transferred ownership of the southern portion of what is now New Mexico to the United States. Euro-American settlement of the territory was largely hindered, partially due to hostilities with native groups, until several years after the Homestead Act of 1862. Homesteaders were farmers and ranchers who settled along the river valleys. Early on, irrigation ditches were constructed to provide water for agricultural fields. San Juan County was delineated in 1887 and Aztec became the county seat in 1890. New Mexico remained as a United States territory until gaining statehood in 1912. Farming and ranching was the mainstay of the local economy until the 1950s when oil and gas production was on the rise. Gas production continues to be a main influence on the local economy and population dynamics.

## RECORDS REVIEW

On 30 September 2012, El Morro CRM Principal Investigator Jesse Murrell conducted an internet-based review of NMCRIS records. The New Mexico Historic Preservation Division in conjunction with the Museum of New Mexico administers the Archaeological Records Management Section (ARMS), which maintains NMCRIS. The objective of the review was to identify all previously conducted surveys and previously recorded sites within 500 m (1640 ft) of the project area. If no surveys or sites are revealed, then the review area is expanded to be within 1000 m (3281 ft) of the project area.

A total of seven previously conducted surveys and six previously recorded sites were identified within 500 m (1640 ft) of the project area. Tables 1 and 2 present the results of the record review. Sites LA 68214 and LA 122905 were encountered in the survey area. Original records place site LA 15235 in the current survey area. It is was not encountered during the survey. Original site records place sites LA 15185 and LA 15186 nearby but outside the current survey area. Site LA 168259 is located at a sufficient distance from the currently proposed undertaking and should not be impacted.

**Table 1. Previously Conducted Surveys Revealed During Records Review.**

NMCRIS No.	Performing Agency	Survey Acreage	Site Frequency
50072	Southwest Archaeological Services	1.84	0
61736	Moore Anthropological Research	11.96	1
77805	San Juan County Museum Association Division of Conservation Archaeology (DCA)	4.50	0
78215	Townsend Archaeological Consultants	10.35	0
90674	Marron and Associates	270.00	5
104774	Marron and Associates	1.00	1
109590	Marron and Associates	2.30	3

**Table 2. Previously Recorded Sites Revealed During Records Review.**

LA No.	Ownership	Site Type	Occupation Type
15185	Private	Structural	Prehistoric (PIII roomblock)
15186	Private	Structural	Prehistoric (PIII roomblock)
15235	Municipal	Structural	Prehistoric (PIII roomblock)
68214	Private and Municipal	Structural	Historic (segment of Elledge Mill ditch)
122905	NMDOT	Structural	Historic (Chaco Street bridge; NMDOT Bridge No. 119)
168259	Municipal	Archaeology	Prehistoric (reburial location)

## METHODS

All records review, fieldwork, and reporting methods followed the guidance provided in 4.10.15 NMAC. Jesse Murrell completed the survey on 30 September 2012 walking 100 percent of the survey area in transects spaced approximately 15 m (50 ft) apart. Ground surface visibility ranged from approximately 70 to 0 percent. Extremely dense riparian groundcover rendered a portion of the survey area impassable with no ground surface visibility. The survey was conducted in sunny afternoon lighting conditions. A global positioning system (GPS) with approximately 2 m (6 ft) accuracy was used to track transects as well as locate and record sites. Site and feature overview photographs as well as artifact detail photographs were recorded with a digital camera. Artifacts in direct spatial association with features were tabulated. Unique artifacts within the general site scatter were also tabulated. Sites were documented on Laboratory of Anthropology (LA) site records and field notes were kept.

## RESULTS

A total of two previously recorded sites—LA 68214 and LA 122905—were updated during the survey. Site LA 15235 was not relocated in the current survey. No isolated occurrences were encountered during the survey. The Cultural Properties Act (Section 18-6-11.1) requires that any information concerning the location of archaeological sites shall remain confidential. All site location information is relegated to Appendix A. This appendix will only be submitted to agency reviewers.

### **Site LA 15235**

Site LA 15235 is located within the Aztec Wastewater Treatment Facility (Figure 3). It was originally recorded as a Pueblo III period roomblock by Charlie Steen in 1977. This investigation does not appear have a NMCRIS activity number or report detailing the results. In the original site form, Steen states that farming and sewage plant operations have destroyed the ruin and all that remains are very few sherds, lithic artifacts, and heat-altered sandstone. He goes on to state that the walls of the ruin were likely cobblestone masonry.

Archaeologists from Marron and Associates revisited the site in advance of proposed improvements to the Aztec Wastewater Treatment Facility (Quirolo and Brown 2007). The site was not relocated, and it was assumed that the site was originally misplotted or that it no longer existed. It was recommended that the proposed project would have no effect on the site, and no treatment recommendations were offered.

During construction activities associated with the improvements to the facility, prehistoric human remains and a few artifacts were discovered at site LA 15235. The City of Aztec retained Aztec Archaeological Consultants to treat the discovery. Apparently, there is no linked NMCRIS activity number for this investigation. The human remains and artifacts were later reburied at nearby site LA 168259 (Rude 2010). Reburial was conducted under NMCRIS No. 118867.

During the current investigation, no surface manifestation of the site was observed. Ground disturbance within the area is extensive. Wastewater facilities and gravel completely cover the ground surface in the site area.

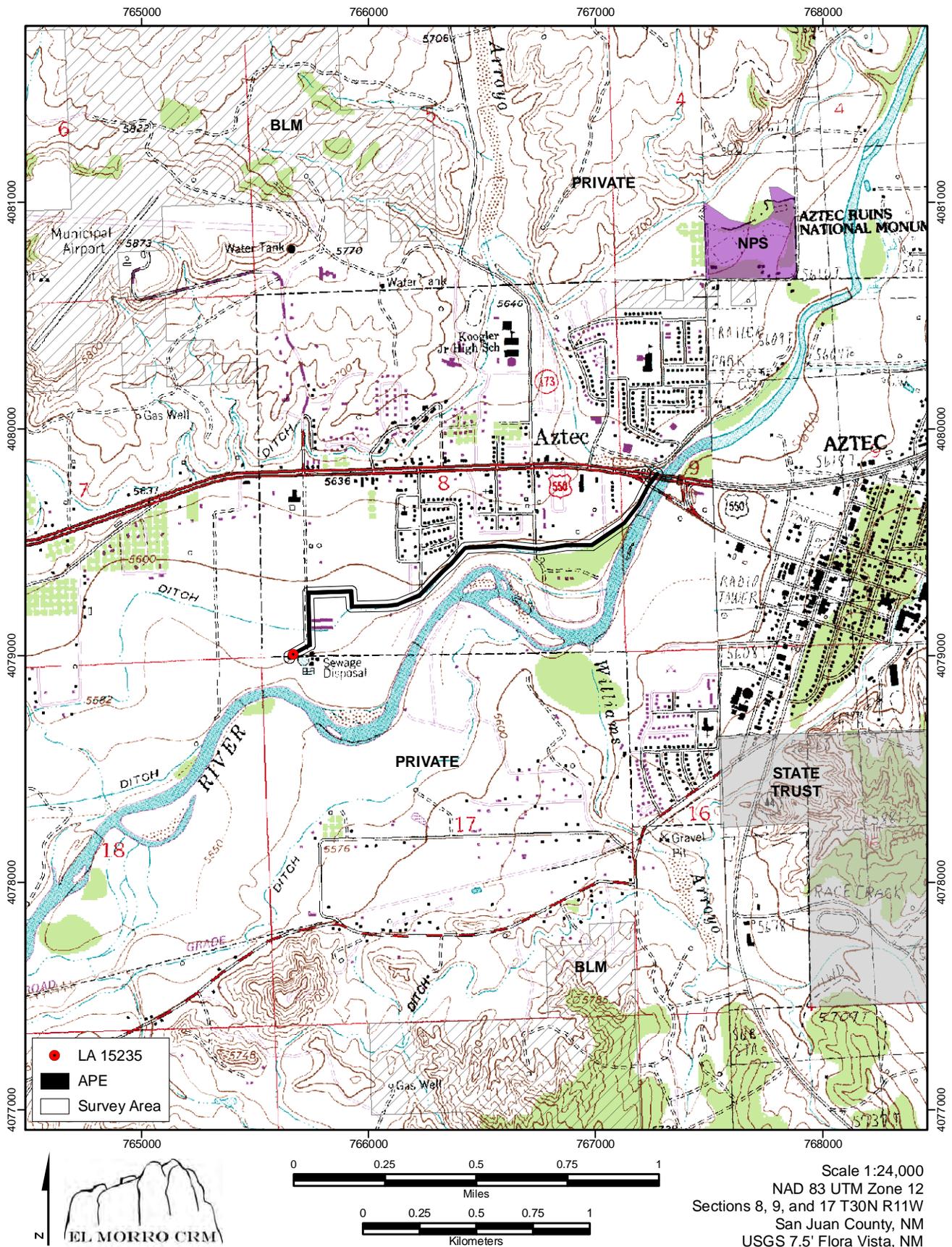


Figure 3. Aztec Sewer Outfall Line (NMCRIS No. 125442) Site LA 15235 Location Map.

### *NRHP Eligibility Evaluation*

After the Marron and Associates investigation, SHPO personnel recorded that NRHP eligibility was undetermined (HPD Log No. 82033, 21 August 2007). It is unknown if potential subsurface archaeological deposits retain integrity and NRHP eligibility remains undetermined.

### *Recommendations*

It is recommended that all initial ground-disturbing construction activities within site LA 15235 and the Aztec Wastewater Facility are monitored by an archaeologist listed on the SHPO's Directory of Qualified Personnel. If unanticipated discoveries are made during the course of monitoring, then all construction in the area should cease and SHPO staff should be contacted concerning the treatment of the resource.

### **Site LA 68214**

Site LA 68214 was originally recorded by archaeologists from the Albuquerque District of the U.S. Army Corps of Engineers (Rayl 1988). The site was revisited and updated by archaeologists from Marron and Associates in advance of the construction of the Riverside Park trail extension (Quirolo et al. 2008). Site LA 68214 is an in-use segment of the Elledge Mill ditch that has a diversion priority date of 1878. Joe Elledge, who helped construct the ditch, ran a flour mill driven by a water wheel in the ditch. In the early 1900s, the ditch powered the light plant, which provided Aztec with electricity.

The ditch is earthen lined and 10 to 18 ft (3 to 5 m) wide. Rayl (1988) reported that, in total, the system has 10 to 12 miles (16 to 19 kilometers) of ditch irrigating 970 acres of land with 165 users. Location information and photos were recorded for four gates, two culverts, the ditch crossing at Oliver Street, and a bridge crossing the ditch (Figure 4 and Appendix A).

During the current investigation, the ditch was updated using a Historic Water Delivery System Inventory Form (HWDSIF) rather than a Laboratory of Anthropology (LA) site record. Prior to this recording, it appears that a HWDSIF had not been completed for the ditch.

### *NRHP Eligibility Evaluation*

During the most recent previous recording by Marron and Associates, the ditch was recommended to be NRHP eligible under Criteria A and C. During the current investigation, no reason was found to reevaluate this recommendation.

### *Recommendations*

The project proponents intend to bore under the Elledge Mill ditch (LA 68214). The ditch should not be impacted. No further archaeological investigation at the site is warranted in relation to the currently proposed undertaking.

### **Site LA 122905**

Site LA 122905 is the in-use Chaco Street bridge (New Mexico Department of Transportation [NMDOT] Bridge No. 119) over the Animas River (Figure 5). Locally, the bridge is known as the "Money-Saving Bridge" due to Hi-Country Chevrolet advertising. The dealership is located



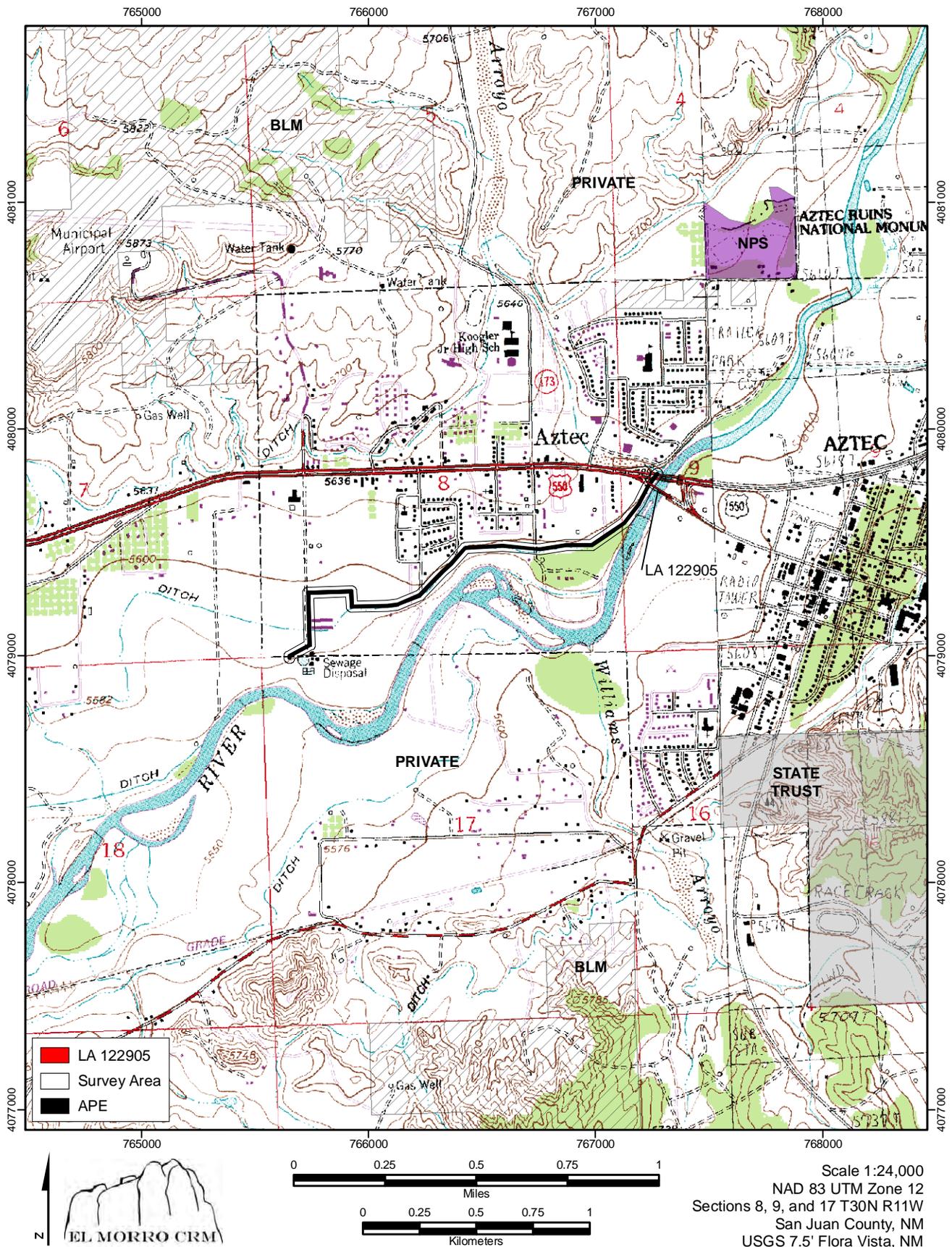


Figure 5. Aztec Sewer Outfall Line (NMCRIS No. 125442) Site LA 122905 Location Map.

in close proximity to the bridge along Chaco Street in Aztec. It was originally recorded by archaeologists from Moore Anthropological Research in advance of the construction of sidewalks (Moore and Barnett 1998). The site was revisited and updated by archaeologists from Marron and Associates in advance of the construction of the Riverside Park trail extension (Quirolo et al. 2008).

The Pueblo Bridge and Construction Company completed bridge construction in 1929. The construction of the bridge was a Federal Aid Project. The steel bridge has a Parker thru truss span with pony truss approach spans. The bridge has two concrete piers, and it measures approximately 360 ft (110 m) in length and a road way that measures approximately 20 ft (6 m) in width. There have been few improvements to the bridge since its original construction.

#### *NRHP Eligibility Evaluation*

SHPO determined that the bridge was eligible for listing in the NRHP under Criteria A and C (HPD Log No. 84142, 16 May 2008). During the current investigation, no reason was found to reevaluate this determination.

#### *Recommendations*

All construction activities will take place under the Chaco Street bridge (LA 122905) and at a sufficient distance from its surface features. The bridge should not be impacted. During the original construction of the Chaco Street bridge, buried archaeological remains were discovered (see Appendix A). Bridge construction was moved to avoid additional remains. For this reason along with the close proximity of two Pueblo III period roomblock sites (LA 15185 and LA 15186), which were not encountered in the current survey area, it is recommended that all initial ground-disturbing construction activities within 100 ft (30 m) of the sites are monitored by an archaeologist listed on the SHPO's Directory of Qualified Personnel.

### SUMMARY AND MANAGEMENT RECOMMENDATIONS

A total of two previously recorded sites—LA 68214 and LA 122905—were encountered and updated during the survey. Site LA 68214 is an in-use segment of the Elledge Mill ditch. During the most recent previous recording, the ditch was recommended to be NRHP eligible under Criteria A and C. During the current investigation, no reason was found to reevaluate this recommendation. Site LA 122905 is the in-use Chaco Street bridge (NMDOT Bridge No. 119) over the Animas River. A SHPO determination of eligibility (DOE) for site LA 122905 was made on 16 May 2008. The site was determined to be eligible for listing in the NRHP under Criteria A and C. There was no reason to reevaluate the SHPO DOE.

A single previously recorded site—LA 15235—was not relocated in the current survey area. The site was originally encountered in an area currently occupied by the Aztec Wastewater Treatment Facility. During the most recent previous update (NMCRIS Activity No. 104774), no surface manifestation of the site was observed and the recorder offered no treatment recommendations for a wastewater facilities improvement project. NRHP eligibility remained undetermined. During construction for the improvements to the facility, prehistoric human remains were discovered at the site. The remains were reinterred at site LA 168259 (NMCRIS Activity No. 118867). During the current investigation, no surface manifestation of the site was

observed. It is unknown if potential subsurface archaeological deposits retain integrity and NRHP eligibility remains undetermined.

The proposed undertaking crosses NMDOT right of way at a point where New Mexico Highway (NM) 516 crosses the Animas River. NM 516 is carried over the river by NMDOT bridges 6219 (southbound lanes) and 6220 (northbound lanes). These bridges were constructed in 1960 and are potentially eligible for NRHP and SRCP listing; however, the NMDOT Environmental Design Division did not require an evaluation of eligibility during the current investigation.

The proposed undertaking should have *no adverse effect* on historic properties if the recommendations offered below are followed. The project proponents intend to bore under the Elledge Mill ditch (LA 68214). The ditch should not be impacted. All construction activities will take place under the Chaco Street bridge (LA 122905) and at a sufficient distance from its surface features. The bridge should not be impacted. This is also the case with NMDOT bridges 6219 and 6220. During the original construction of the Chaco Street bridge, buried archaeological remains were discovered. Bridge construction was moved to avoid additional remains. For this reason along with the close proximity of two prehistoric sites (LA 15185 and LA 15186), which were not encountered in the current survey area, it is recommended that all initial ground-disturbing construction activities within 100 ft (30 m) of the sites are monitored by an archaeologist listed on the SHPO's Directory of Qualified Personnel. The archaeologist should also monitor all initial ground-disturbing construction activities within LA 15235 and the Aztec Wastewater Treatment Facility. If unanticipated discoveries are made during the course of monitoring, then all construction in the area should cease and SHPO staff should be contacted concerning the treatment of the resource.

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APPENDIX A: NIAF ATTACHMENTS

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