

# ENVIRONMENTAL INFORMATION DOCUMENT

VILLAGE OF CUBA

WASTEWATER TREATMENT PLANT IMPROVEMENTS PHASE II  
SANDOVAL COUNTY, NEW MEXICO

DRAFT – JANUARY 31, 2017



**Souder, Miller & Associates**  
*Engineering ♦ Environmental ♦ Surveying*

3451 Candelaria Road NE, Suite D ♦ Albuquerque, NM 87107-1948  
(505) 299-0942 ♦ (877) 299-0942 ♦ fax (505) 293-3430 ♦ [www.soudermiller.com](http://www.soudermiller.com)

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DRAFT

**ENVIRONMENTAL REPORT**  
**VILLAGE OF CUBA WASTEWATER TREATMENT PLANT IMPROVEMENTS PHASE 2**  
**SANDOVAL COUNTY, NEW MEXICO**

**INTRODUCTION**

This Environmental Report (ER), alternately referred to as an Environmental Information Document (EID), was prepared following the United States Department of Agriculture (USDA) Rural Utilities Service (RUS) Bulletin 1794A-602, *Guide for Preparing the Environmental Report for Water and Waste Projects* and also in general compliance with the New Mexico Environment Department (NMED) State Environmental Review Process (SERP). This EID is intended to accurately represent environmental issues surrounding the proposed water system improvements described herein.

The Village of Cuba's Wastewater Treatment Plant (WWTP) is located in Sandoval County, along New Mexico State Road 197 (NM 197); approximately 2 miles from the NM 197/United States Route 550 (US 550) junction; approximately 65 miles northwest of Bernalillo, New Mexico; approximately 85 miles northwest of Albuquerque, New Mexico; and approximately 105 miles southeast of Farmington, New Mexico.

The Village of Cuba WWTP has been in operation since the late 1960's. As regulatory requirements for discharge of effluent and solids handling have been increased through time, the original system was not able to meet the requirements.

As described in the *Village of Cuba Solids Handling and Effluent Reuse – Preliminary Engineering Report* dated September, 2014, completed by Souder, Miller & Associates (SMA PER), the Village of Cuba WWTP and collection system was originally constructed in the late 1960s. The Village's existing Aerated Lagoon Wastewater Treatment Plant (AL-WWTP) has been taken off line and is currently utilized for biosolids storage. Construction has been completed on a new Aero-Mod Extended Aeration Wastewater Treatment Plant (AM-WWTP), an extended aeration process, adjacent to the existing WWTP. Once the existing AL-WWTP is taken offline, the biosolids in the existing lagoons need to be disposed of in an environmentally appropriate manner and in compliance with all local, state and federal regulations. The Village also needs to develop a Long-Term Biosolids Management Plan to address biosolids from the new AM-WWTP.

**1.0 PURPOSE AND NEED FOR PROJECT**

**1.1 Project Description**

The proposed project addresses the need for the WWTP to dispose of the biosolids currently stored in the offline AL-WWTP in an environmentally appropriate manner. The Village also needs to develop a Long-Term Biosolids Management Plan to address biosolids from the new AM-WWTP. Additionally, the Village needs to develop a method to handle effluent in a manner consistent with discharge permits. The project area of potential effect is shown in Figure 1.

## 1.2 Purpose and Need for the Project

### 1.2.1 Health, Sanitation and Security

The AL-WWTP is not in compliance with either the Village's federal or state issued permits. In October 2004, the NMED Ground Water Quality Bureau (GWQB) issued a Notice of Non-Compliance directing the Village to resolve violations of its NMED Ground Water Discharge Permit. The US EPA Region 6 also issued the Village an Administrative Order (AO) on December 16, 2004 (2004 AO). The 2004 AO informed the Village that they were in violation of their NPDES Permit and required corrective action. These violations included effluent being discharged between September 2002 and March 2004 with pollutant concentrations exceeding the NPDES permit limits, including Biochemical Oxygen Demand (BOD), Total Suspended Solids (TSS), Fecal Coliform Bacteria (FC), Total Residual Chlorine, and pH. Additionally, the 2004 AO indicates a compliance evaluation was conducted by the NMED on October 22 and 24 of 2002 which resulted in the following findings:

- A. Records/Reports – Unsatisfactory
- B. Facility Site Review – Unsatisfactory
- C. Effluent/Receiving Waters – Unsatisfactory
- D. Flow Measurement – Unsatisfactory
- E. Self-Monitoring Program – Unsatisfactory
- F. Laboratory – Unsatisfactory
- G. Operations and Maintenance – Unsatisfactory
- H. Sludge Handling/Disposal – Marginal

The 2004 AO also indicated that Discharge Monitoring Reports had not been submitted in a timely fashion. The Village also failed to report noncompliance reports (verbally within 24 hours and written within 5 days following acknowledgement of the violating circumstances) for effluent violations which may endanger health or environment. The 2004 AO also indicates that the Village did not reapply for their NPDES Permit renewal more than 180 days prior to the expiration date of the permit.

An additional AO was issued on June 8, 2012 (2012 AO) because permit limits for contaminants in the effluent were exceeded, including BOD, TSS, E. coli bacteria, and pH. The compliance deadline for the 2012 AO was December 31, 2012.

The Village's NMED Ground Water Discharge Permit pertains to the potential effects on groundwater quality around the WWTP site caused by discharge of wastewater from the various plant components including lagoons and biosolids disposal. Groundwater contamination from this type of facility is typically indicated by elevated concentration of nitrate. The groundwater around the WWTP site is not known to be contaminated by wastewater, although the potential exists due to breaches in the lagoon liners.

The effective date of the Village's new NPDES Permit was September 1, 2010 and the permit expired at midnight on August 31, 2015. From September 1, 2010 through August 31, 2013 the Village was permitted to discharge plant effluent into the Rio Puerco year-round. Beginning on September 1, 2013 until the permit expired on August 31, 2015, the Village was allowed to only discharge plant effluent into the Rio Puerco from November 1 through March 31. The remainder of the year (April 1 through October 31) the Village was required to discharge its effluent elsewhere. Also beginning on September 1, 2013 through August 31, 2015, the Village's NPDES Permit included discharge limitations and monitoring requirements, which were not included in previous NPDES Permits.

With the installation of the AM-WWTP, the Village should be compliant with the winter discharge requirements of its new NPDES permit; however, the Village will not be in compliance with its discharge schedule until implementation of the recommendations of the previously submitted PER for effluent discharge. Upon implementation of the recommendations in this EID and the previous PER, the Village should be able to operate the WWTP with no negative impacts to the health and safety of the environment and population of Cuba.

### **1.2.2 System Operation and Maintenance**

The proposed improvements will not substantially change existing WWTP operational procedures; however, there are additional operation and maintenance requirements associated with the selected biosolids processing and disposal and effluent handling alternatives. Biosolids produced at the WWTP will be processed in two new biosolids drying beds. Operation and maintenance of the beds involves the removal and transportation of dried biosolids to an adjacent storage pad, replacement of sand lost during biosolids removal, scarification and saturation of the sand prior to biosolids loading, and vegetation removal. Once per year, dried biosolids will need to be transported to the land application site. Operation and maintenance associated with effluent reuse includes weekly pumping of effluent from the storage basin to the reuse site between the months of April and October, clearing irrigation head ditches of debris and vegetation, opening and closing valves during irrigation periods, and occasional repair of irrigation basin berms.

### **1.2.3 Growth**

As described in the SMA PER, 2010 Census data was used for estimating the populations of the Village, Rio Rancho, and Sandoval County. For the purposes of analyzing potential growth for the Village wastewater collection system, the University of New Mexico Bureau of Business and Economic Research (UNMBBER) population projections were used for Sandoval County and the Rio Rancho Economic Development Corporation (RREDC) population projections for the City of Rio Rancho (Rio Rancho). It was necessary to obtain a growth rate for Rio Rancho because the (potential and actual) population growth of Rio Rancho disproportionately inflates the growth rate of the entire Sandoval County area. Applying the growth rate of Sandoval County including Rio Rancho would not accurately project Cuba's future population; thus, a population growth

rate for the Village was developed by using the growth rate for Sandoval County excluding the growth rate for Rio Rancho.

The present Village population is approximately 749 residents in 402 homes, resulting in an average of 1.9 people per home. According to the a PER completed by Smith Engineering Company (SEC, 2006), the Village has 257 residential connections, 59 commercial connections, and 19 institutional connections for a total of 335 connections. The SEC PER recommended that additional areas be added to the collection system. The SMA PER focused on the Village's Solids Handling and Effluent Reuse and did not investigate any improvements or expansions to the Village's wastewater collection system.

According to UNMBBER, Sandoval County will experience a total growth of 67.4% between 2010 and 2030 (equivalent to approximately 2.61% per year). According to RREDC, Rio Rancho will experience a total growth of 17.0% between 2012 and 2017 (equivalent to approximately 3.19% per year). These growth projections were applied to 2010 Census data for Sandoval County and Rio Rancho, the difference between these populations was calculated, resulting in the growth rate of Sandoval County less Rio Rancho. Sandoval County not including Rio Rancho will experience a total growth of 27.5% between 2010 and 2030 (equivalent to approximately 1.22% per year). The Sandoval County less Rio Rancho growth rate was used over the 20-year planning period for the SMA PER (2012 to 2032). Based on this calculated growth rate, the population of Cuba is expected to reach approximately 955 residents in 2032. Such growth would result in approximately 512 total homes.

## **2.0 ALTERNATIVES CONSIDERED**

Alternatives considered in the *Village of Cuba Solids Handling and Effluent Reuse Preliminary Engineering Report* (Souder, Miller & Associates, September 2014) for this project are shown below. The alternatives recommended for implementation at this time were chosen to address the purpose and need for the project:

### ***EXISTING BIOSOLIDS PROCESSING***

Alternative 1: Dry in Existing Passive Lagoons

### ***DISPOSAL OF EXISTING BIOSOLIDS (PRESENTLY STORED IN THE WASTEWATER LAGOONS)***

Alternative 1: No Action

Alternative 2: Landfill Disposal

Alternative 3: Land Application of Liquid Biosolids

Alternative 4: Land Application of Dry Biosolids

### ***LONG-TERM BIOSOLIDS PROCESSING***

Alternative 1: No Action

Alternative 2: Rehabilitate/Expand Existing Biosolids Drying Beds

Alternative 3: Construct New Biosolids Drying Beds



Alternative 4: New Belt Press

*LONG-TERM BIOSOLIDS DISPOSAL*

Alternative 1: No Action

Alternative 2: Landfill Disposal

Alternative 3: Land Application of Dried Biosolids (Pollutant Concentration)

*EFFLUENT HANDLING*

Alternative 1: No Action

Alternative 2: Effluent Disposal via Land Application

Alternative 3: Effluent Reuse via Land Application with Crop Management

Alternative 4: Effluent Disposal via Evaporation

The ideal overall objective of the selected alternatives is to provide methods for processing and disposal of existing biosolids, long-term biosolids processing and disposal, and effluent handling. With that goal in mind, alternatives recommended for implementation are described below, as well as a description of the no action alternative.

**2.1 No Action Alternative**

Implementation of the no action alternative would mean existing biosolids stored in the AL-WWTP lagoon would not be disposed of, a Long-Term Biosolids Management Plan would not be developed, and no plan would be implemented to ensure effluent is managed in a manner consistent with discharge permits.

The AL-WWTP northeastern lagoon is in poor condition with the synthetic liner badly deteriorated. The condition of this liner indicates that the lagoon may leak. If the biosolids are left in the lagoon, contaminated leakage could leach into the underlying groundwater, causing a violation of the facility's NMED Ground Water Discharge Permit. The facility would also be in violation of the NMED Ground Water Quality Discharge Permit requirement for maximum holding time for the biosolids. These two violations may subject the facility to fines (up to \$10,000 per day).

Not implementing a system to dry the biosolids would force the facility to handle liquid biosolids, which increases the probability for a spill. Not implementing a biosolids disposal plan would require the facility to stockpile biosolids on-site with no means of disposal. Stockpiled biosolids could cause contamination of ground and surface water through runoff, and increase odors and insects. The facility would not be in compliance with its NMED Ground Water Discharge Permit, and subject to fines.

Not implementing an effluent handling plan would require the facility to continue to discharge year-round to the Rio Puerco. This has the potential to cause negative impact to the Rio Puerco,

and would also mean the facility would not be in compliance with its NPDES Permit, and would face fines from the U.S. EPA.

Additionally, the biosolids produced in the future by the AM-WWTP would be disposed of without additional processing (drying). The Village would stockpile biosolids without any means of disposal would continue to discharge effluent into the Rio Puerco.

## **2.2 Selected Alternatives**

### **2.2.1 Existing Biosolids Processing and Disposal**

As part of the WWTP Phase 1 Project, the Village installed a new Aero-Mod Extended Aeration Wastewater Treatment Plant (AM-WWTP) alongside the Village's existing Aerated Lagoon Wastewater Treatment Plant (AL-WWTP). Biosolids have been accumulating in the aerated and passive lagoons of the AL-WWTP since its construction in the 1970s. The accumulated biosolids must be processed and disposed of in an environmentally appropriate manner.

Using construction equipment, the existing biosolids will be consolidated into the existing northeast passive lagoon where they will be dewatered until they reach a desired solids concentration of approximately 30%. The length of time it will take to dry the biosolids to the desired solids concentration is unknown. Once dried, the dewatered biosolids will be land applied to land north of the WWTP according to EPA guidelines. Figure 2 shows the Village of Cuba WWTP and proposed improvements.

### **2.2.2 Long-Term Biosolids Processing and Disposal**

Waste activated sludge (WAS) produced by the Aero-Mod WWTP will be sent to the northwest lagoon, which will be relined with 60 mil HDPE synthetic liner.

Two new biosolids drying beds will be constructed north of the northwest lagoon. The beds, 24-feet by 40-feet each, will be used in alternating fashion to dry waste activated sludge (WAS) that will accumulate in the newly relined northwest lagoon. The beds will dry the biosolids to between 30% and 45% solids concentration. Once dry, the dewatered biosolids will be stored on a new concrete pad that will be constructed adjacent to the drying beds. The dried biosolids will be disposed of via land application at a site located north of and adjacent to the WWTP. Once or twice per year, the dried biosolids will be tilled into the application site.

### **2.2.3 Effluent Handling**

Currently, effluent produced by the AM-WWTP is discharged into the Rio Puerco; however, the Village's NPDES permit stipulates that they are prohibited from discharging into the Rio Puerco between April 1<sup>st</sup> and October 31<sup>st</sup> of every year. Improvements to the WWTP will enable the Village to meet the requirements of their NPDES permit through effluent reuse via land application with crop management. The reuse of treated effluent via land application would be

subject to New Mexico Environment Department (NMED) requirements for the above ground use of reclaimed domestic wastewater.

A new effluent storage impoundment with an approximate capacity of 132,000 cubic feet (987,400 gallons) will be constructed at the southeast corner of the WWTP. During the months when effluent discharge to the Rio Puerco is prohibited, effluent will be sent to this impoundment before it is used to irrigate the land application site on which alfalfa will be grown. This is the same site that will be used for dried biosolids disposal. The plant is designed to produce 100,000 gallons per day (gpd) of effluent, but it is estimated that the plant will produce between 80,000 and 100,000 gpd. The effluent storage basin is sized to hold roughly 10 days of accumulated effluent. The effluent will be pumped to a series of concrete head ditches at the land application site and distributed among twelve basins on which alfalfa will be grown.

### **3.0 AFFECTED ENVIRONMENT / ENVIRONMENTAL CONSEQUENCES**

#### **3.1 Land Use**

##### **3.1.1 General Land Use**

The approximate Area of Potential Effect (APE) includes the WWTP, easements and rangeland where construction is anticipated to occur, as shown by Figure 1. Adjoining lands to the APE are used primarily for commercial purposes (including agriculture, rangelands, right-of-ways), and residential areas. Zoning within the entire project area is managed by Sandoval County and carries a variety of designations. The majority of the area has previously been disturbed by the WWTP.

No aspect of the proposed project attempts to alter any existing zoning within the APE. No people are anticipated to be displaced as a result of the proposed project nor will it adversely alter the character of the existing developed areas. Hence, SMA does not believe that general land use will be adversely impacted by the proposed project.

##### **3.1.2 Important Farmland**

SMA did not observe any "important farmland" that would be directly impacted by the proposed project. Further, SMA issued a consultation letter to the USDA Natural Resources Conservation Service (NRCS) on November 13, 2015 by US mail. In a response dated December 9, 2015, USDA NRCS stated in part:

*"In review of the information provided on the project, it is determined that the entire project is located in a development area in an urban or development area in an existing easement, or is in an area not designated as Prime or Important Farmland. The FPPA rules define farmland conversion to be 'to the extent that it irreversibly converts farmland to other purposes', this project is not expected to have that effect. With this acknowledged, the proposed project will not cause Prime or Unique Farmlands or hydric soils to be converted to nonagricultural or non-hydric uses, and is not subject to the Act."*

Hence, SMA does not believe that important farmlands will be adversely impacted by the proposed project. A copy of all correspondence to and from USDA NRCS is provided in Appendix E1.

### **3.1.3 Formally Classified Lands**

There are no national parks, landmarks, wilderness areas, wildlife refuges, wild and scenic rivers, grasslands and Native American owned lands in or immediately adjacent to the APE.

A consultation letter was issued by SMA to the United States Department of the Interior, National Park Service (NPS) on December 3, 2015 via electronic mail. In a response dated December 17, 2015, NPS stated in part:

*“The National Park Service has reviewed this project and has found no comments at this time.”*

A consultation letter was issued by SMA to the New Mexico State Parks Division of the Energy, Mineral and Natural Resources Department (NMSP) on December 3, 2015 US Mail, and again on May 23, 2016 via electronic mail. In a response dated May 23, 2016, NMSP stated in part:

*“No we don’t have any problems...”*

Based on the above information, SMA does not believe that any formally classified lands will be adversely impacted by the proposed project. A copy of all correspondence to and from NPS and NMSP is provided in Appendix E2.

## **3.2 Floodplains**

Construction activities will take place on land owned by the Village of Cuba at the WWTP and in rangeland to the north. According to the Flood Insurance Rate Map (FIRM) Number 35043C0600D (effective date March 18, 2008) issued by the Federal Emergency Management Agency (FEMA) for Sandoval County, New Mexico, the site appears to lie partially within zones "A" and "X". Zone "A" is the flood insurance rate that corresponds to areas within the 100-year flood plain and Zone "X" refers to areas entirely outside the 500-year floodplain. Figure 3 illustrates the proposed project location on the aforementioned FEMA map.

Consultation was initiated with the local Sandoval County Flood Plain Administrator on November 24, 2015 via US mail. In a response dated December 2, 2015, Sandoval County stated, in part:

*“A review of the applicable FIRM (35043C0600D Effective March 18, 2008) shows that a substantial portion of the area of the above referenced project is located within the Special Flood Hazard Area (Zone A, no base flood elevations determined). However since this*

*project lies entirely within the municipal limits of the Village of Cuba, Sandoval County's Flood Damage Prevention Ordinance does not apply to this project. That Ordinance is only effective within unincorporated areas of the County, therefore our office has no jurisdiction over this project."*

Consultation was initiated with the US Department of Homeland Security, Federal Emergency Management Agency (FEMA). In a response dated December 2, 2015 FEMA stated:

*"We would request that the communities' floodplain administrators be contacted for the review and possible permit requirements for this project. If federally funded, we would request project to be in compliance with EO 11988 & EO 11990."*

A copy of all correspondence to and from FEMA and the Sandoval County Flood Administrator is provided in Appendix E3.

In response to the comments above, a Base Flood Elevation Determination was completed for the Rio Puerco adjacent to the facility (SMA, 2016). This document is included as Appendix E22. The evaluation determined that the 100-year flood level is actually much lower than that shown on the current FEMA flood maps, and is well outside the area of potential effect of this project. This discrepancy can be attributed to the age of the current FEMA floodplain information. While the current flood plain map is dated March 18, 2008, the flood plain delineation is likely much older. There is no current information for this flood plain in the Flood Insurance Study. Therefore, it is not possible to determine how that flood plain was determined.

As the area of potential effect is outside the 100-year flood plain, no additional mitigation measures are planned per EO 11988 and the requirements of the Federal Flood Risk Management Standards (FFRMS).

### **3.3 Wetlands**

In order to evaluate potential wetlands within or adjacent to the APE, SMA staff completed a site visit to inspect for possible hydric soils or soils with hydric inclusions, reviewed available wetlands information using the online wetlands mapping service provided by the United States Department of the Interior, Fish & Wildlife Service (F&WS), and reviewed USDA NRCS information regarding hydric soils within the APE. Field surveys of these locations by SMA staff and examination of the USDA NRCS soil maps did not identify potential wetland areas or hydric soils or soils with hydric inclusions. The online wetlands mapping service provided by the United States Department of the Interior, Fish & Wildlife Service (F&WS) indicated the presence of riparian area on the eastern margin of the APE associated with the Rio Puerco.

Consultation was initiated with the US Army Corps of Engineers (USACoE) on November 13, 2015 via US mail. In a response dated November 30, 2015, USACoE stated in part:

*“According to your letter dated November 13, 2015: “No arroyos are anticipated to be crossed or disturbed by the proposed projects.” If that statement also includes the Rio Puerco and any adjacent wetlands, then a Department of the Army permit under Section 404 of the Clean Water Act will not be required. However, if the scope of work changes such that a discharge of dredged or fill material into jurisdictional waters will occur as part of project-related activities, you (or the project proponent) will need to contact our office for a re-evaluation of permitting requirements.”*

A copy of all correspondence to and from USACoE is provided in Appendix E4.

Based on the above information, SMA does not believe that wetlands will be adversely impacted by the proposed project. The land application area will not extend into the riparian area on the east margin of the APE, so will not cause adverse impact.

### **3.4 Historic Properties**

#### **3.4.1 Historic Property Information**

A cultural resources survey was conducted by Stephen Townsend under contract to SMA for the APE during February, 2016. The entirety of the area for the waste water treatment plant improvements was surveyed to determine whether any archeological, cultural and/or historic resources were visible within the APE.

The cultural resources survey report states

*“the inventory resulted in the identification of 12 isolated occurrences of cultural material and previously unrecorded archaeological site LA 184469. The isolates are of limited data potential. It is recommended the isolated occurrences be removed from additional management considerations... Provided the consulting parties agree with the findings of this investigation, cultural resource clearance is recommended for the proposed expansion of the Cuba wastewater treatment plant with a finding of no effect to significant cultural resources.”*

A copy of the full survey completed by SMA is provided in Appendix E5.

Consultation with the New Mexico Office of Cultural Affairs State Historic Preservation Division (SHPD) was initiated on November 13, 2015 via US mail. In a response dated November 24, 2015, SHPD stated in part:

*“After reviewing the information you provided regarding both the nature of the project and the project location, SHPO is recommending that the project area is surveyed by a professional archaeologist. We are making this recommendation because the project area has not been previously surveyed, there are known prehistoric archaeological sites located near the project area, and there is potential to damage unidentified archaeological sites*

*within the project area. SHPO recommends that an archaeologist survey the project area and complete an archaeological report for submittal to our office for review and concurrence as to whether the project will affect any historic properties. The archaeologist may identify areas within the project area that do not require survey due to existing ground disturbance to a depth where it is unlikely that archaeological remains would still be present. Please also note that 1.7 acres of the project area have been subject to previous archaeological survey under NMCRIS No. 109826 and that the archaeologist performing the survey will need to address whether the boundaries for archaeological site LA 6632 are located within the project.*

*We also recommend that you complete tribal consultation as required by Section 106 to determine whether there are any tribal concerns.”*

SMA provided the cultural resources survey to SHPD on May 13, 2016. On May 20, 2016, SHPD replied:

*“No Historic Properties Affected”*

A copy of all correspondence to and from SHPD is provided in Appendix E6.

Consultation was also undertaken with each of the 18 Native American groups identified by SHPD as having interest in the Sandoval county area. Each group was contacted initially on November 18, 2015 by US mail, with the exception of Zuni Pueblo, which was contacted on June 6, 2016 by US Mail, via fax, and also via email. Responses were received from five groups as follows:

On November 23, 2015 the Hopi Tribe responded via US mail in part:

*“If any cultural features or deposits are encountered during project activities, these activities must be discontinued in the immediate area of the remains, and the State Historic Preservation Office must be consulted to evaluate their nature and significance. If any Native American human remains or funerary objects are discovered during construction they shall be immediately reported as required by law.”*

On December 9, 2015 the Comanche Nation responded via email in part:

*“The location of your project has been cross referenced with the Comanche Nation site files, where an indication of “No Properties” have been identified.”*

On December 2, 2015, the Pueblo of Santa Ana responded via email mail in part:

*“We have reviewed your communication for the solids handling and effluent reuse improvement project for the Village of Cuba and we have no comments to offer or concerns with the proposed project.”*

On March 30, 2016, the Navajo Nation responded via email mail in part:

*“Traditional Culture Program Staff reviewed the informational documents, and have provided the comments herein, HPD has concluded that the proposed undertaking for project initiation will not have adverse effects to Traditional Cultural Properties and places of cultural significance. HPD has no concerns at this time.”*

The 13 remaining groups were contacted a second time on November 24, 2015 by US mail and a third time by fax on May 23, 2016, with the exception of the fax to Jicarilla Apache Nation was completed May 24, 2016, and Pueblo of Cochiti was contacted via electronic mail on June 3, 2016.

On June 1, 2016, the Pueblo of San Felipe responded via email mail in part:

*“Ricardo Ortiz, Tribal Historic Preservation Officer for the Pueblo of San Felipe, has reviewed the documents sent to the Pueblo regarding the WWTP and does not anticipate an impact to concerns the Pueblo has in the Cuba area.”*

No additional responses have been received as of the date of this report. A copy of all correspondence to and from all Native American groups is provided in Appendix E7.

Based on the above information, SMA does not believe that historic properties will be adversely impacted by the proposed project.

#### **3.4.2 Visual Aesthetics**

The aboveground expressions of the proposed project will be limited to construction of a single small structure for use as a laboratory. The structure will be completed in a manner that does not detract from the surrounding residences (similar design elements and paint schemes).

Based on the above description, SMA does not believe that visual aesthetics will be adversely impacted by the proposed project.

### **3.5 Biological Resources**

The majority of the project area has been substantially disturbed by humans. For a more in depth analysis of the affected environment, please refer to the Biological Evaluation report provided in Appendix E8.



### **3.5.1 Threatened and Endangered Species**

Based on the results of the Biological Evaluation, which in turn was based on the site evaluation and existing data, there will likely be no effects to federally endangered, threatened and candidate species and their designated critical habitat, as a result of the proposed project.

Species of concern are not protected under the Endangered Species Act. However, the United States Fish and Wildlife Service (USFWS) typically recommend mitigation efforts to be taken in order to prevent species of concern from becoming listed as threatened or endangered. No species of concern were observed in the project area during the site visit. The proposed action will likely not impact species of concern listed in Sandoval County.

In addition, no rare plants, as listed on the New Mexico Rare Plant List for Sandoval County, were observed within the project area. Suitable habitat conditions were not present for the listed rare plants in the project area.

A request for consultation was initiated with USFWS on November 24, 2015 via US mail and again on May 23, 2016 via electronic mail. USFWS responded via electronic mail on May 23, 2016, with the following response:

*"In New Mexico you can now obtain an official letter on Federal trust resources from the U.S. Fish and Wildlife Service (Service) via our Information, Planning, and Conservation System (IPAC).*

*You can access IPAC through our office website at  
<http://www.fws.gov/southwest/es/newmexico/IPAC.cfm>*

*On this page there are instructions on how to use IPAC  
[http://www.fws.gov/southwest/es/newmexico/documents/IPAC\\_Help.pdf](http://www.fws.gov/southwest/es/newmexico/documents/IPAC_Help.pdf)  
and conservation measures for several project types (right side of the page).*

*On the "Tasks" page make sure you select the "Request an Official Species List" button to get an official letter.*

*If you make a no-effect determination for all species listed in your letter then no further consultation with the Service is necessary. Your official letter and determination table are your documentation of your environmental review.*

*If you determine that your project may adversely affect a federally listed species you can submit a request for further review by the Service or help with your review electronically at [nmesfo@fws.gov](mailto:nmesfo@fws.gov)."*

SMA followed the directions to obtain an official letter on Federal trust resources, which is included in Appendix E9, along with all correspondence to and from USFWS. A review of Federal trust resources did not reveal any items of concern.

Consultation was initiated with the New Mexico Department of Game & Fish (NMDGF) on December 24, 2013 by electronic mail and fax. NMDGF responded on January 13, 2014 with the following response:

*“A sizeable portion of the proposed Project Area includes the 100-year floodplain of the Rio Puerco. The Department recommends that the Project Area, particularly the Land Application Area, be modified to exclude the 100-year floodplain. This modification will help ensure that no arroyos will be crossed or disturbed by the proposed project, as stated in your letter.”*

A copy of all correspondence to and from is provided in Appendix E10.

A request for consultation was initiated with the New Mexico Energy Minerals and Natural Resources Department (EMNRD), Forestry Division on November 24, 2015 via US mail and on May 23, 2016 via electronic mail. EMNRD responded via electronic mail on June 6, 2016 noting in part that:

*“The site should be evaluated for the presence of potential habitat for endangered plants and surveys should be conducted at the appropriate time of year, if it is determined that habitat exists. If endangered plants are found on site, they should either be avoided or steps should be taken to minimize impacts.”*

A copy of all correspondence to and from EMNRD is provided in Appendix E11.

Based upon the results of the field biological evaluation undertaken by SMA and the above consultation responses, SMA does not believe that threatened and endangered species will be adversely impacted by the proposed project.

### **3.5.2 Wildlife**

The site visit for the Biological Evaluation was completed on November 9, 2015 (Appendix E8). Several prairie dog burrows were observed. Scat sign indicated the presence of deer mice, cottontail rabbit, coyote, and mule deer. Any wildlife presence would be limited to transient encounters and migratory excursions through the project area. No stick nests, alcoves, or cliffs were observed within or adjacent to the project area.

Should nesting of a species protected under the Migratory Bird Treaty Act be identified in the construction zone, construction will be limited to a time of the year outside the general migratory bird nesting season of March through August, or avoided until nesting is complete. If necessary,

construction can occur during nesting season; however, a survey will need to be completed to determine absence/presence of species shortly prior to construction (i.e. within two weeks) and any identified nests will need to be relocated by a permitted professional.

To avoid trapping wildlife and domestic animals, trenches will be covered overnight or constructed with ramps to allow egress. Trenching and backfilling crews will be kept close together to minimize the amount of open trenches, and trenching activities should be performed during the cooler months of the year (October through March).

With consideration of the above precautions, SMA does not believe that wildlife will be adversely impacted by the proposed project.

### **3.5.3 Vegetation**

As noted above, the site visit for the Biological Evaluation was completed by on November 9, 2015. Dominant shrubs and forbs noted throughout the project area included: rabbitbrush (*Chrysothamnus nauseosus*), sagebrush (*Artemisia tridentata*), broom snakeweed (*Gutierrezia sarothrae*), Russian thistle (*Salsola tragus*), globe mallow (*Sphaeraoceca coccinea*), cheatgrass (*Bromus tectorum*), smooth brome (*Bromus inermis*), and western wheatgrass (*Pascopyron smithii*). Shrubs, forbs and grasses comprised approximately 65-70% of total ground cover. A complete list of plants observed is included in the Biological Evaluation (Appendix E8).

SMA recommends that preventative measures be taken to reduce the likelihood of spreading noxious weeds in the project area, in addition to bringing in other noxious weeds onto the property, and transporting seeds from the site to other areas. For example, heavy equipment should be inspected and cleaned to remove any mud or soil adhering to the equipment, which may harbor seeds of noxious weeds, prior to construction and transportation of any heavy equipment to the project site, and prior to transport of heavy equipment off-site.

A portion of the work within the APE will be completed in already disturbed areas of the WWTP, so disturbance of remaining vegetation will be minimal. The land application area will be located on rangeland to the north of the WWTP, where a crop (alfalfa) will be grown. Other disturbed ground outside of roadways will be re-vegetated using a certified weed-free approved seed mix. With consideration of the above precautions, SMA does not believe that vegetation will be adversely impacted by the proposed project.

## **3.6 Water Resources**

The proposed project will not cross arroyos or drainages. The WWTP is bermed to control run-on and run-off. The land application area will be bermed to control run-on and run-off. Groundwater within the project area is generally considered to be of good quality. The APE is within the Middle Rio Grande groundwater basin as adjudicated by the New Mexico Office of the State Engineer (NMOSE).

### **3.6.1 Surface Water**

The proposed project will not draw water from nor directly discharge into any surface water course.

A request for consultation was initiated with NMED via the designated Environmental Impact Review Coordinator on November 13, 2015 via US mail. NMED responded in a letter dated December 15, 2015 and stated in part:

*“The U.S. Environmental Protection Agency (USEPA) requires National Pollutant Discharge Elimination System (NPDES) Construction General Permit (CGP) coverage for storm water discharges from construction projects or common plans of development.*

*The CGP requires that a storm water pollution prevention plan (SWPPP) be prepared for the site and that appropriate best management practices (BMPs) be installed and maintained both during and after construction to prevent, to the extent practicable, pollutants (primarily sediment, oil and grease and construction materials from construction sites) in storm water runoff from entering waters of the U.S. This permit also requires that permanent stabilization measures (revegetation, paving, etc.), and permanent storm water management measures (storm water detention/retention structures, velocity dissipation devices, etc.) be implemented post construction to minimize, in the long term, pollutants in storm water runoff from entering these waters. In addition, permittees must ensure that there is no increase in sediment yield and flow velocity from the construction site (both during and after construction) compared to pre-construction, undisturbed conditions (see Subpart 10.C.1.b)*

*You should also be aware that EPA requires that all "operators" (see Appendix A of the 2012 CGP) obtain NPDES permit coverage by submitting a Notice of Intent (NOI) for construction projects. Generally, this means that at least two parties will require permit coverage. The owner/developer of this construction project who has operational control over project specifications, the general contractor who has day-to-day operational control of those activities at the site, which are necessary to ensure compliance with the SWPPP and other permit conditions, and possibly other "operators" will require appropriate NPDES permit coverage for this project.”*

A copy of all correspondence to and from NMED is provided in Appendix E12.

NMOSE is charged with administering New Mexico's water resources. NMOSE has authority over the supervision, measurement, appropriation and distribution of almost all surface and groundwater in New Mexico. SMA issued a request for consultation to NMOSE November 13, 2015 via US mail. NMOSE responded on December 2, 2015 and stated in part:

*“On December 16, 2014, this office did receive a request for OSE Verification of Regulatory Compliance from the Water Trust Board (file #835). The request was in regards for funding for Phase 2 improvements to the Cuba Wastewater Treatment Plant Facility (year 2015). John Dickenson handled the request and sent an email to Jody Garcia (February 5, 2015) about the status of the water rights file (enclosed).”*

The referenced email stated in part:

*“... the village is not in compliance with their permit. First, the village has never filed a Proof of Completion of Well or Proof of Beneficial Use. This would require the village to file Applications for Time. The last extension was approved thru August 15, 2000. To get into compliance, the village needs to file extension for each year from 2000 to the present. Secondly, it does not appear that the village has submitted meter readings since 1999. We have no records that the wells are even equipped with meters. If they have any meter records, they should file them with our office.”*

SMA re-issued the request for consultation to NMOSE via electronic mail on May 23, 2016. NMOSE responded on May 26, 2016 and stated in part:

*“...the NMOSE does not have any problem with the proposed project. As stated in the email, the Village's water supply wells are not part of the proposed project.”*

A copy of all correspondence to and from NMOSE is provided in Appendix E13.

Based on the above information, SMA does not believe that surface water will be adversely impacted by the proposed project.

### **3.6.2 Groundwater**

The proposed project will not directly discharge into any groundwater aquifer or the subsurface vadose zone. In addition, the proposed project will not alter groundwater withdrawal within the proposed project area (no new water rights are being requested or added).

As noted earlier, a request for consultation was initiated with NMED via the designated Environmental Impact Review Coordinator on November 13, 2015 via US mail. NMED responded in a letter dated December 15, 2015 and stated in part:

*“Discharges from the Village of Cuba wastewater treatment facility (WWTF) are regulated under a Ground Water Discharge Permit (DP-483), which is issued pursuant to the New Mexico Water Quality Act and the New Mexico Water Quality Control Commission Regulations, 20.6.2 NMAC. The GWQB received a Discharge Permit Renewal and Modification application on May 8th, 2015. Any concerns the GWQB has with the project will be addressed in the administrative and technical review of the Discharge*

*Permit Renewal and Modification.*

*Implementation of the project may involve the use of heavy equipment thereby leading to a possibility of contaminant releases (e.g., fuel, hydraulic fluid, etc.) associated with equipment malfunctions. The GWQB advises all parties involved in the project to be aware of notification requirements for accidental discharges contained in 20.6.2.1203 NMAC. Compliance with the notification and response requirements will further ensure the protection of ground water quality in the vicinity of the project.*

A copy of all correspondence to and from NMED is provided in Appendix E12.

The US Environmental Protection Agency (EPA) Source Water Protection (SWP) Branch administers the sole source aquifer (SSA) program under Section 1424 of the Safe Drinking Water Act. A request for consultation was initiated with EPA SWP on November 13, 2015 and November 24, 2015 via US mail. EPA SWP responded on December 21, 2015 and stated in part:

*“Based on the information provided, we have concluded that the project does not lie within the boundaries of a designated sole source aquifer and is thus not eligible for review under the SSA program.”*

A copy of all correspondence to and from EPA SWP is provided in Appendix E14.

Based on the above information, SMA does not believe that groundwater will be adversely impacted by the proposed project.

### **3.7 Coastal Resources**

Coastal resources are not a concern in or near the project area; therefore, SMA does not believe that coastal resources will be adversely impacted by the proposed project.

### **3.8 Socioeconomic/Environmental Justice**

#### **3.8.1 Socioeconomic Issues**

Information regarding basic socioeconomic issues was gathered from the EPA Environmental Justice web site (<http://epa.gov/ejscreen>). This information suggests that 35% of the population to be served by this project have household incomes of \$25,000 per year or less; approximately 79% of the population is minority (predominant Hispanic) and; there is generally an even split between male and female residents. Approximately 17% of the adult population to be served by the proposed project do not have at least a high school degree, and approximately 9% have difficulty with spoken English. Approximately 20% of the residents are under 18 years of age, while 27% are 65 years old or older. A copy of all information obtained through the EPA Environmental Justice web site is provided in Appendix E15.

Based on the above information, SMA does not believe that socioeconomic issues will be adversely impacted by the proposed project.

### **3.8.2 Environmental Justice**

In addition to the information from the EPA Environmental Justice web site provided immediately above, SMA initiated consultation with the EPA Office of Planning & Coordination (OPC) on November 13, 2015 by US mail, and again on May 23, 2016 via electronic mail. OPC responded on May 26, 2016 and stated, in part:

*“In accordance with your letter dated November 24, 2015, the U.S. Environmental Protection Agency, the Region 6 NEPA office, has no comments to offer on the proposed project based on the information submitted.”*

A copy of all correspondence to and from OPC is provided in Appendix E16.

Based on the above information, SMA does not believe that environmental justice will be adversely impacted by the proposed project.

## **3.9 Other Resources**

### **3.9.1 Air Quality**

The proposed system improvements (once completed) will not generate any negative air quality issues such as increased odor, volatiles or particulate matter. Trenching and compaction may result in locally higher concentrations of dust during construction activities. Areas that have been disturbed or denuded by construction may also result in locally higher dust levels immediately following construction and before vegetation can be re-established.

Sandoval County is currently considered to be in attainment with all national and New Mexico ambient air quality standards.

As noted earlier, a request for consultation was initiated with NMED via the designated Environmental Impact Review Coordinator on November 13, 2015 via US mail. NMED responded in a letter dated December 15, 2015 and stated in part:

*“The Air Quality Bureau (AQB) has evaluated the information submitted with respect to the proposed Village of Cuba’s Wastewater Treatment Plant Improvement project in Sandoval County, New Mexico. Sandoval County, NM is currently considered to be in attainment with all New Mexico and National Ambient Air Quality Standards.*

*The AQB has received numerous hydrogen sulfide (H<sub>2</sub>S) odor complaints regarding wastewater treatment facilities throughout the State. The State of New Mexico has an air quality standard for H<sub>2</sub>S listed under 20.2.72.500 NMAC – Table 1-Significant Ambient Concentrations, which should be reviewed to determine applicability.*

*If a standby electric generator is used at the facility, be advised that records should be kept of the hours of operation of the generator. An application for a construction permit must be submitted for standby generators used 500 hours per year or more.*

*To further ensure air quality standards are met, applicable local or county regulations requiring noise and/or dust control must be followed; if none are in effect, controlling construction-related air quality impacts during projects should be considered to reduce the impact of fugitive dust and/or noise on community members.*

*Potential exists for temporary increases in dust and emissions from earthmoving, construction equipment, and other vehicles; however, the increases should not result in non-attainment of air quality standards. Dust control measures should be taken to minimize the release of particulates due to vehicular traffic and construction. Areas disturbed by the construction activities, within and adjacent to the project area should be reclaimed to avoid long-term problems with erosion and fugitive dust.*

*All asphalt, concrete, quarrying, crushing, and screening facilities contracted in conjunction with the proposed project must have current and proper air quality permits. For more information on air quality permitting and modeling requirements, please refer to 20.2.72 NMAC.*

*If air quality permits are required for the proposed action, permits will need to be administered by the New Mexico Environment Department (NMED)."*

A copy of all correspondence to and from NMED is provided in Appendix E12.

A request for consultation was initiated with EPA Region VI Air Planning Section (APS) on November 13, 2015 via US mail, and again via electronic mail on May 23, 2016. A response from EPA APS was received on May 24, 2016, which stated:

*"The Air Planning Section of EPA's Region 6 office has reviewed the submitted documents. Our review is limited to actions that might impact the air quality of an area. Therefore, the following comments are based on our review of your project compared to the Clean Air Act requirements for general conformity.*

*Sandoval County, New Mexico is currently in attainment of all National Ambient Air Quality Standards (NAAQS). As a result, general conformity regulations do not apply and an applicability analysis is not necessary. However, any demolition, construction, rehabilitation, repair, dredging or filling activities have the potential to emit air pollutants and we recommend best management practices be implemented to minimize the impact of any air pollutants. Furthermore, construction and waste disposal activities should be*



*conducted in accordance with applicable local, state and federal statutes and regulations.”*

A copy of all correspondence to and from EPA APS is provided in Appendix E17.

Based on the above information, SMA does not believe that air quality resources will be adversely impacted by the proposed project.

### **3.9.2 Transportation**

Outside of the temporary construction period, the proposed project will not have any existing impact on local or regional traffic flows. Likewise, none of the proposed project will utilize highway right-of-way. Regardless, SMA initiated consultation with the New Mexico Department of Transportation (NMDOT) on November 13, 2015 via US mail, and again on May 23, 2016 via electronic mail. A response from NMDOT was received on May 24, 2016, which stated:

*“The NMDOT has no comment on the project. If federal funds are used, the project will fall under Section 106 of the NHPA and the NMDOT defers comment to the New Mexico Historic Preservation Department and State Historic Preservation Officer.”*

A copy of all correspondence to and from NMDOT is provided in Appendix E18.

Based on the above information, SMA does not believe that transportation will be adversely impacted by the proposed project.

### **3.9.3 Noise**

The proposed improvements will not increase the noise level within or immediately adjacent to the APE. However, some construction activities will require the use of heavy equipment and therefore will result in slightly elevated local noise levels. To avoid any unnecessary complaints, construction activities should be limited where possible to typical daylight (working) hours. Following this guideline, SMA does not believe that noise levels will be adversely impacted by the proposed project.

### **3.10 Cumulative Impacts**

All infrastructure installed for this project can be utilized by the Village of Cuba WWTP or any other future managing entity, which reduces the potential of limited use of the project resources. Further, there are no other future activities planned at this time that would appear to cumulatively impact this project.

Given the above information, SMA does not believe that any adverse cumulative impacts will occur as a result of the proposed project.

#### **4.0 SUMMARY OF MITIGATION MEASURES**

The following section describes the various mitigation measures recommended for the project. These measures are intended to minimize the potential impact of the proposed project within the APE but should not be considered fully encompassing; *should unanticipated conditions be identified during the development of the project, additional mitigation measures may be required.*

##### **4.1 Physical Resources Measures**

Although some additional permitting may be required by certain agencies, no mitigation measures have been identified or recommended at this time.

##### **4.2 Biological Resource Measures**

General construction practices recommended for the project include:

- Keep trenching and backfilling crews close together.
- Trench preferentially during the cooler months (October – March).
- Avoid leaving trenches open overnight. Where trenches cannot be back-filled immediately, escape ramps should be constructed at least every 90 meters. Escape ramps can be short lateral trenches sloping to the surface or wooden planks extending to the surface. The slope should be less than 45 degrees (100%).
- Trenches that have been left open overnight should be inspected and animals removed prior to back-filling.
- Equipment should be inspected and cleaned to remove any mud or soil adhering to the equipment, which may harbor seeds of noxious weeds, prior to construction and transportation of any heavy equipment to the project site, and prior to transport of heavy equipment off-site.

##### **4.3 Threatened and Endangered Species Measures**

No threatened or endangered species are anticipated to be encountered during this project; hence, no mitigation measures have been identified or recommended at this time.

##### **4.4 Socioeconomic/Environmental Justice Measures**

No socioeconomic/environmental justice issues are anticipated during this project; hence, no mitigation measures have been identified or recommended at this time.

##### **4.5 Archeological, Cultural, and Historic Resources Measures**

Based on comments from several Native American groups, the following mitigation measures are recommended for the project at this time:

- If any Native American remains are identified work should cease at that location and all Native American groups identified as having interest in Sandoval County be notified immediately.

On February 29, 2016 SMA had a cultural resources/archeological site inventory conducted on the project area. Recommendations based on the survey were as follows:

*“The isolates are of limited data potential. It is recommended the isolated occurrences be removed from additional management considerations... Provided the consulting parties agree with the recommendations of this report, there is no need for additional cultural resources management... Provided the consulting parties agree with the findings of this investigation, cultural resource clearance is recommended for the proposed expansion of the Cuba wastewater treatment plant with a finding of no effect to significant cultural resources.”*

The full report can be found in Appendix E5.

#### **4.6 Environmentally Sensitive Areas**

Although some additional permitting may be required by certain agencies, no mitigation measures have been identified or recommended at this time.

#### **4.7 Other Resources**

Based on observations made during the site visits associated with the EID preparation process, the following mitigation measures are recommended for the project at this time:

- To prevent excessive noise disruption within the APE, construction work should be limited where possible to typical daylight (working) hours.

As the area of potential effect is outside the 100-year flood plain, no additional mitigation measures are planned per EO 11988 and the requirements of the Federal Flood Risk Management Standards (FFRMS).

#### **4.8 Cumulative Impact Measures**

No cumulative impacts are anticipated during this project; hence, no mitigation measures have been identified or recommended at this time.

### **5.0 CONSULTATION, COORDINATION AND PUBLIC INVOLVEMENT**

#### **5.1 Agencies Consulted**

As outlined in earlier subsections of this document, SMA consulted with eight federal and multi-state agencies, 10 state and local agencies and 18 Native American groups. A summary of all

correspondence issued, follow-up requests issued and responses received are provided in Tables 5.1a and 5.1b.

## **5.2 Public Involvement**

Public notice was first made for the availability of a draft Environmental Report on January 1, 2017 by posting at the Village of Cuba main office in Cuba. This same notice also specified that a public meeting would be held at the Village of Cuba Offices, 16B Cordova Street, Cuba, NM 87013 on February 1, 2017 from 6:30-7:30 pm. All comments need to be received by close of business (5:00 pm prevailing local time) on February 16, 2017. A copy of the notice is included in Appendix E19 and was published in the Albuquerque Journal, a newspaper of general local circulation on January 1 and 2, 2017.

The presentation given at the public meeting is provided in Appendix E20.

In addition, an internet web page was constructed specifically for this project at:

<http://www.soudermiller.com/press-room/cuba>

## **5.3 Responsiveness Summary**

The public comment period closed at 5:00 pm prevailing local time on February 16, 2017. Copies of all received comments are included in Appendix E21.

## **6.0 EXHIBITS**

All exhibits, including figure, charts, tables, correspondence and supporting reports, are included in the Appendices following the body of this document.

## **7.0 REFERENCES**

United States Department of Agriculture (USDA) Rural Utilities Service (RUS). *Guide for Preparing the Environmental Report for Water and Waste Projects*. Bulletin 1794A-602

Souder, Miller & Associates. *Village of Cuba Solids Handling and Effluent Reuse – Preliminary Engineering Report*. September, 2014

## **8.0 LIST OF PREPARERS**

This Environmental Information Document was prepared following USDA RUS Bulletin 1794A-602 Version 1.2 revised March 2008 and also in general compliance with the NMED SERP. The undersigned hereby acknowledges personal knowledge of the information submitted in this report and the attached documents.

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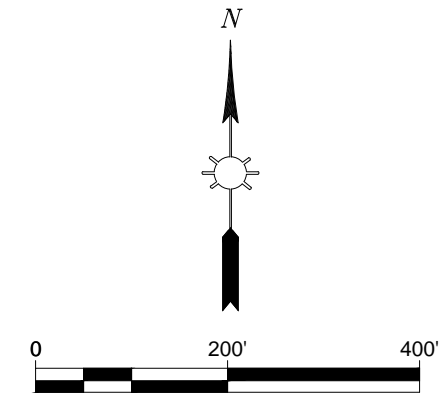
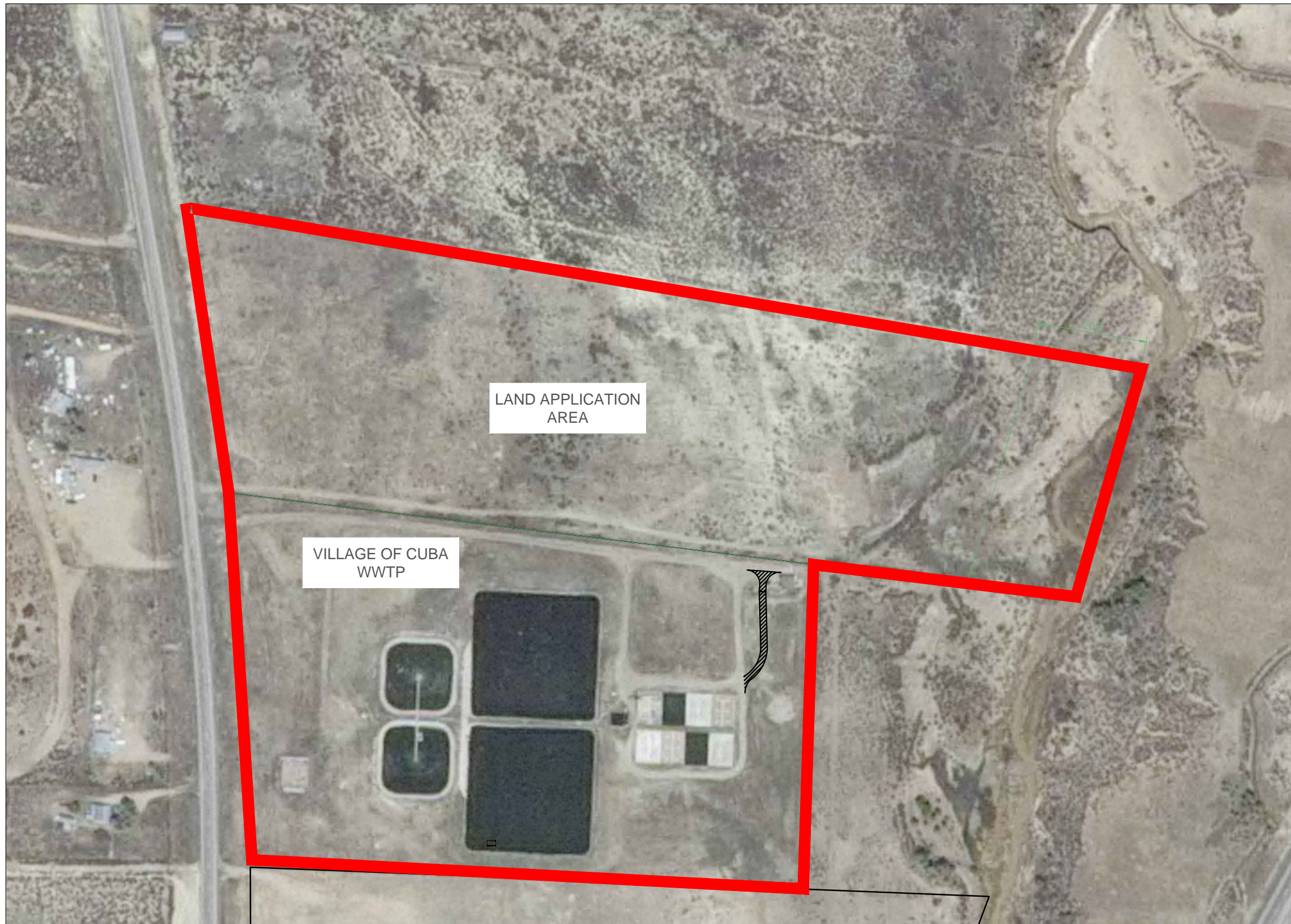
Scott A. McKittrick, P.G.  
Senior Geoscientist

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Date

DRAFT

# Figures



**LEGEND**

█ PROJECT AREA

REVISIONS		
BY	DATE	DESC.

**SOUDER, MILLER & ASSOCIATES**

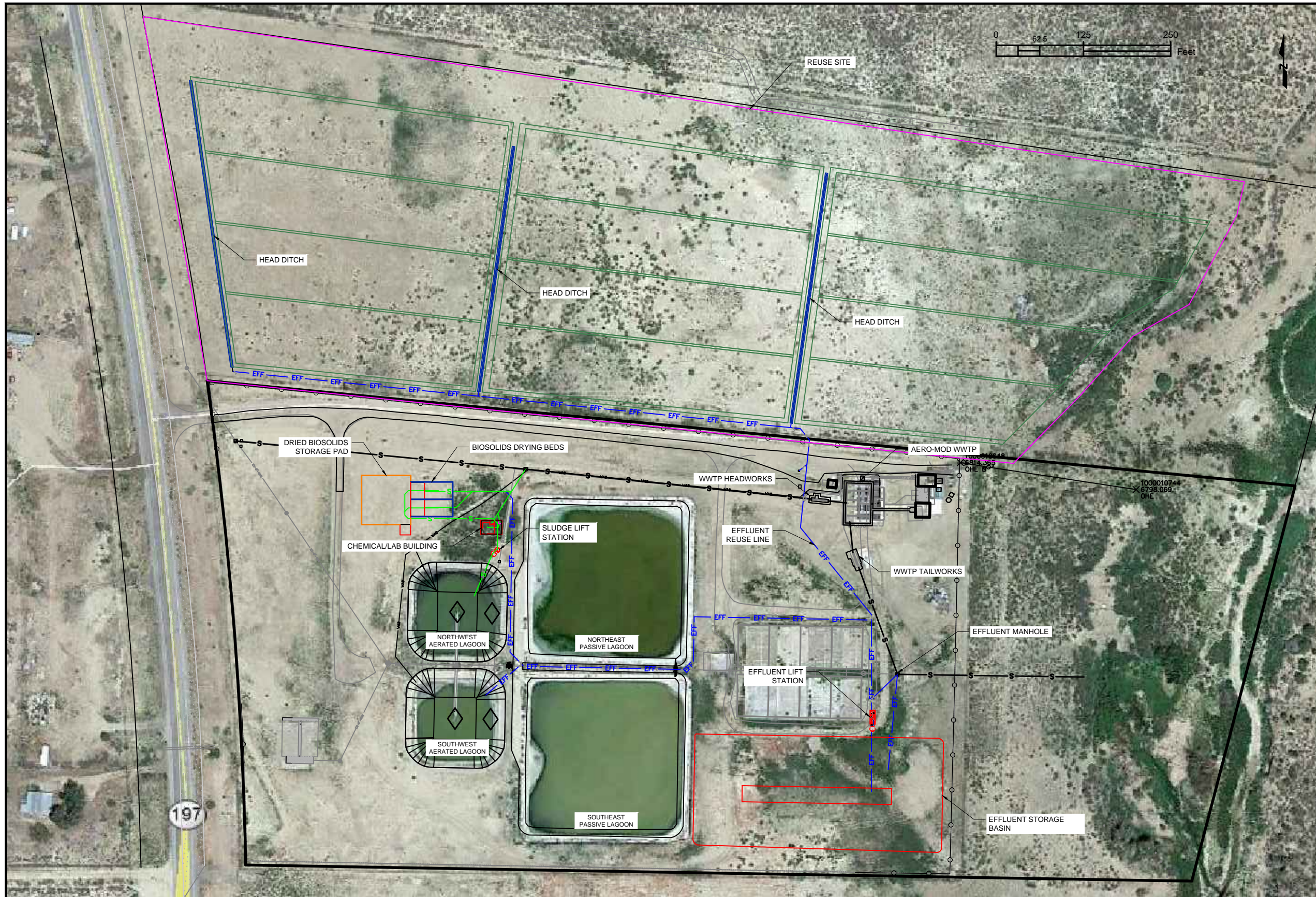
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**VILLAGE OF CUBA SITE MAP**  
**NORTHERN PROPERTY AND WWTP**  
**SANDOVAL COUNTY, NEW MEXICO**

Drawn ARB/JER	Checked JMG	Approved JMG
Date: AUGUST, 2014		
Scale: Horiz: 1"=200 Vert:		
Project No: 48968		
Sheet: Figure 1		



Rev#	Date	Description	By	CHKD

**SMA**  
 Engineering & Environmental  
 Surveying

**SOUDEY, MILLER & ASSOCIATES**  
 3451 Candelaria Road, NE Suite D  
 Albuquerque, NM 87107

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VILLAGE OF CUBA  
 CUBA, NEW MEXICO

**CUBA WASTEWATER TREATMENT PLANT**  
 CUBA, NEW MEXICO

**WWTP AND REUSE SITE IMPROVEMENTS**

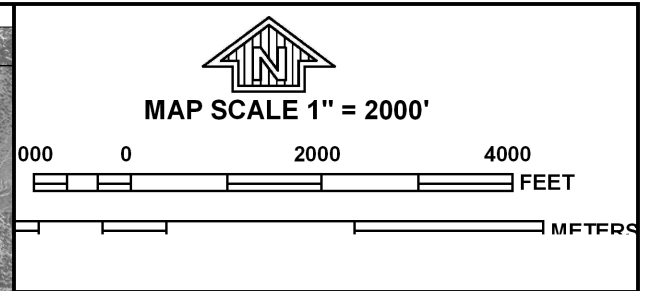
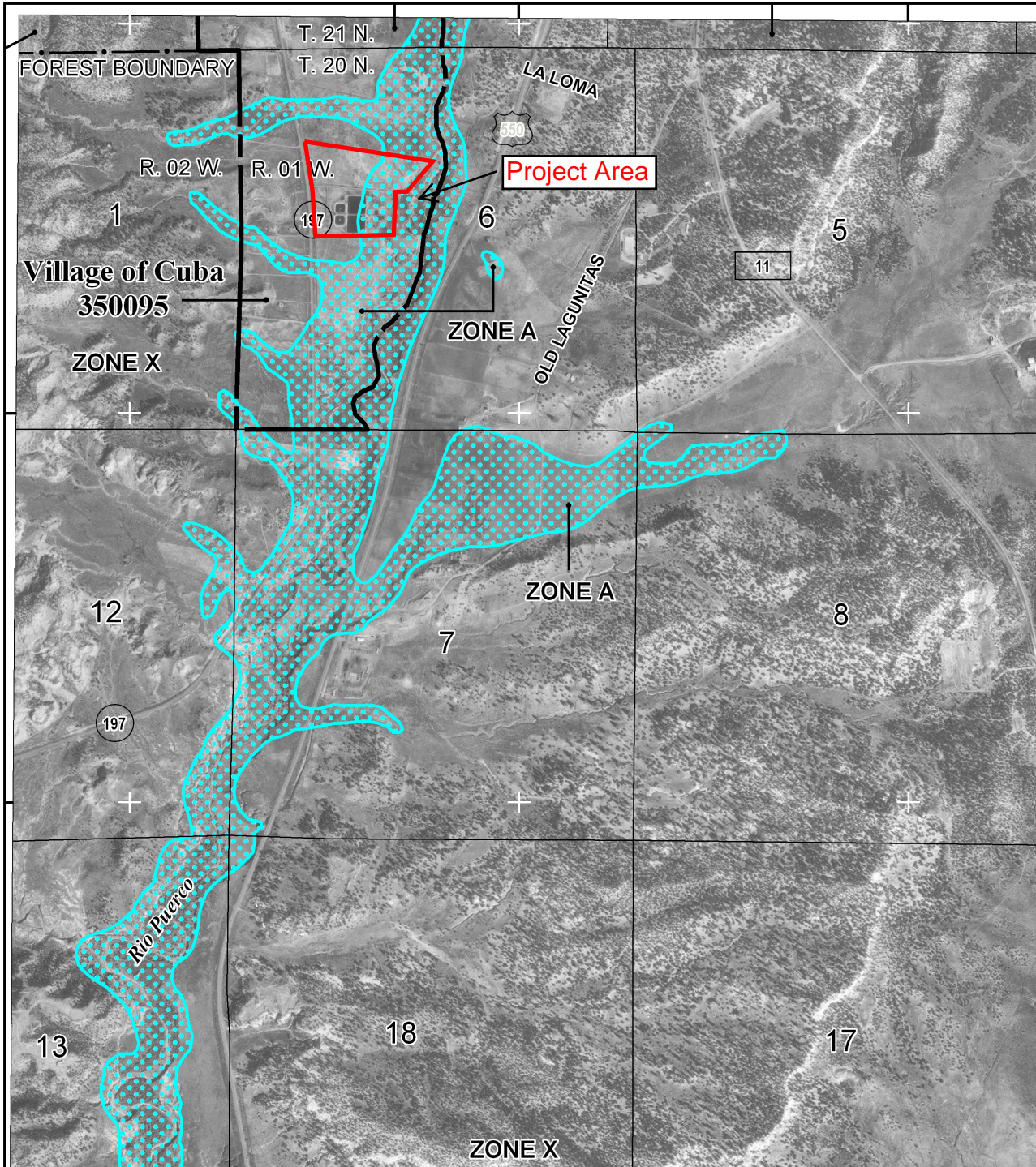
THIS DRAWING IS INCOMPLETE AND NOT TO BE USED FOR CONSTRUCTION UNLESS IT IS STAMPED, SIGNED AND DATED

Designed JC	Drawn JC	Checked RJS
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Date: May 10, 2016  
 Scale: \_\_\_\_\_  
 Project No: 6423775  
 Sheet: EXHIBIT A



Figure 3



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0600D


**FIRM**  
FLOOD INSURANCE RATE MAP  
**SANDOVAL COUNTY,  
NEW MEXICO  
AND INCORPORATED AREAS**

**PANEL 600 OF 2225**  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
CUBA, VILLAGE OF	350095	0600	D
SANDOVAL COUNTY, UNINCORPORATED AREAS	350055	0600	D

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.



**MAP NUMBER**  
35043C0600D

**MAP REVISED**  
MARCH 18, 2008

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)

# LEGEND



**SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**

The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A** No Base Flood Elevations determined.
- ZONE AE** Base Flood Elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.



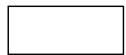
**FLOODWAY AREAS IN ZONE AE**

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.



**OTHER FLOOD AREAS**

- ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

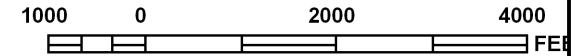


**OTHER AREAS**

- ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D** Areas in which flood hazards are undetermined, but possible.



**MAP SCALE 1" = 2000'**



**COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**



**OTHERWISE PROTECTED AREAS (OPAs)**

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- Base Flood Elevation line and value; elevation in feet\*
- Base Flood Elevation value where uniform within zone; elevation in feet\*

\* Referenced to the North American Vertical Datum of 1988

- Cross section line
- Transect line
- Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)  
87°07'45", 32°22'30"
- 1000-meter Universal Transverse Mercator grid values, zone 13  
4276000m
- 5000-foot grid ticks: New Mexico State Plane coordinate system, Central zone (FIPSZONE 3002), Transverse Mercator projection  
600000 FT
- Bench mark (see explanation in Notes to Users section of this FIRM panel)  
DX5510 X
- River Mile  
• M1.5

MAP REPOSITORY  
Refer to listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE  
FLOOD INSURANCE RATE MAP  
July 16, 1996

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL  
March 18, 2008 - to update map format.

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

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# Tables

Table 5.1a  
 Native American Correspondence Summary  
 Village of Cuba WWTP Improvements

Tribe	Contact	Issue Date			Response Date		Notice of Availability		
		US Mail	Fax	Email	Received	Summary	US Mail	Fax	Email
Comanche Nation	Mr. Jimmy W. Arterberry, Historic Preservation Officer #6 SW 'D' Avenue, Suite A Lawton, Oklahoma 73507 Phone: (580) 595-9618 Phone: (580) 595-9960 Fax: (580) 595-9733 historicpreservation@comanchenation.com (jimmya@comanchenation.com)	11/13/2015 11/24/2015			11/23/2015 12/9/2015	Not affected by project area			12/29/2016
Hopi Tribe	Mr. Leigh Kuwanwisiwma, Director P.O. Box 123 Kykotsmovi, AZ 86039 (928) 734-3611 (928) 734-3629 (fax) lkuwanwisiwma@hopi.nsn.us	11/13/2015 11/24/2015			11/23/2015	Must contact if Native American artifacts found			12/29/2016
Jicarilla Apache Nation	President Ty Vicenti Jicarilla Apache Nation P.O. Box 507 Dulce, NM 87528 Phone: (575) 759-3242 Fax: (575) 759-3005 incorrect used 575.759.4471	11/13/2015 11/24/2015	5/23/2016						
Mescalero Apache Tribe	President Dr. Carlton Naiche-Palmer Mescalero Apache Tribe P.O. Box 227 Mescalero, NM 88340 (575) 464-4494 (575) 464-9191 (fax)	11/13/2015 11/24/2015	5/23/2016						
Navajo Nation	President Ben Shelly P.O. Box 9000 Window Rock, AZ 86515 Phone: (928) 871-6352/6357 Fax: (928) 871-4025	11/13/2015 11/24/2015			3/30/2016	No concerns			12/29/2016
Ohkay Owingeh (San Juan) Pueblo	Governor Earl Salazar Ohkay Owingeh (San Juan) Pueblo P.O. Box 1099 San Juan Pueblo, NM 87566 Phone: (505) 852-4400/4210 Fax: (505) 852-4820	11/13/2015 11/24/2015	5/23/2016						

Table 5.1a  
 Native American Correspondence Summary  
 Village of Cuba WWTP Improvements

Pueblo of Cochiti	Governor Leroy Arquero Pueblo of Cochiti P.O. Box 70 Cochiti Pueblo, NM 87072 Phone: (505) 465-2244 Fax:	11/13/2015 11/24/2015	5/23/2016	6/3/2016					
Pueblo of Isleta	Governor Eddie Paul Torres Sr. P.O. Box 1270 Isleta Pueblo, NM 87022 Phone: (505) 869-3111/6333 Fax: (505) 869-7596	11/13/2015 11/24/2015	5/23/2016						
Pueblo of Jemez	Governor Raymond Loretto Pueblo of Jemez P.O. Box 100 Jemez Pueblo, NM 87024 Phone: (575) 834-7359 Fax: (575) 834-7331	11/13/2015 11/24/2015	5/23/2016						
Pueblo of Laguna	Pueblo of LagunaGovernor Virgil A. Siow Pueblo of Laguna P.O. Box 194 Laguna Pueblo, NM 87026 Phone: (505) 552-6654/6655/6598 Fax: (505) 552-6941	11/13/2015 11/24/2015	5/23/2016						
Pueblo of San Felipe	Governor Ron Tenorio Pueblo of San Felipe P.O. Box 4339 San Felipe Pueblo, NM 87001 Phone: (505) 867-3381/3382 Fax: (505) 867-3383 pstout@sfpueblo.com rortiz@sfpueblo.com	11/13/2015 11/24/2015	5/23/2016		6/1/2016	No concern			12/29/2016
Pueblo of San Ildefonso	Governor James Mountain Pueblo of San Ildefonso Route 5, Box 315-A Santa Fe, NM 87506 Phone: (505) 455-2273 Fax: (505) 455-7351	11/13/2015 11/24/2015	5/23/2016						
Pueblo of Sandia	Governor Isaac Lujan Pueblo of Sandia 481 Sandia Loop Bernalillo, NM 87004 Phone: (505) 867-3317 Fax: (505) 867-9235	11/13/2015 11/24/2015	5/23/2016						

Table 5.1a  
Native American Correspondence Summary  
Village of Cuba WWTP Improvements

Pueblo of Santa Ana	Governor Lawrence Montoya Pueblo of Santa Ana 2 Dove Road Santa Ana Pueblo, NM 87004 Phone: (505) 867-3301 Fax: (505) 867-3395 phillip.shelley@santaana-nsn.gov	11/13/2015 11/24/2015			12/2/2015	No comments or concerns			12/29/2016
Pueblo of Santa Clara	Governor J. Michael Chavarria Pueblo of Santa Clara P.O. Box 580 Espanola, NM 87532 Phone: (505) 753-7330/7326 Fax: (505) 753-8988	11/13/2015 11/24/2015	5/23/2016						
Pueblo of Santo Domingo	Governor Daniel Coriz Pueblo of Santo Domingo P.O. Box 99 Santo Domingo Pueblo, NM 87052 Phone: (505) 465-2214 Fax: (505) 465-2688/2215	11/13/2015 11/24/2015	5/23/2016						
Pueblo of Tesuque	Governor Mark Mitchell Pueblo of Tesuque Route 42, Box 360-T Santa Fe, NM 87506 (505) 955-7732 (505) 982-2331 (fax)	11/13/2015 11/24/2015	5/23/2016						
Pueblo of Zia	Governor David Pino Pueblo of Zia 135 Capitol Square Dr. Zia Pueblo, NM 87053-6013 Phone: (505) 867-3304 Fax: (505) 867-3308	11/13/2015 11/24/2015	5/23/2016						
Pueblo of Zuni	Governor Val Panteah, Sr. P.O. Box 339 Zuni, NM 87327 Phone: (505) 782-7022 Fax: (505) 782-2700  Mr. Kurt Dongoske Tribal Historic Preservation Officer Zuni Pueblo P.O. Box 1149 Zuni, NM 87327 Phone: 505-782-4814 Email: kdongoske@cableone.net	11/13/2015 11/24/2015	5/23/2016						12/29/2016

Table 5.1b  
 Consulted Agency Correspondence Summary  
 Village of Cuba WWTP Improvements

Agencies	Contact	Issue Date			Response Date		Notice of Availability			
		US Mail	Fax	Email	Received	Summary	US Mail	Fax	Email	
<b>Local</b>										
Sandoval County Flood Plain Administrator	Mr. Brad Stebleton, CFM Floodplain Administrator, Sandoval County U.S. Department of Homeland Security Federal Emergency Management Agency 1500 Idalia, Bldg D PO BOX 40 Bernalillo, NM 87004 bstebleton@sandovalcountynm.gov	11/13/2015 11/24/2015				12/2/2015	No Action since it is outside the County area			12/29/2016
<b>State</b>										
N.M. Department of Game & Fish Conservation Services Division	Mr. Matthew Wunder, Ph.D. N.M. Department of Game & Fish Conservation Services Division P.O. Box 25112 Santa Fe, NM 87504 Phone: 505-476-8118 Fax: 505-476-8123 matthew.wunder@state.nm.us	11/13/2015 11/24/2015				12/1/2015 12/14/2015	Suggested to modify project area to exclude 100-yr floodplain			12/29/2016
N.M. Department of Transportation Environmental Section	Mr. Gary Funkhouser N.M. Department of Transportation Environmental Section P.O. Box 1149 Santa Fe, NM 87504 Phone: 505-827-5356 Fax: 505-827-1877 gary.funkhouser@state.nm.us	11/13/2015 11/24/2015			5/23/2016	5/24/2016	No Action Required			12/29/2016
N.M. Energy, Minerals & Natural Resources Dept. Forestry Division	Ms. Daniela Roth, Botany Program Coordinator P.O. Box 1948 Santa Fe, NM 87504-1948 Phone: 505-476-3347 Fax: 505-476-3330 daniela.roth@state.nm.us	11/13/2015 11/24/2015			5/23/2016	5/23/2016	Evlauate area for endangered plants			12/29/2016
NM EMNRD State Parks Division	Ms. Judy Kowalski New Mexico State Parks Division, Design & Development Bureau Chief Energy, Minerals and Natural Resources Dept. 1220 South St. Francis Drive Santa Fe, NM 87505 (505) 476-3387 (505) 476-3361 (fax) Judy.Kowalski@state.nm.us	11/13/2015 11/24/2015			5/23/2016	5/23/2016	No Action Required			12/29/2016
N.M. Environment Department	Mr. Thomas Skibitski N.M. Environment Department PO Box 5469 Santa Fe, NM 87502-5469 Phone: 505-827-0419 Fax: 505-827-2836 thomas.skibitski@state.nm.us	11/13/2015 11/24/2015				12/15/2015	No Action Required			12/29/2016

Table 5.1b  
 Consulted Agency Correspondence Summary  
 Village of Cuba WWTP Improvements

N.M. Interstate Stream Commission	Ms. Amy Haas, Acting Director N.M. Interstate Stream Commission 407 Galisteo Street Bataan Memorial Building P.O. Box 25102 Santa Fe, NM 87504-5102 Phone: (505) 827-6160 Fax: (505) 827-6188 amy.haas@state.nm.us	11/13/2015 11/24/2015		5/23/2016				12/29/2016
N.M. Office of Cultural Affairs State Historic Preservation Division	Mr. S. Andrew Wakefield, RPA N.M. Office of Cultural Affairs State Historic Preservation Division 407 Galisteo Street, Suite 236 Santa Fe, NM 87501 Phone: 505-827-6162 andy.wakefield@state.nm.us	11/13/2015 11/24/2015			11/24/2015 5/20/2016	No Action Required		12/29/2016
N.M. Office of the State Engineer	Mr. Jess Ward, District Supervisor (Joeseph fields) New Mexico Office of the State Engineer 5550 San Antonio Dr. NE Albuquerque, NM 8710+-4127 Phone: 505-383-4000	11/13/2015 11/24/2015			12/8/2015	Village of Cuba not in compliance		12/29/2016
	Mr. Tom Blaine, P.E., State Engineer PO Box 25102 Santa Fe, NM 87504-5102 Phone: 505-827-6091 Fax: 505-827-3806 tom.blaine@state.nm.us	11/13/2015 11/24/2015		5/23/2016	5/26/2016	No Action Required		12/29/2016
<b>Federal</b>								
U.S. Army Corps of Engineers	Mr. Chris Parrish Senior Regulatory Project Manager/Archaeologist Albuquerque District U.S. Army Corps of Engineers 4101 Jefferson Plaza NE Albuquerque, New Mexico 87109-3435 505.342.3374 Fax: 505.344.1415 christopher.m.parrish@usace.army.mil	11/13/2015 11/24/2015			11/30/2015	No Action Required		12/29/2016
U.S. Department of Agriculture Natural Resources Conservation Service	Mr. Xavier Montoya, State Conservationist New Mexico State Office 6200 Jefferson, NE Albuquerque, NM 87109-3734 Phone: 505-761-4400 Fax: 505-761-4462 xavier.montoya@nm.usda.gov	11/13/2015 11/24/2015			11/30/2015 12/12/2015	No Action Required		12/29/2016
U.S. Department of Homeland Security Federal Emergency Management Agency Sandoval County	Ms. Mayra Diaz, CFM Floodplain Manager Mitigation, FEMA Region 6 800 North Loop 288 Denton, TX 76209 Phone: 940-989-5541      mayra.diaz@fema.dhs.gov	11/13/2015 12/3/2015			12/2/2015	Action Required: Contact Floodplain Administrators		12/29/2016



Table 5.1b  
 Consulted Agency Correspondence Summary  
 Village of Cuba WWTP Improvements

U.S. Department of the Interior Fish and Wildlife Service N.M. Ecological Services Field Office	George D. Dennis III, Ph.D. Aquatic Ecosystems Branch Chief U.S. Department of the Interior Fish and Wildlife Service N.M Ecological Services Field Office 2105 Osuna NE Albuquerque, NM 87113-1001 Phone: 505-761-4781 Fax: 505-346-2542 nmesfo@fws.gov george_dennis@fws.gov	11/13/2015 11/24/2015		5/23/2016	5/23/2016	No Action Required			12/29/2016
U.S. Department of the Interior National Park Service	Mr. David Hurd U.S. Department of the Interior National Park Service 12795 Alameda Parkway Denver, CO 80225 Phone: 303-969-2377 IMRextrev@nps.gov david_hurd@nps.gov	11/13/2015 11/24/2015		12/3/2015	12/1/2015	No Action Required			12/29/2016
U.S. Environment Protection Agency Air Planning Section (Region 6)	Mr. Jeffrey Riley Air Planning Section EPA Region 6, 6 PD-L 1445 Ross Avenue, Suite 1200 Dallas, TX 75202-2733 Phone: 214-665-8542 Fax: 214-665-7263 riley.jeffrey@epa.gov	11/13/2015 11/24/2015		5/23/2016	5/24/2016	No Action Required			12/29/2016
U.S. Environment Protection Agency Office of Planning and Coordination	Mr. Craig Weeks, Acting Chief Office of Planning and Coordination 1445 Ross Avenue, Suite 1200 Dallas, TX 75202-2733 Phone: 214-665-7451 Fax: 214-665-7446 weeks.craig@epa.gov now Robert Houston, Chief, Special Projects Section, houston.robert@epa.gov	11/13/2015 11/24/2015		5/23/2016	6/6/2016	No Comment			12/29/2016
U.S. Environment Protection Agency Source Water Protection Branch Groundwater Section	Mr. Michael Bechdol 1445 Ross Avenue, Suite 1200 Dallas, TX 75202-2733 Phone: 214-665-7150 Fax: 214-665-6490 bechdol.michael@epa.gov	11/13/2015 11/24/2015			12/21/2015	No Action Required			12/29/2016

Appendix E1  
USDA Natural Resources  
Conservation Service  
Correspondence



November 24, 2015

#6423775

Mr. Xavier Montoya, State Conservationist  
New Mexico State Office  
U.S. Department of Agriculture  
Natural Resources Conservation Service  
6200 Jefferson, NE  
Albuquerque, NM 87109-3734  
Phone: 505-761-4400  
Fax: 505-761-4462  
xavier.montoya@nm.usda.gov

**RE: REVISION TO REQUEST FOR INFORMATION CONCERNING THE SOLIDS HANDLING AND EFFLUENT REUSE IMPROVEMENTS PROJECT FOR THE VILLAGE OF CUBA WASTEWATER TREATMENT PLANT, SANDOVAL COUNTY, NEW MEXICO**

Mr. Xavier Montoya

Souder, Miller & Associates (SMA), on behalf of our client, the Village of Cuba, is in the process of performing an environmental assessment pursuant to the National Environmental Policy Act for use of public funding. The Village's Wastewater Treatment Plant (WWTP) is located in Sandoval County, along New Mexico State Road 197 (NM 197); approximately 2 miles from the NM 197/United States Route 550 (US 550) junction; approximately 65 miles northwest of Bernalillo, New Mexico. Funding for the planned project may be obtained from New Mexico Legislative Appropriations (SAP), United States Department of Agriculture (USDA) - Rural Development (RD), Community Development Block Grant (CDBG), New Mexico Water Trust Board (WTB), Clean Water State Revolving Fund (CWSRF) and/or other State and Federal sources.

As part of the overall planning phase of the project Village of Cuba WWTP is requesting consultation on several improvements including:

- Utilization of 15 acres of land for long-term biosolids and effluent land application.
- Use of the existing northeast passive lagoon at the WWTP to dewater biosolids until they dry to a desired solids concentration.
- Modification of the existing sand filters to function as drying sand beds to dewater biosolids produced by the WWTP.
- Construction of a lined effluent storage basin.
- Construction of a building for an office and for sludge processing equipment.
- Reuse of biosolids and treated effluent via land application for irrigation.

Limits of the study include a portion of Township 20 North, Range 01 West, Section 6. The center of the project area is located at approximately 35° 59' 38" N latitude and 106° 59' 6" west longitude. Please refer to the enclosed map (Figure) 1 that depicts the area of the proposed WWTP improvements. Figures 1 and 2 were inadvertently left out of original letter. They are attached to this letter.

*Mr. Xavier Montoya*

*November 24, 2015*

*Page 2*

All work is to be completed on property owned by the Village of Cuba. The majority of work will be completed above ground. The overall project area depicted in Figure 2 shows that all projects contemplated at this time lie within Zone A (areas where flood heights have not been determined but are expected to flood during the 100-year flood) and Zone X (areas that have been determined to be outside the 0.2% annual floodplain). No arroyos are anticipated to be crossed or disturbed by the proposed projects.

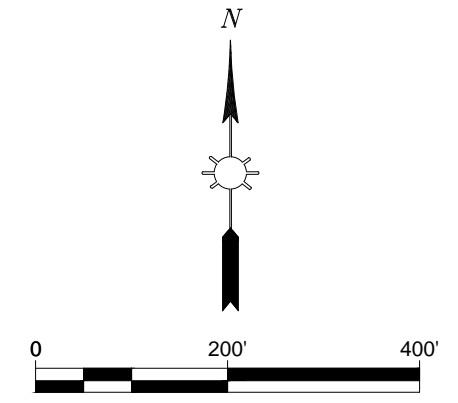
SMA would appreciate any information or feedback to be provided at your earliest possible convenience. If you need any further information or wish to discuss the project, please feel free to contact me by phone at 877-299-0942, or by email at [lisa.gaston@soudermiller.com](mailto:lisa.gaston@soudermiller.com).

Sincerely,

**SOUDER, MILLER & ASSOCIATES**

A handwritten signature in blue ink, appearing to read "Lisa A. Gaston".

Lisa A. Gaston  
Staff Geoscientist



**LEGEND**

PROJECT AREA

VILLAGE OF CUBA  
WWTP

LAND APPLICATION  
AREA

REVISIONS		
BY	DATE	DESC.

**SMA**  
Engineering • Environmental  
Surveying

**SOUDER, MILLER & ASSOCIATES**  
3451 Candelaria Road NE, Suite D  
Albuquerque, NM 87107

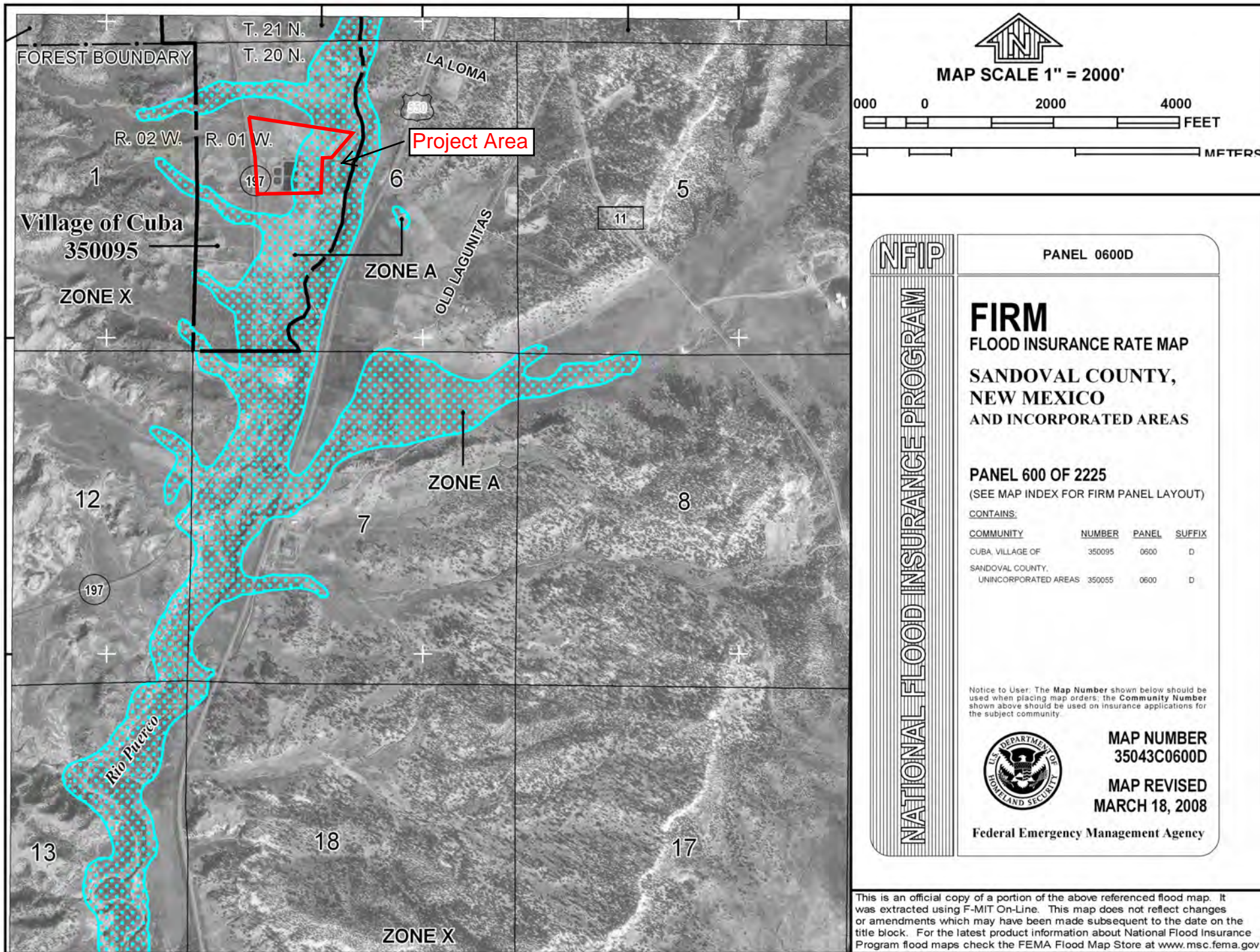
Phone (505) 299-0942 Toll-Free (877) 299-0942 Fax (505) 293-3430  
www.soudermiller.com

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Albuquerque, Farmington, Las Cruces, Roswell, Santa Fe, NM  
Cortez - Grand Junction, CO - Safford, AZ - Meab, UT, El Paso, TX

VILLAGE OF CUBA SITE MAP  
NORTHERN PROPERTY AND WWTP  
SANDOVAL COUNTY, NEW MEXICO

Drawn ARB/JER	Checked JMG	Approved JMG
Date: AUGUST, 2014		
Scale: Horiz: 1"=200 Vert:		
Project No: 48968		
Sheet: FIGURE 1		

Figure 3



NATIONAL FLOOD INSURANCE PROGRAM

NFIP

PANEL 0600D

**FIRM**  
FLOOD INSURANCE RATE MAP

**SANDOVAL COUNTY,  
NEW MEXICO  
AND INCORPORATED AREAS**

**PANEL 600 OF 2225**  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
CUBA, VILLAGE OF	350095	0600	D
SANDOVAL COUNTY, UNINCORPORATED AREAS	350055	0600	D

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

**MAP NUMBER**  
35043C0600D

**MAP REVISED**  
MARCH 18, 2008

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)

# LEGEND



**SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**

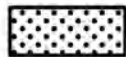
The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A** No Base Flood Elevations determined.
- ZONE AE** Base Flood Elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.



**FLOODWAY AREAS IN ZONE AE**

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.



**OTHER FLOOD AREAS**

- ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

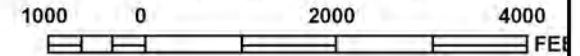


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- ZONE D** Areas in which flood hazards are undetermined, but possible.



**MAP SCALE 1" = 2000'**



**COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**



**OTHERWISE PROTECTED AREAS (OPAs)**

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
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- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- Base Flood Elevation line and value; elevation in feet\*
- Base Flood Elevation value where uniform within zone; elevation in feet\*

\* Referenced to the North American Vertical Datum of 1988.

- Cross section line
- Transect line
- Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 1000-meter Universal Transverse Mercator grid values, zone 13
- 5000-foot grid ticks: New Mexico State Plane coordinate system, Central zone (FIPSZONE 3002), Transverse Mercator projection
- Bench mark (see explanation in Notes to Users section of this FIRM panel)
- River Mile

**MAP REPOSITORY**  
Refer to listing of Map Repositories on Map Index

**EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP**  
July 16, 1996

**EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL**  
March 18, 2008 - to update map format.

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

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RECEIVED  
11/30/15

November 24, 2015

Ms. Lisa A. Gaston  
Staff Geoscientist  
Souder, Miller & Associates  
3451 Candelaria Road NE, Suite D  
Albuquerque, New Mexico 87107

Dear Ms. Gaston:

Thank you for providing the Natural Resources Conservation Service (NRCS) the opportunity to review the proposed Village of Cuba Wastewater Treatment Plant, Sandoval County, New Mexico.

The Farmland Protection Policy Act (FPPA) authorizes the NRCS to provide review of proposed projects that have the potential to irreversibly convert farmlands to non-farmland or irreversibly converting hydric areas to non-hydric uses as the result of programs funded by the federal government. In review of the information provided on the project, it is determined that the entire project is located in an urban or development area in an existing easement, or is in an area not designated as Prime or Important Farmland. The FPPA rules define farmland conversion to be "to the extent that it irreversibly converts farmland to other purposes", this project is not expected to have that effect. With this acknowledged, the proposed project will not cause Prime or Unique Farmlands or hydric soils to be converted to non-agricultural or non-hydric uses, and is not subject to the Act.

If you have any questions concerning soils information, please contact Richard Strait, State Soil Scientist, at (505) 761-4433 or email at [Richard.Strait@nm.usda.gov](mailto:Richard.Strait@nm.usda.gov).

Sincerely,

J. XAVIER MONTOYA  
State Conservationist

cc:

Richard Strait, State Soil Scientist, NRCS, Albuquerque, NM



Appendix E2  
National Park Service and  
New Mexico State Parks Division  
Correspondence



November 24, 2015

#6423775

Mr. David Hurd  
U.S. Department of the Interior  
National Park Service  
12795 Alameda Parkway  
Denver, CO 80225  
Phone: 303-969-2377  
IMRextrev@nps.gov  
david\_hurd@nps.gov

**RE: REVISION TO REQUEST FOR INFORMATION CONCERNING THE SOLIDS HANDLING AND EFFLUENT REUSE IMPROVEMENTS PROJECT FOR THE VILLAGE OF CUBA WASTEWATER TREATMENT PLANT, SANDOVAL COUNTY, NEW MEXICO**

Mr. David Hurd:

Souder, Miller & Associates (SMA), on behalf of our client, the Village of Cuba, is in the process of performing an environmental assessment pursuant to the National Environmental Policy Act for use of public funding. The Village's Wastewater Treatment Plant (WWTP) is located in Sandoval County, along New Mexico State Road 197 (NM 197); approximately 2 miles from the NM 197/United States Route 550 (US 550) junction; approximately 65 miles northwest of Bernalillo, New Mexico. Funding for the planned project may be obtained from New Mexico Legislative Appropriations (SAP), United States Department of Agriculture (USDA) - Rural Development (RD), Community Development Block Grant (CDBG), New Mexico Water Trust Board (WTB), Clean Water State Revolving Fund (CWSRF) and/or other State and Federal sources.

As part of the overall planning phase of the project Village of Cuba WWTP is requesting consultation on several improvements including:

- Utilization of 15 acres of land for long-term biosolids and effluent land application.
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- Modification of the existing sand filters to function as drying sand beds to dewater biosolids produced by the WWTP.
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- Construction of a building for an office and for sludge processing equipment.
- Reuse of biosolids and treated effluent via land application for irrigation.

Limits of the study include a portion of Township 20 North, Range 01 West, Section 6. The center of the project area is located at approximately 35° 59' 38" N latitude and 106° 59' 6" west longitude. Please refer to the enclosed map (Figure 1) that depicts the area of the proposed WWTP improvements. Figures 1 and 2 were inadvertently left out of original letter. They are attached to this letter.

All work is to be completed on property owned by the Village of Cuba. The majority of work will be completed above ground. The overall project area depicted in Figure 2 shows that all projects

*Mr. David Hurd*  
*November 24, 2015*  
*Page 2*

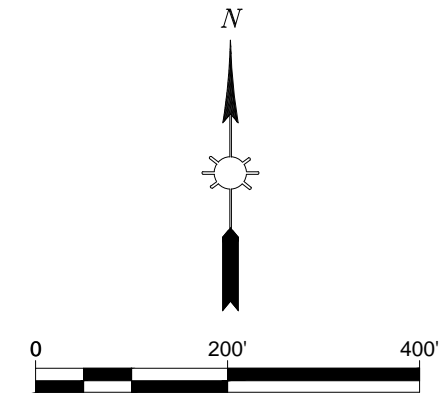
contemplated at this time lie within Zone A (areas where flood heights have not been determined but are expected to flood during the 100-year flood) and Zone X (areas that have been determined to be outside the 0.2% annual floodplain). No arroyos are anticipated to be crossed or disturbed by the proposed projects.

SMA would appreciate any information or feedback to be provided at your earliest possible convenience. If you need any further information or wish to discuss the project, please feel free to contact me by phone at 877-299-0942, or by email at [lisa.gaston@soudermiller.com](mailto:lisa.gaston@soudermiller.com).

Sincerely,  
**SOUDER, MILLER & ASSOCIATES**

A handwritten signature in blue ink, appearing to read "Lisa Gaston".

Lisa A. Gaston  
Staff Geoscientist



**LEGEND**

█ PROJECT AREA

VILLAGE OF CUBA  
WWTP

LAND APPLICATION  
AREA

REVISIONS		
BY	DATE	DESC.

**SMA**  
Engineering • Environmental  
Surveying

**SOUDER, MILLER & ASSOCIATES**  
3451 Candelaria Road NE, Suite D  
Albuquerque, NM 87107

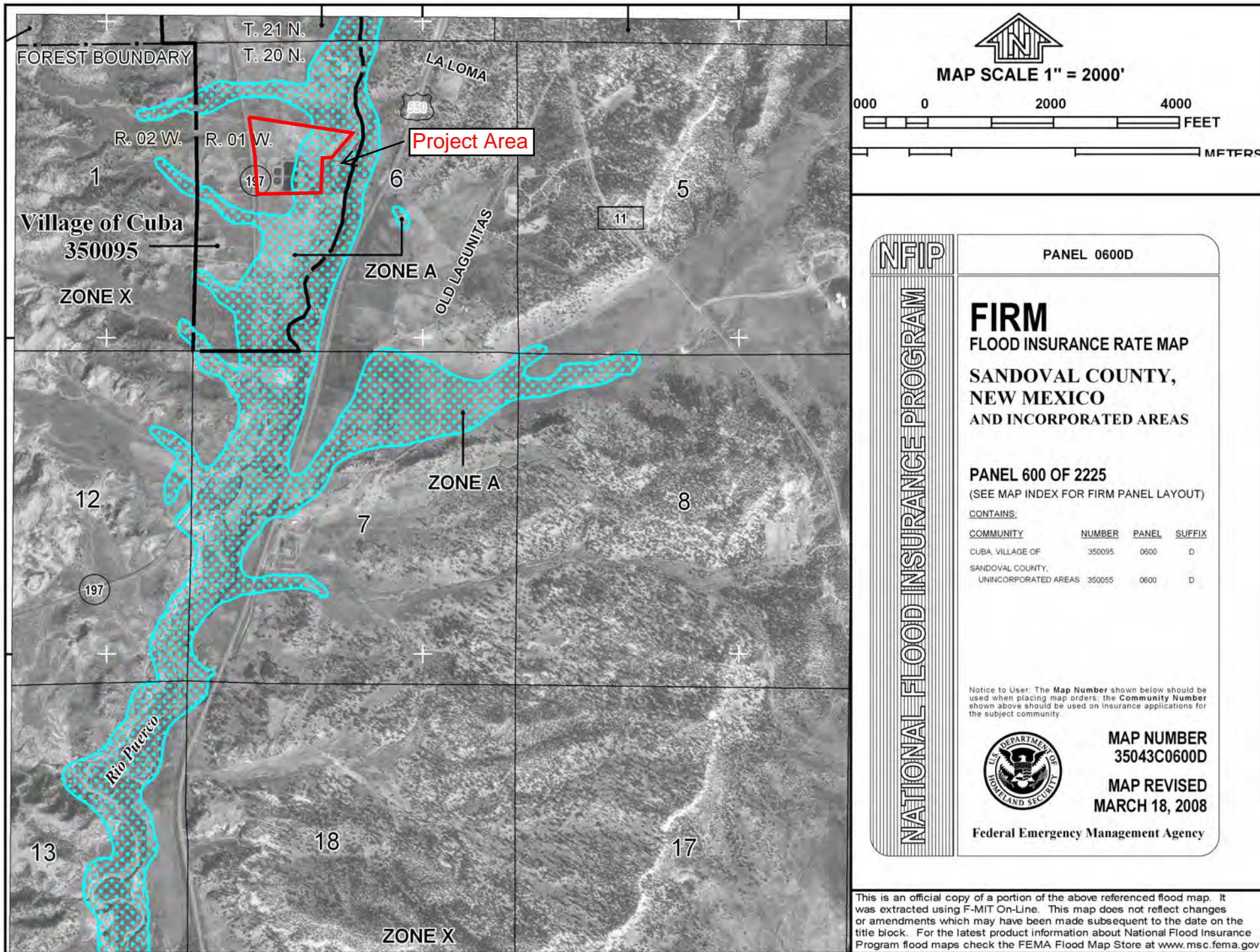
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Cortez - Grand Junction, CO - Safford, AZ - Meab, UT, El Paso, TX

VILLAGE OF CUBA SITE MAP  
NORTHERN PROPERTY AND WWTP  
SANDOVAL COUNTY, NEW MEXICO

Drawn ARB/JER	Checked JMG	Approved JMG
Date: AUGUST, 2014		
Scale: Horiz: 1"=200 Vert:		
Project No: 48968		
Sheet: FIGURE 1		

Figure 3



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0600D

**FIRM**  
FLOOD INSURANCE RATE MAP

**SANDOVAL COUNTY,  
NEW MEXICO  
AND INCORPORATED AREAS**

**PANEL 600 OF 2225**  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
CUBA, VILLAGE OF	350095	0600	D
SANDOVAL COUNTY, UNINCORPORATED AREAS	350055	0600	D

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

**MAP NUMBER**  
35043C0600D

**MAP REVISED**  
MARCH 18, 2008

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)

# LEGEND



**SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**

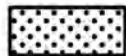
The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A** No Base Flood Elevations determined.
- ZONE AE** Base Flood Elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.



**FLOODWAY AREAS IN ZONE AE**

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.



**OTHER FLOOD AREAS**

- ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

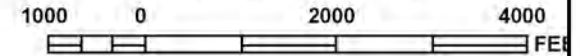


**OTHER AREAS**

- ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D** Areas in which flood hazards are undetermined, but possible.



**MAP SCALE 1" = 2000'**



**COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**



**OTHERWISE PROTECTED AREAS (OPAs)**

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- Base Flood Elevation line and value; elevation in feet\*
- Base Flood Elevation value where uniform within zone; elevation in feet\*

\* Referenced to the North American Vertical Datum of 1988.

- Cross section line
- Transect line
- Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 1000-meter Universal Transverse Mercator grid values, zone 13
- 5000-foot grid ticks: New Mexico State Plane coordinate system, Central zone (FIPSZONE 3002), Transverse Mercator projection
- Bench mark (see explanation in Notes to Users section of this FIRM panel)
- River Mile

**MAP REPOSITORY**  
Refer to listing of Map Repositories on Map Index

**EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP**  
July 16, 1996

**EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL**  
March 18, 2008 - to update map format.

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To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

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November 24, 2015

#6423775

Ms. Judy Kowalski  
New Mexico State Parks Division, Design & Development Bureau Chief  
Energy, Minerals and Natural Resources Dept.  
1220 South St. Francis Drive  
Santa Fe, NM 87505  
(505) 476-3387  
(505) 476-3361 (fax)  
Judy.Kowalski@state.nm.us

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*Ms. Judy Kowalski*  
*November 24, 2015*  
*Page 2*

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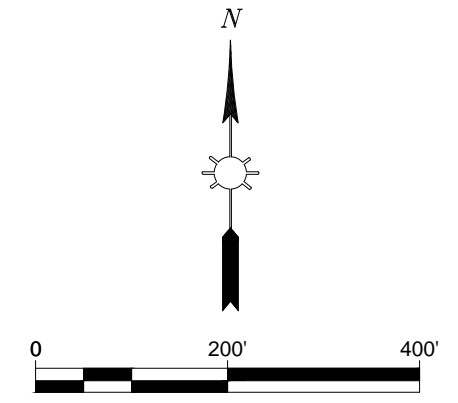
Sincerely,

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A handwritten signature in blue ink, appearing to read "Lisa A. Gaston".

Lisa A. Gaston  
Staff Geoscientist





**LEGEND**

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VILLAGE OF CUBA  
WWTP

LAND APPLICATION  
AREA

REVISIONS		
BY	DATE	DESC.

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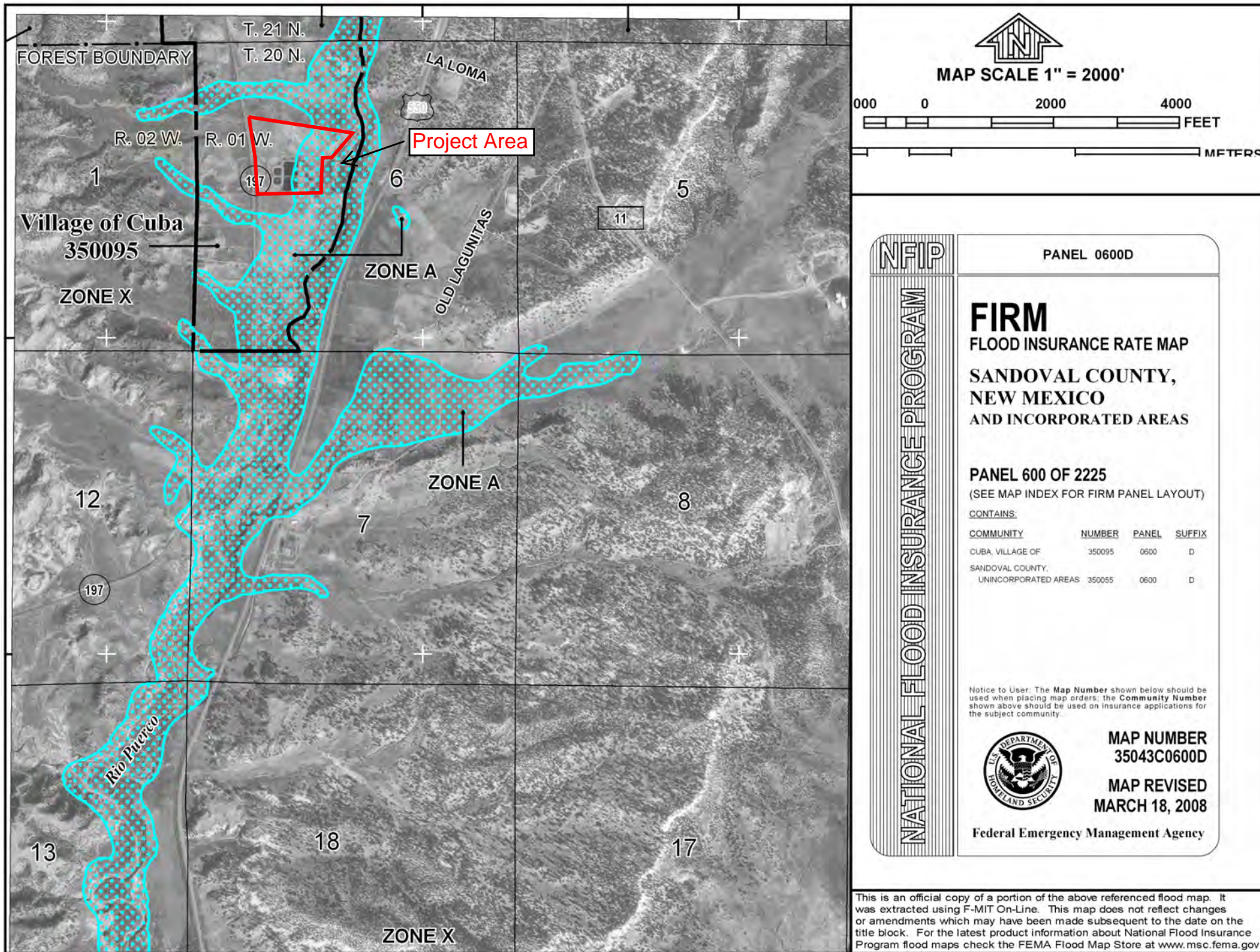
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VILLAGE OF CUBA SITE MAP  
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Sheet: <b>FIGURE 1</b>		

Figure 3



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PANEL 0600D

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MARCH 18, 2008

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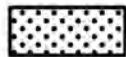
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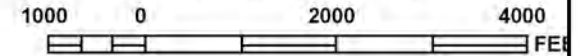


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## Scott McKitrick

---

**From:** Scott McKitrick  
**Sent:** Monday, May 23, 2016 4:37 PM  
**To:** 'Judy.Kowalski@state.nm.us'  
**Subject:** Request for Information - Cuba WWTP Improvements  
**Attachments:** NM State Parks.pdf

Attached please find SMA's request for Information concerning the Village of Cuba WWTP Improvements. It was originally provided by US Mail on November 24, 2015. A response is appreciated. Thanks.

---

**Scott A. McKitrick, P.G.**  
**Senior Geoscientist**  
**Souder, Miller & Associates**  
3451 Candelaria NE, Suite D  
Albuquerque, NM 87107  
[www.soudermiller.com](http://www.soudermiller.com)  
505.299.0942 (office)  
505.220.6542 (mobile)  
505.293.3430 (fax)



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From: david\_hurd@nps.gov on behalf of IMRextrev, NPS  
<imrxtrev@nps.gov>  
Sent: Thursday, December 17, 2015 11:28 AM  
To: Lisa Gaston  
Subject: Re: Request for Information Concerning the Solids Handling and  
Effluent reuse Improvements Project for the Village of Cuba  
Wastewater Treatment Plant, Sandoval County, New Mexico

Follow Up Flag: Follow up  
Flag Status: Completed

Dear Ms. Gaston,

The National Park Service (NPS) would like to thank you for the opportunity to be involved in your project. The NPS has reviewed this project and has found no comments at this time. Additionally the National Park Service, Intermountain Regional office is pleased to announce the selection of Sue E. Masica as our new Regional Director.

Regards,

National Park Service  
Intermountain Region External Review Team  
Serving MT, UT, WY, CO, AZ, NM, OK, TX  
imrxtrev@nps.gov

On Thu, Dec 3, 2015 at 4:23 PM, Lisa Gaston <lisa.gaston@soudermiller.com> wrote:  
Re: Request for Information Concerning the Solids Handling and Effluent reuse Improvements Project  
for the Village of Cuba Wastewater Treatment Plant, Sandoval County, New Mexico

Please see attached letter and figures.

Thank you,

Lisa A. Gaston  
Souder, Miller & Associates  
3451 Candelaria Road NE, Suite D  
Albuquerque, NM 87107  
www.soudermiller.com  
(505) 299-0942 (office)  
(505-270-5827 (mobile)

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software, Souder, Miller & Associates does not guarantee that this message or any attachment(s) is free of computer viruses or other harmful software. Souder, Miller & Associates does not accept liability for any damages caused by any computer virus or other harmful software transmitted herewith.

From: david\_hurd@nps.gov [mailto:david\_hurd@nps.gov] On Behalf Of IMRextrev, NPS  
Sent: Monday, November 30, 2015 10:27 AM  
To: Lisa Gaston <lisa.gaston@soudermiller.com>  
Subject: Request for Information Concerning the Solids Handling and Effluent reuse Improvements Project for the Village of Cuba Wastewater Treatment Plant, Sandoval County, New Mexico

To Whom It May Concern:

Our office recently received from you a project for review (Sandoval County, New Mexico). For projects requiring environmental compliance review by the Intermountain Region of the National Park Service in the states of Arizona, Colorado, Montana, New Mexico, Oklahoma, Texas, Utah, or Wyoming, we respectfully request that you do not send hard copy correspondence. Instead, please send electronic correspondence to:

IMRextrev@nps.gov

Using this e-mail address for all external review correspondence will facilitate quicker response times on our part and also help eliminate paper waste. To further expedite this process, please also include the county and state of your project.

We appreciate the opportunity to review and comment on your project, and look forward to your electronic submission before processing this request.

Sincerely,  
National Park Service  
Intermountain Region External Review Team  
Serving MT, UT, WY, CO, AZ, NM, OK, TX  
imrxtrev@nps.gov

## Scott McKitrick

---

**From:** Kowalski, Judy, EMNRD <Judy.Kowalski@state.nm.us>  
**Sent:** Monday, May 23, 2016 5:09 PM  
**To:** Scott McKitrick  
**Subject:** RE: Request for Information - Cuba WWTP Improvements

No we don't have any problems, as far as I can tell. Is that adequate? Most of these types of letters give me a signature line and check off to return by fax.

J

*Judy Kowalski*

Bureau Chief  
Design and Development Bureau  
State Parks Division  
1220 S. St. Francis Dr.  
Santa Fe, NM 87505  
505-476-3387

**From:** Scott McKitrick [mailto:scott.mckitrick@soudermiller.com]  
**Sent:** Monday, May 23, 2016 5:07 PM  
**To:** Kowalski, Judy, EMNRD <Judy.Kowalski@state.nm.us>  
**Subject:** RE: Request for Information - Cuba WWTP Improvements

Ms. Kowalski – this is our standard NEPA consultation letter. We want to know if State Parks has any problems with the proposed project.

Lisa has been in the field, that is why she hasn't responded, sorry about that.

Let me know if you have any other questions. Thanks much.

---

**Scott A. McKitrick, P.G.**  
Senior Geoscientist  
Souder, Miller & Associates  
3451 Candelaria NE, Suite D  
Albuquerque, NM 87107  
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Appendix E3  
FEMA and  
Sandoval County Flood Manager  
Correspondence





November 24, 2015

#6423775

Ms. Myra G. Diaz  
U.S. Department of Homeland Security  
Federal Emergency Management Agency  
Region VI  
800 N. Loop 288  
Denton, TX 76209  
Phone: 940-898-5541  
Fax: 940-898-5195  
mayra.diaz@fema.dhs.gov

**RE: REVISION TO REQUEST FOR INFORMATION CONCERNING THE SOLIDS HANDLING AND EFFLUENT REUSE IMPROVEMENTS PROJECT FOR THE VILLAGE OF CUBA WASTEWATER TREATMENT PLANT, SANDOVAL COUNTY, NEW MEXICO**

Ms. Myra Diaz

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*Ms. Myra Diaz*  
*November 24, 2015*  
*Page 2*

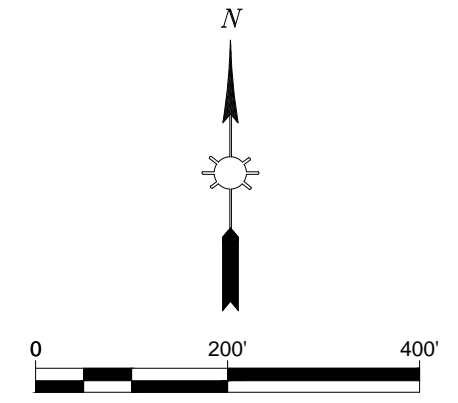
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SMA would appreciate any information or feedback to be provided at your earliest possible convenience. If you need any further information or wish to discuss the project, please feel free to contact me by phone at 877-299-0942, or by email at [lisa.gaston@soudermiller.com](mailto:lisa.gaston@soudermiller.com).

Sincerely,  
**SOUDER, MILLER & ASSOCIATES**

A handwritten signature in blue ink, appearing to read "Lisa A. Gaston".

Lisa A. Gaston  
Staff Geoscientist



**LEGEND**

█ PROJECT AREA

VILLAGE OF CUBA  
WWTP

LAND APPLICATION  
AREA

REVISIONS		
BY	DATE	DESC.

**SMA**  
Engineering • Environmental  
Surveying

**SOUDER, MILLER & ASSOCIATES**  
3451 Candelaria Road NE, Suite D  
Albuquerque, NM 87107

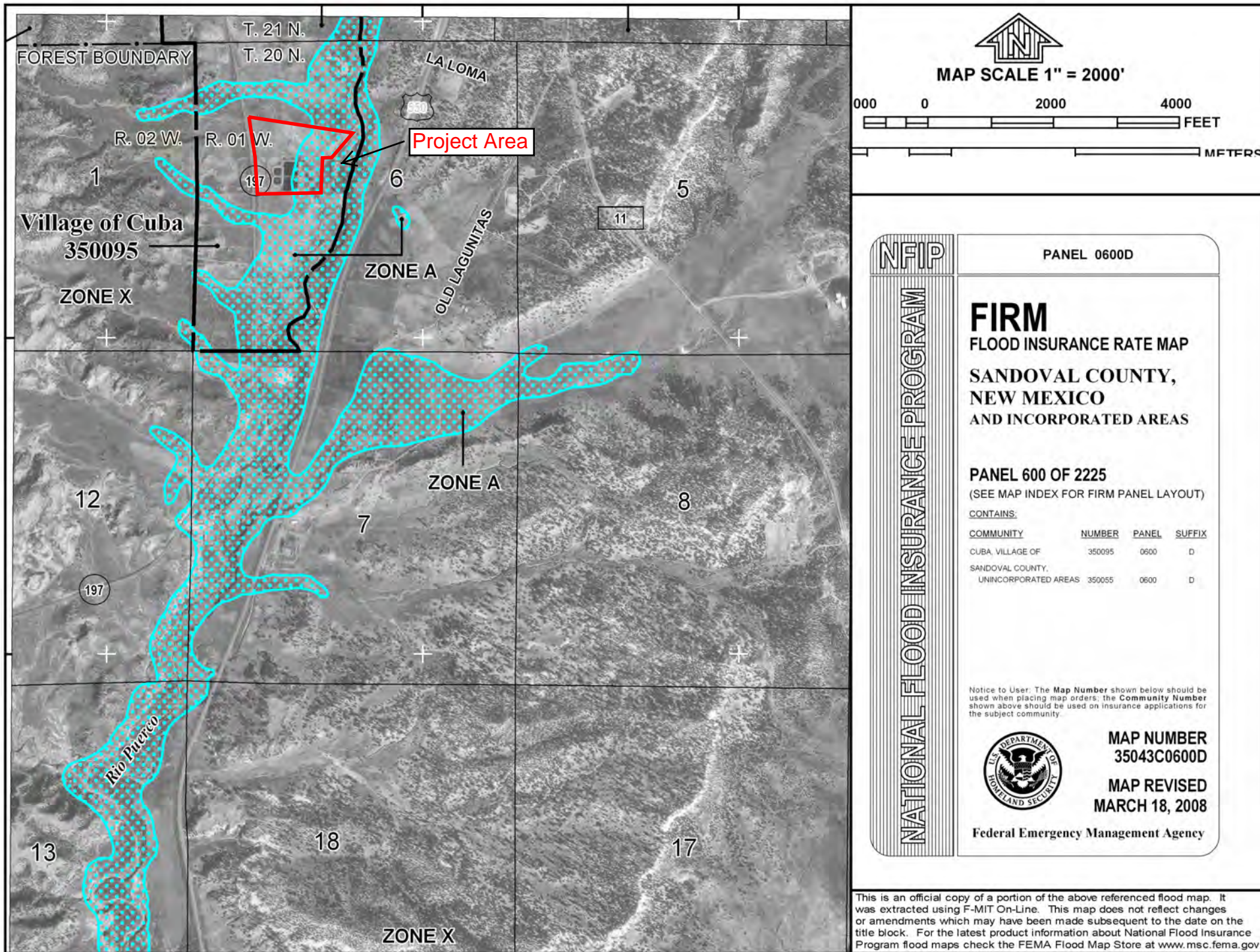
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**VILLAGE OF CUBA SITE MAP**  
**NORTHERN PROPERTY AND WWTP**  
**SANDOVAL COUNTY, NEW MEXICO**

Drawn ARB/JER	Checked JMG	Approved JMG
Date: AUGUST, 2014		
Scale: Horiz: 1"=200 Vert:		
Project No: 48968		
Sheet: <b>FIGURE 1</b>		

Figure 3



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0600D

**FIRM**  
FLOOD INSURANCE RATE MAP  
**SANDOVAL COUNTY,  
NEW MEXICO  
AND INCORPORATED AREAS**

**PANEL 600 OF 2225**  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
CUBA, VILLAGE OF	350095	0600	D
SANDOVAL COUNTY, UNINCORPORATED AREAS	350055	0600	D

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**MAP NUMBER**  
35043C0600D

**MAP REVISED**  
MARCH 18, 2008

Federal Emergency Management Agency

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# LEGEND



**SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**

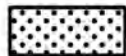
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- ZONE A** No Base Flood Elevations determined.
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**FLOODWAY AREAS IN ZONE AE**

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.



**OTHER FLOOD AREAS**

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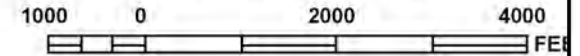


**OTHER AREAS**

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**MAP SCALE 1" = 2000'**



**COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**



**OTHERWISE PROTECTED AREAS (OPAs)**

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
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- CBRS and OPA boundary
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- Cross section line
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- River Mile

**MAP REPOSITORY**  
Refer to listing of Map Repositories on Map Index

**EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP**  
July 16, 1996

**EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL**  
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November 24, 2015

#6423775

Kelly Romero, CFM  
Floodplain Administer  
Sandoval County  
1500 Idalia, Bldg D  
P.O. Box 40  
Bernalillo, NM 87004,  
(505) 867-7651  
(505) 771-7184 (fax)  
[kromero@sandovalcountynm.gov](mailto:kromero@sandovalcountynm.gov)

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*Mr. Kelly Romero*  
*November 24, 2015*  
*Page 2*

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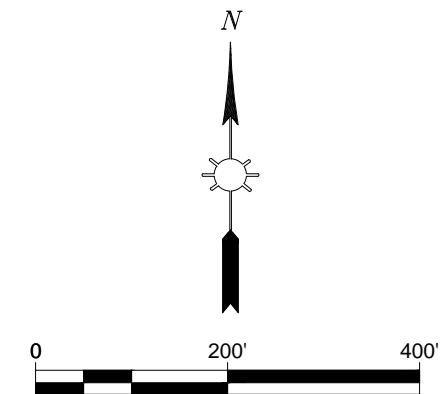
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Lisa A. Gaston  
Staff Geoscientist



**LEGEND**

PROJECT AREA

REVISIONS		
BY	DATE	DESC.

**SOUDER, MILLER & ASSOCIATES**  
 3451 Candelaria Road NE, Suite D  
 Albuquerque, NM 87107

**SMA**  
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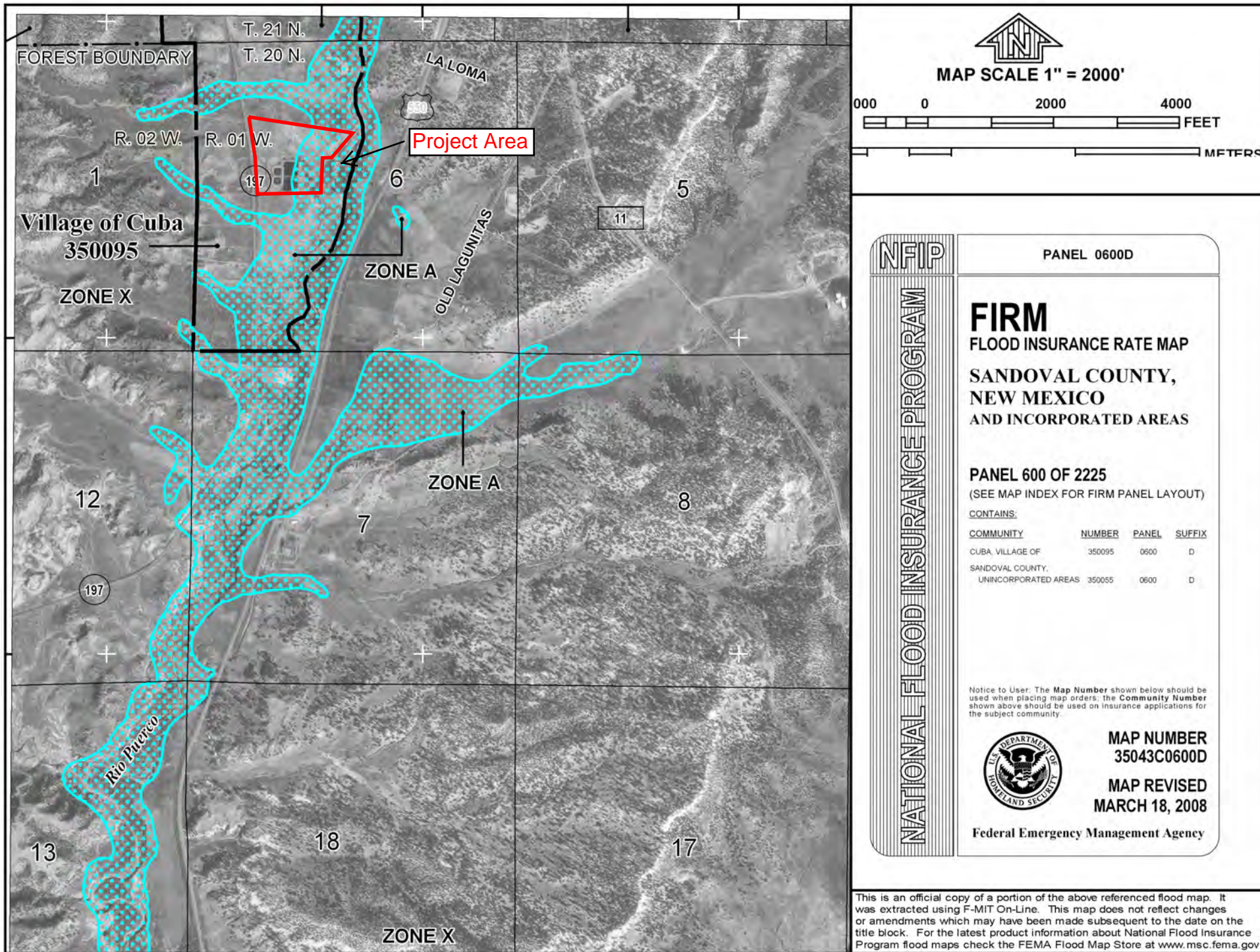
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**VILLAGE OF CUBA SITE MAP**  
**NORTHERN PROPERTY AND WWTP**  
**SANDOVAL COUNTY, NEW MEXICO**

Drawn ARB/JER	Checked JMG	Approved JMG
Date: AUGUST, 2014		
Scale: Horiz: 1"=200 Vert:		
Project No: 48968		
Sheet: <b>FIGURE 1</b>		



Figure 3



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0600D

**FIRM**  
FLOOD INSURANCE RATE MAP


**SANDOVAL COUNTY,  
NEW MEXICO  
AND INCORPORATED AREAS**

**PANEL 600 OF 2225**  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

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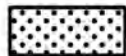
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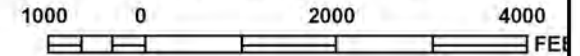


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**FEMA**

FEDERAL EMERGENCY MANAGEMENT AGENCY  
REGION VI  
MITIGATION DIVISION

## NOTICE REVIEW/ENVIRONMENTAL CONSULTATION

---

We have no comments to offer.       We offer the following comments:

**WE WOULD REQUEST THAT THE COMMUNITIES' FLOODPLAIN ADMINISTRATORS BE CONTACTED FOR THE REVIEW AND POSSIBLE PERMIT REQUIREMENTS FOR THIS PROJECT. IF FEDERALLY FUNDED, WE WOULD REQUEST PROJECT TO BE IN COMPLIANCE WITH EO11988 & EO 11990.**

---

REVIEWER:

*Mayra G. Diaz*  
Floodplain Management and Insurance Branch  
Mitigation Division  
(940) 898-5541

DATE: November 24, 2015



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November 13, 2015

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#6423775

Ms. Myra G. Diaz  
U.S. Department of Homeland Security  
Federal Emergency Management Agency  
Region VI  
800 N. Loop 288  
Denton, TX 76209  
Phone: 940-898-5541  
Fax: 940-898-5195  
mayra.diaz@fema.dhs.gov

**RE: REQUEST FOR INFORMATION CONCERNING THE SOLIDS HANDLING AND EFFLUENT REUSE IMPROVEMENTS PROJECT FOR THE VILLAGE OF CUBA WASTEWATER TREATMENT PLANT, SANDOVAL COUNTY, NEW MEXICO**

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From: Brad Stebleton <BStebleton@sandovalcountynm.gov>  
Sent: Wednesday, December 02, 2015 9:29 AM  
To: Lisa Gaston  
Subject: Floodplain Status for Village of Cuba WWTP project

Follow Up Flag: Follow up  
Flag Status: Flagged

From: Brad Stebleton  
Sent: Wednesday, December 02, 2015 9:27 AM  
To: MHatzenbuhler  
Subject: Floodplain Status for Village of Cuba WWTP project

Mark Hatzenbuhler, Mayor  
Village of Cuba  
P.O. Box 426  
Cuba, NM 87013

Dear Mayor Hatzenbuhler,

A review of the applicable FIRM (35043C0600D Effective March 18, 2008) shows that a substantial portion of the area of the above referenced project is located within the Special Flood Hazard Area (Zone A, no base flood elevations determined). However since this project lies entirely within the municipal limits of the Village of Cuba, Sandoval County's Flood Damage Prevention Ordinance does not apply to this project. That Ordinance is only effective within unincorporated areas of the County, therefore our office has no jurisdiction over this project.

To the best of my knowledge the Village of Cuba does not at present participate in the National Flood Insurance Program, although I understand that the Village is now working toward joining the NFIP in the future.

If you have any further questions concerning this matter, please do not hesitate to contact me.

Sincerely,

Brad Stebleton, CFM  
Sandoval County Floodplain Manager

Appendix E4  
United States Army  
Corps of Engineers Correspondence



November 24, 2015

#6423775

Mr. Chris Parrish  
Senior Regulatory Project Manager/Archaeologist  
Albuquerque District  
U.S. Army Corps of Engineers  
4101 Jefferson Plaza NE  
Albuquerque, New Mexico 87109-3435  
505.342.3374  
Fax: 505.344.1415

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*Mr. Chris Parrish*  
*November 24, 2015*  
*Page 2*

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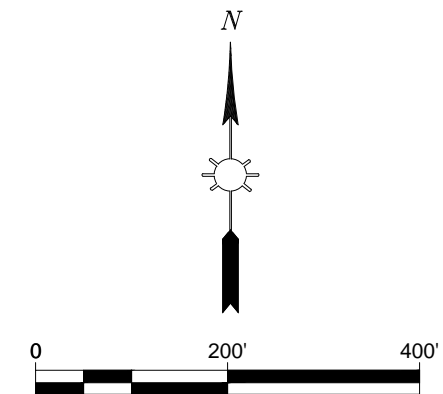
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Lisa A. Gaston  
Staff Geoscientist





**LEGEND**

█ PROJECT AREA

REVISIONS		
BY	DATE	DESC.

**SOUDER, MILLER & ASSOCIATES**

3451 Candelaria Road NE, Suite D  
Albuquerque, NM 87107

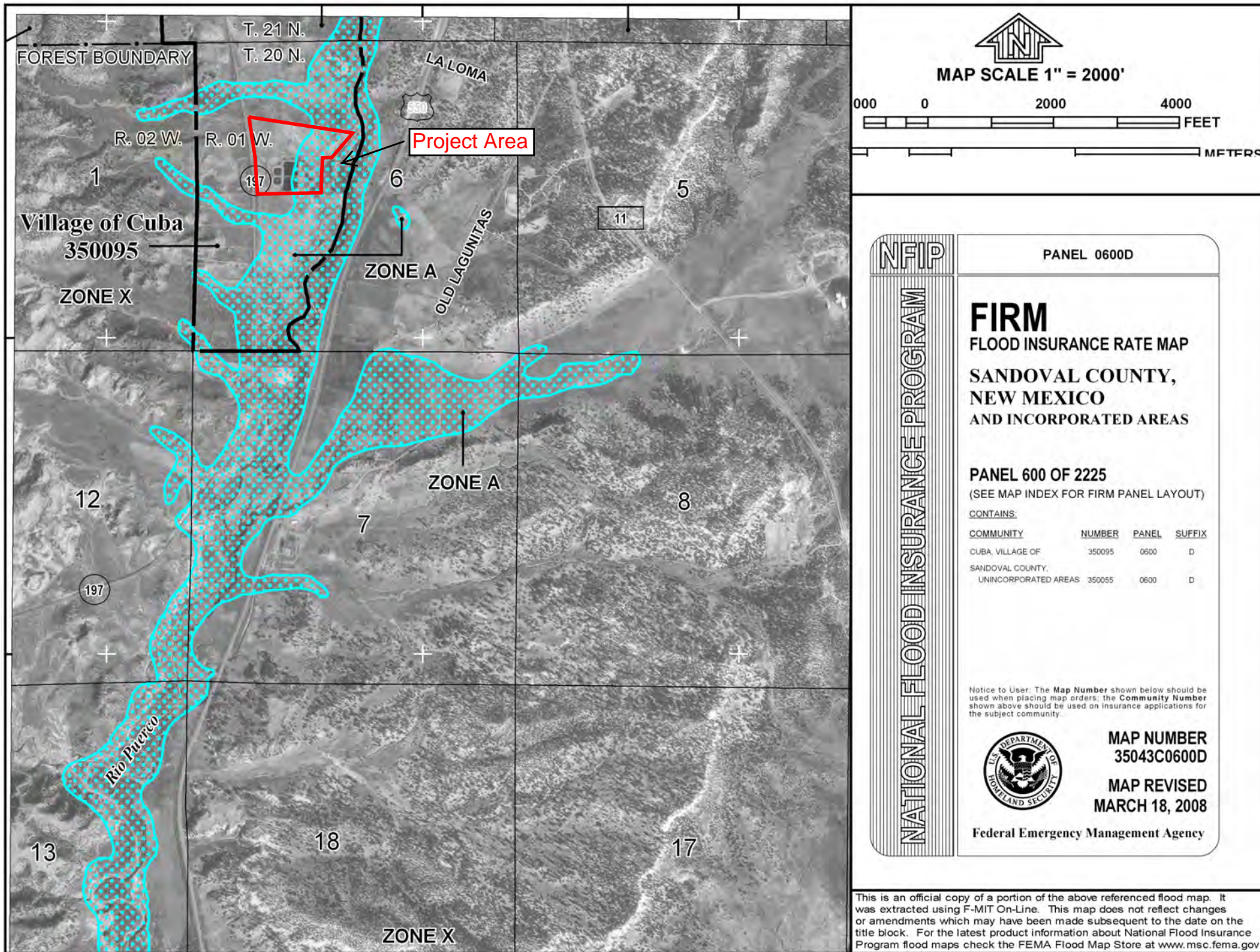
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**VILLAGE OF CUBA SITE MAP**  
**NORTHERN PROPERTY AND WWTP**  
**SANDOVAL COUNTY, NEW MEXICO**

Drawn ARB/JER	Checked JMG	Approved JMG
Date: AUGUST, 2014		
Scale: Horiz: 1"=200 Vert:		
Project No: 48968		
Sheet: <b>FIGURE 1</b>		

Figure 3



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0600D

**FIRM**  
FLOOD INSURANCE RATE MAP


**SANDOVAL COUNTY,  
NEW MEXICO  
AND INCORPORATED AREAS**

**PANEL 600 OF 2225**  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
CUBA, VILLAGE OF	350095	0600	D
SANDOVAL COUNTY, UNINCORPORATED AREAS	350055	0600	D

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.



**MAP NUMBER**  
35043C0600D

**MAP REVISED**  
MARCH 18, 2008

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)

# LEGEND



**SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**

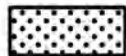
The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A** No Base Flood Elevations determined.
- ZONE AE** Base Flood Elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.



**FLOODWAY AREAS IN ZONE AE**

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.



**OTHER FLOOD AREAS**

- ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

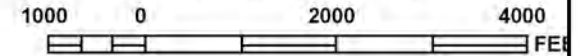


**OTHER AREAS**

- ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D** Areas in which flood hazards are undetermined, but possible.



**MAP SCALE 1" = 2000'**



**COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**



**OTHERWISE PROTECTED AREAS (OPAs)**

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- Base Flood Elevation line and value; elevation in feet\*
- Base Flood Elevation value where uniform within zone; elevation in feet\*

\* Referenced to the North American Vertical Datum of 1988

- Cross section line
- Transect line
- Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 1000-meter Universal Transverse Mercator grid values, zone 13
- 5000-foot grid ticks: New Mexico State Plane coordinate system, Central zone (FIPSZONE 3002), Transverse Mercator projection
- Bench mark (see explanation in Notes to Users section of this FIRM panel)
- River Mile

**MAP REPOSITORY**  
Refer to listing of Map Repositories on Map Index

**EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP**  
July 16, 1996

**EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL**  
March 18, 2008 - to update map format.

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)

From: Parrish, Christopher M SPA <Christopher.M.Parrish@usace.army.mil>  
Sent: Monday, November 30, 2015 8:13 AM  
To: Lisa Gaston  
Subject: Request for Information Concerning the Solids Handling and Effluent Reuse Improvements Project for the Village of Cuba Wastewater Treatment Plant, Sandoval County, New Mexico

Follow Up Flag: Follow up  
Flag Status: Flagged

Good morning Lisa,

I received your voicemail from last week regarding the above-referenced and associated missing figure(s). According to your the letter dated November 13, 2015: "No arroyos are anticipated to be crossed or disturbed by the proposed projects." If that statement also includes the Rio Puerco and any adjacent wetlands, then a Department of the Army permit under Section 404 of the Clean Water Act will not be required. However, if the scope of work changes such that a discharge of dredged or fill material into jurisdictional waters will occur as part of project-related activities, you (or the project proponent) will need to contact our office for a re-evaluation of permitting requirements.

Let me know if you have any questions.

cp

Chris M. Parrish  
U.S. Army Corps of Engineers  
Albuquerque District  
Senior Regulatory Project Manager/Archaeologist  
4101 Jefferson Plaza, NE  
Albuquerque, NM 87109  
Office: 505.342.3374  
Fax: 505.344.1415

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[http://corpsmapu.usace.army.mil/cm\\_apex/f?p=136:4:0](http://corpsmapu.usace.army.mil/cm_apex/f?p=136:4:0)

For more information about the Regulatory Program please visit:  
<http://www.spa.usace.army.mil/Missions/RegulatoryProgramandPermits.aspx>

# Appendix E5

## Cultural Resource Inventory

***A Cultural Resources Inventory in Support of Expansion of the Cuba  
Wastewater Treatment Plant, Lagunitas, Sandoval County,  
New Mexico***

By  
Stephen Townsend

Prepared for:

Scott A. McKittrick, P.G., Senior Geoscientist  
Souder, Miller & Associates  
3451 Candelaria NE, Suite D  
Albuquerque, NM 87107  
www.soudermiller.com  
505.299.0942 (office)  
505.220.6542 (mobile)  
505.293.3430 (fax)

\*  
The Village of Cuba

\*  
The NM State Historic Preservation Office  
407 Galisteo Street, Ste. 236  
Santa Fe, NM 87501

**NMCRIS Project/Activity Number 135330**

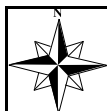
Submitted by  
Stephen Townsend, Principal Investigator  
Townsend Archaeological Consultants  
PO Box 2501  
Las Vegas, NM 87701

NM State Blanket Archaeological Survey Permit  
NM-16-088-S

Report 2015-19

March 20, 2016

***Specializing in Northeast & North Central New Mexico***  
**Townsend Archaeological Consultants (505) 425-5561**



NMCRIS No.: 135330

## NMCRIS INVESTIGATION ABSTRACT FORM (NIAF)

<b>1. NMCRIS Activity No.:</b>  135330	<b>2a. Lead Agency:</b> Village of Cuba	<b>2b. Other Agency(ies):</b>	<b>3. Lead Agency Report No.:</b>
--	--	-------------------------------	-----------------------------------

<b>4. Title of Report:</b> A Cultural Resources Inventory in Support of Expansion of the Cuba Wastewater Treatment Plant, Lagunitas, Sandoval County, New Mexico  <b>Author(s)</b> Townsend, Stephen	<b>5. Type of Report</b> <input type="checkbox"/> Negative <input checked="" type="checkbox"/> Positive
--	---

**6. Investigation Type**

Research Design     Archaeological Survey/Inventory     Architectural Survey/Inventory     Test Excavation     Excavation  
 Collections/Non-Field Study     Compliance Decision Based on Previous Inventory     Overview/Lit Review     Monitoring  
 Ethnographic Study     Site/Property Specific Visit     Historic Structures Report     Other

**7. Description of Undertaking (what does the project entail?):**

The Village of Cuba is proposing expansion of the municipal wastewater treatment facility at Lagunitas. Specifics of the expansion were not provided. However, it is assumed the expansion, possibly incremental, will result in ground-disturbing activities. Because federal and state funds may be used in the expansion, cultural resource clearance is mandated under existing federal and state regulations.

[ ] Continuation

<b>8. Dates of Investigation:</b> from: 29-Feb-2016    to: 29-Feb-2016	<b>9. Report Date:</b> 13-Mar-2016
--	------------------------------------

**10. Performing Agency/Consultant:** Townsend Archaeological Consultants

**Principal Investigator:** Stephen Townsend

**Field Supervisor:** Stephen Townsend

**Field Personnel Names:** Stephen Townsend

**Historian / Other:** Stephen Townsend

**11. Performing Agency/Consultant Report No.:**  
2015-19

**12. Applicable Cultural Resource Permit No(s):**  
NM-16-088-S

**NMCRIS No.: 135330**

**13. Client/Customer (project proponent):**

Souder, Miller & Associates

**Contact:** Mr. Scott McKittrick, P.G.

**Address:** 3451 Candelaria NE, Suite D, Albuquerque, NM 87107

**Phone:** 505.299.0942

**14. Client/Customer Project No.:**

**15. Land Ownership Status (must be indicated on project map):**

**Land Owner (By Agency)**

**Acres Surveyed Acres in APE**

Private Individual (see records for name)	17.75	17.75
<b>TOTALS</b>	17.75	17.75

**16. Records Search(es):**

Date(s) of HPD/ARMS File Review: 12/30/2015	Name of Reviewer(s): S. Townsend	
Date(s) of Other Agency File Review:	Name of Reviewer(s):	Agency:

**17. Survey Data:**

**a. Source Graphics** [ ] NAD 27 [X] NAD 83 **Note: NAD 83 is the NMCRIS standard.**

USGS 7.5' (1:24,000) topo map  Other topo map, Scale:

GPS Unit Accuracy  <1.0m  1-10m  10-100m  >100m  Aerial Photo(s)

**Other Source Graphic(s):**

**b. USGS 7.5' Topographic Map Name**

**USGS Quad Code**

San Pablo, NM	35106-H8
---------------	----------

**c. County(ies):** SANDOVAL

**d. Nearest City or Town:** Cuba

**e. Legal Description:**

**Township (N/S)**

**Range (E/W)**

**Section**

20N	1W	6
-----	----	---

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

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

The project is specifically within T20N, R1W, section 6 (NW quarter) as depicted on the USGS San Pablo quad map. The southeast coner was extrapolated due to the fact that it appears to be in deep alluvial adjacent to, or within the Rio Puerco drainage. As captured on the ground the proeprty can be defined as within the following UTM coordinates (CONUS/NAD 83): SW corner: 13 E 320867, N 3985131, NW corner: 13 E 320844, N 3985289, NE corner: 13 E 321390, N 3985201, SE corner: 13 E 321331, N 3985074.

[ ] Continuation

**18. Survey Field Methods:**

**Intensity:**  100% coverage  <100% coverage

**Configuration:**  block survey units  linear survey units (l x w):



**NMCRIS No.: 135330**

other survey units (specify):

**Scope:**  non-selective (all sites/properties recorded)  selective/thematic (selected sites/properties recorded)

**Coverage Method:**  systematic pedestrian coverage

other method (describe):

**Survey Interval (m):** 15      **Crew Size:** 1      **Fieldwork Dates:** from: 29-Feb-2016      to: 29-Feb-2016

**Survey Person Hours:** 3.00      **Recording Person Hours:** 0.50      **Total Hours:** 3.50

**Additional Narrative:**

The parcel was walked in a series of compass and GPS-controlled parallel transects spaced at no greater than 15-meter intervals. A photographic log, field notes and sketches were maintained. GPS waypoint data was also captured. Photographic work was completed with a Panasonic FD-X 16 megapixel digital camera with a Leica lens. GPS data was captured with a Garmin GPS 76 Csx global positioning system. The isolates were measured and described in notes. The site was mapped via tape and pace, and GPS waypoint data was compiled. A metal tag marked 2016-19-01 was wired to the plant at the datum point.

[ ] Continuation

---

**19. Environmental Setting (NRCS soil designation; vegetative community; elevation; etc.):**

Located between 6789 and 6839' of elevation, the project area constitutes an alluvial fan formation, east of the Mesa de Cuba and west of the Rio Puerco drainage. The parcel has an easterly aspect, but is generally flat. In this area a number of unnamed ephemeral drainages flow in an easterly direction, from the Mesa de Cuba, and east into the Rio Puerco. One such structure has cut a deep channel across the east side of the property, effectively separating the Rio Puerco floodplain from the bulk of the parcel. At this time of year the ebbing and flowing of the Rio Puerco has created a deep alluvial floodplain that is heavily populated with willows. The floodplain is shifting. As a result the property fencelines run directly into the river itself, with no eastern property boundary being recognizable. In its natural state this location consists of plain-mesa grassland and montane riparian plant communities (Dick-Peddie 1993). Geologically the area exhibits sedimentary sandstone formations on the exposure of nearby ridges, mesas and escarpments.

[ ] Continuation

---

**20.a. Percent Ground Visibility:** 70-85%      **b. Condition of Survey Area (grazed, bladed, undistributed, etc.):**

A drainage has cut deeply into the east side of the property. Attempts at arresting downcutting within this feature were made through the deposition of concrete rubble, building materials and large appliances such as stoves and refrigerators. The property is entirely fenced. Fencelines exhibit adjacent two-track roads from vehicular movement. The center-south of the property exhibits water ponding, especially directly along the south fenceline. The vegetative cover on the property suggests long-term use for the grazing of livestock. Horse droppings were noted within the parcel. It is possible the parcel was also farmed.

[ ] Continuation

---

**21. CULTURAL RESOURCE FINDINGS**       **Yes, see next report section**       **No, discuss why:**

[ ] Continuation

---

**22. Attachments (check all appropriate boxes):**

USGS 7.5 Topographic Map with sites, isolates, and survey area clearly drawn (required)

Copy of NMCRIS Map Check (required)

LA Site Forms - new sites (with sketch map & topographic map) if applicable

[ ] LA Site Forms (update) - previously recorded & un-relocated sites (first 2 pages minimum)

[ ] Historic Cultural Property Inventory Forms, if applicable

List and Description of Isolates, if applicable

[ ] List and Description of Collections, if applicable

---

**23. Other Attachments:**

[ ] Photographs and Log

[ ] Other Attachments (Describe):

NMCRIS No.: 135330

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

Principal Investigator/Qualified Supervisor: Printed Name: Stephen Townsend

Signature: Date: 3/20/2016 Title: Principal Investigator

25. Reviewing Agency

Reviewer's Name/Date:

Accepted [ ]

Rejected [ ]

26. SHPO

Reviewer's Name/Date:

HPD Log #:

Date sent to ARMS:

CULTURAL RESOURCE FINDINGS

[fill in appropriate section(s)]

SURVEY RESULTS:

Archaeological Sites discovered and registered: 1

Archaeological Sites discovered and NOT registered: 0

Previously recorded archaeological sites revisited (site update form required): 0

Previously recorded archaeological sites not relocated (site update form required): 0

TOTAL ARCHAEOLOGICAL SITES (visited & recorded): 1

Total isolates recorded: 12

Non-selective isolate recording?

HCPI properties discovered and registered: 0

HCPI properties discovered and NOT registered: 0

Previously recorded HCPI properties revisited: 0

Previously recorded HCPI properties not relocated: 0

TOTAL HCPI PROPERTIES (visited & recorded, including acequias): 0

MANAGEMENT SUMMARY:

The isolates are of limited data potential. It is recommended the isolated occurrences be removed from additional management considerations. LA 184469 is a small historic artifact scatter with two aboriginal artifacts. The site is also of limited data potential. It is recommended LA 184469 has no additional data potential. The site is recommended not eligible to the NRHP. Provided the consulting parties agree with the recommendations of this report, there is no need for additional cultural resources management. Provided the consulting parties agree with the findings of this investigation, cultural resource clearance is recommended for the proposed expansion of the Cuba wastewater treatment plant with a finding of no effect to significant cultural resources.

[ ] Continuation

SURVEY LA/HCPI NUMBER LOG

Sites/Properties Discovered:

LA/HCPI No.	Field/Agency No.	Eligible? (Y/N/U, applicable criteria)
LA184469	Cuba WWTP-2016-01	NE

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## **Abstract**

At the request of Mr. Scott A. McKittrick, P.G., Senior Geoscientist, Souder, Miller and Associates (505) 299-0942, Stephen Townsend of Townsend Archaeological Consultants, (505) 425-5561, completed an inventory of a 17.75-acre (7.19-hectare) parcel proposed for expansion of the Cuba wastewater treatment plant. The inventory took place on February 29, 2016. The funding for the proposed upgrades will derive from a variety of sources, including the USDA-Rural Utilities Service, and the Clean water Fund. Therefore, both the proposed expansion falls under the authority of the NM Cultural Properties Act and the National Historic Preservation Act. For consultation purposes, the Village of Cuba is the lead agency.

The inventory resulted in the identification of 12 isolated occurrences of cultural material and previously unrecorded archaeological site LA 184469. The isolates are of limited data potential. It is recommended the isolated occurrences be removed from additional management considerations. LA 184469 is a small historic artifact scatter m with two aboriginal artifacts. The site is of limited data potential. It is recommended that site LA 184469 has no additional data potential. Site LA 184469 is recommended not eligible to the National Register of Historic Places (NRHP).

Provided the consulting parties agree with the findings of this investigation, cultural resource clearance is recommended for the proposed expansion of the Cuba wastewater treatment plant with a finding of no effect to significant cultural resources..

### **Introduction**

At the request of Mr. Scott A. McKittrick, P.G., Senior Geoscientist, Souder, Miller and Associates (505) 299-0942, Stephen Townsend of Townsend Archaeological Consultants, (505) 425-5561, completed an inventory of a 17.75-acre (7.19-hectare) parcel proposed for expansion of the Cuba wastewater treatment plant. The inventory took place on February 29, 2016. The funding for the proposed upgrades will derive from a variety of sources, including the USDA-Rural Utilities Service, and the Clean water Fund. Therefore, both the proposed expansion falls under the authority of the NM Cultural Properties Act and the National Historic Preservation Act. For consultation purposes, the Village of Cuba is the lead agency.

The inventory resulted in the identification of 12 isolated occurrences of cultural material and previously unrecorded archaeological site LA 184469. The isolates are of limited data potential. It is recommended the isolated occurrences be removed from additional management considerations. LA 184469 is a small historic artifact scatter m with two aboriginal artifacts. The site is of limited data potential. It is recommended that site LA 184469 has no additional data potential. Site LA 184469 is recommended not eligible to the National Register of Historic Places (NRHP).

Provided the consulting parties agree with the findings of this investigation, cultural resource clearance is recommended for the proposed expansion of the Cuba wastewater treatment plant with a finding of no effect to significant cultural resources.

### **Project Description**

The Village of Cuba is proposing expansion of the municipal wastewater treatment facility at Lagunitas. Specifics of the expansion were not provided. However, it is assumed the expansion, possibly incremental, will result in ground-disturbing activities. Because federal and state funds may be used in the expansion, cultural resource clearance is mandated under existing federal and state regulations.

### **Project Location**

Located a short distance south of the Village of Cuba, the project parcel is immediately north of the existing Cuba wastewater facility; east of NM 197, and west of the Rio Puerco (figure 1). The project is specifically within T20N, R1W, section 6 (NW quarter) as depicted on the USGS San Pablo quad map. The property is fenced except on its east boundary, which is within the Rio Puerco drainage. Three corners of the parcel were decarcated with posts. The southeast coner was extrapolated due to the fact that it appears to be in deep alluvium adjacent to, or within the Rio Puerco drainage. As captured on the ground the proeprty can be defined as within the following UTM coordinates (CONUS/NAD 83): SW corner: 13 E 320867, N 3985131, NW corner: 13 E 320844, N 3985289, NE corner: 13 E 321390, N 3985201, SE corner: 13 E 321331, N 3985074.

### **Pre-existing Landscape Modifications**

A number of natural and cultural effects are notable on the project parcel. Being adjacent to the Rio Puerco, the parel is subject to the ebb and flow of the drainage. The anceint floodplain of the Rio Puerco can be seen as a relatively high, stabilized cutbank along the east side of the property. East of this bank, a small section of more recent, and stable floodplain can be found. This

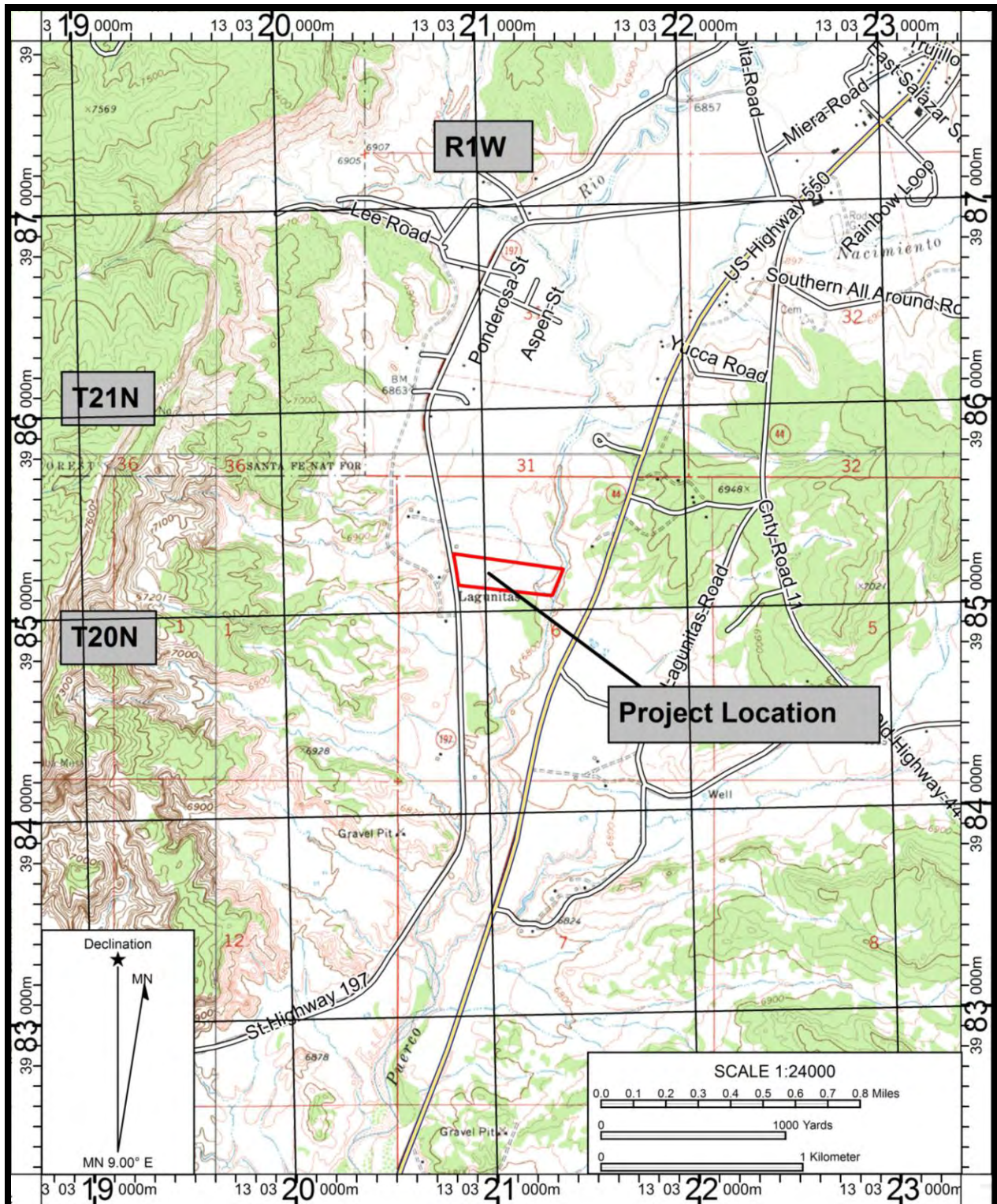


Figure 1: Project Location-USGS San Pablo Quad Map 35106-H8 (1970)

structure supports an active riparian plant community, within shifting sediments bordering the flowing channel of the Rio Puerco. The property has an eastern exposure. While the gradient is gentle, ephemeral drainages flowing from the Mesa de Cuba to the west, cross the area in an



**Figure 2: Stabilizing Concrete Rubble on Arroyo Cut-View North**



**Figure 3: Recent Construction Debris & Appliances Used for Bank Stabilization-View Northwest**  
easterly flow toward the Rio Puerco. One such drainage has cut deeply into the east side of the property, west of the aforementioned cutbank. Attempts at arresting downcutting within this

feature were made through the deposition of concrete rubble, building materials and large appliances, such as stoves and refrigerators. The property is largely fenced, and the fencelines exhibit adjacent two-track roads in some areas. The center-south of the property exhibits water ponding, especially along the south fenceline. The vegetative cover on the property suggests long-term use for the grazing of livestock. Horse droppings were noted within the parcel. It is possible the parcel was also farmed, although this would have been through passive irrigation, since no acequias or irrigation channels were found on, or adjacent to the property.

#### **Environmental Summary**

Located between 6789 and 6839' of elevation, the project area constitutes an alluvial fan formation, east of the Mesa de Cuba and west of the Rio Puerco drainage. The parcel has an easterly aspect, but is generally flat. Located within the Rio Puerco floodplain, the area is largely grassland, which has been farmed for hundreds of years. At this time of year the ebbing and flowing of the Rio Puerco has created a deep alluvial floodplain that is heavily populated with willows. The floodplain is shifting. As a result the property fencelines run directly into the river itself, with no eastern property boundary being recognizable. In its natural state this location is covered with plain-mesa grassland and montane riparian plant communities (Dick-Peddie 1993). Geologically the area exhibits sedimentary sandstone formations on the exposure of nearby ridges, mesas and escarpments.



**Figure 4: Silt-laden Riparian Plant Community along the East Project Margin**





**Figure 5: Stabilized Floodplain East of Old Rio Puerco Channel Cutbank-View Northeast**



**Figure 6: Typical Grassland-Scrubland on Project Parcel-View Northwest**

The bulk of the project parcel is classified as containing soils of the Fruitland-Slickspot association, with Christianburg clay and Gullied land along the Rio Puerco (Natural Resource

Conservation Service 2016). Soils of the Christianburg clay and Gullied land are considered to be recent alluvium, as can be attested to by the dynamic conditions existing along the east side of the subject parcel. Fruitland-Slickspot soils are “mixed alluvium and/or residuum weathered from igneous and sedimentary rock” (ibid). These are well-drained soils that are typical of alluvial flats. The two associations are suggestive of an environment that has 10-15” of mean annual precipitation, a mean annual air temperature of 45-50 degrees F, and a frost-free period of 100-140 days duration (ibid).

Occupying the eastern margin of the San Juan Basin, and the west flank of the Jemez Mountains, the general area contains such striking geological features as the badlands of Mesa de Cuba, and Cabezon Peak. The geology of the area is both volcanic and sedimentary. To the west lie the San Juan Tablelands and Mesa, while to the east can be found the Crystalline Mid-level Forests. Fassett (1974) places the project area within the Nacimiento Formation, overlying Ojo Alamo sandstone. Ojo Alamo sandstone of Paleocene age is the basal Tertiary unit of the eastern San Juan Basin (ibid:228). The unconformity at the base of the Ojo Alamo seems to be present throughout the basin and truncates progressively older rocks from west to east indicating a regional tilting and uplift of the entire basin area prior to Ojo Alamo deposition (ibid). The Nacimiento Formation conformably overlies the Ojo Alamo in the southern two-thirds of the San Juan Basin (ibid:229). The Nacimiento is made up of black and gray shale with occasional channel sandstone beds (ibid). The basal contact of the Nacimiento...is one of intertonguing with the underlying Ojo Alamo (ibid).

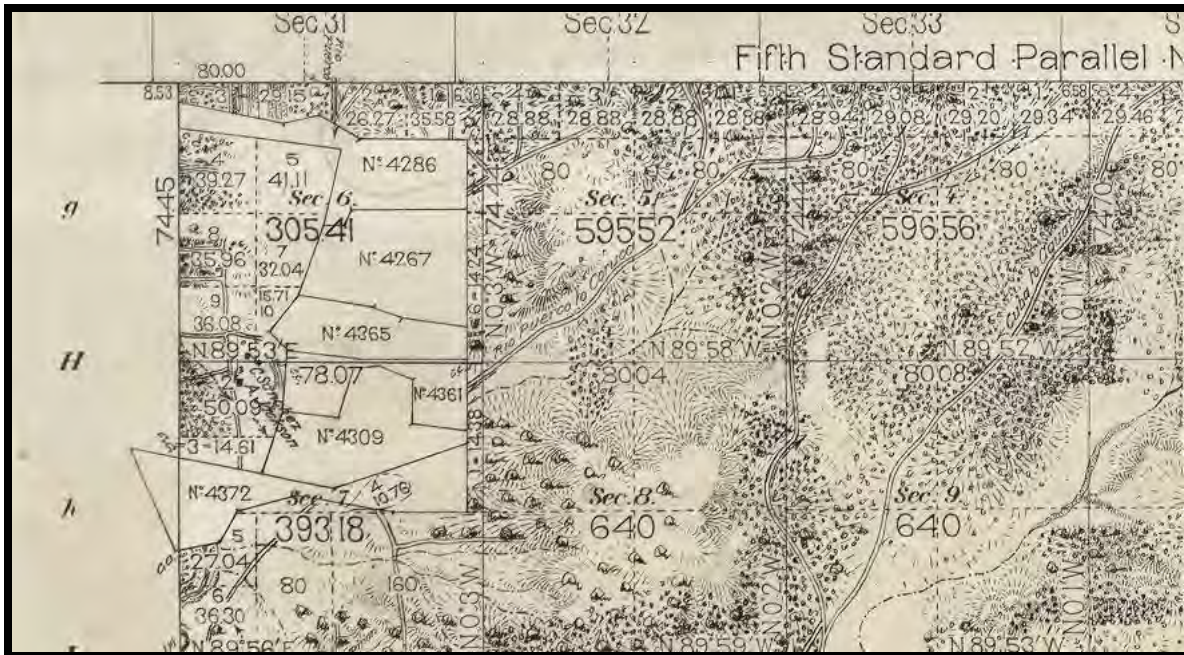
The project area is largely devoid of overstory vegetation. Along the Rio Puerco there is a thick stand of willow, and occasional Siberian elms. A few one-seed junipers are also present in that area. The majority of the property has a mid-level growth of rabbit brush, snakeweed and occasional sage, while the understory consists of threeawn, wheatgrass and sparse grama.

#### **Culture History**

Cuba, New Mexico, originally known as Nacimiento, was first settled in 1769 (Cordova-May 2011). At the time, the settlement was on the far northern periphery of Spanish Colonial colonization in New Mexico. The isolation and the maintenance of local culture was maintained in this area until after WWII (ibid).

Hispanic settlement of the area was by means the initial occupation of the area. Archaeological research has placed the location within the Largo-Gallina culture area of the Anasazi. The Gallina branch of the Anasazi, with their unique towers, and defensive building sites, represented a movement of Puebloan people out of the Navajo Reservoir area that is generally accepted as lasting between the mid-eleventh and mid-to-late thirteenth centuries. This was no means the only aboriginal occupation of the fertile Puerco River Valley. Proximity to the Jemez Mountains, and the valley bottoms attracted Athabaskan people, later identified by the Spanish, as *Apache de Nabajo*, by possibly as early as the fifteenth century. Earlier in time the area was utilized by Archaic people, a transient and nomadic culture, who moved across the area between 5500 BC and the early years of the common era. Earlier still, Paleo-Indians frequented the area, although to what degree is a matter of ongoing study. Only isolated evidence of aboriginal use of the project area was found during this study. The bulk of the evidence points to a late nineteenth to mid-twentieth century occupation. This occupation is presumed to be Hispanic, due to the settlement of the area by Spanish-speaking people, for over 200-years

The nullification of the San Joaquin del Nacimiento Grant by the Court of Private Land Claims occurred at a time when mining was increasing in importance in the area. As might be expected the mining activity led to an influx of outsiders. This placed long-term patterns of settlement and subsistence in jeopardy, while creating an atmosphere in which long-held lands, farmed for countless generations, was threatened. Therefore it is understandable why the Cuba area and



**Figure 7: Section of Original Survey Plat of T20N, R1W, Commenced 5/21/1906, Approved 1910 (Bureau of Land Management 2016)**

other areas in northern New Mexico were subject to a run on homesteading by local Hispanic families in the late nineteenth and early twentieth centuries. In fact, the terms of approval of a homestead patent could be met by families that in some cases might have held the land in question for a long time, and had already made the necessary improvements that would allow for the perfection of the application, and receipt of title from the US government. While this might have seemed to create some degree of security in the new land holdings, it also entailed the necessity of paying property taxes, which, to a culture based on subsistence farming and shepherding, in many cases led to land forfeiture.

Mining interests in the area included extraction of copper in the mountains east of Cuba in the 1880s, and of coal near La Ventana (Cordova-May 2011). This, coupled with the creation of the Jemez Forest Reserve in 1905, removed much of what was considered to be common land from use by the Hispanic residents of the area. World War II led to the depopulation of such areas, with many people relocating to parts of the United States where manufacturing jobs, in support of the war effort could be obtained.

Cuba was always a small community, which until the 1920s, was not accessible by dependable roads. The 1918 NM state Highway road map showed proposed roads through the area. By 1930 NM 44 existed. Notably, coal fields were also displayed on the map, suggesting mining may have driven the need for transportation access into the area.

Hibben (1948) was the first to identify the Gallina phase of the Anasazi. This was based on field investigations in the 1930s, which were interrupted by WWII. Named for the Gallina drainage, Hibben defined a large geographic area for the manifestation, which subsequent investigation has refined. The Gallina were relatively widespread, with heavy settlement in locations such as the Rattlesnake Ridge community on Ghost Ranch, near Abiquiu., They typically utilized ridges and defensible locations, where they constructed pithouses, unit pueblos and tower structures. These Puebloan farmers were active within the area between approximately 1050 and 1275 AD. It is likely they then began a movement into the Rio Chama area, and coalesced into the large pueblo communities of El Rito Creek and the Rio Chama, in which extensive grid garden farming and major population expansion characterized the terminal Classic period of the Anasazi, within 100-years of the Spanish entrada.



**Figure 8: Plat of Small Holding Claims in Sections 6 & 7, Joseph F. Thomas Survey 2/15/1907 (Bureau of Land Management 2016)**

years of the Spanish entrada. A degree of mystery surrounds the Gallina, as they appeared to spearhead a large-scale population movement out of the Chaco Canyon area. However their propensity to defensive site construction suggests they were in constant fear of attack. The apparent demise of the culture, and its evolution into modern-day Pueblo people, may have been tied to the Great Drought at the end of the thirteenth century. The isolation of the Gallina culture area has to some degree been debunked by a growing body of research that demonstrates

ongoing trade relations with San Juan drainage. Also, while there is ample evidence of violence within the Gallina culture area, there is question as to whether this was due to external agents, or over a paucity of resources that pitted neighbor against neighbor (Borck 2012).

Fast-forwarding to the Spanish entrada, it can be seen that movement into the area was late in the Spanish Colonial period. According to Bowden (2006) the San Joaquin del Nacimiento Grant was petitioned for by “Joaquin de Luna, for himself and on behalf of thirty five associates” (ibid). He applied for a grant covering a tract of land situated upon the headwaters of the Rio Puerco and known as San Joaquin del Nacimiento (possibly Nacimiento Arroyo). The petition pointed out that the thirty-six petitioners had settled upon the tract three years previously and had resided upon and used the lands ever since (ibid). The grant was immediately approved, and was seen as an important buffer for the Rio Grande corridor from Utes and Navajos, who raided with impunity, well into the nineteenth century. In fact, both Spanish and Mexican governance was largely ineffective in stopping the raiding, which was finally halted by the US government in the mid-nineteenth century.

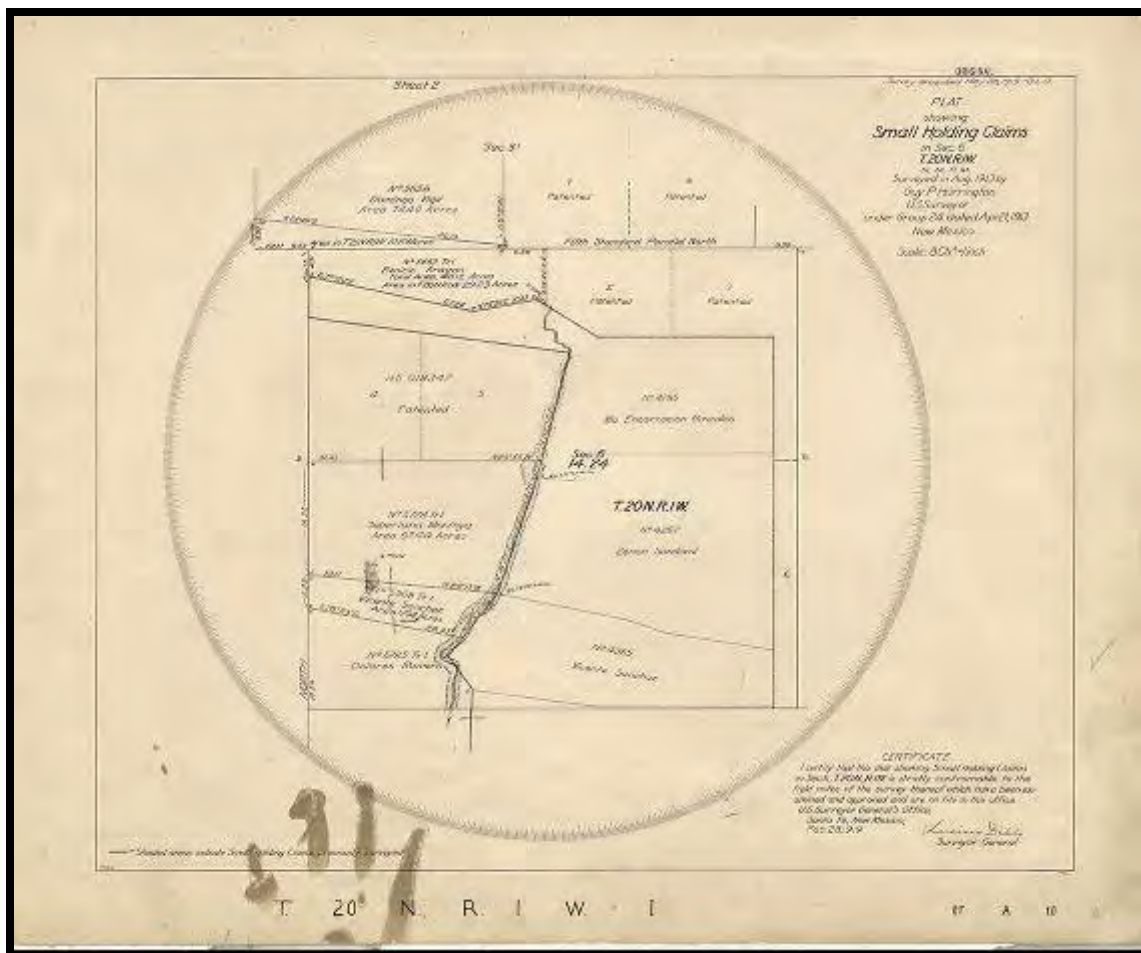


Figure 9: Plat of Small Holding Claims within Section 6, 5/25/1913 Guy P. Harrington Survey (Bureau of Land Management 2016)

It was the effects of the raiding that led to the US Court of Private land claims disavowing the legitimacy of the San Joaquin del Nacimiento Grant. Soon after of the establishment of the grant

**The grantees continuously occupied and used the grant for about “a generation.” However, the settlement was ... finally overpowered by the combined frontier Indian tribes, their men bound with cords and imprisoned, and their women subjected to the most brutal of savage insults and violence, and many of the children carried into captivity. Whereupon, the settlement was abandoned, but the owners of the grant continued to use it as a pasturage for their livestock (ibid).**

In 1871 the heirs of the original settlers petitioned US Court of Private Land Claims for ownership of the grant under US governance. They were ultimately denied, due to the fact that the grant had not been continuously occupied. However this did not take place immediately, or without controversy. A draft opinion drafted by Surveyor General T. Rush Spencer indicated his opinion that the grant was legal. “His successor, James K. Proudfit decided to re-examine the claim. In an opinion dated November 30, 1872 Proudfit stated that after a careful examination of the claim he believed that the testimonio was genuine and evidenced a valid and absolute grant unto the original grantees” (Bowden 2006).

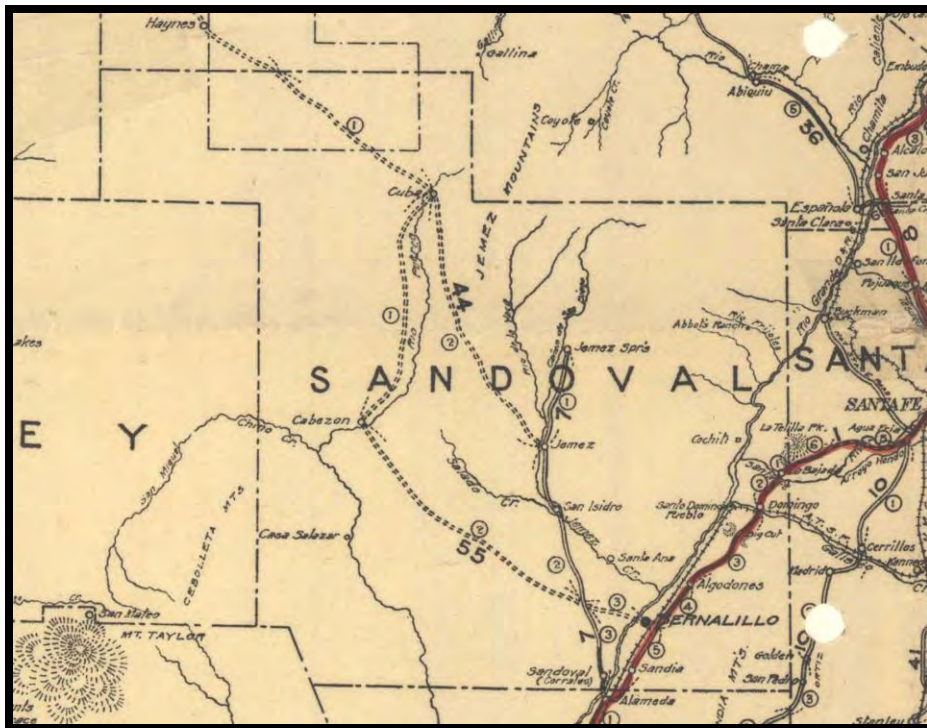


Figure 10: NM State Highway Department 1918 Road Map Showing Proposed Highways-Cuba Area

In 1878 a survey of the grant was commenced. However, the survey identified the wrong Rio Puerco, and as a result the plat was erroneous. Subsequently Surveyor General George Julian on April 2, 1886 ordered a re-examination of the land in question, with the result being that no evidence of long-term occupation could be found. Therefore the grant was nullified with the

explanation that the original settlers had failed to occupy the land in accordance with the stipulations of the Spanish Colonial grant.

This approach was repeated many times, with many grants, with the result that many Spanish Colonial grants were nullified. Undoubtedly the absorption of the lands in question into the public realm contributed to resentment of the federal government, the descendants of the original grantees. Ironically, the Spanish Colonial and Mexican governments repeatedly threatened many grantees in border areas with nullification of their grants when they were abandoned in the wake of Indian raids. Since these governments could not offer any real protection from raiding Indians, their threats understandably did little to induce the grantees to hold onto these precarious locations.

However, the pacification of the raiding Navajos, Apaches and Utes by the US Army, ultimately allowed for safe settlement by Euro-Americans, by which point long-term abandonment was a *fait accompli*.

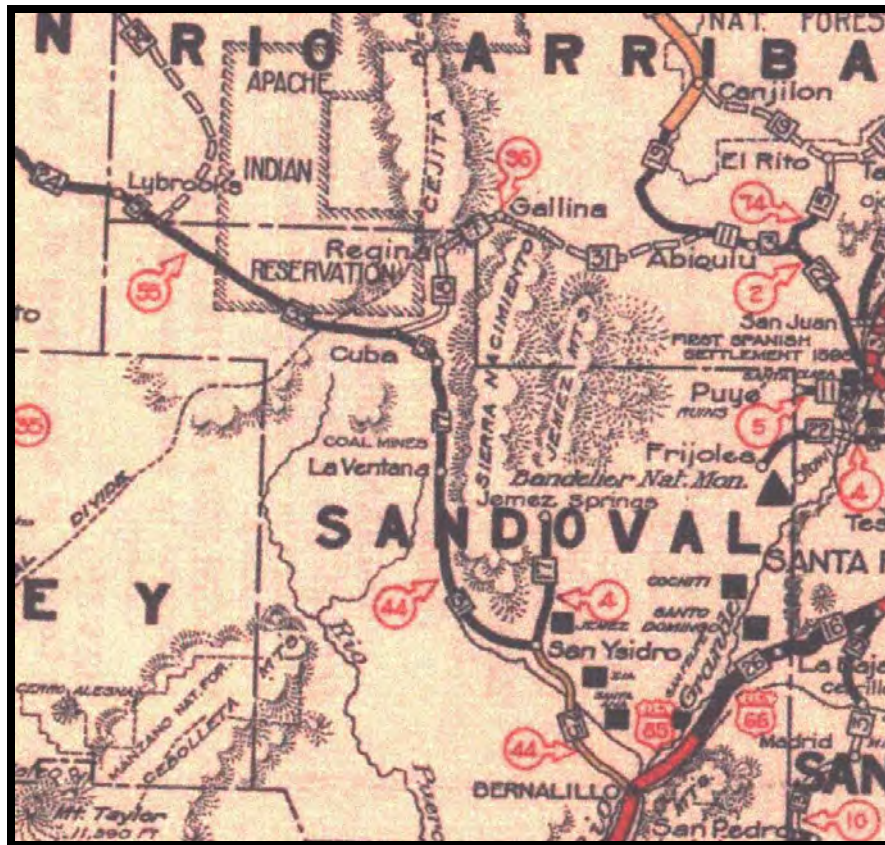


Figure 11: NM State Highway Department Road Map 1930 Showing the General Project Area

#### Pre-field Record Review

Prior to entering the field the latest editions of the State Register of Cultural Properties and the National Register of Historic Places were consulted. There are no properties listed to either register that is near or within the present project area. In addition the NMCRIS database and the ARMS map server were consulted. It was determined that there were 9 previous archaeological inventories within 500-meters of the project area. There are 5 previously documented

archaeological sites within 500-meters of the project area. There are no previously documented historic buildings in that required examination buffer. Site LA 6632, adjacent to modern-day NM US 550, appears to overlap the project area, according to the ARMS map server. However, a review of the original documentation defines the site within sand dunes, and lacks a map. Documented in support of work along then NM 44, the site was not subsequently relocated when US 550 was reconstructed. The site area defined on the ARMS map server, as it overlaps the project location, consists of the Rio Puerco floodplain, and a relatively tall cliff on the east side of the river. This does not appear to fit the site location originally described as “a sherd area in a dune area”. Therefore the site was likely mislocated originally, and is not within the current project area. Tables 1-2 summarize the results of the pre-field record review.

**Table 1: Previous Inventories within 500-meters of the Project Area**

<b>NMCRIS</b>	<b>Performing Agency</b>	<b>Acres</b>	<b>Cultural Resources</b>	<b>Reference</b>
8138	Museum of New Mexico Research Section	??	LA 16306-16314	Doleman and Condon 1979
32991	NM State Highway & Transportation Dept.	??	6 unregistered sites	Hoagland 1978
36180	Rio Abajo Archaeological Services	1.80	-----	Gossett 1991
39045	NM State Highway & Transportation Dept.	523.20	LA 85117-85122	Nelson 1991
41509	Archaeological Research & Exploration	31.16	-----	Whatley 1992
58207	SWCA Inc., Environmental Consultants	1340.10	LA 6628, 46416, 61090, 66471-66472, 90556, 119384-119402	Martinez, et al 1988
71663	Ecosystem Management Inc.	13.00	LA 130970-130971	Wells 2000
88138	Lone Mountain Archaeological Services	36.89	LA 143804-143805	Bogges 2004
112186	Parametrix	646.42	LA 85119-85122, 132198	Myers et al 2009

**Table 2: Previously Recorded Sites with 500-meters of the Project Area**

<b>LA</b>	<b>Culture</b>	<b>Date Range</b>	<b>Features</b>	<b>Notes</b>
6632	Anasazi	700-1100	Artifact scatter	Site has not been relocated since the original recording
16310	Navajo	1945-1983	Sweat lodge, hearth	
16311	Unknown aboriginal	???	Lithic scatter	
16313	Archaic	5500 BC-900 AD	Hearth, lithic scatter	
16314	Anasazi	1100-1300	Mound, artifact scatter	
119391	Anasazi	900-1300	Artifact scatter	
119392	Navajo	1700-1775	Hearth, artifact scatter	
130970	Anasazi	1050-1225	Pit house, ash stain	
130971	Anglo	1920-1959	House foundation, depression	

### Methods

The project parcel was well-defined by existing fences. The parcel was walked in a series of compass and GPS-controlled parallel transects spaced at no greater than 15-meter intervals. A photographic log, field notes and sketches were compiled during the inventory. GPS waypoint data was also captured. Photographic work was completed with a Panasonic FD-X 16-megapixel



digital camera with a Leica lens. GPS data was captured with a Garmin GPS 76 Csx global positioning system with real time accuracy of 1.9-2.2 meters at the time of the inventory. The isolates were measured and described in notes. The site was mapped via tape and pace, and GPS waypoint data was compiled. A metal tag marked “2015-19-01” was wired to the plant at the datum point.

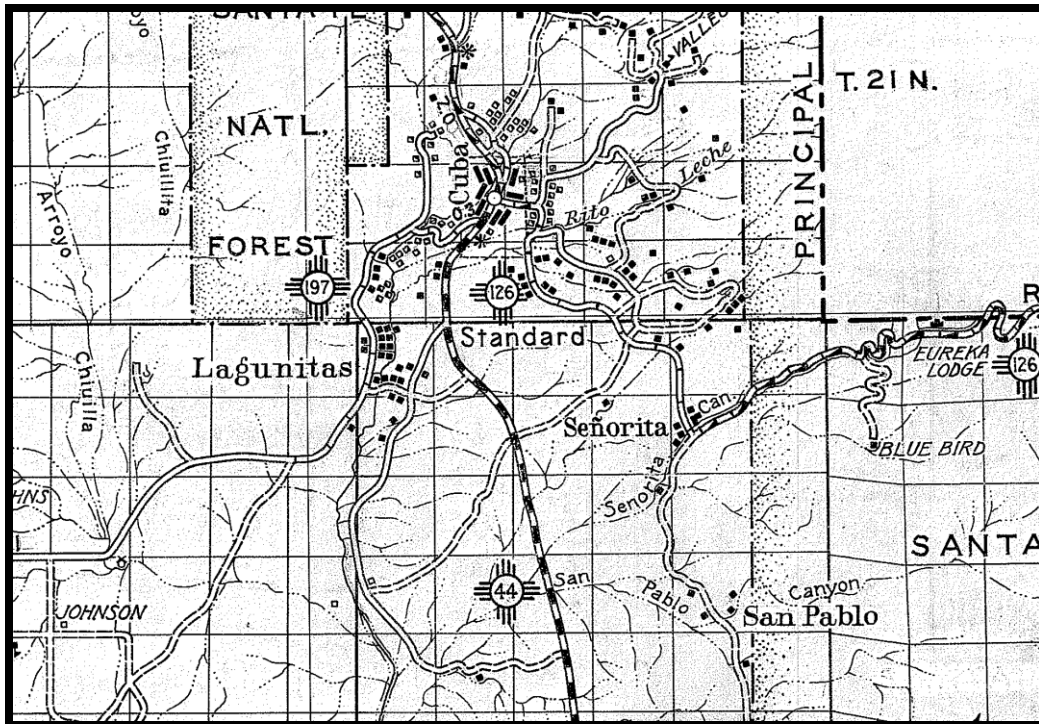


Figure 12: Portion of the 1938 Sandoval County Road Map Showing the General Project Area

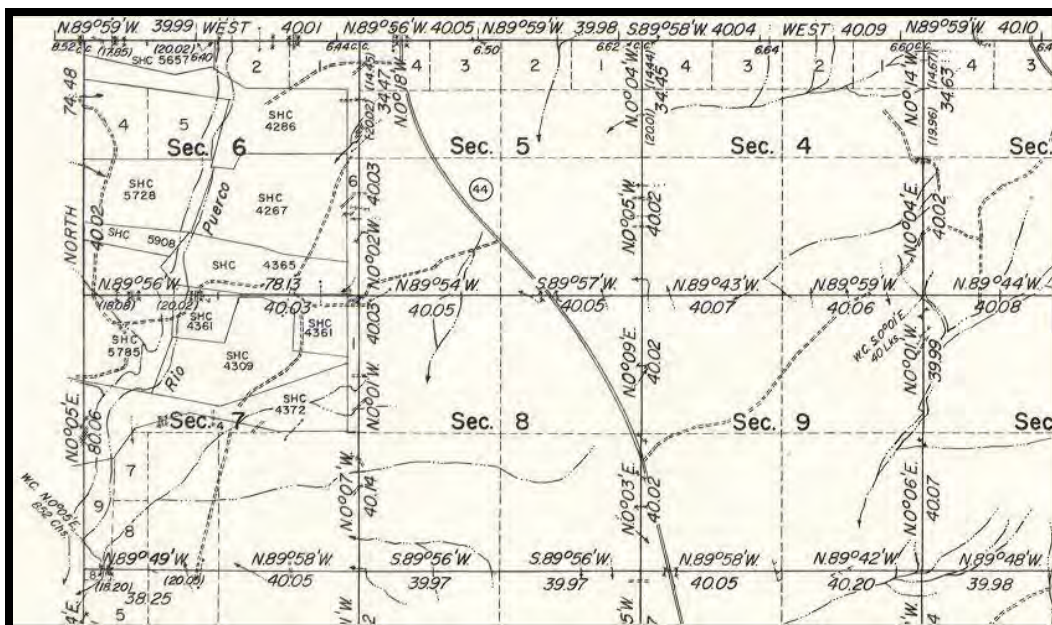


Figure 13: Remonumenting Survey-T20N, R1W-Tony A. Griego, 6/6/1966  
(Bureau of Land Management 2016)

## Results

The inventory resulted in the identification of 12 isolated occurrences of cultural material and previously unrecorded archaeological site LA 184469. Those findings are detailed below.

### Isolated Occurrences

- 632-IO 1:** aqua glass fragment, 32 x 36 x 4 mm.
- 633-IO 2:** ironstone plate fragment with flo-blu maker's mark, 30 x 22 x 3 mm; clear glass fragment, 22 17 x 3 mm.
- 634-IO 3:** crown cap milk bottle neck, 35 x 2 x 5 mm; light sun-colored glass bottle fragment embossed "ONC", 55 x 35 x 5.5 mm.
- 635-IO 4:** brown bottle glass with possible edge flaking or livestock trampling, 52 x 29 x 6 mm.
- 636-IO 5:** white improved earthenware sherd, 26 x 29 x 4 mm.
- 637-IO 6:** Clear glass bottle fragment with the embossed letters "EWER", 35 x 33 x mm; white improved earthenware spall, 10 x 11 x 1.5 mm.
- 638-IO 7:** Light sun-colored amethyst bottle glass fragment, 67 x 29 x 7 mm.
- 639-IO 8:** Brown bottle glass bottle based (3 piece mold), 72 x 46 x 8 mm; light sun-colored glass fragment from a panel/patent medicine bottle, embossed letters "OLCA", 29 x 23 x 3.5 mm.
- 640-IO 9:** Light sun-colored glass fragment, 27 x 18 x 2 mm.
- 647-IO 10:** Sand-blasted clear bottle glass fragment, 32 x 21 x 8 mm; white improved earthenware (hotel china) cup base, 32 x 37 x 4 mm.
- 655-IO 11:** Brown/white chert interior reduction flake. Single stage strike platform, broken with unifacial edge wear (30-35° edge angle), 27 x 20 x 8 mm.
- 656-IO 12:** Clear bottle glass base (automatic bottling machine), maker mark "2263"; 72 x 40 8 mm.

### LA 184469

**Site type:** artifact scatter

**Culture:** Hispanic

**Date Range:** 1912-1945

**Size:** 17.6 x 11.4 meters (176 square meters)

**Elevation:** 6820'

**Description:** This 17.6 x 11.4 m historic artifact scatter is located on generally flat ground, at an elevation of 6820'. The scatter is located in a former agricultural field/pasture, that was most recently used for grazing horses. The land formation on which the site is located tilts slightly to the east, toward the Rio Puerco drainage. Widely dispersed sandstone fragments across the general area suggest there may have been a structure in the area in the past. If so there is no evidence of any architecture in the area now. There is a remnant historic structure in the parcel to the north of the current project area, and the historic artifacts may be associated with that structure. The site location is heavily rodent burrowed, and there is no evidence of subsurface deposition in the site area.

Given that the site location is surrounded by dispersed isolated occurrences of cultural material from a similar vintage, it is possible the site constitutes a single-episode trash dump. It is

assumed to be Hispanic due to the preponderance of Hispanics in the area, dating back to the earlier period of Anglo-European settlement. An inclusive date range for the scatter falls between 1912 and 1945, although it is likely the site dates prior to WWII, and possibly no later than the 1930s.

LA 184469 is comprised of 19 artifacts, including 2 intrusive aboriginal artifacts. Included in the assemblage are white improved earthenware, white porcelain, stoneware, aqua, light sun-colored amethyst and brown bottle glass, window glass, a flake of a decomposed can, galvanized metal scraps, an aboriginal white ware rim sherd, and a retouched chert pebble. There is a brandy finish, applied lip bottle neck present. The aboriginal sherd has a smoothed but pitted exterior, a gray slipped interior over gray paste, lightly applied white paint over the interior and exterior, a rounded, excurved rim, a black firing streak, and a ragged fracture.

LA 184469 is a small artifact scatter with limited data potential. That potential has been exhausted with this recording. Therefore, the site is recommended as not eligible for inclusion to the NRHP. It is recommended LA 184469 be removed from further management consideration.

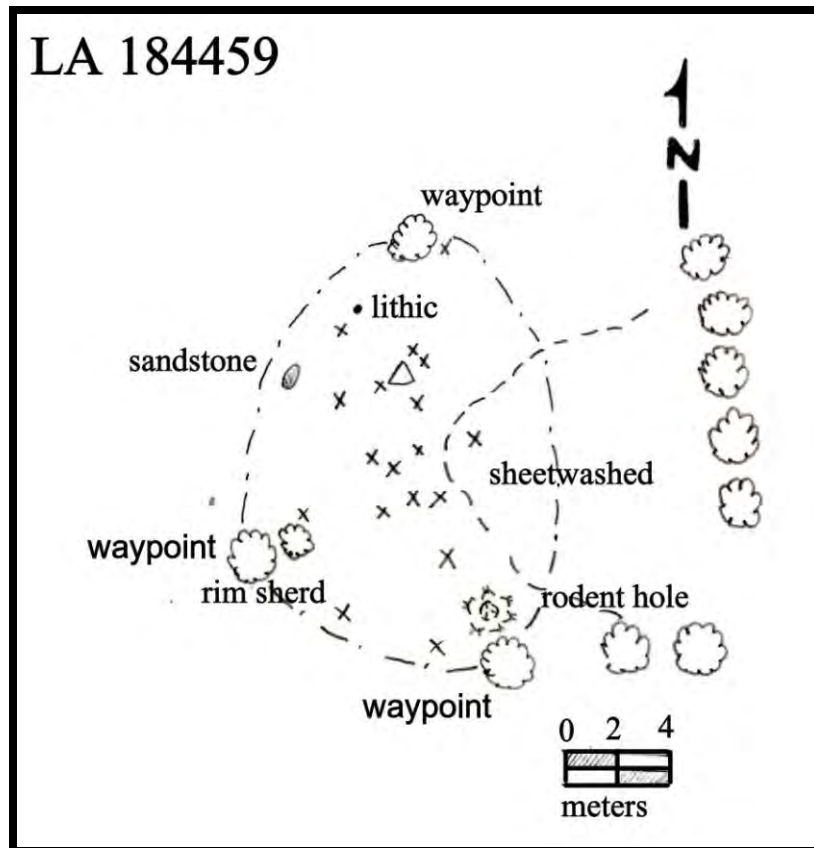


Figure 14: LA 184469 Plan Map



**Figure 15: LA 184469 Looking North-northwest**

**Eligibility Recommendations**

The isolates are of limited data potential. It is recommended the isolated occurrences be removed from additional management considerations. LA 184469 is a small historic artifact scatter with two aboriginal artifacts. The site is also of limited data potential. It is recommended LA 184469 has no additional data potential. The site is recommended not eligible to the NRHP.

**Management Recommendations**

Provided the consulting parties agree with the recommendations of this report, there is no need for additional cultural resources management.

**Clearance Recommendations**

Provided the consulting parties agree with the findings of this investigation, cultural resource clearance is recommended for the proposed expansion of the Cuba wastewater treatment plant with a finding of no effect to significant cultural resources.

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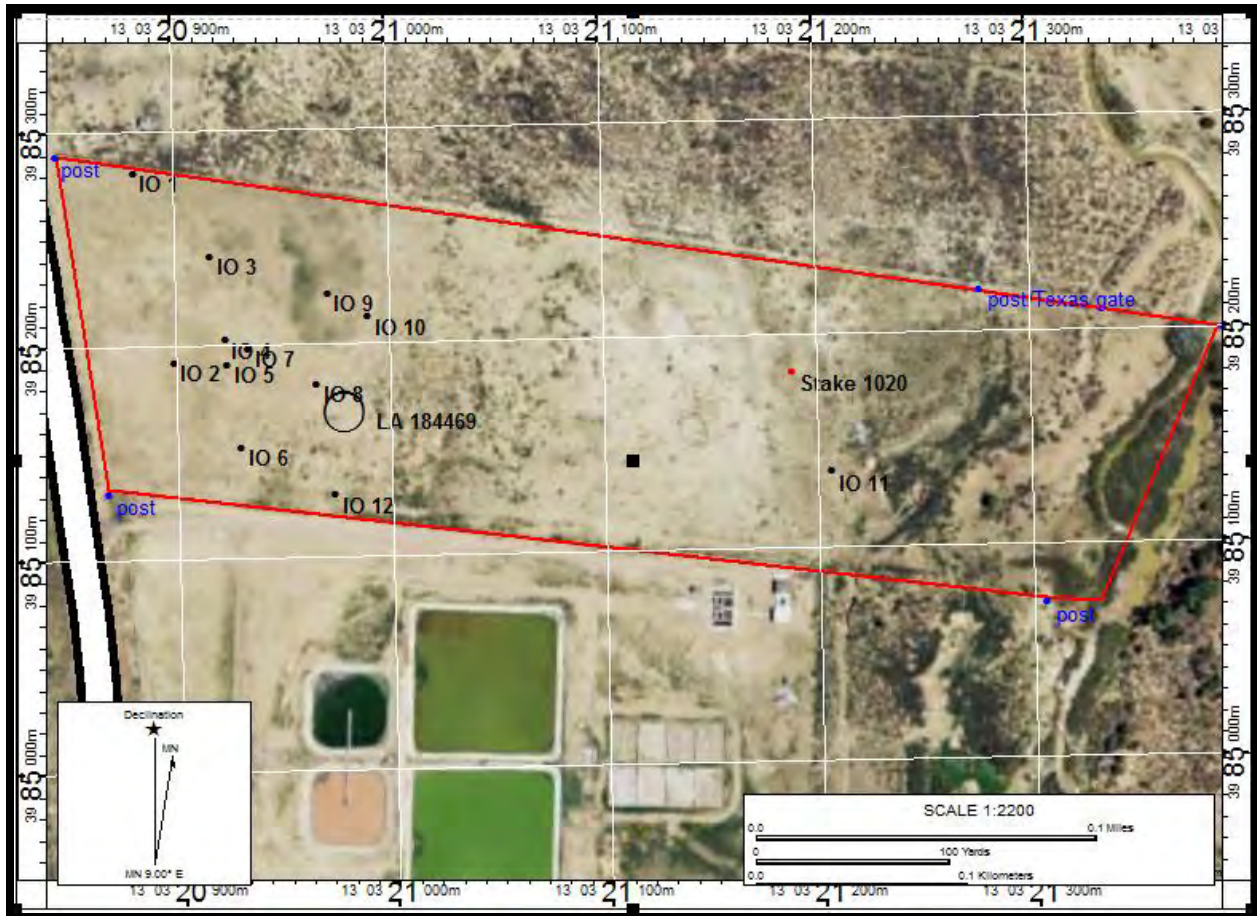
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**Confidential Supplement**  
**Locations of Cultural Resources are Confidential Information**  
**(36 CFR 296.18 and under §§18.6.11.1 NMAC (as amended))**



**Locations of Cultural Resources USGS San Pablo NW Aerial Photograph, 1:2200 Scale 35106-H8-01-PHT (2014)**

- IO 1: 13 E 320880, N 3985232
- IO 2: 13 E 320898, N 3985193
- IO 3: 13 E 320916, N 3985242
- IO 4: 13 E 320922, N 3985203
- IO 5: 13 E 320923, N 3985191
- IO 6: 13 E 320929, N 3985153
- IO 7: 13 E 320933, N 3985199
- IO 8: 13 E 320965, N 3985192
- IO 9: 13 E 320970, N 3985225
- IO 10: 13 E 320990, N 3985213
- IO 11: 13 E 321206, N 3985135
- IO 12: 13 E 320973, N 3985130

**LA 184469**

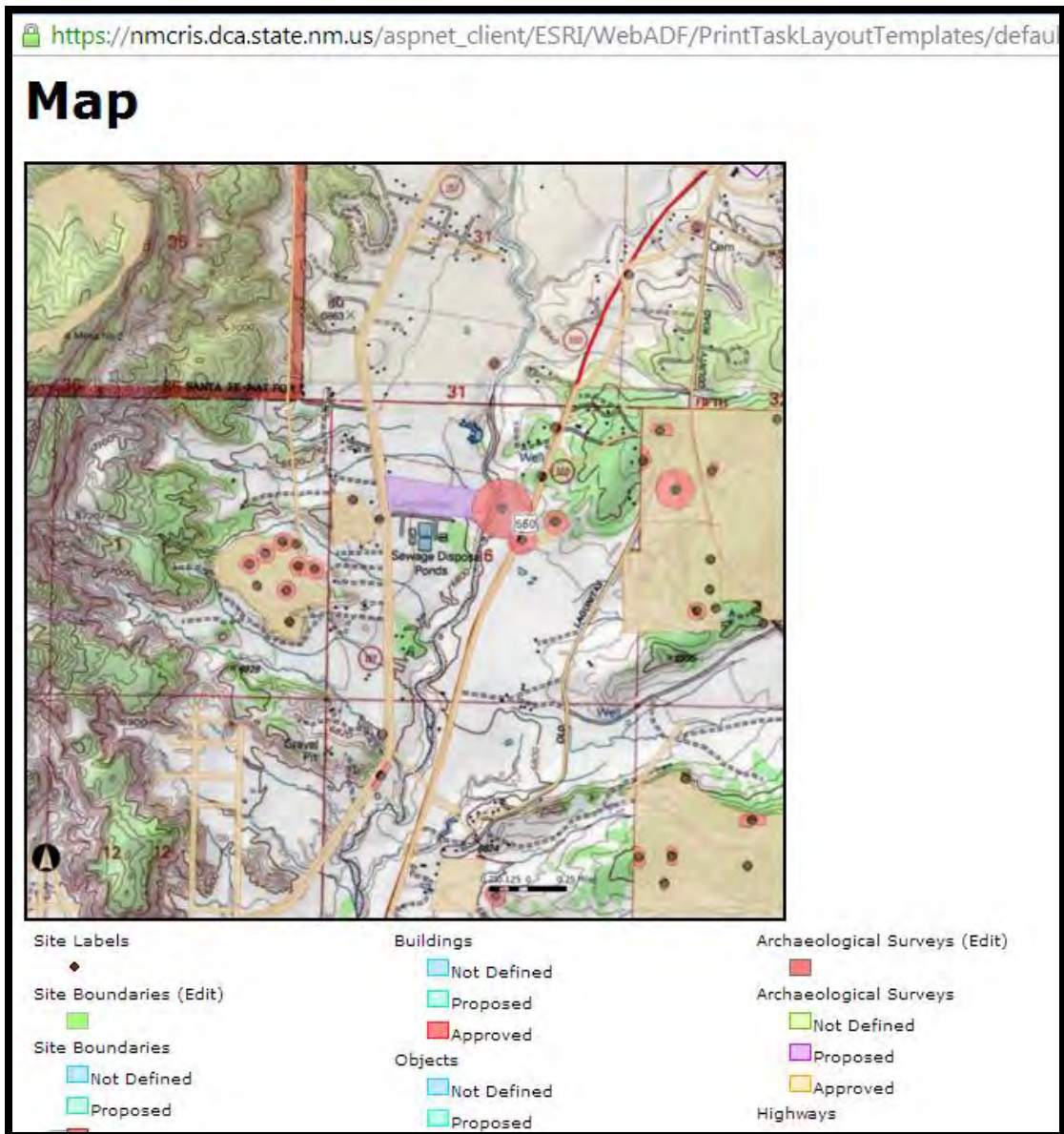
Datum: 13 E 320978, N 3985169

Boundary:

Mark 642-13 E 320978, N 3985172

Mark 643-13 E 320974, N 3985163

MRK 644-13 E 320983, N 3985161



ARMS Map Server Screen Shot of the Project Area





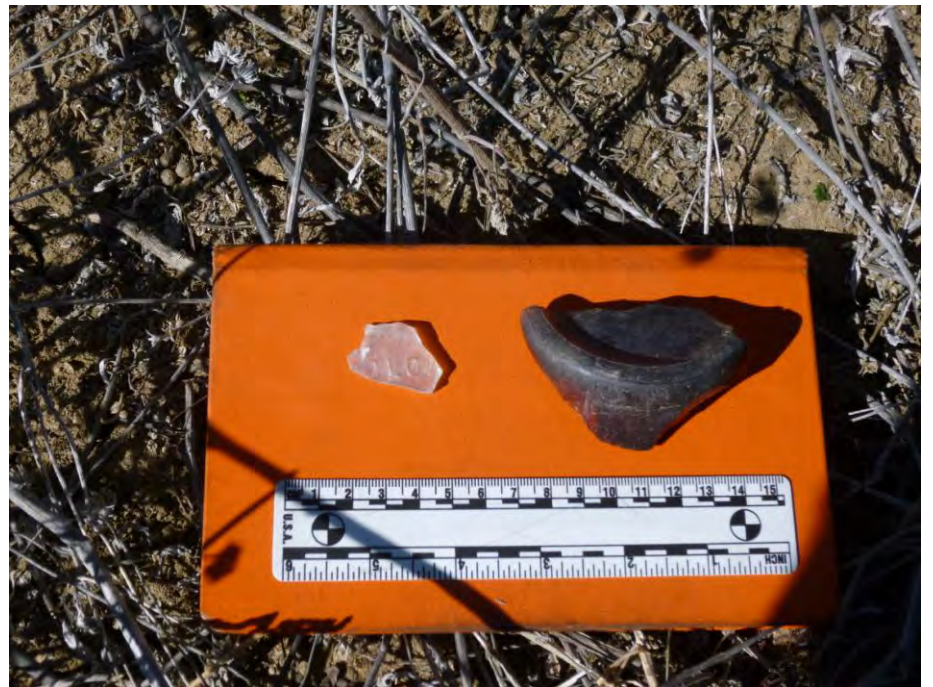
1: Detail IO 2



3: IO 6 Detail



2: IO 4 Detail



4: IO 8 Detail



5: Detail Applied Lip Brandy Finish Bottle Neck-LA 184469



7: LA 184469 Detail of Whiteware Sherd Lip



6: LA 184469 Detail of Whiteware Sherd Lip



8: IO 12 Detail

# LABORATORY OF ANTHROPOLOGY SITE RECORD

1

## 1. IDENTIFICATION & OWNERSHIP

LA Number: 184459 (contact ARMS for site registration)  Site Update? (complete at least Sections 1-4)

Site Name(s): \_\_\_\_\_

Other Site Number(s): \_\_\_\_\_ Agency Assigning Number: \_\_\_\_\_

Current Site Owner(s): Village of Cuba

Site Type: Non-structural Occupation Type: Historic

## 2. RECORDING INFORMATION

NMCRIS Activity No.: 135350 Field Site Number: 2015-19-01

Site Marker? **X** (specify ID#): 2015-19-01

Recorder(s): S. Townsend

Agency: Townsend Archaeological Consultants Recording Date (dd-**MMM**-yyyy): 29-Feb-2016

Site Accessibility (choose one):  accessible  buried (sterile overburden)  flooded  urbanized  not accessible

Surface Visibility (% visible; choose one):  0%  1-25%  26-50%  51-75%  76-99%  100%

Remarks: site is within grassy, scrubby area with ample visibility.

Recording Activities:  sketch mapping  photography  
 instrument mapping (e.g., total station mapping)  shovel or trowel tests; probes  
 surface collection (controlled or uncontrolled)  test excavation  
 in-field artifact analysis  excavation (data recovery)  
 other activities (specify): GPS geo-referencing

Description of Analysis or Excavation Activities: Site was mapped, GPS boundary & datum locations were recorded & assemblage was subject to in-field analysis.

Photographic Documentation: See attached frames with captions

Surface Collections (choose one):  no surface collection  
 uncontrolled surface collection  collections of specific items only  
 controlled (sample: <100%)  controlled (complete: 100%)  
 other method (describe): \_\_\_\_\_

Records Inventory:  site location map  excavation, collection, analysis records  field journals, notes  
 sketch map(s)  photos, slides, and associated records  NM Historic Building Inventory form  
 instrument map(s)  other records: GPS waypoint data

Repository for Original Records: Townsend Archaeological Consultants

Repository for Collected Artifacts: not applicable

## 3. CONDITION

Archaeological Status:  surface collection  test excavation  partial excavation  complete excavation

Disturbance Sources:  wind erosion  water erosion  bioturbation  vandalism  construction/land development  
 other source (specify): grazing

Vandalism:  defaced glyphs  damaged/defaced building  surface disturbance  manual excavation  
 mechanical excavation  other vandalism (specify): \_\_\_\_\_

Percentage of Site Intact (choose one):  0%  1-25%  26-50%  51-75%  76-99%  100%

Observations on Site Condition: site is in an old pasture that may have been plowed. East side of site exhibits sheet washing and there are rodent burrows present.

**4. RECOMMENDATIONS (for Performer/Recorder use only)**

National Register Eligibility (choose one):  eligible  not eligible  not sure

Applicable Criteria:  (a)  (c)  
 (b)  (d)

Basis for Recommendation: This is a very small site with no depth potential and very low data potential.

Assessment of Project Impact: Unknown at present. Site will likely be destroyed.

Treatment Recommendations: Remove from additional management consideration.

**5. SHPO CONSULTATIONS (for SHPO and Sponsor use only)**

Sponsor NR Determination:  eligible  not eligible  not determined Applicable Criteria:  (a)  (b)  (c)  (d)

Sponsor Staff: \_\_\_\_\_ Date (dd-MMM-yyyy): \_\_\_\_\_

Sponsor Remarks: \_\_\_\_\_

SHPO NR Determination:  eligible  not eligible  not determined Applicable Criteria:  (a)  (b)  (c)  (d)

HPD Staff: \_\_\_\_\_ Date (dd-MMM-yyyy): \_\_\_\_\_ HPD Log No: \_\_\_\_\_

Register Status:  listed on National Register  listed on State Register  formal determination of eligibility

State Register No.: \_\_\_\_\_

SHPO Remarks: \_\_\_\_\_

**6. LOCATION**

**Source Graphics:**

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

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

Map-based Coordinates Datum: NAD27 Zone: E: \_\_\_\_\_ N: \_\_\_\_\_

GPS-based Coordinates Datum: NAD83 Zone: 13 E: 320978 N: 3985169

Directions to Site: From US 550 drive south on NM 197 until wastewater plant is visible east of highway. North of plant is an east-west fence and a gate. Go through gate and follow fence to GPS location provided.

In highway R-O-W?

Town (if in city limits): Lagunitas State: NM County: Sandoval

USGS Quadrangle Name	Date	USGS Code
<u>San Pablo</u>	<u>1970</u>	<u>35106-H8</u>

PLSS Meridian	Unplatted	Township	Range	Section	1/4 Sections	Protracted?
New Mexico	<input type="checkbox"/>	T 20 N	R 1 W	6	S 1/2 NW _____	<input type="checkbox"/>

**7. PHYSICAL DESCRIPTION**

Site Dimensions: 17.6 x 11.4 meters Basis for Dimensions (choose one):  estimated  measured

Site Area: 176 sq m Basis for Area (choose one):  estimated  measured Elevation: 6820 feet

Site Boundaries Complete? (choose one):  Yes  No (explain): \_\_\_\_\_

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

Depositional/Erosional Environment:  alluvial  aeolian  colluvial  residual  no deposition (on bedrock)  
 other process (describe): \_\_\_\_\_

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

Estimated Depth of Deposits: 0

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

Observations on Subsurface Archeological Deposits: Site is a small artifact scatter without features. In addition rodent burros are numerous with no evidence of cultural deposition.

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

Overstory: None present

Understory: Rabbitbrush, snakeweed, threeawn, wheatgrass, grama

Vegetation Community (choose one or two):  forest  woodland  grassland  scrubland  desert scrubland  marshland  
 other community (specify): \_\_\_\_\_

Topographic Location:

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

Observations on Site Setting: Site is on an alluvial fan with an easterly exposure.

**8. ASSEMBLAGE DATA**

**Assemblage Content** (all components):

Lithics:

- lithic debitage
- chipped-stone tools
- diagnostic projectile points
- non-local lithic material
- stone-tool manufacturing items (cores, hammerstones, etc.)
- ground-stone tools
- other stone tools
- Other items (specify): \_\_\_\_\_

Prehistoric Ceramics

- whole ceramic vessels
- diagnostic ceramics
- other prehistoric ceramics

Historic Artifacts:

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

Other Artifacts and Materials:

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

**Assemblage Size** (all components):

artifact class	estimated frequency						*Counts (if <100)
	0	1s	10s	100s	1000s	>10,000	
lithic artifacts (choose one): (include debitage)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>1</u>
prehistoric ceramics (choose one):	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>1</u>
historic artifacts (choose one):	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>17</u>
total assemblage size (choose one):	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>19</u>

**Dating Potential:**

- radiocarbon
- dendrochronology
- archeomagnetism
- obsidian hydration
- relative techniques (e.g. seriation, diagnostics, etc.)
- other methods (specify): \_\_\_\_\_

**Assemblage Remarks:** white improved earthenware, white porcelain, stoneware, aqua, light sun-colored amethyst and brown bottle glass, window glass, a flake of a decomposed can, galvanized metal scraps, an aboriginal white ware rim sherd, and a retouched chert pebble. There is a brandy finish, applied lip bottle neck present. The aboriginal sherd has a smoothed but pitted exterior, a gray slipped interior over gray paste, lightly applied white paint over the interior and exterior, a rounded, excurvate rim, a black firing streak, and a ragged fracture.

**9. CULTURAL/TEMPORAL AFFILIATIONS**

TOTAL NUMBER OF COMPONENTS DEFINED: 1

COMPONENT #1 (EARLIEST)

Cultural Affiliation: Hispanic \_\_\_\_\_

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

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

	Period Name	Begin Date	End Date
<b>Earliest Period:</b>	<u>NM Statehood</u>		
<b>Latest Period (if any):</b>	<u>NM Statehood</u>	<u>1912 AD</u>	<u>1945 AD</u>

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

**Basis for Cultural/Temporal Affiliation:** \_\_\_\_\_

**Component Type:** Artifact scatter \_\_\_\_\_

**Remarks:** Ethnicity is assumed based on a review of homestead patents in the area and of local land settlement patterns.

**\*Associated Phase/Complex Name(s):** \_\_\_\_\_

**\ 10. FEATURE DATA**

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

Feature Type	Reliable ID ?	# Observed	Assoc. Comp. #s	Feature ID, Notes

**Feature Remarks:** \_\_\_\_\_

**11. REFERENCES**

**Written Sources of Information:**

Townsend, Stephen  
2016 A Cultural Resources Inventory in Support of Expansion of the Cuba Wastewater Treatment Plant, Lagunitas, Sandoval County, New Mexico. Townsend Archaeological Consultants report 2015-19, Las Vegas.

**Additional Sources of Information:**

## 12. NARRATIVE DESCRIPTION

Datum: 13 E 320978, N 3985169

Boundary:

Mark 642-13 E 320978, N 3985172

Mark 643-13 E 320974, N 3985163

MRK 644-13 E 320983, N 3985161

This 17.6 x 11.4 m historic artifact scatter is located on generally flat ground, at an elevation of 6820'. The scatter is located in a former agricultural field/pasture, that was most recently used for grazing horses. The land formation on which the site is located tilts slightly to the east, toward the Rio Puerco drainage. Widely dispersed sandstone fragments across the general area suggest there may have been a structure in the area in the past. If so there is no evidence of any architecture in the area now. There is a remnant historic structure in the parcel to the north of the current project area, and the historic artifacts may be associated with that structure. The site location is heavily rodent burrowed, and there is no evidence of subsurface deposition in the site area.

Given that the site location is surrounded by dispersed isolated occurrences of cultural material from a similar vintage, it is possible the site constitutes a single-episode trash dump. It is assumed to be Hispanic due to the preponderance of Hispanics in the area, dating back to the earlier period of Anglo-European settlement. An inclusive date range for the scatter falls between 1912 and 1945, although it is likely the site dates prior to WWII, and possibly no later than the 1930s.

LA 184469 is comprised of 19 artifacts, including 2 intrusive aboriginal artifacts. Included in the assemblage are white improved earthenware, white porcelain, stoneware, aqua, light sun-colored amethyst and brown bottle glass, window glass, a flake of a decomposed can, galvanized metal scraps, an aboriginal white ware rim sherd, and a retouched chert pebble. There is a brandy finish, applied lip bottle neck present. The aboriginal sherd has a smoothed but pitted exterior, a gray slipped interior over gray paste, lightly applied white paint over the interior and exterior, a rounded, excurved rim, a black firing streak, and a ragged fracture.

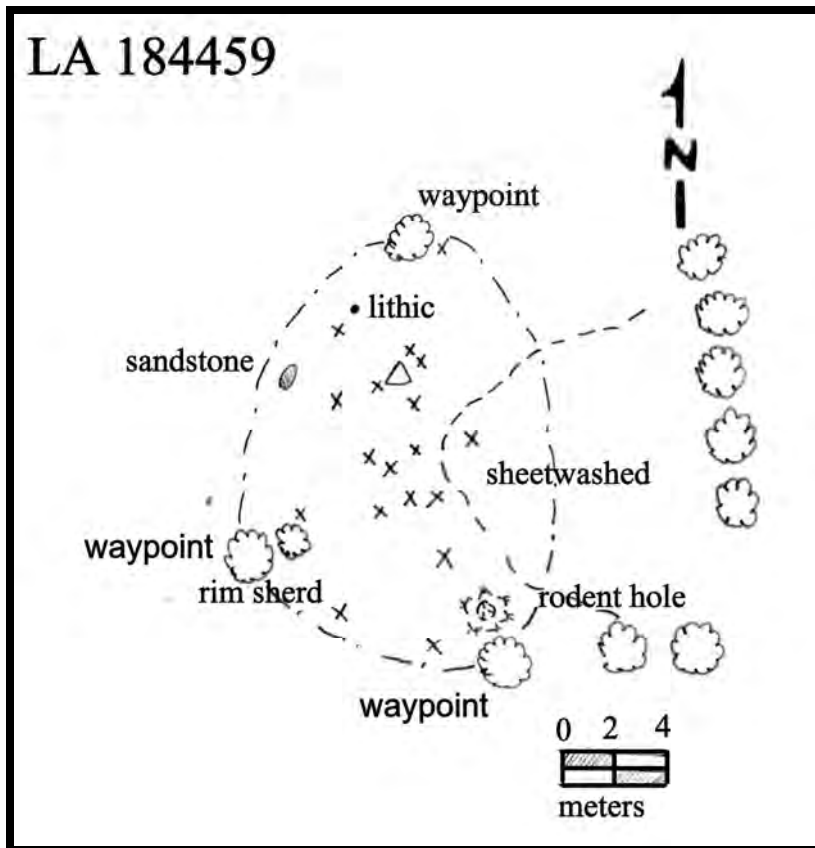
LA 184469 is a small artifact scatter with limited data potential. That potential has been exhausted with this recording. Therefore, the site is recommended as not eligible for inclusion to the NRHP. It is recommended LA 184469 be removed from further management consideration.

## 13. SITE RECORD ATTACHMENTS

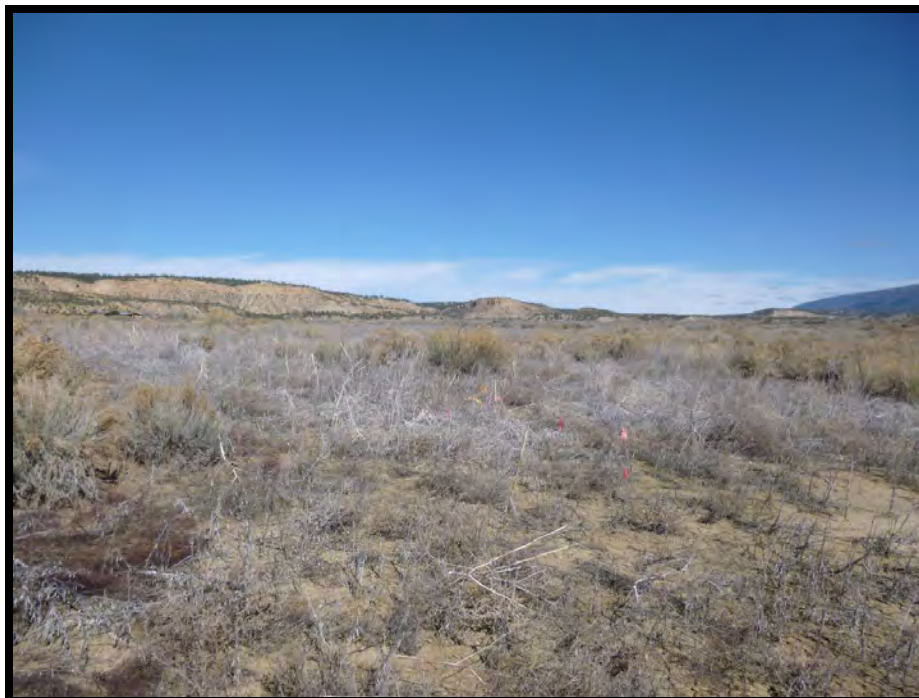
site location map (USGS 7.5' topo; required)  sketch map or site plan (required)  continuation forms?

other materials (itemize): photographs





LA 184469 Plan Map



LA 184469 Looking North-northwest



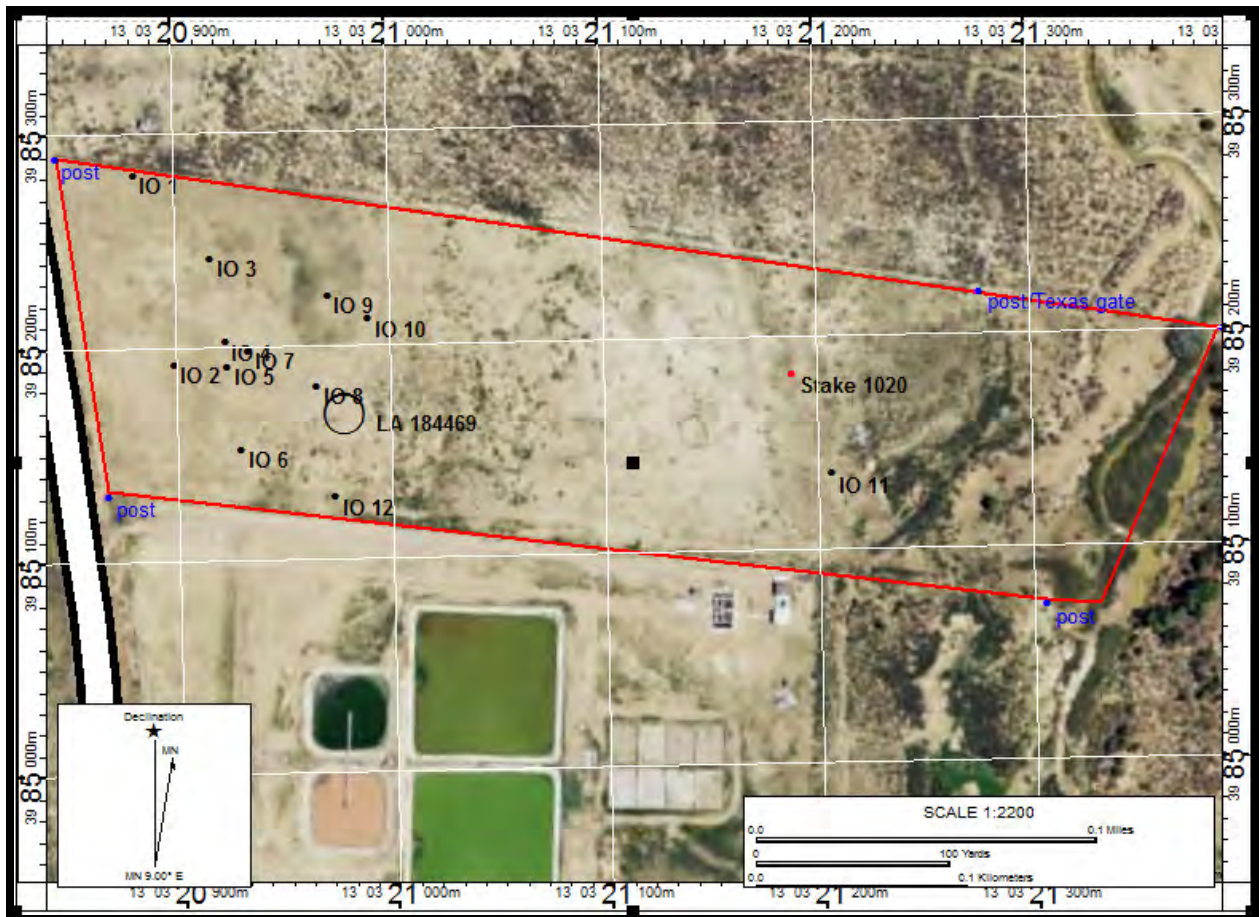
LA 184469 Detail of Whiteware Sherd Lip



LA 184469 Detail of Whiteware Sherd Lip



Detail Applied Lip Brandy Finish Bottle Neck-LA 184469



Locations of Cultural Resources USGS San Pablo NW Aerial Photograph, 1:2200 Scale 35106-H8-01-PHT (2014)

Appendix E6  
State Historic Preservation  
Division Correspondence



November 24, 2015

#6423775

Mr. S. Andrew Wakefield, RPA  
N.M. Office of Cultural Affairs  
State Historic Preservation Division  
407 Galisteo Street, Suite 236  
Santa Fe, NM 87501  
Phone: 505-827-6162  
andy.wakefield@state.nm.us

**RE: REVISION TO REQUEST FOR INFORMATION CONCERNING THE SOLIDS HANDLING AND EFFLUENT REUSE IMPROVEMENTS PROJECT FOR THE VILLAGE OF CUBA WASTEWATER TREATMENT PLANT, SANDOVAL COUNTY, NEW MEXICO**

Mr. S. Andrew Wakefield:

Souder, Miller & Associates (SMA), on behalf of our client, the Village of Cuba, is in the process of performing an environmental assessment pursuant to the National Environmental Policy Act for use of public funding. The Village's Wastewater Treatment Plant (WWTP) is located in Sandoval County, along New Mexico State Road 197 (NM 197); approximately 2 miles from the NM 197/United States Route 550 (US 550) junction; approximately 65 miles northwest of Bernalillo, New Mexico. Funding for the planned project may be obtained from New Mexico Legislative Appropriations (SAP), United States Department of Agriculture (USDA) - Rural Development (RD), Community Development Block Grant (CDBG), New Mexico Water Trust Board (WTB), Clean Water State Revolving Fund (CWSRF) and/or other State and Federal sources.

As part of the overall planning phase of the project Village of Cuba WWTP is requesting consultation on several improvements including:

- Utilization of 15 acres of land for long-term biosolids and effluent land application.
- Use of the existing northeast passive lagoon at the WWTP to dewater biosolids until they dry to a desired solids concentration.
- Modification of the existing sand filters to function as drying sand beds to dewater biosolids produced by the WWTP.
- Construction of a lined effluent storage basin.
- Construction of a building for an office and for sludge processing equipment.
- Reuse of biosolids and treated effluent via land application for irrigation.

Limits of the study include a portion of Township 20 North, Range 01 West, Section 6. The center of the project area is located at approximately 35° 59' 38" N latitude and 106° 59' 6" west longitude. Please refer to the enclosed map (Figure 1) that depicts the area of the proposed WWTP improvements. Figures 1 and 2 were inadvertently left out of original letter. They are attached to this letter.

All work is to be completed on property owned by the Village of Cuba. The majority of work will be completed above ground. The overall project area depicted in Figure 2 shows that all projects contemplated at this time lie within Zone A (areas where flood heights have not been determined but are

*Mr. S. Andrew Wakefield*

*November 24, 2015*

*Page 2*

expected to flood during the 100-year flood) and Zone X (areas that have been determined to be outside the 0.2% annual floodplain). No arroyos are anticipated to be crossed or disturbed by the proposed projects.

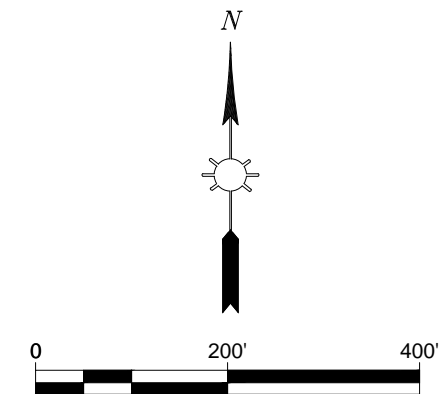
SMA would appreciate any information or feedback to be provided at your earliest possible convenience. If you need any further information or wish to discuss the project, please feel free to contact me by phone at 877-299-0942, or by email at [lisa.gaston@soudermiller.com](mailto:lisa.gaston@soudermiller.com).

Sincerely,

**SOUDER, MILLER & ASSOCIATES**

A handwritten signature in blue ink, appearing to read "Lisa A. Gaston".

Lisa A. Gaston  
Staff Geoscientist



**LEGEND**

█ PROJECT AREA

REVISIONS		
BY	DATE	DESC.

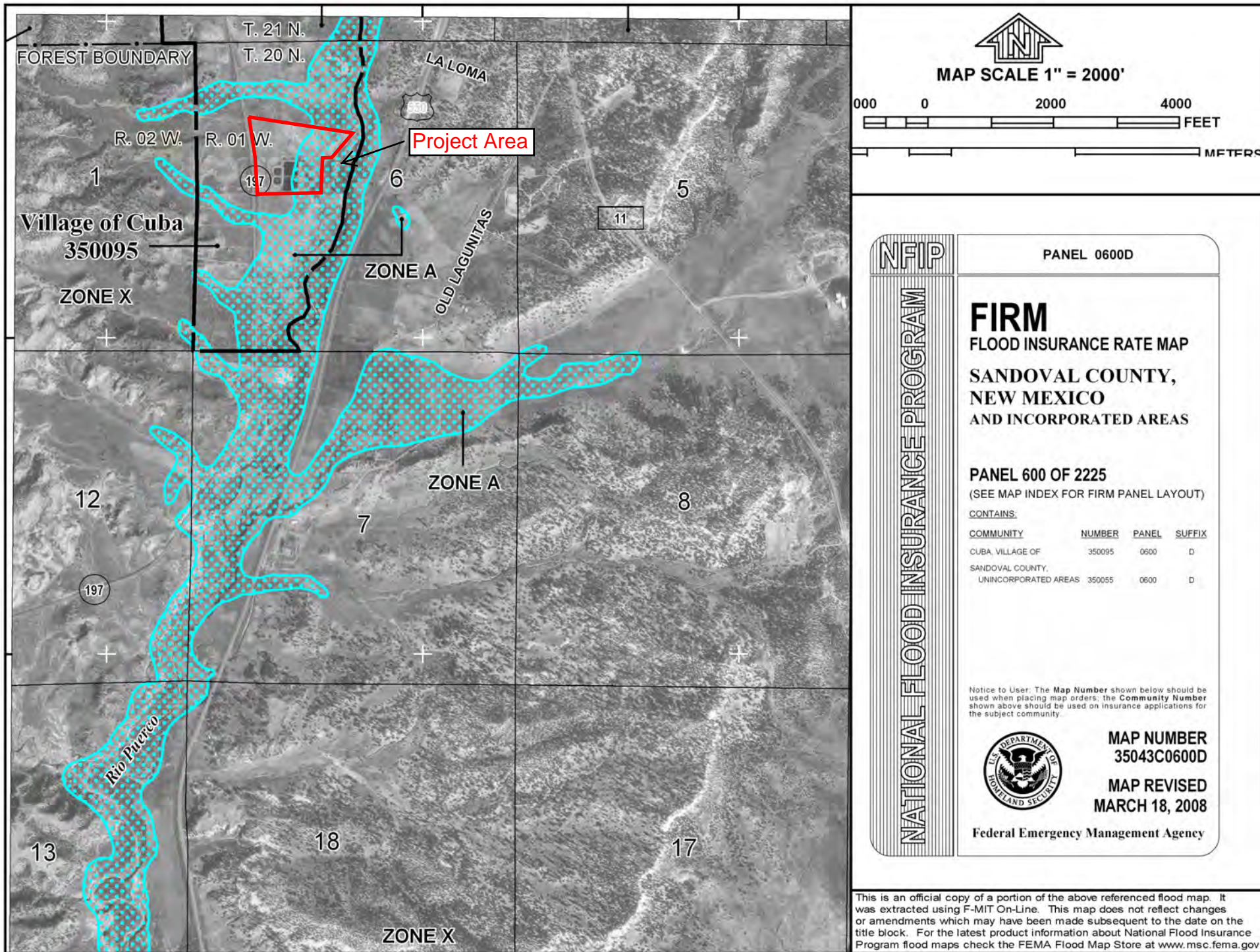
**SOUDER, MILLER & ASSOCIATES**  
 3451 Candelaria Road NE, Suite D  
 Albuquerque, NM 87107

Phone (505) 299-0942 Toll-Free (877) 299-0942 Fax (505) 293-3430  
 www.soudermiller.com  
 Serving the Southwest & Rocky Mountains  
 Albuquerque, Farmington, Las Cruces, Roswell, Santa Fe, NM  
 Cortez - Grand Junction, CO - Safford, AZ - Meab, UT, El Paso, TX

**VILLAGE OF CUBA SITE MAP**  
**NORTHERN PROPERTY AND WWTP**  
**SANDOVAL COUNTY, NEW MEXICO**

Drawn ARB/JER	Checked JMG	Approved JMG
Date: AUGUST, 2014		
Scale: Horiz: 1"=200 Vert:		
Project No: 48968		
Sheet: <b>FIGURE 1</b>		

Figure 3



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0600D

**FIRM**  
FLOOD INSURANCE RATE MAP


**SANDOVAL COUNTY,  
NEW MEXICO  
AND INCORPORATED AREAS**

**PANEL 600 OF 2225**  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
CUBA, VILLAGE OF	350095	0600	D
SANDOVAL COUNTY, UNINCORPORATED AREAS	350055	0600	D

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.



**MAP NUMBER**  
35043C0600D

**MAP REVISED**  
MARCH 18, 2008

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)



# LEGEND



**SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**

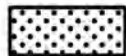
The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A** No Base Flood Elevations determined.
- ZONE AE** Base Flood Elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.



**FLOODWAY AREAS IN ZONE AE**

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.



**OTHER FLOOD AREAS**

- ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

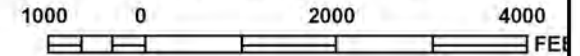


**OTHER AREAS**

- ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D** Areas in which flood hazards are undetermined, but possible.



**MAP SCALE 1" = 2000'**



**COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**



**OTHERWISE PROTECTED AREAS (OPAs)**

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- Base Flood Elevation line and value; elevation in feet\*
- Base Flood Elevation value where uniform within zone; elevation in feet\*

\* Referenced to the North American Vertical Datum of 1988.

- Cross section line
- Transect line
- Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 1000-meter Universal Transverse Mercator grid values, zone 13
- 5000-foot grid ticks: New Mexico State Plane coordinate system, Central zone (FIPSZONE 3002), Transverse Mercator projection
- Bench mark (see explanation in Notes to Users section of this FIRM panel)
- River Mile

**MAP REPOSITORY**  
Refer to listing of Map Repositories on Map Index

**EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP**  
July 16, 1996

**EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL**  
March 18, 2008 - to update map format.

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)



May 13, 2016

#6423775

Ms. Michelle Ensey  
New Mexico Office of Cultural Affairs  
State Historic Preservation Division  
Bataan Memorial Building  
407 Galisteo Street, Suite 236  
Santa Fe, NM 87501  
*michelle.ensey@state.nm.us*

**RE: Request for Review and Concurrence, Cuba Wastewater Treatment Plant Improvements,  
Sandoval County, New Mexico  
NMCRIS Project/Activity Number 135330**

Ms. Ensey:

Souder, Miller & Associates (SMA), on behalf of our client, the Village of Cuba, is in the process of performing an environmental assessment pursuant to the National Environmental Policy Act for use of public funding. The proposed project will be located in Sandoval County, generally southeast of the Village of Cuba, New Mexico. More specifically, the Village of Cuba Wastewater Treatment Plant (WWTP) is approximately 2.15 miles southeast of the NM 197/United States Route 550 (US 550) junction, on NM 197. Funding for the planned project may be obtained from the New Mexico Finance Authority Drinking Water State Revolving Loan Fund, New Mexico Legislative Appropriations (SAP), United States Department of Agriculture (USDA) - Rural Development (RD), Community Development Block Grant (CDBG), New Mexico Water Trust Board (WTB) and/or other State and Federal sources.

The Village of Cuba is requesting consultation and concurrence on the project, which includes construction of two new biosolids drying beds, construction of an effluent storage impoundment, and land application of biosolids and effluent to former rangeland north of and adjacent to the WWTP on which alfalfa will be grown.

Limits of the study include a portion of the northwest quarter of Section 6, T20N, R1W, located on the USGS San Pablo Quadrangle Map. Please refer to the enclosed map (Figures 1 and 2) that depict the area of the proposed WWTP improvements.

All work is to be completed on property owned by the Village of Cuba. The majority of work (except the land application of effluent and biosolids) will be completed below ground and all will be completed in areas that are part of the WWTP or adjacent rangeland. A cultural resources survey was completed by Stephen Townsend for all areas of disturbance for the contemplated project. The survey is attached.

Ms. Michelle Ensey  
May 13, 2016  
Page 2

SMA would appreciate your review of the survey report, and concurrence with the findings if appropriate. If you need any further information or wish to discuss the project, please feel free to contact me by phone at 505.299.0942, or by email at [scott.mckitrick@soudermiller.com](mailto:scott.mckitrick@soudermiller.com).

Sincerely,  
**SOUDER, MILLER & ASSOCIATES**



Scott A. McKitrick, P.G.  
Senior Geoscientist

Encl.: Figures 1 and 2

*A Cultural Resources Inventory in Support of Expansion of the Cuba Wastewater Treatment Plant, Lagunitas, Sandoval County, New Mexico, Stephen Townsend, March 20, 2016, NMCRIS Project/Activity Number 135330*



Susana Martinez  
Governor

STATE OF NEW MEXICO  
**DEPARTMENT OF CULTURAL AFFAIRS**  
**HISTORIC PRESERVATION DIVISION**

BATAAN MEMORIAL BUILDING  
407 GALISTEO STREET, SUITE 236  
SANTA FE, NEW MEXICO 87501  
PHONE (505) 827-6320 FAX (505) 827-6338

RECEIVED  
11/24/15

November 11, 2015

Lisa A. Gaston  
Staff Geoscientist  
Souder, Miller & Associates  
3451 Candelaria Road NE, Suite D  
Albuquerque, NM 87107-1975

RE: Request for Information Concerning the Solids Handling and Effluent Reuse Improvements Project for the Village of Cuba Wastewater Treatment Plant, Sandoval County, New Mexico

Dear Ms. Gaston:

Thank you for providing information regarding the above-referenced project to New Mexico Historic Preservation Division/State Historic Preservation Office (SHPO). SHPO reviews and comments on federal undertakings and compliance with Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulation 36 CFR 800. SHPO also consults with state agencies to ensure compliance with state statute and regulation relating to cultural resources. After reviewing the information you provided regarding both the nature of the project and the project location, SHPO is recommending that the project area is surveyed by a professional archaeologist. We are making this recommendation because the project area has not been previously surveyed, there are known prehistoric archaeological sites located near the project area, and there is potential to damage unidentified archaeological sites within the project area.

SHPO recommends that an archaeologist survey the project area and complete an archaeological report for submittal to our office for review and concurrence as to whether the project will affect any historic properties. The archaeologist may identify areas within the project area that do not require survey due to existing ground disturbance to a depth where it is unlikely that archaeological remains would still be present. Please also note that 1.7 acres of the project area have been subject to previous archaeological survey under NMCRIS No. 109826 and that the archaeologist performing the survey will need to address whether the boundaries for archaeological site LA 6632 are located within the project.

We also recommend that you complete tribal consultation as required by Section 106 to determine whether there are any tribal concerns. Our website has information regarding tribal interest by county and contact information for tribes; please contact me if you need further assistance finding these documents.

If you would like to discuss this project further, please contact me by telephone at 505.827.6162 or by email at [andy.wakefield@state.nm.us](mailto:andy.wakefield@state.nm.us).

Sincerely,



S. Andrew Wakefield  
Archaeologist



RECEIVED  
5/26/16

He

103639

May 13, 2016

RECEIVED

#6423775

Ms. Michelle Ensey  
New Mexico Office of Cultural Affairs  
State Historic Preservation Division  
Bataan Memorial Building  
407 Galisteo Street, Suite 236  
Santa Fe, NM 87501  
*michelle.ensey@state.nm.us*

MAY 19 2016 AW

HISTORIC PRESERVATION DIVISION

**RE: Request for Review and Concurrence, Cuba Wastewater Treatment Plant Improvements, Sandoval County, New Mexico  
NMCRIIS Project/Activity Number 135330**

Ms. Ensey:

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Limits of the study include a portion of the northwest quarter of Section 6, T20N, R1W, located on the USGS San Pablo Quadrangle Map. Please refer to the enclosed map (Figures 1 and 2) that depict the area of the proposed WWTP improvements.

All work is to be completed on property owned by the Village of Cuba. The majority of work (except the ~~land application of effluent and biosolids~~) will be completed below ground and all will be completed in areas that are part of the WWTP or adjacent rangeland. A cultural resources survey was completed by Stephen Townsend for all areas of disturbance for the contemplated project. The survey is attached.

Ms. Michelle Ensey  
May 13, 2016  
Page 2

SMA would appreciate your review of the survey report, and concurrence with the findings if appropriate. If you need any further information or wish to discuss the project, please feel free to contact me by phone at 505.299.0942, or by email at [scott.mckitrick@soudermiller.com](mailto:scott.mckitrick@soudermiller.com).

Sincerely,  
**SOUDER, MILLER & ASSOCIATES**



Scott A. McKitrick, P.G.  
Senior Geoscientist

Encl.: Figures 1 and 2

*A Cultural Resources Inventory in Support of Expansion of the Cuba Wastewater Treatment Plant, Lagunitas, Sandoval County, New Mexico, Stephen Townsend, March 20, 2016, NMCRIS Project/Activity Number 135330*

No Historic Properties Affected  
*Jeff Wakefield* 05/20/2016  
for NM State Historic Preservation Office

# Appendix E7

## Native American Correspondence





November 24, 2015

#6423775

Governor Leroy Arquero  
Pueblo of Cochiti  
P.O. Box 70  
Cochiti Pueblo, NM 87072  
Phone: (505) 465-2244  
Fax: (505) 465-1135

**RE: REVISION TO REQUEST FOR INFORMATION CONCERNING THE SOLIDS HANDLING AND EFFLUENT REUSE IMPROVEMENTS PROJECT FOR THE VILLAGE OF CUBA WASTEWATER TREATMENT PLANT, SANDOVAL COUNTY, NEW MEXICO**

Mr. Arquero:

Souder, Miller & Associates (SMA), on behalf of our client, the Village of Cuba, is in the process of performing an environmental assessment pursuant to the National Environmental Policy Act for use of public funding. The Village's Wastewater Treatment Plant (WWTP) is located in Sandoval County, along New Mexico State Road 197 (NM 197); approximately 2 miles from the NM 197/United States Route 550 (US 550) junction; approximately 65 miles northwest of Bernalillo, New Mexico. Funding for the planned project may be obtained from New Mexico Legislative Appropriations (SAP), United States Department of Agriculture (USDA) - Rural Development (RD), Community Development Block Grant (CDBG), New Mexico Water Trust Board (WTB), Clean Water State Revolving Fund (CWSRF) and/or other State and Federal sources.

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- Utilization of 15 acres of land for long-term biosolids and effluent land application.
- Use of the existing northeast passive lagoon at the WWTP to dewater biosolids until they dry to a desired solids concentration.
- Modification of the existing sand filters to function as drying sand beds to dewater biosolids produced by the WWTP.
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- Reuse of biosolids and treated effluent via land application for irrigation.

Limits of the study include a portion of Township 20 North, Range 01 West, Section 6. The center of the project area is located at approximately 35° 59' 38" N latitude and 106° 59' 6" west longitude. Please refer to the enclosed map (Figure 1) that depicts the area of the proposed WWTP improvements. Figures 1 and 2 were inadvertently left out of original letter. They are attached to this letter.

All work is to be completed on property owned by the Village of Cuba. The majority of work will be completed above ground. The overall project area depicted in Figure 2 shows that all projects contemplated at this time lie within Zone A (areas where flood heights have not been determined but are expected to flood during the 100-year flood) and Zone X (areas that have been determined to be outside

*Mr. Leroy Arquero*  
*November 24, 2015*  
*Page 2*

the 0.2% annual floodplain). No arroyos are anticipated to be crossed or disturbed by the proposed projects.

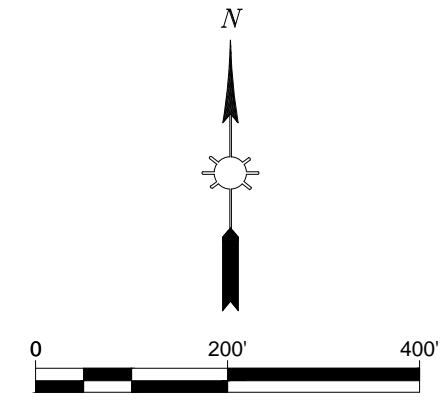
SMA would appreciate any information or feedback to be provided at your earliest possible convenience. If you need any further information or wish to discuss the project, please feel free to contact me by phone at 877-299-0942, or by email at [lisa.gaston@soudermiller.com](mailto:lisa.gaston@soudermiller.com).

Sincerely,

**SOUDER, MILLER & ASSOCIATES**

A handwritten signature in blue ink, appearing to read "Lisa A. Gaston".

Lisa A. Gaston  
Staff Geoscientist



**LEGEND**

█ PROJECT AREA

VILLAGE OF CUBA  
WWTP

LAND APPLICATION  
AREA

REVISIONS		
BY	DATE	DESC.

**SMA**  
Engineering • Environmental  
Surveying

**SOUDER, MILLER & ASSOCIATES**  
3451 Candelaria Road NE, Suite D  
Albuquerque, NM 87107

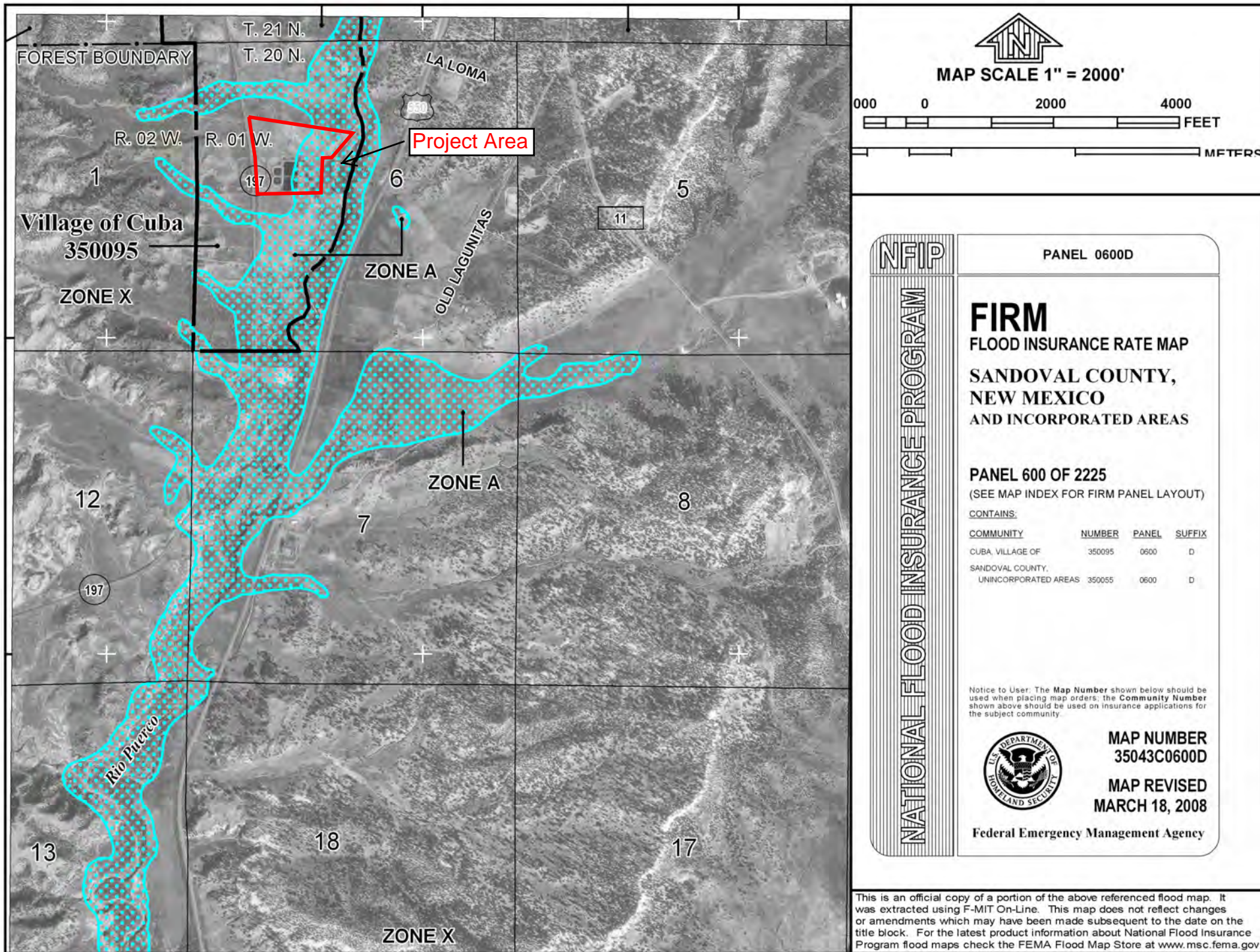
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**VILLAGE OF CUBA SITE MAP**  
**NORTHERN PROPERTY AND WWTP**  
**SANDOVAL COUNTY, NEW MEXICO**

Drawn ARB/JER	Checked JMG	Approved JMG
Date: AUGUST, 2014		
Scale: Horiz: 1"=200 Vert:		
Project No: 48968		
Sheet: <b>FIGURE 1</b>		

Figure 3



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0600D

**FIRM**  
FLOOD INSURANCE RATE MAP

**SANDOVAL COUNTY,  
NEW MEXICO  
AND INCORPORATED AREAS**

**PANEL 600 OF 2225**  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
CUBA, VILLAGE OF	350095	0600	D
SANDOVAL COUNTY, UNINCORPORATED AREAS	350055	0600	D

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.



**MAP NUMBER**  
35043C0600D

**MAP REVISED**  
MARCH 18, 2008

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)

# LEGEND



**SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**

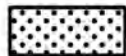
The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A** No Base Flood Elevations determined.
- ZONE AE** Base Flood Elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.



**FLOODWAY AREAS IN ZONE AE**

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.



**OTHER FLOOD AREAS**

- ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

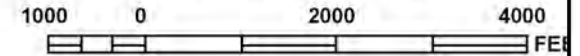


**OTHER AREAS**

- ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D** Areas in which flood hazards are undetermined, but possible.



**MAP SCALE 1" = 2000'**



**COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**



**OTHERWISE PROTECTED AREAS (OPAs)**

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- Base Flood Elevation line and value; elevation in feet\*
- Base Flood Elevation value where uniform within zone; elevation in feet\*

\* Referenced to the North American Vertical Datum of 1988.

- Cross section line
- Transect line
- Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 1000-meter Universal Transverse Mercator grid values, zone 13
- 5000-foot grid ticks: New Mexico State Plane coordinate system, Central zone (FIPSZONE 3002), Transverse Mercator projection
- Bench mark (see explanation in Notes to Users section of this FIRM panel)
- River Mile

**MAP REPOSITORY**  
Refer to listing of Map Repositories on Map Index

**EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP**  
July 16, 1996

**EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL**  
March 18, 2008 - to update map format.

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

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## Scott McKitrick

---

**From:** Scott McKitrick  
**Sent:** Friday, June 03, 2016 10:44 AM  
**To:** 'governor@pueblodecochiti.org'  
**Subject:** Request for Consultation - Village of Cuba WWTP Improvements Project  
**Attachments:** Cochiti.pdf

Attached please find a NEPA consultation letter for the Village of Cuba WWTP Improvements Project. Please feel free to provide any feedback or questions to me at this email or the number below. Thanks.

---

**Scott A. McKitrick, P.G.**  
**Senior Geoscientist**  
**Souder, Miller & Associates**  
3451 Candelaria NE, Suite D  
Albuquerque, NM 87107  
[www.soudermiller.com](http://www.soudermiller.com)  
505.299.0942 (office)  
505.220.6542 (mobile)  
505.293.3430 (fax)



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November 24, 2015

#6423775

Mr. Jimmy W. Arterberry, Historic Preservation Officer  
Comanche Nation  
#6 SW 'D' Avenue, Suite A  
Lawton, Oklahoma 73507  
(580) 595-9618 / (580) 595-9960  
(580) 595-9733 (fax)  
*historicpreservation@comanchenation.com*  
*jimmya@comanchenation.com*

**RE: REVISION TO REQUEST FOR INFORMATION CONCERNING THE SOLIDS HANDLING AND EFFLUENT REUSE IMPROVEMENTS PROJECT FOR THE VILLAGE OF CUBA WASTEWATER TREATMENT PLANT, SANDOVAL COUNTY, NEW MEXICO**

Mr. Arterberry:

Souder, Miller & Associates (SMA), on behalf of our client, the Village of Cuba, is in the process of performing an environmental assessment pursuant to the National Environmental Policy Act for use of public funding. The Village's Wastewater Treatment Plant (WWTP) is located in Sandoval County, along New Mexico State Road 197 (NM 197); approximately 2 miles from the NM 197/United States Route 550 (US 550) junction; approximately 65 miles northwest of Bernalillo, New Mexico. Funding for the planned project may be obtained from New Mexico Legislative Appropriations (SAP), United States Department of Agriculture (USDA) - Rural Development (RD), Community Development Block Grant (CDBG), New Mexico Water Trust Board (WTB), Clean Water State Revolving Fund (CWSRF) and/or other State and Federal sources.

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*Mr. Jimmy W. Arterberry*

*November 24, 2015*

*Page 2*

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SMA would appreciate any information or feedback to be provided at your earliest possible convenience. If you need any further information or wish to discuss the project, please feel free to contact me by phone at 877-299-0942, or by email at [lisa.gaston@soudermiller.com](mailto:lisa.gaston@soudermiller.com).

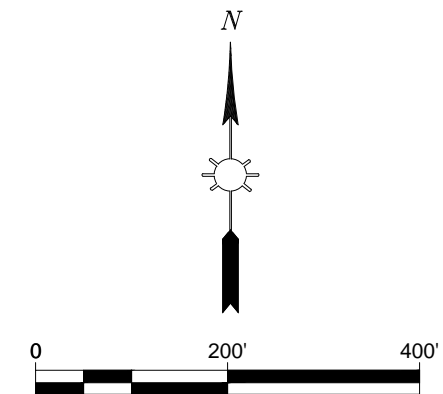
Sincerely,

**SOUDER, MILLER & ASSOCIATES**

A handwritten signature in blue ink, appearing to read "Lisa A. Gaston".

Lisa A. Gaston  
Staff Geoscientist





**LEGEND**

█ PROJECT AREA

REVISIONS		
BY	DATE	DESC.

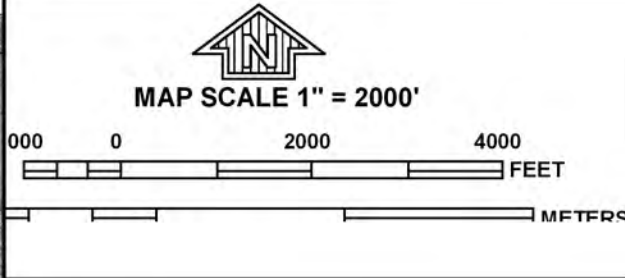
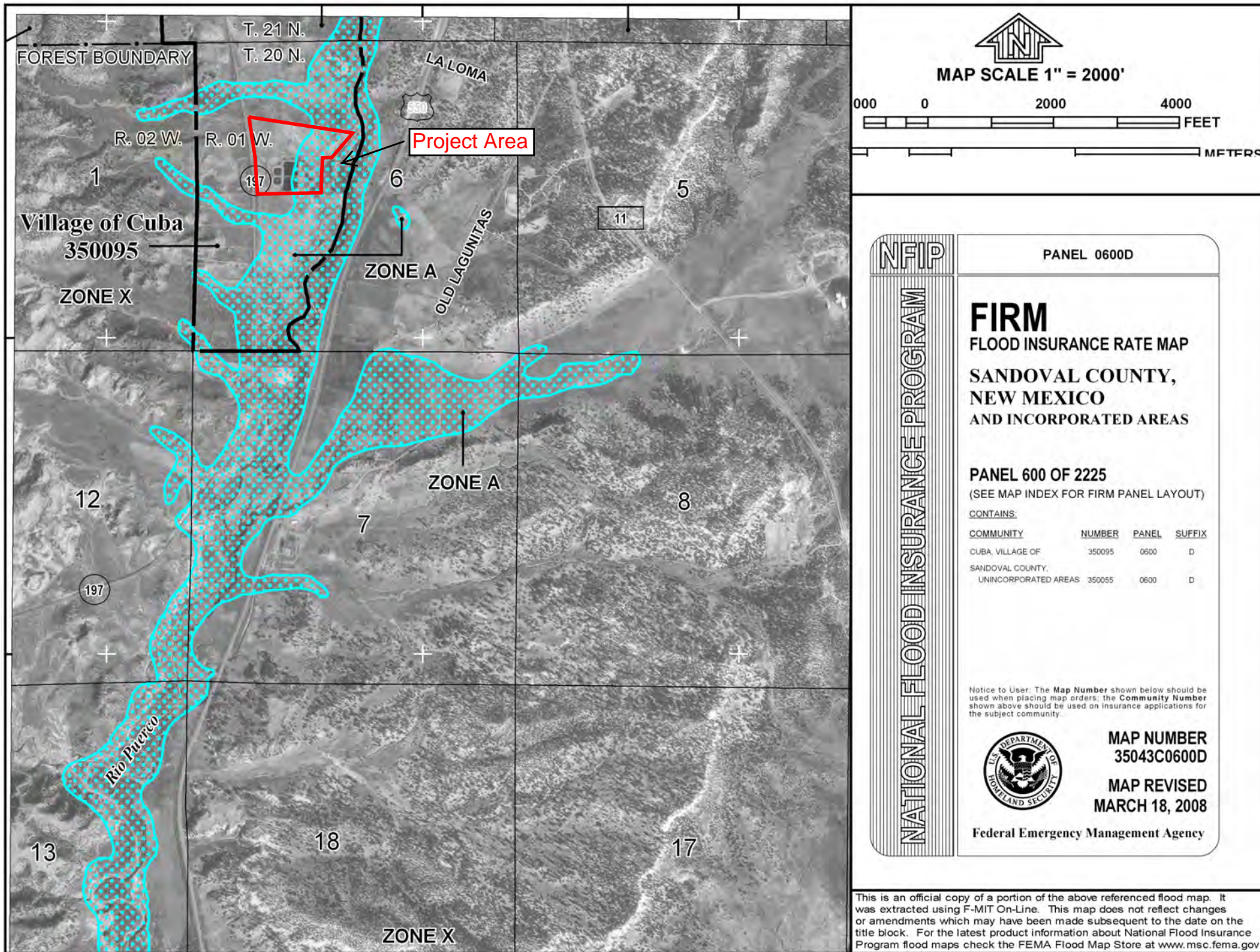
**SOUDER, MILLER & ASSOCIATES**  
 3451 Candelaria Road NE, Suite D  
 Albuquerque, NM 87107

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**VILLAGE OF CUBA SITE MAP**  
**NORTHERN PROPERTY AND WWTP**  
**SANDOVAL COUNTY, NEW MEXICO**

Drawn ARB/JER	Checked JMG	Approved JMG
Date: AUGUST, 2014		
Scale: Horiz: 1"=200 Vert:		
Project No: 48968		
Sheet: <b>FIGURE 1</b>		

Figure 3



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0600D


**FIRM**  
FLOOD INSURANCE RATE MAP  
**SANDOVAL COUNTY,  
NEW MEXICO  
AND INCORPORATED AREAS**

**PANEL 600 OF 2225**  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

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SANDOVAL COUNTY, UNINCORPORATED AREAS	350055	0600	D

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35043C0600D

**MAP REVISED**  
MARCH 18, 2008

Federal Emergency Management Agency

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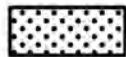
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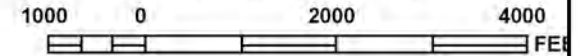


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**MAP SCALE 1" = 2000'**



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- Bench mark (see explanation in Notes to Users section of this FIRM panel)
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July 16, 1996

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March 18, 2008 - to update map format.

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Souder, Miller & Associates (SMA)  
Attn: Lisa A. Gaston  
3451 Candelaria Road NE, Suite D  
New Mexico 87107-1948

December 9, 2015

Re: Revision to Request for Information Concerning the Solids Handling and Effluent  
Reuse Improvements Project for The Village of Cuba Wastewater Treatment  
Plant, Sandoval County, New Mexico

Dear Ms. Gaston:

In response to your request, the above reference project has been reviewed by staff of this office to identify areas that may potentially contain prehistoric or historic archeological materials. The location of your project has been cross referenced with the Comanche Nation site files, where an indication of "*No Properties*" have been identified.

Please contact this office at (580) 595-9960/9618 if you require additional information on this project.

This review is performed in order to identify and preserve the Comanche Nation and State cultural heritage, in conjunction with the State Historic Preservation Office.

Regards

Comanche Nation Historic Preservation Office  
Theodore E. Villicana ,Resource Technician  
#6 SW "D" Avenue , Suite C  
Lawton, OK. 73502



November 24, 2015

#6423775

Mr. Leigh Kuwanwisiwma, Director  
P.O. Box 123  
Kykotsmovi, AZ 86039  
(928) 734-3611  
(928) 734-3629 (fax)  
*lkuwanwisiwma@hopi.nsn.us*

**RE: REVISION TO REQUEST FOR INFORMATION CONCERNING THE SOLIDS HANDLING AND EFFLUENT REUSE IMPROVEMENTS PROJECT FOR THE VILLAGE OF CUBA WASTEWATER TREATMENT PLANT, SANDOVAL COUNTY, NEW MEXICO**

Mr. Leigh Kuwanwisiwma:

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*Mr. Leigh Kuwanwisiwna*

*November 24, 2015*

*Page 2*

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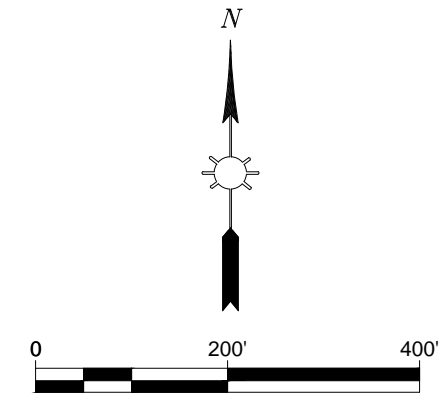
SMA would appreciate any information or feedback to be provided at your earliest possible convenience. If you need any further information or wish to discuss the project, please feel free to contact me by phone at 877-299-0942, or by email at [lisa.gaston@soudermiller.com](mailto:lisa.gaston@soudermiller.com).

Sincerely,

**SOUDER, MILLER & ASSOCIATES**

A handwritten signature in blue ink, appearing to read "Lisa A. Gaston".

Lisa A. Gaston  
Staff Geoscientist



**LEGEND**

█ PROJECT AREA

VILLAGE OF CUBA  
WWTP

LAND APPLICATION  
AREA

REVISIONS		
BY	DATE	DESC.

**SMA**  
Engineering • Environmental  
Surveying

**SOUDER, MILLER & ASSOCIATES**  
3451 Candelaria Road NE, Suite D  
Albuquerque, NM 87107

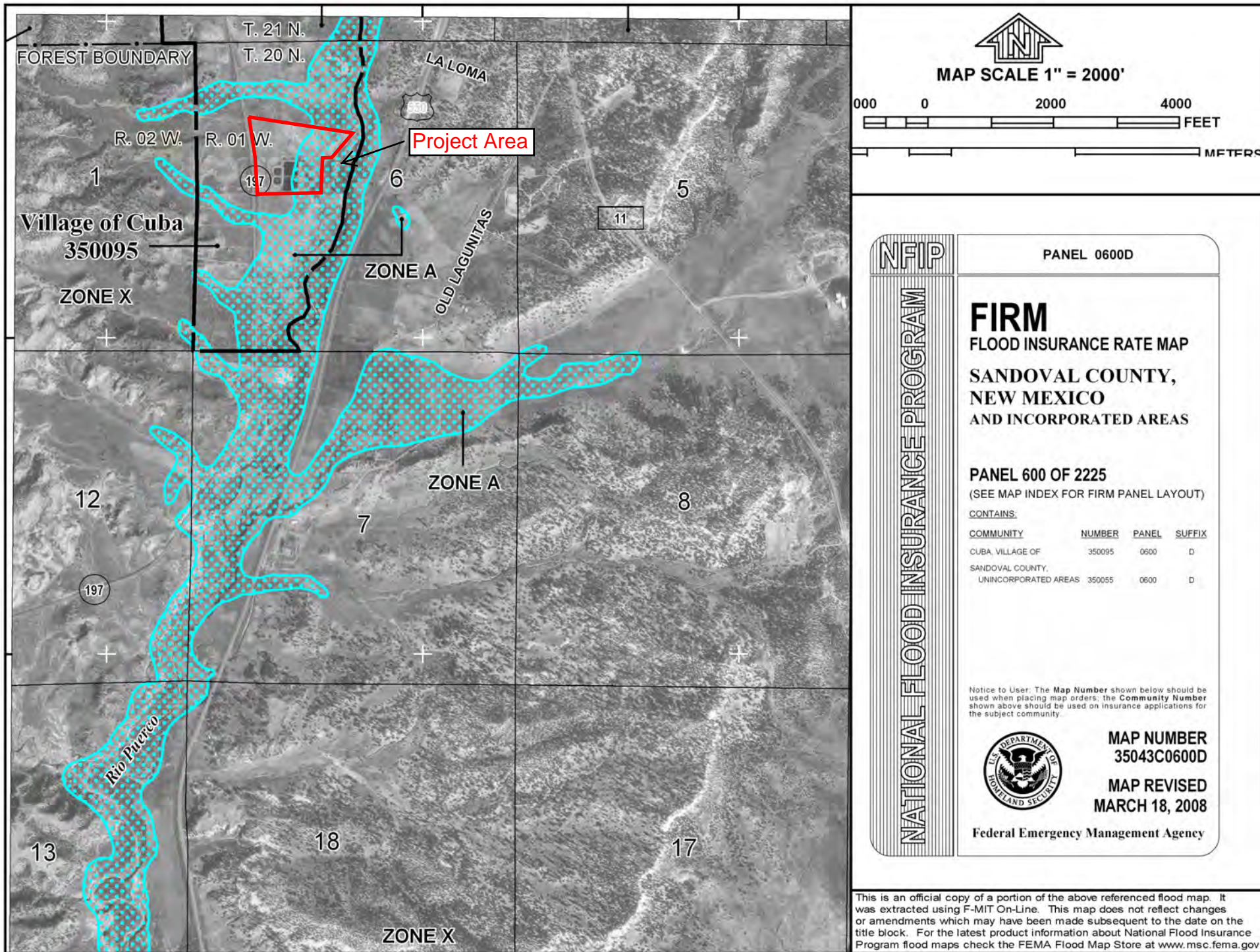
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VILLAGE OF CUBA SITE MAP  
NORTHERN PROPERTY AND WWTP  
SANDOVAL COUNTY, NEW MEXICO

Drawn ARB/JER	Checked JMG	Approved JMG
Date: AUGUST, 2014		
Scale: Horiz: 1"=200 Vert:		
Project No: 48968		
Sheet: <b>FIGURE 1</b>		

Figure 3



NATIONAL FLOOD INSURANCE PROGRAM

NFIP

PANEL 0600D

**FIRM**  
FLOOD INSURANCE RATE MAP


**SANDOVAL COUNTY,  
NEW MEXICO  
AND INCORPORATED AREAS**

**PANEL 600 OF 2225**  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
CUBA, VILLAGE OF	350095	0600	D
SANDOVAL COUNTY, UNINCORPORATED AREAS	350055	0600	D

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.



**MAP NUMBER**  
35043C0600D

**MAP REVISED**  
MARCH 18, 2008

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)



# LEGEND



**SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**

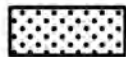
The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A** No Base Flood Elevations determined.
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- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
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- ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.



**FLOODWAY AREAS IN ZONE AE**

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.



**OTHER FLOOD AREAS**

- ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

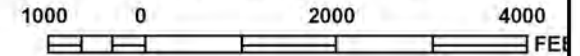


**OTHER AREAS**

- ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D** Areas in which flood hazards are undetermined, but possible.



**MAP SCALE 1" = 2000'**



**COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**



**OTHERWISE PROTECTED AREAS (OPAs)**

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- Base Flood Elevation line and value; elevation in feet\*
- Base Flood Elevation value where uniform within zone; elevation in feet\*

\* Referenced to the North American Vertical Datum of 1988.

- Cross section line
- Transect line
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- 5000-foot grid ticks: New Mexico State Plane coordinate system, Central zone (FIPSZONE 3002), Transverse Mercator projection
- Bench mark (see explanation in Notes to Users section of this FIRM panel)
- River Mile

**MAP REPOSITORY**  
Refer to listing of Map Repositories on Map Index

**EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP**  
July 16, 1996

**EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL**  
March 18, 2008 - to update map format.

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

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Herman G. Honanie  
CHAIRMAN

Alfred Lomahquahu Jr.  
VICE-CHAIRMAN

November 23, 2015

Lisa A. Gaston, Senior Geoscientist  
Soulder, Miller and Associates  
3451 Candelaria Road NE, Suite D  
Albuquerque, New Mexico 87107-1948

Dear Ms. Gaston,

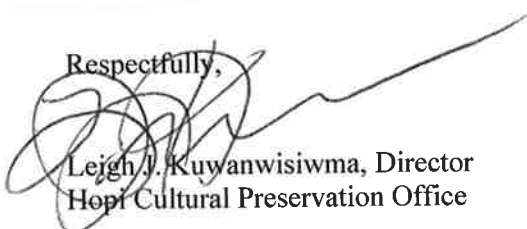
This letter is in response to your correspondence dated November 13, 2015, regarding an improvement project at the Cuba Wastewater Treatment plant in Cuba. The Hopi Tribe claims cultural affiliation to earlier identifiable cultural groups in New Mexico. The Hopi Cultural Preservation Office supports the identification and avoidance of our ancestral sites, and we consider the prehistoric archaeological sites of our ancestors to be "footprints" and Traditional Cultural Properties. Therefore, we appreciate your solicitation of our input and your efforts to address our concerns.

And therefore, the Hopi Cultural Preservation Office is interested in consulting on any proposal in New Mexico that has the potential to adversely affect prehistoric sites. Because this federally funded project that involves ground disturbing activities, if prehistoric cultural resources are identified and will be adversely affected by project activities, please provide us with copies of the cultural resources survey report of the area of potential effect and any proposed treatment plans for review and comment.

In addition, we recommend that if any cultural features or deposits are encountered during project activities, these activities must be discontinued in the immediate area of the remains, and the State Historic Preservation Office must be consulted to evaluate their nature and significance. If any Native American human remains or funerary objects are discovered during construction they shall be immediately reported as required by law.

If you have any questions or need additional information, please contact Terry Morgart at 928-734-3619 or [tmorgart@hopi.nsn.us](mailto:tmorgart@hopi.nsn.us). Thank you for your consideration.

Respectfully,

A handwritten signature in black ink, appearing to read "Leigh J. Kuwanwisiwma". The signature is written in a cursive, somewhat stylized script. Below the signature is a horizontal line that extends to the right.

Leigh J. Kuwanwisiwma, Director  
Hopi Cultural Preservation Office

xc: New Mexico State Historic Preservation Office



November 24, 2015

#6423775

Governor Eddie Paul Torres Sr.  
Pueblo of Isleta  
P.O. Box 1270  
Isleta Pueblo, NM 87022  
(505) 869-3111/6333  
(505) 869-7596 (fax)

**RE: REVISION TO REQUEST FOR INFORMATION CONCERNING THE SOLIDS HANDLING AND EFFLUENT REUSE IMPROVEMENTS PROJECT FOR THE VILLAGE OF CUBA WASTEWATER TREATMENT PLANT, SANDOVAL COUNTY, NEW MEXICO**

Governor Torres:

Souder, Miller & Associates (SMA), on behalf of our client, the Village of Cuba, is in the process of performing an environmental assessment pursuant to the National Environmental Policy Act for use of public funding. The Village's Wastewater Treatment Plant (WWTP) is located in Sandoval County, along New Mexico State Road 197 (NM 197); approximately 2 miles from the NM 197/United States Route 550 (US 550) junction; approximately 65 miles northwest of Bernalillo, New Mexico. Funding for the planned project may be obtained from New Mexico Legislative Appropriations (SAP), United States Department of Agriculture (USDA) - Rural Development (RD), Community Development Block Grant (CDBG), New Mexico Water Trust Board (WTB), Clean Water State Revolving Fund (CWSRF) and/or other State and Federal sources.

As part of the overall planning phase of the project Village of Cuba WWTP is requesting consultation on several improvements including:

- Utilization of 15 acres of land for long-term biosolids and effluent land application.
- Use of the existing northeast passive lagoon at the WWTP to dewater biosolids until they dry to a desired solids concentration.
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Limits of the study include a portion of Township 20 North, Range 01 West, Section 6. The center of the project area is located at approximately 35° 59' 38" N latitude and 106° 59' 6" west longitude. Please refer to the enclosed map (Figure 1) that depicts the area of the proposed WWTP improvements. Figures 1 and 2 were inadvertently left out of original letter. They are attached to this letter.

All work is to be completed on property owned by the Village of Cuba. The majority of work will be completed above ground. The overall project area depicted in Figure 2 shows that all projects contemplated at this time lie within Zone A (areas where flood heights have not been determined but are expected to flood during the 100-year flood) and Zone X (areas that have been determined to be outside

*Governor Eddie Paul Torres Sr.*

*November 24, 2015*

*Page 2*

the 0.2% annual floodplain). No arroyos are anticipated to be crossed or disturbed by the proposed projects.

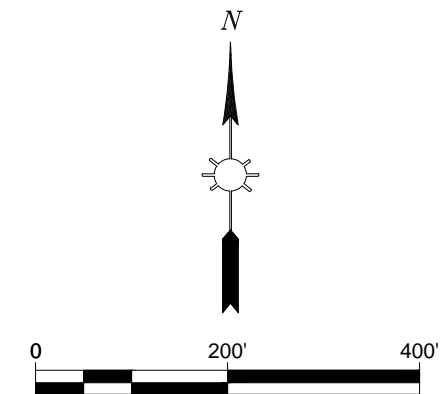
SMA would appreciate any information or feedback to be provided at your earliest possible convenience. If you need any further information or wish to discuss the project, please feel free to contact me by phone at 877-299-0942, or by email at [lisa.gaston@soudermiller.com](mailto:lisa.gaston@soudermiller.com).

Sincerely,

**SOUDER, MILLER & ASSOCIATES**

A handwritten signature in blue ink, appearing to read "Lisa A. Gaston".

Lisa A. Gaston  
Staff Geoscientist



**LEGEND**

█ PROJECT AREA

REVISIONS		
BY	DATE	DESC.

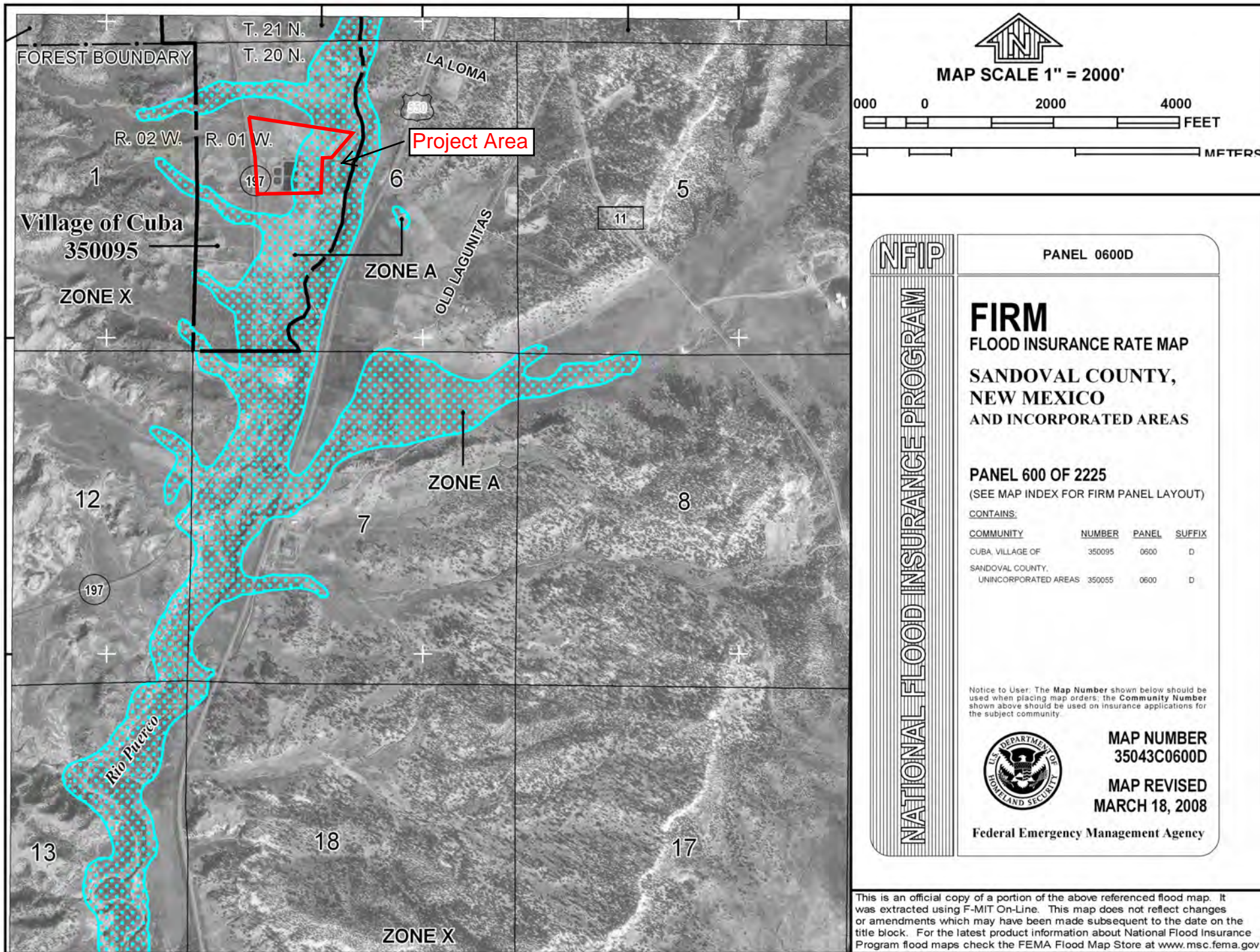
**SOUDER, MILLER & ASSOCIATES**  
 3451 Candelaria Road NE, Suite D  
 Albuquerque, NM 87107

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**VILLAGE OF CUBA SITE MAP**  
**NORTHERN PROPERTY AND WWTP**  
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Drawn ARB/JER	Checked JMG	Approved JMG
Date: AUGUST, 2014		
Scale: Horiz: 1"=200 Vert:		
Project No: 48968		
Sheet: <b>FIGURE 1</b>		

Figure 3



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0600D

**FIRM**  
FLOOD INSURANCE RATE MAP

**SANDOVAL COUNTY,  
NEW MEXICO  
AND INCORPORATED AREAS**

**PANEL 600 OF 2225**  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

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35043C0600D

**MAP REVISED**  
MARCH 18, 2008

Federal Emergency Management Agency

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# LEGEND



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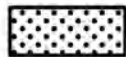
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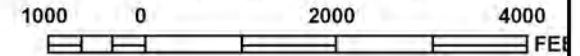


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July 16, 1996

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# Send Result Report



MFP

ECOSYS M2535dn

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05/23/2016 17:03  
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Job No.: 000923

Total Time: 0°04'13"

Page: 006

## Complete

Document: doc00092320160523165702

**Souder, Miller & Associates**  
Engineering ♦ Environmental ♦ Surveying  
3451 Candelaria Rd. NE, Suite D  
Albuquerque, NM 87107  
Phone (505) 299-0942  
Fax (505) 293-3430  
www.soudermiller.com



### Facsimile Transmittal Form

To: Governor Eddie Paul Torres Sr.  
At: Pueblo of Isleta  
Fax: (505) 869-7596  
Date: 23 May 2016

From: Scott A. McKitrick  
Souder, Miller & Associates  
Fax: (505) 293-3430  
Pages: 5

### Re: Village of Cuba WWTP Improvement Project

Greetings – attached please find the request for information concerning the above named project. Any information or feedback you wish to provide would be appreciated. Thank you.

No.	Date and Time	Destination	Times	Type	Result	Resolution/ECM
001	05/23/16 16:59	15058697596	0°04'13"	FAX	OK	200x100 Normal/On





November 24, 2015

#6423775

Governor Raymond Loretto  
Pueblo of Jemez  
P.O. Box 100  
Jemez Pueblo, NM 87024  
Phone: (575) 834-7359  
Fax: (575) 834-7331

**RE: REVISION TO REQUEST FOR INFORMATION CONCERNING THE SOLIDS HANDLING AND EFFLUENT REUSE IMPROVEMENTS PROJECT FOR THE VILLAGE OF CUBA WASTEWATER TREATMENT PLANT, SANDOVAL COUNTY, NEW MEXICO**

Mr. Raymond Loretto:

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*Mr. Raymond Loretto*

*November 24, 2015*

*Page 2*

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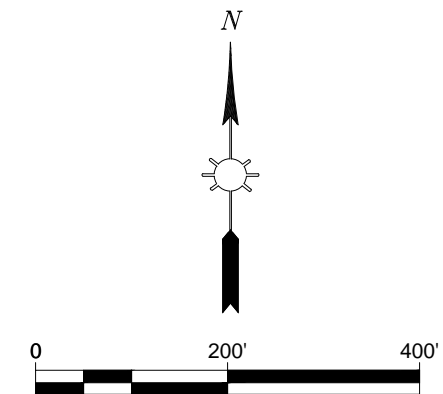
Sincerely,

**SOUDER, MILLER & ASSOCIATES**



Lisa A. Gaston  
Staff Geoscientist

cc. Mr. Christopher Toya  
Tribal Historic Preservation Officer  
P.O Box 100  
Jemez Pueblo, NM 87024  
Phone: 575-834-7696  
Email: [ctoya@jemezpuablo.org](mailto:ctoya@jemezpuablo.org)



**LEGEND**

█ PROJECT AREA

REVISIONS		
BY	DATE	DESC.

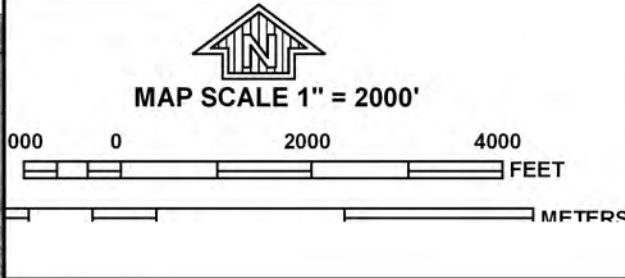
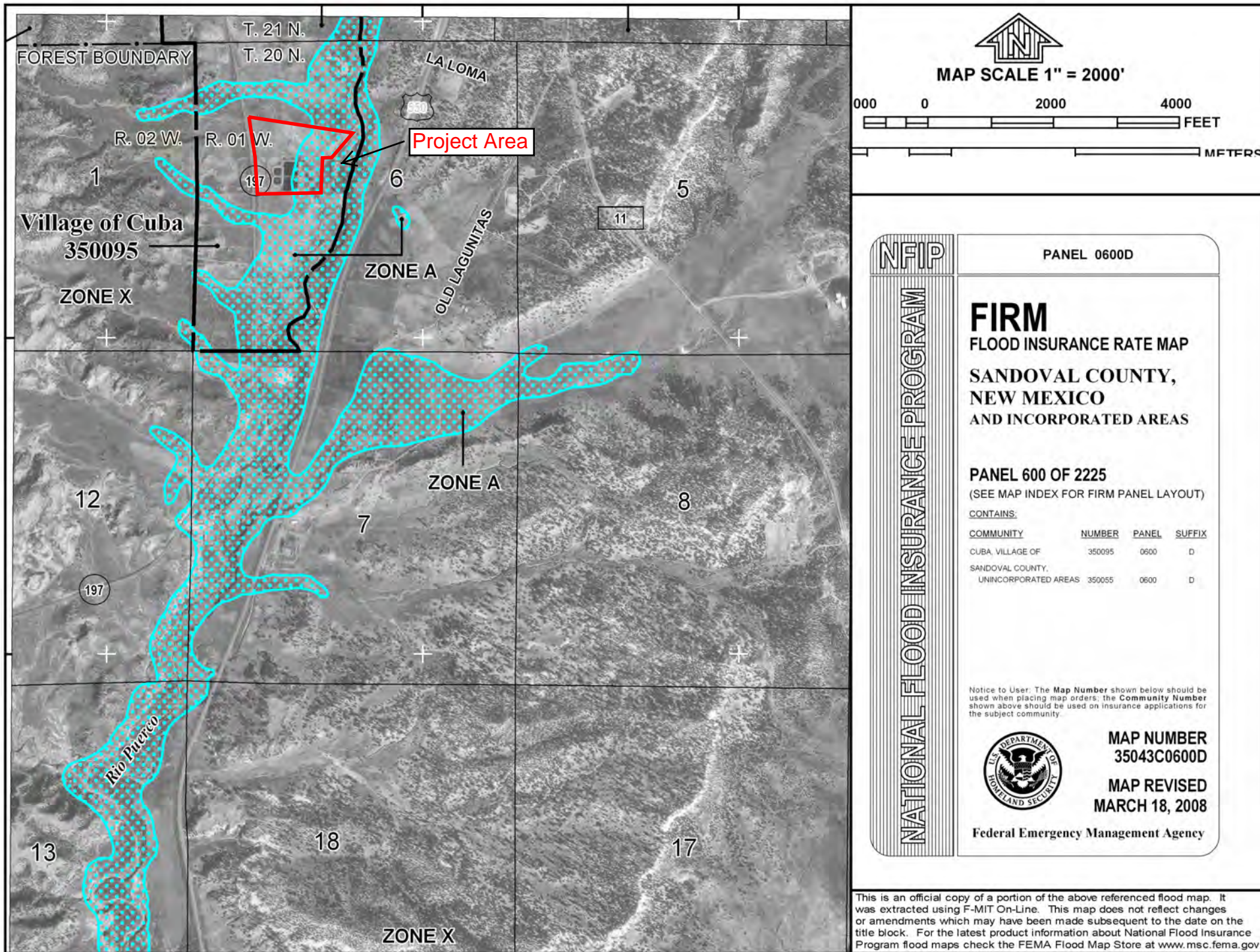
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**VILLAGE OF CUBA SITE MAP**  
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Date: AUGUST, 2014		
Scale: Horiz: 1"=200 Vert:		
Project No: 48968		
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Figure 3



**NATIONAL FLOOD INSURANCE PROGRAM**

PANEL 0600D

**FIRM**  
**FLOOD INSURANCE RATE MAP**  
**SANDOVAL COUNTY,**  
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**MAP REVISED**  
**MARCH 18, 2008**

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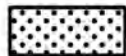
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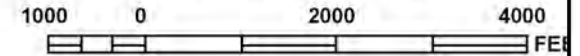


**OTHER AREAS**

- ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D** Areas in which flood hazards are undetermined, but possible.



**MAP SCALE 1" = 2000'**



**COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**



**OTHERWISE PROTECTED AREAS (OPAs)**

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- Base Flood Elevation line and value; elevation in feet\*
- Base Flood Elevation value where uniform within zone; elevation in feet\*

\* Referenced to the North American Vertical Datum of 1988

- Cross section line
- Transect line
- Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 1000-meter Universal Transverse Mercator grid values, zone 13
- 5000-foot grid ticks: New Mexico State Plane coordinate system, Central zone (FIPSZONE 3002), Transverse Mercator projection
- Bench mark (see explanation in Notes to Users section of this FIRM panel)
- River Mile

**MAP REPOSITORY**  
Refer to listing of Map Repositories on Map Index

**EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP**  
July 16, 1996

**EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL**  
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# Send Result Report



MFP

ECOSYS M2535dn

Firmware Version 2PL\_2000.001.102 2013.11.21

05/23/2016 17:07  
[2PM\_1000.001.018] [2PM\_1100.001.004] [2PL\_7000.001.006]

Job No.: 000924

Total Time: 0°01'46"

Page: 006

## Complete

Document: doc00092420160523165732

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Albuquerque, NM 87107  
Phone (505) 299-0942  
Fax (505) 293-3430  
www.soudermiller.com



### Facsimile Transmittal Form

To: Governor Raymond Loretto  
At: Pueblo of Jemez  
Fax: (575) 834-7331  
Date: 23 May 2016

From: Scott A. McKittrick  
Souder, Miller & Associates  
Fax: (505) 293-3430  
Pages: 5

### Re: Village of Cuba WWTP Improvement Project

Greetings – attached please find the request for information concerning the above named project. Any information or feedback you wish to provide would be appreciated. Thank you.

No.	Date and Time	Destination	Times	Type	Result	Resolution/ECM
001	05/23/16 17:06	15758347331	0°01'46"	FAX	OK	200x100 Normal/On



November 24, 2015

#6423775

President Ty Vicenti  
Jicarilla Apache Nation  
P.O. Box 507  
Dulce, NM 87528  
Phone: (575) 759-3242  
Fax: (575) 759-4471

**RE: REVISION TO REQUEST FOR INFORMATION CONCERNING THE SOLIDS HANDLING AND EFFLUENT REUSE IMPROVEMENTS PROJECT FOR THE VILLAGE OF CUBA WASTEWATER TREATMENT PLANT, SANDOVAL COUNTY, NEW MEXICO**

Mr. Ty Vicenti:

Souder, Miller & Associates (SMA), on behalf of our client, the Village of Cuba, is in the process of performing an environmental assessment pursuant to the National Environmental Policy Act for use of public funding. The Village's Wastewater Treatment Plant (WWTP) is located in Sandoval County, along New Mexico State Road 197 (NM 197); approximately 2 miles from the NM 197/United States Route 550 (US 550) junction; approximately 65 miles northwest of Bernalillo, New Mexico. Funding for the planned project may be obtained from New Mexico Legislative Appropriations (SAP), United States Department of Agriculture (USDA) - Rural Development (RD), Community Development Block Grant (CDBG), New Mexico Water Trust Board (WTB), Clean Water State Revolving Fund (CWSRF) and/or other State and Federal sources.

As part of the overall planning phase of the project Village of Cuba WWTP is requesting consultation on several improvements including:

- Utilization of 15 acres of land for long-term biosolids and effluent land application.
- Use of the existing northeast passive lagoon at the WWTP to dewater biosolids until they dry to a desired solids concentration.
- Modification of the existing sand filters to function as drying sand beds to dewater biosolids produced by the WWTP.
- Construction of a lined effluent storage basin.
- Construction of a building for an office and for sludge processing equipment.
- Reuse of biosolids and treated effluent via land application for irrigation.

Limits of the study include a portion of Township 20 North, Range 01 West, Section 6. The center of the project area is located at approximately 35° 59' 38" N latitude and 106° 59' 6" west longitude. Please refer to the enclosed map (Figure 1) that depicts the area of the proposed WWTP improvements. Figures 1 and 2 were inadvertently left out of original letter. They are attached to this letter.

All work is to be completed on property owned by the Village of Cuba. The majority of work will be completed above ground. The overall project area depicted in Figure 2 shows that all projects contemplated at this time lie within Zone A (areas where flood heights have not been determined but are

*Mr. Ty Vicenti*  
*November 24, 2015*  
*Page 2*

expected to flood during the 100-year flood) and Zone X (areas that have been determined to be outside the 0.2% annual floodplain). No arroyos are anticipated to be crossed or disturbed by the proposed projects.

SMA would appreciate any information or feedback to be provided at your earliest possible convenience. If you need any further information or wish to discuss the project, please feel free to contact me by phone at 877-299-0942, or by email at [lisa.gaston@soudermiller.com](mailto:lisa.gaston@soudermiller.com).

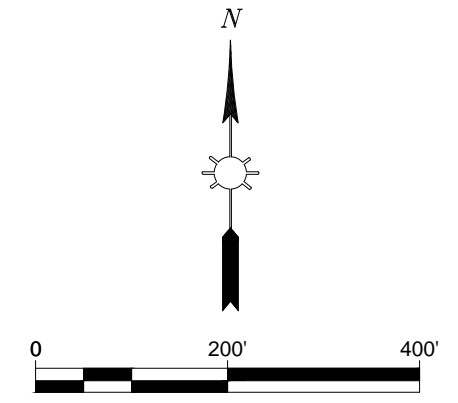
Sincerely,  
**SOUDER, MILLER & ASSOCIATES**



Lisa A. Gaston  
Staff Geoscientist

cc. Dr. Jeffrey Blythe  
THPO, Office of Cultural Affairs  
Jicarilla Apache Nation  
P.O. Box 1367  
Dulce, NM 575-759-1343  
Phone: 575-759-1343  
Email: [janthpo@gmail.com](mailto:janthpo@gmail.com)





**LEGEND**

█ PROJECT AREA

VILLAGE OF CUBA  
WWTP

LAND APPLICATION  
AREA

REVISIONS		
BY	DATE	DESC.

**SMA**  
Engineering • Environmental  
Surveying

**SOUDER, MILLER & ASSOCIATES**  
3451 Candelaria Road NE, Suite D  
Albuquerque, NM 87107

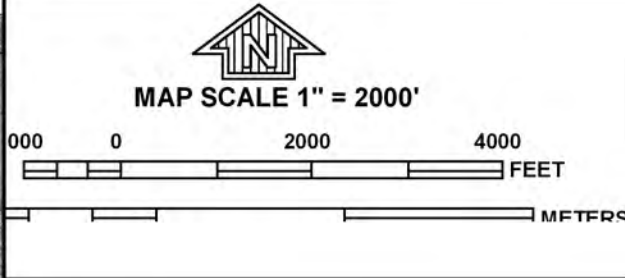
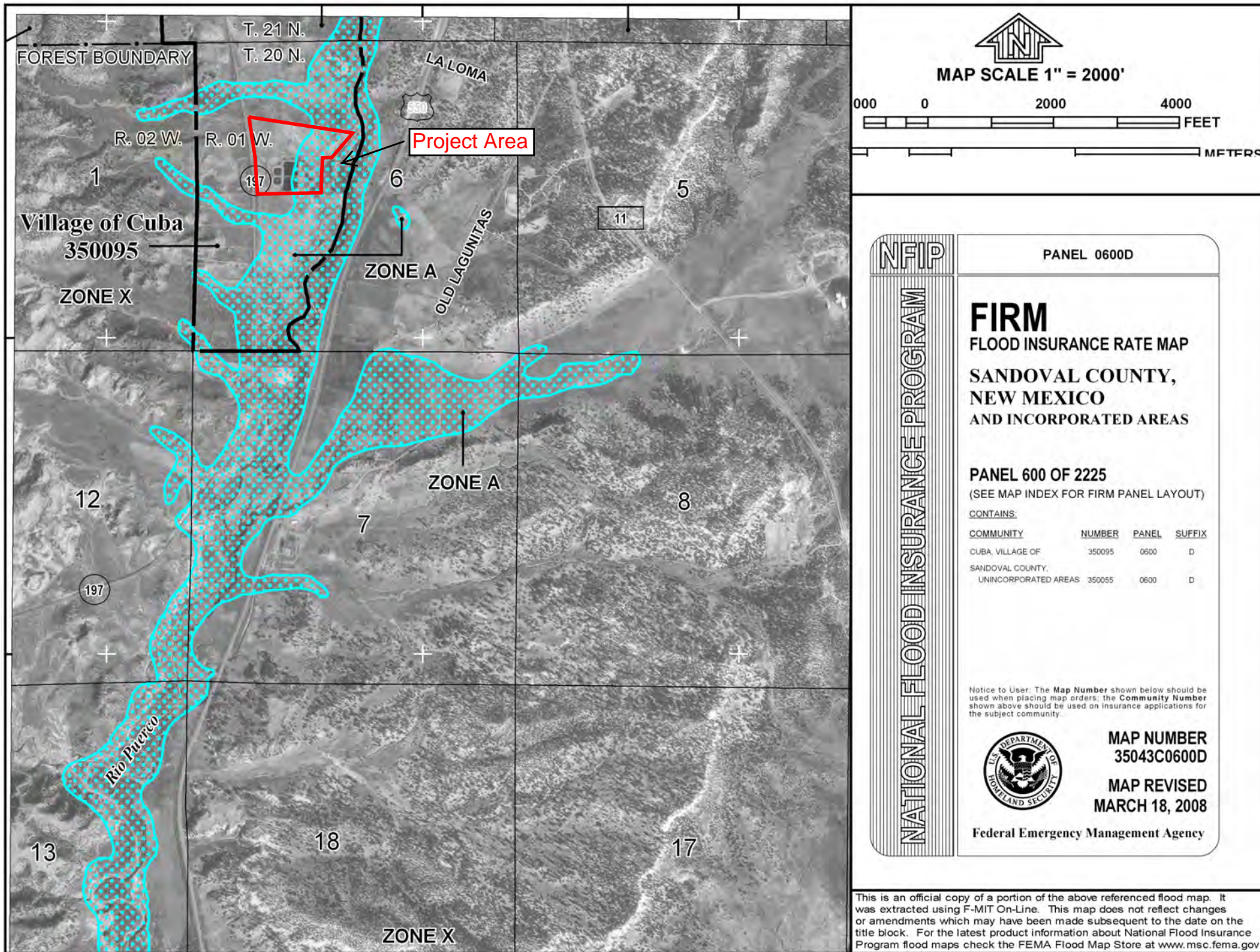
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VILLAGE OF CUBA SITE MAP  
NORTHERN PROPERTY AND WWTP  
SANDOVAL COUNTY, NEW MEXICO

Drawn ARB/JER	Checked JMG	Approved JMG
Date: AUGUST, 2014		
Scale: Horiz: 1"=200 Vert:		
Project No: 48968		
Sheet: <b>FIGURE 1</b>		

Figure 3



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0600D


**FIRM**  
FLOOD INSURANCE RATE MAP  
**SANDOVAL COUNTY,  
NEW MEXICO  
AND INCORPORATED AREAS**

**PANEL 600 OF 2225**  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
CUBA, VILLAGE OF	350095	0600	D
SANDOVAL COUNTY, UNINCORPORATED AREAS	350055	0600	D

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.



**MAP NUMBER**  
35043C0600D

**MAP REVISED**  
MARCH 18, 2008

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)

# LEGEND



**SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**

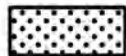
The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A** No Base Flood Elevations determined.
- ZONE AE** Base Flood Elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.



**FLOODWAY AREAS IN ZONE AE**

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.



**OTHER FLOOD AREAS**

- ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

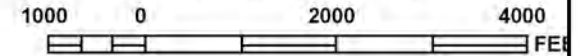


**OTHER AREAS**

- ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D** Areas in which flood hazards are undetermined, but possible.



**MAP SCALE 1" = 2000'**



**COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**



**OTHERWISE PROTECTED AREAS (OPAs)**

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- Base Flood Elevation line and value; elevation in feet\*
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\* Referenced to the North American Vertical Datum of 1988.

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- River Mile

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Refer to listing of Map Repositories on Map Index

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July 16, 1996

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March 18, 2008 - to update map format.

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# Send Result Report



MFP

ECOSYS M2535dn

Firmware Version 2PL\_2000.001.102 2013.11.21

05/24/2016 10:04  
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Job No.: 000942

Total Time: 0°04'17"

Page: 006

## Complete

Document: doc00094220160524095813

**Souder, Miller & Associates**  
Engineering ♦ Environmental ♦ Surveying  
3451 Candelaria Rd. NE, Suite D  
Albuquerque, NM 87107  
Phone (505) 299-0942  
Fax (505) 293-3430  
www.soudermiller.com



### Facsimile Transmittal Form

To: President Ty Vicenti  
At: Jicarilla Apache Nation  
Fax: (75) 759-4471  
Date: 23 May 2016

From: Scott A. McKittrick  
Souder, Miller & Associates  
Fax: (505) 293-3430  
Pages: 5

### Re: Village of Cuba WWTP Improvement Project

Greetings – attached please find the request for information concerning the above named project. Any information or feedback you wish to provide would be appreciated. Thank you.

Sincerely,

No.	Date and Time	Destination	Times	Type	Result	Resolution/ECM
001	05/24/16 09:59	15757594471	0°04'17"	FAX	OK	200x100 Normal/On



November 24, 2015

#6423775

Governor Virgil A. Siow  
Pueblo of Laguna  
P.O. Box 194  
Laguna Pueblo, NM 87026  
Phone: (505) 552-6654/6655/6598  
Fax: (505) 552-6941

**RE: REVISION TO REQUEST FOR INFORMATION CONCERNING THE SOLIDS HANDLING AND EFFLUENT REUSE IMPROVEMENTS PROJECT FOR THE VILLAGE OF CUBA WASTEWATER TREATMENT PLANT, SANDOVAL COUNTY, NEW MEXICO**

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All work is to be completed on property owned by the Village of Cuba. The majority of work will be completed above ground. The overall project area depicted in Figure 2 shows that all projects contemplated at this time lie within Zone A (areas where flood heights have not been determined but are expected to flood during the 100-year flood) and Zone X (areas that have been determined to be outside

*Mr. Virgil A. Siow*  
*November 24, 2015*  
*Page 2*

the 0.2% annual floodplain). No arroyos are anticipated to be crossed or disturbed by the proposed projects.

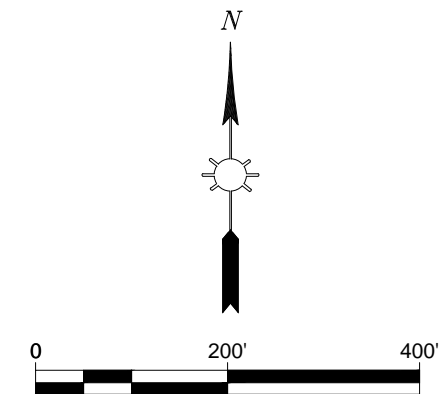
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Sincerely,  
**SOUDER, MILLER & ASSOCIATES**



Lisa A. Gaston  
Staff Geoscientist

cc. Mr. Gaylord Siow  
THPO  
P.O. Box 194  
Laguna Pueblo, NM 87026  
Phone: 505-552-5046  
Email: [GSiow@lagunapueblo-nsn.gov](mailto:GSiow@lagunapueblo-nsn.gov)



**LEGEND**

█ PROJECT AREA

REVISIONS		
BY	DATE	DESC.

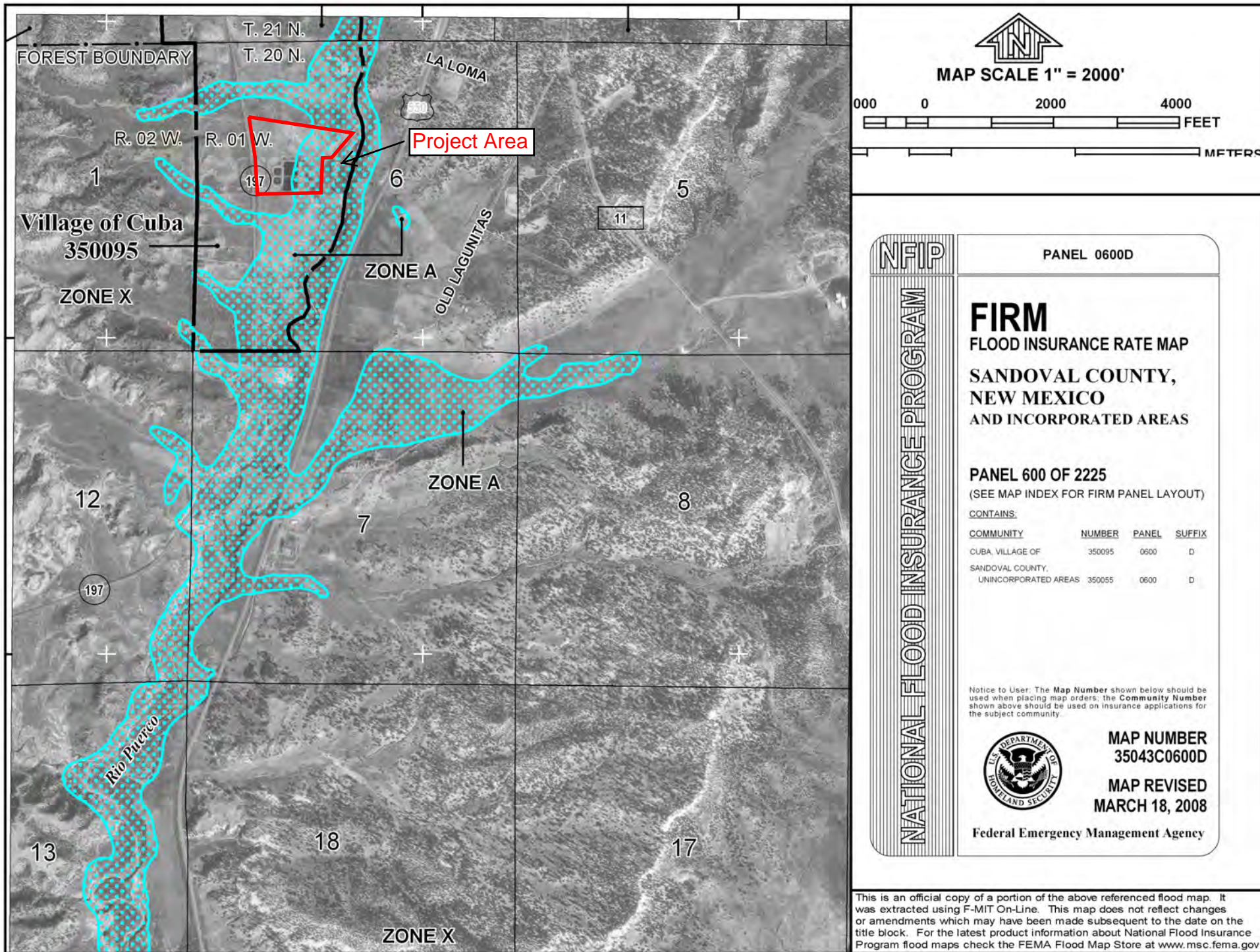
**SOUDER, MILLER & ASSOCIATES**  
 3451 Candelaria Road NE, Suite D  
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**VILLAGE OF CUBA SITE MAP**  
**NORTHERN PROPERTY AND WWTP**  
**SANDOVAL COUNTY, NEW MEXICO**

Drawn ARB/JER	Checked JMG	Approved JMG
Date: AUGUST, 2014		
Scale: Horiz: 1"=200 Vert:		
Project No: 48968		
Sheet: <b>FIGURE 1</b>		

Figure 3



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0600D

**FIRM**  
FLOOD INSURANCE RATE MAP  
**SANDOVAL COUNTY,  
NEW MEXICO**  
AND INCORPORATED AREAS

**PANEL 600 OF 2225**  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
CUBA, VILLAGE OF	350095	0600	D
SANDOVAL COUNTY, UNINCORPORATED AREAS	350055	0600	D

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**MAP NUMBER**  
35043C0600D

**MAP REVISED**  
MARCH 18, 2008

Federal Emergency Management Agency

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# LEGEND



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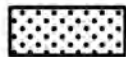
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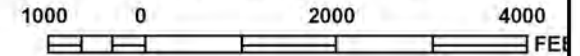


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\* Referenced to the North American Vertical Datum of 1988.

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- Transect line
- Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
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Refer to listing of Map Repositories on Map Index

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# Send Result Report



MFP

ECOSYS M2535dn

Firmware Version 2PL\_2000.001.102 2013.11.21

05/23/2016 17:10  
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Job No.: 000925

Total Time: 0°01'31"

Page: 006

## Complete

Document: doc00092520160523165820

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Engineering ♦ Environmental ♦ Surveying  
3451 Candelaria Rd. NE, Suite D  
Albuquerque, NM 87107  
Phone (505) 299-0942  
Fax (505) 293-3430  
www.soudermiller.com



### Facsimile Transmittal Form

To: Governor Virgil A. Siow  
At: Pueblo of Laguna  
Fax: (505) 552-6941  
Date: 23 May 2016

From: Scott A. McKittrick  
Souder, Miller & Associates  
Fax: (505) 293-3430  
Pages: 5

### Re: Village of Cuba WWTP Improvement Project

Greetings – attached please find the request for information concerning the above named project. Any information or feedback you wish to provide would be appreciated. Thank you.

No.	Date and Time	Destination	Times	Type	Result	Resolution/ECM
001	05/23/16 17:09	15055526941	0°01'31"	FAX	OK	200x100 Normal/On



November 24, 2015

#6423775

President Dr. Carlton Naiche-Palmer  
Mescalero Apache Tribe  
P.O. Box 227  
Mescalero, NM 88340  
(575) 464-4494  
(575) 464-9191 (fax)

**RE: REVISION TO REQUEST FOR INFORMATION CONCERNING THE SOLIDS HANDLING AND EFFLUENT REUSE IMPROVEMENTS PROJECT FOR THE VILLAGE OF CUBA WASTEWATER TREATMENT PLANT, SANDOVAL COUNTY, NEW MEXICO**

President Naiche-Palmer:

Souder, Miller & Associates (SMA), on behalf of our client, the Village of Cuba, is in the process of performing an environmental assessment pursuant to the National Environmental Policy Act for use of public funding. The Village's Wastewater Treatment Plant (WWTP) is located in Sandoval County, along New Mexico State Road 197 (NM 197); approximately 2 miles from the NM 197/United States Route 550 (US 550) junction; approximately 65 miles northwest of Bernalillo, New Mexico. Funding for the planned project may be obtained from New Mexico Legislative Appropriations (SAP), United States Department of Agriculture (USDA) - Rural Development (RD), Community Development Block Grant (CDBG), New Mexico Water Trust Board (WTB), Clean Water State Revolving Fund (CWSRF) and/or other State and Federal sources.

As part of the overall planning phase of the project Village of Cuba WWTP is requesting consultation on several improvements including:

- Utilization of 15 acres of land for long-term biosolids and effluent land application.
- Use of the existing northeast passive lagoon at the WWTP to dewater biosolids until they dry to a desired solids concentration.
- Modification of the existing sand filters to function as drying sand beds to dewater biosolids produced by the WWTP.
- Construction of a lined effluent storage basin.
- Construction of a building for an office and for sludge processing equipment.
- Reuse of biosolids and treated effluent via land application for irrigation.

Limits of the study include a portion of Township 20 North, Range 01 West, Section 6. The center of the project area is located at approximately 35° 59' 38" N latitude and 106° 59' 6" west longitude. Please refer to the enclosed map (Figure 1) that depicts the area of the proposed WWTP improvements. Figures 1 and 2 were inadvertently left out of original letter. They are attached to this letter.

All work is to be completed on property owned by the Village of Cuba. The majority of work will be completed above ground. The overall project area depicted in Figure 2 shows that all projects contemplated at this time lie within Zone A (areas where flood heights have not been determined but are expected to flood during the 100-year flood) and Zone X (areas that have been determined to be outside

*President Dr. Carlton Naiche-Palmer*

*November 24, 2015*

*Page 2*

the 0.2% annual floodplain). No arroyos are anticipated to be crossed or disturbed by the proposed projects.

SMA would appreciate any information or feedback to be provided at your earliest possible convenience. If you need any further information or wish to discuss the project, please feel free to contact me by phone at 877-299-0942, or by email at [lisa.gaston@soudermiller.com](mailto:lisa.gaston@soudermiller.com).

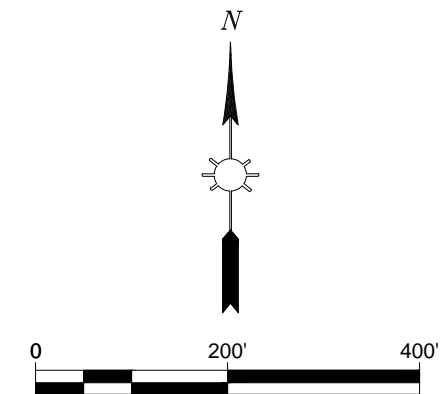
Sincerely,

**SOUDER, MILLER & ASSOCIATES**



Lisa A. Gaston  
Staff Geoscientist

*cc: Ms. Holly Houghten  
Mescalero Apache Tribe  
PO Box 227  
Mescalero, NM 88340  
(575) 464-3005  
(575) 464-3005 (fax)  
[holly@mathpo.org](mailto:holly@mathpo.org)*



**LEGEND**

█ PROJECT AREA

REVISIONS		
BY	DATE	DESC.

**SOUDER, MILLER & ASSOCIATES**

3451 Candelaria Road NE, Suite D  
Albuquerque, NM 87107

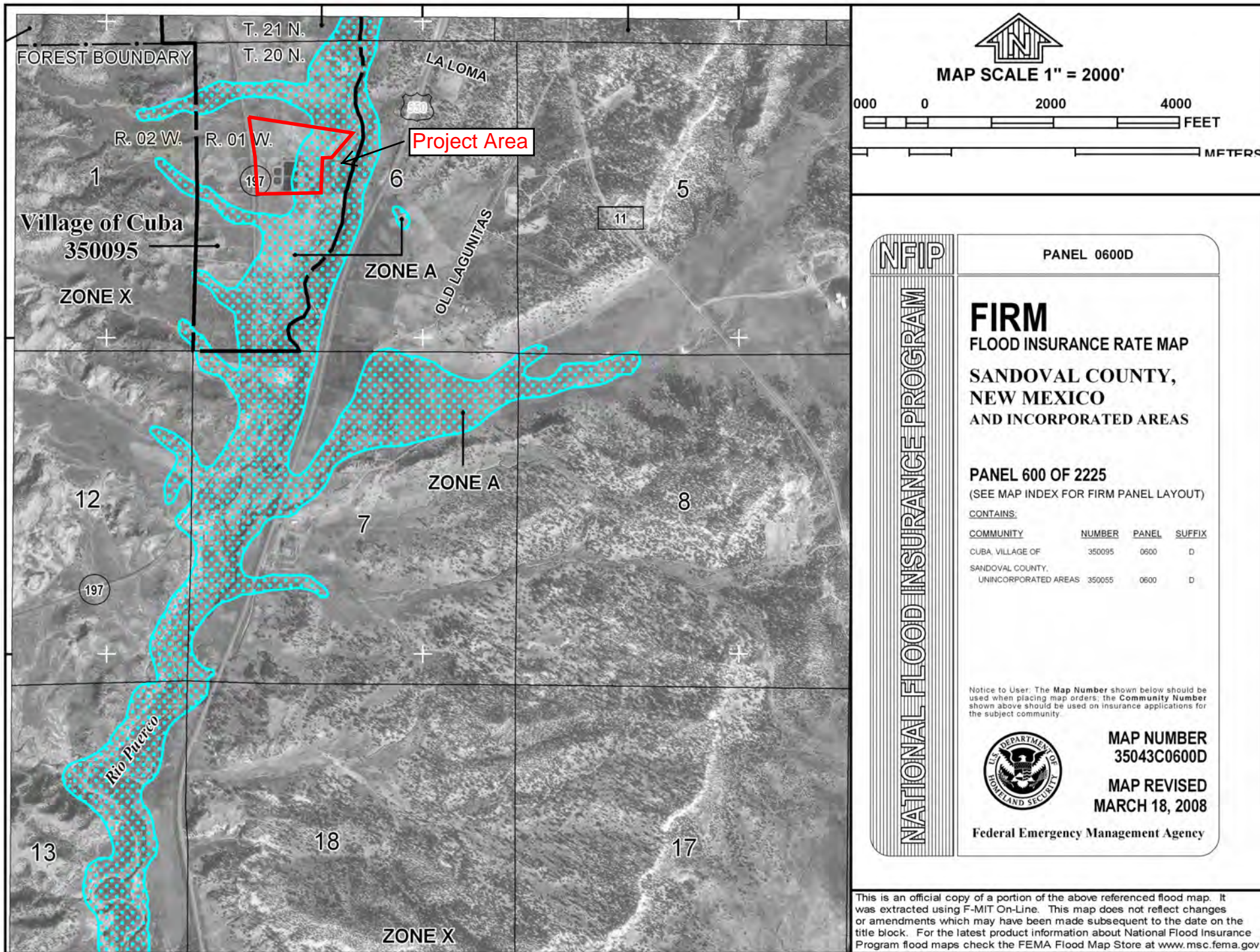
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**VILLAGE OF CUBA SITE MAP**  
**NORTHERN PROPERTY AND WWTP**  
**SANDOVAL COUNTY, NEW MEXICO**

Drawn ARB/JER	Checked JMG	Approved JMG
Date: AUGUST, 2014		
Scale: Horiz: 1"=200 Vert:		
Project No: 48968		
Sheet: <b>FIGURE 1</b>		

Figure 3



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0600D

**FIRM**  
FLOOD INSURANCE RATE MAP

**SANDOVAL COUNTY,  
NEW MEXICO  
AND INCORPORATED AREAS**

**PANEL 600 OF 2225**  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
CUBA, VILLAGE OF	350095	0600	D
SANDOVAL COUNTY, UNINCORPORATED AREAS	350055	0600	D

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.



**MAP NUMBER**  
35043C0600D

**MAP REVISED**  
MARCH 18, 2008

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)

# LEGEND



**SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**

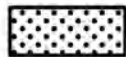
The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A** No Base Flood Elevations determined.
- ZONE AE** Base Flood Elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
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**FLOODWAY AREAS IN ZONE AE**

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.



**OTHER FLOOD AREAS**

- ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

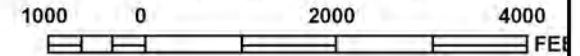


**OTHER AREAS**

- ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D** Areas in which flood hazards are undetermined, but possible.



**MAP SCALE 1" = 2000'**



**COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**



**OTHERWISE PROTECTED AREAS (OPAs)**

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- Base Flood Elevation line and value; elevation in feet\*
- Base Flood Elevation value where uniform within zone; elevation in feet\*

\* Referenced to the North American Vertical Datum of 1988

- Cross section line
- Transect line
- Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 1000-meter Universal Transverse Mercator grid values, zone 13
- 5000-foot grid ticks: New Mexico State Plane coordinate system, Central zone (FIPSZONE 3002), Transverse Mercator projection
- Bench mark (see explanation in Notes to Users section of this FIRM panel)
- River Mile

**MAP REPOSITORY**  
Refer to listing of Map Repositories on Map Index

**EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP**  
July 16, 1996

**EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL**  
March 18, 2008 - to update map format.

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

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# Send Result Report



MFP

ECOSYS M2535dn

Firmware Version 2PL\_2000.001.102 2013.11.21

05/23/2016 16:57  
[2PM\_1000.001.018] [2PM\_1100.001.004] [2PL\_7000.001.006]

Job No.: 000920

Total Time: 0°01'38"

Page: 006

## Complete

Document: doc00092020160523165439

**Souder, Miller & Associates**  
Engineering ♦ Environmental ♦ Surveying  
3451 Candelaria Rd. NE, Suite D  
Albuquerque, NM 87107  
Phone (505) 299-0942  
Fax (505) 293-3430  
www.soudermiller.com



### Facsimile Transmittal Form

To: President Dr. Carlton Naiche-Palmer  
At: Mescalero Apache Tribe  
Fax: (575) 464-9191  
Date: 23 May 2016

From: Scott A. McKittrick  
Souder, Miller & Associates  
Fax: (505) 293-3430  
Pages: 5

### Re: Village of Cuba WWTP Improvement Project

Greetings – attached please find the request for information concerning the above named project. Any information or feedback you wish to provide would be appreciated. Thank you.

No.	Date and Time	Destination	Times	Type	Result	Resolution/ECM
001	05/23/16 16:55	15754649191	0°01'38"	FAX	OK	200x100 Normal/On





November 24, 2015

#6423775

President Ben Shelly  
Navajo Nation  
P.O. Box 9000  
Window Rock, AZ 86515  
(928) 871-6352/6357  
(928) 871-4025 (fax)

**RE: REVISION TO REQUEST FOR INFORMATION CONCERNING THE SOLIDS HANDLING AND EFFLUENT REUSE IMPROVEMENTS PROJECT FOR THE VILLAGE OF CUBA WASTEWATER TREATMENT PLANT, SANDOVAL COUNTY, NEW MEXICO**

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*President Ben Shelly*

*November 24, 2015*

*Page 2*

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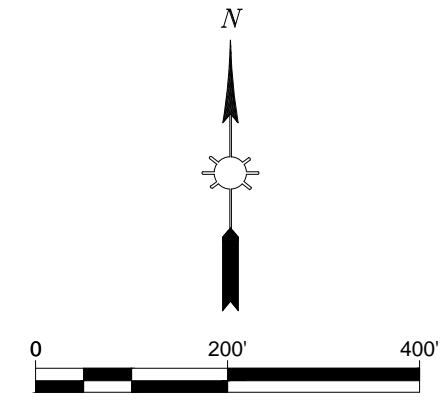
Sincerely,

**SOUDER, MILLER & ASSOCIATES**



Lisa A. Gaston  
Staff Geoscientist

*cc: Dr. Alan S. Downer, THPO and Department Manager, Historic Preservation  
Navajo Nation  
PO Box 4950  
Window Rock, AZ 86515  
(928) 871-7136  
(928) 871-7886 (fax)  
[alan.downer06@gmail.com](mailto:alan.downer06@gmail.com)*



**LEGEND**

█ PROJECT AREA

VILLAGE OF CUBA  
WWTP

LAND APPLICATION  
AREA

REVISIONS		
BY	DATE	DESC.

**SMA**  
Engineering • Environmental  
Surveying

**SOUDER, MILLER & ASSOCIATES**  
3451 Candelaria Road NE, Suite D  
Albuquerque, NM 87107

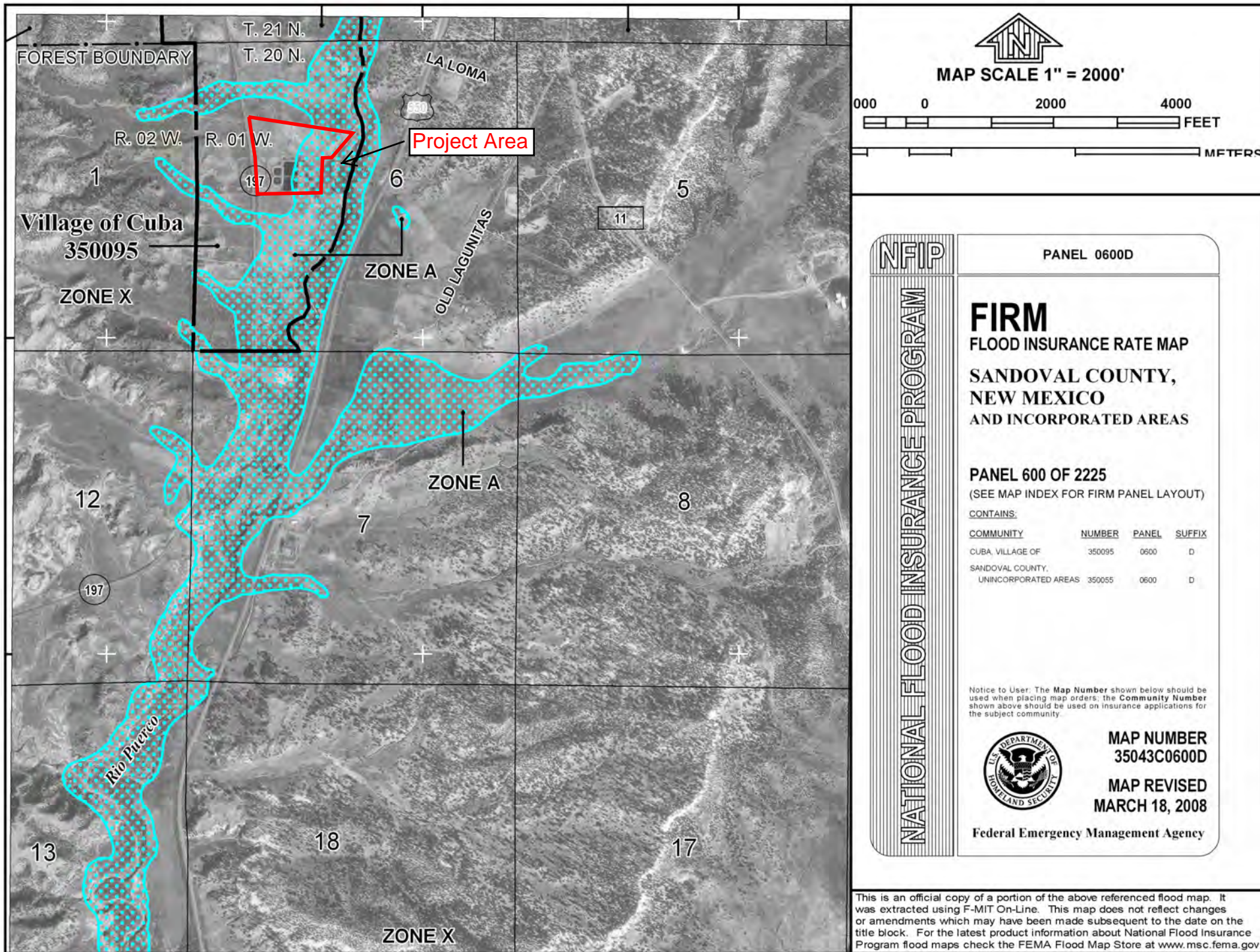
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**VILLAGE OF CUBA SITE MAP**  
**NORTHERN PROPERTY AND WWTP**  
**SANDOVAL COUNTY, NEW MEXICO**

Drawn ARB/JER	Checked JMG	Approved JMG
Date: AUGUST, 2014		
Scale: Horiz: 1"=200 Vert:		
Project No: 48968		
Sheet: <b>FIGURE 1</b>		

Figure 3



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0600D

**FIRM**  
FLOOD INSURANCE RATE MAP

**SANDOVAL COUNTY,  
NEW MEXICO  
AND INCORPORATED AREAS**

**PANEL 600 OF 2225**  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

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35043C0600D

**MAP REVISED**  
MARCH 18, 2008

Federal Emergency Management Agency

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# LEGEND



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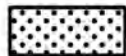
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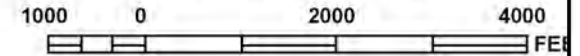


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\* Referenced to the North American Vertical Datum of 1988.

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- River Mile

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# THE NAVAJO NATION


RUSSELL BEGAYE  
JONATHAN NEZ

January 25, 2016

## MEMORANDUM

TO: All Federal, State, and Local Agencies Requesting Section 106 Consultation

FROM:

  
Ora Marek Martinez, Tribal Historic Preservation Officer  
Historic Preservation Department

RE: CY2016 Section 106 Consultation Request Submission and Review Process

The Navajo Nation Historic Preservation Department (NNHPD) has revised the submission process for all Federal, State, and Local Agencies requesting Section 106 Consultation with NNHPD, which will become effective as of February 1, 2016. NNHPD staff will not review the documents requesting Section 106 consultation or concurrence with findings unless all of the following documents are received by NNHPD:

- PDF or Microsoft Word Document of the request including maps, appendices, and if applicable, the following NNHPD forms:
  - NNHPD Class I Inventory Form
  - NNHPD TCP Search Verification Form
- The above documents are to be emailed to the following email address: [nnhpdsec106@gmail.com](mailto:nnhpdsec106@gmail.com);
  - In the subject line insert the report title;
  - Your file should be saved in the following format-
    - For Review of Undertakings: SEC106.initials of agency.REVIEW, e.g. SEC106.HPD.REVIEW;
    - For Concurrence with Findings: SEC106.initials of agency.CONCURRENCE, e.g. SEC106.HPD.CONCURRENCE
- HPD staff have 30 calendar days from submission date to review or concur with the report;
  - If additional information is needed, HPD staff will email the agency representative with the information needed; the agency representative will have 10 calendar days to resubmit and email the file to [nnhpdsec106@gmail.com](mailto:nnhpdsec106@gmail.com);
  - The report should be saved in the following format- ADDINFO.initials of company.REVIEW (or CONCURRENCE) e.g. ADDINFO.HPD.REVIEW
- If the information is sufficient, HPD will prepare a cultural resources compliance form.
  - The CRCF will be submitted to BIA for their review and signature- this may take up to 60 days.
  - Once the signed CRCF is received by HPD, HPD staff will scan and email a copy of the CRCF to the agency representative.

If you have any questions or require additional information you may contact me at 928-871-7198, 505-862-3871 or via email at [oramm@navajo-nsn.gov](mailto:oramm@navajo-nsn.gov). Thank you for your time and assistance in this matter.

Xc: NNHPD file; Bidtah N. Becker, DNR Division Director



# THE NAVAJO NATION

RUSSELL BEGAYE  
JONATHAN NEZ

March 18, 2016

Lisa A. Gaston, Staff Geologist  
Souder, Miller & Associates  
3451 Candelaria Road NE  
Suite D  
Albuquerque, NM 87107

Subject: **SOLIDS HANDLING AND EFFLUENT RESUE IMPROVEMENTS PROJECT FOR  
THE VILLAGE OF CUBA WASTEWATER TREATMENT PLAN, SANDOVAL  
COUNTY, NEW MEXICO**

Dear Ms. Gaston,

The Navajo Nation Historic Preservation Department, hereafter (HPD) is in receipt of your request for consultation pursuant to 36 CFR 800.16(y) for the *environmental assessment pursuant to the National Environmental Policy Act for use of public funding, for the Village's Wastewater Treatment Plant located in Sandoval County, along New Mexico State Road 197.*

Traditional Culture Program Staff reviewed the informational documents, and have provided the comments herein, HPD has concluded that the proposed undertaking for project initiation **will not** have adverse effects to Traditional Cultural Properties and places of cultural significance. HPD has no concerns at this time.

If the proposed project inadvertently discovers Traditional Cultural Properties such as habitation sites, plant gathering areas, human remains or objects of cultural patrimony, HPD request that we be notified in accordance with 36 CFR 800 as a Consulting Party, and per the Native American Graves Protection and Repatriation Act (NAGPRA). *(The Navajo Nation claims cultural affiliation to all Anaasazi people (from the Archaic to Pueblo IV periods) of the southwest. The Navajo Nation makes this claim through Navajo oral history and ceremonial history, which has been documented as early as 1880 and has been taught from generation to generation).*

The Navajo Nation HPD appreciates the Souder Miller & Associate's consultation efforts regarding this undertaking. Should you have any additional concerns and/or questions do not hesitate to contact our department at 928-871-7198 or (928)871-7153.

Sincerely,

Melinda Arviso-Ciocco  
Navajo Cultural Specialist  
Traditional Culture Program  
Historic Preservation Department  
TCP File: 16-020

Concurred,

Ora Marek-Martinez, PhD  
Tribal Historic Preservation Officer  
Historic Preservation Department  
Division of Natural Resources



November 24, 2015

#6423775

Governor Earl Salazar  
Ohkay Owingeh (San Juan) Pueblo  
P.O. Box 1099  
San Juan Pueblo, NM 87566  
Phone: (505) 852-4400/4210  
Fax: (505) 852-4820

**RE: REVISION TO REQUEST FOR INFORMATION CONCERNING THE SOLIDS HANDLING AND EFFLUENT REUSE IMPROVEMENTS PROJECT FOR THE VILLAGE OF CUBA WASTEWATER TREATMENT PLANT, SANDOVAL COUNTY, NEW MEXICO**

Mr. Earl Salazar:

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All work is to be completed on property owned by the Village of Cuba. The majority of work will be completed above ground. The overall project area depicted in Figure 2 shows that all projects contemplated at this time lie within Zone A (areas where flood heights have not been determined but are expected to flood during the 100-year flood) and Zone X (areas that have been determined to be outside



*Mr. Earl Salazar*  
*November 24, 2015*  
*Page 2*

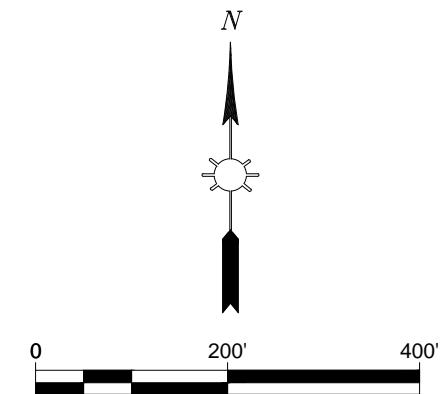
the 0.2% annual floodplain). No arroyos are anticipated to be crossed or disturbed by the proposed projects.

SMA would appreciate any information or feedback to be provided at your earliest possible convenience. If you need any further information or wish to discuss the project, please feel free to contact me by phone at 877-299-0942, or by email at [lisa.gaston@soudermiller.com](mailto:lisa.gaston@soudermiller.com).

Sincerely,  
**SOUDER, MILLER & ASSOCIATES**

A handwritten signature in blue ink, appearing to read "Lisa A. Gaston".

Lisa A. Gaston  
Staff Geoscientist



**LEGEND**

█ PROJECT AREA

REVISIONS		
BY	DATE	DESC.

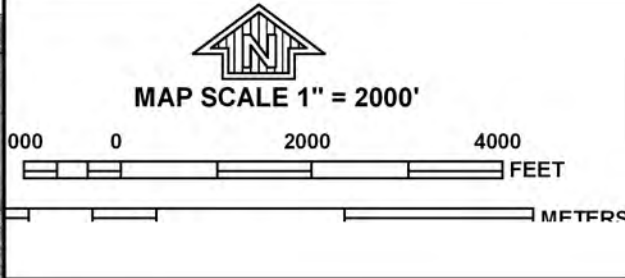
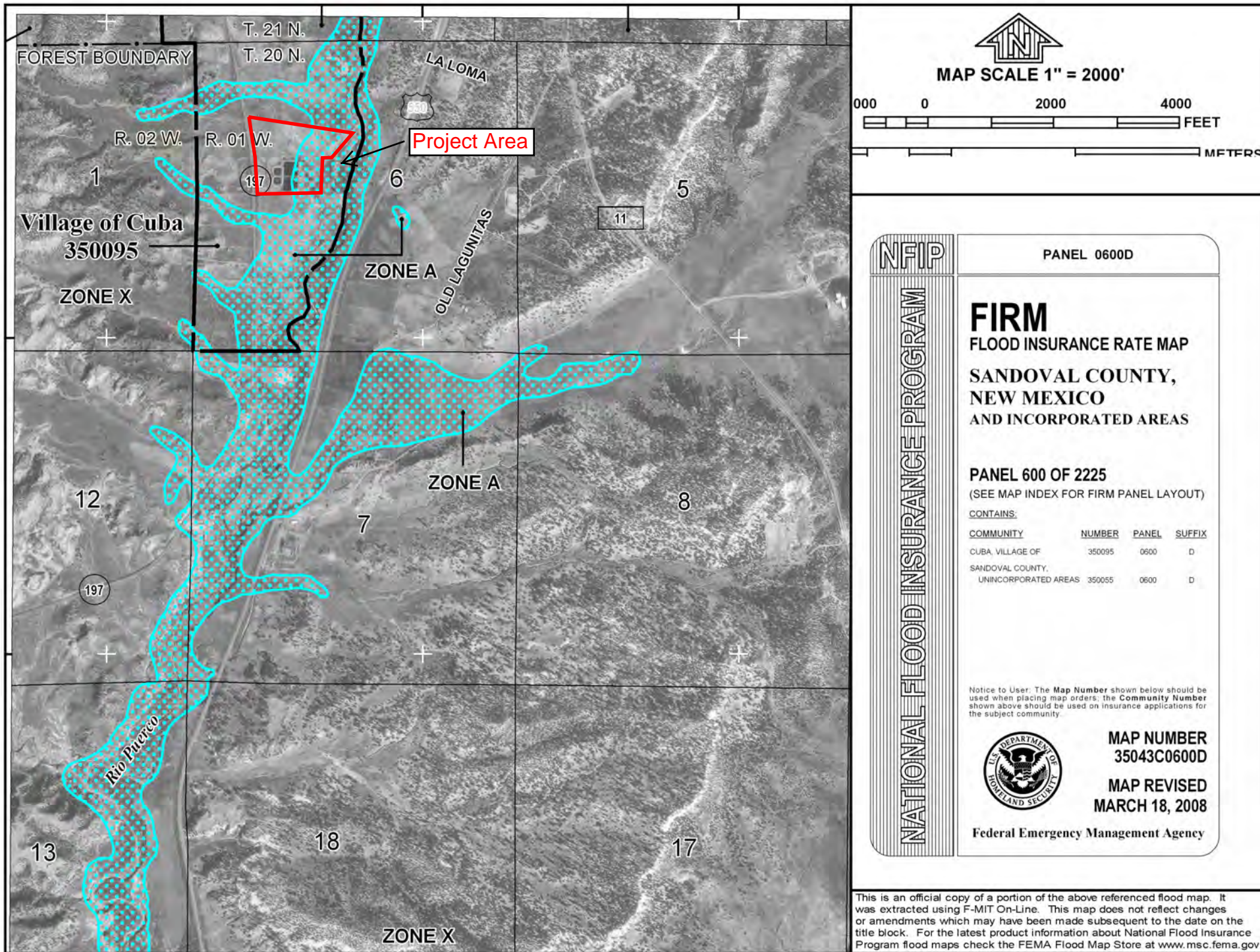
**SOUDER, MILLER & ASSOCIATES**  
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**VILLAGE OF CUBA SITE MAP**  
**NORTHERN PROPERTY AND WWTP**  
**SANDOVAL COUNTY, NEW MEXICO**

Drawn ARB/JER	Checked JMG	Approved JMG
Date: AUGUST, 2014		
Scale: Horiz: 1"=200 Vert:		
Project No: 48968		
Sheet: <b>FIGURE 1</b>		

Figure 3



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0600D

**FIRM**  
FLOOD INSURANCE RATE MAP


**SANDOVAL COUNTY,  
NEW MEXICO  
AND INCORPORATED AREAS**

**PANEL 600 OF 2225**  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
CUBA, VILLAGE OF	350095	0600	D
SANDOVAL COUNTY, UNINCORPORATED AREAS	350055	0600	D

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.



**MAP NUMBER**  
35043C0600D

**MAP REVISED**  
MARCH 18, 2008

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)

# LEGEND



**SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**

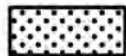
The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A** No Base Flood Elevations determined.
- ZONE AE** Base Flood Elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.



**FLOODWAY AREAS IN ZONE AE**

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.



**OTHER FLOOD AREAS**

- ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

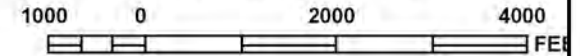


**OTHER AREAS**

- ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D** Areas in which flood hazards are undetermined, but possible.



**MAP SCALE 1" = 2000'**



**COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**



**OTHERWISE PROTECTED AREAS (OPAs)**

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- Base Flood Elevation line and value; elevation in feet\*
- Base Flood Elevation value where uniform within zone; elevation in feet\*

\* Referenced to the North American Vertical Datum of 1988

- Cross section line
- Transect line
- Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 1000-meter Universal Transverse Mercator grid values, zone 13
- 5000-foot grid ticks: New Mexico State Plane coordinate system, Central zone (FIPSZONE 3002), Transverse Mercator projection
- Bench mark (see explanation in Notes to Users section of this FIRM panel)
- River Mile

**MAP REPOSITORY**  
Refer to listing of Map Repositories on Map Index

**EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP**  
July 16, 1996

**EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL**  
March 18, 2008 - to update map format.

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)

# Send Result Report



MFP

ECOSYS M2535dn

Firmware Version 2PL\_2000.001.102 2013.11.21

05/23/2016 17:23  
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Job No.: 000934

Total Time: 0°01'43"

Page: 006

## Complete

Document: doc00093420160523171632

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3451 Candelaria Rd. NE, Suite D  
Albuquerque, NM 87107  
Phone (505) 299-0942  
Fax (505) 293-3430  
www.soudermiller.com



### Facsimile Transmittal Form

To: Governor Earl Salazar  
At: Ohkay Owingeh (San Juan) Pueblo  
Fax: (505) 852-4820  
Date: 23 May 2016

From: Scott A. McKitrick  
Souder, Miller & Associates  
Fax: (505) 293-3430  
Pages: 5

### Re: Village of Cuba WWTP Improvement Project

Greetings -- attached please find the request for information concerning the above named project. Any information or feedback you wish to provide would be appreciated. Thank you.

No.	Date and Time	Destination	Times	Type	Result	Resolution/ECM
001	05/23/16 17:22	15058524820	0°01'43"	FAX	OK	200x100 Normal/On



November 24, 2015

#6423775

Governor Ron Tenorio  
Pueblo of San Felipe  
P.O. Box 4339  
San Felipe Pueblo, NM 87001  
Phone: (505) 867-3381/3382  
Fax: (505) 867-3383

**RE: REVISION TO REQUEST FOR INFORMATION CONCERNING THE SOLIDS HANDLING AND EFFLUENT REUSE IMPROVEMENTS PROJECT FOR THE VILLAGE OF CUBA WASTEWATER TREATMENT PLANT, SANDOVAL COUNTY, NEW MEXICO**

Mr. Ron Tenorio:

Souder, Miller & Associates (SMA), on behalf of our client, the Village of Cuba, is in the process of performing an environmental assessment pursuant to the National Environmental Policy Act for use of public funding. The Village's Wastewater Treatment Plant (WWTP) is located in Sandoval County, along New Mexico State Road 197 (NM 197); approximately 2 miles from the NM 197/United States Route 550 (US 550) junction; approximately 65 miles northwest of Bernalillo, New Mexico. Funding for the planned project may be obtained from New Mexico Legislative Appropriations (SAP), United States Department of Agriculture (USDA) - Rural Development (RD), Community Development Block Grant (CDBG), New Mexico Water Trust Board (WTB), Clean Water State Revolving Fund (CWSRF) and/or other State and Federal sources.

As part of the overall planning phase of the project Village of Cuba WWTP is requesting consultation on several improvements including:

- Utilization of 15 acres of land for long-term biosolids and effluent land application.
- Use of the existing northeast passive lagoon at the WWTP to dewater biosolids until they dry to a desired solids concentration.
- Modification of the existing sand filters to function as drying sand beds to dewater biosolids produced by the WWTP.
- Construction of a lined effluent storage basin.
- Construction of a building for an office and for sludge processing equipment.
- Reuse of biosolids and treated effluent via land application for irrigation.

Limits of the study include a portion of Township 20 North, Range 01 West, Section 6. The center of the project area is located at approximately 35° 59' 38" N latitude and 106° 59' 6" west longitude. Please refer to the enclosed map (Figure 1) that depicts the area of the proposed WWTP improvements. Figures 1 and 2 were inadvertently left out of original letter. They are attached to this letter.

All work is to be completed on property owned by the Village of Cuba. The majority of work will be completed above ground. The overall project area depicted in Figure 2 shows that all projects contemplated at this time lie within Zone A (areas where flood heights have not been determined but are expected to flood during the 100-year flood) and Zone X (areas that have been determined to be outside

*Mr. Ron Tenorio*  
*November 24, 2015*  
*Page 2*

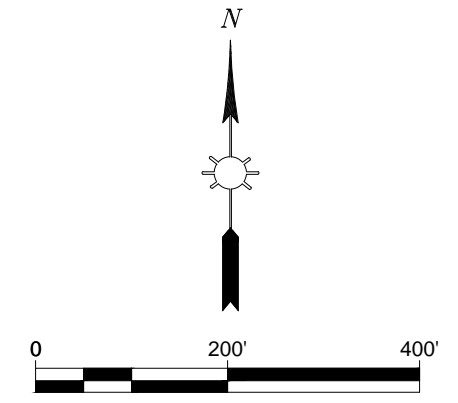
the 0.2% annual floodplain). No arroyos are anticipated to be crossed or disturbed by the proposed projects.

SMA would appreciate any information or feedback to be provided at your earliest possible convenience. If you need any further information or wish to discuss the project, please feel free to contact me by phone at 877-299-0942, or by email at [lisa.gaston@soudermiller.com](mailto:lisa.gaston@soudermiller.com).

Sincerely,  
**SOUDER, MILLER & ASSOCIATES**

A handwritten signature in blue ink, appearing to read "Lisa A. Gaston".

Lisa A. Gaston  
Staff Geoscientist



**LEGEND**

█ PROJECT AREA

VILLAGE OF CUBA  
WWTP

LAND APPLICATION  
AREA

REVISIONS		
BY	DATE	DESC.

**SMA**  
Engineering • Environmental  
Surveying

**SOUDER, MILLER & ASSOCIATES**  
3451 Candelaria Road NE, Suite D  
Albuquerque, NM 87107

Phone (505) 299-0942 Toll-Free (877) 299-0942 Fax (505) 293-3430  
www.soudermiller.com

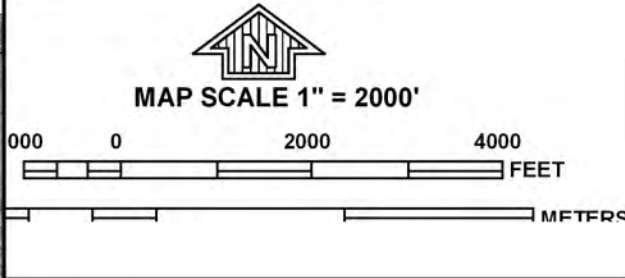
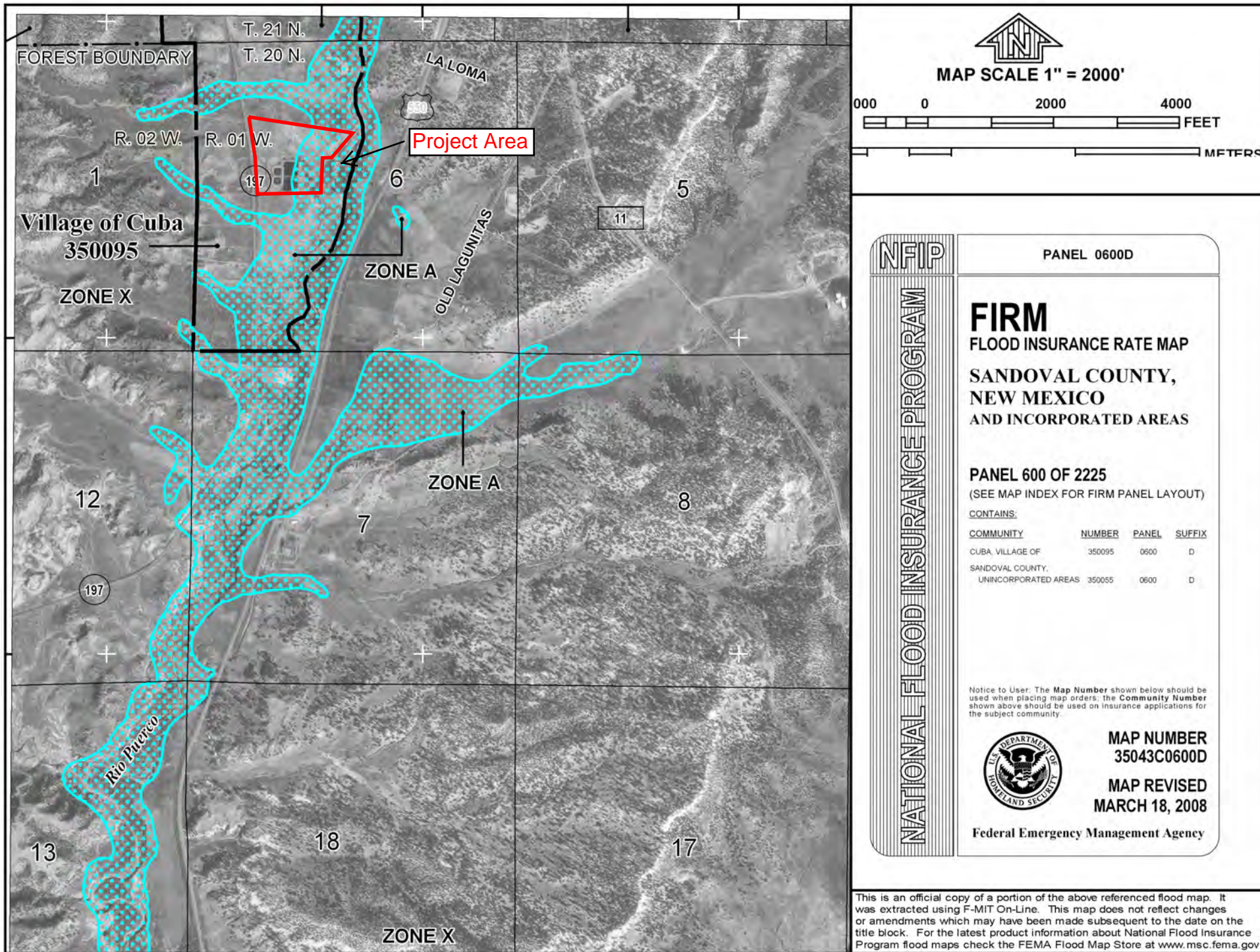
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**VILLAGE OF CUBA SITE MAP**  
**NORTHERN PROPERTY AND WWTP**  
**SANDOVAL COUNTY, NEW MEXICO**

Drawn ARB/JER	Checked JMG	Approved JMG
Date: AUGUST, 2014		
Scale: Horiz: 1"=200 Vert:		
Project No: 48968		
Sheet: <b>FIGURE 1</b>		



Figure 3



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0600D


**FIRM**  
FLOOD INSURANCE RATE MAP  
**SANDOVAL COUNTY,  
NEW MEXICO  
AND INCORPORATED AREAS**

**PANEL 600 OF 2225**  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
CUBA, VILLAGE OF	350095	0600	D
SANDOVAL COUNTY, UNINCORPORATED AREAS	350055	0600	D

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.



**MAP NUMBER**  
35043C0600D

**MAP REVISED**  
MARCH 18, 2008

Federal Emergency Management Agency

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# LEGEND



**SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**

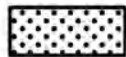
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**FLOODWAY AREAS IN ZONE AE**

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.



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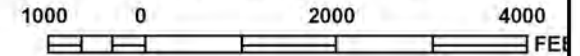


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**MAP SCALE 1" = 2000'**



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- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- Base Flood Elevation line and value; elevation in feet\*
- Base Flood Elevation value where uniform within zone; elevation in feet\*

\* Referenced to the North American Vertical Datum of 1988.

- Cross section line
- Transect line
- Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 1000-meter Universal Transverse Mercator grid values, zone 13
- 5000-foot grid ticks: New Mexico State Plane coordinate system, Central zone (FIPSZONE 3002), Transverse Mercator projection
- Bench mark (see explanation in Notes to Users section of this FIRM panel)
- River Mile

**MAP REPOSITORY**  
Refer to listing of Map Repositories on Map Index

**EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP**  
July 16, 1996

**EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL**  
March 18, 2008 - to update map format.

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

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# Send Result Report



MFP

ECOSYS M2535dn

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Job No.: 000926

Total Time: 0°02'42"

Page: 006

## Complete

Document: doc00092620160523165849

**Souder, Miller & Associates**  
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Albuquerque, NM 87107  
Phone (505) 299-0942  
Fax (505) 293-3430  
www.soudermiller.com



### Facsimile Transmittal Form

To: Governor Ron Tenorio  
At: Pueblo of San Felipe  
Fax: (505) 867-3383  
Date: 23 May 2016

From: Scott A. McKittrick  
Souder, Miller & Associates  
Fax: (505) 293-3430  
Pages: 5

### Re: Village of Cuba WWTP Improvement Project

Greetings – attached please find the request for information concerning the above named project. Any information or feedback you wish to provide would be appreciated. Thank you.

No.	Date and Time	Destination	Times	Type	Result	Resolution/ECM
001	05/23/16 17:11	15058673383	0°02'42"	FAX	OK	200x100 Normal/On

## Scott McKittrick

---

**From:** Lisa Gaston  
**Sent:** Wednesday, June 01, 2016 8:14 AM  
**To:** Scott McKittrick  
**Subject:** Fwd: Cuba WWTP

Lisa

Begin forwarded message:

**From:** Pinu'u Stout <[pstout@sfpueblo.com](mailto:pstout@sfpueblo.com)>  
**Date:** June 1, 2016 at 8:12:04 AM MDT  
**To:** "[lisa.gaston@soudermiller.com](mailto:lisa.gaston@soudermiller.com)" <[lisa.gaston@soudermiller.com](mailto:lisa.gaston@soudermiller.com)>  
**Cc:** Ricardo Ortiz <[ROrtiz@sfpueblo.com](mailto:ROrtiz@sfpueblo.com)>  
**Subject:** Cuba WWTP

Good Morning,

The Ricardo Ortiz, Tribal Historic Preservation Officer for the Pueblo of San Felipe, has reviewed the documents sent to the Pueblo regarding the WWTP and does not anticipate an impact to concerns the Pueblo has in the Cuba area. However, if there are any discoveries, please include Ricardo Ortiz in your contact list at [rortiz@sfpueblo.com](mailto:rortiz@sfpueblo.com) or 505-771-6636.

Thank you,  
Pinu'u Stout

*Pinu'u Stout, Director  
Department of Natural Resources*

<image001.png>  
Pueblo of San Felipe  
PO Box 4339  
San Felipe Pueblo, NM 87001  
Phone: (505) 771-6628  
Fax: (505) 771-6658  
Email: [pstout@sfpueblo.com](mailto:pstout@sfpueblo.com)



November 24, 2015

#6423775

Governor James Mountain  
Pueblo of San Ildefonso  
Route 5, Box 315-A  
Santa Fe, NM 87506  
Phone: (505) 455-2273  
Fax: (505) 455-7351

**RE: REVISION TO REQUEST FOR INFORMATION CONCERNING THE SOLIDS HANDLING AND EFFLUENT REUSE IMPROVEMENTS PROJECT FOR THE VILLAGE OF CUBA WASTEWATER TREATMENT PLANT, SANDOVAL COUNTY, NEW MEXICO**

Mr. James Mountain:

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*Mr. James Mountain*

*November 24, 2015*

*Page 2*

the 0.2% annual floodplain). No arroyos are anticipated to be crossed or disturbed by the proposed projects.

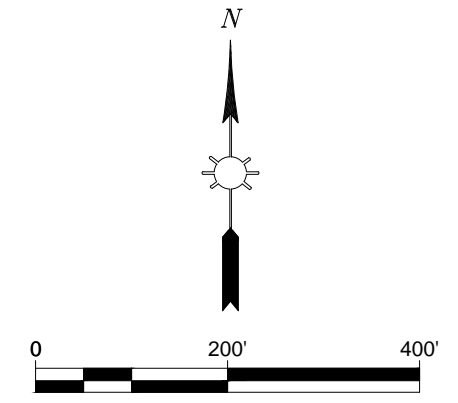
SMA would appreciate any information or feedback to be provided at your earliest possible convenience. If you need any further information or wish to discuss the project, please feel free to contact me by phone at 877-299-0942, or by email at [lisa.gaston@soudermiller.com](mailto:lisa.gaston@soudermiller.com).

Sincerely,

**SOUDER, MILLER & ASSOCIATES**

A handwritten signature in blue ink, appearing to read "Lisa A. Gaston".

Lisa A. Gaston  
Staff Geoscientist



**LEGEND**

█ PROJECT AREA

VILLAGE OF CUBA  
WWTP

LAND APPLICATION  
AREA

REVISIONS		
BY	DATE	DESC.

**SMA**  
Engineering • Environmental  
Surveying

**SOUDER, MILLER & ASSOCIATES**  
3451 Candelaria Road NE, Suite D  
Albuquerque, NM 87107

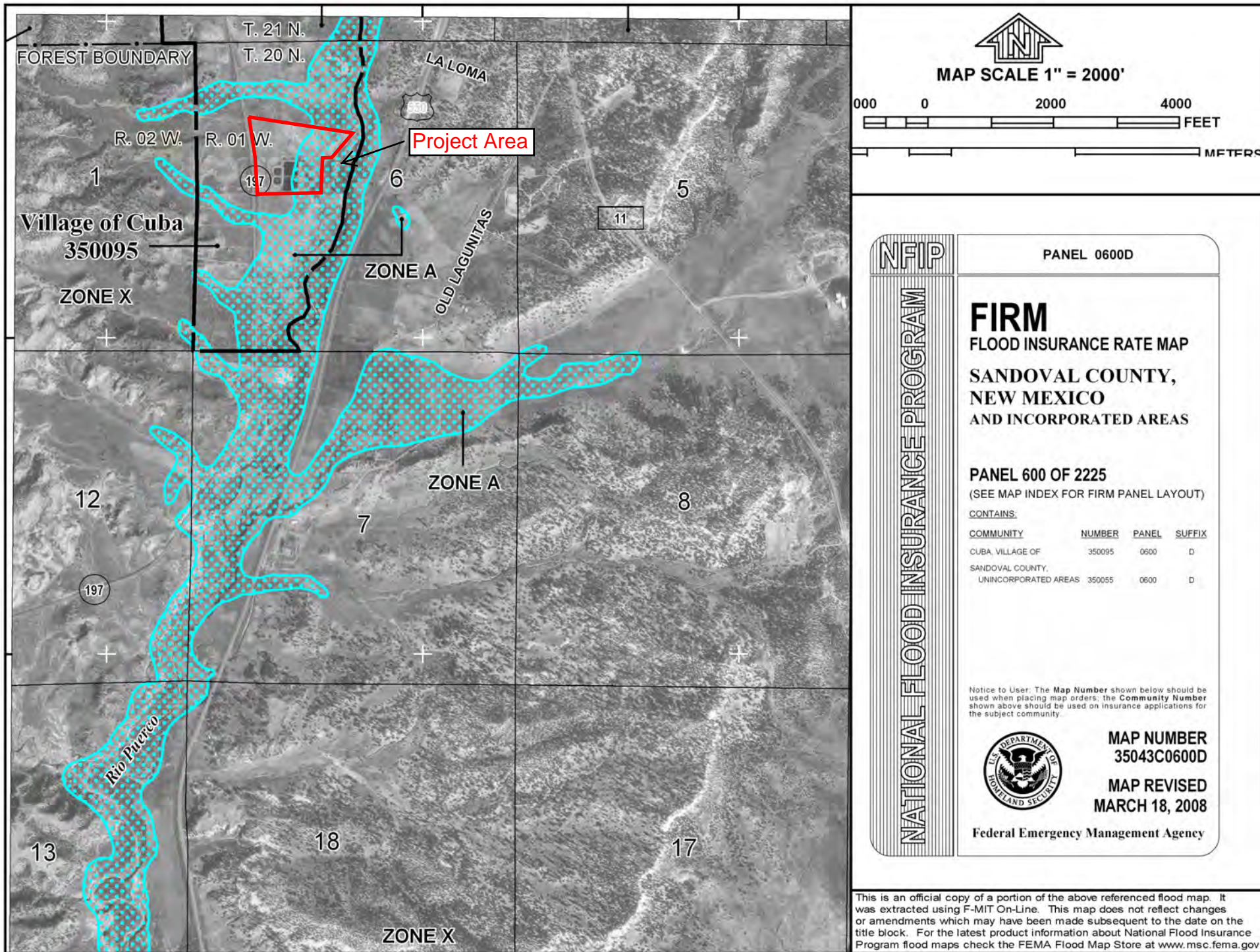
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VILLAGE OF CUBA SITE MAP  
NORTHERN PROPERTY AND WWTP  
SANDOVAL COUNTY, NEW MEXICO

Drawn ARB/JER	Checked JMG	Approved JMG
Date: AUGUST, 2014		
Scale: Horiz: 1"=200 Vert:		
Project No: 48968		
Sheet: <b>FIGURE 1</b>		

Figure 3



**NATIONAL FLOOD INSURANCE PROGRAM**  
**NFIP**

PANEL 0600D

**FIRM**  
**FLOOD INSURANCE RATE MAP**  
**SANDOVAL COUNTY,**  
**NEW MEXICO**  
**AND INCORPORATED AREAS**

**PANEL 600 OF 2225**  
 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
CUBA, VILLAGE OF	350095	0600	D
SANDOVAL COUNTY, UNINCORPORATED AREAS	350055	0600	D

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.



**MAP NUMBER**  
**35043C0600D**  
**MAP REVISED**  
**MARCH 18, 2008**

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)



# LEGEND



**SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**

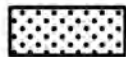
The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A** No Base Flood Elevations determined.
- ZONE AE** Base Flood Elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.



**FLOODWAY AREAS IN ZONE AE**

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.



**OTHER FLOOD AREAS**

- ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

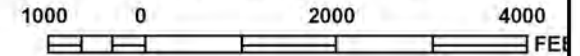


**OTHER AREAS**

- ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D** Areas in which flood hazards are undetermined, but possible.



**MAP SCALE 1" = 2000'**



**COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**



**OTHERWISE PROTECTED AREAS (OPAs)**

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- Base Flood Elevation line and value; elevation in feet\*
- Base Flood Elevation value where uniform within zone; elevation in feet\*

\* Referenced to the North American Vertical Datum of 1988.

- Cross section line
- Transect line
- Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 1000-meter Universal Transverse Mercator grid values, zone 13
- 5000-foot grid ticks: New Mexico State Plane coordinate system, Central zone (FIPSZONE 3002), Transverse Mercator projection
- Bench mark (see explanation in Notes to Users section of this FIRM panel)
- River Mile

**MAP REPOSITORY**  
Refer to listing of Map Repositories on Map Index

**EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP**  
July 16, 1996

**EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL**  
March 18, 2008 - to update map format.

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

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# Send Result Report



MFP

ECOSYS M2535dn

Firmware Version 2PL\_2000.001.102 2013.11.21

05/23/2016 17:16  
[2PM\_1000.001.018] [2PM\_1100.001.004] [2PL\_7000.001.006]

Job No.: 000927

Total Time: 0°01'37"

Page: 006

## Complete

Document: doc00092720160523165927

**Souder, Miller & Associates**  
Engineering ♦ Environmental ♦ Surveying  
3451 Candelaria Rd. NE, Suite D  
Albuquerque, NM 87107  
Phone (505) 299-0942  
Fax (505) 293-3430  
www.soudermiller.com



### Facsimile Transmittal Form

To: Governor James Mountain  
At: Pueblo of San Ildefonso  
Fax: (505) 455-7351  
Date: 23 May 2016

From: Scott A. McKittrick  
Souder, Miller & Associates  
Fax: (505) 293-3430  
Pages: 5

### Re: Village of Cuba WWTP Improvement Project

Greetings – attached please find the request for information concerning the above named project. Any information or feedback you wish to provide would be appreciated. Thank you.

No.	Date and Time	Destination	Times	Type	Result	Resolution/ECM
001	05/23/16 17:15	15054557351	0°01'37"	FAX	OK	200x100 Normal/On



November 24, 2015

#6423775

Governor Isaac Lujan  
Pueblo of Sandia  
481 Sandia Loop  
Bernalillo, NM 87004  
Phone: (505) 867-3317  
Fax: (505) 867-9235

**RE: REVISION TO REQUEST FOR INFORMATION CONCERNING THE SOLIDS HANDLING AND EFFLUENT REUSE IMPROVEMENTS PROJECT FOR THE VILLAGE OF CUBA WASTEWATER TREATMENT PLANT, SANDOVAL COUNTY, NEW MEXICO**

Mr. Isaac Lujan:

Souder, Miller & Associates (SMA), on behalf of our client, the Village of Cuba, is in the process of performing an environmental assessment pursuant to the National Environmental Policy Act for use of public funding. The Village's Wastewater Treatment Plant (WWTP) is located in Sandoval County, along New Mexico State Road 197 (NM 197); approximately 2 miles from the NM 197/United States Route 550 (US 550) junction; approximately 65 miles northwest of Bernalillo, New Mexico. Funding for the planned project may be obtained from New Mexico Legislative Appropriations (SAP), United States Department of Agriculture (USDA) - Rural Development (RD), Community Development Block Grant (CDBG), New Mexico Water Trust Board (WTB), Clean Water State Revolving Fund (CWSRF) and/or other State and Federal sources.

As part of the overall planning phase of the project Village of Cuba WWTP is requesting consultation on several improvements including:

- Utilization of 15 acres of land for long-term biosolids and effluent land application.
- Use of the existing northeast passive lagoon at the WWTP to dewater biosolids until they dry to a desired solids concentration.
- Modification of the existing sand filters to function as drying sand beds to dewater biosolids produced by the WWTP.
- Construction of a lined effluent storage basin.
- Construction of a building for an office and for sludge processing equipment.
- Reuse of biosolids and treated effluent via land application for irrigation.

Limits of the study include a portion of Township 20 North, Range 01 West, Section 6. The center of the project area is located at approximately 35° 59' 38" N latitude and 106° 59' 6" west longitude. Please refer to the enclosed map (Figure 1) that depicts the area of the proposed WWTP improvements. Figures 1 and 2 were inadvertently left out of original letter. They are attached to this letter.

All work is to be completed on property owned by the Village of Cuba. The majority of work will be completed above ground. The overall project area depicted in Figure 2 shows that all projects contemplated at this time lie within Zone A (areas where flood heights have not been determined but are expected to flood during the 100-year flood) and Zone X (areas that have been determined to be outside

*Mr. Isaac Lujan*  
*November 24, 2015*  
*Page 2*

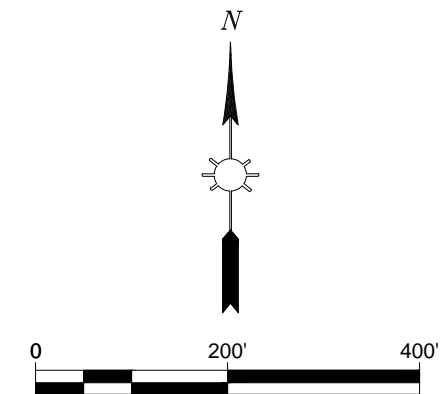
the 0.2% annual floodplain). No arroyos are anticipated to be crossed or disturbed by the proposed projects.

SMA would appreciate any information or feedback to be provided at your earliest possible convenience. If you need any further information or wish to discuss the project, please feel free to contact me by phone at 877-299-0942, or by email at [lisa.gaston@soudermiller.com](mailto:lisa.gaston@soudermiller.com).

Sincerely,  
**SOUDER, MILLER & ASSOCIATES**



Lisa A. Gaston  
Staff Geoscientist



**LEGEND**

█ PROJECT AREA

REVISIONS		
BY	DATE	DESC.

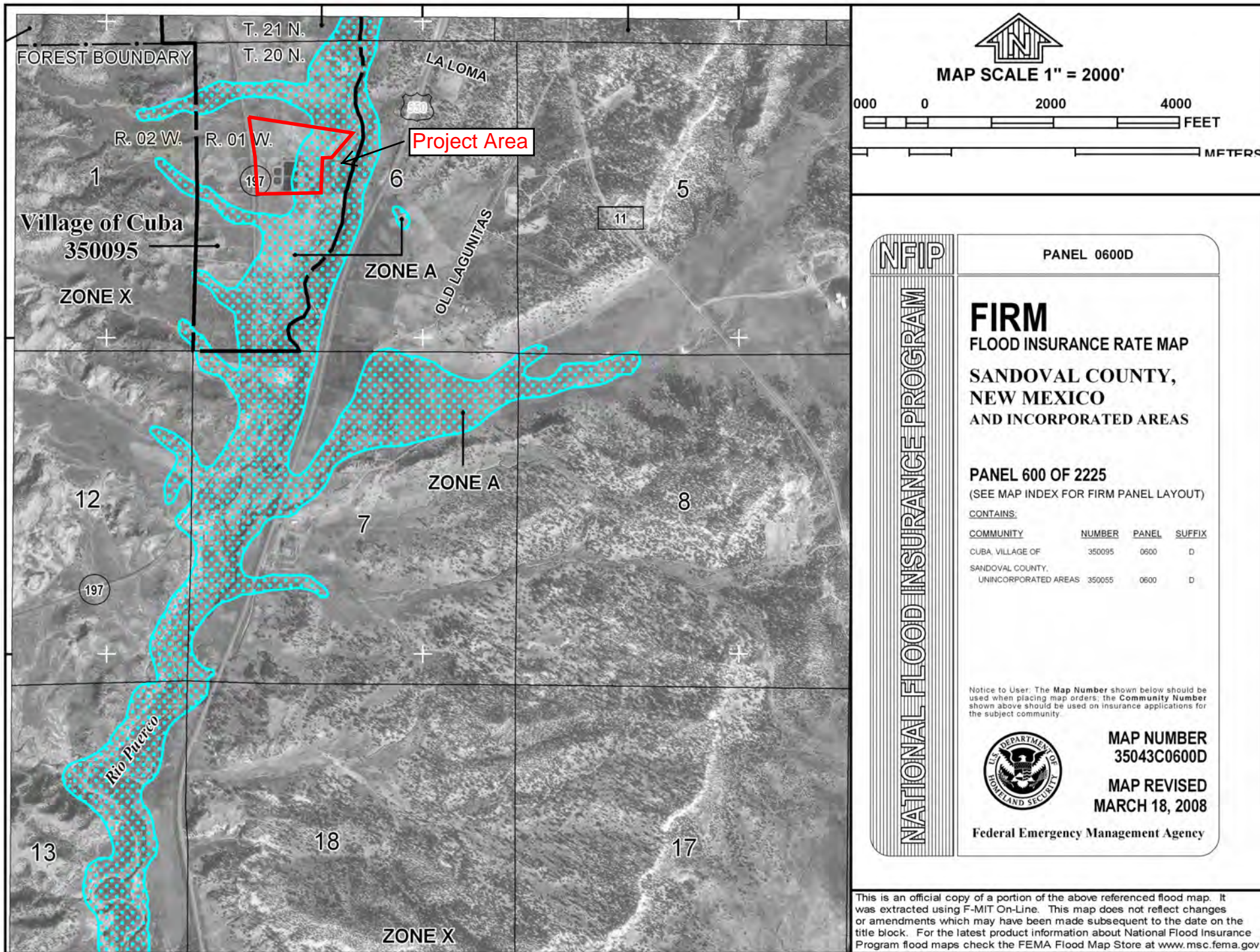
**SOUDER, MILLER & ASSOCIATES**  
 3451 Candelaria Road NE, Suite D  
 Albuquerque, NM 87107

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**VILLAGE OF CUBA SITE MAP**  
**NORTHERN PROPERTY AND WWTP**  
**SANDOVAL COUNTY, NEW MEXICO**

Drawn ARB/JER	Checked JMG	Approved JMG
Date: AUGUST, 2014		
Scale: Horiz: 1"=200 Vert:		
Project No: 48968		
Sheet: <b>FIGURE 1</b>		

Figure 3



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0600D

**FIRM**  
FLOOD INSURANCE RATE MAP  
**SANDOVAL COUNTY,  
NEW MEXICO**  
AND INCORPORATED AREAS

**PANEL 600 OF 2225**  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

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SANDOVAL COUNTY, UNINCORPORATED AREAS	350055	0600	D

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**MAP NUMBER**  
35043C0600D

**MAP REVISED**  
MARCH 18, 2008

Federal Emergency Management Agency

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# LEGEND



**SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**

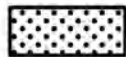
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**FLOODWAY AREAS IN ZONE AE**

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.



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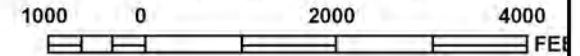


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**MAP SCALE 1" = 2000'**



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- Bench mark (see explanation in Notes to Users section of this FIRM panel)
- River Mile

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# Send Result Report



MFP

ECOSYS M2535dn

Firmware Version 2PL\_2000.001.102 2013.11.21

05/23/2016 17:19  
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Job No.: 000928

Total Time: 0°02'04"

Page: 006

## Complete

Document: doc00092820160523165958

**Souder, Miller & Associates**  
Engineering ♦ Environmental ♦ Surveying  
3451 Candelaria Rd. NE, Suite D  
Albuquerque, NM 87107  
Phone (505) 299-0942  
Fax (505) 293-3430  
www.soudermiller.com



### Facsimile Transmittal Form

To: Governor Isaac Lujan  
At: Pueblo of Sandia  
Fax: (505) 867-9235  
Date: 23 May 2016

From: Scott A. McKittrick  
Souder, Miller & Associates  
Fax: (505) 293-3430  
Pages: 5

### Re: Village of Cuba WWTP Improvement Project

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No.	Date and Time	Destination	Times	Type	Result	Resolution/ECM
001	05/23/16 17:17	15058679235	0°02'04"	FAX	OK	200x100 Normal/On





November 24, 2015

#6423775

Governor Lawrence Montoya  
Pueblo of Santa Ana  
2 Dove Road  
Santa Ana Pueblo, NM 87004  
Phone: (505) 867-3301  
Fax: (505) 867-3395

**RE: REVISION TO REQUEST FOR INFORMATION CONCERNING THE SOLIDS HANDLING AND EFFLUENT REUSE IMPROVEMENTS PROJECT FOR THE VILLAGE OF CUBA WASTEWATER TREATMENT PLANT, SANDOVAL COUNTY, NEW MEXICO**

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Limits of the study include a portion of Township 20 North, Range 01 West, Section 6. The center of the project area is located at approximately 35° 59' 38" N latitude and 106° 59' 6" west longitude. Please refer to the enclosed map (Figure 1) that depicts the area of the proposed WWTP improvements. Figures 1 and 2 were inadvertently left out of original letter. They are attached to this letter.

All work is to be completed on property owned by the Village of Cuba. The majority of work will be completed above ground. The overall project area depicted in Figure 2 shows that all projects contemplated at this time lie within Zone A (areas where flood heights have not been determined but are

*Mr. Lawrence Montoya*

*November 24, 2015*

*Page 2*

expected to flood during the 100-year flood) and Zone X (areas that have been determined to be outside the 0.2% annual floodplain). No arroyos are anticipated to be crossed or disturbed by the proposed projects.

SMA would appreciate any information or feedback to be provided at your earliest possible convenience. If you need any further information or wish to discuss the project, please feel free to contact me by phone at 877-299-0942, or by email at [lisa.gaston@soudermiller.com](mailto:lisa.gaston@soudermiller.com).

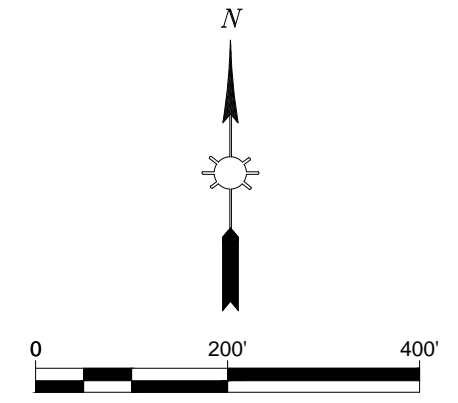
Sincerely,

**SOUDER, MILLER & ASSOCIATES**



Lisa A. Gaston  
Staff Geoscientist

Cc: Dr. Phillip H. Shelley  
Tribal Historic Preservation Officer  
Pueblo of Santa Ana  
2 Dove Road  
Santa Ana Pueblo, NM 87004  
Phone: 505-280-5478  
Email: [phillip.shelley@santaana-nsn.gov](mailto:phillip.shelley@santaana-nsn.gov)



**LEGEND**

█ PROJECT AREA

VILLAGE OF CUBA  
WWTP

LAND APPLICATION  
AREA

REVISIONS		
BY	DATE	DESC.

**SMA**  
Engineering • Environmental  
Surveying

**SOUDER, MILLER & ASSOCIATES**  
3451 Candelaria Road NE, Suite D  
Albuquerque, NM 87107

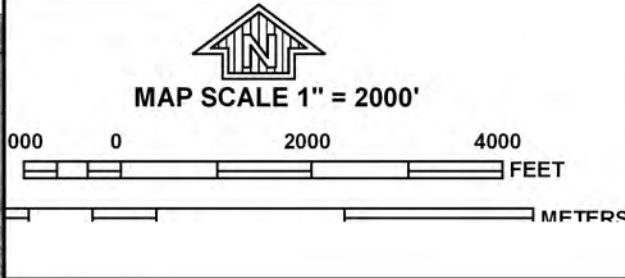
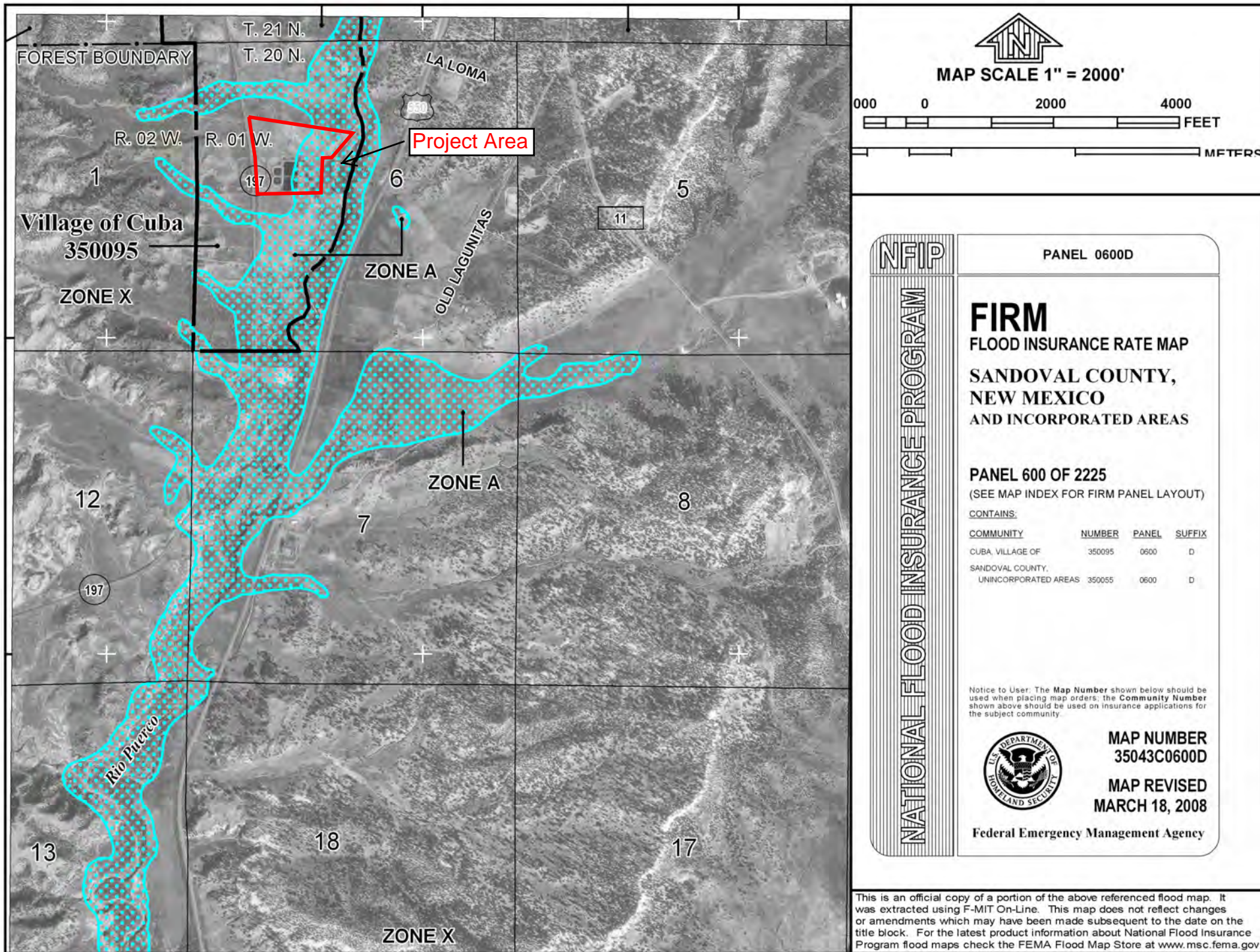
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**VILLAGE OF CUBA SITE MAP**  
**NORTHERN PROPERTY AND WWTP**  
**SANDOVAL COUNTY, NEW MEXICO**

Drawn ARB/JER	Checked JMG	Approved JMG
Date: AUGUST, 2014		
Scale: Horiz: 1"=200 Vert:		
Project No: 48968		
Sheet: <b>FIGURE 1</b>		

Figure 3



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0600D

**FIRM**  
FLOOD INSURANCE RATE MAP

**SANDOVAL COUNTY,  
NEW MEXICO  
AND INCORPORATED AREAS**

**PANEL 600 OF 2225**  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

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35043C0600D

**MAP REVISED**  
MARCH 18, 2008

Federal Emergency Management Agency

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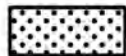
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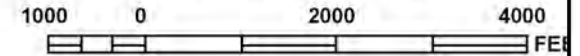


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**MAP REPOSITORY**  
Refer to listing of Map Repositories on Map Index

**EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP**  
July 16, 1996

**EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL**  
March 18, 2008 - to update map format.

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From: Phillip Shelley <Phillip.Shelley@santaana-nsn.gov>  
Sent: Wednesday, December 02, 2015 9:21 AM  
To: Lisa Gaston  
Cc: Julian T. Garcia; Tim Menchego  
Subject: Communication #6423775

Follow Up Flag: Follow up  
Flag Status: Flagged

Dear Ms. Gaston,

We have reviewed your communication for the solids handling and effluent reuse improvement project for the Village of Cuba and we have no comments to offer or concerns with the proposed project.

Phillip H. Shelley, PhD, RPA  
Tribal Historic Preservation Officer  
Pueblo of Santa Ana  
02 Dove Road,  
Santa Ana Pueblo, NM 87004  
Phillip.Shelley@santaana-nsn.gov  
505-280-5478

Pueblo of Santa Ana Confidentiality Notice: This communication and any files attached may contain confidential or privileged information. If this email message concerns legal matters, this communication and any attachments are attorney client privileged and confidential and are intended only for the use of the individual(s) or entity to which the message is addressed. If this email message and/or its attachments contains information about Santa Ana Pueblo or its subdivisions that is not generally available to the public, it is confidential, and intended only for the use of the individual(s) or entity to which the message is addressed. If you are not the intended recipient, reading, disclosure, distribution, copying or the taking of any action in reliance upon this communication is strictly prohibited. If you have received this communication in error, please immediately notify the sender by reply e mail or forward this email to [postmaster@santaana-nsn.gov](mailto:postmaster@santaana-nsn.gov) and destroy the original communication, including any attachments. Thank you.



November 24, 2015

#6423775

Governor J. Michael Chavarria  
Pueblo of Santa Clara  
P.O. Box 580  
Española, NM 87532  
Phone: (505) 753-7330/7326  
Fax: (505) 753-8988

**RE: REVISION TO REQUEST FOR INFORMATION CONCERNING THE SOLIDS HANDLING AND EFFLUENT REUSE IMPROVEMENTS PROJECT FOR THE VILLAGE OF CUBA WASTEWATER TREATMENT PLANT, SANDOVAL COUNTY, NEW MEXICO**

Mr. J. Michael Chavarria:

Souder, Miller & Associates (SMA), on behalf of our client, the Village of Cuba, is in the process of performing an environmental assessment pursuant to the National Environmental Policy Act for use of public funding. The Village's Wastewater Treatment Plant (WWTP) is located in Sandoval County, along New Mexico State Road 197 (NM 197); approximately 2 miles from the NM 197/United States Route 550 (US 550) junction; approximately 65 miles northwest of Bernalillo, New Mexico. Funding for the planned project may be obtained from New Mexico Legislative Appropriations (SAP), United States Department of Agriculture (USDA) - Rural Development (RD), Community Development Block Grant (CDBG), New Mexico Water Trust Board (WTB), Clean Water State Revolving Fund (CWSRF) and/or other State and Federal sources.

As part of the overall planning phase of the project Village of Cuba WWTP is requesting consultation on several improvements including:

- Utilization of 15 acres of land for long-term biosolids and effluent land application.
- Use of the existing northeast passive lagoon at the WWTP to dewater biosolids until they dry to a desired solids concentration.
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- Construction of a building for an office and for sludge processing equipment.
- Reuse of biosolids and treated effluent via land application for irrigation.

Limits of the study include a portion of Township 20 North, Range 01 West, Section 6. The center of the project area is located at approximately 35° 59' 38" N latitude and 106° 59' 6" west longitude. Please refer to the enclosed map (Figure 1) that depicts the area of the proposed WWTP improvements. Figures 1 and 2 were inadvertently left out of original letter. They are attached to this letter.

All work is to be completed on property owned by the Village of Cuba. The majority of work will be completed above ground. The overall project area depicted in Figure 2 shows that all projects

*Mr. J. Michael Chavarria*

*November 24, 2015*

*Page 2*

contemplated at this time lie within Zone A (areas where flood heights have not been determined but are expected to flood during the 100-year flood) and Zone X (areas that have been determined to be outside the 0.2% annual floodplain). No arroyos are anticipated to be crossed or disturbed by the proposed projects.

SMA would appreciate any information or feedback to be provided at your earliest possible convenience. If you need any further information or wish to discuss the project, please feel free to contact me by phone at 877-299-0942, or by email at [lisa.gaston@soudermiller.com](mailto:lisa.gaston@soudermiller.com).

Sincerely,

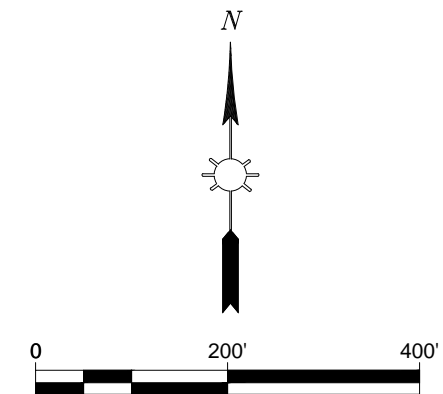
**SOUDER, MILLER & ASSOCIATES**



Lisa A. Gaston  
Staff Geoscientist

Cc: Mr. Ben Chavarria  
Tribal Historic Preservation Officer  
Pueblo of Santa Clara  
P.O. Box 580  
Española, NM 87532  
Phone: 505-753-7326 (ext. 1306)  
Email: [bchavarria@santaclarapueblo.org](mailto:bchavarria@santaclarapueblo.org)





**LEGEND**

█ PROJECT AREA

REVISIONS		
BY	DATE	DESC.

**SOUDER, MILLER & ASSOCIATES**  
 3451 Candelaria Road NE, Suite D  
 Albuquerque, NM 87107

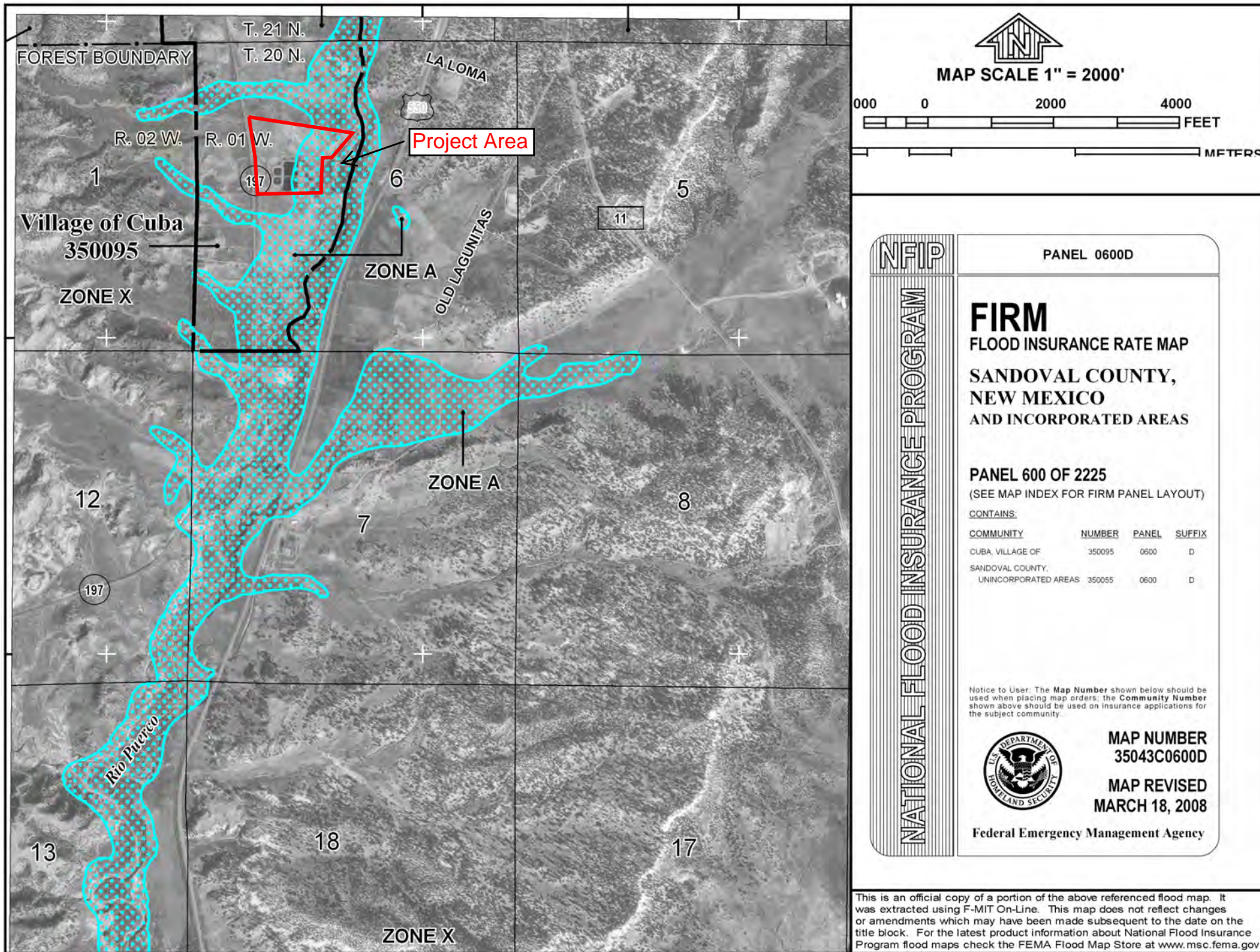
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**VILLAGE OF CUBA SITE MAP**  
**NORTHERN PROPERTY AND WWTP**  
**SANDOVAL COUNTY, NEW MEXICO**

Drawn ARB/JER	Checked JMG	Approved JMG
Date: AUGUST, 2014		
Scale: Horiz: 1"=200 Vert:		
Project No: 48968		
Sheet: <b>FIGURE 1</b>		

Figure 3



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0600D

**FIRM**  
FLOOD INSURANCE RATE MAP


**SANDOVAL COUNTY,  
NEW MEXICO  
AND INCORPORATED AREAS**

**PANEL 600 OF 2225**  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
CUBA, VILLAGE OF	350095	0600	D
SANDOVAL COUNTY, UNINCORPORATED AREAS	350055	0600	D

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.



**MAP NUMBER**  
35043C0600D

**MAP REVISED**  
MARCH 18, 2008

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)

# LEGEND



**SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**

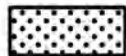
The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A** No Base Flood Elevations determined.
- ZONE AE** Base Flood Elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.



**FLOODWAY AREAS IN ZONE AE**

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.



**OTHER FLOOD AREAS**

- ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

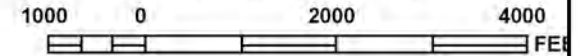


**OTHER AREAS**

- ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D** Areas in which flood hazards are undetermined, but possible.



**MAP SCALE 1" = 2000'**



**COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**



**OTHERWISE PROTECTED AREAS (OPAs)**

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- Base Flood Elevation line and value; elevation in feet\*
- Base Flood Elevation value where uniform within zone; elevation in feet\*

\* Referenced to the North American Vertical Datum of 1988.

- Cross section line
- Transect line
- Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 1000-meter Universal Transverse Mercator grid values, zone 13
- 5000-foot grid ticks: New Mexico State Plane coordinate system, Central zone (FIPSZONE 3002), Transverse Mercator projection
- Bench mark (see explanation in Notes to Users section of this FIRM panel)
- River Mile

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# Send Result Report



MFP

ECOSYS M2535dn

Firmware Version 2PL\_2000.001.102 2013.11.21

05/23/2016 17:29  
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Job No.: 000929

Total Time: 0°04'35"

Page: 006

## Complete

Document: doc00092920160523170029

**Souder, Miller & Associates**  
Engineering ♦ Environmental ♦ Surveying  
3451 Candelaria Rd. NE, Suite D  
Albuquerque, NM 87107  
Phone (505) 299-0942  
Fax (505) 293-3430  
www.soudermiller.com



### Facsimile Transmittal Form

To: Governor J. Michael Chavarria  
At: Pueblo of Santa Clara  
Fax: (505) 753-8988  
Date: 23 May 2016

From: Scott A. McKittrick  
Souder, Miller & Associates  
Fax: (505) 293-3430  
Pages: 5

### Re: Village of Cuba WWTP Improvement Project

Greetings – attached please find the request for information concerning the above named project. Any information or feedback you wish to provide would be appreciated. Thank you.

No.	Date and Time	Destination	Times	Type	Result	Resolution/ECM
001	05/23/16 17:19	15057538988	0°04'35"	FAX	OK	200x100 Normal/On



November 24, 2015

#6423775

Governor Daniel Coriz  
Pueblo of Santo Domingo  
P.O. Box 99  
Santo Domingo Pueblo, NM 87052  
Phone: (505) 465-2214  
Fax: (505) 465-2688/2215

**RE: REVISION TO REQUEST FOR INFORMATION CONCERNING THE SOLIDS HANDLING AND EFFLUENT REUSE IMPROVEMENTS PROJECT FOR THE VILLAGE OF CUBA WASTEWATER TREATMENT PLANT, SANDOVAL COUNTY, NEW MEXICO**

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*Mr. Daniel Coriz*  
*November 24, 2015*  
*Page 2*

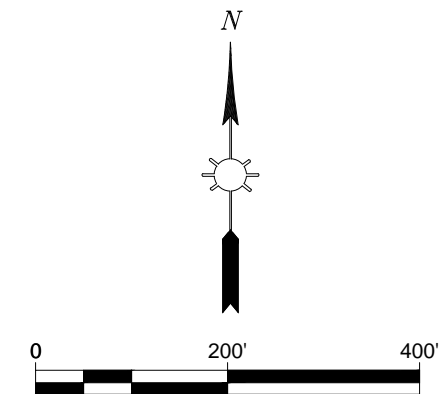
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SMA would appreciate any information or feedback to be provided at your earliest possible convenience. If you need any further information or wish to discuss the project, please feel free to contact me by phone at 877-299-0942, or by email at [lisa.gaston@soudermiller.com](mailto:lisa.gaston@soudermiller.com).

Sincerely,  
**SOUDER, MILLER & ASSOCIATES**

A handwritten signature in blue ink, appearing to read "Lisa A. Gaston".

Lisa A. Gaston  
Staff Geoscientist



**LEGEND**

 PROJECT AREA

REVISIONS		
BY	DATE	DESC.

**SMA**  
Engineering • Environmental  
Surveying

**SOUDER, MILLER & ASSOCIATES**  
3451 Candelaria Road NE, Suite D  
Albuquerque, NM 87107

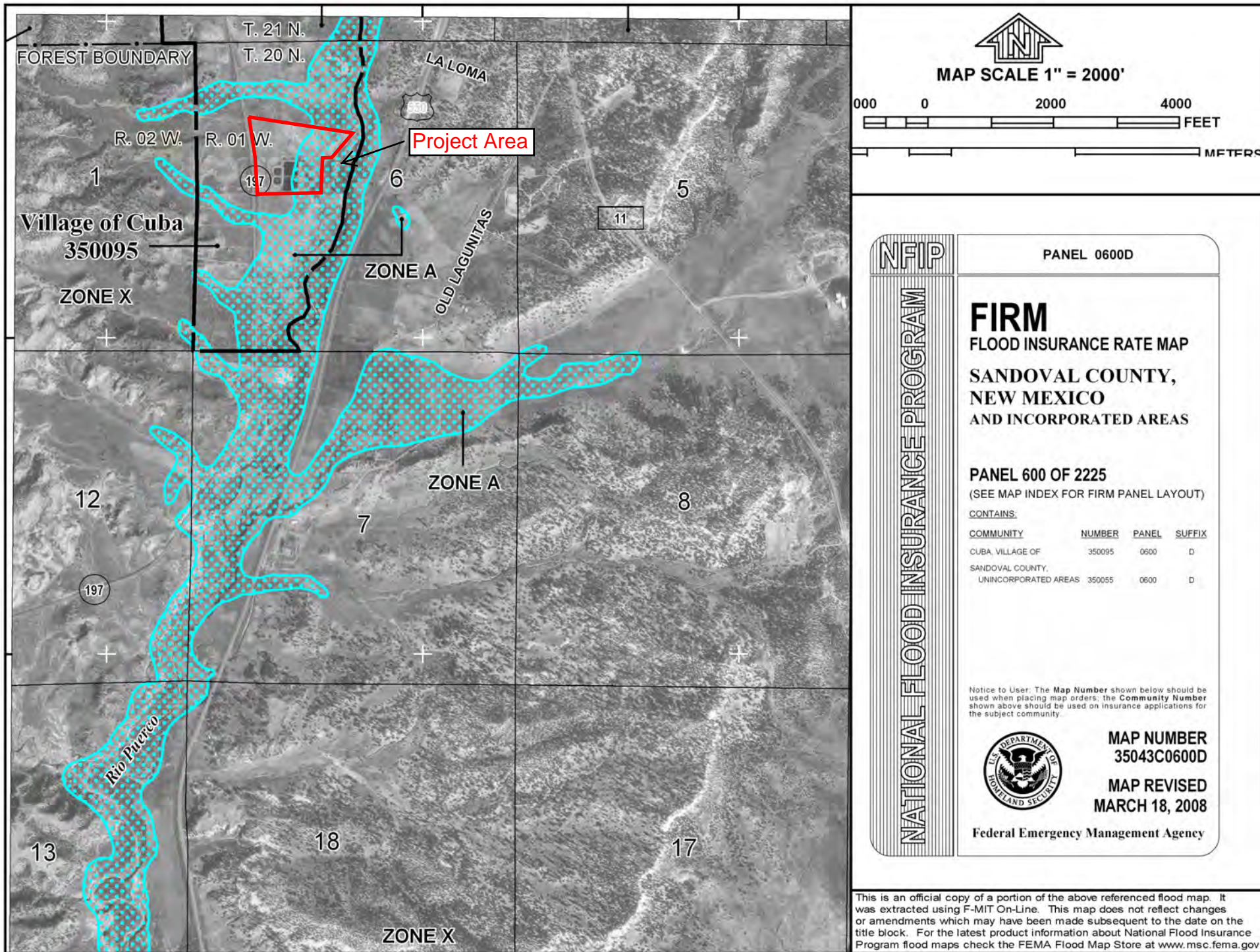
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**VILLAGE OF CUBA SITE MAP**  
**NORTHERN PROPERTY AND WWTP**  
**SANDOVAL COUNTY, NEW MEXICO**

Drawn ARB/JER	Checked JMG	Approved JMG
Date: AUGUST, 2014		
Scale: Horiz: 1"=200 Vert:		
Project No: 48968		
Sheet: <b>FIGURE 1</b>		

Figure 3



NATIONAL FLOOD INSURANCE PROGRAM

NFIP

PANEL 0600D

**FIRM**  
FLOOD INSURANCE RATE MAP


**SANDOVAL COUNTY,  
NEW MEXICO  
AND INCORPORATED AREAS**

**PANEL 600 OF 2225**  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

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SANDOVAL COUNTY, UNINCORPORATED AREAS	350055	0600	D

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35043C0600D

**MAP REVISED**  
MARCH 18, 2008

Federal Emergency Management Agency

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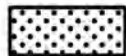
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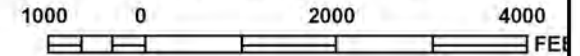


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**MAP SCALE 1" = 2000'**



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- Transect line
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# Send Result Report



MFP

ECOSYS M2535dn

Firmware Version 2PL\_2000.001.102 2013.11.21

05/23/2016 17:33  
[2PM\_1000.001.018] [2PM\_1100.001.004] [2PL\_7000.001.006]

Job No.: 000935

Total Time: 0°01'26"

Page: 006

## Complete

Document: doc00093520160523172259

**Souder, Miller & Associates**  
Engineering ♦ Environmental ♦ Surveying  
3451 Candelaria Rd. NE, Suite D  
Albuquerque, NM 87107  
Phone (505) 299-0942  
Fax (505) 293-3430  
www.soudermiller.com



### Facsimile Transmittal Form

To: Governor Daniel Coriz  
At: Pueblo of Santo Domingo  
Fax: (505) 465-2688  
Date: 23 May 2016

From: Scott A. McKittrick  
Souder, Miller & Associates  
Fax: (505) 293-3430  
Pages: 5

### Re: Village of Cuba WWTP Improvement Project

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No.	Date and Time	Destination	Times	Type	Result	Resolution/ECM
001	05/23/16 17:31	15054652688	0°01'26"	FAX	OK	200x100 Normal/On



November 24, 2015

#6423775

Governor Mark Mitchell  
Pueblo of Tesuque  
Route 42, Box 360-T  
Santa Fe, NM 87506  
(505) 955-7732  
(505) 982-2331 (fax)

**RE: REVISION TO REQUEST FOR INFORMATION CONCERNING THE SOLIDS HANDLING AND EFFLUENT REUSE IMPROVEMENTS PROJECT FOR THE VILLAGE OF CUBA WASTEWATER TREATMENT PLANT, SANDOVAL COUNTY, NEW MEXICO**

Governor Mitchell:

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*Governor Mark Mitchell*

*November 24, 2015*

*Page 2*

the 0.2% annual floodplain). No arroyos are anticipated to be crossed or disturbed by the proposed projects.

SMA would appreciate any information or feedback to be provided at your earliest possible convenience. If you need any further information or wish to discuss the project, please feel free to contact me by phone at 877-299-0942, or by email at [lisa.gaston@soudermiller.com](mailto:lisa.gaston@soudermiller.com).

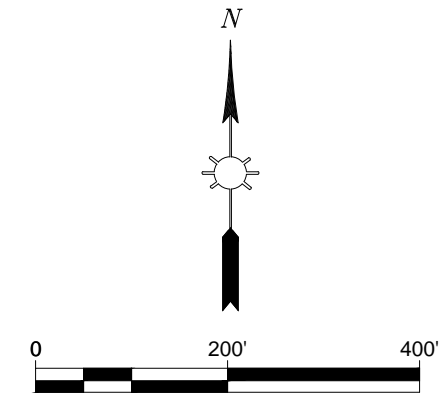
Sincerely,

**SOUDER, MILLER & ASSOCIATES**



Lisa A. Gaston  
Staff Geoscientist

*Cc: Mr. Charles Dorame, THPO  
Pueblo of Tesuque  
Route 42, Box 360-T  
Santa Fe, NM 87506  
(505) 955-7745  
(505) 983-2331 (fax)  
[cdorame@pueblooftesuque.org](mailto:cdorame@pueblooftesuque.org)*



**LEGEND**

█ PROJECT AREA

VILLAGE OF CUBA  
WWTP

LAND APPLICATION  
AREA

REVISIONS		
BY	DATE	DESC.

**SMA**  
Engineering • Environmental  
Surveying

**SOUDER, MILLER & ASSOCIATES**  
3451 Candelaria Road NE, Suite D  
Albuquerque, NM 87107

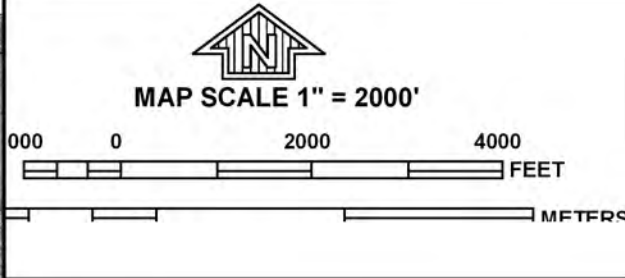
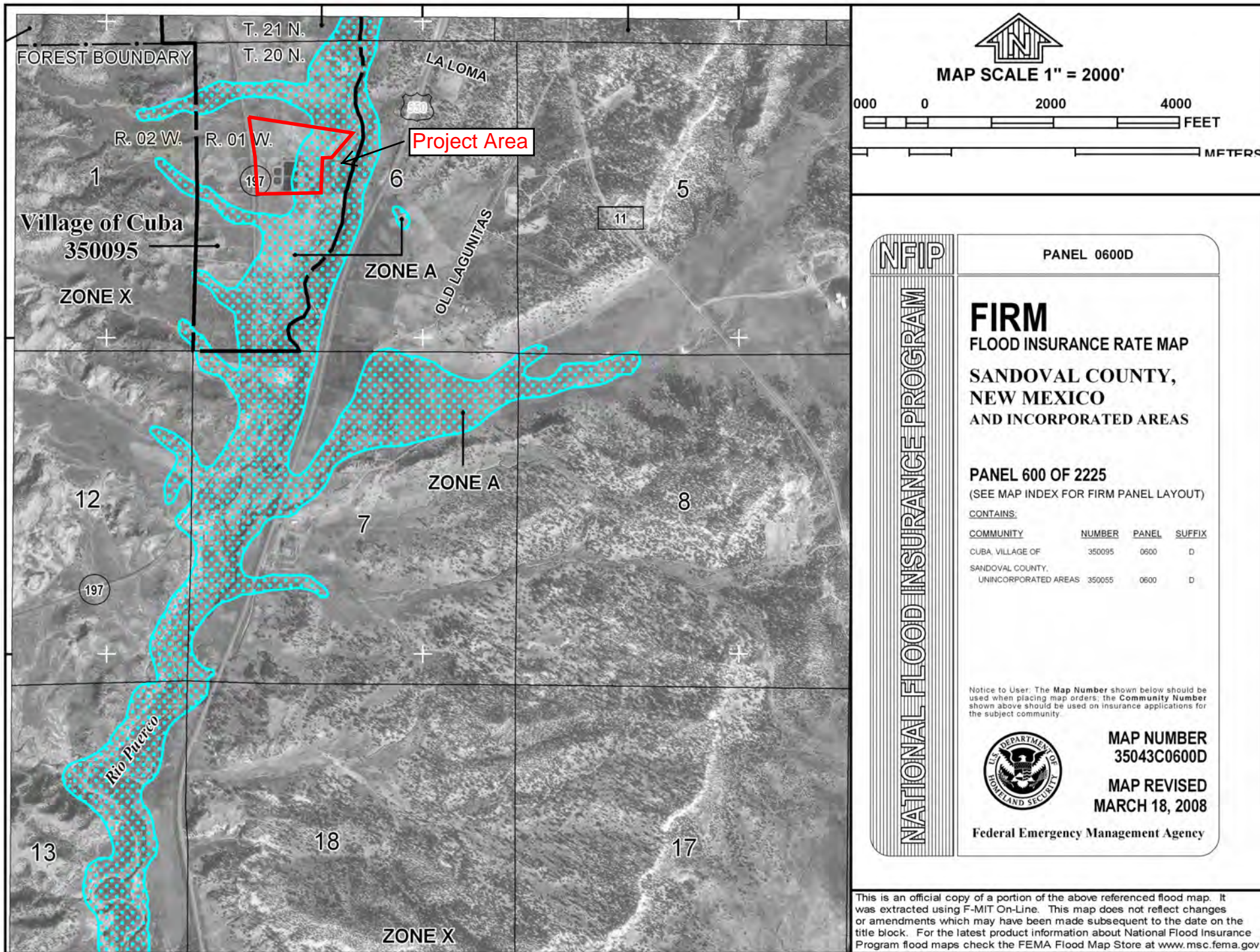
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VILLAGE OF CUBA SITE MAP  
NORTHERN PROPERTY AND WWTP  
SANDOVAL COUNTY, NEW MEXICO

Drawn ARB/JER	Checked JMG	Approved JMG
Date: AUGUST, 2014		
Scale: Horiz: 1"=200 Vert:		
Project No: 48968		
Sheet: <b>FIGURE 1</b>		

Figure 3



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0600D

**FIRM**  
**FLOOD INSURANCE RATE MAP**  
**SANDOVAL COUNTY,**  
**NEW MEXICO**  
**AND INCORPORATED AREAS**

**PANEL 600 OF 2225**  
 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
CUBA, VILLAGE OF	350095	0600	D
SANDOVAL COUNTY, UNINCORPORATED AREAS	350055	0600	D

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.



**MAP NUMBER**  
**35043C0600D**  
**MAP REVISED**  
**MARCH 18, 2008**

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)

# LEGEND



**SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**

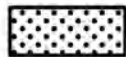
The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A** No Base Flood Elevations determined.
- ZONE AE** Base Flood Elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.



**FLOODWAY AREAS IN ZONE AE**

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.



**OTHER FLOOD AREAS**

- ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

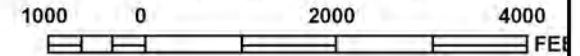


**OTHER AREAS**

- ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D** Areas in which flood hazards are undetermined, but possible.



**MAP SCALE 1" = 2000'**



**COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**



**OTHERWISE PROTECTED AREAS (OPAs)**

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- Base Flood Elevation line and value; elevation in feet\*
- Base Flood Elevation value where uniform within zone; elevation in feet\*

\* Referenced to the North American Vertical Datum of 1988

- Cross section line
- Transect line
- Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 1000-meter Universal Transverse Mercator grid values, zone 13
- 5000-foot grid ticks: New Mexico State Plane coordinate system, Central zone (FIPSZONE 3002), Transverse Mercator projection
- Bench mark (see explanation in Notes to Users section of this FIRM panel)
- River Mile

**MAP REPOSITORY**  
Refer to listing of Map Repositories on Map Index

**EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP**  
July 16, 1996

**EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL**  
March 18, 2008 - to update map format.

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

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# Send Result Report



MFP

ECOSYS M2535dn

Firmware Version 2PL\_2000.001.102 2013.11.21

05/23/2016 17:36  
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Job No.: 000936

Total Time: 0°02'10"

Page: 006

## Complete

Document: doc00093620160523172508

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3451 Candelaria Rd. NE, Suite D  
Albuquerque, NM 87107  
Phone (505) 299-0942  
Fax (505) 293-3430  
www.soudermiller.com



### Facsimile Transmittal Form

**To:** Governor Mark Mitchell  
**At:** Pueblo of Tesuque  
**Fax:** (505) 982-2331  
**Date:** 23 May 2016

**From:** Scott A. McKittrick  
**Souder, Miller & Associates**  
**Fax:** (505) 293-3430  
**Pages:** 5

### Re: Village of Cuba WWTP Improvement Project

Greetings – attached please find the request for information concerning the above named project. Any information or feedback you wish to provide would be appreciated. Thank you.

No.	Date and Time	Destination	Times	Type	Result	Resolution/ECM
001	05/23/16 17:34	15059822331	0°02'10"	FAX	OK	200x100 Normal/On





November 24, 2015

Governor David Pino  
Pueblo of Zia  
135 Capitol Square Dr.  
Zia Pueblo, NM 87053-6013  
Phone: (505) 867-3304  
Fax: (505) 867-3308

**RE: REVISION TO REQUEST FOR INFORMATION CONCERNING THE SOLIDS HANDLING AND EFFLUENT REUSE IMPROVEMENTS PROJECT FOR THE VILLAGE OF CUBA WASTEWATER TREATMENT PLANT, SANDOVAL COUNTY, NEW MEXICO**

Mr. David Pino:

Souder, Miller & Associates (SMA), on behalf of our client, the Village of Cuba, is in the process of performing an environmental assessment pursuant to the National Environmental Policy Act for use of public funding. The Village's Wastewater Treatment Plant (WWTP) is located in Sandoval County, along New Mexico State Road 197 (NM 197); approximately 2 miles from the NM 197/United States Route 550 (US 550) junction; approximately 65 miles northwest of Bernalillo, New Mexico. Funding for the planned project may be obtained from New Mexico Legislative Appropriations (SAP), United States Department of Agriculture (USDA) - Rural Development (RD), Community Development Block Grant (CDBG), New Mexico Water Trust Board (WTB), Clean Water State Revolving Fund (CWSRF) and/or other State and Federal sources.

As part of the overall planning phase of the project Village of Cuba WWTP is requesting consultation on several improvements including:

- Utilization of 15 acres of land for long-term biosolids and effluent land application.
- Use of the existing northeast passive lagoon at the WWTP to dewater biosolids until they dry to a desired solids concentration.
- Modification of the existing sand filters to function as drying sand beds to dewater biosolids produced by the WWTP.
- Construction of a lined effluent storage basin.
- Construction of a building for an office and for sludge processing equipment.
- Reuse of biosolids and treated effluent via land application for irrigation.

Limits of the study include a portion of Township 20 North, Range 01 West, Section 6. The center of the project area is located at approximately 35° 59' 38" N latitude and 106° 59' 6" west longitude. Please refer to the enclosed map (Figure 1) that depicts the area of the proposed WWTP improvements. Figures 1 and 2 were inadvertently left out of original letter. They are attached to this letter.

All work is to be completed on property owned by the Village of Cuba. The majority of work will be completed above ground. The overall project area depicted in Figure 2 shows that all projects contemplated at this time lie within Zone A (areas where flood heights have not been determined but are

*Mr. David Pino*  
*November 24, 2015*  
*Page 2*

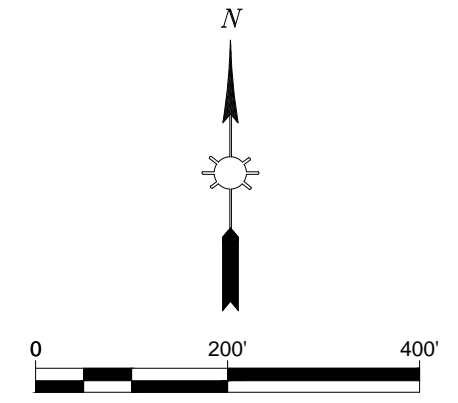
expected to flood during the 100-year flood) and Zone X (areas that have been determined to be outside the 0.2% annual floodplain). No arroyos are anticipated to be crossed or disturbed by the proposed projects.

SMA would appreciate any information or feedback to be provided at your earliest possible convenience. If you need any further information or wish to discuss the project, please feel free to contact me by phone at 877-299-0942, or by email at [lisa.gaston@soudermiller.com](mailto:lisa.gaston@soudermiller.com).

Sincerely,  
**SOUDER, MILLER & ASSOCIATES**

A handwritten signature in blue ink, appearing to read "Lisa A. Gaston".

Lisa A. Gaston  
Staff Geoscientist



**LEGEND**

█ PROJECT AREA

VILLAGE OF CUBA  
WWTP

LAND APPLICATION  
AREA

REVISIONS		
BY	DATE	DESC.

**SMA**  
Engineering • Environmental  
Surveying

**SOUDER, MILLER & ASSOCIATES**  
3451 Candelaria Road NE, Suite D  
Albuquerque, NM 87107

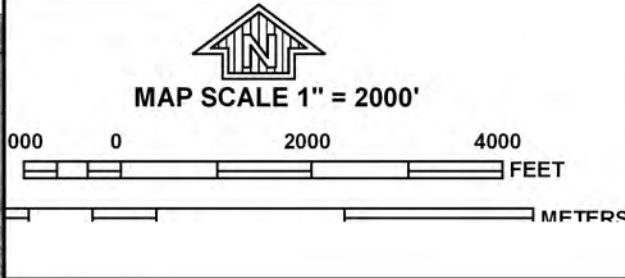
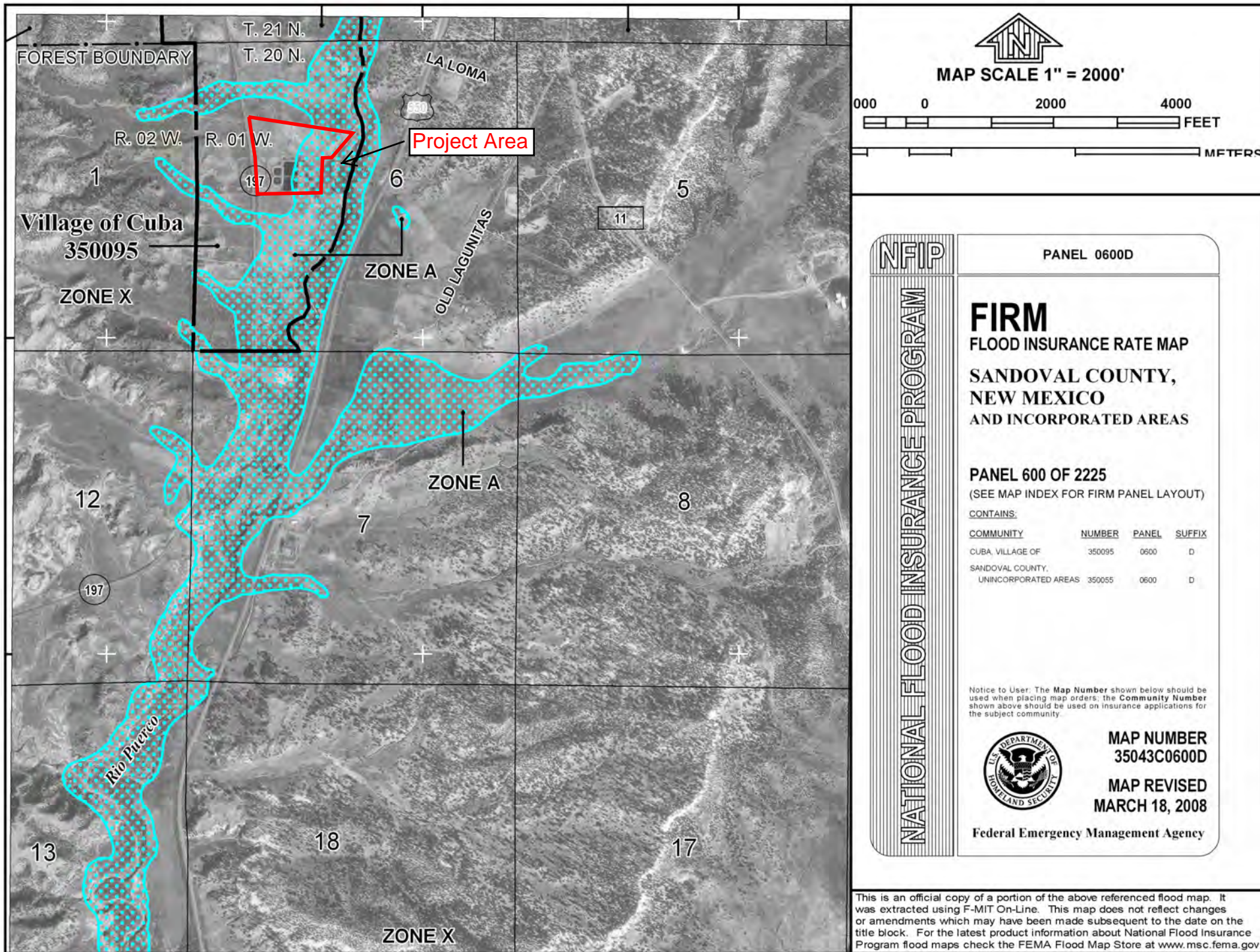
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VILLAGE OF CUBA SITE MAP  
NORTHERN PROPERTY AND WWTP  
SANDOVAL COUNTY, NEW MEXICO

Drawn ARB/JER	Checked JMG	Approved JMG
Date: AUGUST, 2014		
Scale: Horiz: 1"=200 Vert:		
Project No: 48968		
Sheet: <b>FIGURE 1</b>		

Figure 3



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0600D

**FIRM**  
FLOOD INSURANCE RATE MAP

**SANDOVAL COUNTY,  
NEW MEXICO  
AND INCORPORATED AREAS**

**PANEL 600 OF 2225**  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
CUBA, VILLAGE OF	350095	0600	D
SANDOVAL COUNTY, UNINCORPORATED AREAS	350055	0600	D

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.



**MAP NUMBER**  
35043C0600D

**MAP REVISED**  
MARCH 18, 2008

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)

# LEGEND



**SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**

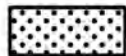
The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

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**FLOODWAY AREAS IN ZONE AE**

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.



**OTHER FLOOD AREAS**

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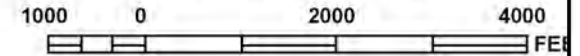


**OTHER AREAS**

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**MAP SCALE 1" = 2000'**



**COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**



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- 0.2% annual chance floodplain boundary
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- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- Base Flood Elevation line and value; elevation in feet\*
- Base Flood Elevation value where uniform within zone; elevation in feet\*

\* Referenced to the North American Vertical Datum of 1988

- Cross section line
- Transect line
- Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 1000-meter Universal Transverse Mercator grid values, zone 13
- 5000-foot grid ticks: New Mexico State Plane coordinate system, Central zone (FIPSZONE 3002), Transverse Mercator projection
- Bench mark (see explanation in Notes to Users section of this FIRM panel)
- River Mile

**MAP REPOSITORY**  
Refer to listing of Map Repositories on Map Index

**EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP**  
July 16, 1996

**EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL**  
March 18, 2008 - to update map format.

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

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# Send Result Report



MFP

ECOSYS M2535dn

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Job No.: 000937

Total Time: 0°04'29"

Page: 006

## Complete

Document: doc00093720160523173426

**Souder, Miller & Associates**  
Engineering ♦ Environmental ♦ Surveying  
3451 Candelaria Rd. NE, Suite D  
Albuquerque, NM 87107  
Phone (505) 299-0942  
Fax (505) 293-3430  
www.soudermiller.com



### Facsimile Transmittal Form

To: Governor David Pino  
At: Pueblo of Zia  
Fax: (505) 867-3308  
Date: 23 May 2016

From: Scott A. McKittrick  
Souder, Miller & Associates  
Fax: (505) 293-3430  
Pages: 5

### Re: Village of Cuba WWTP Improvement Project

Greetings – attached please find the request for information concerning the above named project. Any information or feedback you wish to provide would be appreciated. Thank you.

No.	Date and Time	Destination	Times	Type	Result	Resolution/ECM
001	05/23/16 17:37	15058673308	0°04'29"	FAX	OK	200x100 Normal/On



June 6, 2016

Governor Val Panteah, Sr.  
P.O. Box 339  
Zuni, NM 87327  
Phone: (505) 782-7022  
Fax: (505) 782-2700

Mr. Kurt Dongoske  
Tribal Historic Preservation Officer  
Zuni Pueblo  
P.O. Box 1149  
Zuni, NM 87327  
Phone: 505-782-4814  
Email: [kdongoske@cablone.net](mailto:kdongoske@cablone.net)

**RE: REQUEST FOR INFORMATION CONCERNING THE SOLIDS HANDLING AND EFFLUENT REUSE IMPROVEMENTS PROJECT FOR THE VILLAGE OF CUBA WASTEWATER TREATMENT PLANT, SANDOVAL COUNTY, NEW MEXICO**

Governor Panteah, Sr.:

Souder, Miller & Associates (SMA), on behalf of our client, the Village of Cuba, is in the process of performing an environmental assessment pursuant to the National Environmental Policy Act for use of public funding. The Village's Wastewater Treatment Plant (WWTP) is located in Sandoval County, along New Mexico State Road 197 (NM 197); approximately 2 miles from the NM 197/United States Route 550 (US 550) junction; approximately 65 miles northwest of Bernalillo, New Mexico. Funding for the planned project may be obtained from New Mexico Legislative Appropriations (SAP), United States Department of Agriculture (USDA) - Rural Development (RD), Community Development Block Grant (CDBG), New Mexico Water Trust Board (WTB), Clean Water State Revolving Fund (CWSRF) and/or other State and Federal sources.

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- Use of the existing northeast passive lagoon at the WWTP to dewater biosolids until they dry to a desired solids concentration.
- Modification of the existing sand filters to function as drying sand beds to dewater biosolids produced by the WWTP.
- Construction of a lined effluent storage basin.
- Construction of a building for an office and for sludge processing equipment.
- Reuse of biosolids and treated effluent via land application for irrigation.

*Governor Val Panteah, Sr.*  
*Mr. Kurt Dongoske*  
*June 6, 2016*  
*Page 2*

Limits of the study include a portion of Township 20 North, Range 01 West, Section 6. The center of the project area is located at approximately 35° 59' 38" N latitude and 106° 59' 6" west longitude. Please refer to the enclosed map (Figure 1) that depicts the area of the proposed WWTP improvements.

All work is to be completed on property owned by the Village of Cuba. The majority of work will be completed above ground. The overall project area depicted in Figure 2 shows that all projects contemplated at this time lie within Zone A (areas where flood heights have not been determined but are expected to flood during the 100-year flood) and Zone X (areas that have been determined to be outside the 0.2% annual floodplain). No arroyos are anticipated to be crossed or disturbed by the proposed projects.

SMA would appreciate any information or feedback to be provided at your earliest possible convenience. If you need any further information or wish to discuss the project, please feel free to contact me by phone at 877-299-0942, or by email at [scott.mckitrick@soudermilller.com](mailto:scott.mckitrick@soudermilller.com).

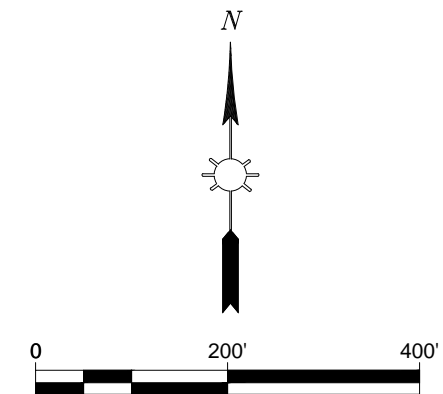
Sincerely,  
**SOUDER, MILLER & ASSOCIATES**



Scott A. McKitrick, P.G.  
Senior Geoscientist

Encl.: Figure 1, Figure 2





**LEGEND**

PROJECT AREA

REVISIONS		
BY	DATE	DESC.

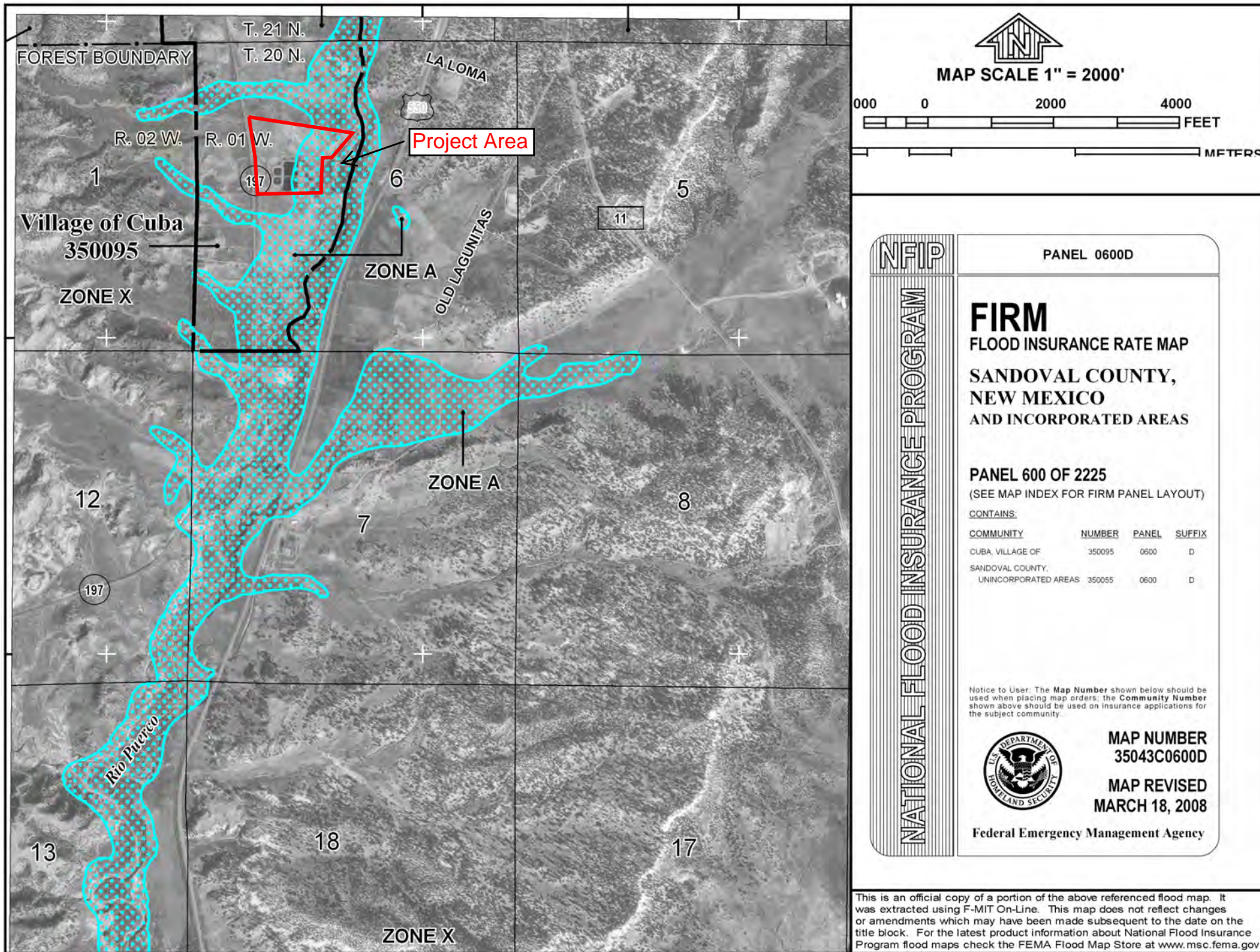
**SOUDER, MILLER & ASSOCIATES**  
 3451 Candelaria Road NE, Suite D  
 Albuquerque, NM 87107

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 Cortez - Grand Junction, CO - Safford, AZ - Meab, UT, El Paso, TX

**VILLAGE OF CUBA SITE MAP**  
**NORTHERN PROPERTY AND WWTP**  
**SANDOVAL COUNTY, NEW MEXICO**

Drawn ARB/JER	Checked JMG	Approved JMG
Date: AUGUST, 2014		
Scale: Horiz: 1"=200 Vert:		
Project No: 48968		
Sheet: <b>FIGURE 1</b>		

Figure 3



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0600D

**FIRM**  
FLOOD INSURANCE RATE MAP


**SANDOVAL COUNTY,  
NEW MEXICO  
AND INCORPORATED AREAS**

**PANEL 600 OF 2225**  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
CUBA, VILLAGE OF	350095	0600	D
SANDOVAL COUNTY, UNINCORPORATED AREAS	350055	0600	D

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.



**MAP NUMBER**  
35043C0600D

**MAP REVISED**  
MARCH 18, 2008

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)

# LEGEND



**SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**

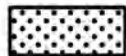
The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A** No Base Flood Elevations determined.
- ZONE AE** Base Flood Elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.



**FLOODWAY AREAS IN ZONE AE**

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.



**OTHER FLOOD AREAS**

- ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

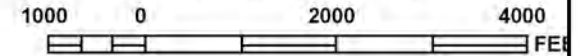


**OTHER AREAS**

- ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D** Areas in which flood hazards are undetermined, but possible.



**MAP SCALE 1" = 2000'**



**COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**



**OTHERWISE PROTECTED AREAS (OPAs)**

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- Base Flood Elevation line and value; elevation in feet\*
- Base Flood Elevation value where uniform within zone; elevation in feet\*

\* Referenced to the North American Vertical Datum of 1988.

- Cross section line
- Transect line
- Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 1000-meter Universal Transverse Mercator grid values, zone 13
- 5000-foot grid ticks: New Mexico State Plane coordinate system, Central zone (FIPSZONE 3002), Transverse Mercator projection
- Bench mark (see explanation in Notes to Users section of this FIRM panel)
- River Mile

**MAP REPOSITORY**  
Refer to listing of Map Repositories on Map Index

**EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP**  
July 16, 1996

**EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL**  
March 18, 2008 - to update map format.

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)

## Scott McKitrick

---

**From:** Scott McKitrick  
**Sent:** Monday, June 06, 2016 4:39 PM  
**To:** 'kdongoske@cableone.net'  
**Subject:** Request for Consultation - Village of Cuba WWTP Improvements Project  
**Attachments:** Zuni.pdf

Attached please find a NEPA consultation letter for the Village of Cuba WWTP Improvements Project. Please feel free to provide any feedback or questions to me at this email or the number below. Thanks.

---

**Scott A. McKitrick, P.G.**  
**Senior Geoscientist**  
**Souder, Miller & Associates**  
3451 Candelaria NE, Suite D  
Albuquerque, NM 87107  
[www.soudermiller.com](http://www.soudermiller.com)  
505.299.0942 (office)  
505.220.6542 (mobile)  
505.293.3430 (fax)



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# Send Result Report



MFP

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Firmware Version 2PL\_2000.001.102 2013.11.21

06/07/2016 09:28  
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Job No.: 000953

Total Time: 0°01'58"

Page: 006

## Complete

Document: doc00095320160607092534

**Souder, Miller & Associates**  
Engineering ♦ Environmental ♦ Surveying  
3451 Candelaria Rd. NE, Suite D  
Albuquerque, NM 87107  
Phone (505) 299-0942  
Fax (505) 293-3430  
www.soudermiller.com



### Facsimile Transmittal Form

To: Governor Val Panteah, Sr.  
At: Zuni Pueblo  
Fax: (505) 782-7202  
Date: 6 June, 2016

From: Scott A. McKittrick  
Souder, Miller & Associates  
Fax: (505) 293-3430  
Pages: 5

### Re: Village of Cuba WWTP Improvement Project

Greetings – attached please find the request for information concerning the above named project. Any information or feedback you wish to provide would be appreciated. Thank you.

No.	Date and Time	Destination	Times	Type	Result	Resolution/ECM
001	06/07/16 09:26	15057827202	0°01'58"	FAX	OK	200x100 Normal/On

# Appendix E8

## Biological Evaluation Report

**BIOLOGICAL ASSESSMENT  
VILLAGE OF CUBA & SANDOVAL COUNTY  
PROPOSED CUBA WASTEWATER TREATMENT PLANT PROJECT, PHASE II  
SANDOVAL COUNTY, NEW MEXICO**



Prepared for

**New Mexico State Office Rural Development  
USDA Rural Development  
6200 Jefferson Street, Room 255  
Albuquerque, NM 87109**

On Behalf of

**Village of Cuba  
16 East Cordova Avenue  
Cuba, New Mexico 87013  
(575) 289-0882**

Prepared by

**Souder, Miller & Associates  
3451 Candelaria Rd NE, Suite D  
Albuquerque, NM 87107**

December 2015

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- Appendix B. Project Area Photos and Supporting Documentation



## **1.0 INTRODUCTION**

This Biological Assessment (BA) evaluates the potential effects of the long-term handling of bio-solids and effluent produced by the Wastewater Treatment Plant as well as the handling of existing bio-solids stored at the treatment plant. This project will hence forth be referenced as the Proposed Action. This BA examines the potential effects of the Proposed Action by the Village of Cuba (VC) on federally threatened or endangered species listed under the Endangered Species Act (ESA) of 1973, as amended *et seq.* The BA results will determine whether any listed species or their critical habitats are likely to be affected by the Proposed Action. This report will also be used in determining whether formal consultation with the U.S. Fish and Wildlife Service (USFWS) is necessary, per 50 Code of Federal Regulations (CFR) 402.12.

Section 7 of the ESA requires agencies to ensure that actions authorized, funded, or carried out by federal agencies are not likely to jeopardize the continued existence of proposed candidate, threatened, or endangered species or result in the destruction or adverse modification of their critical habitats. This process ensures that listed, proposed, and candidate species receive full consideration in the decision-making process prior to implementing the Proposed Action.

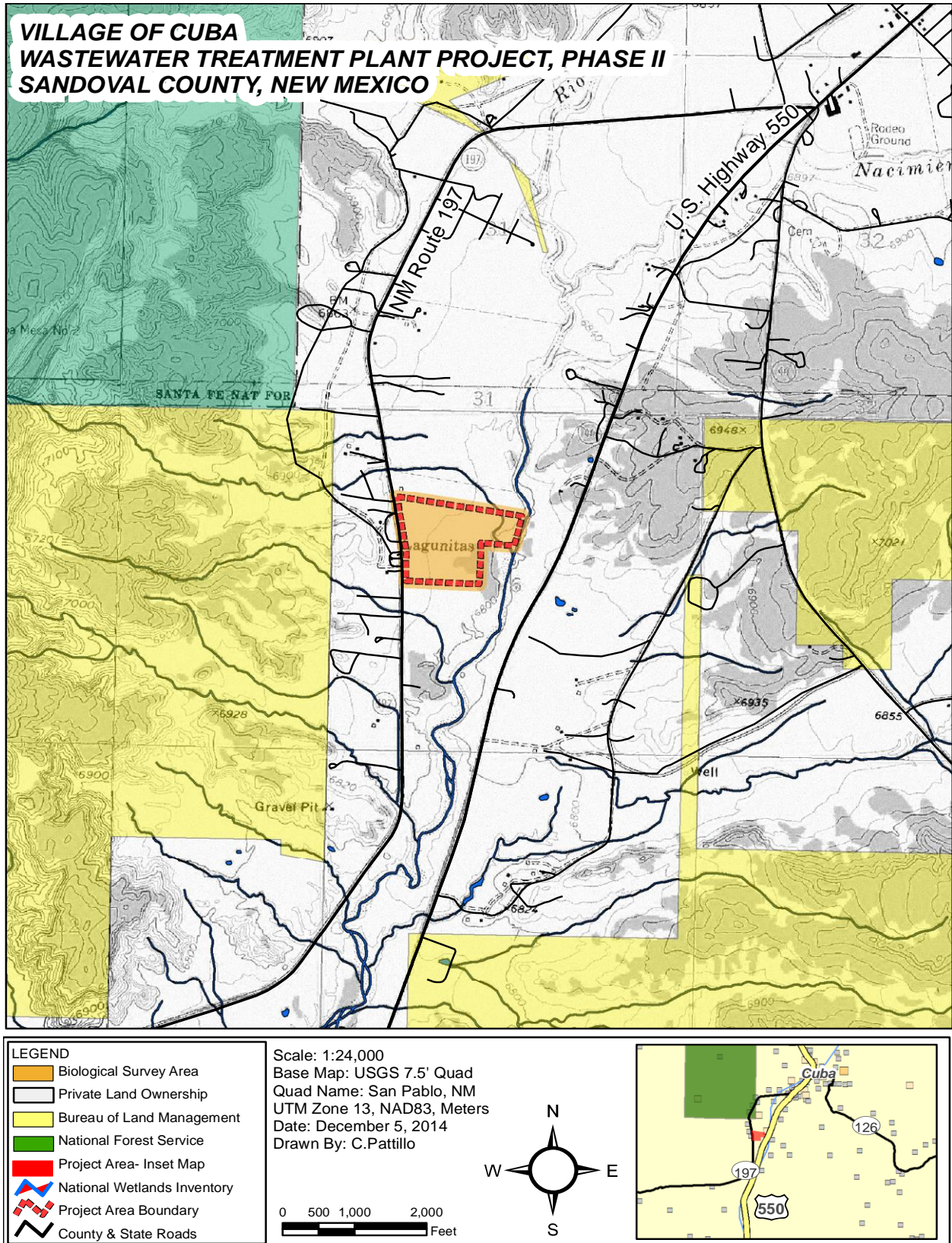
## **2.0 PROJECT DESCRIPTION**

### **2.1 Project Area**

The proposed project area is located in the north central portion of the State of New Mexico; approximately 84 miles southeast of City of Farmington, and approximately 54 miles northwest of the Town of Bernalillo, NM. The project area is located in Sandoval County, situated between the U.S. Highway 550 corridor and NM-State Route 197 (Figure 1). The project area may be found on the San Pablo, New Mexico, U.S. Geological Survey (USGS) 7.5' topographic quadrangle map (Figure 1). The project area would be accessed from existing paved roads and State Highway 197. The surface elevation ranges approximately 6,820 to 6,800 feet above mean sea level (amsl). A complete set of maps are included as Appendices submitted within the Environmental Report document.

### **2.2 Proposed Action**

VC has submitted a funding application with the United States Department of Agriculture, Rural Development (USDA RD) to implement Phase II of a wastewater treatment plan to address long-term handling of bio-solids and effluent produced by the Wastewater Treatment Plant as well as the handling of existing bio-solids stored at the treatment plant in Sandoval County, New Mexico. The wastewater treatment plant and project area are located on land owned by the Village of Cuba. The project area encompasses approximately 33.2 acres (Figure 1). A detailed description of the Phase II scope of work for the project can be found in the Environmental Report with this document.



**Figure 1. Project Area Map.**

### **2.3 Biological Surveys**

Souder, Miller & Associates' staff scientist Lisa Gaston conducted a biological survey of the project area on November 9 2015. Pedestrian transects were surveyed for all United States Fish & Wildlife Service (USFWS) and NM-State Listed Threatened, Endangered, Sensitive and Candidate species. During the field survey, vegetation and wildlife sign was recorded throughout the project area and across a 100-foot perimeter buffer zone.

## **3.0 AFFECTED ENVIRONMENT**

The surface elevation of the proposed project ranges from 6,820 to 6,800 ft. amsl. Average summer temperatures for the project area reach 75°F, while winter temperatures average 32°F. Monthly precipitation averages 1.48 inches, but can accumulate to as much as 2.51 inches (Western Regional Climate Center 2006).

### **3.1 Geology**

Rock layers present on the surface and immediately below the surface belong to the Tertiary aged Nacimiento Formation sandstones (Anderson and Jones, 1994).

### **3.2 Soils**

Native soils mapped in the project area consist primarily of the *Fruitland-Slickspot association*. These units occur on alluvial fans with the parent material derived from mixed alluvium and or residium weathered from igneous and sedimentary rock. The *Fruitland-Slickspot association* unit is described as a fine sandy loam; it is rated as well drained; very low runoff class; no frequency of ponding or flooding; and greater than 80 inches depth to water table (NRCS 2015).

### **3.3 Hydrology**

Surface waters draining off of the project area flow east and south into the Rio Puerco.

### **3.4 Vegetation**

Project area vegetation is completely disturbed. The project area vegetation has been modified by agricultural use. No trees exist throughout the project area.

Dominant shrubs and forbs noted throughout the project area included: rabbitbrush (*Chrysothamnus nauseosus*), sagebrush (*Artemisia tridentata*), broom snakeweed (*Gutierrezia sarothrae*), Russian thistle (*Salsola tragus*), globe mallow (*Sphaeraoceca coccinea*), cheatgrass (*Bromus tectorum*), smooth brome (*Bromus inermis*), and western wheatgrass (*Pascopyron smithii*). Shrubs, forbs and grasses comprised approximately 65-70% of total ground cover. A complete list of plants observed is included in Appendix A.

### **3.5 Wildlife**

Overall, the project area is a previously disturbed agricultural field. Several prairie dog burrows were observed. Scat sign indicated the presence of deer mice, cottontail rabbit, coyote, and mule deer. Any wildlife presence would be limited to transient encounters and migratory excursions through the project area. No stick nests, alcoves, or cliffs were observed within or adjacent to the project area.

### 3.6 Noxious Weeds

The State of New Mexico has twenty one (21) A-Listed species and ten (10) B-Listed species declared noxious/invasive weed species (NMDA 2009). No listed species were observed throughout the entire project area.

### 3.7 Federal and NM-State Listed Species

Threatened, endangered, candidate, and species of concern identified by the USFWS and the New Mexico Department of Game and Fish (NMDGF) that are known to, or have the potential to, occur in Sandoval County are listed in Table 3.1.

**Table 3.1 Federal and NM-State Listed Species in Sandoval County, Habitat Requirements, and Potential to Regularly Occur in the Project Area.**

Common Name Scientific Name	Status		Habitat Requirements	Potential to Regularly Occur in Project Area?	Potential Effect from Proposed Action
	USFWS	NMDGF			
<b>MAMMALS</b>					
<b>New Mexico meadow jumping mouse</b> <i>Zapus hudsonius luteus</i>	Endangered	Endangered	Prefer moist grasslands, grassy fields, thick vegetated areas with streams, ponds, or nearby marshes.	No, No appropriate habitat occurs in the project or action area.	<i>No Effect</i>
<b>Spotted Bat</b> <i>Euderma maculatum</i>	-	Threatened	Frequently reported near cliffs over perennial water, but can range from low deserts, evergreen forests, riparian and pinyon-juniper woodlands to ponderosa pine and spruce-fir forests.	No, No cliff habitat within the project area.	<i>No Effect</i>
<b>American Marten</b> <i>Martes americana</i>	-	Threatened	Prefer late successional stands of mesic, conifer-dominated forest. Optimum habitat appears to be mature old-growth spruce-fir communities.	No, No appropriate habitat within or adjacent to the project area.	<i>No Effect</i>
<b>BIRDS</b>					
<b>Mexican Spotted Owl</b> <i>Strix occidentalis lucida</i>	Threatened	Threatened	Primarily mixed conifer forests dominated by Douglas fir and various pines, or fir and pine-oak forests. Steep sided forested canyons with perennial water sources. Considered year-round resident in Rio Arriba County.	No, Project Area not near steep canyons, deep valleys or cliffs.	<i>No Effect</i>
<b>Southwestern Willow Flycatcher</b> <i>Empidonax traillii extimus</i>	Endangered	Endangered	Breeds in riparian zones along rivers, streams and wetlands. During breeding confined to riparian woodlands with thick understory.	No, No suitable habitat within the Project Area. Riparian habitat over 300-feet from Project Area.	<i>No Effect</i>
<b>Western Yellow-billed Cuckoo</b> <i>Coccyzus americanus occidentalis</i>	Threatened	-	Riparian woodlands dominated by cottonwood. Summer resident across NM.	No, No suitable habitat within the Project Area. Riparian habitat over 300-feet from Project Area.	<i>No Effect</i>

*Biological Assessment*  
*Village of Cuba Wastewater Treatment Plant Project, Phase II*  
*Village of Cuba (SMA# 6423775)*

Common Name Scientific Name	Status		Habitat Requirements	Potential to Regularly Occur in Project Area?	Potential Effect from Proposed Action
	USFWS	NMDGF			
<b>Brown Pelican</b> <i>Pelecanus occidentalis</i>	-	Endangered	Usually found in marine habitats in warmer waters in North America; except for the lower Colorado Basin and vicinity.	No, No perennial water resources within or adjacent to the project area.	<i>No Effect</i>
<b>Common Black Hawk</b> <i>Buteogallus anthracinus</i>	-	Threatened	In the Southwest commonly found in cottonwood and other riparian woodlands along permanent lowland streams.	No, No perennial water resources within or adjacent to the project area.	<i>No Effect</i>
<b>Bald Eagle</b> <i>Haliaeetus leucocephalus</i>	-	Threatened	Primarily water-oriented. Populations in New Mexico are found near streams and lakes. Some "dry land" areas in the region between the Pecos Valley and the Sandia, Manzano, Capitan, and Sacramento mountains. The birds typically night-roost in groups in trees, usually in protected sites such as canyons.	No, No appropriate habitat within or adjacent to the project area.	<i>No Effect</i>
<b>Peregrine Falcon</b> <i>Falco peregrinus</i>	-	Threatened	In New Mexico, breeding centers on cliffs in wooded/forested habitats, with open air nearby to forage. The nest sites are typically on ledges or in cliff potholes.	No, No appropriate habitat within or adjacent to the project area.	<i>No Effect</i>
<b>Artic Peregrine Falcon</b> <i>Falco peregrinus tundrius</i>	-	Threatened	Breed in open habitats from tundra, savanna, and seacoasts to high mountains, open forest, and tall buildings.	No, No appropriate habitat within or adjacent to the project area.	<i>No Effect</i>
<b>Neotropic Cormorant</b> <i>Phalacrocorax brasilianus</i>	-	Threatened	In New Mexico, cormorants are generally found on larger bodies of water such as reservoirs, where they prey on fish.	No, No perennial water resources within or adjacent to the project area.	<i>No Effect</i>
<b>Broad-billed Hummingbird</b> <i>Cynanthus latirostris</i>	-	Threatened	Found primarily in riparian woodlands at low to moderate elevations.	No, No appropriate habitat within or adjacent to the project area.	<i>No Effect</i>
<b>Costa's Hummingbird</b> <i>Calypte costae</i>	-	Threatened	Inhabit shrubland and canyons at lower elevations. Found in open to dense vegetation of shrubs, low trees, and succulents.	No, No appropriate habitat within or adjacent to the project area.	<i>No Effect</i>
<b>Gray Vireo</b> <i>Vireo vicinior</i>	-	Threatened	Generally prefer open woodlands/shrublands featuring evergreen trees and shrubs of various kinds. Juniperus spp. are the dominant element in most areas of occurrence in New Mexico.	No, No appropriate habitat within or adjacent to the project area.	<i>No Effect</i>
<b>Baird's Sparrow</b> <i>Ammodramus bairdii</i>	-	Threatened	Breed in shorgrass prairies. Habitat ranges from desert grasslands in the south to prairies in the northeast and mountain meadows in the San Juan and Sangre de Cristo mountains.	No, No appropriate habitat within or adjacent to the project area.	<i>No Effect</i>
<b>FISH</b>					

<b>Rio Grande Silvery Minnow</b>  <i>Hybognathus amarus</i>	Endangered	Endangered	Occupies a variety of habitats in low-gradient, large streams with shifting sand or silty bottoms.	No, No perennial water resources within or adjacent to the project area.	<i>No Effect</i>
<b>AMPHIBIANS</b>					
<b>Jemez Mountains Salamander</b>  <i>Plethodon neomexicanus</i>	Endangered	Endangered	Found in mixed conifer and spruce-fir forests above 7,200 feet. Preferred microhabitat is generally characterized by relatively high humidity and soils with specific rock structure.	No, No appropriate habitat within or adjacent to the project area.	<i>No Effect</i>
<b>MOLLUSCA</b>					
<b>Wrinkled Marshsnail</b>  <i>Stagnicola caperata</i>	-	Endangered	Occurs in habitats such as vegetated ditches, marshes, streams, and ponds, typically that are seasonally dry.	No, No perennial water resources within or adjacent to the project area.	<i>No Effect</i>
<b>Paper Pondshell</b>  <i>Utterbackia imbecillis</i>	-	Endangered	Strictly aquatic bivalves that inhabit mud, sand, and gravel substrates of lakes and rivers.	No, No perennial water resources within or adjacent to the project area.	<i>No Effect</i>

Source: USFWS 2015 & NMDGF BISON-M 2015

#### **4.0 EFFECTS OF THE PROPOSED ACTION TO LISTED SPECIES**

No Federal or NM-State listed species in Table 3.1 occur, or have the potential to regularly occur, within the project area. No federal or state listed species were observed within or adjacent to the project area. None of the twenty (20) listed species with potential to occur in Sandoval County were observed within or near the project area. None of the listed species have appropriate habitat within the project area, and none were observed.

#### **5.0 DETERMINATION AND RECOMMENDED MITIGATION**

##### **5.1 Determination**

The Proposed Action would have *No Effect* on the six (6) federal listed species: Jemez Mountains Salamander, Rio Grande Silvery Minnow, Mexican Spotted Owl, Southwestern Willow flycatcher, Western Yellow-billed cuckoo, and the New Mexican meadow jumping mouse. None of these species were observed, and no designated critical habitat is present within the project area.

The Proposed Action would have *No Effect* on the fourteen (14) NM-State listed species: Spotted Bat, American Marten, Brown Pelican, Common Blackhawk, Bald eagle, Peregrine Falcon, Artic Peregrine Falcon, Neotropic Cormorant, Broad-billed Hummingbird, Costa’s Hummingbird, Gray Vireo, Baird’s Sparrow, Wrinkled Marshsnail, Paper Pondshell.

## **5.2 Recommended Conservation and Mitigation Measures**

Listed below are mitigation recommendations related to the Proposed Action:

1. Implement storm water barriers and controls to limit construction run-off where appropriate.
2. Re-seed disturbed ground with native seed mix to stimulate vegetation diversity, and inhibit growth of noxious/invasive species.
3. Implement a noxious/invasive weed management program.

If any federally listed species are identified during construction or operation, the VC would be contacted immediately. Operations that would adversely affect the listed species would be discontinued until consultation with the USFWS indicates that impacts are not likely to adversely affect the species. Noxious weeds and non-native species would be controlled and monitored for the life of the Proposed Action.

## **6.0 LIST OF CONTACTS AND PREPARERS**

Curtis Pattillo  
Souder, Miller & Associates  
112 W. Montezuma Avenue  
Cortez, CO 81321  
Tel: 970-565-4465  
Email: [Curtis.pattillo@soudermiller.com](mailto:Curtis.pattillo@soudermiller.com)

## 7.0 REFERENCES

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**APPENDIX A**

**Vegetation and Wildlife Observed Within the Proposed Project Area**

## **Appendix A. Vegetation and Wildlife Observed Within the Project Area**

### **Trees and Shrubs**

<i>Artemisia tridentata</i>	Big sagebrush
<i>Chrysothamnus nauseosus</i>	Rubber rabbitbrush
<i>Gutierrezia sarothrae</i>	Broom snakeweed
<i>Sarcobatus vermiculatus</i>	Greasewood
<i>Tamarix ramosissima</i>	Salt cedar

### **Forbs, Grasses, and Cacti**

<i>Agropyron trachycaulus</i>	Slender wheatgrass
<i>Alyssum minus</i>	Alyssum
<i>Atriplex canescens</i>	Four-wing salt bush
<i>Bouteloua gracilis</i>	Blue grama
<i>Bromus inermis</i>	smooth brome
<i>Bromus tectorum</i>	Cheatgrass
<i>Chenopodia ssp.</i>	Lambsquater
<i>Descurania sophia</i>	Flixweed
<i>Elymus elymoides</i>	bottlebrush squirrel tail
<i>Grenzelia squarrosa</i>	Curly-cup gumweed
<i>Heterotheca villosa</i>	Golden aster
<i>Kochia scoparia</i>	Kochia
<i>Krascheninnikovia lanata</i>	winterfat
<i>Lactuca serriola</i>	prickly lettuce
<i>Machaeranthera canescens</i>	Tansy aster
<i>Melilotus officinale</i>	Yellow sweet clover
<i>Pascopyron smithii</i>	western wheatgrass
<i>Salsola tragus</i>	Russian thistle
<i>Sisymbrium altissimum</i>	Tumblemustard
<i>Sphaeralcea coccinea</i>	Globemallow
<i>Sporobolus cryptandrus</i>	Sand dropseed
<i>Taraxacum officinale</i>	Dandelion

**APPENDIX B**  
**SUPPORTING DOCUMENTATION**

Appendix E9  
US Fish & Wildlife Service  
Correspondence



November 24, 2015

#6423775

George D. Dennis III, Ph.D.  
Aquatic Ecosystems Branch Chief  
U.S. Department of the Interior  
Fish and Wildlife Service  
N.M Ecological Services Field Office  
2105 Osuna NE  
Albuquerque, NM 87113-1001  
Phone: 505-761-4781  
Fax: 505-346-2542  
nmesfo@fws.gov  
george\_dennis@fws.gov

**RE: REVISION TO REQUEST FOR INFORMATION CONCERNING THE SOLIDS HANDLING AND EFFLUENT REUSE IMPROVEMENTS PROJECT FOR THE VILLAGE OF CUBA WASTEWATER TREATMENT PLANT, SANDOVAL COUNTY, NEW MEXICO**

Mr. George Dennis III:

Souder, Miller & Associates (SMA), on behalf of our client, the Village of Cuba, is in the process of performing an environmental assessment pursuant to the National Environmental Policy Act for use of public funding. The Village's Wastewater Treatment Plant (WWTP) is located in Sandoval County, along New Mexico State Road 197 (NM 197); approximately 2 miles from the NM 197/United States Route 550 (US 550) junction; approximately 65 miles northwest of Bernalillo, New Mexico. Funding for the planned project may be obtained from New Mexico Legislative Appropriations (SAP), United States Department of Agriculture (USDA) - Rural Development (RD), Community Development Block Grant (CDBG), New Mexico Water Trust Board (WTB), Clean Water State Revolving Fund (CWSRF) and/or other State and Federal sources.

As part of the overall planning phase of the project Village of Cuba WWTP is requesting consultation on several improvements including:

- Utilization of 15 acres of land for long-term biosolids and effluent land application.
- Use of the existing northeast passive lagoon at the WWTP to dewater biosolids until they dry to a desired solids concentration.
- Modification of the existing sand filters to function as drying sand beds to dewater biosolids produced by the WWTP.
- Construction of a lined effluent storage basin.
- Construction of a building for an office and for sludge processing equipment.
- Reuse of biosolids and treated effluent via land application for irrigation.

Limits of the study include a portion of Township 20 North, Range 01 West, Section 6. The center of the project area is located at approximately 35° 59' 38" N latitude and 106° 59' 6" west longitude. Please refer to the enclosed map (Figure 1) that depicts the area of the proposed WWTP improvements. Figures 1 and 2 were inadvertently left out of original letter. They are attached to this letter.

*Mr. George Dennis III*

*November 24, 2015*

*Page 2*

All work is to be completed on property owned by the Village of Cuba. The majority of work will be completed above ground. The overall project area depicted in Figure 2 shows that all projects contemplated at this time lie within Zone A (areas where flood heights have not been determined but are expected to flood during the 100-year flood) and Zone X (areas that have been determined to be outside the 0.2% annual floodplain). No arroyos are anticipated to be crossed or disturbed by the proposed projects.

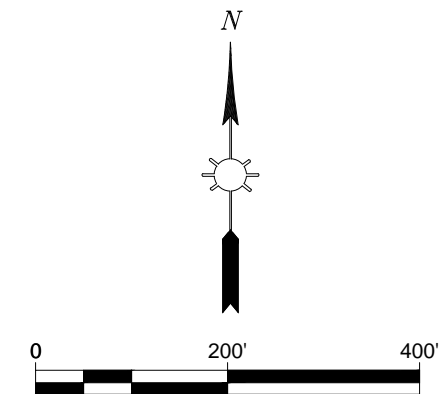
SMA would appreciate any information or feedback to be provided at your earliest possible convenience. If you need any further information or wish to discuss the project, please feel free to contact me by phone at 877-299-0942, or by email at [lisa.gaston@soudermiller.com](mailto:lisa.gaston@soudermiller.com).

Sincerely,

**SOUDER, MILLER & ASSOCIATES**

A handwritten signature in blue ink, appearing to read "Lisa A. Gaston".

Lisa A. Gaston  
Staff Geoscientist



**LEGEND**

█ PROJECT AREA

REVISIONS		
BY	DATE	DESC.

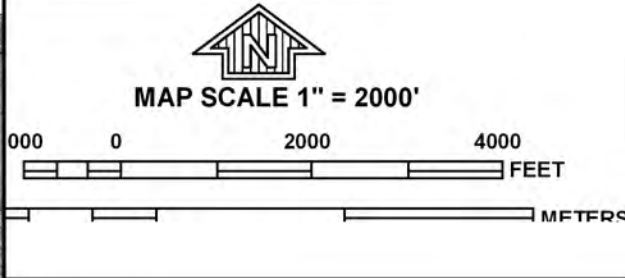
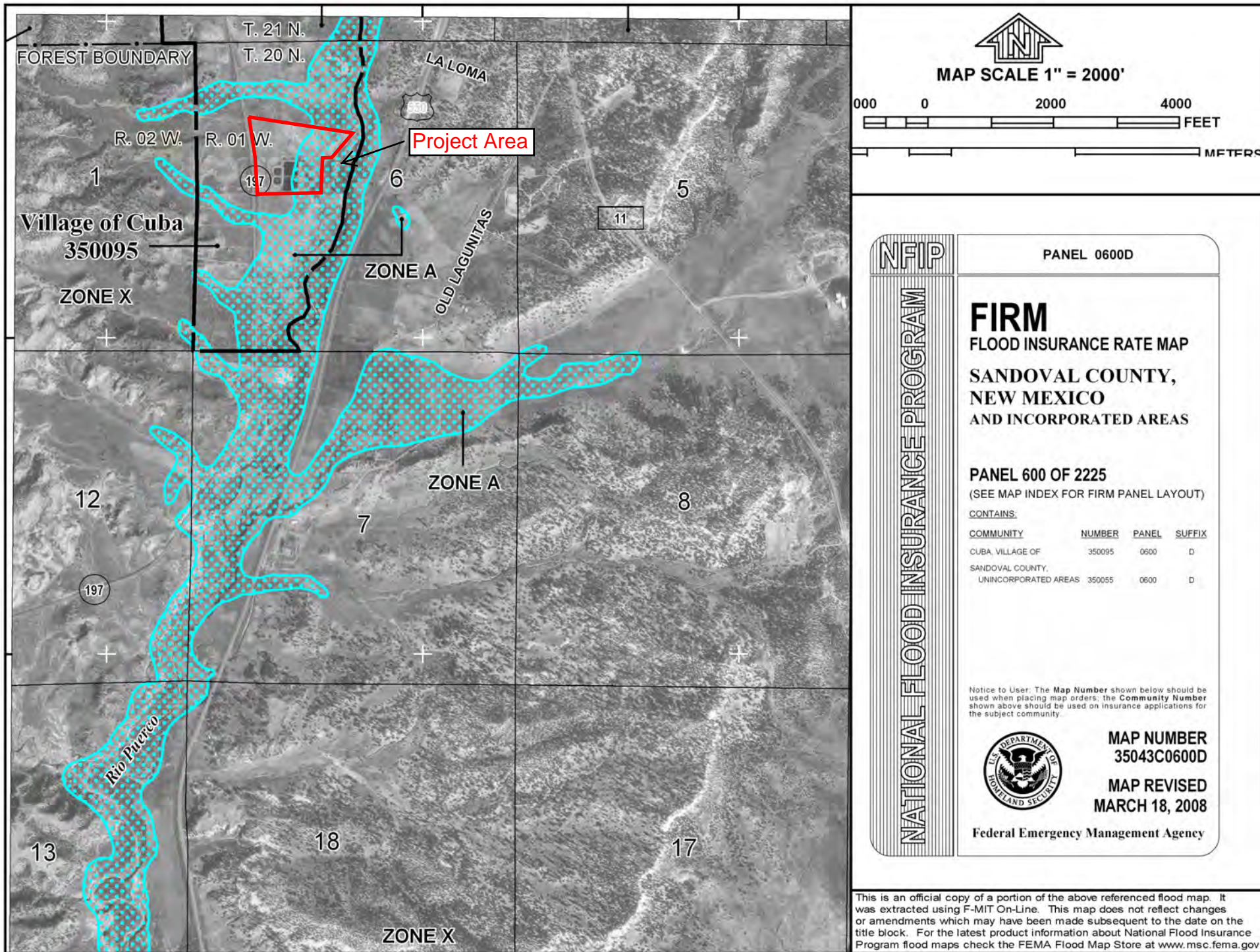
**SOUDER, MILLER & ASSOCIATES**  
 3451 Candelaria Road NE, Suite D  
 Albuquerque, NM 87107

Phone (505) 299-0942 Toll-Free (877) 299-0942 Fax (505) 293-3430  
 www.soudermiller.com  
 Serving the Southwest & Rocky Mountains  
 Albuquerque, Farmington, Las Cruces, Roswell, Santa Fe, NM  
 Cortez - Grand Junction, CO - Safford, AZ - Meab, UT, El Paso, TX

**VILLAGE OF CUBA SITE MAP  
 NORTHERN PROPERTY AND WWTP  
 SANDOVAL COUNTY, NEW MEXICO**

Drawn ARB/JER	Checked JMG	Approved JMG
Date: AUGUST, 2014		
Scale: Horiz: 1"=200 Vert:		
Project No: 48968		
Sheet: <b>FIGURE 1</b>		

Figure 3



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0600D

**FIRM**  
FLOOD INSURANCE RATE MAP  
**SANDOVAL COUNTY,  
NEW MEXICO  
AND INCORPORATED AREAS**

**PANEL 600 OF 2225**  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
CUBA, VILLAGE OF	350095	0600	D
SANDOVAL COUNTY, UNINCORPORATED AREAS	350055	0600	D

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.



**MAP NUMBER  
35043C0600D**  
**MAP REVISED  
MARCH 18, 2008**

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)



# LEGEND



**SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**

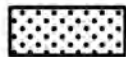
The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A** No Base Flood Elevations determined.
- ZONE AE** Base Flood Elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.



**FLOODWAY AREAS IN ZONE AE**

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.



**OTHER FLOOD AREAS**

- ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

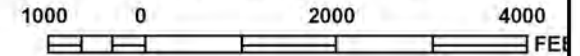


**OTHER AREAS**

- ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D** Areas in which flood hazards are undetermined, but possible.



**MAP SCALE 1" = 2000'**



**COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**



**OTHERWISE PROTECTED AREAS (OPAs)**

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- Base Flood Elevation line and value; elevation in feet\*
- Base Flood Elevation value where uniform within zone; elevation in feet\*

\* Referenced to the North American Vertical Datum of 1988.

- Cross section line
- Transect line
- Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 1000-meter Universal Transverse Mercator grid values, zone 13
- 5000-foot grid ticks: New Mexico State Plane coordinate system, Central zone (FIPSZONE 3002), Transverse Mercator projection
- Bench mark (see explanation in Notes to Users section of this FIRM panel)
- River Mile

**MAP REPOSITORY**  
Refer to listing of Map Repositories on Map Index

**EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP**  
July 16, 1996

**EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL**  
March 18, 2008 - to update map format.

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)

## Scott McKitrick

---

**From:** Scott McKitrick  
**Sent:** Monday, May 23, 2016 4:41 PM  
**To:** 'nmesfo@fws.gov'; 'george\_dennis@fws.gov'  
**Subject:** Request for Information - Cuba WWTP Improvements  
**Attachments:** US Dept of Interior.pdf

Attached please find SMA's request for Information concerning the Village of Cuba WWTP Improvements. It was originally provided by US Mail on November 24, 2015. A response is appreciated. Thanks.

---

**Scott A. McKitrick, P.G.**  
**Senior Geoscientist**  
**Souder, Miller & Associates**  
3451 Candelaria NE, Suite D  
Albuquerque, NM 87107  
[www.soudermiller.com](http://www.soudermiller.com)  
505.299.0942 (office)  
505.220.6542 (mobile)  
505.293.3430 (fax)



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## Scott McKitrick

---

**From:** Dennis, George <george\_dennis@fws.gov>  
**Sent:** Monday, May 23, 2016 5:06 PM  
**To:** Scott McKitrick  
**Subject:** Re: Request for Information - Cuba WWTP Improvements

Dear Mr. McKitrick:

Thank you for your inquiry about this project and the resubmittal of information. I also received your telephone message on the project. We did not respond to your early inquiry as you can get official documentation of environmental review for this and other projects through our online system.

In New Mexico you can now obtain an official letter on Federal trust resources from the U.S. Fish and Wildlife Service (Service) via our Information, Planning, and Conservation System (IPAC).

You can access IPAC through our office website at  
<http://www.fws.gov/southwest/es/newmexico/IPAC.cfm>

On this page there are instructions on how to use IPAC  
[http://www.fws.gov/southwest/es/newmexico/documents/IPAC\\_Help.pdf](http://www.fws.gov/southwest/es/newmexico/documents/IPAC_Help.pdf)  
and conservation measures for several project types (right side of the page).

On the "Tasks" page make sure you select the "Request an Official Species List" button to get an official letter.

If you make a no-effect determination for all species listed in your letter then no further consultation with the Service is necessary. Your official letter and determination table are your documentation of your environmental review.

If you determine that your project may adversely affect a federally listed species you can submit a request for further review by the Service or help with your review electronically at [nmesfo@fws.gov](mailto:nmesfo@fws.gov).

Let me know if I can help with the IPAC process.

Regards,  
George Dennis

George D. Dennis III, Ph.D.  
Collaborative Conservation Services and Administration Branch Chief  
New Mexico Ecological Services Field Office  
U.S. Fish and Wildlife Service  
2105 Osuna Rd NE  
Albuquerque, NM 87113  
505-761-4754  
[george\\_dennis@fws.gov](mailto:george_dennis@fws.gov)

On Mon, May 23, 2016 at 4:43 PM, Scott McKitrick <[scott.mckitrick@soudermiller.com](mailto:scott.mckitrick@soudermiller.com)> wrote:

Attached please find SMA's request for Information concerning the Village of Cuba WWTP Improvements. It was originally provided by US Mail on November 24, 2015. A response is appreciated. Thanks.

---

**Scott A. McKittrick, P.G.**

**Senior Geoscientist**

**Souder, Miller & Associates**

3451 Candelaria NE, Suite D

Albuquerque, NM 87107

[www.soudermiller.com](http://www.soudermiller.com)

505.299.0942 (office)

505.220.6542 (mobile)

505.293.3430 (fax)



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# United States Department of the Interior



FISH AND WILDLIFE SERVICE  
New Mexico Ecological Services Field Office  
2105 OSUNA ROAD NE  
ALBUQUERQUE, NM 87113  
PHONE: (505)346-2525 FAX: (505)346-2542  
URL: [www.fws.gov/southwest/es/NewMexico/](http://www.fws.gov/southwest/es/NewMexico/);  
[www.fws.gov/southwest/es/ES\\_Lists\\_Main2.html](http://www.fws.gov/southwest/es/ES_Lists_Main2.html)

Consultation Code: 02ENNM00-2016-SLI-0566

May 26, 2016

Event Code: 02ENNM00-2016-E-00592

Project Name: Village of Cuba WWTP Improvements

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

Thank you for your recent request for information on federally listed species and important wildlife habitats that may occur in your project area. The U.S. Fish and Wildlife Service (Service) has responsibility for certain species of New Mexico wildlife under the Endangered Species Act (ESA) of 1973 as amended (16 USC 1531 et seq.), the Migratory Bird Treaty Act (MBTA) as amended (16 USC 701-715), and the Bald and Golden Eagle Protection Act (BGEPA) as amended (16 USC 668-668c). We are providing the following guidance to assist you in determining which federally imperiled species may or may not occur within your project area and to recommend some conservation measures that can be included in your project design.

## **FEDERALLY-LISTED SPECIES AND DESIGNATED CRITICAL HABITAT**

Attached is a list of endangered, threatened, and proposed species that may occur in your project area. Your project area may not necessarily include all or any of these species. Under the ESA, it is the responsibility of the Federal action agency or its designated representative to determine if a proposed action "may affect" endangered, threatened, or proposed species, or designated critical habitat, and if so, to consult with the Service further. Similarly, it is the responsibility of the Federal action agency or project proponent, not the Service, to make "no effect" determinations. If you determine that your proposed action will have "no effect" on threatened or endangered species or their respective critical habitat, you do not need to seek concurrence with the Service. Nevertheless, it is a violation of Federal law to harm or harass any federally-listed threatened or endangered fish or wildlife species without the appropriate permit.

If you determine that your proposed action may affect federally-listed species, consultation with the Service will be necessary. Through the consultation process, we will analyze information

contained in a biological assessment that you provide. If your proposed action is associated with Federal funding or permitting, consultation will occur with the Federal agency under section 7(a)(2) of the ESA. Otherwise, an incidental take permit pursuant to section 10(a)(1)(B) of the ESA (also known as a habitat conservation plan) is necessary to harm or harass federally listed threatened or endangered fish or wildlife species. In either case, there is no mechanism for authorizing incidental take "after-the-fact." For more information regarding formal consultation and HCPs, please see the Service's Consultation Handbook and Habitat Conservation Plans at [www.fws.gov/endangered/esa-library/index.html#consultations](http://www.fws.gov/endangered/esa-library/index.html#consultations).

The scope of federally listed species compliance not only includes direct effects, but also any interrelated or interdependent project activities (e.g., equipment staging areas, offsite borrow material areas, or utility relocations) and any indirect or cumulative effects that may occur in the action area. The action area includes all areas to be affected, not merely the immediate area involved in the action. Large projects may have effects outside the immediate area to species not listed here that should be addressed. If your action area has suitable habitat for any of the attached species, we recommend that species-specific surveys be conducted during the flowering season for plants and at the appropriate time for wildlife to evaluate any possible project-related impacts.

### **Candidate Species and Other Sensitive Species**

A list of candidate and other sensitive species in your area is also attached. Candidate species and other sensitive species are species that have no legal protection under the ESA, although we recommend that candidate and other sensitive species be included in your surveys and considered for planning purposes. The Service monitors the status of these species. If significant declines occur, these species could potentially be listed. Therefore, actions that may contribute to their decline should be avoided.

Lists of sensitive species including State-listed endangered and threatened species are compiled by New Mexico state agencies. These lists, along with species information, can be found at the following websites:

Biota Information System of New Mexico (BISON-M): [www.bison-m.org](http://www.bison-m.org)

New Mexico State Forestry. The New Mexico Endangered Plant Program: [www.emnrd.state.nm.us/SFD/ForestMgt/Endangered.html](http://www.emnrd.state.nm.us/SFD/ForestMgt/Endangered.html)

New Mexico Rare Plant Technical Council, New Mexico Rare Plants: [nmrareplants.unm.edu](http://nmrareplants.unm.edu)

Natural Heritage New Mexico, online species database: [nhnm.unm.edu](http://nhnm.unm.edu)

### **WETLANDS AND FLOODPLAINS**

Under Executive Orders 11988 and 11990, Federal agencies are required to minimize the destruction, loss, or degradation of wetlands and floodplains, and preserve and enhance their natural and beneficial values. These habitats should be conserved through avoidance, or mitigated to ensure that there would be no net loss of wetlands function and value.

We encourage you to use the National Wetland Inventory (NWI) maps in conjunction with ground-truthing to identify wetlands occurring in your project area. The Service's NWI program website, [www.fws.gov/wetlands/Data/Mapper.html](http://www.fws.gov/wetlands/Data/Mapper.html) integrates digital map data with other resource information. We also recommend you contact the U.S. Army Corps of Engineers for permitting requirements under section 404 of the Clean Water Act if your proposed action could impact floodplains or wetlands.

## **MIGRATORY BIRDS**

The MBTA prohibits the taking of migratory birds, nests, and eggs, except as permitted by the Service's Migratory Bird Office. To minimize the likelihood of adverse impacts to migratory birds, we recommend construction activities occur outside the general bird nesting season from March through August, or that areas proposed for construction during the nesting season be surveyed, and when occupied, avoided until the young have fledged.

We recommend review of Birds of Conservation Concern at website [www.fws.gov/migratorybirds/CurrentBirdIssues/Management/BCC.html](http://www.fws.gov/migratorybirds/CurrentBirdIssues/Management/BCC.html) to fully evaluate the effects to the birds at your site. This list identifies birds that are potentially threatened by disturbance and construction.

## **BALD AND GOLDEN EAGLES**

The bald eagle (*Haliaeetus leucocephalus*) was delisted under the ESA on August 9, 2007. Both the bald eagle and golden eagle (*Aquila chrysaetos*) are still protected under the MBTA and BGEPA. The BGEPA affords both eagles protection in addition to that provided by the MBTA, in particular, by making it unlawful to "disturb" eagles. Under the BGEPA, the Service may issue limited permits to incidentally "take" eagles (e.g., injury, interfering with normal breeding, feeding, or sheltering behavior nest abandonment). For information on bald and golden eagle management guidelines, we recommend you review information provided at [www.fws.gov/midwest/eagle/guidelines/bgepa.html](http://www.fws.gov/midwest/eagle/guidelines/bgepa.html).

On our web site [www.fws.gov/southwest/es/NewMexico/SBC\\_intro.cfm](http://www.fws.gov/southwest/es/NewMexico/SBC_intro.cfm), we have included conservation measures that can minimize impacts to federally listed and other sensitive species. These include measures for communication towers, power line safety for raptors, road and highway improvements, spring developments and livestock watering facilities, wastewater facilities, and trenching operations.

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

Thank you for your concern for endangered and threatened species and New Mexico's wildlife habitats. We appreciate your efforts to identify and avoid impacts to listed and sensitive species in your project area. For further consultation on your proposed activity, please call 505-346-2525 or email [nmesfo@fws.gov](mailto:nmesfo@fws.gov) and reference your Service Consultation Tracking Number.

Attachment







United States Department of Interior  
Fish and Wildlife Service

Project name: Village of Cuba WWTP Improvements

## Official Species List

### Provided by:

New Mexico Ecological Services Field Office

2105 OSUNA ROAD NE

ALBUQUERQUE, NM 87113

(505) 346-2525

<http://www.fws.gov/southwest/es/NewMexico/>

[http://www.fws.gov/southwest/es/ES\\_Lists\\_Main2.html](http://www.fws.gov/southwest/es/ES_Lists_Main2.html)

**Consultation Code:** 02ENNM00-2016-SLI-0566

**Event Code:** 02ENNM00-2016-E-00592

**Project Type:** WASTEWATER FACILITY

**Project Name:** Village of Cuba WWTP Improvements

**Project Description:** Improvements will include: 1) utilizing approx. 15 acres for long-term biosolids and effluent land application; 2) use of the existing NE lagoon to dewater biosolids; 3) modification of existing sand filters for use as biosolids drying beds; 4) construction of a lined effluent storage basin; 5) construction of a small building for use as an office and for sludge processing equipment; and 6) reuse of biosolids and treated effluent via land application for irrigation.

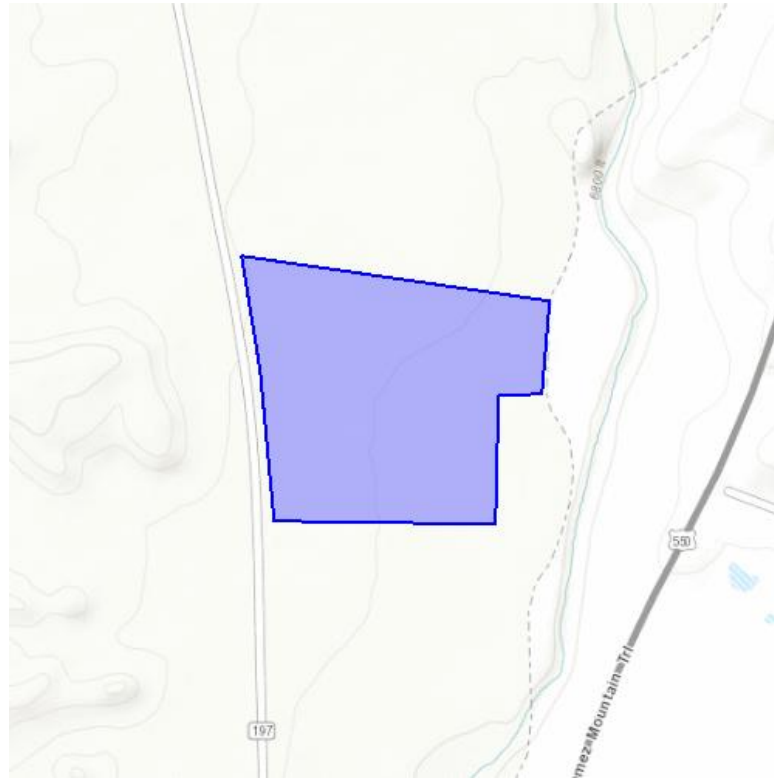
**Please Note:** The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.



United States Department of Interior  
Fish and Wildlife Service

Project name: Village of Cuba WWTP Improvements

### Project Location Map:



**Project Coordinates:** MULTIPOLYGON (((-106.98705196380615 35.99229583885862, -106.98364019393921 35.99226111621664, -106.98359727859497 35.99387570289925, -106.98292136192322 35.99388438338349, -106.9827926158905 35.995056239987065, -106.98754549026489 35.995603100443944, -106.98725581169128 35.994170838827664, -106.98705196380615 35.99229583885862)))

**Project Counties:** Sandoval, NM



United States Department of Interior  
Fish and Wildlife Service

Project name: Village of Cuba WWTP Improvements

## Endangered Species Act Species List

There are a total of 6 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Amphibians	Status	Has Critical Habitat	Condition(s)
Jemez Mountains salamander <i>(Plethodon neomexicanus)</i>	Endangered	Final designated	
<b>Birds</b>			
Mexican Spotted owl ( <i>Strix occidentalis lucida</i> ) Population: Entire	Threatened	Final designated	
Southwestern Willow flycatcher <i>(Empidonax traillii extimus)</i> Population: Entire	Endangered	Final designated	
Yellow-Billed Cuckoo ( <i>Coccyzus americanus</i> ) Population: Western U.S. DPS	Threatened	Proposed	
<b>Fishes</b>			
Rio Grande silvery minnow <i>(Hybognathus amarus)</i> Population: Entire, except where listed as an experimental population	Endangered	Final designated	
<b>Mammals</b>			



United States Department of Interior  
Fish and Wildlife Service

Project name: Village of Cuba WWTP Improvements

New Mexico meadow jumping mouse ( <i>Zapus hudsonius luteus</i> )	Endangered	Proposed	
--	------------	----------	--



United States Department of Interior  
Fish and Wildlife Service

Project name: Village of Cuba WWTP Improvements

## **Critical habitats that lie within your project area**

There are no critical habitats within your project area.

Appendix E10  
New Mexico Department of Game & Fish  
Correspondence



November 24, 2015

#6423775

Mr. Matthew Wunder, Ph.D.  
N.M. Department of Game & Fish  
Conservation Services Division  
P.O. Box 25112  
Santa Fe, NM 87504  
Phone: 505-476-8118  
Fax: 505-476-8123  
matthew.wunder@state.nm.us

**RE: REVISION TO REQUEST FOR INFORMATION CONCERNING THE SOLIDS HANDLING AND EFFLUENT REUSE IMPROVEMENTS PROJECT FOR THE VILLAGE OF CUBA WASTEWATER TREATMENT PLANT, SANDOVAL COUNTY, NEW MEXICO**

Mr. Wunder:

Souder, Miller & Associates (SMA), on behalf of our client, the Village of Cuba, is in the process of performing an environmental assessment pursuant to the National Environmental Policy Act for use of public funding. The Village's Wastewater Treatment Plant (WWTP) is located in Sandoval County, along New Mexico State Road 197 (NM 197); approximately 2 miles from the NM 197/United States Route 550 (US 550) junction; approximately 65 miles northwest of Bernalillo, New Mexico. Funding for the planned project may be obtained from New Mexico Legislative Appropriations (SAP), United States Department of Agriculture (USDA) - Rural Development (RD), Community Development Block Grant (CDBG), New Mexico Water Trust Board (WTB), Clean Water State Revolving Fund (CWSRF) and/or other State and Federal sources.

As part of the overall planning phase of the project Village of Cuba WWTP is requesting consultation on several improvements including:

- Utilization of 15 acres of land for long-term biosolids and effluent land application.
- Use of the existing northeast passive lagoon at the WWTP to dewater biosolids until they dry to a desired solids concentration.
- Modification of the existing sand filters to function as drying sand beds to dewater biosolids produced by the WWTP.
- Construction of a lined effluent storage basin.
- Construction of a building for an office and for sludge processing equipment.
- Reuse of biosolids and treated effluent via land application for irrigation.

Limits of the study include a portion of Township 20 North, Range 01 West, Section 6. The center of the project area is located at approximately 35° 59' 38" N latitude and 106° 59' 6" west longitude. Please refer to the enclosed map (Figure 1) that depicts the area of the proposed WWTP improvements. Figures 1 and 2 were inadvertently left out of original letter. They are attached to this letter.

*Mr. Matthew Wunder*

*November 24, 2015*

*Page 2*

All work is to be completed on property owned by the Village of Cuba. The majority of work will be completed above ground. The overall project area depicted in Figure 2 shows that all projects contemplated at this time lie within Zone A (areas where flood heights have not been determined but are expected to flood during the 100-year flood) and Zone X (areas that have been determined to be outside the 0.2% annual floodplain). No arroyos are anticipated to be crossed or disturbed by the proposed projects.

SMA would appreciate any information or feedback to be provided at your earliest possible convenience. If you need any further information or wish to discuss the project, please feel free to contact me by phone at 877-299-0942, or by email at [lisa.gaston@soudermiller.com](mailto:lisa.gaston@soudermiller.com).

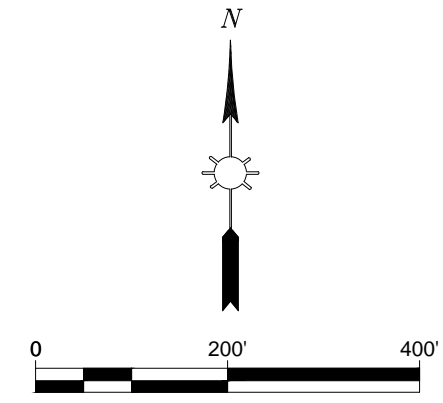
Sincerely,

**SOUDER, MILLER & ASSOCIATES**

A handwritten signature in blue ink, appearing to read "Lisa A. Gaston".

Lisa A. Gaston  
Staff Geoscientist





**LEGEND**

█ PROJECT AREA

VILLAGE OF CUBA  
WWTP

LAND APPLICATION  
AREA

REVISIONS		
BY	DATE	DESC.

**SMA**  
Engineering • Environmental  
Surveying

**SOUDER, MILLER & ASSOCIATES**  
3451 Candelaria Road NE, Suite D  
Albuquerque, NM 87107

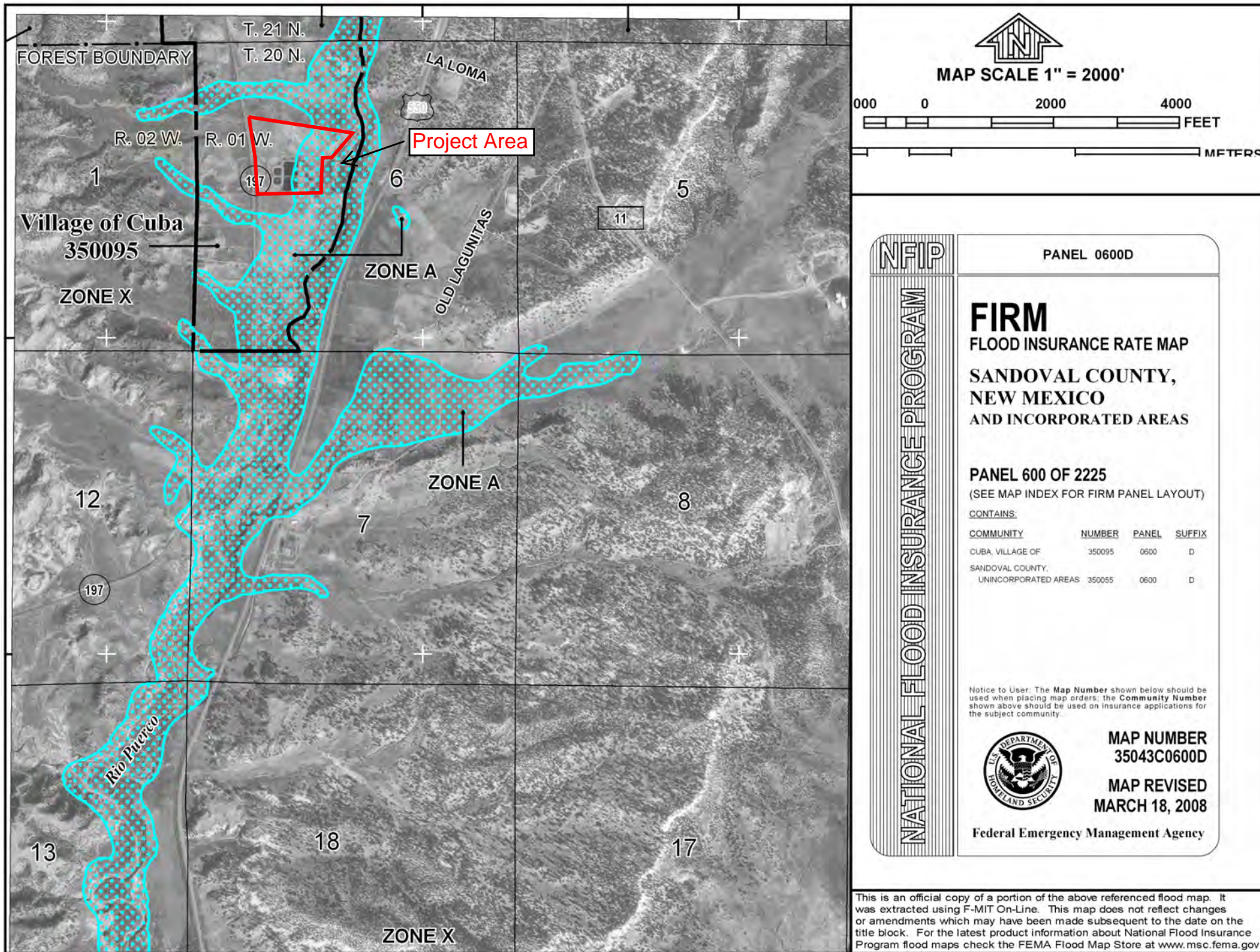
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VILLAGE OF CUBA SITE MAP  
NORTHERN PROPERTY AND WWTP  
SANDOVAL COUNTY, NEW MEXICO

Drawn ARB/JER	Checked JMG	Approved JMG
Date: AUGUST, 2014		
Scale: Horiz: 1"=200 Vert:		
Project No: 48968		
Sheet: <b>FIGURE 1</b>		

Figure 3



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0600D

**FIRM**  
FLOOD INSURANCE RATE MAP


**SANDOVAL COUNTY,  
NEW MEXICO  
AND INCORPORATED AREAS**

**PANEL 600 OF 2225**  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
CUBA, VILLAGE OF	350095	0600	D
SANDOVAL COUNTY, UNINCORPORATED AREAS	350055	0600	D

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.



**MAP NUMBER**  
35043C0600D

**MAP REVISED**  
MARCH 18, 2008

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)

# LEGEND



**SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**

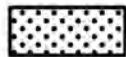
The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A** No Base Flood Elevations determined.
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- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
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- ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.



**FLOODWAY AREAS IN ZONE AE**

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.



**OTHER FLOOD AREAS**

- ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

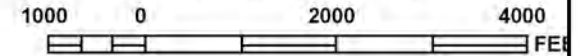


**OTHER AREAS**

- ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D** Areas in which flood hazards are undetermined, but possible.



**MAP SCALE 1" = 2000'**



**COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**



**OTHERWISE PROTECTED AREAS (OPAs)**

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- Base Flood Elevation line and value; elevation in feet\*
- Base Flood Elevation value where uniform within zone; elevation in feet\*

\* Referenced to the North American Vertical Datum of 1988.

- Cross section line
- Transect line
- Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
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- 5000-foot grid ticks: New Mexico State Plane coordinate system, Central zone (FIPSZONE 3002), Transverse Mercator projection
- Bench mark (see explanation in Notes to Users section of this FIRM panel)
- River Mile

**MAP REPOSITORY**  
Refer to listing of Map Repositories on Map Index

**EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP**  
July 16, 1996

**EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL**  
March 18, 2008 - to update map format.

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

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GOVERNOR  
Susana Martinez



DIRECTOR AND SECRETARY  
TO THE COMMISSION  
Alexandra Sandoval

DEPUTY DIRECTOR  
Donald L. Jaramillo

STATE OF NEW MEXICO  
DEPARTMENT OF GAME & FISH

One Wildlife Way, Santa Fe, NM 87507  
Post Office Box 25112, Santa Fe, NM 87504  
Tel: (505) 476-8000 | Fax: (505) 476-8123  
For information call: (888) 248-6866

[www.wildlife.state.nm.us](http://www.wildlife.state.nm.us)

STATE GAME COMMISSION

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Las Cruces  
BOB RICKLEFS  
Cimarron  
ELIZABETH A. RYAN  
Roswell  
THOMAS "DICK" SALOPEK  
Las Cruces

December 14, 2015

Lisa A. Gaston  
Staff Geoscientist  
Souder, Miller & Associates  
3451 Candelaria Road NE, Suite D  
Albuquerque, NM 87107-1948  
[lisa.gaston@soudermiller.com](mailto:lisa.gaston@soudermiller.com)

**RE: Village of Cuba Wastewater Treatment Plant; NMDGF No. 16830**

Dear Ms. Gaston:

The New Mexico Department of Game and Fish (Department) has reviewed your letter dated 13 November 2015 regarding the above referenced project, and provides the following recommendation to minimize or eliminate impacts to wildlife.

A sizeable portion of the proposed Project Area includes the 100-year floodplain of the Rio Puerco. The Department recommends that the Project Area, particularly the Land Application Area, be modified to exclude the 100-year floodplain. This modification will help ensure that no arroyos will be crossed or disturbed by the proposed projects, as stated in your letter.

For your convenience, we have enclosed copy of New Mexico Wildlife of Concern for Sandoval County. Species accounts, habitat associations, and county species lists can be accessed from the Department's Biota Information System of New Mexico (BISON-M) electronic database at [bison-m.org](http://bison-m.org). The Department recommends that you contact the U.S. Fish and Wildlife Service for current listings of federally listed species.

Thank you for the opportunity to review and comment on your project. If you have any questions, please contact Malia Volke, Aquatic Habitat Specialist, at (505) 476-8160 or [malia.volke@state.nm.us](mailto:malia.volke@state.nm.us).

Sincerely,

Matthew Wunder, Ph.D., Chief  
Ecological and Environmental Planning Division

MW/mv

Enc.: 1

cc: USFWS NMES Field Office



## Biota Information System of New Mexico



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### Report County TES Table for Sandoval

## NEW MEXICO WILDLIFE OF CONCERN

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

[Export to Excel](#)

Common Name	Scientific Name	NMGF	US FWS	Critical Habitat
<a href="#">Spotted Bat</a>	<i>Euderma maculatum</i>	T		
<a href="#">American Marten</a>	<i>Martes americana</i>	T		
<a href="#">Meadow Jumping Mouse</a>	<i>Zapus hudsonius luteus</i>	E	E	
<a href="#">Brown Pelican</a>	<i>Pelecanus occidentalis</i>	E		
<a href="#">Common Black Hawk</a>	<i>Buteogallus anthracinus</i>	T		
<a href="#">Bald Eagle</a>	<i>Haliaeetus leucocephalus</i>	T		
<a href="#">Peregrine Falcon</a>	<i>Falco peregrinus</i>	T		
<a href="#">Arctic Peregrine Falcon</a>	<i>Falco peregrinus tundrius</i>	T		
<a href="#">Neotropic Cormorant</a>	<i>Phalacrocorax brasilianus</i>	T		
<a href="#">Yellow-billed Cuckoo (western pop)</a>	<i>Coccyzus americanus occidentalis</i>		T	
<a href="#">Mexican Spotted Owl</a>	<i>Strix occidentalis lucida</i>		T	Y
<a href="#">Broad-billed Hummingbird</a>	<i>Cyanthus latirostris</i>	T		
<a href="#">Costa's Hummingbird</a>	<i>Calypte costae</i>	T		
<a href="#">Southwestern Willow Flycatcher</a>	<i>Empidonax traillii extimus</i>	E	E	Y
<a href="#">Gray Vireo</a>	<i>Vireo vicinior</i>	T		
<a href="#">Baird's Sparrow</a>	<i>Ammodramus bairdii</i>	T		
<a href="#">Jemez Mtns. Salamander</a>	<i>Plethodon neomexicanus</i>	E	E	Y
<a href="#">Rio Grande Silvery Minnow</a>	<i>Hybognathus amarus</i>	E	E	Y
<a href="#">Wrinkled Marshsnail</a>	<i>Stagnicola caperata</i>	E		

<b>Paper Pondshell</b>	Utterbackia imbecillis	E		
------------------------	------------------------	---	--	--

[Close Window](#)

Appendix E11  
New Mexico Energy, Minerals & Natural  
Resources Department – Forestry Division  
Correspondence



November 24, 2015

#6423775

Ms. Daniela Roth, Botany Program Coordinator  
N.M. Energy, Minerals & Natural Resources Dept.  
Forestry Division  
P.O. Box 1948  
Santa Fe, NM 87504-1948  
Phone: 505-476-3347  
Fax: 505-476-3330  
daniela.roth@state.nm.us

**RE: REVISION TO REQUEST FOR INFORMATION CONCERNING THE SOLIDS HANDLING AND EFFLUENT REUSE IMPROVEMENTS PROJECT FOR THE VILLAGE OF CUBA WASTEWATER TREATMENT PLANT, SANDOVAL COUNTY, NEW MEXICO**

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*Ms. Daniela Roth*  
*November 24, 2015*  
*Page 2*

All work is to be completed on property owned by the Village of Cuba. The majority of work will be completed above ground. The overall project area depicted in Figure 2 shows that all projects contemplated at this time lie within Zone A (areas where flood heights have not been determined but are expected to flood during the 100-year flood) and Zone X (areas that have been determined to be outside the 0.2% annual floodplain). No arroyos are anticipated to be crossed or disturbed by the proposed projects.

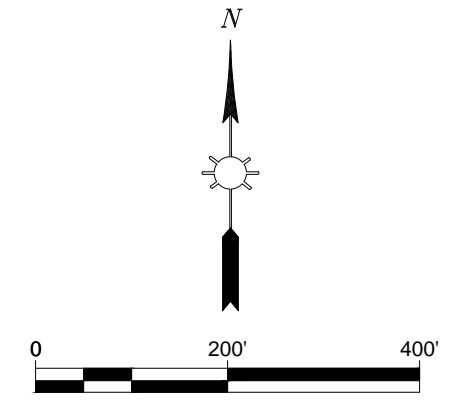
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Sincerely,

**SOUDER, MILLER & ASSOCIATES**

A handwritten signature in blue ink, appearing to read "Lisa A. Gaston".

Lisa A. Gaston  
Staff Geoscientist



**LEGEND**

█ PROJECT AREA

VILLAGE OF CUBA  
WWTP

LAND APPLICATION  
AREA

REVISIONS		
BY	DATE	DESC.

**SMA**  
Engineering • Environmental  
Surveying

**SOUDER, MILLER & ASSOCIATES**  
3451 Candelaria Road NE, Suite D  
Albuquerque, NM 87107

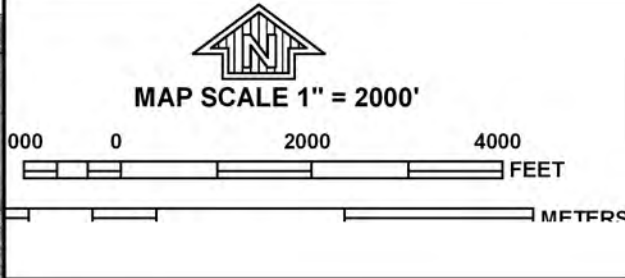
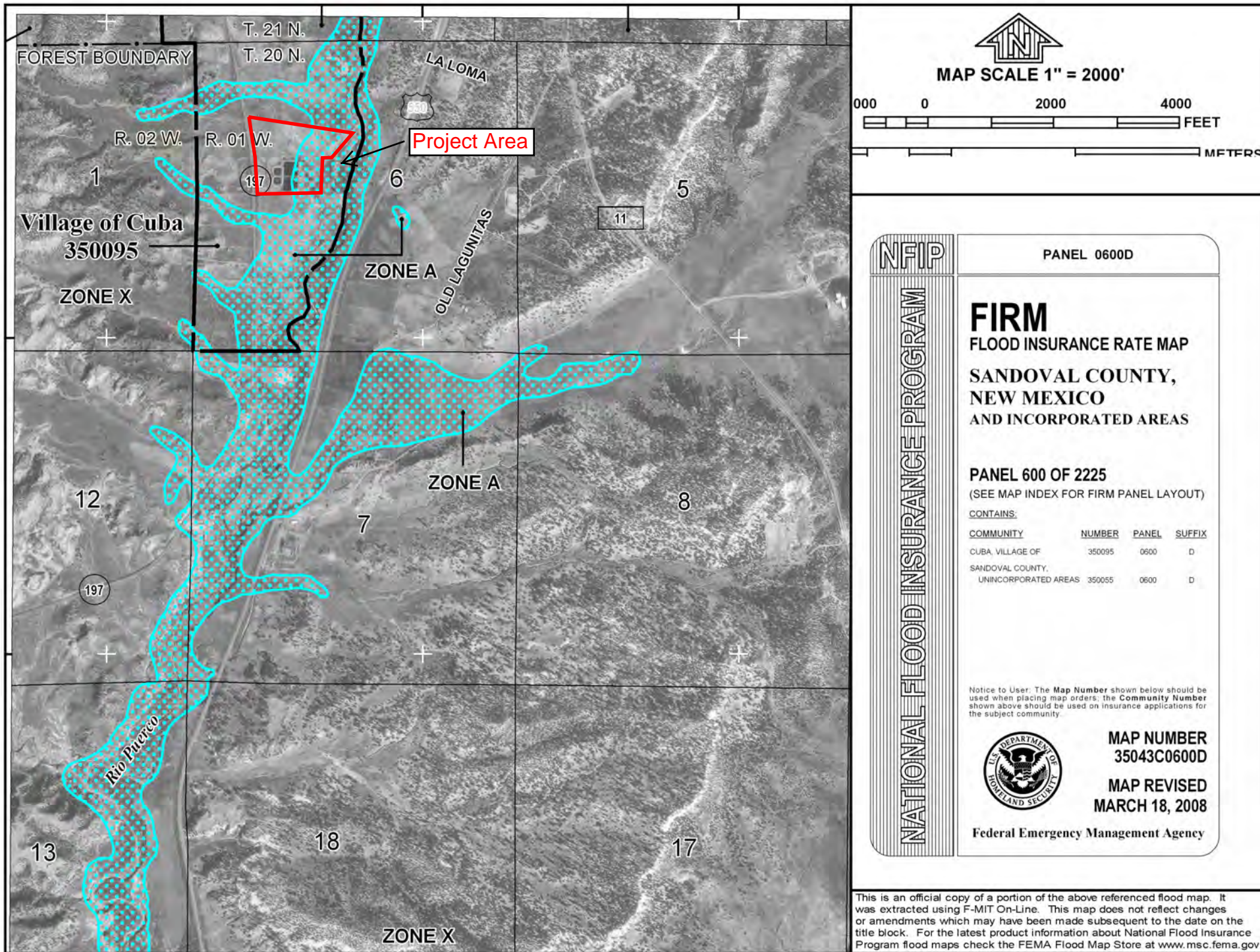
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**VILLAGE OF CUBA SITE MAP**  
**NORTHERN PROPERTY AND WWTP**  
**SANDOVAL COUNTY, NEW MEXICO**

Drawn ARB/JER	Checked JMG	Approved JMG
Date: AUGUST, 2014		
Scale: Horiz: 1"=200 Vert:		
Project No: 48968		
Sheet: <b>FIGURE 1</b>		

Figure 3



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0600D


**FIRM**  
FLOOD INSURANCE RATE MAP  
**SANDOVAL COUNTY,  
NEW MEXICO**  
AND INCORPORATED AREAS

**PANEL 600 OF 2225**  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
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SANDOVAL COUNTY, UNINCORPORATED AREAS	350055	0600	D

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35043C0600D

**MAP REVISED**  
MARCH 18, 2008

Federal Emergency Management Agency

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# LEGEND



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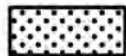
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**FLOODWAY AREAS IN ZONE AE**

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.



**OTHER FLOOD AREAS**

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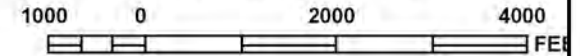


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**MAP SCALE 1" = 2000'**



**COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**



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\* Referenced to the North American Vertical Datum of 1988.

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- 5000-foot grid ticks: New Mexico State Plane coordinate system, Central zone (FIPSZONE 3002), Transverse Mercator projection
- Bench mark (see explanation in Notes to Users section of this FIRM panel)
- River Mile

**MAP REPOSITORY**  
Refer to listing of Map Repositories on Map Index

**EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP**  
July 16, 1996

**EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL**  
March 18, 2008 - to update map format.

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

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## Scott McKitrick

---

**From:** Roth, Daniela, EMNRD <Daniela.Roth@state.nm.us>  
**Sent:** Monday, June 06, 2016 2:00 PM  
**To:** Scott McKitrick  
**Subject:** RE: Request for Information - Cuba WWTP Improvements

Dear Scott McKitrick:

Unfortunately your November 2015 letter did not arrive at my desk, likely because we no longer use the P.O. Box as a mailing address (see current mailing address below). Either way, it is not clear to me what kind of information you are looking for. I do not know whether any state endangered plants occur on this site and have not done surveys there. The site should be evaluated for the presence of potential habitat for endangered plants and surveys should be conducted at the appropriate time of year, if it is determined that habitat exists. If endangered plants are found on site, they should either be avoided or steps should be taken to minimize impacts.

Please let me know if I can be of additional help,

Daniela Roth

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

---

**From:** Scott McKitrick [mailto:scott.mckitrick@soudermiller.com]  
**Sent:** Monday, May 23, 2016 4:31 PM  
**To:** Roth, Daniela, EMNRD  
**Subject:** Request for Information - Cuba WWTP Improvements

Ms. Roth - attached please find SMA's request for Information concerning the Village of Cuba WWTP Improvements. It was originally provided by US Mail on November 24, 2015. A response is appreciated. Thanks.

---

**Scott A. McKitrick, P.G.**  
Senior Geoscientist  
Souder, Miller & Associates  
3451 Candelaria NE, Suite D  
Albuquerque, NM 87107  
[www.soudermiller.com](http://www.soudermiller.com)  
505.299.0942 (office)  
505.220.6542 (mobile)  
505.293.3430 (fax)



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Appendix E12  
New Mexico Environment Department  
Correspondence



November 24, 2015

#6423775

Mr. Thomas Skibitski  
N.M. Environment Department  
PO Box 5469  
Santa Fe, NM 87502-5469  
Phone: 505-827-0419  
Fax: 505-827-2836  
thomas.skibitski@state.nm.us

**RE: REVISION TO REQUEST FOR INFORMATION CONCERNING THE SOLIDS HANDLING AND EFFLUENT REUSE IMPROVEMENTS PROJECT FOR THE VILLAGE OF CUBA WASTEWATER TREATMENT PLANT, SANDOVAL COUNTY, NEW MEXICO**

Mr. Skibitski:

Souder, Miller & Associates (SMA), on behalf of our client, the Village of Cuba, is in the process of performing an environmental assessment pursuant to the National Environmental Policy Act for use of public funding. The Village's Wastewater Treatment Plant (WWTP) is located in Sandoval County, along New Mexico State Road 197 (NM 197); approximately 2 miles from the NM 197/United States Route 550 (US 550) junction; approximately 65 miles northwest of Bernalillo, New Mexico. Funding for the planned project may be obtained from New Mexico Legislative Appropriations (SAP), United States Department of Agriculture (USDA) - Rural Development (RD), Community Development Block Grant (CDBG), New Mexico Water Trust Board (WTB), Clean Water State Revolving Fund (CWSRF) and/or other State and Federal sources.

As part of the overall planning phase of the project Village of Cuba WWTP is requesting consultation on several improvements including:

- Utilization of 15 acres of land for long-term biosolids and effluent land application.
- Use of the existing northeast passive lagoon at the WWTP to dewater biosolids until they dry to a desired solids concentration.
- Modification of the existing sand filters to function as drying sand beds to dewater biosolids produced by the WWTP.
- Construction of a lined effluent storage basin.
- Construction of a building for an office and for sludge processing equipment.
- Reuse of biosolids and treated effluent via land application for irrigation.

Limits of the study include a portion of Township 20 North, Range 01 West, Section 6. The center of the project area is located at approximately 35° 59' 38" N latitude and 106° 59' 6" west longitude. Please refer to the enclosed map (Figure 1) that depicts the area of the proposed WWTP improvements. Figures 1 and 2 were inadvertently left out of original letter. They are attached to this letter.

All work is to be completed on property owned by the Village of Cuba. The majority of work will be completed above ground. The overall project area depicted in Figure 2 shows that all projects



*Mr. Thomas Skibitski*

*November 24, 2015*

*Page 2*

contemplated at this time lie within Zone A (areas where flood heights have not been determined but are expected to flood during the 100-year flood) and Zone X (areas that have been determined to be outside the 0.2% annual floodplain). No arroyos are anticipated to be crossed or disturbed by the proposed projects.

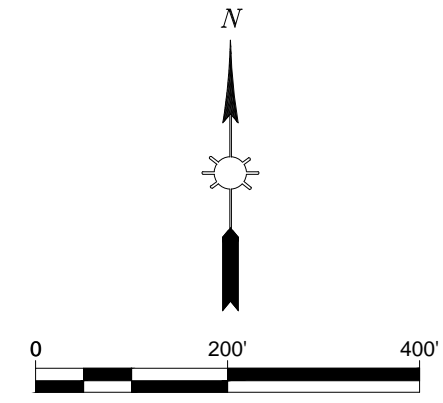
SMA would appreciate any information or feedback to be provided at your earliest possible convenience. If you need any further information or wish to discuss the project, please feel free to contact me by phone at 877-299-0942, or by email at [lisa.gaston@soudermiller.com](mailto:lisa.gaston@soudermiller.com).

Sincerely,

**SOUDER, MILLER & ASSOCIATES**

A handwritten signature in blue ink, appearing to read "Lisa A. Gaston".

Lisa A. Gaston  
Staff Geoscientist



**LEGEND**

█ PROJECT AREA

VILLAGE OF CUBA  
WWTP

LAND APPLICATION  
AREA

REVISIONS		
BY	DATE	DESC.

**SMA**  
Engineering • Environmental  
Surveying

**SOUDER, MILLER & ASSOCIATES**  
3451 Candelaria Road NE, Suite D  
Albuquerque, NM 87107

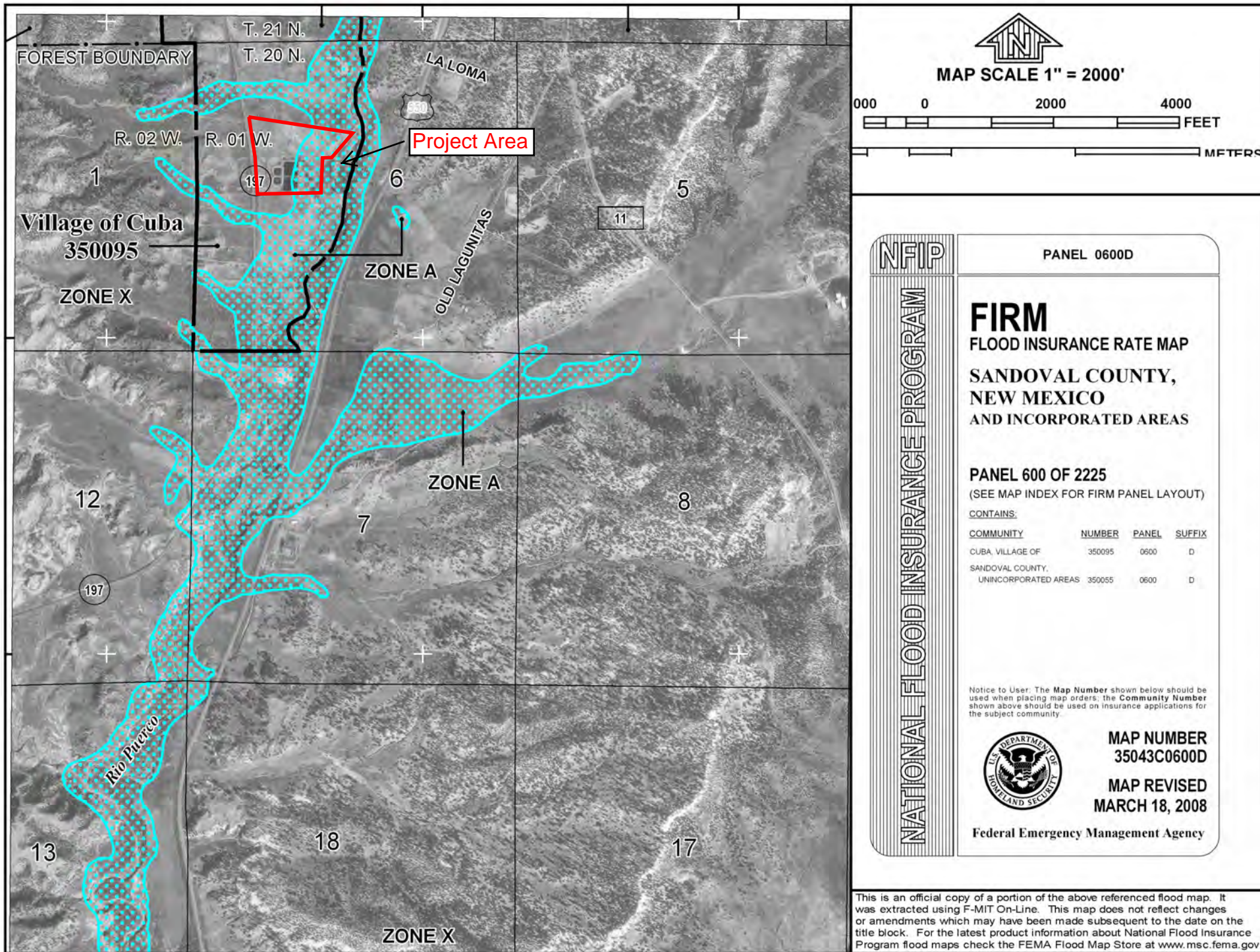
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**VILLAGE OF CUBA SITE MAP**  
**NORTHERN PROPERTY AND WWTP**  
**SANDOVAL COUNTY, NEW MEXICO**

Drawn ARB/JER	Checked JMG	Approved JMG
Date: AUGUST, 2014		
Scale: Horiz: 1"=200 Vert:		
Project No: 48968		
Sheet: <b>FIGURE 1</b>		

Figure 3



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0600D

**FIRM**  
FLOOD INSURANCE RATE MAP

**SANDOVAL COUNTY,  
NEW MEXICO  
AND INCORPORATED AREAS**

**PANEL 600 OF 2225**  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
CUBA, VILLAGE OF	350095	0600	D
SANDOVAL COUNTY, UNINCORPORATED AREAS	350055	0600	D

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

**MAP NUMBER**  
35043C0600D

**MAP REVISED**  
MARCH 18, 2008

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)

# LEGEND



**SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**

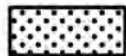
The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A** No Base Flood Elevations determined.
- ZONE AE** Base Flood Elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.



**FLOODWAY AREAS IN ZONE AE**

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.



**OTHER FLOOD AREAS**

- ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

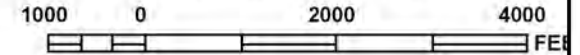


**OTHER AREAS**

- ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D** Areas in which flood hazards are undetermined, but possible.



**MAP SCALE 1" = 2000'**



**COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**



**OTHERWISE PROTECTED AREAS (OPAs)**

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- Base Flood Elevation line and value; elevation in feet\*
- Base Flood Elevation value where uniform within zone; elevation in feet\*

\* Referenced to the North American Vertical Datum of 1988.

- Cross section line
- Transect line
- Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 1000-meter Universal Transverse Mercator grid values, zone 13
- 5000-foot grid ticks: New Mexico State Plane coordinate system, Central zone (FIPSZONE 3002), Transverse Mercator projection
- Bench mark (see explanation in Notes to Users section of this FIRM panel)
- River Mile

**MAP REPOSITORY**  
Refer to listing of Map Repositories on Map Index

**EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP**  
July 16, 1996

**EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL**  
March 18, 2008 - to update map format.

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

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*State of New Mexico*  
**ENVIRONMENT DEPARTMENT**  
*Office of the Secretary*



SUSANA MARTINEZ  
Governor  
JOHN A. SANCHEZ  
Lieutenant Governor

121 Tijeras Avenue, NE  
Albuquerque, NM 87102-3400  
Telephone (505) 222-9500 Fax (505) 222-9510  
www.env.nm.gov

RYAN FLYNN  
Cabinet Secretary  
BUTCH TONGATE  
Deputy Secretary

December 15, 2015

Souder, Miller & Associates  
Ms. Lisa A. Gaston  
Staff Geoscientist  
3451 Candelaria Road NE, Suite D  
Albuquerque, NM 87107-1948

E-mail: [lisa.gaston@soudermiller.com](mailto:lisa.gaston@soudermiller.com)

RE: Solids Handling Effluent Re Use Village of Cuba WWTF  
NMED EIR #5324

Ms. Gaston:

Your letter regarding the above named project was received by the New Mexico Environment Department (NMED) and comments were provided by the Air Quality, Ground Water Quality, Solid Waste Bureau, and Surface Water Quality Bureaus.

The letter states the project planning phase includes utilization of 15 acres of land for long-term biosolids and effluent land application; use of an existing passive lagoon to dewater biosolids; modification of existing sand filters to function as drying sand beds; construction of a lined effluent storage basin; construction of a building for office and sludge processing equipment; and, reuse of biosolids and treated effluent via land application for irrigation.

**Air Quality Bureau**

The Air Quality Bureau (AQB) has evaluated the information submitted with respect to the proposed Village of Cuba's Wastewater Treatment Plant Improvement project in Sandoval County, New Mexico. Sandoval County, NM is currently considered to be in attainment with all New Mexico and National Ambient Air Quality Standards.

The AQB has received numerous hydrogen sulfide (H<sub>2</sub>S) odor complaints regarding wastewater treatment facilities throughout the State. The State of New Mexico has an air quality standard for H<sub>2</sub>S listed under 20.2.72.500 NMAC – Table 1-Significant Ambient Concentrations, which should be reviewed to determine applicability.

If a standby electric generator is used at the facility, be advised that records should be kept of the hours of operation of the generator. An application for a construction permit must be submitted for standby generators used 500 hours per year or more.

To further ensure air quality standards are met, applicable local or county regulations requiring noise and/or dust control must be followed; if none are in effect, controlling construction-related air quality impacts during projects should be considered to reduce the impact of fugitive dust and/or noise on community members.

Potential exists for temporary increases in dust and emissions from earthmoving, construction equipment, and other vehicles; however the increases should not result in non-attainment of air quality standards. Dust control measures should be taken to minimize the release of particulates due to vehicular traffic and construction. Areas disturbed by the construction activities, within and adjacent to the project area should be reclaimed to avoid long-term problems with erosion and fugitive dust.

All asphalt, concrete, quarrying, crushing, and screening facilities contracted in conjunction with the proposed project must have current and proper air quality permits. For more information on air quality permitting and modeling requirements, please refer to 20.2.72 NMAC.

If air quality permits are required for the proposed action, permits will need to be administered by the New Mexico Environment Department (NMED).

#### **Groundwater Quality Control Bureau**

Ground Water Quality Bureau (GWQB) staff reviewed the above-referenced project focusing specifically on the potential effect to ground water resources in the area.

Discharges from the Village of Cuba wastewater treatment facility (WWTF) are regulated under a Ground Water Discharge Permit (DP-483), which is issued pursuant to the New Mexico Water Quality Act and the New Mexico Water Quality Control Commission Regulations, 20.6.2 NMAC. The GWQB received a Discharge Permit Renewal and Modification application on May 8th, 2015. Any concerns the GWQB has with the project will be addressed in the administrative and technical review of the Discharge Permit Renewal and Modification.

Implementation of the project may involve the use of heavy equipment thereby leading to a possibility of contaminant releases (e.g., fuel, hydraulic fluid, etc.) associated with equipment malfunctions. The GWQB advises all parties involved in the project to be aware of notification requirements for accidental discharges contained in 20.6.2.1203 NMAC. Compliance with the notification and response requirements will further ensure the protection of ground water quality in the vicinity of the project.

A copy of the Water Quality Control Commission Regulations, 20.6.2 NMAC, is available at <http://www.nmcpr.state.nm.us/nmac/parts/title20/20.006.0002.htm>

### **Solid Waste Bureau**

The Solid Waste Bureau provides comment that excavation or maintenance sometimes results in the knowing or inadvertent generation of regulated asbestos waste as there is the potential to excavate or otherwise impact asbestos cement pipes (sewer, water, or conduit). Suspect pipes, fragments or soils contaminated with related fragments or fines shall be sampled and analyzed by Polarized Light Microscopy ("PLM") to determine if the material contains greater than one percent (1%) asbestos. If so, the pipes, fragments, and/or contaminated soils require management as regulated asbestos waste, in accordance with the New Mexico Solid Waste Rules, 20.9.2-10 NMAC, including proper containerization, labeling, manifesting, transport by an approved commercial hauler, and disposal at a permitted solid waste facility.

The Solid Waste Bureau (SWB) provides comment to responsible parties that any excavated solid waste, including any special waste such as regulated asbestos waste, must be properly managed, containerized, transported and disposed in accordance with the New Mexico Solid Waste Rules 20.9.2 – 20.9.10 NMAC. Upon discovery of any single area requiring excavation of more than 120 cubic yards of solid waste, excavation shall cease and a Waste Excavation Plan in accordance with 20.9.2.10(A)(15) NMAC shall be prepared and submitted to the SWB for review and approval prior to continuing with excavation operations.

### **Surface Water Quality Bureau**

The U.S. Environmental Protection Agency (USEPA) requires National Pollutant Discharge Elimination System (NPDES) Construction General Permit (CGP) coverage for storm water discharges from construction projects or common plans of development.

The CGP requires that a storm water pollution prevention plan (SWPPP) be prepared for the site and that appropriate best management practices (BMPs) be installed and maintained both during and after construction to prevent, to the extent practicable, pollutants (primarily sediment, oil and grease and construction materials from construction sites) in storm water runoff from entering waters of the U.S. This permit also requires that permanent stabilization measures (revegetation, paving, etc.), and permanent storm water management measures (storm water detention/retention structures, velocity dissipation devices, etc.) be implemented post construction to minimize, in the long term, pollutants in storm water runoff from entering these waters. In addition, permittees must ensure that there is no increase in sediment yield and flow velocity from the construction site (both during and after construction) compared to pre-construction, undisturbed conditions (see Subpart 10.C.1.b)

You should also be aware that EPA requires that all "operators" (see Appendix A) obtain NPDES permit coverage for construction projects. Generally, this means that at least two parties will require permit coverage. The owner/developer of this construction project who has operational control over project specifications, and the general contractor who has day-to-day operational control of those activities at the site, which are necessary to ensure compliance with the storm water pollution plan and other permit conditions, and possibly other "operators" will require appropriate NPDES permit coverage for this project.

Solids Handling Effluent Re Use Village of Cuba WWTF  
NMED EIR #5324  
December 15, 2015

The CGP was re-issued effective February 16, 2012. The CGP, NOI, Fact Sheet, and Federal Register notice can be downloaded at: <http://cfpub.epa.gov/npdes/stormwater/cgp.cfb>

If you have any questions please contact me at (505) 222-9552 or by email at [thomas.skibitski@state.nm.us](mailto:thomas.skibitski@state.nm.us)

Sincerely,

Thomas Skibitski

Environmental Impact Review Coordinator  
NMED File Number: EIR #5324

E-mail: [lisa.gaston@soudermiller.com](mailto:lisa.gaston@soudermiller.com)



Appendix E13  
New Mexico Office of the State Engineer /  
Interstate Stream Commission  
Correspondence



November 24, 2015

#6423775

Mr. Tom Blaine, P.E., State Engineer  
PO Box 25102  
Santa Fe, NM 87504-5102  
Phone: 505-827-6091  
Fax: 505-827-3806  
tom.blaine@state.nm.us

**RE: REVISION TO REQUEST FOR INFORMATION CONCERNING THE SOLIDS HANDLING AND EFFLUENT REUSE IMPROVEMENTS PROJECT FOR THE VILLAGE OF CUBA WASTEWATER TREATMENT PLANT, SANDOVAL COUNTY, NEW MEXICO**

Mr. Tom Blaine:

Souder, Miller & Associates (SMA), on behalf of our client, the Village of Cuba, is in the process of performing an environmental assessment pursuant to the National Environmental Policy Act for use of public funding. The Village's Wastewater Treatment Plant (WWTP) is located in Sandoval County, along New Mexico State Road 197 (NM 197); approximately 2 miles from the NM 197/United States Route 550 (US 550) junction; approximately 65 miles northwest of Bernalillo, New Mexico. Funding for the planned project may be obtained from New Mexico Legislative Appropriations (SAP), United States Department of Agriculture (USDA) - Rural Development (RD), Community Development Block Grant (CDBG), New Mexico Water Trust Board (WTB), Clean Water State Revolving Fund (CWSRF) and/or other State and Federal sources.

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Limits of the study include a portion of Township 20 North, Range 01 West, Section 6. The center of the project area is located at approximately 35° 59' 38" N latitude and 106° 59' 6" west longitude. Please refer to the enclosed map (Figure 1) that depicts the area of the proposed WWTP improvements. Figures 1 and 2 were inadvertently left out of original letter. They are attached to this letter.

All work is to be completed on property owned by the Village of Cuba. The majority of work will be completed above ground. The overall project area depicted in Figure 2 shows that all projects

*Mr. Tom Blaine*  
*November 24, 2015*  
*Page 2*

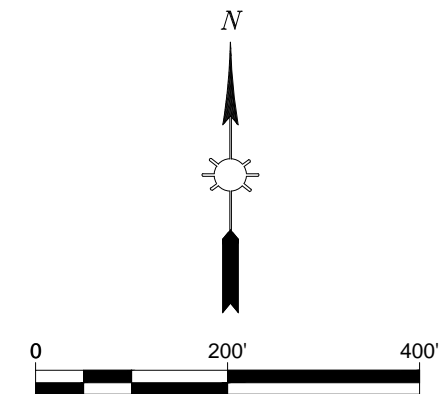
contemplated at this time lie within Zone A (areas where flood heights have not been determined but are expected to flood during the 100-year flood) and Zone X (areas that have been determined to be outside the 0.2% annual floodplain). No arroyos are anticipated to be crossed or disturbed by the proposed projects.

SMA would appreciate any information or feedback to be provided at your earliest possible convenience. If you need any further information or wish to discuss the project, please feel free to contact me by phone at 877-299-0942, or by email at [lisa.gaston@soudermiller.com](mailto:lisa.gaston@soudermiller.com).

Sincerely,  
**SOUDER, MILLER & ASSOCIATES**

A handwritten signature in blue ink, appearing to read "Lisa A. Gaston".

Lisa A. Gaston  
Staff Geoscientist



**LEGEND**

█ PROJECT AREA

REVISIONS		
BY	DATE	DESC.

**SOUDER, MILLER & ASSOCIATES**

3451 Candelaria Road NE, Suite D  
Albuquerque, NM 87107

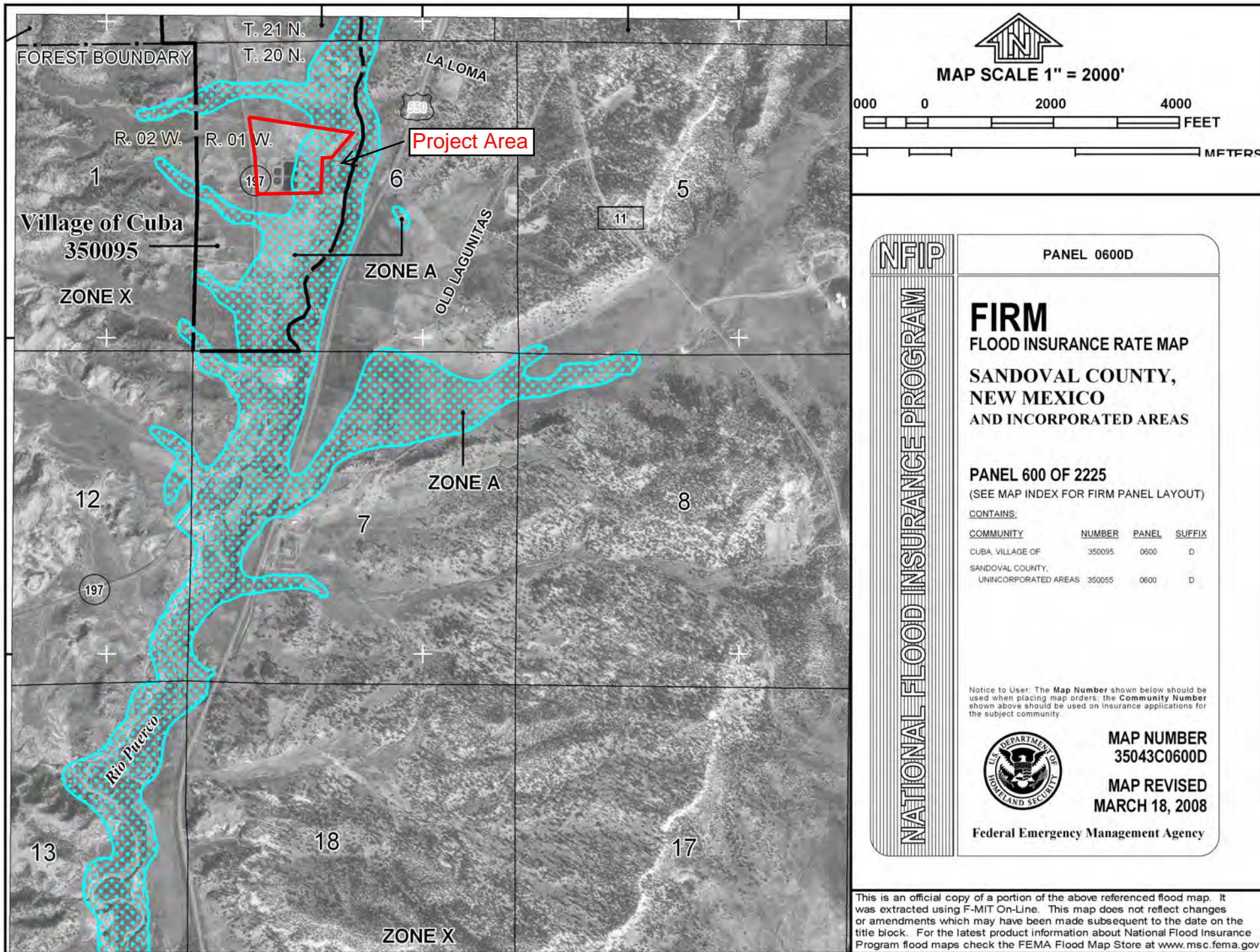
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**VILLAGE OF CUBA SITE MAP**  
**NORTHERN PROPERTY AND WWTP**  
**SANDOVAL COUNTY, NEW MEXICO**

Drawn ARB/JER	Checked JMG	Approved JMG
Date: AUGUST, 2014		
Scale: Horiz: 1"=200 Vert:		
Project No: 48968		
Sheet: <b>FIGURE 1</b>		

Figure 3



NATIONAL FLOOD INSURANCE PROGRAM

NFIP

PANEL 0600D

**FIRM**  
FLOOD INSURANCE RATE MAP

**SANDOVAL COUNTY,  
NEW MEXICO  
AND INCORPORATED AREAS**

**PANEL 600 OF 2225**  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
CUBA, VILLAGE OF	350095	0600	D
SANDOVAL COUNTY, UNINCORPORATED AREAS	350055	0600	D

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

**MAP NUMBER**  
35043C0600D

**MAP REVISED**  
MARCH 18, 2008

Federal Emergency Management Agency

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# LEGEND



**SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**

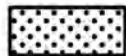
The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A** No Base Flood Elevations determined.
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- ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.



**FLOODWAY AREAS IN ZONE AE**

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.



**OTHER FLOOD AREAS**

- ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

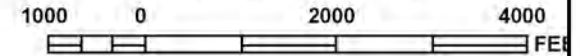


**OTHER AREAS**

- ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D** Areas in which flood hazards are undetermined, but possible.



**MAP SCALE 1" = 2000'**



**COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**



**OTHERWISE PROTECTED AREAS (OPAs)**

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- Base Flood Elevation line and value; elevation in feet\*
- Base Flood Elevation value where uniform within zone; elevation in feet\*

\* Referenced to the North American Vertical Datum of 1988.

- Cross section line
- Transect line
- Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 1000-meter Universal Transverse Mercator grid values, zone 13
- 5000-foot grid ticks: New Mexico State Plane coordinate system, Central zone (FIPSZONE 3002), Transverse Mercator projection
- Bench mark (see explanation in Notes to Users section of this FIRM panel)
- River Mile

**MAP REPOSITORY**  
Refer to listing of Map Repositories on Map Index

**EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP**  
July 16, 1996

**EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL**  
March 18, 2008 - to update map format.

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

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November 24, 2015

#6423775

Mr. Jess Ward, District Supervisor  
New Mexico Office of the State Engineer  
5550 San Antonio Dr. NE  
Albuquerque, NM 8710+-4127  
Phone: 505-383-4000

**RE: REVISION TO REQUEST FOR INFORMATION CONCERNING THE SOLIDS HANDLING AND EFFLUENT REUSE IMPROVEMENTS PROJECT FOR THE VILLAGE OF CUBA WASTEWATER TREATMENT PLANT, SANDOVAL COUNTY, NEW MEXICO**

Mr. Jess Ward

Souder, Miller & Associates (SMA), on behalf of our client, the Village of Cuba, is in the process of performing an environmental assessment pursuant to the National Environmental Policy Act for use of public funding. The Village's Wastewater Treatment Plant (WWTP) is located in Sandoval County, along New Mexico State Road 197 (NM 197); approximately 2 miles from the NM 197/United States Route 550 (US 550) junction; approximately 65 miles northwest of Bernalillo, New Mexico. Funding for the planned project may be obtained from New Mexico Legislative Appropriations (SAP), United States Department of Agriculture (USDA) - Rural Development (RD), Community Development Block Grant (CDBG), New Mexico Water Trust Board (WTB), Clean Water State Revolving Fund (CWSRF) and/or other State and Federal sources.

As part of the overall planning phase of the project Village of Cuba WWTP is requesting consultation on several improvements including:

- Utilization of 15 acres of land for long-term biosolids and effluent land application.
- Use of the existing northeast passive lagoon at the WWTP to dewater biosolids until they dry to a desired solids concentration.
- Modification of the existing sand filters to function as drying sand beds to dewater biosolids produced by the WWTP.
- Construction of a lined effluent storage basin.
- Construction of a building for an office and for sludge processing equipment.
- Reuse of biosolids and treated effluent via land application for irrigation.

Limits of the study include a portion of Township 20 North, Range 01 West, Section 6. The center of the project area is located at approximately 35° 59' 38" N latitude and 106° 59' 6" west longitude. Please refer to the enclosed map (Figure 1) that depicts the area of the proposed WWTP improvements. Figures 1 and 2 were inadvertently left out of original letter. They are attached to this letter.

All work is to be completed on property owned by the Village of Cuba. The majority of work will be completed above ground. The overall project area depicted in Figure 2 shows that all projects contemplated at this time lie within Zone A (areas where flood heights have not been determined but are expected to flood during the 100-year flood) and Zone X (areas that have been determined to be outside

*Mr. Jess Ward*  
*November 24, 2015*  
*Page 2*

the 0.2% annual floodplain). No arroyos are anticipated to be crossed or disturbed by the proposed projects.

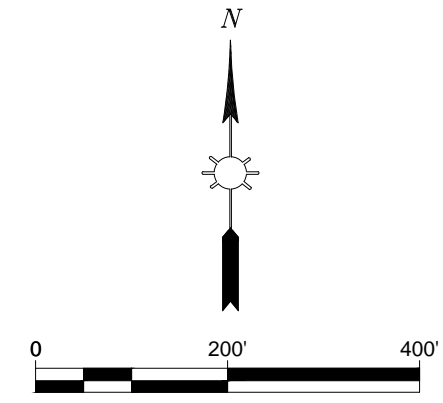
SMA would appreciate any information or feedback to be provided at your earliest possible convenience. If you need any further information or wish to discuss the project, please feel free to contact me by phone at 877-299-0942, or by email at [lisa.gaston@soudermiller.com](mailto:lisa.gaston@soudermiller.com).

Sincerely,  
**SOUDER, MILLER & ASSOCIATES**

A handwritten signature in blue ink, appearing to read "Lisa A. Gaston".

Lisa A. Gaston  
Staff Geoscientist





**LEGEND**

█ PROJECT AREA

VILLAGE OF CUBA  
WWTP

LAND APPLICATION  
AREA

REVISIONS		
BY	DATE	DESC.

**SMA**  
Engineering • Environmental  
Surveying

**SOUDER, MILLER & ASSOCIATES**  
3451 Candelaria Road NE, Suite D  
Albuquerque, NM 87107

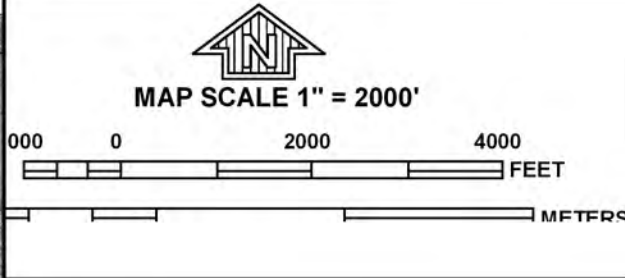
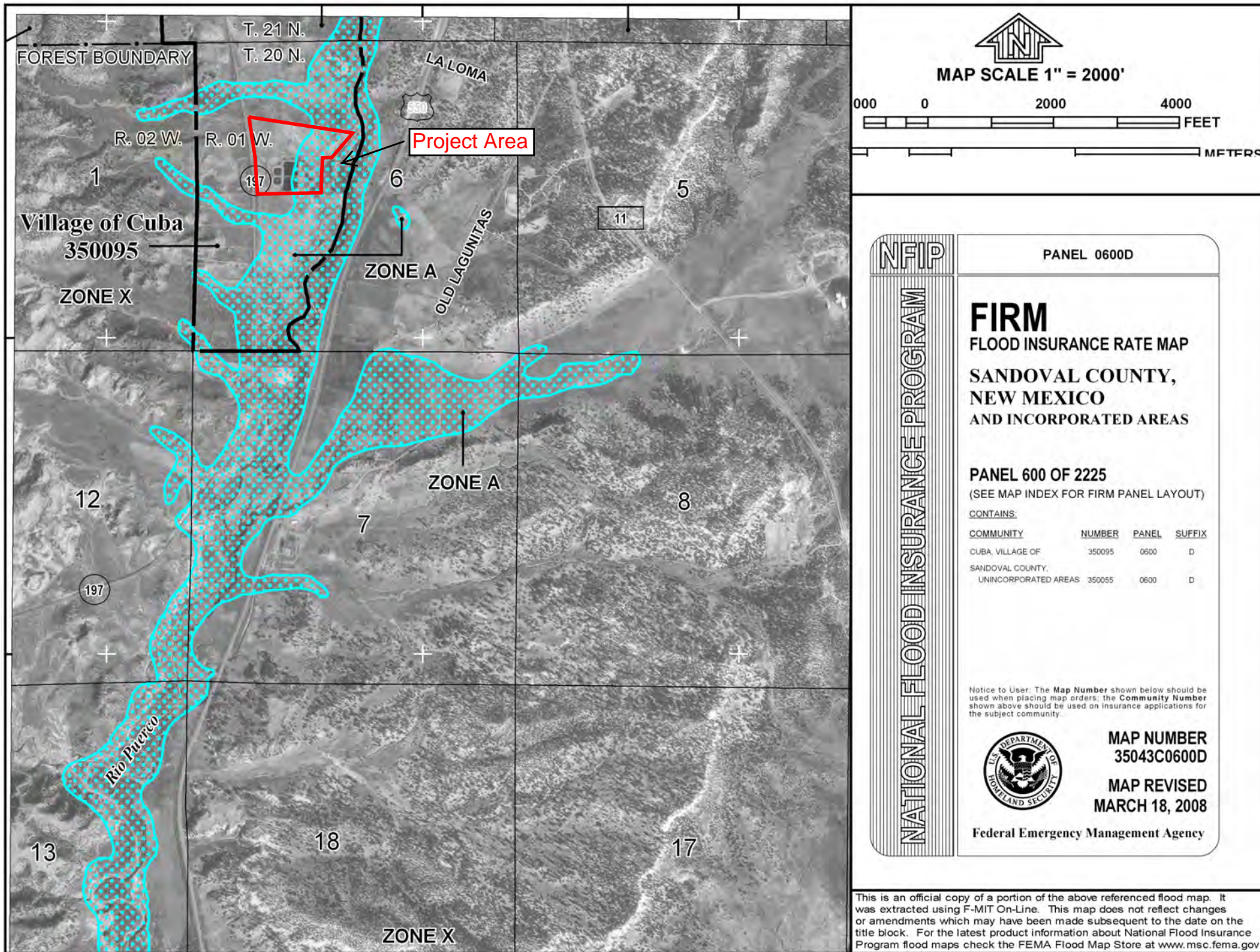
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**VILLAGE OF CUBA SITE MAP**  
**NORTHERN PROPERTY AND WWTP**  
**SANDOVAL COUNTY, NEW MEXICO**

Drawn ARB/JER	Checked JMG	Approved JMG
Date: AUGUST, 2014		
Scale: Horiz: 1"=200 Vert:		
Project No: 48968		
Sheet: <b>FIGURE 1</b>		

Figure 3



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0600D

**FIRM**  
FLOOD INSURANCE RATE MAP


**SANDOVAL COUNTY,  
NEW MEXICO  
AND INCORPORATED AREAS**

**PANEL 600 OF 2225**  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
CUBA, VILLAGE OF	350095	0600	D
SANDOVAL COUNTY, UNINCORPORATED AREAS	350055	0600	D

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.



**MAP NUMBER**  
35043C0600D

**MAP REVISED**  
MARCH 18, 2008

Federal Emergency Management Agency

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# LEGEND



**SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**

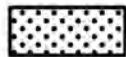
The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A** No Base Flood Elevations determined.
- ZONE AE** Base Flood Elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
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**FLOODWAY AREAS IN ZONE AE**

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.



**OTHER FLOOD AREAS**

- ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

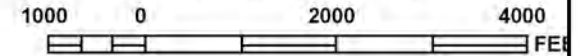


**OTHER AREAS**

- ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D** Areas in which flood hazards are undetermined, but possible.



**MAP SCALE 1" = 2000'**



**COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**



**OTHERWISE PROTECTED AREAS (OPAs)**

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- Base Flood Elevation line and value; elevation in feet\*
- Base Flood Elevation value where uniform within zone; elevation in feet\*

\* Referenced to the North American Vertical Datum of 1988

- Cross section line
- Transect line
- Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
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- Bench mark (see explanation in Notes to Users section of this FIRM panel)
- River Mile

**MAP REPOSITORY**  
Refer to listing of Map Repositories on Map Index

**EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP**  
July 16, 1996

**EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL**  
March 18, 2008 - to update map format.

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November 24, 2015

#6423775

Ms. Amy Haas, Acting Director  
N.M. Interstate Stream Commission  
407 Galisteo Street  
Bataan Memorial Building  
P.O. Box 25102  
Santa Fe, NM 87504-5102  
Phone: (505) 827-6160  
Fax: (505) 827-6188  
amy.haas@state.nm.us

**RE: REVISION TO REQUEST FOR INFORMATION CONCERNING THE SOLIDS HANDLING AND EFFLUENT REUSE IMPROVEMENTS PROJECT FOR THE VILLAGE OF CUBA WASTEWATER TREATMENT PLANT, SANDOVAL COUNTY, NEW MEXICO**

Ms. Amy Haas:

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*Ms. Amy Haas*  
*November 24, 2015*  
*Page 2*

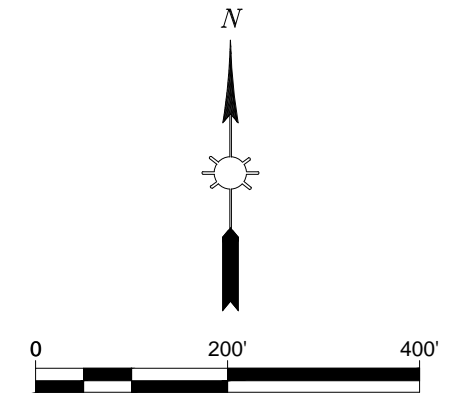
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SMA would appreciate any information or feedback to be provided at your earliest possible convenience. If you need any further information or wish to discuss the project, please feel free to contact me by phone at 877-299-0942, or by email at [lisa.gaston@soudermiller.com](mailto:lisa.gaston@soudermiller.com).

Sincerely,  
**SOUDER, MILLER & ASSOCIATES**

A handwritten signature in blue ink, appearing to read "Lisa A. Gaston".

Lisa A. Gaston  
Staff Geoscientist



**LEGEND**

█ PROJECT AREA

VILLAGE OF CUBA  
WWTP

LAND APPLICATION  
AREA

REVISIONS		
BY	DATE	DESC.

**SMA**  
Engineering • Environmental  
Surveying

**SOUDER, MILLER & ASSOCIATES**  
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Albuquerque, NM 87107

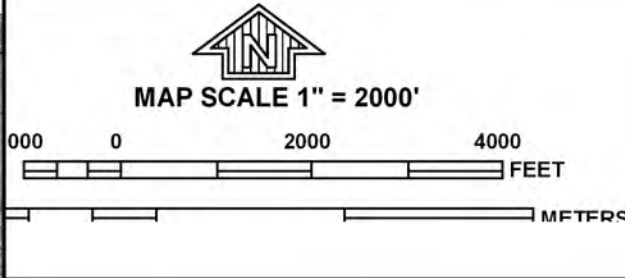
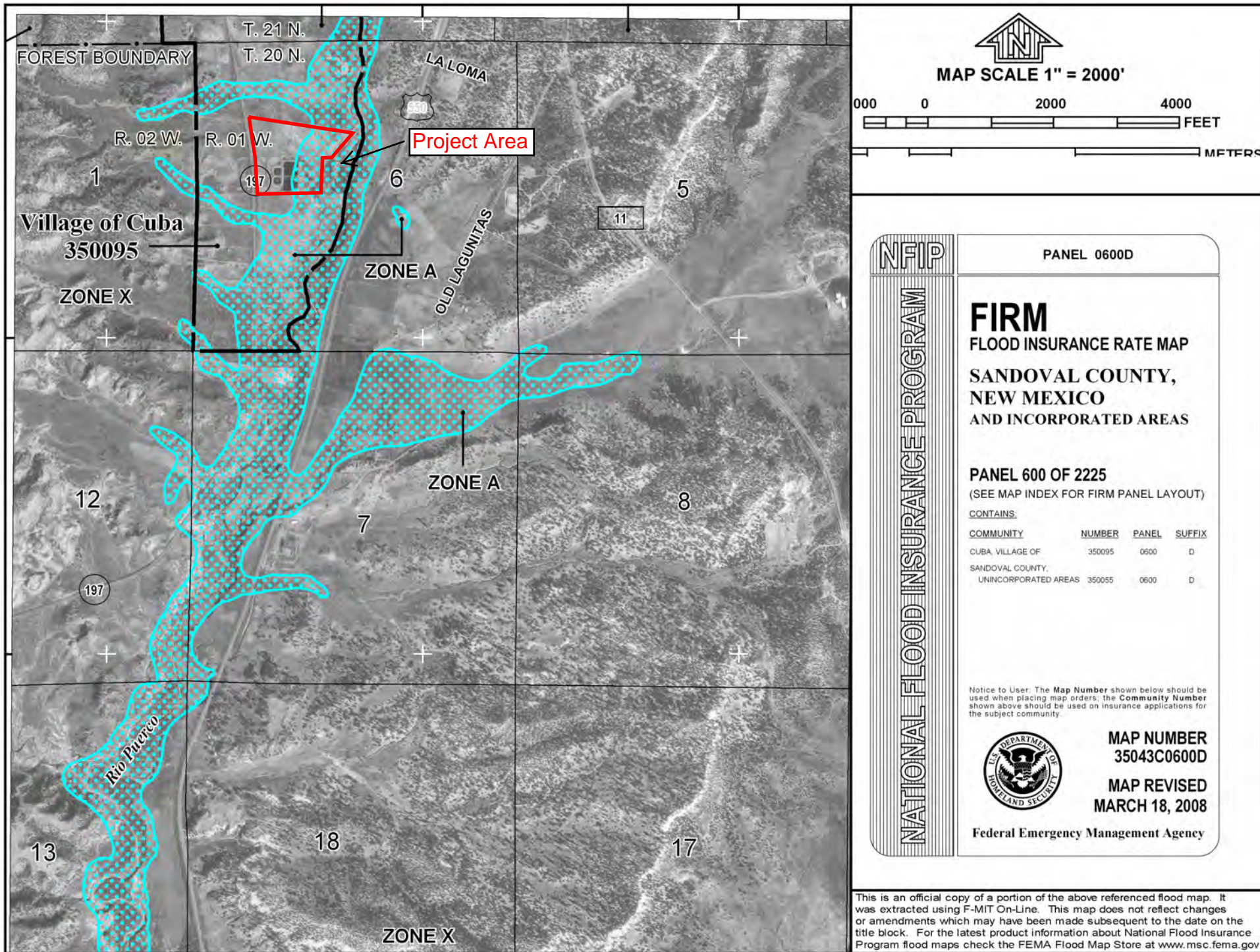
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VILLAGE OF CUBA SITE MAP  
NORTHERN PROPERTY AND WWTP  
SANDOVAL COUNTY, NEW MEXICO

Drawn ARB/JER	Checked JMG	Approved JMG
Date: AUGUST, 2014		
Scale: Horiz: 1"=200 Vert:		
Project No: 48968		
Sheet: <b>FIGURE 1</b>		

Figure 3



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0600D

**FIRM**  
FLOOD INSURANCE RATE MAP


**SANDOVAL COUNTY,  
NEW MEXICO  
AND INCORPORATED AREAS**

**PANEL 600 OF 2225**  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

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SANDOVAL COUNTY, UNINCORPORATED AREAS	350055	0600	D

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**MAP REVISED**  
MARCH 18, 2008

Federal Emergency Management Agency

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# LEGEND



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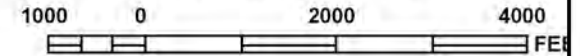


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## Scott McKitrick

---

**From:** Scott McKitrick  
**Sent:** Monday, May 23, 2016 4:34 PM  
**To:** 'tom.blaine@state.nm.us'  
**Subject:** Request for Information - Cuba WWTP Improvements  
**Attachments:** NMOSE.pdf

Attached please find SMA's request for Information concerning the Village of Cuba WWTP Improvements. It was originally provided by US Mail on November 24, 2015. A response is appreciated. Thanks.

---

**Scott A. McKitrick, P.G.**  
**Senior Geoscientist**  
**Souder, Miller & Associates**  
3451 Candelaria NE, Suite D  
Albuquerque, NM 87107  
[www.soudermiller.com](http://www.soudermiller.com)  
505.299.0942 (office)  
505.220.6542 (mobile)  
505.293.3430 (fax)



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## Scott McKitrick

---

**From:** Scott McKitrick  
**Sent:** Monday, May 23, 2016 4:32 PM  
**To:** 'amy.haas@state.nm.us'  
**Subject:** Request for Information - Cuba WWTP Improvements  
**Attachments:** NMISC.pdf

Attached please find SMA's request for Information concerning the Village of Cuba WWTP Improvements. It was originally provided by US Mail on November 24, 2015. A response is appreciated. Thanks.

---

**Scott A. McKitrick, P.G.**  
**Senior Geoscientist**  
**Souder, Miller & Associates**  
3451 Candelaria NE, Suite D  
Albuquerque, NM 87107  
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RECEIVED  
12/8/15

STATE OF NEW MEXICO  
OFFICE OF THE STATE ENGINEER

ALBUQUERQUE

**TOM BLAINE, P.E.**  
NEW MEXICO STATE ENGINEER

5550 San Antonio Drive, NE  
Albuquerque, NM 87109 (505)383-4000

December 2, 2015


OSE File No: RG-24169

Souder, Miller & Associates  
c/o Lisa A. Gaston, Staff Geoscientist  
3451 Candelaria Road, NE, Suite D  
Albuquerque, New Mexico 87107

Greetings:

This letter is in regards to the letter sent to Jess Ward, dated November 13, 2015, requesting information for the Village of Cuba's Wastewater Treatment Plant. On December 16, 2014, this office did receive a request for OSE Verification of Regulatory Compliance from the Water Trust Board (file #835). The request was in regards for funding for Phase 2 Improvements to the Cuba Wastewater Treatment Plant Facility (year 2015). John Dickenson handled the request and sent an email to Jody Garcia (February 5, 2015) about the status of the water right file (enclosed). If you require any information regarding the water rights for the Village of Cuba, please email or call us.

Sincerely,

  
Joseph Fields  
(505) 383-4000

JF:jf  
enclosures as stated  
copy: WATERS

**Dickinson, John L., OSE**

---

**From:** Dickinson, John L., OSE  
**Sent:** Thursday, February 05, 2015 10:41 AM  
**To:** 'jody.garcia@soudermiller.com'  
**Cc:** Ward, Jess L., OSE; Fields, Joseph, OSE  
**Subject:** WTB funding for the Village of Cuba

Hello Jody,

I have been assigned the Village of Cuba's (RG-24169 et al) funding request from the WTB to Construct Phase 2 Improvement to the Cuba Wastewater Treatment Plant. In perusing the file, I found that the village is not in compliance with their permit. First, the village has never filed a Proof of Completion of Well or Proof of Beneficial Use. This would require the village to file Applications for Time. The last extension was approved thru August 15, 2000. To get into compliance, the village needs to file extension for each year from 2000 to the present. Secondly, it does not appear that the village has submitted meter reading since 1999. We have no record that the wells are even equipped with meters. If they have any meter records, they should file them with our office.

As I am sure you are aware, consideration for WTB funding may be impacted by these non-compliance issues. If you wish to discuss this, please call (505) 383-4000.

Thanks,

John Dickinson



STATE OF NEW MEXICO  
OFFICE OF THE STATE ENGINEER

ALBUQUERQUE

TOM BLAINE, P.E.  
NEW MEXICO STATE ENGINEER

5550 San Antonio Drive, NE  
Albuquerque, NM 87109 (505)383-4000

May 26, 2016

OSE File No: RG-24169 et al.

Souder, Miller & Associates (SMA)  
c/o Scott A. McKittrick, P.G., Senior Geoscientist  
3451 Candelaria Road, N.E., Suite D  
Albuquerque, New Mexico 87107

Greetings:

In regards to your email sent May 25, 2016, in which you asked if the NMOSE has any problems or concerns with the Village of Cuba's Waste Water Treatment Plant (WWTP) proposed project. The project was outlined in the November 24, 2015, letter from Lisa A. Gaston, SMA Geoscientist to Tom Blaine, P.E., State Engineer. In response, the NMOSE does not have any problem with the proposed project. As stated in the email, the Village's water supply wells are not part of the proposed project.

However, the NMOSE is concerned about the Village's water right permit numbered above. On February 5, 2015, John Dickenson, NMOSE employee, sent an email to Jody Garcia, SMA employee regarding funding request from the Water Trust Board to construct Phase 2 improvements to the Village's WWTP. In the email, Mr. Dickenson stated that the Village is not in compliance with their permit. The District 1 office needs to resolve the compliance issues and this summer will perform a field investigation, and meet with Village Administrators.

Sincerely,

  
Jody Fields  
Water Resource Specialist  
(505) 383-4000

JF:jf  
enclosures as stated  
copy: WATERS

Appendix E14  
EPA Source Water Protection Branch  
Correspondence



November 24, 2015

#6423775

Mr. Michael Bechdol  
Source Water Protection Branch  
Groundwater Section  
U.S. Environment Protection Agency  
1445 Ross Avenue, Suite 1200  
Dallas, TX 75202-2733  
Phone: 214-665-7150  
Fax: 214-665-6490  
bechdol.michael@epa.gov

**RE: REVISION TO REQUEST FOR INFORMATION CONCERNING THE SOLIDS HANDLING AND EFFLUENT REUSE IMPROVEMENTS PROJECT FOR THE VILLAGE OF CUBA WASTEWATER TREATMENT PLANT, SANDOVAL COUNTY, NEW MEXICO**

Mr. Michael Bechdol:

Souder, Miller & Associates (SMA), on behalf of our client, the Village of Cuba, is in the process of performing an environmental assessment pursuant to the National Environmental Policy Act for use of public funding. The Village's Wastewater Treatment Plant (WWTP) is located in Sandoval County, along New Mexico State Road 197 (NM 197); approximately 2 miles from the NM 197/United States Route 550 (US 550) junction; approximately 65 miles northwest of Bernalillo, New Mexico. Funding for the planned project may be obtained from New Mexico Legislative Appropriations (SAP), United States Department of Agriculture (USDA) - Rural Development (RD), Community Development Block Grant (CDBG), New Mexico Water Trust Board (WTB), Clean Water State Revolving Fund (CWSRF) and/or other State and Federal sources.

As part of the overall planning phase of the project Village of Cuba WWTP is requesting consultation on several improvements including:

- Utilization of 15 acres of land for long-term biosolids and effluent land application.
- Use of the existing northeast passive lagoon at the WWTP to dewater biosolids until they dry to a desired solids concentration.
- Modification of the existing sand filters to function as drying sand beds to dewater biosolids produced by the WWTP.
- Construction of a lined effluent storage basin.
- Construction of a building for an office and for sludge processing equipment.
- Reuse of biosolids and treated effluent via land application for irrigation.

Limits of the study include a portion of Township 20 North, Range 01 West, Section 6. The center of the project area is located at approximately 35° 59' 38" N latitude and 106° 59' 6" west longitude. Please refer to the enclosed map (Figure 1) that depicts the area of the proposed WWTP improvements. Figures 1 and 2 were inadvertently left out of original letter. They are attached to this letter.

*Mr. Michael Bechdol*

*November 24, 2015*

*Page 2*

All work is to be completed on property owned by the Village of Cuba. The majority of work will be completed above ground. The overall project area depicted in Figure 2 shows that all projects contemplated at this time lie within Zone A (areas where flood heights have not been determined but are expected to flood during the 100-year flood) and Zone X (areas that have been determined to be outside the 0.2% annual floodplain). No arroyos are anticipated to be crossed or disturbed by the proposed projects.

SMA would appreciate any information or feedback to be provided at your earliest possible convenience. If you need any further information or wish to discuss the project, please feel free to contact me by phone at 877-299-0942, or by email at [lisa.gaston@soudermiller.com](mailto:lisa.gaston@soudermiller.com).

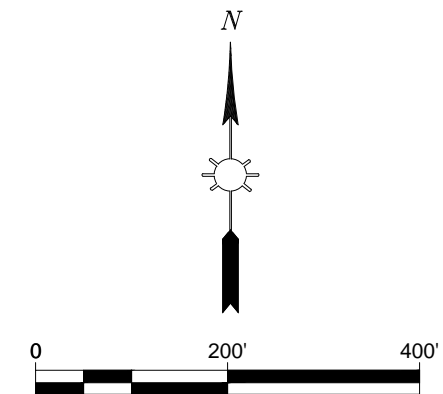
Sincerely,

**SOUDER, MILLER & ASSOCIATES**

A handwritten signature in blue ink, appearing to read "Lisa A. Gaston".

Lisa A. Gaston  
Staff Geoscientist





**LEGEND**

█ PROJECT AREA

REVISIONS		
BY	DATE	DESC.

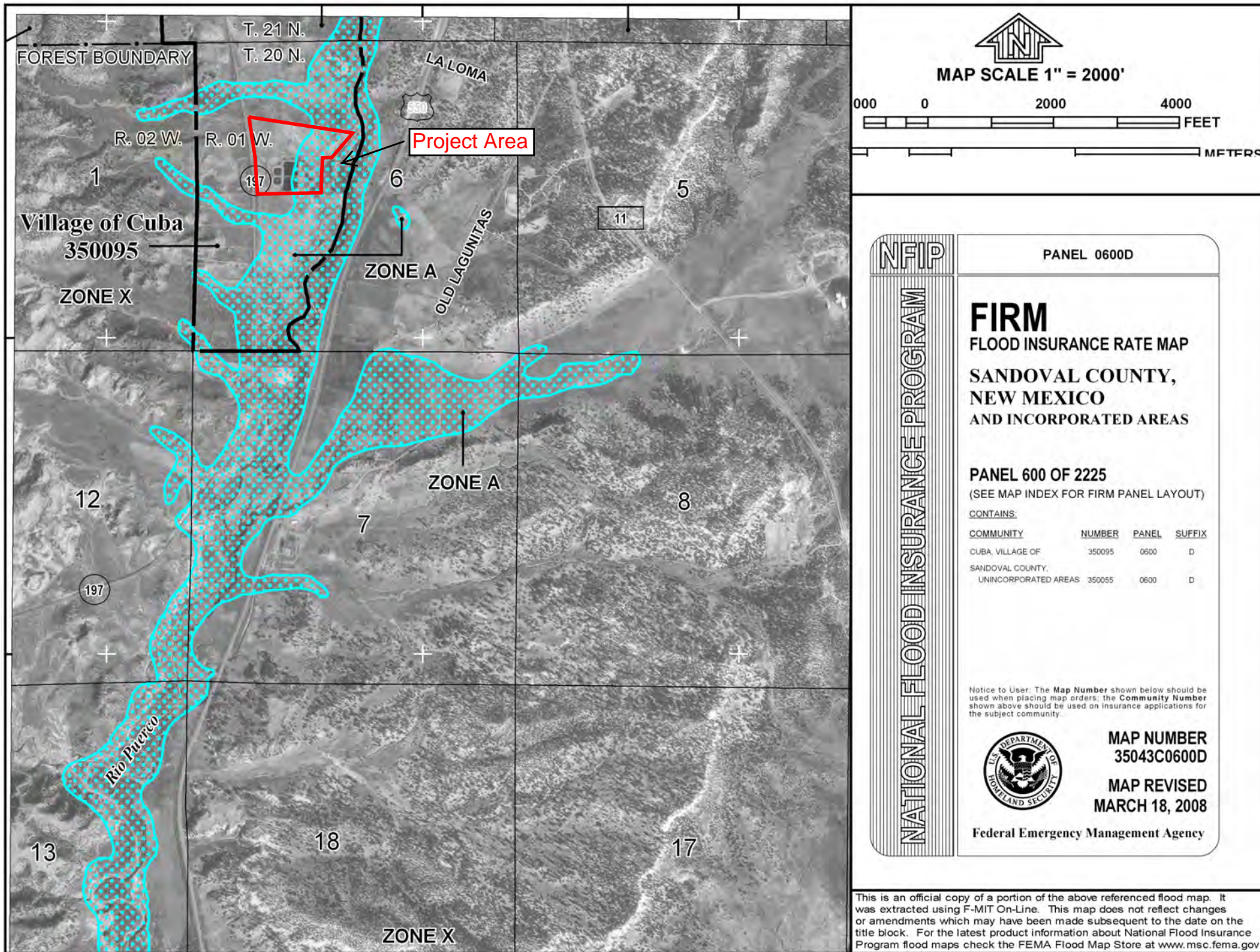
**SOUDER, MILLER & ASSOCIATES**  
 3451 Candelaria Road NE, Suite D  
 Albuquerque, NM 87107

Phone (505) 299-0942 Toll-Free (877) 299-0942 Fax (505) 293-3430  
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**VILLAGE OF CUBA SITE MAP**  
**NORTHERN PROPERTY AND WWTP**  
**SANDOVAL COUNTY, NEW MEXICO**

Drawn ARB/JER	Checked JMG	Approved JMG
Date: AUGUST, 2014		
Scale: Horiz: 1"=200 Vert:		
Project No: 48968		
Sheet: <b>FIGURE 1</b>		

Figure 3



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0600D

**FIRM**  
FLOOD INSURANCE RATE MAP


**SANDOVAL COUNTY,  
NEW MEXICO  
AND INCORPORATED AREAS**

**PANEL 600 OF 2225**  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
CUBA, VILLAGE OF	350095	0600	D
SANDOVAL COUNTY, UNINCORPORATED AREAS	350055	0600	D

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.



**MAP NUMBER**  
35043C0600D

**MAP REVISED**  
MARCH 18, 2008

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)

# LEGEND



**SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**

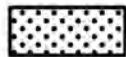
The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A** No Base Flood Elevations determined.
- ZONE AE** Base Flood Elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.



**FLOODWAY AREAS IN ZONE AE**

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.



**OTHER FLOOD AREAS**

- ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

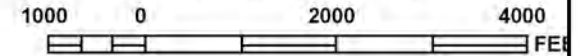


**OTHER AREAS**

- ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D** Areas in which flood hazards are undetermined, but possible.



**MAP SCALE 1" = 2000'**



**COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**



**OTHERWISE PROTECTED AREAS (OPAs)**

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- Base Flood Elevation line and value; elevation in feet\*
- Base Flood Elevation value where uniform within zone; elevation in feet\*

\* Referenced to the North American Vertical Datum of 1988.

- Cross section line
- Transect line
- Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 1000-meter Universal Transverse Mercator grid values, zone 13
- 5000-foot grid ticks: New Mexico State Plane coordinate system, Central zone (FIPSZONE 3002), Transverse Mercator projection
- Bench mark (see explanation in Notes to Users section of this FIRM panel)
- River Mile

**MAP REPOSITORY**  
Refer to listing of Map Repositories on Map Index

**EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP**  
July 16, 1996

**EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL**  
March 18, 2008 - to update map format.

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 6  
1445 ROSS AVENUE, SUITE 1200  
DALLAS TX 75202-2733

RECEIVED  
12/22/15

December 21, 2015

Ms. Lisa A. Gaston  
Staff Geoscientist  
SMA Souder, Miller & Associates  
3451 Candelaria Road NE  
Suite D  
Albuquerque, NM 87107-1948

Dear Ms. Gaston:

We have received your November 24, 2015, letter requesting our evaluation of the potential environmental impacts that might result from the following project:

**Concerning the Solids Handling and Effluent  
Reuse Improvements Project  
Along New Mexico State Road 197; Approximately 2 Miles  
From the US Route 550, Lat: 35° 59' 38" & Long: 106° 59' 6"  
Sandoval County  
Village of Cuba, New Mexico**

In administering the sole source aquifer (SSA) program under Section 1424 of the Safe Drinking Water Act our Office performs evaluations of projects with federal financial assistance which are located over a designated sole source aquifer.

Based on the information provided, we have concluded that the project does not lie within the boundaries of a designated sole source aquifer and is thus not eligible for review under the SSA program.

If you did not include the county, project description, project location or the federal funding agency, please do so in future Sole Source Aquifer correspondence

If you have any questions on this letter or the sole source aquifer program please contact me at (214) 665-7133.

Sincerely yours,

Omar T. Martinez, Coordinator  
Sole Source Aquifer Program  
Ground Water/UIC Section

cc: Jerry Schoeppner, NMED

# Appendix E15

## EPA Region VI Environmental Justice Web Site Information

Location: User-specified point center at 36.022239, -106.958368

Ring (buffer): 1-mile radius

Description:

Summary of ACS Estimates		2008 - 2012
Population		667
Population Density (per sq. mile)		221
Minority Population		530
% Minority		79%
Households		283
Housing Units		380
Housing Units Built Before 1950		40
Per Capita Income		22,378
Land Area (sq. miles) (Source: SF1)		3.02
% Land Area		100%
Water Area (sq. miles) (Source: SF1)		0.00
% Water Area		0%

	2008 - 2012 ACS Estimates	Percent	MOE (±)
<b>Population by Race</b>			
Total	667	100%	301
Population Reporting One Race	655	98%	755
White	391	59%	373
Black	0	0%	12
American Indian	209	31%	199
Asian	0	0%	12
Pacific Islander	0	0%	12
Some Other Race	55	8%	147
Population Reporting Two or More Races	13	2%	27
Total Hispanic Population	363	54%	261
Total Non-Hispanic Population	304		
White Alone	138	21%	157
Black Alone	0	0%	12
American Indian Alone	164	25%	187
Non-Hispanic Asian Alone	0	0%	12
Pacific Islander Alone	0	0%	12
Other Race Alone	0	0%	12
Two or More Races Alone	2	0%	12
<b>Population by Sex</b>			
Male	343	51%	178
Female	324	49%	168
<b>Population by Age</b>			
Age 0-4	43	6%	70
Age 0-17	136	20%	104
Age 18+	531	80%	170
Age 65+	180	27%	102

**Data Note:** Detail may not sum to totals due to rounding. Hispanic population can be of any race. N/A means not available.

**Source:** U.S. Census Bureau, American Community Survey (ACS) 2008 - 2012.

Location: User-specified point center at 36.022239, -106.958368

Ring (buffer): 1-mile radius

Description:

	2008 - 2012 ACS Estimates	Percent	MOE (±)
<b>Population 25+ by Educational Attainment</b>			
Total	489	100%	223
Less than 9th Grade	12	2%	46
9th - 12th Grade, No Diploma	72	15%	92
High School Graduate	171	35%	100
Some College, No Degree	121	25%	64
Associate Degree	12	2%	26
Bachelor's Degree or more	113	23%	80
<b>Population Age 5+ Years by Ability to Speak English</b>			
Total	624	100%	262
Speak only English	318	51%	198
Non-English at Home <sup>1+2+3+4</sup>	307	49%	164
<sup>1</sup> Speak English "very well"	273	44%	146
<sup>2</sup> Speak English "well"	23	4%	41
<sup>3</sup> Speak English "not well"	11	2%	31
<sup>4</sup> Speak English "not at all"	0	0%	12
<sup>3+4</sup> Speak English "less than well"	11	2%	31
<sup>2+3+4</sup> Speak English "less than very well"	34	5%	48
<b>Linguistically Isolated Households*</b>			
Total	2	100%	27
Speak Spanish	2	100%	24
Speak Other Indo-European Languages	0	0%	12
Speak Asian-Pacific Island Languages	0	0%	12
Speak Other Languages	0	0%	12
<b>Households by Household Income</b>			
Household Income Base	283	100%	121
< \$15,000	66	23%	85
\$15,000 - \$25,000	34	12%	42
\$25,000 - \$50,000	59	21%	66
\$50,000 - \$75,000	74	26%	73
\$75,000 +	50	18%	47
<b>Occupied Housing Units by Tenure</b>			
Total	283	100%	121
Owner Occupied	184	65%	113
Renter Occupied	98	35%	73

**Data Note:** Detail may not sum to totals due to rounding. Hispanic population can be of any race. N/A means not available.

**Source:** U.S. Census Bureau, American Community Survey (ACS) 2008 - 2012.

\*Linguistically Isolated Households is available at the census tract summary level and up.

Location: User-specified point center at 36.022239, -106.958368

Ring (buffer): 1-mile radius

Description:

	2008 - 2012 ACS Estimates	Percent	MOE (±)
<b>Population by Language Spoken at Home**</b>			
Total (persons age 5 and above)	624	100%	262
English	N/A	N/A	N/A
Spanish	N/A	N/A	N/A
French	N/A	N/A	N/A
French Creole	N/A	N/A	N/A
Italian	N/A	N/A	N/A
Portuguese	N/A	N/A	N/A
German	N/A	N/A	N/A
Yiddish	N/A	N/A	N/A
Other West Germanic	N/A	N/A	N/A
Scandinavian	N/A	N/A	N/A
Greek	N/A	N/A	N/A
Russian	N/A	N/A	N/A
Polish	N/A	N/A	N/A
Serbo-Croatian	N/A	N/A	N/A
Other Slavic	N/A	N/A	N/A
Armenian	N/A	N/A	N/A
Persian	N/A	N/A	N/A
Gujarathi	N/A	N/A	N/A
Hindi	N/A	N/A	N/A
Urdu	N/A	N/A	N/A
Other Indic	N/A	N/A	N/A
Other Indo-European	N/A	N/A	N/A
Chinese	N/A	N/A	N/A
Japanese	N/A	N/A	N/A
Korean	N/A	N/A	N/A
Mon-Khmer, Cambodian	N/A	N/A	N/A
Hmong	N/A	N/A	N/A
Thai	N/A	N/A	N/A
Laotian	N/A	N/A	N/A
Vietnamese	N/A	N/A	N/A
Other Asian	N/A	N/A	N/A
Tagalog	N/A	N/A	N/A
Other Pacific Island	N/A	N/A	N/A
Navajo	N/A	N/A	N/A
Other Native American	N/A	N/A	N/A
Hungarian	N/A	N/A	N/A
Arabic	N/A	N/A	N/A
Hebrew	N/A	N/A	N/A
African	N/A	N/A	N/A
Other and non-specified	N/A	N/A	N/A
Total Non-English	N/A	N/A	N/A

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**Source:** U.S. Census Bureau, American Community Survey (ACS) 2008 - 2012.

\*\*Population by Language Spoken at Home is available at the census tract summary level and up.



Appendix E16  
EPA Region VI Office of Planning &  
Coordination  
Correspondence



November 24, 2015

#6423775

Mr. Craig Weeks, Acting Chief  
Office of Planning and Coordination  
1445 Ross Avenue, Suite 1200  
Dallas, TX 75202-2733  
Phone: 214-665-7451  
Fax: 214-665-7446  
weeks.craig@epa.gov

**RE: REVISION TO REQUEST FOR INFORMATION CONCERNING THE SOLIDS HANDLING AND EFFLUENT REUSE IMPROVEMENTS PROJECT FOR THE VILLAGE OF CUBA WASTEWATER TREATMENT PLANT, SANDOVAL COUNTY, NEW MEXICO**

Mr. Craig Weeks:

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*Mr. Craig Weeks*  
*November 24, 2015*  
*Page 2*

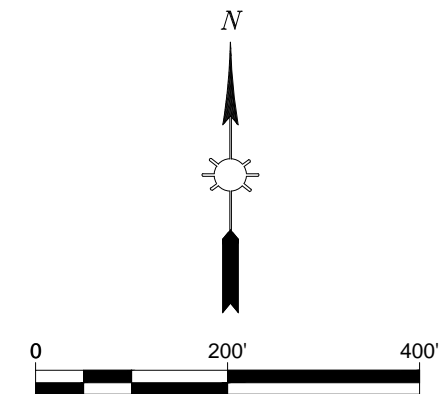
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Sincerely,  
**SOUDER, MILLER & ASSOCIATES**

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Lisa A. Gaston  
Staff Geoscientist



**LEGEND**

█ PROJECT AREA

REVISIONS		
BY	DATE	DESC.

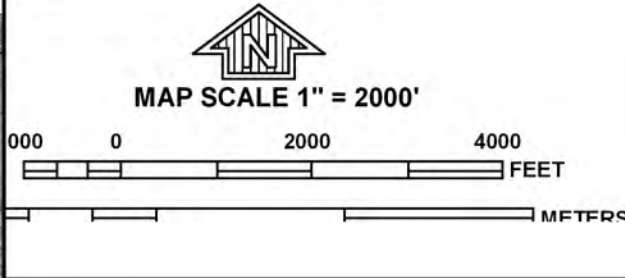
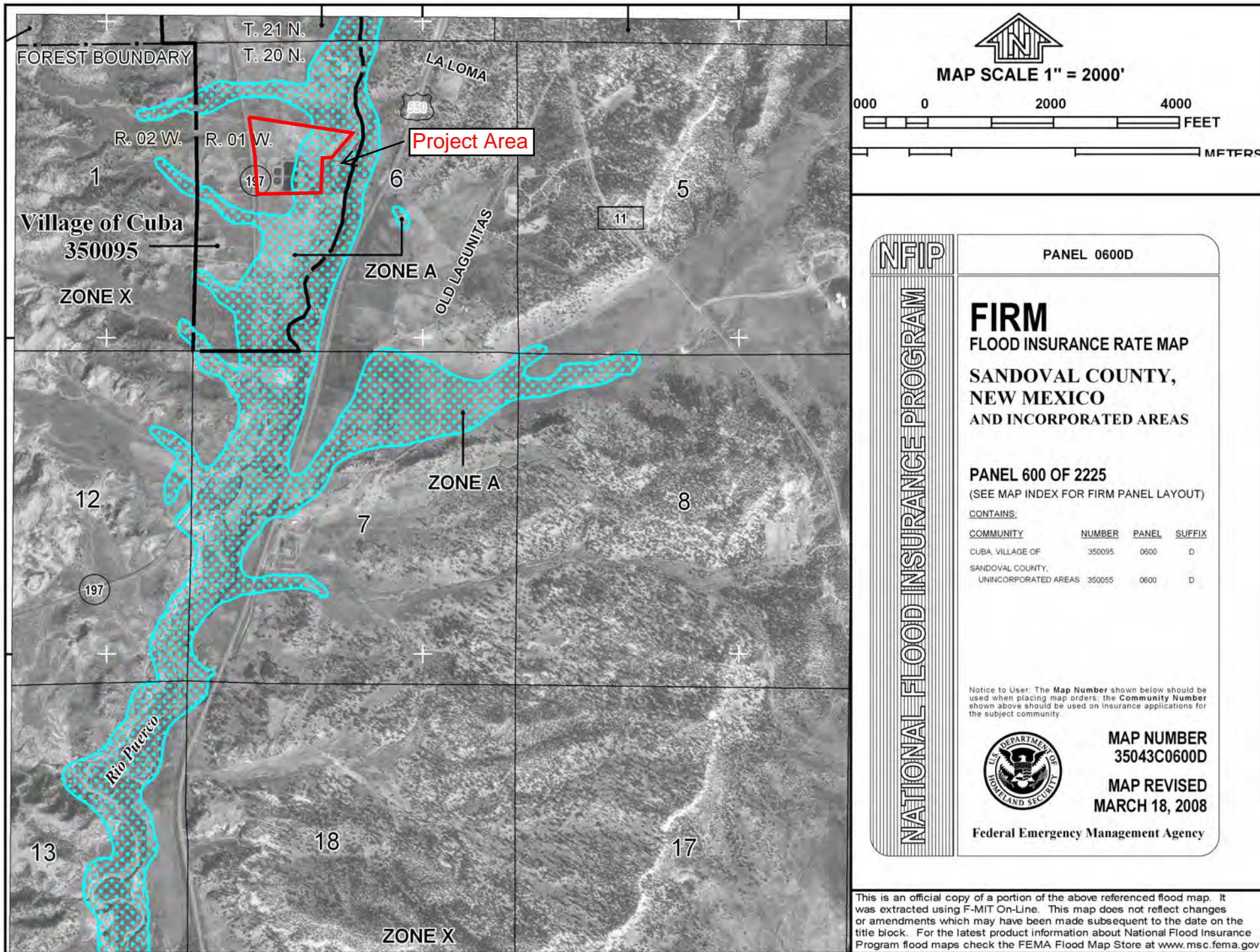
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 Cortez - Grand Junction, CO - Safford, AZ - Meab, UT, El Paso, TX

**VILLAGE OF CUBA SITE MAP**  
**NORTHERN PROPERTY AND WWTP**  
**SANDOVAL COUNTY, NEW MEXICO**

Drawn ARB/JER	Checked JMG	Approved JMG
Date: AUGUST, 2014		
Scale: Horiz: 1"=200 Vert:		
Project No: 48968		
Sheet: <b>FIGURE 1</b>		

Figure 3



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0600D

**FIRM**  
**FLOOD INSURANCE RATE MAP**  
**SANDOVAL COUNTY,**  
**NEW MEXICO**  
**AND INCORPORATED AREAS**

**PANEL 600 OF 2225**  
 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
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**MAP REVISED**  
**MARCH 18, 2008**

Federal Emergency Management Agency

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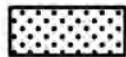
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**FLOODWAY AREAS IN ZONE AE**

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.



**OTHER FLOOD AREAS**

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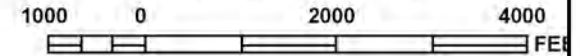


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**MAP SCALE 1" = 2000'**



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- Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 1000-meter Universal Transverse Mercator grid values, zone 13
- 5000-foot grid ticks: New Mexico State Plane coordinate system, Central zone (FIPSZONE 3002), Transverse Mercator projection
- Bench mark (see explanation in Notes to Users section of this FIRM panel)
- River Mile

**MAP REPOSITORY**  
Refer to listing of Map Repositories on Map Index

**EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP**  
July 16, 1996

**EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL**  
March 18, 2008 - to update map format.

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

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## Scott McKitrick

---

**From:** Scott McKitrick  
**Sent:** Monday, May 23, 2016 4:44 PM  
**To:** 'weeks.craig@epa.gov'  
**Subject:** Request for Information - Cuba WWTP Improvements  
**Attachments:** US EPA Planning and Coordination.pdf

Attached please find SMA's request for Information concerning the Village of Cuba WWTP Improvements. It was originally provided by US Mail on November 24, 2015. A response is appreciated. Thanks.

---

**Scott A. McKitrick, P.G.**  
**Senior Geoscientist**  
**Souder, Miller & Associates**  
3451 Candelaria NE, Suite D  
Albuquerque, NM 87107  
[www.soudermiller.com](http://www.soudermiller.com)  
505.299.0942 (office)  
505.220.6542 (mobile)  
505.293.3430 (fax)



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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6  
1445 ROSS AVENUE, SUITE 1200  
DALLAS TX 75202-2733

May 26, 2016

Lisa A. Gaston  
Staff Geoscientist  
Souder Miller & Associates  
3451 Candelaria Rd NE, Suite D  
Albuquerque, NM 87112

SUBJECT: Wastewater Treatment Plant, Village of Cuba, Sandoval County, New Mexico

Dear Mrs. Gaston

In accordance with your letter dated November 24, 2015, the U.S. Environmental Protection Agency, the Region 6 NEPA office, has no comments to offer on the proposed project based on the information submitted.

We appreciate the opportunity to examine your request for comments. Thank you for your coordination and don't hesitate to contact me at 214-665-8565 or [houston.robert@epa.gov](mailto:houston.robert@epa.gov), if you have questions or concerns regarding this letter.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert Houston".

Robert Houston  
Chief, Special Projects Section



Appendix E17  
EPA Air Planning Section  
Correspondence



November 24, 2015

#6423775

Mr. Jeffrey Riley  
Air Planning Section  
EPA Region 6, 6 PD-L  
U.S. Environment Protection Agency  
1445 Ross Avenue, Suite 1200  
Dallas, TX 75202-2733  
Phone: 214-665-8542  
Fax: 214-665-7263  
riley.jeffrey@epa.gov

**RE: REVISION TO REQUEST FOR INFORMATION CONCERNING THE SOLIDS HANDLING AND EFFLUENT REUSE IMPROVEMENTS PROJECT FOR THE VILLAGE OF CUBA WASTEWATER TREATMENT PLANT, SANDOVAL COUNTY, NEW MEXICO**

Souder, Miller & Associates (SMA), on behalf of our client, the Village of Cuba, is in the process of performing an environmental assessment pursuant to the National Environmental Policy Act for use of public funding. The Village's Wastewater Treatment Plant (WWTP) is located in Sandoval County, along New Mexico State Road 197 (NM 197); approximately 2 miles from the NM 197/United States Route 550 (US 550) junction; approximately 65 miles northwest of Bernalillo, New Mexico. Funding for the planned project may be obtained from New Mexico Legislative Appropriations (SAP), United States Department of Agriculture (USDA) - Rural Development (RD), Community Development Block Grant (CDBG), New Mexico Water Trust Board (WTB), Clean Water State Revolving Fund (CWSRF) and/or other State and Federal sources.

As part of the overall planning phase of the project Village of Cuba WWTP is requesting consultation on several improvements including:

- Utilization of 15 acres of land for long-term biosolids and effluent land application.
- Use of the existing northeast passive lagoon at the WWTP to dewater biosolids until they dry to a desired solids concentration.
- Modification of the existing sand filters to function as drying sand beds to dewater biosolids produced by the WWTP.
- Construction of a lined effluent storage basin.
- Construction of a building for an office and for sludge processing equipment.
- Reuse of biosolids and treated effluent via land application for irrigation.

Limits of the study include a portion of Township 20 North, Range 01 West, Section 6. The center of the project area is located at approximately 35° 59' 38" N latitude and 106° 59' 6" west longitude. Please refer to the enclosed map (Figure 1) that depicts the area of the proposed WWTP improvements. Figures 1 and 2 were inadvertently left out of original letter. They are attached to this letter.

All work is to be completed on property owned by the Village of Cuba. The majority of work will be completed above ground. The overall project area depicted in Figure 2 shows that all projects contemplated at this time lie within Zone A (areas where flood heights have not been determined but are

*Mr. Jeffrey Riley*  
*November 24, 2015*  
*Page 2*

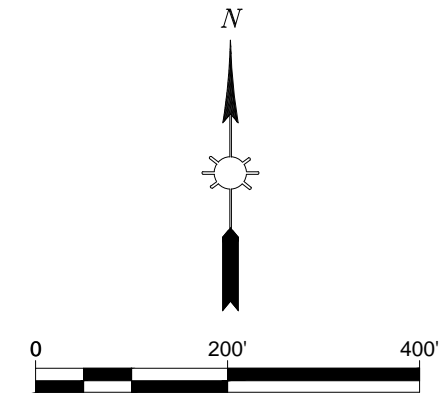
expected to flood during the 100-year flood) and Zone X (areas that have been determined to be outside the 0.2% annual floodplain). No arroyos are anticipated to be crossed or disturbed by the proposed projects.

SMA would appreciate any information or feedback to be provided at your earliest possible convenience. If you need any further information or wish to discuss the project, please feel free to contact me by phone at 877-299-0942, or by email at [lisa.gaston@soudermiller.com](mailto:lisa.gaston@soudermiller.com).

Sincerely,  
**SOUDER, MILLER & ASSOCIATES**

A handwritten signature in blue ink, appearing to read "Lisa A. Gaston".

Lisa A. Gaston  
Staff Geoscientist



**LEGEND**

█ PROJECT AREA

REVISIONS		
BY	DATE	DESC.

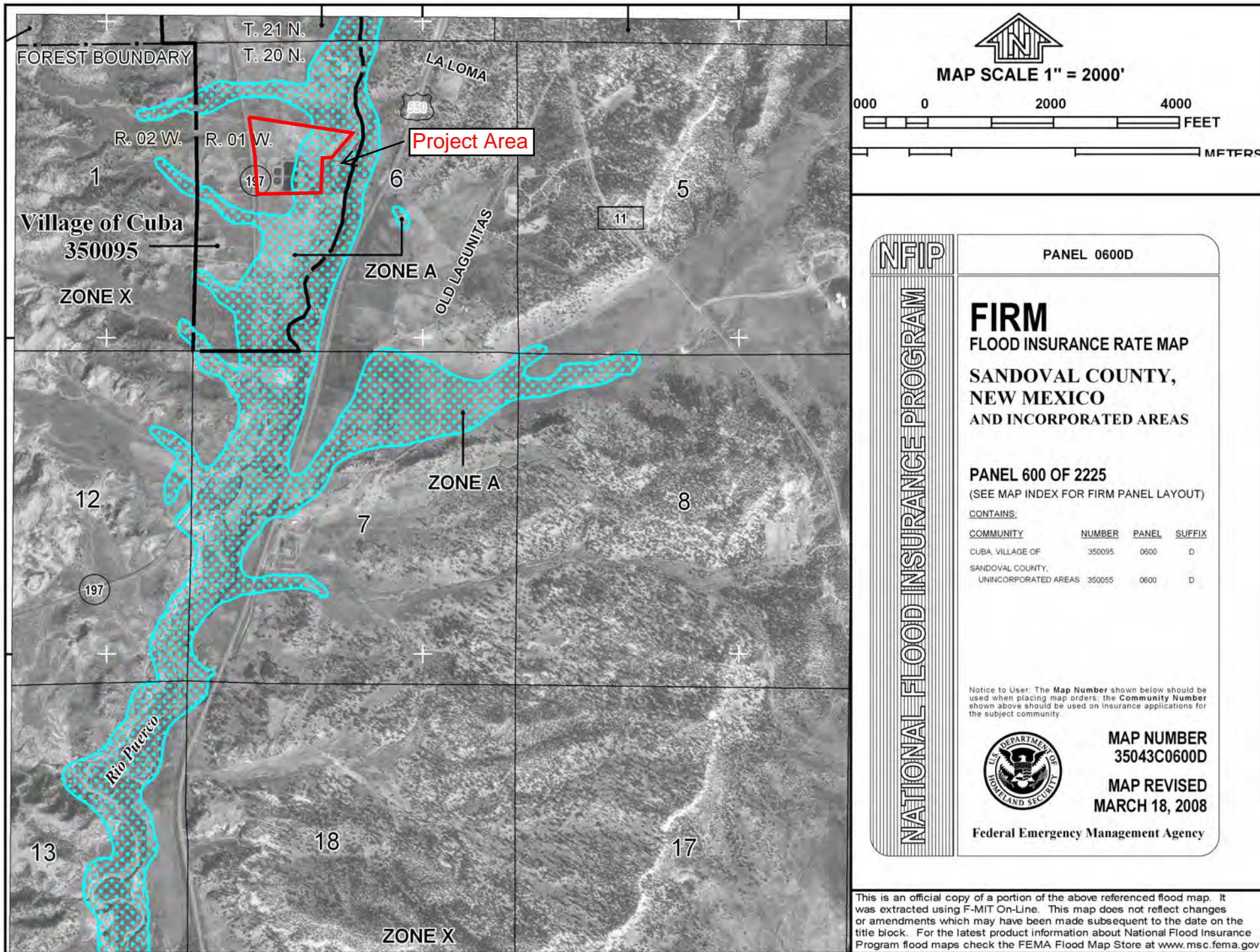
**SOUDER, MILLER & ASSOCIATES**  
 3451 Candelaria Road NE, Suite D  
 Albuquerque, NM 87107

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**VILLAGE OF CUBA SITE MAP**  
**NORTHERN PROPERTY AND WWTP**  
**SANDOVAL COUNTY, NEW MEXICO**

Drawn ARB/JER	Checked JMG	Approved JMG
Date: AUGUST, 2014		
Scale: Horiz: 1"=200 Vert:		
Project No: 48968		
Sheet: <b>FIGURE 1</b>		

Figure 3



NATIONAL FLOOD INSURANCE PROGRAM

NFIP

PANEL 0600D

**FIRM**  
FLOOD INSURANCE RATE MAP

**SANDOVAL COUNTY,  
NEW MEXICO  
AND INCORPORATED AREAS**

**PANEL 600 OF 2225**  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
CUBA, VILLAGE OF	350095	0600	D
SANDOVAL COUNTY, UNINCORPORATED AREAS	350055	0600	D

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

**MAP NUMBER**  
35043C0600D

**MAP REVISED**  
MARCH 18, 2008

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)

# LEGEND



**SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**

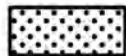
The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A** No Base Flood Elevations determined.
- ZONE AE** Base Flood Elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.



**FLOODWAY AREAS IN ZONE AE**

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.



**OTHER FLOOD AREAS**

- ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

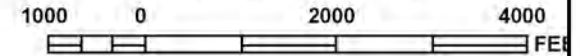


**OTHER AREAS**

- ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D** Areas in which flood hazards are undetermined, but possible.



**MAP SCALE 1" = 2000'**



**COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**



**OTHERWISE PROTECTED AREAS (OPAs)**

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- Base Flood Elevation line and value; elevation in feet\*
- Base Flood Elevation value where uniform within zone; elevation in feet\*

\* Referenced to the North American Vertical Datum of 1988

- Cross section line
- Transect line
- Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 1000-meter Universal Transverse Mercator grid values, zone 13
- 5000-foot grid ticks: New Mexico State Plane coordinate system, Central zone (FIPSZONE 3002), Transverse Mercator projection
- Bench mark (see explanation in Notes to Users section of this FIRM panel)
- River Mile

**MAP REPOSITORY**  
Refer to listing of Map Repositories on Map Index

**EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP**  
July 16, 1996

**EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL**  
March 18, 2008 - to update map format.

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)

## Scott McKittrick

---

**From:** Riley, Jeffrey <Riley.Jeffrey@epa.gov>  
**Sent:** Tuesday, May 24, 2016 8:29 AM  
**To:** Scott McKittrick  
**Subject:** RE: Request for Information - Cuba WWTP Improvements

Good Morning Mr. McKittrick,

Thank you for the information on your proposed project. I apologize for the delayed response to your original mailing of this information, correspondence is occasionally misrouted internally, so I encourage you to send future solicitations to me directly via e-mail.

As detailed in the information provided, this project is intended to improve the wastewater treatment plant serving the Village of Cuba in Sandoval County, New Mexico. The Air Planning Section of EPA's Region 6 office has reviewed the submitted documents. Our review is limited to actions that might impact the air quality of an area. Therefore, the following comments are based on our review of your project compared to the Clean Air Act requirements for general conformity.

Sandoval County, New Mexico is currently in attainment of all National Ambient Air Quality Standards (NAAQS). As a result, general conformity regulations do not apply and an applicability analysis is not necessary. However, any demolition, construction, rehabilitation, repair, dredging or filling activities have the potential to emit air pollutants and we recommend best management practices be implemented to minimize the impact of any air pollutants. Furthermore, construction and waste disposal activities should be conducted in accordance with applicable local, state and federal statutes and regulations.

If you have questions, please don't hesitate to contact me at 214-665-8542.

Jeffrey Riley  
US EPA - Region 6  
State Implementation Section 6MM-AA  
Multimedia Division  
(214)665-8542  
[riley.jeffrey@epa.gov](mailto:riley.jeffrey@epa.gov)

**From:** Scott McKittrick [mailto:scott.mckittrick@soudermiller.com]  
**Sent:** Monday, May 23, 2016 5:46 PM  
**To:** Riley, Jeffrey <Riley.Jeffrey@epa.gov>  
**Subject:** Request for Information - Cuba WWTP Improvements

Attached please find SMA's request for Information concerning the Village of Cuba WWTP Improvements. It was originally provided by US Mail on November 24, 2015. A response is appreciated. Thanks.

---

**Scott A. McKittrick, P.G.**  
Senior Geoscientist  
Souder, Miller & Associates  
3451 Candelaria NE, Suite D  
Albuquerque, NM 87107

Appendix E18  
New Mexico Department of Transportation  
Correspondence





November 24, 2015

#6423775

Mr. Gary Funkhouser  
N.M. Department of Transportation  
Environmental Section  
P.O. Box 1149  
Santa Fe, NM 87504  
Phone: 505-827-5356  
Fax: 505-827-1877  
gary.funkhouser@state.nm.us

**RE: REVISION TO REQUEST FOR INFORMATION CONCERNING THE SOLIDS HANDLING AND EFFLUENT REUSE IMPROVEMENTS PROJECT FOR THE VILLAGE OF CUBA WASTEWATER TREATMENT PLANT, SANDOVAL COUNTY, NEW MEXICO**

Mr. Funkhouser:

Souder, Miller & Associates (SMA), on behalf of our client, the Village of Cuba, is in the process of performing an environmental assessment pursuant to the National Environmental Policy Act for use of public funding. The Village's Wastewater Treatment Plant (WWTP) is located in Sandoval County, along New Mexico State Road 197 (NM 197); approximately 2 miles from the NM 197/United States Route 550 (US 550) junction; approximately 65 miles northwest of Bernalillo, New Mexico. Funding for the planned project may be obtained from New Mexico Legislative Appropriations (SAP), United States Department of Agriculture (USDA) - Rural Development (RD), Community Development Block Grant (CDBG), New Mexico Water Trust Board (WTB), Clean Water State Revolving Fund (CWSRF) and/or other State and Federal sources.

As part of the overall planning phase of the project Village of Cuba WWTP is requesting consultation on several improvements including:

- Utilization of 15 acres of land for long-term biosolids and effluent land application.
- Use of the existing northeast passive lagoon at the WWTP to dewater biosolids until they dry to a desired solids concentration.
- Modification of the existing sand filters to function as drying sand beds to dewater biosolids produced by the WWTP.
- Construction of a lined effluent storage basin.
- Construction of a building for an office and for sludge processing equipment.
- Reuse of biosolids and treated effluent via land application for irrigation.

Limits of the study include a portion of Township 20 North, Range 01 West, Section 6. The center of the project area is located at approximately 35° 59' 38" N latitude and 106° 59' 6" west longitude. Please refer to the enclosed map (Figure 1) that depicts the area of the proposed WWTP improvements. Figures 1 and 2 were inadvertently left out of original letter. They are attached to this letter.

All work is to be completed on property owned by the Village of Cuba. The majority of work will be completed above ground. The overall project area depicted in Figure 2 shows that all projects

*Mr. Gary Funkhouser*

*November 24, 2015*

*Page 2*

contemplated at this time lie within Zone A (areas where flood heights have not been determined but are expected to flood during the 100-year flood) and Zone X (areas that have been determined to be outside the 0.2% annual floodplain). No arroyos are anticipated to be crossed or disturbed by the proposed projects.

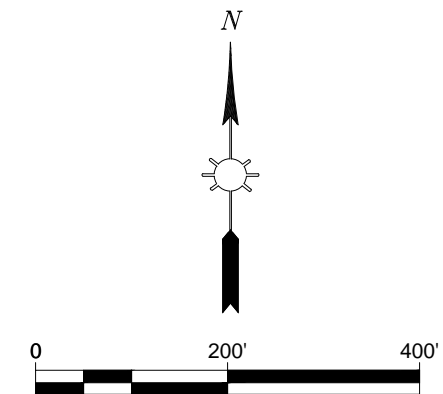
SMA would appreciate any information or feedback to be provided at your earliest possible convenience. If you need any further information or wish to discuss the project, please feel free to contact me by phone at 877-299-0942, or by email at [lisa.gaston@soudermiller.com](mailto:lisa.gaston@soudermiller.com).

Sincerely,

**SOUDER, MILLER & ASSOCIATES**

A handwritten signature in blue ink, appearing to read "Lisa A. Gaston".

Lisa A. Gaston  
Staff Geoscientist



**LEGEND**

█ PROJECT AREA

REVISIONS		
BY	DATE	DESC.

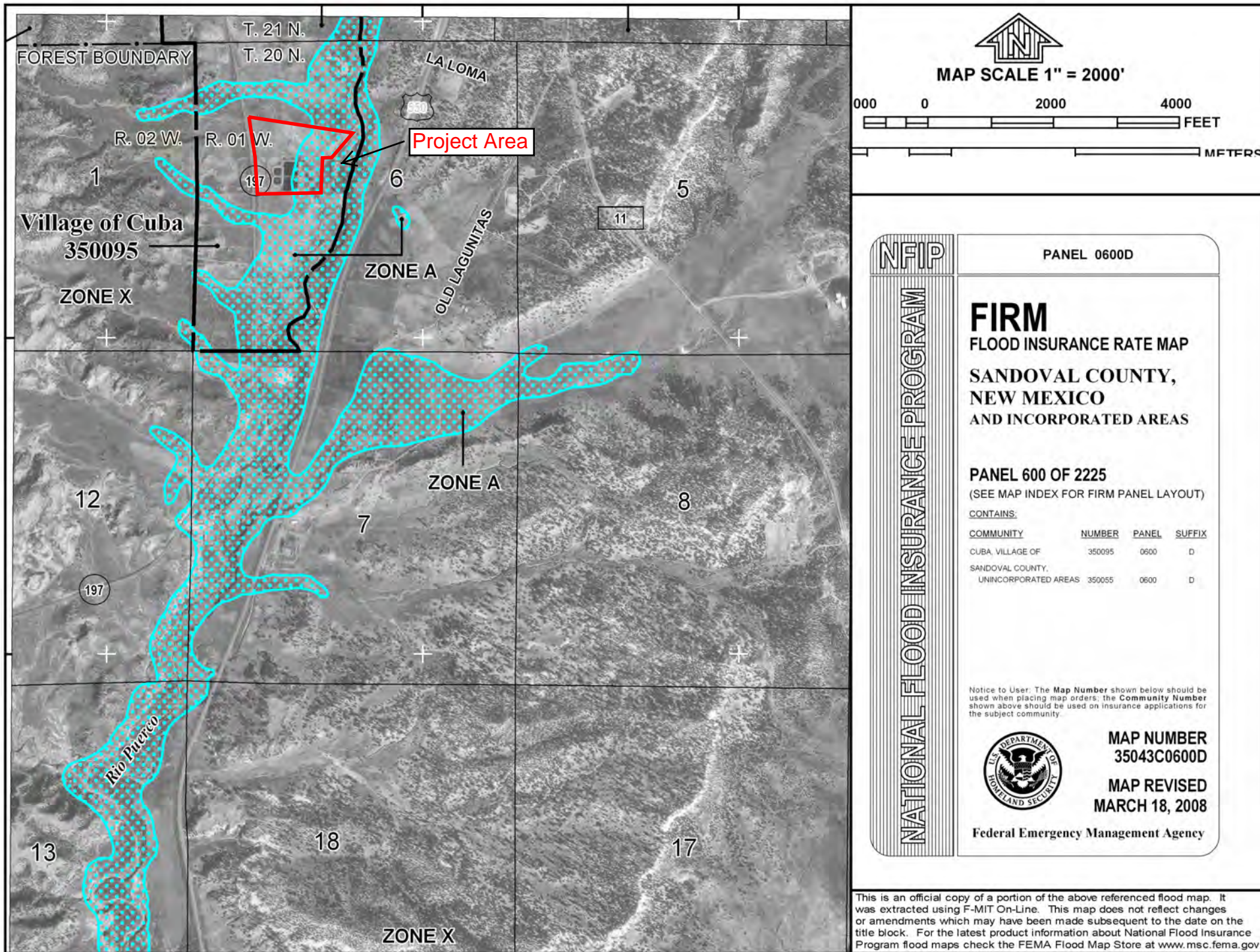
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**VILLAGE OF CUBA SITE MAP  
 NORTHERN PROPERTY AND WWTP  
 SANDOVAL COUNTY, NEW MEXICO**

Drawn ARB/JER	Checked JMG	Approved JMG
Date: AUGUST, 2014		
Scale: Horiz: 1"=200 Vert:		
Project No: 48968		
Sheet: <b>FIGURE 1</b>		

Figure 3



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0600D

**FIRM**  
FLOOD INSURANCE RATE MAP

**SANDOVAL COUNTY,  
NEW MEXICO  
AND INCORPORATED AREAS**

**PANEL 600 OF 2225**  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
CUBA, VILLAGE OF	350095	0600	D
SANDOVAL COUNTY, UNINCORPORATED AREAS	350055	0600	D

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**MAP NUMBER**  
35043C0600D

**MAP REVISED**  
MARCH 18, 2008

Federal Emergency Management Agency

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# LEGEND



**SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**

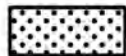
The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A** No Base Flood Elevations determined.
- ZONE AE** Base Flood Elevations determined.
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- ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.



**FLOODWAY AREAS IN ZONE AE**

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.



**OTHER FLOOD AREAS**

- ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

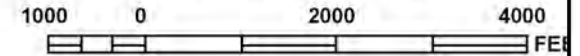


**OTHER AREAS**

- ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D** Areas in which flood hazards are undetermined, but possible.



**MAP SCALE 1" = 2000'**



**COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**



**OTHERWISE PROTECTED AREAS (OPAs)**

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

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- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- Base Flood Elevation line and value; elevation in feet\*
- Base Flood Elevation value where uniform within zone; elevation in feet\*

\* Referenced to the North American Vertical Datum of 1988.

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- Transect line
- Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
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July 16, 1996

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## Scott McKitrick

---

**From:** Funkhouser, Gary, DCA <Gary.Funkhouser@state.nm.us>  
**Sent:** Tuesday, May 24, 2016 4:03 PM  
**To:** Scott McKitrick  
**Subject:** RE: Request for Information - Cuba WWTP Improvements

Hi Scott,

The NMDOT has no comment on the project. If federal funds are used, the project will fall under Section 106 of the NHPA and the NMDOT defers comment to the New Mexico Historic Preservation Department and State Historic Preservation Officer.

Gary

### **Gary Funkhouser**

**Utilities and ROW Access Coordinator**

**Environmental Bureau, Room 206**

New Mexico Department of Transportation

Voice: 505-827-5692 Fax: 505-827-3243

Email: [gary.funkhouser@state.nm.us](mailto:gary.funkhouser@state.nm.us)

Mailing address: P.O. Box 1149, Santa Fe, NM 87504-1149

Physical address: 1120 Cerrillos Road, Room 206, Santa Fe, NM 87505-1842

Federal Express/UPS Zip Code is 87505

**From:** Scott McKitrick [<mailto:scott.mckitrick@soudermiller.com>]  
**Sent:** Monday, May 23, 2016 4:28 PM  
**To:** Funkhouser, Gary, DCA  
**Subject:** Request for Information - Cuba WWTP Improvements

Mr. Funkhouser – attached please find SMA's request for Information concerning the Village of Cuba WWTP Improvements. It was originally provided by US Mail on November 24, 2015. A response is appreciated. Thanks.

---

**Scott A. McKitrick, P.G.**  
**Senior Geoscientist**  
**Souder, Miller & Associates**  
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505.220.6542 (mobile)  
505.293.3430 (fax)



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# Appendix E19

## Public Notice to Residents

# **NOTICE OF PUBLIC MEETING AND AVAILABILITY OF ENVIRONMENTAL INFORMATION DOCUMENT**

## **Village of Cuba Wastewater Treatment Plant Improvements Sandoval County, New Mexico**

**Purpose:** The Village of Cuba Wastewater Treatment Plant (WWTP) Improvements Project includes development of new methods to address management and disposal of biosolids, and management and disposal of WWTP effluent. The purpose of this public meeting is to present applicable laws and/regulations, to review the draft environmental information document, seek public comment, identify issues of concern, present the range of alternatives considered, and enlist public participation in development of the project plan. Please visit [www.soudermiller.com/news/CubaER](http://www.soudermiller.com/news/CubaER) for more info.

**Date:** February 1, 2017

**Time:** 6:30-7:30 pm

**Place:** Village of Cuba Offices, 16B Cordova Street, Cuba, NM 87013

**Agenda:** 6:30-6:40, review project background and purpose; 6:40-7:00, summary of environment information document; 7:00-7:30 public question and answer and comments.

**NOTICE TO PERSONS WITH DISABILITIES:** If special assistance is required to participate in this public meeting, please contact the Village of Cuba at least three days prior to the meeting so arrangements can be made.





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WYSIWYG Content

**NOTICE OF PUBLIC MEETING  
AND AVAILABILITY OF  
ENVIRONMENTAL  
INFORMATION DOCUMENT**

Village of Cuba Wastewater  
Treatment Plant Improvements  
Sandoval County, New Mexico

Purpose: The Village of Cuba Wastewater Treatment Plant (WWTP) Improvements Project includes development of new methods to address management and disposal of biosolids, and management and disposal of WWTP effluent. The purpose of this public meeting is to present applicable laws and regulations, to review the draft environmental information document, seek public comment, identify issues of concern, present the range of alternatives considered, and enlist public participation in development of the project plan. Please visit [www.soudermiller.com/news/CubaER](http://www.soudermiller.com/news/CubaER) for more info.

Date: February 1, 2017  
Time: 6:30-7:30 pm

Place: Village of Cuba Offices,  
16B Cordova Street, Cuba, NM  
87013

Agenda: 6:30-6:40, review project background and purpose;  
6:40-7:00, summary of environment information document;  
7:00-7:30 public question and answer and comments.

NOTICE TO PERSONS WITH DISABILITIES: If special assistance is required to participate in this public meeting, please contact the Village of Cuba at least three days prior to the meeting so arrangements can be made.  
Journal: January 1, 2, 2017

# Appendix E20

## Public Meeting Presentation

Public Meeting  
Environmental Assessment Report  
(Environmental Information Document)

# Village of Cuba Wastewater Treatment Plant Improvements Project Phase 2

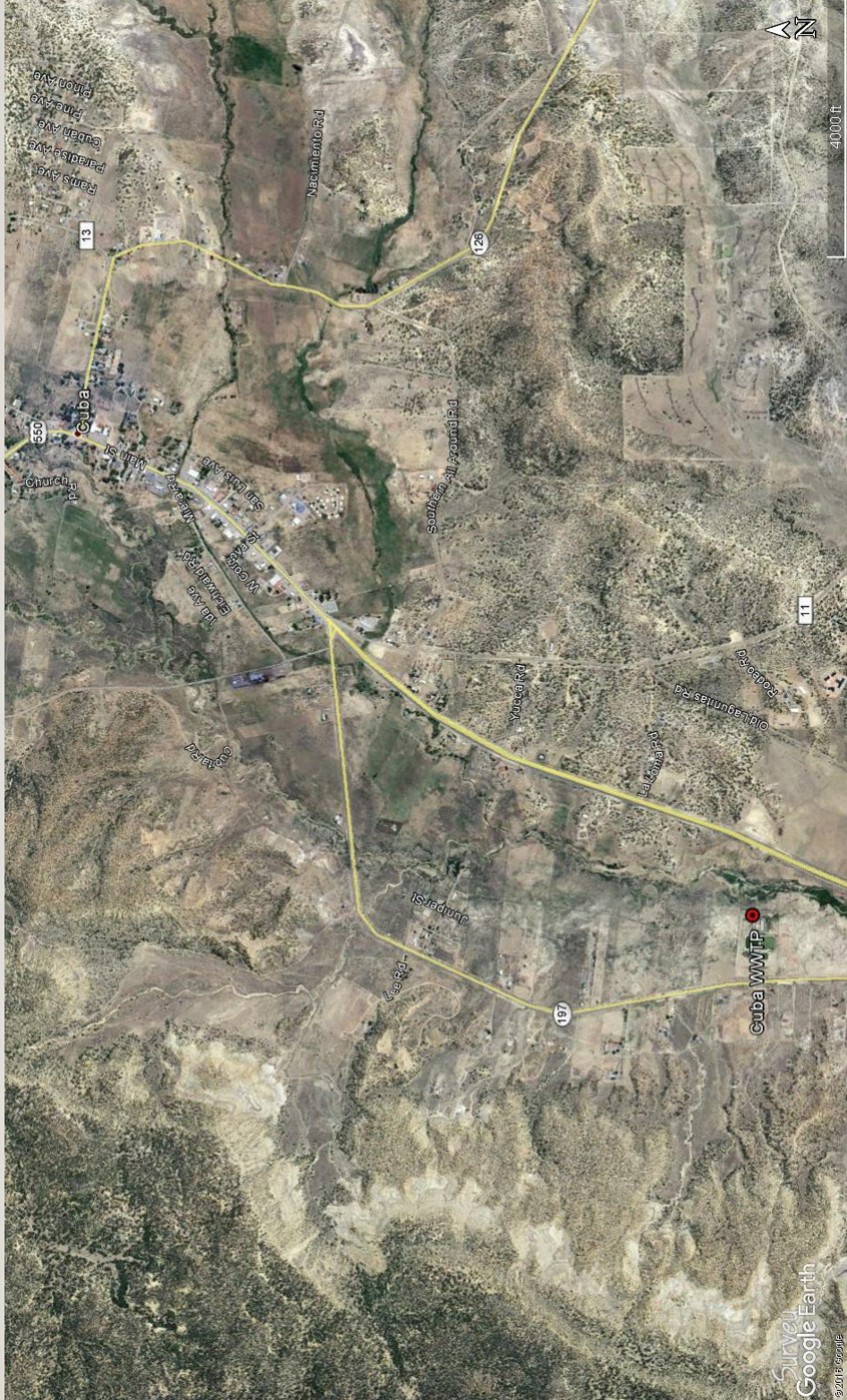
Village of Cuba Offices  
February 1, 6:30-7:30 pm

*Souder, Miller & Associates*  
*Engineering ♦ Environmental ♦ Surveying*



# Project Location

✦ Southwest of the Village of Cuba



# Project Background

- ✦ WWTP constructed in late 1960s
  - ◆ Lagoon system
  - ◆ North of current location
- ✦ 1976 upgrade to aerated lagoons
  - ◆ System moved to current location
- ✦ Phase I upgrade completed in 2013
  - ◆ Aero-Mod extended aeration WWTP installed

# Need for Project

- ✦ Project will address issues related to:
  - ◆ Disposal of accumulated biosolids in existing wastewater lagoons
  - ◆ Long-term biosolids handling
  - ◆ Long-term effluent disposal/reuse

# Need for Project

## ✦ Current conditions

- ◆ Aerated Lagoon WWTP (AL-WWTP)
  - Generally poor condition
  - Off-line, lagoons contain biosolids
  - Accumulated biosolids must be processed and disposed of in an environmentally appropriate manner
- ◆ Aero-Mod WWTP (AM-WWTP)
  - Generates biosolids that must be processed and disposed of in an environmentally appropriate manner
- ◆ Effluent discharged to Rio Puerco year-round
  - Permit requires no discharge between April 1 and October 31
  - Need alternate disposal option for this period



# PER Process

## ✦ Preliminary Engineering Report (PER)

- ◆ Used to evaluate alternatives for improvements
  - Some alternatives may not sound reasonable
  - Some alternatives may not be cost effective
  - But... all alternatives (except “no action”) *may actually be worthwhile*
- ◆ Used as a basis to solicit funding
- ◆ Being completed in United States Department of Agriculture (USDA) format
  - Generally accepted format
  - Good for funding agencies

# Alternatives Considered

## Existing Biosolids Processing

Alternative 1: Dry in Passive Lagoons

## Disposal of Existing Biosolids

Alternative 1: No Action

Alternative 2: Landfill Disposal

Alternative 3: Land Application of Liquid Biosolids

Alternative 4: Land Application of Dry Biosolids

# Alternatives Considered (cont'd)

## Long-Term Biosolids Processing

- Alternative 1: No Action
- Alternative 2: Rehabilitate/Expand Existing Biosolids Drying Beds
- Alternative 3: Construct New Biosolids Drying Beds
- Alternative 4: New Belt Press

## Long-Term Biosolids Disposal

- Alternative 1: No Action
- Alternative 2: Landfill Disposal
- Alternative 3: Land Application of Dried Biosolids  
(Pollutant Concentration)



# Alternatives Considered (cont'd)

## Effluent Handling

Alternative 1: No Action

Alternative 2: Effluent Disposal via Land Application

Alternative 3: Effluent Reuse via Land Application

with Crop Management

Alternative 4: Effluent Disposal via Evaporation

# Alternative(s) Evaluation

All alternatives are worth consideration, but need to evaluate and select the best option(s):

1. Utilize existing infrastructure
2. Reliability
3. Low capital cost of installation
4. Low cost of operation

*Can improvements receive funding?*

# Selected Alternatives

## Existing Biosolids Processing and Disposal

- ◆ Biosolids consolidated into northeast passive lagoon
- ◆ Once dry, biosolids land applied to area north of WWTP

## Long-Term Biosolids Processing and Disposal

- ◆ Waste activated sludge from AM-WWTP sent to northwest lagoon
  - Lagoon will be re-lined with HDPE synthetic liner

# Selected Alternatives (cont'd)

## Long-Term Biosolids Processing and Disposal (cont'd)

- ◆ Two new drying beds to be constructed
  - Used alternately to dry biosolids to 30-45% solids concentration
  - Dry biosolids stored on new concrete pad adjacent to drying beds
  - Biosolids land applied to area north of WWTP

# Selected Alternatives (cont'd)

## Effluent Handling

- ◆ Effluent re-use via land application with crop management
  - Effluent to be stored in new storage pond
  - Used to irrigate crop area to north of WWTP
  - Effluent pumped to concrete head ditches and distributed among 12 basins where alfalfa will be grown



# Existing Biosolids Processing and Disposal

- ✦ Biosolids consolidated into northeast passive lagoon
- ✦ Once dry, biosolids land applied to area north of WWTP





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# Long-Term Biosolids Processing and Disposal

- ✦ Waste activated sludge from AM-WWTP sent to northwest lagoon
  - ◆ Lagoon will be re-lined with HDPE synthetic liner
- ✦ Two new drying beds to be constructed
  - ◆ Used alternately to dry biosolids to 30-45% solids concentration
  - ◆ Dry biosolids stored on new concrete pad adjacent to drying beds
  - ◆ Biosolids land applied to area north of WWTP



# Effluent Handling

- ✦ Effluent re-use via land application with crop management
  - ◆ Effluent to be stored in new storage pond
  - ◆ Used to irrigate crop area to north of WWTP
  - ◆ Effluent pumped to concrete head ditches and distributed among 12 basins where alfalfa will be grown



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# Environmental Report Format

## ✦ USDA RUS Bulletin 1794A-602

### ◆ Specifies:

- What sections report must include
  - ◆ Outline of engineering project
  - ◆ Possible impacts
  - ◆ Mitigation efforts
- Agencies to be contacted
- Public hearing/input
- Response times
- ◆ **Review by USDA**
  - USDA determines if sufficient or whether more info is required
  - May accept as an Environmental Assessment (EA) or may require an Environmental Impact Statement (EIS)
    - ◆ This project is anticipated to follow the EA process

# Affected Environment & Environmental Consequences Addressed in Environmental Assessment Report

- ✦ Land use
- ✦ Important farmland
- ✦ Formally classified lands
- ✦ Floodplains
- ✦ Wetlands
- ✦ Biological resources
- ✦ Water quality issues (surface water and groundwater)
- ✦ Coastal resources
- ✦ Socio-economic/environmental justice issues
- ✦ Air quality
- ✦ Transportation
- ✦ Archaeological, cultural and historic resources
- ✦ Other resources
- ✦ Public Input



# Agency Consultations

- ✦ SMA contacted:
  - ◆ 8 Federal agencies
  - ◆ 19 Tribal representatives
  - ◆ 8 State and local agencies
- ✦ Each was contacted initially by two methods
  - ◆ US mail
  - ◆ Electronic mail
  - ◆ Fax
  - ◆ *Except where specifically otherwise directed by agency*
  - ◆ 30 days to respond
    - If no response, reminder was sent
- ✦ Notice of availability of EA
  - ◆ Sent by one method

# Agencies Contacted

## ✦ Federal

- ◆ National Park Service
- ◆ USDA Natural Resource Conservation Service
- ◆ EPA Region VI: Air Planning
- ◆ EPA Region VI: Source Water Protection
- ◆ EPA Region VI: Office of Planning & Coordination
- ◆ Federal Emergency Management Agency
- ◆ US Army Corps of Engineers
- ◆ US Fish & Wildlife Service

# Agencies Contacted

## ✦ Federal responses

- ◆ National Park Service
- ◆ USDA Natural Resource Conservation Service
- ◆ EPA Region VI: Air Planning
- ◆ EPA Region VI: Source Water Protection
- ◆ EPA Region VI: Office of Planning & Coordination
- ◆ Federal Emergency Management Agency
- ◆ US Army Corps of Engineers
- ◆ US Fish & Wildlife Service

# Agencies Contacted

- ✦ Native American
  - ◆ Comanche Nation
  - ◆ Hopi Tribe
  - ◆ Jicarilla Apache Nation
  - ◆ Mescalero Apache Tribe
  - ◆ Navajo Nation
  - ◆ Ohkay Owingeh (San Juan) Pueblo
  - ◆ Pueblo of Cochiti
  - ◆ Pueblo of Isleta
  - ◆ Pueblo of Jemez
  - ◆ Pueblo of Laguna
  - ◆ Pueblo of San Felipe
  - ◆ Pueblo of San Ildefonso
  - ◆ Pueblo of Sandia
  - ◆ Pueblo of Santa Ana
  - ◆ Pueblo of Santa Clara
  - ◆ Pueblo of Santo Domingo
  - ◆ Pueblo of Tesuque
  - ◆ Pueblo of Zia
  - ◆ Pueblo of Zuni

# Agencies Contacted

## ✦ Native American responses

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- ◆ Pueblo of San Ildefonso
- ◆ Pueblo of Sandia
- ◆ Pueblo of Santa Ana
- ◆ Pueblo of Santa Clara
- ◆ Pueblo of Santo Domingo
- ◆ Pueblo of Tesuque
- ◆ Pueblo of Zia
- ◆ Pueblo of Zuni

# Agencies Contacted



## State and local

- ◆ Sandoval County Flood Coordinator
- ◆ Interstate Stream Commission
- ◆ New Mexico Department of Game & Fish
- ◆ New Mexico Energy, Minerals & Natural Resources Department
  - State Parks Division
  - Forestry Division
- ◆ NM Department of Transportation
- ◆ NMED
  - Air Quality Bureau
  - Drinking Water Bureau
  - Ground Water Quality Bureau
  - Petroleum Storage Tank Bureau
  - Solid Waste Bureau
  - Surface Water Bureau
- ◆ Office of the State Engineer
- ◆ State Historic Preservation Division



# Agencies Contacted



## State and local responses

- ◆ Sandoval County Flood Coordinator
- ◆ Interstate Stream Commission
- ◆ New Mexico Department of Game & Fish
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  - Drinking Water Bureau
  - Ground Water Quality Bureau
  - Petroleum Storage Tank Bureau
  - Solid Waste Bureau
  - Surface Water Bureau
- ◆ Office of the State Engineer
- ◆ State Historic Preservation Division



# Comments Welcome

- ✦ All comments received will be made part of final EID
  - ◆ Responses will be included where relevant to EID
  - ◆ Accepted through 5:00 pm MDT on February 16, 2017
- ✦ EID is available for viewing at:  
<http://www.soudermiller.com/press-room/cuba>





Please submit written comments...

by email to:  
[scott.mckitrick@soudermiller.com](mailto:scott.mckitrick@soudermiller.com)

or by mail to:  
Souder, Miller & Associates  
Attn: Scott McKitrick  
3451 Candelaria Road NE, Suite D  
Albuquerque, NM 87107

or by fax to:  
**(505) 293-3430**

please use a cover page that notes "Attn: Scott McKitrick"



# Appendix E21

## Public Comments Received

Appendix E22  
Base Flood Elevation Determination  
December 1, 2016

**Souder, Miller & Associates**  
**Engineering ♦ Environmental ♦ Surveying**  
3451 Candelaria Rd NE, Suite D  
Albuquerque, New Mexico 87107-1948  
Phone (505) 299 0942  
Fax (505) 293 3430  
www.soudermiller.com



## Interoffice Memorandum

To: Jody Garcia, P.E.  
From: Ray Smith, P.E.  
Date: December 1, 2016  
Re: Cuba Wastewater Treatment Plant Phase II  
Base Flood Elevation Determination

Jody,

This memo provides a summary and the results of our analysis to determine the Base Flood Elevation (BFE) for the Rio Puerco, adjacent to the existing treatment plant. Pursuant to our scoping memo, dated July 7, 2016, we performed a cursory hydrology calculation based on the latest USGS regression equations.

### Hydrology

The treatment plant is at the downstream end of the Arroyo San Jose/Rio Puerco Watershed. This area is approximately 52 square miles and is shown in the attached exhibit. This watershed is on the border of regions 5 and 6 of the USGS flood regions. Because the majority of the watershed is in region 5, the hydrology was calculated using the Region 5, Northern Mountains equations.

The attached page was taken from *The Analysis of the Magnitude and Frequency of Peak Discharge and Maximum Observed Peak Discharge in New Mexico and Surrounding Areas* and shows the equations used for the various storm frequencies. It should be noted that, as shown in the tables, the standard error for these calculations is significant. For the 100-year storm event, it is 63 to 68 percent. The results of the calculations are attached. As shown, the 100-year flow rate is approximately 5,000 cfs.

### Hydraulics

The latest topographic mapping was obtained for the Rio Puerco, adjacent to the treatment plant. This topography was used to create cross sections along the river for approximately 1,500 feet upstream and 500 feet downstream of the treatment plant. The attached Exhibit 2 shows the location of the sections in relation to the treatment plant.

The cross sections were imported into HEC-RAS software to create a hydraulic model of the river. Steady state flow rates of 5,117 and 8,600 were analyzed to determine the water surface elevation in the river. These flow rates were used because they represent the calculated 100-year flow rate and a higher flow to account for the standard error that is possible. The attached table and cross sections present the results. As shown the flood level appears to be significantly lower than what is shown on the current FEMA flood maps.

This discrepancy can be attributed to the age of the current FEMA floodplain information. While the current flood plain map is dated, March 18, 2008, the flood plain delineation is probably much older. There is no current information for this flood plain in the Flood Insurance Study. Therefore, it is not possible to determine how that flood plain was determined.

Cuba WWTP Phase II

December 1, 2016

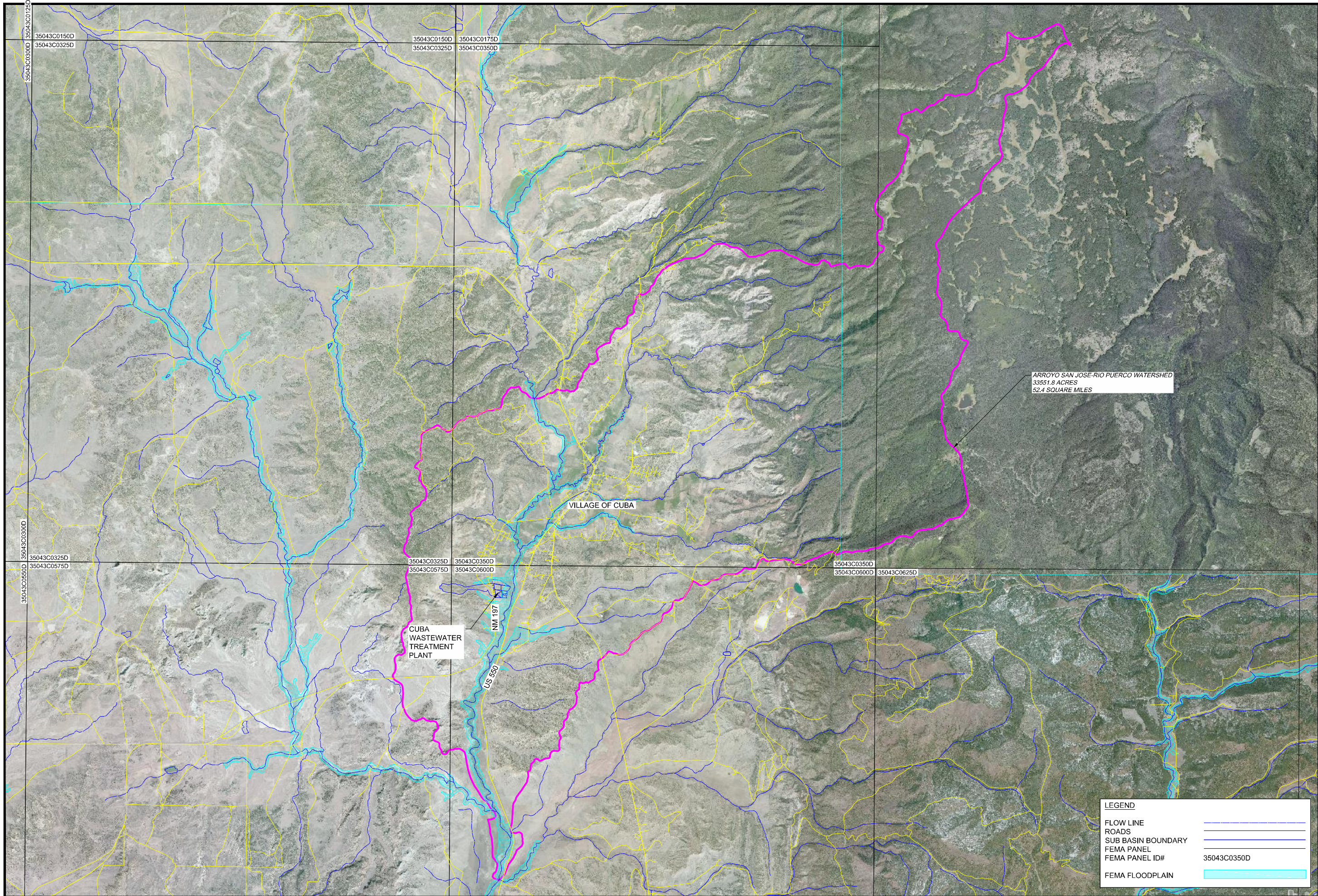
Page 2 of 2

Because of the large discrepancy between the current FEMA floodplain and this determination of the BFE, it may be possible to apply to FEMA for a change in the floodplain map. However, the level of effort required for that will be much greater than this preliminary analysis. A detailed analysis of the hydrology will be required along with a more detailed HEC-RAS analysis, using more detailed topography.

Please let me know if you have any questions or would like to review these results.

Thanks,

Ray Smith, P.E.



ARROYO SAN JOSE-RIO PUERCO WATERSHED  
 33551.8 ACRES  
 62.4 SQUARE MILES

CUBA  
 WASTEWATER  
 TREATMENT  
 PLANT

VILLAGE OF CUBA

US 550  
 NM 197

LEGEND	
FLOW LINE	
ROADS	
SUB BASIN BOUNDARY	
FEMA PANEL	
FEMA PANEL ID#	35043C0350D
FEMA FLOODPLAIN	

Rev #	Date	Description	By	CHKD

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VILLAGE OF CUBA  
 CUBA, NEW MEXICO  
 CUBA WASTEWATER TREATMENT PLANT  
 CUBA, NEW MEXICO  
 ARROYO SAN JOSE-RIO PUERCO WATERSHED

THIS DRAWING IS INCOMPLETE AND NOT TO BE USED FOR CONSTRUCTION UNLESS IT IS STAMPED, SIGNED AND DATED

Designed JC	Drawn SFG	Checked RJS
----------------	--------------	----------------

Date: November 21, 2016  
 Scale: Horiz: \_\_\_\_\_  
 Vert: \_\_\_\_\_  
 Project No: 6423775  
 Sheet: 1

**Table 2.** Regional flood-frequency equations using generalized least-squares regression.

[Q, peak discharge, in cubic feet per second, for indicated recurrence interval; A, drainage area, in square miles; S, average basin slope upstream from gaging station, in percent (ft/ft\*100); I24,100, maximum precipitation intensity of a storm of 24 hours duration with a recurrence interval of 100 years, in inches; Pa, mean annual precipitation (1961–90), in inches; E, average basin elevation, in feet]

Equations						Recurrence interval (years)	Average standard error of estimates				
							Regression		Prediction		
							Log units	Percent	Log units	Percent	
<b>Northeast plains flood region (1)</b>											
$Q_2$	=	8.260	x	$10^6$	$A^{0.562} S^{0.351}$	$Pa^{-3.81}$	2	0.298	74	0.320	85
$Q_5$	=	3.939	x	$10^8$	$A^{0.540} S^{0.520}$	$Pa^{-4.69}$	5	0.250	61	0.270	69
$Q_{10}$	=	2.630	x	$10^9$	$A^{0.533} S^{0.615}$	$Pa^{-5.10}$	10	0.229	55	0.249	63
$Q_{25}$	=	1.764	x	$10^{10}$	$A^{0.530} S^{0.721}$	$Pa^{-5.50}$	25	0.210	50	0.231	57
$Q_{50}$	=	5.480	x	$10^{10}$	$A^{0.530} S^{0.789}$	$Pa^{-5.73}$	50	0.200	48	0.223	55
$Q_{100}$	=	1.400	x	$10^{11}$	$A^{0.531} S^{0.850}$	$Pa^{-5.90}$	100	0.195	46	0.218	53
$Q_{500}$	=	6.774	x	$10^{11}$	$A^{0.537} S^{0.966}$	$Pa^{-6.15}$	500	0.191	46	0.219	54
<b>Northwest plateau flood region (2)</b>											
$Q_2$	=	9.656	x	$10^1$	$A^{0.428}$		2	0.419	112	0.427	127
$Q_5$	=	1.256	x	$10^4$	$A^{0.365} S^{0.365}$	$E/1,000^{-1.69}$	5	0.318	80	0.332	89
$Q_{10}$	=	2.927	x	$10^4$	$A^{0.344} S^{0.395}$	$E/1,000^{-1.84}$	10	0.274	68	0.287	72
$Q_{25}$	=	6.685	x	$10^4$	$A^{0.323} S^{0.424}$	$E/1,000^{-1.95}$	25	0.238	58	0.252	63
$Q_{50}$	=	1.061	x	$10^5$	$A^{0.308} S^{0.442}$	$E/1,000^{-1.99}$	50	0.226	54	0.240	60
$Q_{100}$	=	1.531	x	$10^5$	$A^{0.295} S^{0.457}$	$E/1,000^{-1.99}$	100	0.223	54	0.238	59
$Q_{500}$	=	2.955	x	$10^5$	$A^{0.267} S^{0.482}$	$E/1,000^{-1.97}$	500	0.242	59	0.260	66
<b>Southeast mountain flood region (3)</b>											
$Q_2$	=	2.118	x	$10^4$	$A^{0.611} E/1,000^{-3.16}$		2	0.337	86	0.381	108
$Q_5$	=	1.506	x	$10^5$	$A^{0.662} E/1,000^{-3.81}$		5	0.316	80	0.359	99
$Q_{10}$	=	3.630	x	$10^5$	$A^{0.698} E/1,000^{-4.09}$		10	0.307	77	0.351	96
$Q_{25}$	=	8.179	x	$10^5$	$A^{0.744} E/1,000^{-4.34}$		25	0.299	75	0.345	94
$Q_{50}$	=	1.289	x	$10^6$	$A^{0.776} E/1,000^{-4.47}$		50	0.294	73	0.342	93
$Q_{100}$	=	1.856	x	$10^6$	$A^{0.808} E/1,000^{-4.57}$		100	0.291	73	0.341	93
$Q_{500}$	=	3.430	x	$10^6$	$A^{0.876} E/1,000^{-4.71}$		500	0.289	72	0.344	94
<b>Southeast plains flood region (4)</b>											
$Q_2$	=	4.771	x	$10^3$	$A^{0.467} E/1,000^{-1.36} S^{0.589}$		2	0.336	86	0.362	100
$Q_5$	=	3.825	x	$10^4$	$A^{0.465} E/1,000^{-2.05} S^{0.532}$		5	0.213	51	0.233	58
$Q_{10}$	=	9.587	x	$10^4$	$A^{0.460} E/1,000^{-2.31} S^{0.494}$		10	0.159	38	0.180	43
$Q_{25}$	=	2.565	x	$10^5$	$A^{0.448} E/1,000^{-2.54} S^{0.477}$		25	0.126	30	0.151	36
$Q_{50}$	=	5.293	x	$10^5$	$A^{0.436} E/1,000^{-2.72} S^{0.483}$		50	0.130	31	0.158	38
$Q_{100}$	=	1.057	x	$10^6$	$A^{0.426} E/1,000^{-2.89} S^{0.489}$		100	0.152	36	0.182	44
$Q_{500}$	=	4.107	x	$10^6$	$A^{0.404} E/1,000^{-3.24} S^{0.484}$		500	0.227	55	0.261	66
<b>Northern mountain flood region (5)</b>											
$Q_2$	=	0.301	x	$10^1$	$A^{0.805} E/1,000^{-1.61} I24,100^{3.41}$		2	0.296	74	0.306	80
$Q_5$	=	3.760	x	$10^1$	$A^{0.761} E/1,000^{-2.58} I24,100^{3.76}$		5	0.247	60	0.257	65
$Q_{10}$	=	1.624	x	$10^2$	$A^{0.736} E/1,000^{-3.14} I24,100^{3.93}$		10	0.233	56	0.242	60
$Q_{25}$	=	8.304	x	$10^2$	$A^{0.709} E/1,000^{-3.76} I24,100^{4.10}$		25	0.232	56	0.242	60
$Q_{50}$	=	2.449	x	$10^3$	$A^{0.691} E/1,000^{-4.17} I24,100^{4.21}$		50	0.242	59	0.253	64
$Q_{100}$	=	6.592	x	$10^3$	$A^{0.675} E/1,000^{-4.55} I24,100^{4.32}$		100	0.257	63	0.268	68
$Q_{500}$	=	5.211	x	$10^4$	$A^{0.642} E/1,000^{-5.36} I24,100^{4.55}$		500	0.304	76	0.318	84
<b>Central mountain-valley flood region (6)</b>											
$Q_2$	=	1.328	x	$10^2$	$A^{0.420}$		2	0.376	98	0.394	113
$Q_5$	=	3.163	x	$10^2$	$A^{0.394}$		5	0.298	74	0.313	83
$Q_{10}$	=	4.906	x	$10^2$	$A^{0.383}$		10	0.269	66	0.284	73
$Q_{25}$	=	7.800	x	$10^2$	$A^{0.372}$		25	0.252	62	0.267	68
$Q_{50}$	=	1.051	x	$10^3$	$A^{0.365}$		50	0.248	60	0.265	67
$Q_{100}$	=	1.374	x	$10^3$	$A^{0.359}$		100	0.251	61	0.268	68
$Q_{500}$	=	2.354	x	$10^3$	$A^{0.348}$		500	0.273	68	0.292	76

Cuba WWTP Phase II  
USGS Regression Equations for Rio Puerco BFE Determination


**USGS REGRESSION EQUATIONS FOR NEW MEXICO - IMPERIAL UNITS**

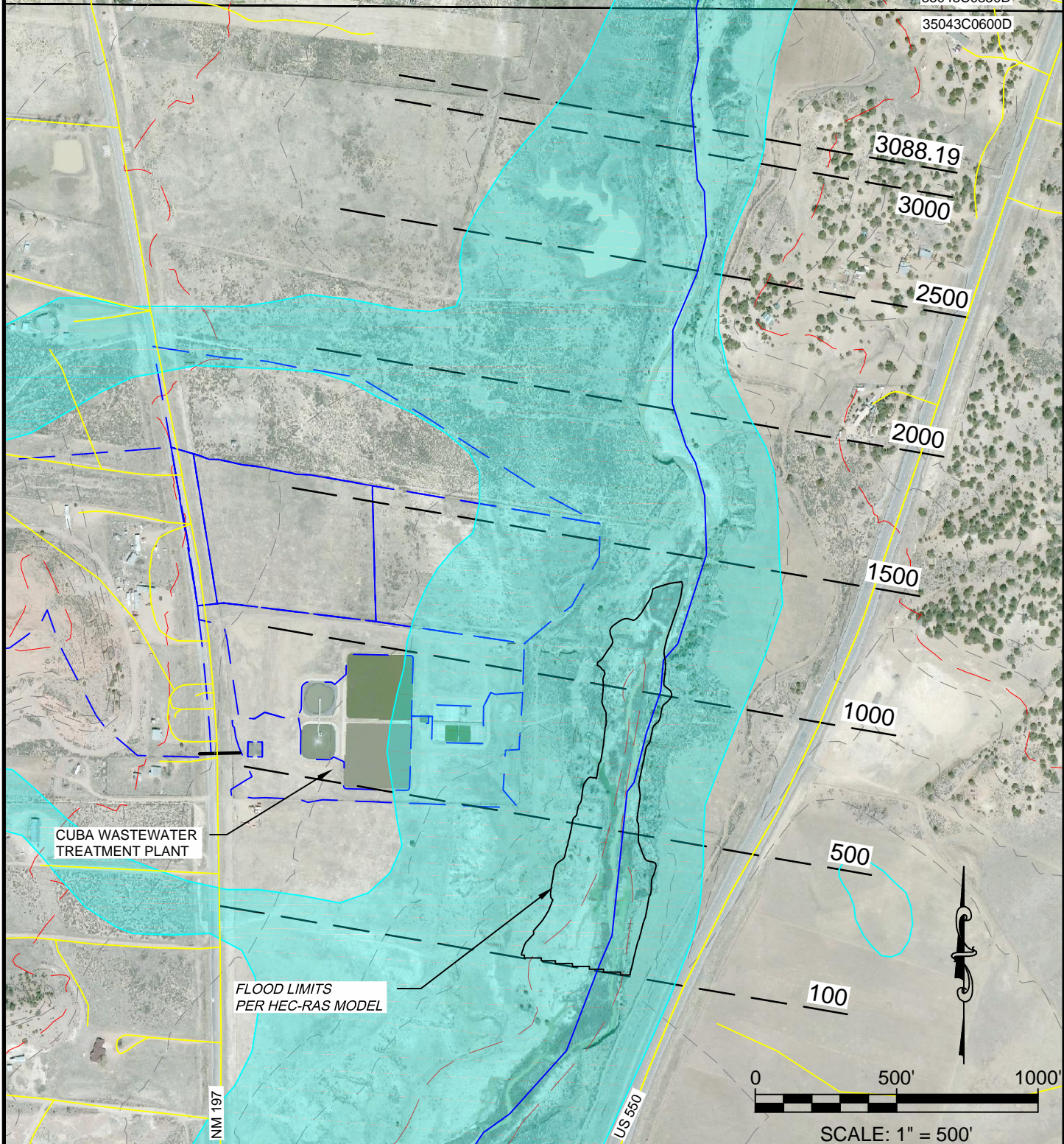
**RURAL** GREEN CELLS - INDICATE DATA ENTRY POINTS

**REGION 5 - NORTHERN MOUNTAIN**

AREA =	52	SQ MI	ELEV =	8000	FT	
			P24,100 =	4.54	IN	(24-HR, 100-YR)
Q2 =	446	CFS				
Q5 =	1,057	CFS				
Q10 =	1,669	CFS				
Q25 =	2,733	CFS				
Q50 =	3,779	CFS				
Q100 =	5,117	CFS				
Q500 =	9,328	CFS				



LEGEND	
SAMPLE LINE	-----
FLOW LINE	=====
ROADS	-----
SUB BASIN BOUNDARY	-----
FEMA PANEL	-----
FEMA PANEL ID#	35043C0350D
FEMA FLOODPLAIN	



**SOUDER, MILLER & ASSOCIATES**



Candelaria Road NE, Suite D  
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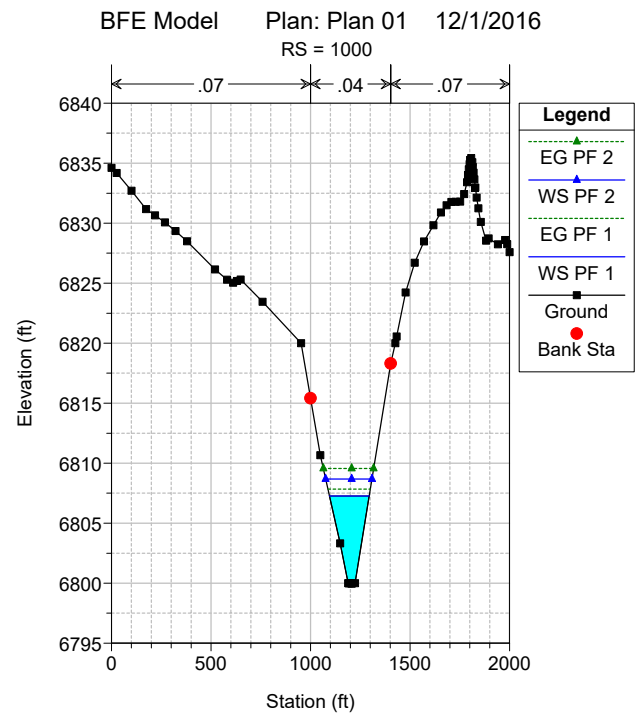
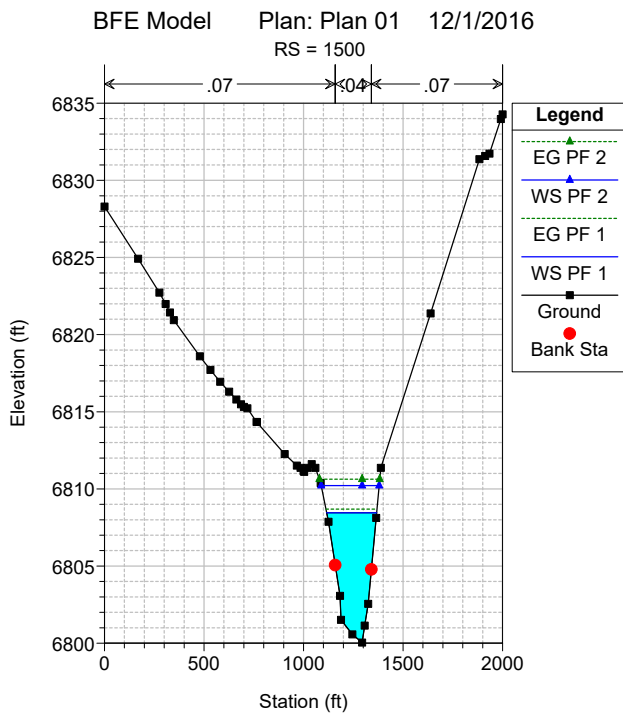
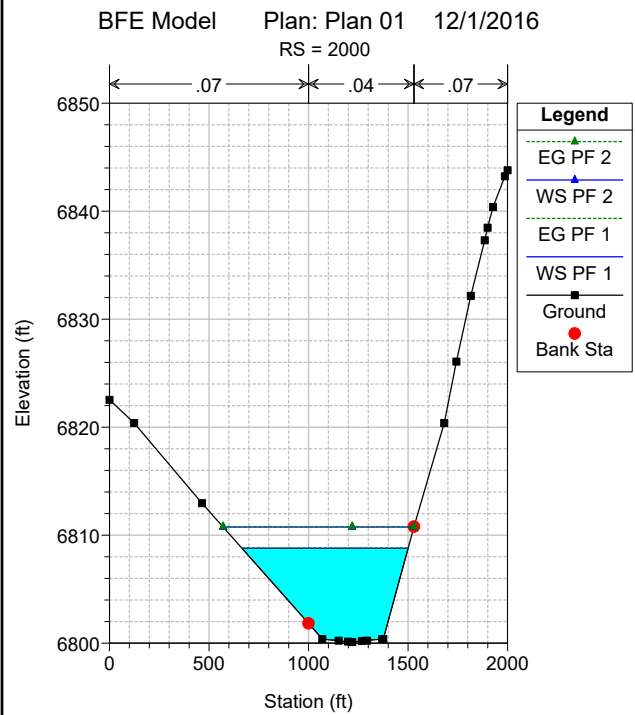
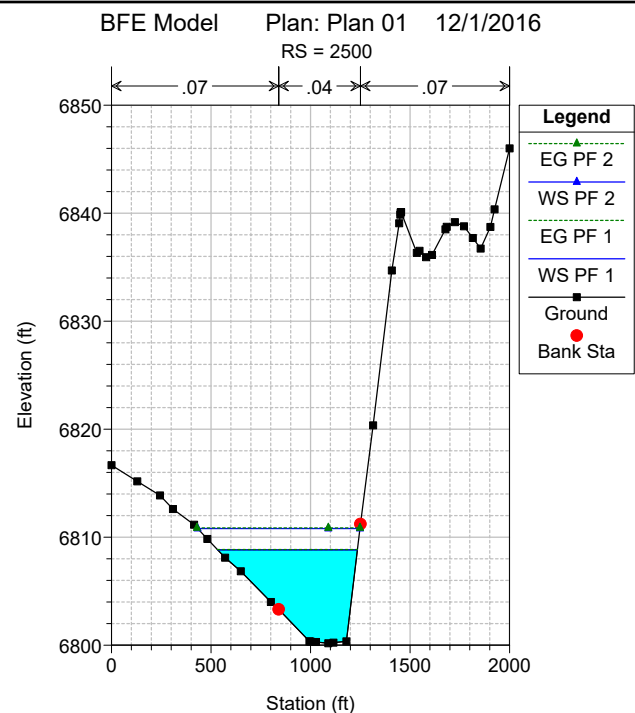
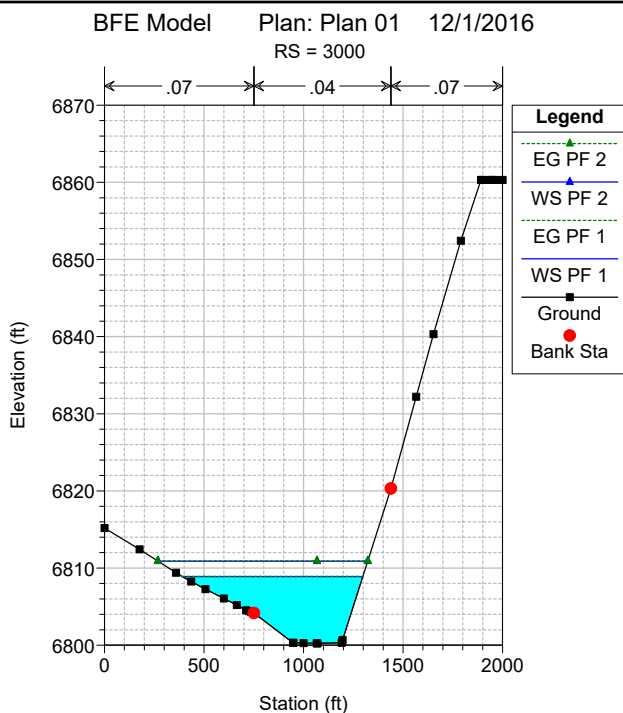
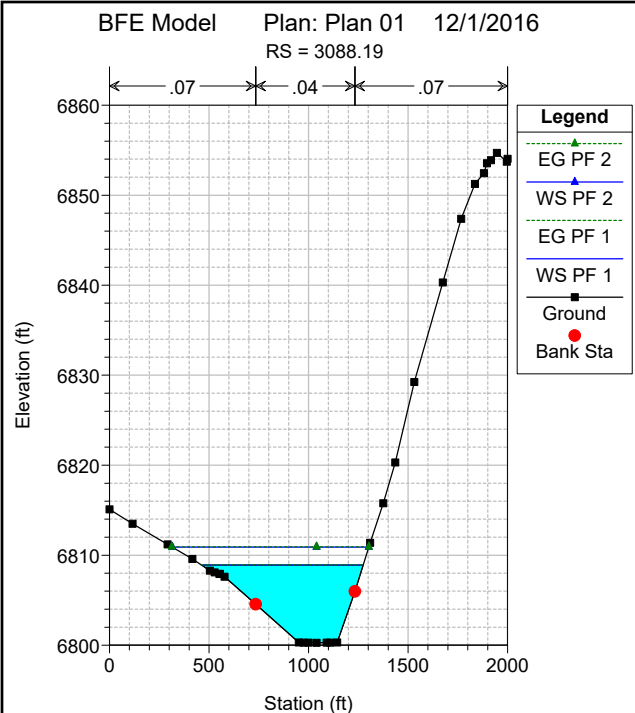
VILLAGE OF CUBA CUBA, NEW MEXICO

**CUBA WASTEWATER TREATMENT PLANT**  
**CUBA, NEW MEXICO**  
**HECRAS SECTIONS**

Designed RJS	Drawn SFG	Checked RJS
Date: December 2016		
Scale: Horiz: 1" = 500' Vert: -		
Project No: 6423775		
<b>EXHIBIT 2</b>		

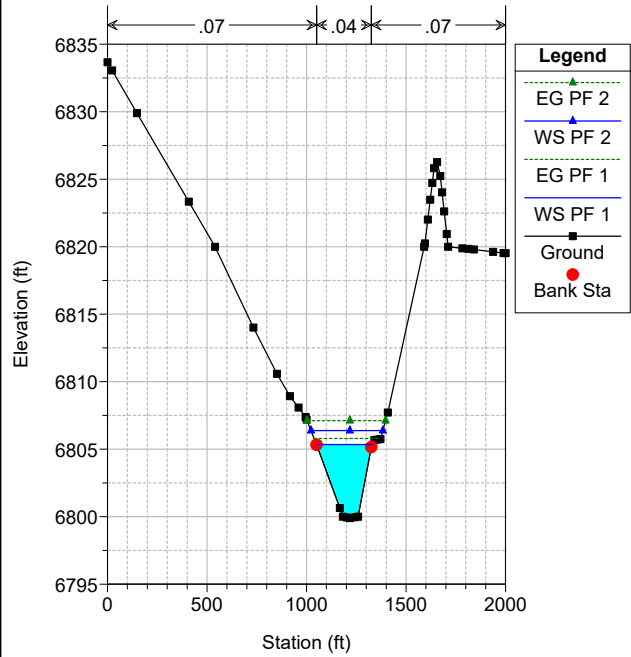
HEC-RAS Plan: Plan 01 River: Rio Puerco Reach: Rio Puerco Secti

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
Rio Puerco Secti	100	PF 1	5117.00	6799.83	6801.83	6801.83	6802.71	0.019598	7.54	678.45	388.34	1.01
Rio Puerco Secti	100	PF 2	8600.00	6799.83	6802.58	6802.58	6803.77	0.017778	8.78	979.09	414.42	1.01
Rio Puerco Secti	500	PF 1	5117.00	6799.90	6805.35	6803.79	6805.80	0.004036	5.39	949.48	280.74	0.51
Rio Puerco Secti	500	PF 2	8600.00	6799.90	6806.37	6804.95	6807.12	0.004735	6.94	1283.80	360.73	0.58
Rio Puerco Secti	1000	PF 1	5117.00	6799.97	6807.26		6807.84	0.003970	6.09	839.92	199.37	0.52
Rio Puerco Secti	1000	PF 2	8600.00	6799.97	6808.68		6809.56	0.004873	7.50	1147.26	232.64	0.59
Rio Puerco Secti	1500	PF 1	5117.00	6800.04	6808.45		6808.69	0.000893	4.01	1367.85	250.95	0.27
Rio Puerco Secti	1500	PF 2	8600.00	6800.04	6810.22		6810.63	0.001125	5.24	1848.41	291.60	0.31
Rio Puerco Secti	2000	PF 1	5117.00	6800.11	6808.79		6808.81	0.000080	1.26	4832.27	834.19	0.08
Rio Puerco Secti	2000	PF 2	8600.00	6800.11	6810.75		6810.79	0.000102	1.60	6592.17	957.64	0.09
Rio Puerco Secti	2500	PF 1	5117.00	6800.18	6808.83		6808.87	0.000134	1.62	3740.30	701.96	0.11
Rio Puerco Secti	2500	PF 2	8600.00	6800.18	6810.80		6810.86	0.000163	2.05	5236.06	815.60	0.12
Rio Puerco Secti	3000	PF 1	5117.00	6800.25	6808.90		6808.92	0.000082	1.24	4754.90	905.23	0.08
Rio Puerco Secti	3000	PF 2	8600.00	6800.25	6810.89		6810.92	0.000098	1.56	6707.25	1053.45	0.09
Rio Puerco Secti	3088.19	PF 1	5117.00	6800.26	6808.90		6808.93	0.000099	1.38	4159.61	811.81	0.09
Rio Puerco Secti	3088.19	PF 2	8600.00	6800.26	6810.89		6810.93	0.000115	1.75	5944.34	986.59	0.10



BFE Model Plan: Plan 01 12/1/2016

RS = 500



BFE Model Plan: Plan 01 12/1/2016

RS = 100

