ENVIRONMENTAL ASSESSMENT

for the

MIAMI DOMESTIC WATER USERS ASSOCIATION WATER SYSTEM IMPROVEMENT PROJECT

in

MIAMI, COLFAX COUNTY, NEW MEXICO

SECTION 595 WATER RESOURCES DEVELOPMENT ACT

U. S. Army Corps of Engineers
Albuquerque District

DRAFT

October 2019

US Army Corps
of Engineers ®
Albuquerque District

(*This page is intentionally left blank.)*

Finding of No Significant Impact
Section 595 Water Resources Development Act
Water System Improvement
Miami, Colfax County, New Mexico

The U.S. Army Corps of Engineers (Corps), Albuquerque District, in cooperation with and at the request of the Miami Mutual Domestic Water Association (MMDWA), is planning to make improvements to the existing water treatment facility. The improvements include the addition of a new ammonia feed pump skid, a new recirculation pump, a concrete slab, conduit and control panels. The improvements would be conducted under Section 595 of the Water Resources Development Act of 1999 (Public Law 106-53; 33 U.S.C. 2201 *et seq*.), as amended. The Act authorizes the Corps to provide assistance for design and construction for water-related environmental infrastructure and resource protection and development projects in Idaho, Montana, rural Nevada, New Mexico, and rural Utah. The MMDWA is the local sponsor. The proposed construction period is four months and is expected to start in November 2019.

The Miami Mutual Domestic Waters Association is a community water system located in Colfax County and lies along State Road 21 between Springer and Sunny Side in northern New Mexico. MMDWA supplies potable water to a population of 135 with approximately 60 connections.

The Corps conducted a literature and data search and a cultural resources inventory survey for the project area. No artifacts or cultural resources manifestations were observed during the survey. The data search found that several archaeological sites and historic structures are known to occur within or near the Community of Miami. None of these sites or structures would be affected by the construction project. Based on existing documentation and the results of the cultural resources survey, as presented in the project's cultural resources survey report, the Corps is of the opinion that there would be "No Historic Properties Affected" by the proposed undertakings or on the historic and cultural resources of the region.

NCS Engineers (NCS) developed a Preliminary Engineering Report (PER, September 2017) that compared different disinfectant alternatives to develop recommendations so that MMDWA could comply with the Disinfection By-Product (DBP) regulations. Based on a bench scale treatment testing program, the recommended treatment process to reduce trihalomethanes (THMs) was a change in primary and secondary disinfection from chlorine to chloramines. NCS was retained by MMDWA to design and permit a DBP Control System. The proposed design implements a new chloramine system, as a new ammonia feed system would be installed.

The potential effects of the proposed action are similar to the No-Action alternative, with the caveat that the No-Action alternative does not do anything to help with the regulatory limits for trihalomethanes (THMs) or to keep MMDWA in compliance with the New Mexico Environmental Department and DBP regulations.

Only short-term negligible adverse effects to land use, aesthetics, soils, air, noise, vegetation, and wildlife, would occur during construction. No impacts would occur to land use (long-term), climate, soils (long-term), air (long-term), wetlands or other waters of the U.S., special status species, floodplains, socioeconomics, environmental justice or cultural resources. Minor beneficial impacts would occur to human health. The proposed project would not result in any moderate or significant, short-term, long-term, or cumulative adverse effects.

The planned action has been fully coordinated with federal, state, tribal, and local agencies with jurisdiction over the ecological, cultural, and hydrological resources of the project area. Based upon these factors and others discussed in the Environmental Assessment, the planned action would not have a significant effect on the human environment. Therefore, an Environmental Impact Statement will not be prepared for the proposed installation of the water storage tank.

Date

Larry D. Caswell, Jr.
Lieutenant Colonel, U.S. Army
District Commander

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

APPENDICES

1 - Introduction

1.1 Background and Location

The United States Army Corps of Engineers (Corps), Albuquerque District in cooperation with and at the request of Miami Mutual Domestic Water Association (MMDWA), is planning to make improvements to the existing water treatment facility. The improvements include the addition of a new ammonia feed pump skid, a new recirculation pump, a concrete slab, conduit and control panels (see Figure 1 for site plan and details). The proposed construction period is four months and is expected to start in November 2019.

The rehabilitation work would be conducted under Section 595 of the Water Resources Act of 1999 (Public Law 106-53; 33 U.S.C. 2201 *et seq*.) as needed. The Act authorized the Corps to provide assistance in the form of design and construction for water-related environmental infrastructure, resource protection, and development projects in Idaho, Montana, rural Nevada, New Mexico, and rural Utah. Types of projects included under the Act are: wastewater treatment and related facilities, stormwater retention and remediation, environmental restoration, surface water resource protection and development, and sewer and water line replacement.

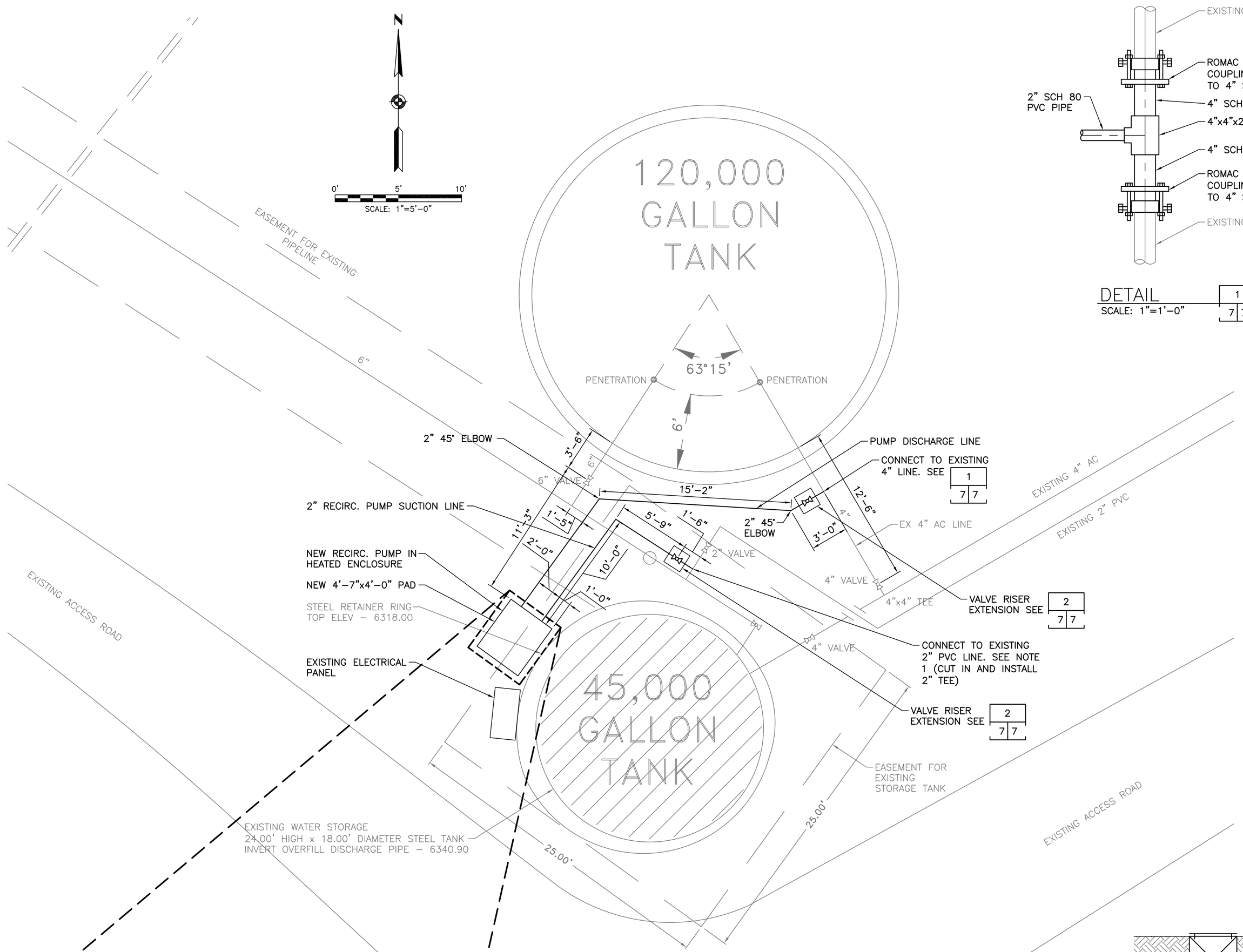
Provisions under the Act require that the project be publicly owned to receive Federal assistance. AS such, the non-Federal project sponsor is the MMDWA. The Act further requires that a cooperative agreement be established between the Federal and non-Federal interests. In general, the Federal share of project costs under each cooperative agreement is 75 percent of the total project costs.

The proposed project area is located just south of the Community of Miami, Colfax County, New Mexico (Figure 2).

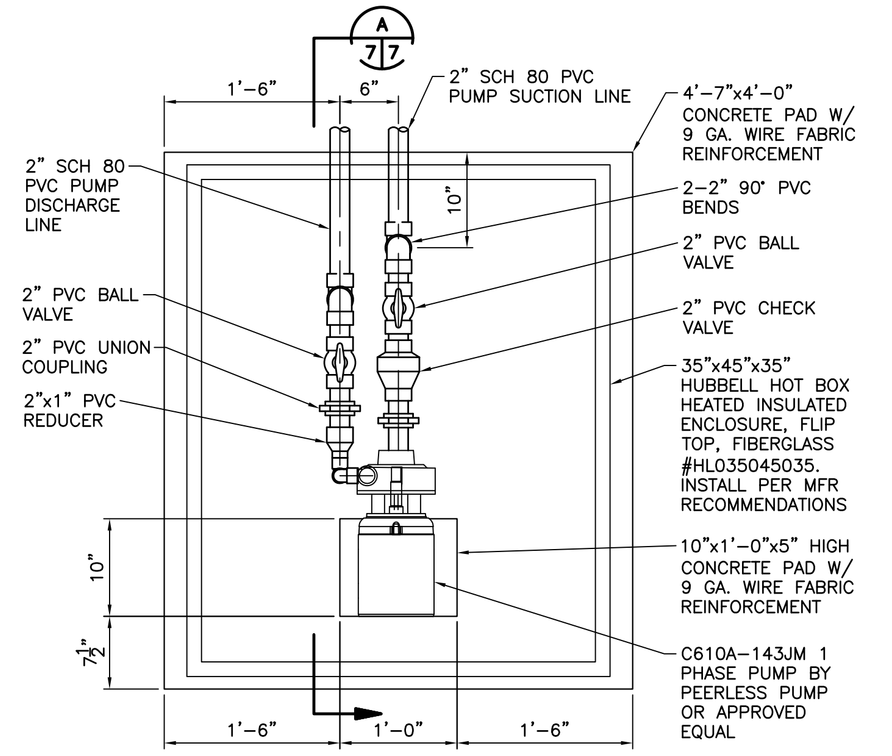
1.2 Purpose and Need

MMDWA supplies potable water to a population of 135 with approximately 60 connections. MMDWA utilizes Miami Lake as their surface water source and uses granular media pressure filters, microfiltration and disinfection. The design capacity of the system is 35 gallons per minute (gpm). MMDWA has exceeded the Disinfection By-Product (DBP) regulatory limits for trihalomethanes (THMs), and was required to conduct an evaluation of treatment alternatives including optimization of the existing treatment train to comply with the terms on a New Mexico Department of Environment (NMED) Administrative Order (2009-CO-007, dated March 4, 2016).

Figure 1

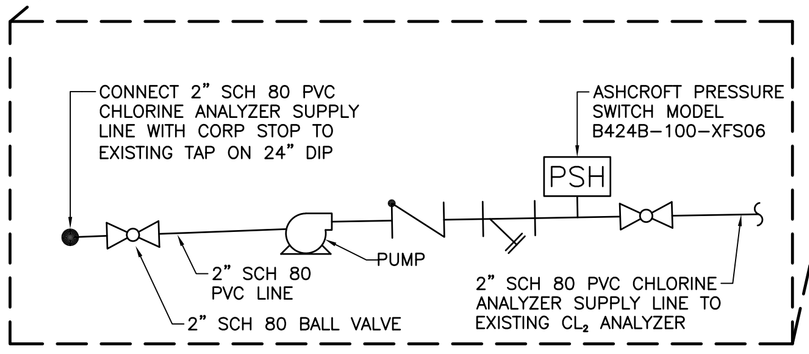


DETAIL 1 7 7
SCALE: 1"=1'-0"



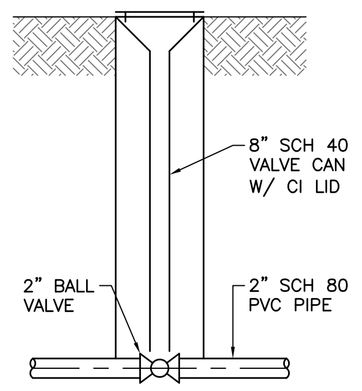
PUMP PLAN
SCALE: 1"=1'-0"

SECTION A 7 7
SCALE: 1"=1'-0"



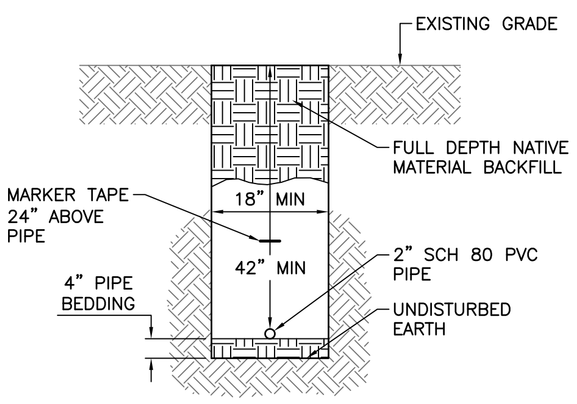
RECIRCULATION PUMP SCHEMATIC
NTS

NOTES:
1. CONTRACTOR TO VERIFY EXISTING PIPE SIZE AND MATERIAL PRIOR TO CONNECTION TO THE EXISTING LINES. (TYPICAL)
2. ALL BURIED PIPING SHALL BE MINIMUM 3'-6" BELOW GRADE.



VALVE CAN 2 7 7
SCALE: 1"=1'-0"

NOTE:
CONTRACTOR TO PROVIDE VALVE KEY FOR 2" BALL VALVE OPERATION.



TRENCH DETAIL
NTS

nm811 Know what's below. Call before you dig.

REVISED | DRAWING CHECKED

NCS Engineers
3188 Southern Blvd, Suite A.
Rio Rancho, NM 87124
Phone (505)896-7781
www.ncsengr.com

PROJECT NO.: 0715 - MIAMI DOMESTIC WATER USERS ASSOCIATION
PROJECT NAME: DISINFECTIONS BY-PRODUCTS REDUCTION TREATMENT
PROJECT NUMBER: 0715
SHEET NAME: RECIRC. PUMP PLAN AND DETAILS

SEALED
FINAL SUBMITTAL

LUCAS RAMESH NARASIMHAN NEW MEXICO 21628 PROFESSIONAL ENGINEER

ORIGINAL PLAN DATE: SEPTEMBER 2019
LATEST REVISION DATE:

SHEET NUMBER 7 OF 14
PROJECT NUMBER 0715

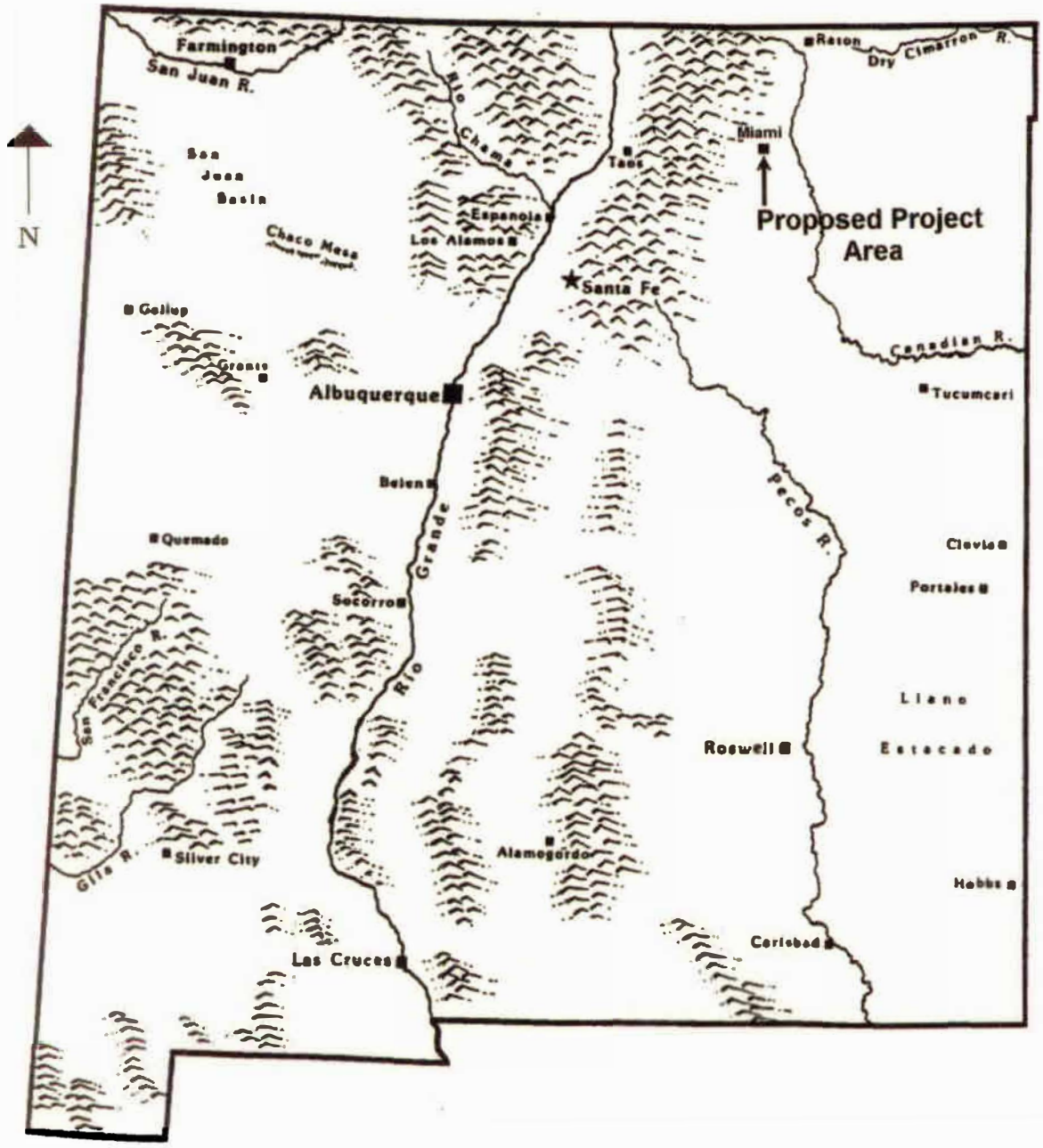


Figure 2. Vicinity Map of Proposed Project Area for the Water System Improvement Project, Community of Miami, Colfax County, New Mexico, 2019

1.3 Regulatory Compliance

This Environmental Assessment was prepared by the Corps in compliance with all applicable Federal Statutes, Regulations, and Executive Orders, including the following:

- National Historic Preservation Act (16 U.S.C. 470 *et seq*.)
- Archaeological Resources Protection Act (16 U.S.C. 470aa *et seq*.)
- Clean Water Act (33 U.S.C 1251 *et seq.*)
- Clean Air Act (42 U.S.C. 7401 *et seq.*)
- Endangered Species Act (16 U.S.C. 1531 *et seq*.)
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations
- Executive Order 11988, Floodplain Management
- National Environmental Policy Act (42 U.S.C 4321 *et seq*.)
- CEQ Regulations for Implementing the Procedural Provisions of NEPA (40 CFR Part 1500 *et seq*.)
- Native American Graves Protection and Repatriation Act (25 U.S.C. 3001 *et seq*.)
- Executive Order 11593, Protection and Enhancement of the Cultural Environment
- Executive Order 11990, Protection of Wetlands
- U.S. Army Corps of Engineers' Procedures for Implementing NEPA (33 CFR Part 230; ER 200-2-2)
- Farmland Protection Policy Act (7 U.S.C. 4201 *et seq.*)
- Executive Order 13112, Invasive Species
- Federal Noxious Weed Act (7 U.S.C. 2814)
- Energy Independence and Security Act of 2007, P.L. 110-140, Section 438, 121 Stat. 1492, 1620 (2007)
- Migratory Bird Treaty Act, 16 U.S.C. 703, et seq.
- Fish and Wildlife Coordination Act, 48 Stat. 401; 16 USC 661 et. seq.
- Executive Order 13524, Federal Leadership in Environmental, Energy, and Economic Performance

This Environmental Assessment also reflects compliance with all applicable State of New Mexico and local regulations, statutes, policies, and standards for conserving the environment such as water and air quality, endangering plants and animals, and cultural resources.

2 - Proposed Action and Alternatives

All agencies that assist or take part in project that utilize Federal funding are mandated by the National Environmental Policy Act (NEPA) to evaluate alternative courses of action. Alternatives can include design and/or location considerations that may mitigate or reduce impacts generated by a given action. In general the NEPA process can provide decision makers with an evaluation of the present and future conditions with regard to the implementation and

timing of an action at a given site. Finally, a particular design chosen form alternatives evaluated can then be implemented in the best interest of the public and environment.

2.1 Proposed Action

NCS Engineers (NCS) developed a Preliminary Engineering Report (PER, September 2017) that compared different disinfectant alternatives to develop recommendations so that MMDWA could comply with the Disinfection By-Product (DBP) regulations. Based on a bench scale treatment testing program, the recommended treatment process to reduce trihalomethanes (THMs) was a change in primary and secondary disinfection from chlorine to chloramines. NCS was retained by MMDWA to design and permit a DBP Control System. This design project implements a new chloramine system, as a new ammonia feed system would be installed. Proposed work includes installing a new ammonia storage tank and feed pump in the existing treatment building and placing a 4x4 concrete pad and new booster pump next to the existing 45,000 gallon water tank. The total estimated construction costs for this proposed project is $267,758. The total federal cost is $200,818 and the total non-federal cost is $66,939.

2.2 Alternatives

Water samples were collected from the MMDWA source water and bench scale treatment testing was conducted to evaluate the potential alternate disinfectants so that appropriate treatment improvements related recommendations can be identified. At present, MMDWA utilizes chlorine for primary and secondary disinfection. Other disinfectants, such as chlorine dioxide or chloramines, may also be used for primary disinfection similar to chlorine but do not form disinfection by products to the same level as chlorine. Chlorine dioxide and chloramines each have disadvantages associated with them but not as significantly as violating the Maximum Contaminant Level. Therefore, based on a comparison of costs and needing to comply with regulations, chloramines/chloramines is recommended for primary and secondary disinfection for MMDWA's compliance with DBP regulations. Since MMDWA already adds chlorine, adoption of the new disinfection strategy would require addition of ammonia.

2.3 The No-Action Alternative

Under the No-Action alternative, there would not be any Federally-funded construction of a disinfection system. No Federal funding would be expended and there would be no new effects to the project site or surrounding environment. However, the No-Action alternative would not allow the MMDWA to comply with DBP regulations. The No-Action alternative should be perceived as an unsound course of action with regard of not being able to comply with the terms of the New Mexico Environmental Department.

3 - EXISTING CONDITIONS and FORESEEABLE EFFECTS OF THE NO-ACTION ALTERNATIVE

3.1 Physical Resources

3.1.1 Physiography, Geology, and Soils

The project area is located west of the Canadian River within the dissected highlands known as southern Raton Basin. This curved structure and depositional trough is bounded on the west by the Sangre de Cristo Mountains, on the east by the Apishapa arch in Colorado and by the Sierra Grande Las Animas arch in New Mexico (Johnson and Woods, 1956). Fenneman (1931) referred to the section of the basin in the vicinity of the project area as the Southern Park Plateau.

Exposed along the west escarpment, which is west of Raton and at Vermejo Park, is the late Cretaceous Pierre Shale. This black shale with limestone concretions is approximately 762 meters (2,499 feet) thick (Pillmore, 1976). Overlying and intergrading with the Pierre Shale is the Cretaceous Trinidad sandstone, a very fine to medium grained Feld spathic stone, which is exposed above the dare Pierre shale slopes at Varmejo Park and along the field margins. The Trinidad sandstone is locally absent in some area; its thickness ranges from 0-40 meters (0-131 feet)(Pillmore, 1976). The coal-burning Vermejo Formations rests comfortably on the Trinidad sandstone. This formation, also Cretaceous, is between 0-116 meters (0-380 feet) thick, and contains sandstone, siltstone, shale, and beds of coal (Pillmore, 1976). This formation is visible at Vermejo Park headquarters where an Anticline has been eroded.

The Raton Formation comfortably overlies the Vermejo Formation. The Raton Foundation is the thickest and most widely distributed of the coal bearing formations, ranging up to 610 meters (2000 feet) in thickness. The project area is underlain completely by this formation. Late Cretaceous to Paleocene in age, the Raton Formation includes fine-grained sandstones, siltstones, clay stones, and coal (Pillmore, 1976).

There would be short-term, minor adverse effects to soils during construction of the project. There would be no effect to soils from the No-Action alternative.

3.1.2 Climate

Colfax County has a semiarid continental climate with warm summers, cool, dry winters and ample sunshine (USDA, 1974). In the summer months, highs are usually 70 to 80 degrees F, with a few days reaching 90 degree F. Lows are usually 40-50 degree F. In the winter months, highs are 40-50 degrees F and lows are 10-20 degrees F. There are occasional below-zero temperatures during the winter months. Average annual precipitation is 16.34 inches. The average growing season in most of the county east and south of Cimarron is 152 days. The average annual relative humidity of Colfax County is 45 to 50 percent. From November through April surface winds are mostly from the southwest, and from May through October, they reform the southeast. The average annual wind velocity is 12.2 miles per hour, with monthly averages ranging from ten miles per hour in October to 15.0 miles per hour in March. The information in this section was obtained from the online soil survey for Colfax County (https://www.nrcs.usda.gov/wps/portal/nrcs/surveylist/soils/survey/state/?stateId=NM). There would be no effect to climate by the project or by the No-Action alternative. The information in this section was obtained from the soil survey for Taos County (USDA, 2010).

Gas emissions during the construction of the project would be so small as to be a negligible short-term consideration. The project would not be affected by climate change due to the nature

of the proposed work. There would be no effect to climate change from the No-Action alternative.

3.1.3 Water Resources

The closest surface water resource near the project area is Miami Lake. It is approximately 5.5 miles away from the Community of Miami. MMDWA utilizes Miami Lake as their surface water source. Nearby surface water bodies include Moras Creek, Alona Creek, and Ortega Creek, all which are located in Springer, NM (located approximately 11 miles from Miami).

Section 402 of the Clean Water Act (CWA; 33 U.S.C. 1251 *et seq*.) as amended, regulates point-source discharges of pollutants into waters of the United States and specifies that storm-water discharges associated with construction activities shall be conducted under the National Pollution Discharge Elimination System (NPDES) guidance. Construction activities associated with storm-water discharges are characterized by such things as clearing, grading, and excavation, subjecting the underlying soils to erosion by storm-water, which results in a disturbance to one or more acres of land. The NPDES general permit guidance would not apply to this project because the project area is less than one acre. Therefore, a Storm-Water Pollution Prevention Permit (SWPPP) is not required and would not be prepared by the contractor. Impacts from storm-water are expected to be negligible. No long-term adverse impacts are expected to water resources.

Section 404 of the CWA, (CWA; 33 U.S.C. 1251 *et seq*.) as amended, provides for the protection of waters of the United States through regulation of the discharge of dredged or fill material. The Corps' Regulatory Program (33 CFR Parts 320-330) requires that a Section 404 permit evaluation be conducted for all proposed construction that may affect waters of the United States. Section 404 of the CWA does not apply to this project, as there would be no discharge of dredged or fill material into waters of the United States.

Section 401 of the CWA, (CEA; 33 U.S.C. 1251 et seq.) as amended, requires that Water Quality Certification Permit be obtained for anticipation discharges associated with construction activities or other disturbance within waterways. Section 401 of the CWA does not apply to this project, as there would be no discharge associated with construction activities or other disturbance within waters or wetlands of the United States.

Water resources would not be affected by the proposed project or by the no-action alternative.

3.1.4 Floodplains and Wetlands

The proposed project area is not located within any special flood hazard areas inundated by the 100-year flood. It is located in Zone C of the floodplain map, which is designated as areas that are outside the 500-year flood (Flood Insurance Rate Map 1987).

There are no wetlands present at or near the proposed project area. Therefore, wetlands would not be affected by the proposed action or by the no-action alternative.

3.1.5 Air Quality, Noise, Aesthetics

The Community of Miami is in New Mexico's Air Quality Control Region No.3 for air quality monitoring, and Colfax County is "in attainment" (does not exceed State and Federal

Environmental Protection Agency air quality standards) for all criteria pollutants (NMED/AQB 2018). Air quality in the project area is generally good.

The closest Class I area is Wheeler Peak Wilderness Area, which is approximately 64 kilometers (40 miles) to the northwest of the project area. Class I areas are special areas of natural wonder and scenic beauty, such as national parks, national monuments, and wilderness areas, where air quality should be given special protection. Class I areas are subject to maximum limits on air quality degradation.

Background noise levels in the proposed project level are low. According to the Center for Hearing and Communication' website (https://chchearing.org/noise/common-environmental-noise-levels/), a typical, quite residential area, has a noise level of 40 decibels. A residential area near heavy traffic has a noise level of 85 decibels. Heavy machinery has a noise level of 120 decibels. Normal noise within or near the project area would be of a typical, quite, residential area.

Aesthetically, the project area is characterized by several houses, existing water storage tanks, and open land. The area receives minimal recreational use with the intent of viewing scenery.

The propped action and the no-action alternative would not affect air quality, noise, or the aesthetics within the proposed project area.

3.2 Biological Resources

3.2.1 Vegetation Communities

The project area is part of the Plains grassland biotic community as described by Brown (1982). Within the project area, vegetation is scattered and consists of blue grama (*Bouteloua gracillis*), buffalo grass (*Buchloe dactyloides*), orange globemallow (*Sphaeralcea munroana*), kochia (*Kochia scoparia*), common sunflower (*Helianthis annuus*), rabbitbrush (*Chrysothamnus*), and snakeweed (*Gutierrezia*).

3.2.2 Wildlife

A variety of mammals are well represented and expected to occur within the Plains grassland biotic community. According to Brown (1982) some of these species may include: plains prairie dogs (*Cynomys ludovicianus*), plains pocket gopher (*Geomys bursarius*), plains harvest mouse (*Reithrodontomys montanus*), swift fox (Vulpes velox), burrowing owl (*Athene cunicularia*), priaire falcon (*Falco mexicanus*), grasshopper sparrow (*Ammodramus savannarum*), upland sandpiper (*Bartramia longicauda*), lark bunting (*Calamospiza melanocorys*), great plains toad (*Bufo cognatus*), prairie rattlesnake (*Crotalus viridis viridis*), plains hognose snake (*Heterodon nasicus nasicus*), gopher snake (*Pituophis melanoleucus*), plains spadefoot (*Scaphiopus bombifrons*), southern prairie lizard (*Sceloporus undulates consobrinus*), and western box turtle (*Terrapene ornate*).

The proposed construction work is minimal and wildlife displaced during installation would be insignificant. Any trenches left overnight would be covered to prevent trapping of wildlife. Due to the limited amount of disturbance, there would be no significant adverse effect on wildlife from the proposed project. Wildlife would not be affected by the no-action alternative.

3.2.3 Special Status Species

While all Federal, State, and Tribal agencies have responsibility for the protection and conservation of plant and animal species in the proposed project area, there agencies have this task as their primary responsibility. The United States Fish and Wildlife Service (USFWS), under authority of the Endangered Species Act of 1973 (16 U.S.C. 1531), as amended, has the responsibility for Federal listed species. The New Mexico Department of Game and Fish (NMGF) has the responsibility for state-listed wildlife species. Each agency maintains a continually updated list of species that are classified, or are candidates for classification, as protected based on their present status and potential threats to future survival and recruitment into viable breeding populations. These types of status rankings represent an expression of threat level to a given species survival as a whole and/or within local or discrete populations. Special status species listed for Colfax County and have the potential to occur in the vicinity of the proposed project area are listed in Table 1.

Table 1. Special Status Species Listed for Colfax County, New Mexico, that have the Potential to Occur in the Vicinity of the Proposed Project Area.

Common Name	Scientific Name	Federal Status (USFWS)[a]	State of New Mexico Status (NMGF)[b]
Canada Lynx	*Lynx Canadensis*	T	--
New Mexico Meadow Jumping Mouse	*Zapus hudsonius luteus*	E	E
Mexican Spotted Owl	*Strix occidnetalis lucida*	T	--
Piping Plover	*Charadrius melodus*	T	T
Southwestern Willow Flycatcher	*Empidonax traillii extimus*	E	E
Least Tern	*Sternula antillarum*	E	E
Black-footed Ferret	*Mustela nigripes*	E	--

[a]**Endangered Species Act** (ESA) (as prepared by U.S. Fish and Wildlife Services) **status**: Only Endangered and Threatened species are protected by the ESA.
E=Endangered: any species that is in danger of extinction throughout all or a significant portion of its range.
T=Threatened: any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

[b]**State of New Mexico status:**
E=Endangered animal species whose prospects of survival or recruitment within the state are in jeopardy.
T=Threatened animal species whose prospects of survival or recruitment within the state are likely to become jeopardized in the foreseeable future.

There are no special status animal species listed by USFWS (https://ecos.fws.gov/ipac/location/UVXULKU5RRFBXE6LDSTOMPEBKU/resources) and

New Mexico Department of Game and Fish (http://www.bison-m.org/BisonReportView.aspx) for Colfax County that might occur in or near the project area.

In addition, the New Mexico Department of Minerals, Natural Resources, Forestry Division has the responsibility for maintaining the list of state-listed endangered plant species (http://www.emnrd.state.nm.us/SFD/ForestMgt/documents/NM_Endangered_Plant_List.pdf) and there are no listed species for Colfax County.

Due to limited disturbance, lack of preferred habitat, and no known presence of these special status animal and plant species, there would be no effect by the proposed action. The no-action alternative would have no impact on special status species.

3.3 Cultural Resources

The Corps previously installed the 120,000 gallon water tank at this location in 2005. As part of the previous project, a 0.06-acre area encompassing the proposed new water tank location and the area between the original tank and the new tank was surveyed by Corps archaeologists, and no historic properties were identified within the survey area (NMCRIS 93862). The Corps determined that the previous project would result in no historic properties affected, and the New Mexico State Historic Preservation Officer (NMSHPO) concurred with this determination on August 2, 2005 (HPD Log 75060).

The Corps considers the area of potential effect (APE) for the proposed project to be the immediate area in which work would occur, with a small buffer for movement of materials and equipment. Most of the work would take place entirely on the above-ground portions of the existing water treatment system, with the only potential ground disturbance being limited to installation of a four-by-four-square-foot concrete pad adjacent to the original water tank, and approximately 50 feet of trenching for tie-in to existing utility lines. The locations for the pad and existing utility lines would be completely within the previously-disturbed area adjacent to and between the original water tank and the 2005 water tank, all of which falls within the area surveyed in 2005 and already subjected to construction-related ground modification. Minimal staging of materials (requiring an area of approximately 20 by 20 feet) would take place on existing roads and access areas immediately adjacent to the work area. As such, the Corps determines that the proposed project would result in no historic properties affected. NMSHPO concurred with this determination on 26 September 2019 (HPD Log 111519).

Should previously undiscovered artifacts or features be unearthed during construction, work would be stopped in the immediate vicinity of the find, a determination of significance made, and further consultation would be conducted with NMSHPO and with Native American Tribes with an interest in the project area.

3.4 Land Use and Socioeconomic Considerations

The Community of Miami is located in southern Colfax County, New Mexico. The total population of Miami in 2017 was approximately 135 (U.S. Census Bureau, 2019). Within the Community of Miami, the ethnic background is: Anglo, 50% and Hispanic, 50%. The per capita income in 2017 for Colfax County is $21,785. The average annual unemployment rate for

Colfax County in 2019 is 4.9% (New Mexico Department of Labor). Industries making major economic contributions to the county's economy include mining, utilities, construction, agriculture, forestry, fishing, hunting, and manufacturing (New Mexico Department of Labor, 2019).

The project would take place entirely within the existing wastewater treatment plant footprint. Adjacent property/features include streets, businesses, farmland, highways, and residential houses. The project would not affect existing land use or socioeconomic resources in the project area.

3.5 Human Health and Safety

Miami Mutual Domestic Waters Association (MMDWA) supplies potable water to a population of 135 with approximately 60 connections. MMDWA has exceeded the Disinfection By-Product (DBP) regulatory limits for trihalomethanes (THMs), and was required to conduct an evaluation of treatment alternatives to comply with New Mexico Environmental Department terms. The proposed project would allow the operation of the supply system to be in compliance with regulatory standards and assure safe drinking water for the Community of Miami. Therefore, human health and safety would be beneficially affected due to the proposed project. Under the no-action alternative, the water supply system would continue to be out of compliance with regulatory standards and that would negatively affect human health and safety.

3.6 Environmental Justice

Executive Order 12898 (Federal Actions to Address Environmental Justice in Minority Low-Income Populations; February 11, 1994) was designed to focus the attention of federal agencies on the human health and environmental conditions of minority and low-income communities. It requires federal agencies to adopt strategies to address environmental justice concerns within the context of agency operations and proposed actions. In an accompanying memorandum, President Clinton emphasized that existing laws, such as the National Environmental Policy Act (NEPA), should provide an opportunity for federal agencies to assess the environment hazards and socioeconomic impacts associated with any given agency action upon minority and low-income communities. In April of 1995, the EPA released a guidance document entitled Environmental Justice Strategy: Executive Order 12898. In short, this document defines the approaches by which the EPA will ensure that disproportionately high environmental and/or socioeconomic effects on minority and low-income communities are identified and addressed. Further, it establishes agency wide goals for all Native Americans with regard to Environmental Justice issues and concerns.

The Community of Miami Water System Improvement Project would be conducted under Section 595 of the Water Resources Development Act of 1999 (Public Law 106-53; 33 U.S.C. 2201 *et seq*.), as amended. This program is largely intended to provide needed assistance (technical, financial, etc.) to communities in which water resources are degrading and in need of improvement. As such, this project would benefit an area within a minority and low-income community. The improvements to the wastewater treatment facility would benefit the entire Community of Miami. These improvements would assure safe drinking water for all of the residents living within the Community of Miami. No adverse impacts on minority and low-

income populations are expected. Under the definition of Executive Order 12898, there would be no adverse environmental justice impacts under the proposed action.

3.7 Cumulative Impacts

NEPA defines cumulative effects as "…the impact on the environment which results from the incremental impact of the action when added to other, past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions."

The footprint of the project lies within a rural area. The water system improvement project would take place within the Community of Miami (see Figure 1). The improvements would take place entirely within the footprint of the existing wastewater treatment facility. Previous improvements to the system consisted of a new water storage tank. Although future improvements to the wastewater treatment facility may be needed, the Community of Miami has not identified this work at this time.

The improvements to the wastewater treatment facility would not significantly impact the current conditions of the local environment. Assurance of safe drinking water is anticipated to occur from the proposed project. For these reasons, the project, when combine with past, present or future activities in the Community of Miami, would not significantly add to or raise local cumulative impacts to a level of significance.

4 - Conclusion and Summary

The action evaluated in this Draft EA addresses the method and potential effects for the wastewater treatment improvements.

The wastewater treatment improvements are located within the footprint of the existing facility. Impacts to the environment would be non-significant and short-term. The wastewater treatment improvements would benefit the drinking water for the Community of Miami. The proposed project would not result in any moderate or significant, long-term, or cumulative adverse effects. Therefore, the proposed would not significantly affect eth quality of the human environment and is recommended for implementation.

5 - Preparation, Consultation and Coordination

5.1 Preparation

This Draft EA was prepared for the Miami Domestic Waters Association and Community of Miami by the U.S. Army Corps of Engineers, Albuquerque District (Corps). Personnel primarily responsible for preparation include:

Danielle A. Galloway	Biologist
Jonathan E. Van Hoose	Archaeologist

Michael A. Martinez Project Manager

6 - References

Brown, David E. 1982. **Desert Plants: Biotic Communities of the American Southwest-United and Mexico.** University of Arizona, Superior, Arizona.

Brown, David E. and C.H. Lowe. 1977. **Biotic Communities of the Southwest Map.** USDA Forest Service, Ft. Collins, Colorado.

Dick-Peddie, William A. 1993. **New Mexico Vegetation: Past, Present, and Future.** University of New Mexico Press, Albuquerque, New Mexico.

Johnson, Ross B. and Gordon W. Wood. 1956. **Stratigraphy of the Upper Cretaceous and Tertiary Rocks and Raton Basin, Colorado, and New Mexico.** American Association of Petroleum Geologist Bulletin, 40 (8): 707-721.

League for the Hard of Hearing. 2019. **Noise Center.** https://chchearing.org/noise/common-environmental-noise-levels/

National Flood Insurance Program. 1985. **Flood Insurance Rate Map for Colfax County, New Mexico and Incorporated Areas.** Community-Panel Number 350126077A. Federal Emergency Management Agency.

NCS Engineers. 2019. **Miami Mutual Domestic Water Association Disinfection By-Products Treatment Options for Compliance Basis of Design Report.**

New Mexico Department of Game and Fish (NMDGF). 2019. **New Mexico Species List/ Species Account – BISON-M.** http://www.bison-m.org/BisonReportView.aspx

New Mexico Department of Labor. 2019. **Economic Statistics.** http://www.dol.state.nm.us/

New Mexico Department of Minerals, Natural Resources, Forestry Division. 2019. **State-Listed Endangered Plant Species.** http://www.emnrd.state.nm.us/SFD/ForestMgt/documents/NM_Endangered_Plant_List.pdf

New Mexico Environmental Department, Air Quality Bureau (NMEDAQB). 2019. **New Mexico Air Quality.** New Mexico Environment Department. http://air.state.nm.us/

Pillmore, Charles L. 1976. Commercial Coal Beds of the Raton Coal Field, Colfax County, New Mexico. **In Guidebook of Varmejo Park,** R.C. Ewing and B.S. *et al.,* pp. 227-248.

U.S. Census Bureau. 2019. **Population of the Community of Miami, New Mexico.** https://www.census.gov/programs-surveys/sis/resources/data-tools/pop-finder.html

U.S. Department of Agriculture. 2019. **Online Soil Survey for Colfax County.** http://websoilsurvey.nrcs.usda.gov/app/

U.S. Fish and Wildlife Service. 2019. **Special Status Animal Species Listed for the Project Area.** https://ecos.fws.gov/ipac/location/UVXULKU5RRFBXE6LDSTOMPEBKU/resources

Appendix A
Cultural Resources Consultation Letter

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, ALBUQUERQUE DISTRICT
4101 JEFFERSON PLAZA NE
ALBUQUERQUE, NM 87109-3435

September 25, 2019

Planning, Project and Program Management Division
Planning Branch
Environmental Resources Section

Dr. Jeff Pappas
State Historic Preservation Officer
Historic Preservation Division
Bataan Memorial Building
407 Galisteo Street, Suite 236
Santa Fe, New Mexico 87501

Dear Dr. Pappas:

Pursuant to 36 CFR Part 800, the U.S. Army Corps of Engineers (Corps), Albuquerque District, is seeking your concurrence in our determination of **no historic properties affected** for a proposed project to improve a water treatment facility operated by the Miami Mutual Water Association in the community of Miami, Colfax County, New Mexico (Enclosures 1 and 2). The community of Miami is the project sponsor.

The proposed project would involve the following. Due to recent testing, it was determined that an upgrade to the water treatment system in order to reduce trihalomethanes was necessary. The upgrade would implement a new chloramine disinfection system, with a new ammonia feed system. Implementation would involve installing a new ammonia storage tank and feed pump within the existing treatment facility, and placing a four-by-four-foot concrete pad with new booster pump next to an existing 45,000-gallon water tank. In addition, approximately 50 linear feet of utility line may need to be accessed in order to tie in to the existing system. The work would take place in and around an existing water treatment facility including a 45,000-gallon water tank and a 120,000 water tank, and the area between the two tanks (see Enclosures 3 and 4).

The Corps previously installed the 120,000 gallon water tank at this location in 2005. As part of the previous project, a 0.06-acre area encompassing the proposed new water tank location and the area between the original tank and the new tank was surveyed by Corps archaeologists, and no historic properties were identified within the survey area (NMCRIS 93862). The Corps determined that the previous project would result in no historic properties affected, and your office concurred with this determination on August 2, 2005 (HPD Log 75060).

The Corps considers the APE for the proposed project to be the immediate area in which work would occur, with a small buffer for movement of materials and equipment (Enclosure 3). Most of the work would take place entirely on the above-ground portions of the existing water treatment system, with the only potential ground disturbance being limited to installation of a four-by-four-square-foot concrete pad adjacent to the original water tank, and approximately 50 feet of trenching for tie-in to existing utility lines. The locations for the pad and existing utility lines would be completely within the previously-disturbed area adjacent to and between the original water tank and the 2005 water tank (see Enclosure 4), all of which falls within the area surveyed in 2005 and already subjected to construction-related ground modification. Minimal staging of materials (requiring an area of approximately 20 by 20 feet) would take place on existing roads and access areas immediately adjacent to the work area. As such, the Corps determines that the proposed project would result in **no historic properties affected.** We seek your concurrence in this determination.

If you have any questions or require additional information concerning the Miami Water Disinfections By-Products Reduction Treatment Project, please contact Jonathan Van Hoose at (505) 342-3687 or by email at jonathan.e.vanhoose@usace.army.mil; me at (505) 342-3281 or by email at george.h.macdonell@usace.army.mil. You may also provide comments to the above address.

Sincerely,

MACDONELL.GEORGE.HOWELL.1045319667

Digitally signed by MACDONELL.GEORGE.HOWELL.1045319667
Date: 2019.09.25 12:25:31 -06'00'

George H. MacDonell
Chief, Environmental Resources Section

9/26/2019
Date

I CONCUR

for JEFF PAPPAS
NEW MEXICO STATE HISTORIC PRESERVATION OFFICER

Enclosures