Environmental Assessment

Tortugas Arroyo Storm Drainage Improvements Project

Southern Sandoval County Arroyo Flood Control Authority

Sandoval County, New Mexico

Section 595 Water Resources Development Act

U.S. Army Corps of Engineers
Albuquerque District

DRAFT
August 2021

US Army Corps
of Engineers
Albuquerque District

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DRAFT FINDING OF NO SINGIFICANT IMPACT

TORTUGAS ARROYO STORM DRAINAGE IMPROVEMENTS PROJECT

SOUTHERN SANDOVAL COUNTY, NEW MEXICO

The U.S. Army Corps of Engineers, Albuquerque District (Corps) has conducted an environmental analysis in accordance with the National Environmental Policy Act of 1969, as amended. The Draft Environmental Assessment (EA) dated June 2021, for the Tortugas Arroyo Storm Drainage Improvements Project addresses storm drainage flows and water quality problems at the Rio Rancho Industrial Park in Southern Sandoval County, New Mexico.

The Draft EA, incorporated herein by reference, evaluated various alternatives that would improve storm flow drainage and water quality in the study area. Currently, all storm water runoff and associated contaminants from the industrial park are discharged into the Tortugas Arroyo, which originates on the east side of the Industrial Park. The recommended plan involves the following improvements:

- Install a riprap-lined energy dissipation channel. Existing culverts discharge storm water from Industrial Park Loop to the proposed riprap-lined channel for energy dissipation and conveyance to the water quality pond. The channel would have a bottom-width of 10 feet, banks sloped at 2H:1V, and riprap sized appropriately for flows of the design storm. Riprap sizing will be dependent on the size of the culvert upstream to the channel, which currently lacks sufficient capacity to convey the peak design flow.

- Install a water quality pond. Storm water will be discharged from the proposed energy dissipation channel to a water quality pond. The water quality pond would have a total depth of 11-ft and treatment capacity of approximately 2.0 ac-ft that would include 0.5 ac-ft of storage for accumulated sediment. The pond outfall would be an armored earthen dam structure with a soil cement spillway that would discharge runoff to a swale for additional treatments.

- Install a downstream open water channel from the water quality pond to the Montoyas Arroyo. This channel includes a rectangular weir that would provide storage capacity in the channel of approximately 3.1 ac-ft and would enhance infiltration; the weir would also be equipped with a skimmer plate for removal of floatables.

In addition to a “no-action” plan, two alternatives were evaluated. The alternatives included installation of underground pipe, which would not provide additional infiltration capability and water quality enhancements that are provided by the open channel design.

For all alternatives, the potential effects were evaluated, as appropriate. A summary assessment of the potential effects of the recommended plan are listed in Table 1.

Table 1: Summary of Potential Effects of the Recommended Plan

	Insignificant effects	Insignificant effects as a result of mitigation	Resource unaffected by action
Aesthetics	☒	☐	☐
Air quality	☒	☐	☐
Aquatic resources/wetlands	☒	☐	☐
Invasive species	☒	☐	☐
Fish and wildlife habitat	☒	☐	☐
Threatened/Endangered species/critical habitat	☐	☐	☒
Historic properties	☐	☐	☒
Other cultural resources	☐	☐	☒
Floodplains	☐	☐	☒
Hazardous, toxic & radioactive waste	☐	☐	☒
Hydrology	☒	☐	☐
Land use	☒	☐	☐
Navigation	☐	☐	☒
Noise levels	☒	☐	☐
Public infrastructure	☐	☐	☒
Socio-economics	☒	☐	☐
Environmental justice	☐	☐	☒
Soils	☒	☐	☐
Tribal trust resources	☐	☐	☒
Water quality	☒	☐	☐
Climate change	☒	☐	☐

All practicable and appropriate means to avoid or minimize adverse environmental effects were analyzed and incorporated into the recommended plan. Best managements practices (BMPs) as detailed in the Draft EA and listed below will be implemented, if appropriate, to minimize impacts.

- Disturbed soils surrounding the project area would be reseeded with a native seed mix.
- All fuels, oils, hydraulic fluids, and other similar substances would be appropriately stored out of the floodplain and must have a secondary containment system to prevent spills if the primary storage container leaks. Construction equipment would be inspected daily and monitored during operation to prevent leaking fuels or lubricants from entering any surface water.
- To control dust and wind erosion, soils within the construction zone would be kept wet. Stockpiles of debris, soil, or other materials that could produce dust would be watered or covered. Materials transported on or off-site by truck would be covered. The contractor would be required to comply with local sedimentation and erosion-control regulations.

- BMPs would be implemented regarding the treatment and disposal of waste material. Proper disposal of all waste material at commercial disposal areas or landfills would occur.
- Activities would be limited to the designated or otherwise approved areas and would be shown on the construction drawings for construction areas, staging access, and borrow use. USACE approval of any additional areas will be required regardless of their ownership or distance to the construction sites to ensure protection of vegetation, water quality, threatened and endangered species, cultural resources, and other significant resources. The USACE's Contracting Officer will coordinate with the USACE Environmental Resources Section to approve any changes in access routes, staging areas, non-commercial borrow sites, disposal sites, and other high-use areas.
- A Stormwater Pollution Prevention Plan is required. Arroyo storm drainage habitat would be protected with silt fencing, geotextiles, or straw bales to prevent runoff of sediment from areas disturbed by construction.

No compensatory mitigation is required as part of the recommended plan.

A review of Corps records and an online records check of the New Mexico Office of Cultural Affairs' Historic Preservation Division New Mexico Cultural Resources Information System (NMCRIS) database was conducted on April 7, 2021. There have been two previous surveys conducted partially within the Area of Potential Effect (APE) that were performed to current standards. There are no known or listed historic properties within the APE or vicinity. Pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended, the U.S. Army Corps of Engineers determined that the recommended plan has no effect on historic properties."

Consistent with the Department of Defense's American Indian and Alaska Native Policy, signed by Secretary of Defense William S. Cohen on October 20, 1998, and based on the State of New Mexico Indian Affairs Department and Historic Preservation Division's 2019 Native American Consultations List, American Indian Tribes and local governments that have cultural resources concerns with northern New Mexico were sent scoping letters for this project. According to the New Mexico Historic Preservation Division (NMHPD), there are seventeen tribes with lands and jurisdiction in Sandoval County, including the Comanche Nation of Oklahoma, Jicarilla Apache Nation, Kewa Pueblo, Navajo Nation, Ohkay Owingeh, Pueblo de 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 Tesuque, Pueblo of Zia, and The Hopi Tribe.

Coordination letters were submitted to each tribe on April 12, 2021, to determine if they have concerns about any traditional cultural properties, sacred sites, or properties of religious or cultural significance that may be affected by the project. Responses were received from the Pueblo of Sandia, Pueblo of Santa Ana, Pueblo of Santa Clara, and Pueblo of Tesuque, and all responses indicated there were no cultural concerns with the project. Currently, there are no known cultural resources or traditional cultural properties concerns regarding the arroyo storm drainage improvements project.

Public review of the Draft EA and FONSI was completed on XX. All comments submitted during the public review period will be responded to in the FINAL EA and FONSI.

Pursuant to section 7 of the Endangered Species Act of 1973, as amended, the U.S. Army Corps of Engineers determined that the recommended plan would have no effect on federally listed species or their designated critical habitat.

The proposed work would not affect waters of the United States regulated by Section 404 of the Clean Water Act (CWA); therefore, a Department of the Army permit under Section 404 of the CWA would not be needed for this project. The proposed work would occur outside the floodplain. Therefore, the planned action is consistent with Executive Order 11988 (Floodplain Management). The proposed work complies with Executive Order 11990 (Protection of Wetlands) as there are no wetlands within the project area.

All applicable environmental laws have been considered and coordination with appropriate agencies and officials have been completed.

Technical, environmental, and cost effectiveness criteria used in the formulation of alternative plans were those specified in the Water Resources Council's 1983 **Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies**. All applicable laws, executive orders, regulations, and local government plans were considered in evaluation of alternatives. Based on this report, the reviews by other Federal, State and local agencies, Tribes, input of the public, and the review by my staff, it is my determination that the recommended plan would not cause significant adverse effects on the quality of the human environment; therefore, preparation of an Environmental Impact Statement is not required.

Date

Patrick M. Stevens V.
Lieutenant Colonel, U.S. Army
District Commander

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF APPENDICES

1. INTRODUCTION

1.1 Background and Location

The U.S. Army Corps of Engineers (Corps), Albuquerque District in cooperation with, and at the request of the Southern Sandoval County Arroyo Flood Control Authority (SSCAFCA), is planning to make improvements to storm water drainage and water quality in Tortugas Arroyo at the outfall of the Rio Rancho Industrial Park. The improvements include the addition of a riprap-lined energy dissipation channel, a water quality pond, and a downstream channel that would return runoff to the Montoyas Arroyo (see Figure 1 for site plan and details). This proposed project is expected to start in September 2021 and the construction period would be 4 months.

The rehabilitation work would be conducted under Section 595 of the Water Resources Development Act of 1999 (Public Law 106-53), as amended. The Act authorizes 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, rural Utah, and Wyoming. 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. The Non-Federal sponsor for the project is the SSCAFCA.

The proposed project is located in southern Sandoval County at the outfall of the Rio Rancho Industrial Park. The Industrial Park is located on a triangular shaped property in a highly developed area along New Mexico Highway 528 (Rio Rancho Blvd.) that extends from approximately Northern Boulevard on the north to Sundt Road on the south. The property where the proposed drainage improvements would be constructed is located on a plot of land between the Industrial Park and Don Julio Road (see Figure 1). The project area lies on the boundary line for the municipal limits of the City of Rio Rancho and the Village of Corrales.

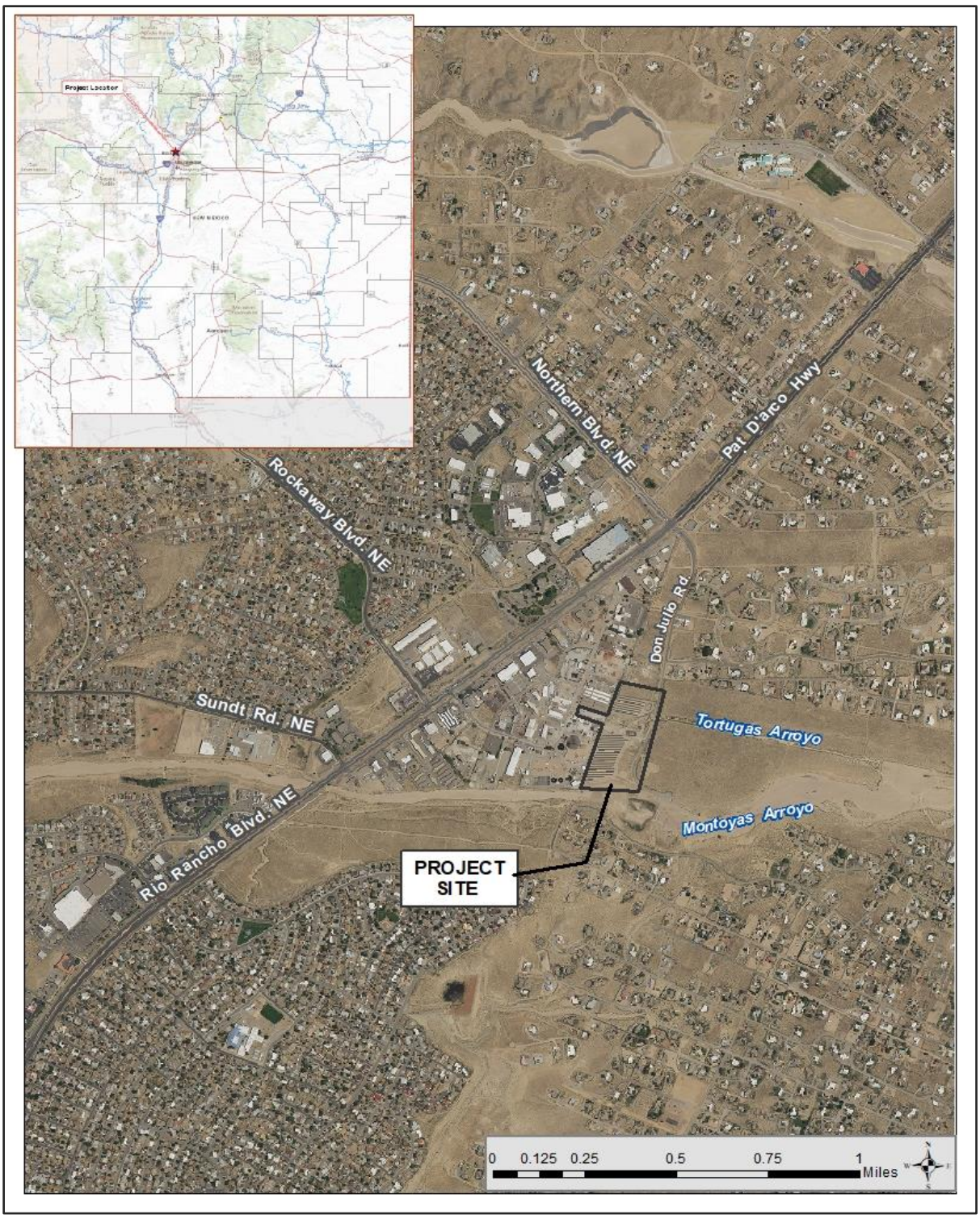


Figure 1. Vicinity Map of Tortugas Arroyo Improvements, Corrales and Rio Rancho, Sandoval County, NM.

1.2 Purpose and Need

Currently, all storm water runoff and associated contaminants from the industrial park are discharged into the Tortugas Arroyo, which originates on the east side of the Industrial Park. Storm water at the Industrial Park is collected and discharged through two 36-in corrugated metal pipes to an existing drainage channel that drains east to an outfall at the eastern boundary of the project area. After entering a concrete box culvert under Don Julio Road, the flows are conveyed into Tortugas Arroyo, which then flows into the concrete-lined Harvey Jones Channel and then into the Rio Grande. Currently, there are no facilities to treat these flows or provide flood mitigation, allowing large storm flows and contaminants to flow into the Tortugas Arroyo, and subsequently the Rio Grande, unchecked.

The Rio Rancho Industrial Park has several businesses and facilities that encompass vehicle maintenance facilities, production of cement, gravel, asphalt, and landscape material, a wastewater treatment plant, ironworks yard, storage complex, and printing facility, and all drain from the area. The pollutants from the surface runoff include nutrients, phosphorus (P) and nitrogen (N), bacteria/viruses, oil/grease, metals, organics, pesticides, vector production, and oxygen producing substances. Additionally, the City of Rio Rancho owns and operates municipal Wastewater Treatment Plant (WWTP) No. 2 located inside the Industrial Park. The WWTP discharges treated effluent through a 24-in diameter gravity sewer pipeline, which parallels the Tortugas Arroyo and Harvey Jones Channel before discharging to the Rio Grande. Heavy storm flows in the Tortugas Arroyo can cause the arroyo bed to shift potentially exposing the underground pipe and causing structural damage to the manholes along the pipeline.

The proposed work is needed to remove debris and contaminants from storm flows as well as incorporate flood prevention measures that would reduce downstream flow rates before being discharged into Montoyas Arroyo (where additional facilities are in place to treat storm flows before entering the Rio Grande).

1.3 Regulatory Compliance

This Draft Environmental Assessment was prepared by the Corps in compliance with all applicable Federal Statutes, Regulations, and Executive Orders, including, but not limited to, the following:

- Clean Water Act (33 U.S.C 1251 *et seq.*)
- Clean Air Act (42 U.S.C. 7401 *et seq*.)
- National Historic Preservation Act (16 U.S.C. 470 *et seq*.)
- Archaeological Resources Protection Act (16 U.S.C. 470aa *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)
- Migratory Bird Treaty Act (16 U.S.C. 703 *et seq*.)
- Fish and Wildlife Coordination Act, 48 Stat. 401; 16 U.S.C. 661 *et. seq*.

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

2. PROPOSED ACTION and ALTERNATIVES

All agencies that take part or assist in projects 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 from alternatives evaluated can then be implemented in the best interest of the public and environment.

2.1 Alternatives Considered

CDM Smith Engineers developed a Preliminary Engineering Report (PER, December 2016) that evaluated alternatives for drainage and water quality improvements at the outfall of the Rio Rancho Industrial Park (Industrial Park) to the Tortugas Arroyo. The PER includes identification of pollutants, which are potentially present in storm water discharges from the site, hydraulic analyses to determine the water quality design storm event and corresponding water quality treatment volume, and an evaluation of the capacity required to safely convey runoff to the desired downstream drainage feature. Each alternative considered includes the following design components:

- **Riprap-Lined, Energy-Dissipation Channel** – Existing culverts discharge storm water from Industrial Park Loop to the proposed riprap lined channel for energy dissipation and conveyance to the water quality pond. This component does not vary amongst the alternatives. The channel will have a bottom-width of 10 feet, banks sloped at 2H:1V, and riprap sized appropriately for flows of the design storm. Riprap sizing will also be dependent on the size of the culvert upstream to the channel, which currently lacks sufficient capacity to convey the peak design flow.
- **Water Quality Pond** – Storm water will be discharged from the proposed energy dissipation channel to a water quality pond. Pond sizes vary between the alternatives; however, each

alternative was designed to, at a minimum, accommodate storage of the water quality volume and the estimated mean annual sediment yield for the Industrial Park drainage basin. The water quality ponds were designed to capture and infiltrate the water quality volume and to provide flow attenuation.

- **Conveyance for Discharge to Montoyas Arroyo** – Storm water is proposed to be discharged from the water quality pond to the Montoyas Arroyo either via underground pipes or by an open channel swale. The open channel swale provides additional infiltration capability and water quality enhancements. The downstream conveyance will be sized to have capacity for runoff from the 100-year, 24-hour storm event.

Alternative 1 consists of a riprap-lined energy-dissipation channel, a water quality pond with skimmer-equipped outfall structure, and a swale to discharge runoff in excess of the water quality volume to Montoyas Arroyo. The water quality pond was designed to have a total depth of 10-ft, which would accommodate over one foot of freeboard, treatment volume of 5.8 ac-ft (depth of 6-ft) that includes 0.5 ac-ft of storage for accumulated sediment, flow attenuation of 4.0 ac-ft, and an outfall structure with a 14-ft weir and skimmer for removal of floatables. The outfall structure was designed to discharge attenuated outflow of approximately 207 cfs, via dual 54-in reinforced concrete pipes (RCPs), to a drainage swale that would convey runoff to the Montoyas Arroyo. The swale would have a bottom-width of 10-ft, 6H:1V sloped banks, and an outfall structure that will discharge runoff to the Montoyas Arroyo. Alternative 1 was eliminated as the swale would not provide enough capacity to effectively discharge runoff in excess of the water quantity to the Montoyas Arroyo.

Alternative 2 consists of a riprap-lined energy-dissipation channel, a water quality pond with skimmer-equipped outfall structure, and underground pipes to discharge runoff in excess of the water quality volume to the Montoyas Arroyo. The water quality pond would have a total depth of 10-ft, which would accommodate one foot of freeboard, treatment volume of 6.2 ac-ft (depth of 6-ft) that includes 0.5 ac-ft for storage of accumulated sediment, flow attenuation of 5.7 ac-ft, and an outfall structure with an 8-ft weir and skimmer for removal of floatables. The outfall structure was designed to discharge attenuated outflow of approximately 128 cfs, via dual 48-in RCPs, to the Montoyas Arroyo. This alternative was eliminated since underground pipes would not provide the additional infiltration capability and water quality enhancements that an open channel design provides.

Alternative 1 and Alternative 2 were not carried forward for evaluation of impacts.

2.2 The No-Action Alternative

Under the No-Action alternative, improvements to water quality and flood mitigation would not take place. 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 support the City of Rio Rancho efforts to improve storm flows and water quality that flow to the Rio Grande. The No-Action alternative should be perceived as an unsound course of action with regard to the Rio Rancho Industrial Park having a history of flooding during storm events and having deficient water quality.

2.3 Proposed Action

The preferred alternative involves installing a riprap-lined energy-dissipation channel, a water quality pond, and a downstream channel that would discharge runoff in excess of the water quality volume to the Montoyas Arroyo (Figure 2).

The channel downstream of the water quality pond would include a rectangular weir that would provide storage capacity in the channel of approximately 3.1 ac-ft and would enhance infiltration; the weir would also be equipped with a skimmer plate for removal of floatables. The water quality pond would have a total depth of 11-ft and treatment capacity of approximately 2.0 ac-ft that would include 0.5 ac-ft of storage for accumulated sediment. The pond outfall would be an armored earthen dam structure with a soil cement spillway that would discharge runoff to a swale for additional treatments and eventually discharge to Montoyas Arroyo. The total estimated construction costs for this proposed project is $1,500,000. The total federal cost is $1,125,000. The non-federal cost is $375,000.

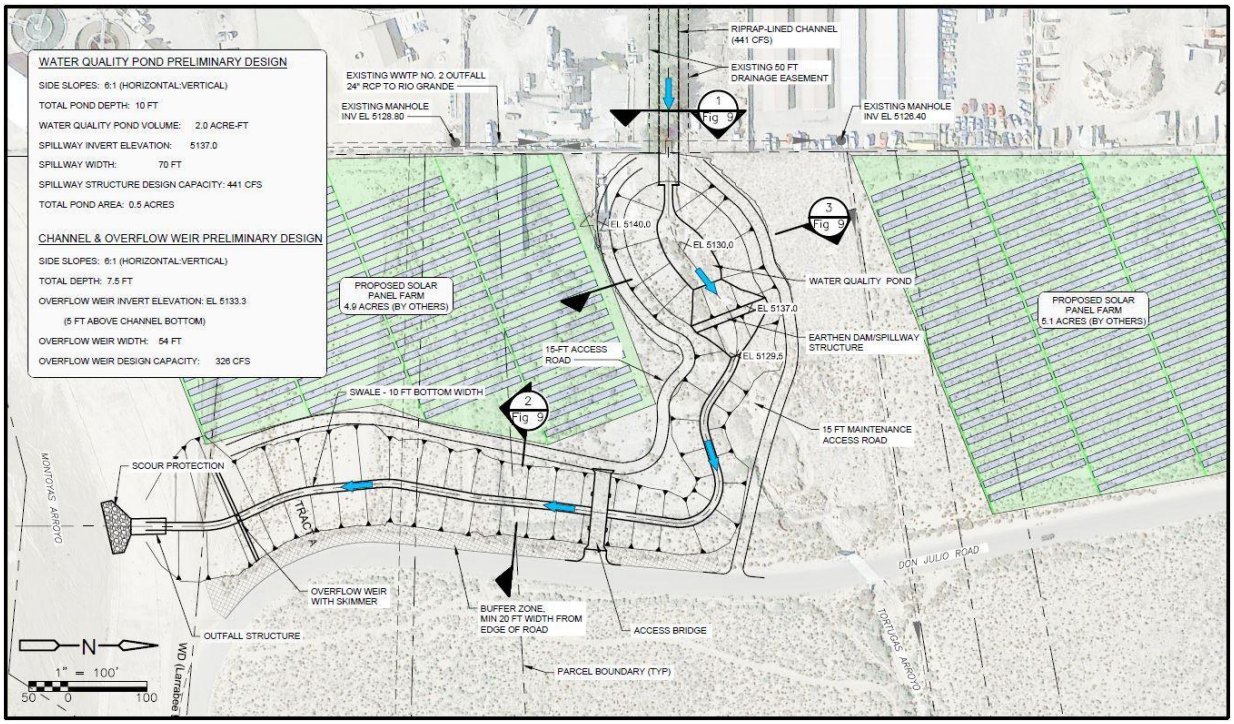


Figure 2. Overview of Proposed Tortugas Arroyo Improvements.

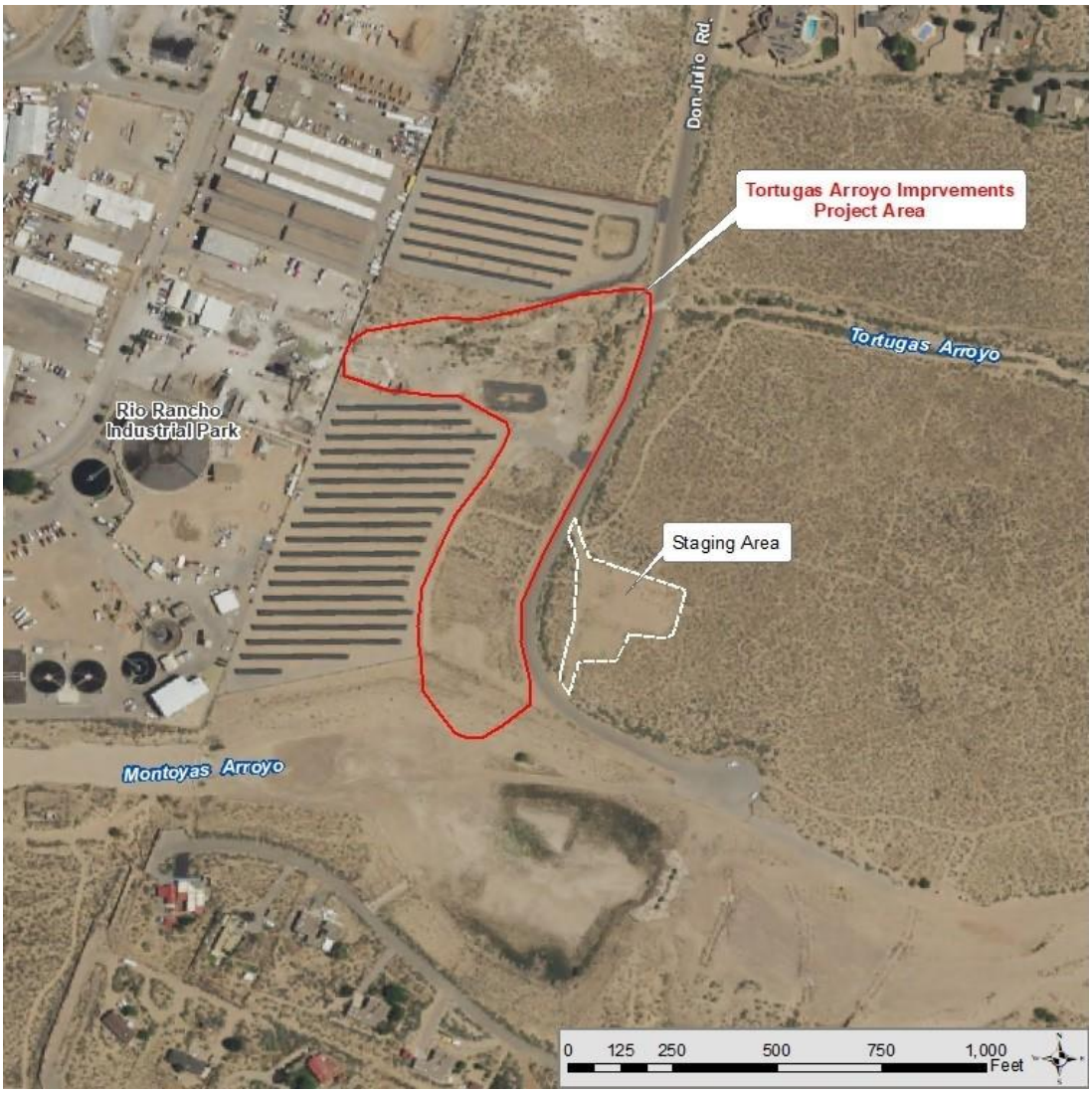


Figure 3. Tortugas Arroyo Drainage Improvements Project Location with Staging Area.

3. EXISTING CONDITIONS and FORESEEABLE EFFECTS of the NO-ACTION ALTERNATIVE and the PROPOSED ACTION

3.1 Physical Resources

3.1.1 Physiography, Geology, and Soils

The Project area is in the Albuquerque Basin Ecoregion, part of the deep physiographic basins of the Rio Grande rift (Griffith, *et al*. 2006). This ecoregion is lower in elevation, drier, and warmer than the surrounding ecoregions to the north, east, and west. The Albuquerque Basin extends from the La Bajada Escarpment south to near Socorro.

The Rio Grande flows along a series of linked troughs, or long segments of the crust of the earth that has subsided between mountain uplifts. The Albuquerque basin measures 30 miles wide and 90 miles long. The basin was probably formed during the upper Tertiary (Miocene and Pliocene) period, coincidental with the uplifting of the Sandia-Manzano-Los Pinos easterly tilted fault block mountain range. Total basin subsidence and the resultant infilling are estimated to be as much as 15,000 feet.

The terrain in the area is characterized by gently sloping plains from the east to the Rio Grande ranging from about 4,860 feet to 4,875 feet in elevation. The general soil conditions are deep, nearly level, well-drained soils that were formed in recent alluvium, on floodplains of the Rio Grande.

The major soil series which occur within the project area are described in the following discussion. The information in this section was obtained from the United Stated Department of Agriculture (USDA), soil conservation survey (USDA 2021).

Grieta-Sheppard loamy fine sands association soils occur in the northern portion of the project including along the Tortugas Arroyo. These soils have 2 to 9 percent slopes and have a moderate infiltration rate when thoroughly wet. This association consists chiefly of moderately deep or deep, moderately well drained, or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Sheppard loamy fine sand association occurs throughout the entire southern portion of the project area. This association has 3 to 8 percent slopes and a high infiltration rate (low runoff potential) when thoroughly wet. These soils consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

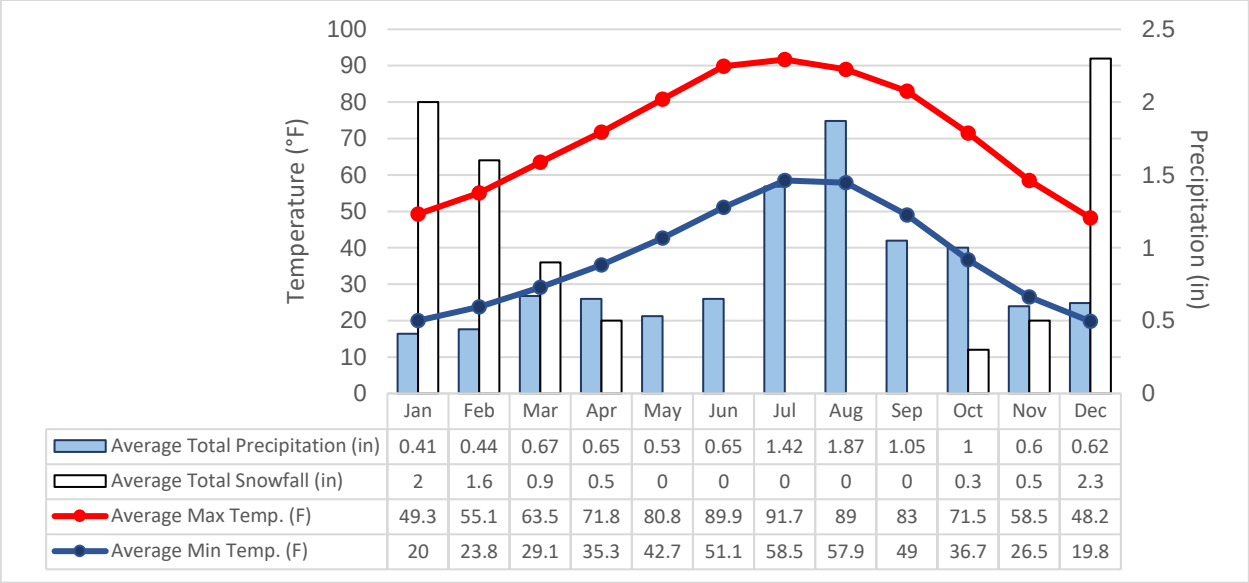
There would be no effect to soils by the proposed project or by the no-action alternative.

3.1.2 Climate and Climate Change

Current Climate

The climate in Rio Rancho and Corrales is summarized using data from Corrales (Figure 1). Average annual maximum temperature is 71°F and average annual minimum temperature is 37.5°F. The warmest months are June, July, and August (average maximum temperatures 89.9°F, 91.7°F, and 89.0°F; average minimum temperatures 51.1°F, 58.5°F, and 57.9°F). The coolest months are December, January, and February (average maximum temperatures 48.2°F, 49.3°F, and 55.1°F; average minimum temperatures 19.8°F, 20.0°F, and 23.8°F).

The proposed project area can be classified as arid, with average annual precipitation totaling 9.91 in. From late July through September, the proposed project area falls within the North American Monsoon region. The wet summer season is characterized by high daytime temperatures, advection of warm, humid air primarily from the Gulf of Mexico, and the formation of thunderstorms as this humid air rises over sun-baked land surfaces, nearby mountain ranges, and advancing fronts. Average precipitation in Corrales at the height of monsoon season in August is 1.87 in. The driest months are January and February with averages of 0.41 and 0.44 in respectively.



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Average Total Precipitation (in)	0.41	0.44	0.67	0.65	0.53	0.65	1.42	1.87	1.05	1	0.6	0.62
Average Total Snowfall (in)	2	1.6	0.9	0.5	0	0	0	0	0	0.3	0.5	2.3
Average Max Temp. (F)	49.3	55.1	63.5	71.8	80.8	89.9	91.7	89	83	71.5	58.5	48.2
Average Min Temp. (F)	20	23.8	29.1	35.3	42.7	51.1	58.5	57.9	49	36.7	26.5	19.8

Figure 4. Climate normal data (1982-2016) for the NWS COOP site at Corrales, NM (292100). Source: Appendix B, Western Regional Climate Center n.d. A.

Climate Change

Climate change is anticipated to impact the study area primarily through temperature increases, which are projected to rise by 4- 8.0°F by 2100, with extreme temperatures as much as 11°F higher. Temperature increases are likely to drive evaporation increases. Overall, there is expected to be an increase in extreme rainfall events which will impact the occurrence and intensity of flooding in the project area.

Projected reduced flows in the Southwest Region highlight the importance of the need for high quality - unpolluted water to flow into the Rio Grande. Extreme precipitation events currently cause flooding and erosion in the project area and carry debris and pollutants to the Rio Grande. These events are likely to continue to occur in the future and may increase in magnitude. Because Rio Grande flows are projected to decline, especially in the late summer, such flashy tributary flows will constitute an increasing share of monsoon season flows in the future. Channel improvements to Tortugas Arroyo are necessary to reduce the debris and contaminant loads of these essential flows in the face of a changing climate.

More information regarding current climate trends and how the study area may be impacted by climate change can be found in *Appendix B – Climate and Climate Change*.

3.1.3 Water Resources

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. The NPDES general permit guidance would apply to the proposed project as the total project area is over one acre in size. Therefore, a Storm

Water Pollution Prevention Plan (SWPPP) would be required and prepared by the contractor for this project.

Section 404 of the 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 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.

Storm water at the Industrial Park is collected and discharged through two 36-in corrugated metal pipes (CMP) to an existing drainage channel (CDM Smith 2016). The existing channel drains east to an outfall at the eastern boundary of the site (referred to as Outfall AP.K) (CDM Smith 2016 and Huitt-Zollars 2011). After entering a concrete box culvert under Don Julio Road, the storm water is conveyed to the Tortugas Arroyo. From the Tortugas Arroyo, the water enters the Montoyas Arroyo, Harvey Jones Channel and ultimately discharges into the Rio Grande. Discharging into the Rio Grande requires that SSCAFCA must be compliant with its existing municipal separate storm sewer system (MS4) permit.

The MS4 permit allows authorization to discharge to waters of the United States under NPDES General Permit No. NMR04A000 (CDM Smith, 2016). This permit requires SSCAFCA to develop, implement, and enforce a Storm Water Management Program (SWMP) designed to reduce the discharge of pollutants to the maximum extent practicable, to protect water quality and to satisfy applicable surface water quality standards (CDM Smith 2016 and Huitt-Zollars 2011). The SWMP must include management practices; control techniques; system, design, and engineering methods; and other provisions EPA determines appropriate for the control of pollutants (Huitt-Zollars 2011).

The predominantly industrial nature of the Industrial Park is likely to affect the quality of stormwater runoff discharged through Outfall AP.K (CDM Smith 2016). The Industrial Park has many businesses and facilities near the site that include producers of cement and asphalt, a Wastewater Treatment Plant (WWTP), and a storage unit business. Therefore, the existing water quality pollutants at the Industrial Park include: nutrients (phosphorus (P) and nitrogen (N)), bacteria/viruses, oil/grease, metals, organics, pesticides, vector production, and oxygen demanding substances (CDM Smith 2016).

The proposed improvements to the Industrial Park include a water quality pond and a downstream channel that would discharge runoff in excess of the water quality volume to the Montoyas Arroyo (CDM Smith 2016). The water quality pond is designed for the treatment capacity of approximately 2.0 ac-ft (CDM Smith 2016). The channel downstream of the water quality pond would include a weir that would provide storage capacity in the channel to enhance infiltration. Storm water that is infiltrated decreases the amount of water that is ultimately discharged into the Rio Grande. Additionally, the weir also would be equipped with a skimmer plate for the removal of floatables (CDM Smith 2016). With all these treatment technologies installed, SSCAFCA would be able to increase the water quality of the discharge water. The proposed improvements would allow

SSCAFCA to continue compliance with the MS4 permit as the water quality that is discharged into the Rio Grande would be improved.

Under the no-action alternative, there would be no storm water treatment facilities installed and the existing potential pollutants would continue to be discharged into Tortugas Arroyo and eventually into the Rio Grande.

3.1.4 Floodplains and Wetlands

Executive Order 11988 (Floodplain Management) provides federal guidance for activities within the floodplains of inland and coastal waters. The order requires federal agencies to take action to reduce the risk of flood loss, to minimize the impact of floods on human safety, health, and welfare, and to restore and preserve the natural and beneficial values served by floodplains. According to the Flood Insurance Rate Map (FIRM), the proposed project is located within the Special Flood Hazard Area encompassing the 100-year floodplain associated with the Tortugas Arroyo. The floodplain limit shown on the map extends almost all the way to the Industrial Park's interior loop road. The 100-year floodplain for the Tortugas Arroyo is classified as "Zone A", which identifies areas where no Base Flood Elevation has been determined. The *Flood Insurance Study (FIS) for Sandoval County, New Mexico, and Incorporated Areas* (FEMA 2008) does not include a detailed study of the Tortugas Arroyo. A copy of the portion of the FIRM that shows the project area is included in Figure 4. It should be noted that the limits of the floodplain shown on the map appears to correspond to the limits of detailed study in the nearby Montoyas Arroyo where the Base Flood Elevation was determined to be 5142 ft above mean seal level (AMSL).

The no-action alternative would not comply with Executive Order 11988 (Floodplain Management) as it would not reduce the risk of floods or improve water quality, and therefore, would not minimize the impacts of floods and water quality on human safety and health. There would be a negative impact to floodplain management as a result of the no-action alternative.

The purpose of the proposed action is to minimize the impacts of floods associated with storm events on human health and safety, and therefore, complies with Executive Order 11988 (Floodplain Management). A beneficial impact would be provided from the proposed alternative.

Executive Order 11990 (Protection of Wetlands) requires the avoidance, to the greatest extent possible, of both long and short-term impacts associated with the destruction, modification, or other disturbance to wetland habitats. There are no jurisdictional wetlands within or nearby the project area, and therefore, no impacts to wetlands would occur from the no-action or proposed alternative.

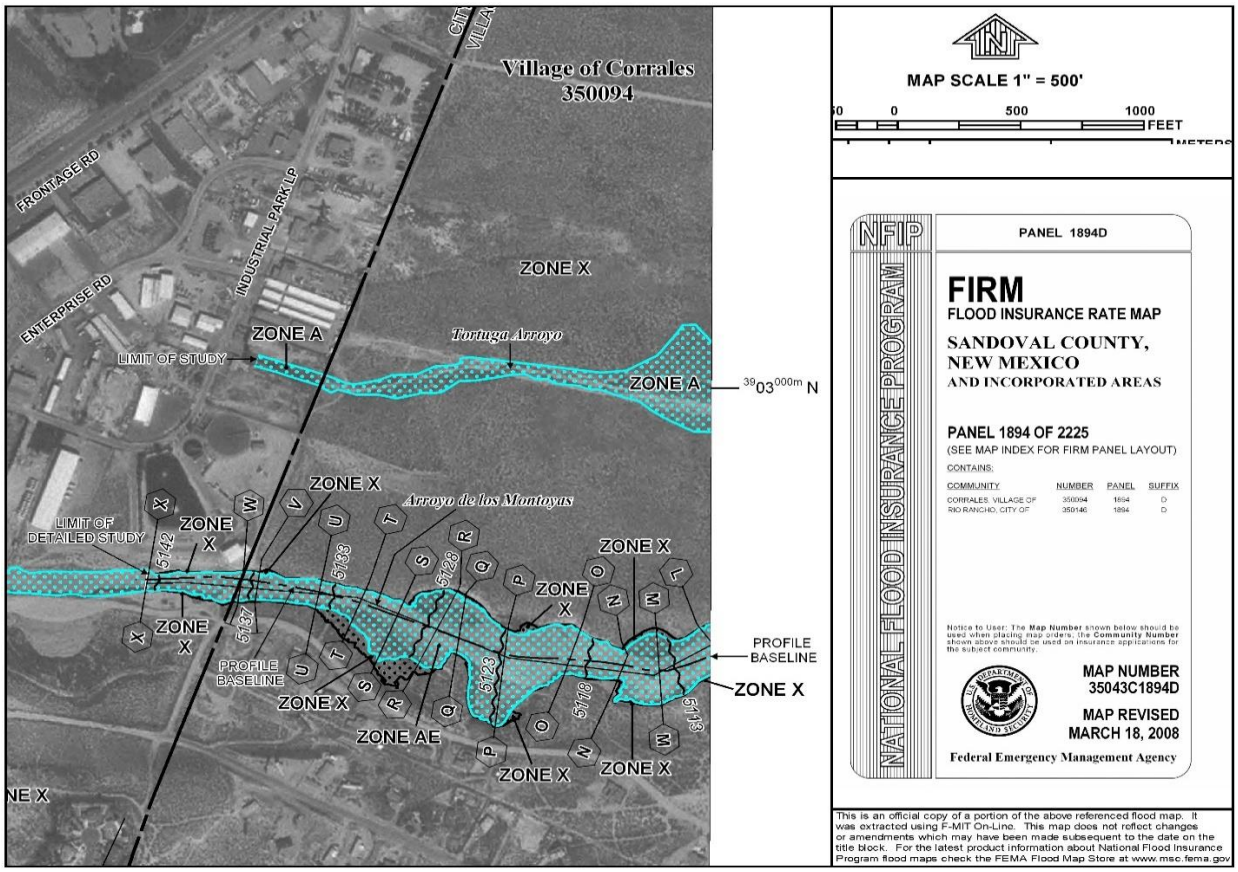


Figure 5. FEMA Flood Insurance Rate Maps (FIRMs) for the Tortugas Arroyo area (FEMA 2008).

3.1.5 Air Quality, Noise, and Aesthetics

The Project area is in New Mexico's Air Quality Control Region 2 for air quality monitoring. Sandoval County is "in attainment" (does not exceed State and Federal Environmental Protection Agency air quality standards) for all criteria pollutants (NMED/ABQ 1995). Air quality in the project area is generally good. The closest Class I area is Bandelier Wilderness, located approximately 85 miles to the north of the project site. Class I areas are special wilderness areas of scenic beauty and natural wonder, 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.

All vehicles involved in construction would be required to have passed a current New Mexico emissions test and have required emission control equipment. The proposed project would result in a temporary but negligible increase in suspended dust particles from construction activities. The project would maintain the work area within or outside the project boundaries free from particulates in accordance with Federal, State, and local air pollution standards. The proposed project would disturb more than three-quarters of an acre. Appropriate erosion and sediment controls would be implemented under a Fugitive Dust Control Permit. Water sprinklers

and other methods would be used during construction to minimize dust. Air quality in Rio Rancho and Corrales, Sandoval County, would not be affected by the proposed project or by the no-action alternative.

Background noise levels in the proposed project area can be heard during business hours from the concrete plant located in the industrial park and immediately adjacent to the arroyo. According to the Centers for Disease Control (CDC 2021), a typical, quiet 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. During construction, noise would temporarily increase in the vicinity during vehicle and equipment operation. The Noise Center advises that noise levels above 85 decibels will harm hearing over time, and noise levels over 140 decibels can cause damage to hearing after just one exposure. However, the increase in noise during construction would be minor and temporary, ending when construction is complete. Therefore, the proposed project would have no significant effect on noise. The no-action alternative would have no effect to noise.

Aesthetically, the terrain of the project area can be characterized as open land that is partially disturbed. Dirt roads exist to access the newly installed solar array farms, large blocks of old concrete, old metal fencing, T-posts, and various other construction related trash are present throughout the arroyo mixed with piles of tumbleweed. All the proposed work would be confined to the existing Tortugas Arroyo and ending at the Montoyas Arroyo. All proposed equipment would be installed within the boundaries of the proposed site. Neither the proposed action nor the no-action alternative would have an effect on the aesthetic values or scenic quality in the area.

3.2 Hazardous, Toxic, and Radioactive Waste Environment

To identify and document the recognized environmental conditions (i.e., hazardous, toxic, and radioactive waste (HTRW)) in connection with the proposed project, a Phase I Environmental Site Assessment (Phase 1 ESA) for the Industrial Park and surrounding area was conducted by the Corps (USACE 2021; Appendix C). The Phase 1 ESA was developed following American Society for Testing and Materials (ASTM) guidance (E2247-16). Environmental regulatory records, historic aerial photographs, site reconnaissance, and interviews were used to assess the historic and existing environmental conditions within the project area and buffer.

The Phase 1 ESA has revealed no evidence of recognized environmental concerns within or near the proposed construction project. The Phase 1 ESA did not identify the presence or likely presence of any hazardous substance, or petroleum products on or near the property that indicate an existing release, a past release, or threat of a release into the ground, groundwater, or surface water of the property.

The no-action alternative would have no effect on known HTRW, as there are no recognized environmental concerns within or near the proposed construction project.

The proposed alternative would have no effect on known HTRW, as no recognized environmental concerns within or near the proposed construction project were identified. Based on the lines of evidence derived from the Phase 1 ESA, a Phase II investigation (ASTM E1903) is not warranted at this time. If areas of concern or contaminants are identified, construction shall be postponed,

and the Corps will coordinate with the SSCAFCA to determine the appropriate course of action. No HTRW releases are expected from the proposed action, therefore, no significant effects are expected.

3.3 Biological Environment

3.3.1 Vegetation Communities

The project site is part of the Plains Mesa Sand Scrub vegetation community as described by Dick-Peddie (1993). However, soils and vegetation within the project area have been previously disturbed with various types of construction related waste, including large concrete blocks, old metal fencing, old T-posts, and plastic tarp debris in and around the arroyo and associated washes. Additionally, two solar farms were recently installed on the west side of the project site, to the north and south of Tortugas Arroyo along with associated dirt roads. Site visits conducted by Corps biologists on April 8, 2021 and April 26, 2021 revealed vegetation consisting of four-wing saltbush (*Atriplex canescens*), sand sage (*Artemisia filifolia*), and Russian thistle (*Salsola iberica)*. Other plants observed include one small desert willow (*Chilopsis linearis*), one small salt-cedar (*tamarix* spp.) growing on the edge of the arroyo, and a few scattered common yucca (*Yucca intermedia*). Several piles of tumbleweed occur throughout the site.

None of the New Mexico Department of Agriculture's *New Mexico Noxious Weed List* were found on the project site.

The impacts of proposed action to the vegetation would be minimal. The only vegetation that would be affected includes four-wing saltbush, sand sage, and Russian thistle, which all occur in abundance throughout the area. None of the vegetation impacts are substantial or would significantly alter the vegetation conditions of the area. The no-action alternative would have no effect on the vegetation.

3.3.2 Wildlife

Wildlife species expected to be encountered on site would be limited to those well adapted to desert environments as the site is an open area with low-growing, scattered shrubs, with no source of consistent water in the vicinity of the project. Species such as desert mice, rabbits, and lizards, and predators of those species such as coyotes, roadrunners, and hawks, may infrequently use the project site. During rain events, water that flows through the wet weather conveyance may temporarily attract additional wildlife to the site.

During two separate site visits by Corps biologists (April 8, 2021; April 26, 2021) wildlife observed included an American Crow flying over the site, three House finches perched on a solar farm fence post for a short period, and individual Gambel's Qual, Mourning Dove, and Greater Roadrunner were observed nearby the project site across Don Julio Road. No nesting birds were observed on site. Scattered small holes exist throughout the site that are likely used primarily by mice, lizards, and rabbits. Predators of those species such as coyotes, hawks, and roadrunners could

infrequently use the site in search of prey. The site was previously disturbed with various types of construction related waste, including large concrete blocks, old metal fencing, several old T-posts, and plastic tarp debris in and around the arroyo and associated washes, and large piles of tumbleweed exist throughout the site.

Wildlife displaced during installation would be insignificant. Any trenches left overnight would be covered to prevent trapping of wildlife or ramps would be installed to allow animals to safely escape. The project site would be surveyed for wildlife prior to the start of construction and all work would be conducted outside the breeding bird season. Due to the lack of habitat and limited amount of disturbance, there would be no significant adverse effect on wildlife as a result of the proposed project or the no-action alternative.

3.3.3 Special Status Species

Three agencies have primary responsibility for protecting and conserving plant and animal species within the proposed project area. The USFWS, under authority of the Endangered Species Act of 1973 (16 U.S.C. 1531 *et seq.*) (ESA), as amended, has the responsibility for Federally listed species. The New Mexico Department of Game and Fish (NMDGF) has the responsibility for state-listed wildlife species. The New Mexico State Forestry Division (Energy, Minerals, and Natural Resources Department) (NM EMNRD) has the responsibility for state-listed plant species. Each agency maintains an 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 by the USFWS and the NMDGF for Sandoval County, New Mexico are provided in Table 1.

Table1. Federal and State Special Status Species for Sandoval County, New Mexico.

Common Name	Scientific Name	Federal Status	State NM Status
Mammals:			
Spotted Bat	*Euderma maculatum*	--	T
Pacific Marten	*Martes caurina*	--	T
Meadow Jumping Mouse	*Zapus luteus luteus*	E	E
Birds:			
Yellow-billed Cuckoo (western DPS)	*Coccyzus americanus occidentalis*	T	--
Costa's Hummingbird	*Calypte costae*	--	T
Broad-billed Hummingbird	*Cynanthus latirostris*	--	T
Neotropic Cormorant	*Phalacrocorax brasilianus*	---	T
Brown Pelican	*Pelecanus occidentalis*	--	E

Bald Eagle	*Haliaeetus leucocephalus*	--	T
Common Black Hawk	*Buteogallus anthracinus*		T
Mexican Spotted Owl	*Strix occidentalis lucida*	T	---
Peregrine Falcon	*Falco peregrinus*	--	T
Southwestern Willow Flycatcher	*Empidonax traillii extimus*	E	E
Gray Vireo	*Vireo vicinior*	--	T
Baird's Sparrow	*Centronyx bairdii*	--	T
Amphibians:			
Jemez Mountains Salamander	*Plethodon neomexicanus*	E	E
Fish:			
Rio Grande Silvery Minnow	*Hybognathus amarus*	E	E
Wrinkled Marshsnail	*Stagnicola caperata*	--	E
Paper Pondshell	*Utterbackia imbecillis*	--	E
Butterflies:			
Monarch Butterfly	*Danaus plexippus*	C	--

Status Key (as prepared by USFWS) E=Endangered; T=Threatened, C=Candidate.

No Federally listed Threatened, Endangered, or Proposed species were observed in the project area during the two site surveys conducted by a Corps Biologist. The Corps determined that the project area does not contain the preferred habitat for any of the special status species listed for Sandoval County, New Mexico.

The New Mexico State Forestry Division (Energy, Minerals and Natural Resources Department) (NM EMNRD) has the responsibility for maintaining a list of State endangered plant species. The State plant species list indicates that there are four endangered plant species in Sandoval County: The Wood Lily (*Lilium philadelphicum*), Parish's alkali grass (*Puccinellia parishii*), Clover's cactus (*Sclerocactus cloverae*), and Gypsum Townsend's aster (*Townsendia gypsophila*). Corps biologists surveyed the project site on April 8, 2021 and April 26, 2021 and none of these rare plant species were observed. The preferred site conditions of these rare plant species do not exist at or nearby the project area.

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

3.4 Cultural Resources

Implementation of proposed Federal actions must comply with the National Historic Preservation Act (NHPA) of 1966 (16 U.S.C. § 470 *et seq*.) as amended. Under the NHPA, consideration of historic preservation issues is to be integrated into the early stages of project planning by federal agencies. Under Section 106 of the NHPA, a federal agency is required to account for the effects of proposed actions on any district, site, building, structure, or object that is included or eligible for inclusion in the National Register of Historic Places (NRHP), prior to the expenditure of funds on the action. Section 110 of the NHPA requires the identification and evaluation of any historic properties on federal property that meet the eligibility criteria of the NRHP. The New Mexico Historic Preservation Division (NMHPD) serves as the New Mexico State Historic Preservation Office (SHPO). Federal agencies are responsible for assessing whether proposed projects will impact historic or archaeological resources. Federal agencies consult with the SHPO on their NRHP eligibility and effect determinations and seek concurrence or resolution of adverse effects.

Summary of Cultural Resources Inventory

Existing Environment

Pursuant to 36 CFR 800.4, the Area of Potential Effects (APE) includes an area of 12.3 acres. This includes 9 acres for project implementation and 3.3 acres for use as a staging area. On April 7, 2021, Corps archaeologist Jessica Gisler conducted a search of the State of New Mexico Archaeological Records Management Section's New Mexico Cultural Resources Information System (NMCRIS) database and map server, the State Register of Cultural Properties, and the National Register of Historic Places. There have been two surveys partially within the APE that were performed to current standards (Table 2). A search of the NRHP and the New Mexico State Register of Cultural Properties databases conducted on April 7, 2021, indicated there are no known or listed historic properties within the APE or vicinity.

Table 2. Existing Surveys Within the Area of Potential Effect for Tentatively Selected Plan

NMCRIS No.	Date	Survey Name	Acres	Results of Survey: Sites; Isolated Occurrences (IOs)
28933	1990	Archaeological Survey of a Proposed Effluent Line Right-of-Way in Rio Rancho, NM	5.74	4 IOs
122733	2011	Cultural Resource Survey for Phase II of NM Highway 528 Improvements, Sandoval County, New	18.13	None

Corps archaeologists, Jessica Gisler and George MacDonell, conducted a survey of the Tortugas Arroyo 595 Project APE on 4/8/2021. The archaeologists performed an intensive survey by walking 15m E-W and then N-S transects. Nine acres were surveyed west of Don Julio Road for project implementation. Then, the archaeologists crossed the road and surveyed 3.3-acres east of Don Julio Road for use as a staging area. Surface visibility was approximately 60 percent. The understory consisted primarily of Four wing saltbush, Russian thistle, and sandsage. No overstory was present. The area has been heavily disturbed by previous construction activities. The northern end of the project APE is located between two recently installed solar panel fields. The solar panel fields are fenced, and a gravel drive/parking lot leads up to a gated entrance at the western solar

panel field. A small drainage pond is located on the western side of the Tortugas Arroyo. The area has been subjected to extensive bioturbation. Numerous burrows were noted throughout the survey. It was also clear that the 3.3-acres surveyed for the staging area have been used for that purpose in the past. Tire tracks and user-created roads were observed as well as several large dirt piles. Modern trash and construction debris are widespread throughout the APE and within the Tortugas Arroyo. No cultural resource sites or isolated occurrences were located during this survey. Based on correspondence with the NMHDP, no historic properties are present within the area of potential effect. Therefore, the Proposed Action would have no effect on historic properties.

No Action Alternative

The No Action Alternative would have no effect on historic properties.

Coordination with Other Federal, State, Regional, and Local Agencies

SHPO Consultation

On behalf of the Southern Sandoval County Arroyo Flood Control Authority (SSCAFCA), a consultation letter was sent to the SHPO on April 12, 2021, regarding the potential effects of the project on any associated historic or archaeological resources. Based on the lack of NRHP and State registered cultural properties and the degree of prior disturbance, it was concluded that it is unlikely that the Proposed Action would impact archaeological or historical resources. On April 16, 2021, the SHPO concurred that there are no historic properties in the project area, and the project would have no effect on historic properties (Appendix A).

Tribal Consultation

Consistent with the Department of Defense's American Indian and Alaska Native Policy, signed by Secretary of Defense, William S. Cohen, on October 20, 1998, and based on the State of New Mexico Indian Affairs Department and Historic Preservation Division's 2021 Native American Consultation List, American Indian Tribes that have indicated they have concerns in this portion of Sandoval County were contacted regarding the proposed project.

Section 106 of the NHPA also requires consultation with interested Native American tribes. According to the NMHPD, there are seventeen tribes with lands and jurisdiction in Sandoval County, including the Comanche Nation of Oklahoma, Jicarilla Apache Nation, Kewa Pueblo, Navajo Nation, Ohkay Owingeh, Pueblo de 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 Tesuque, Pueblo of Zia, and The Hopi Tribe. Coordination letters were submitted to each tribe on April 12, 2021, to determine if they have concerns about any traditional cultural properties, sacred sites, or properties of religious or cultural significance that may be affected by the project. Table 3 below includes the name of each tribe, date the coordination letter was sent, and any comments received from the tribes. Responses received from the tribes are included in Appendix A.

Table 3. Tribal Consultation Correspondence.

Tribe	Date Letter Sent	Response Received & Comments
Comanche Nation of Oklahoma	4/12/2021	No response received to date.
Jicarilla Apache Nation	4/12/2021	No response received to date.
Kewa Pueblo	4/12/2021	No response received to date.
Navajo Nation	4/12/2021	No response received to date.
Ohkay Owingeh	4/12/2021	No response received to date.
Pueblo de Cochiti	4/12/2021	No response received to date.
Pueblo of Isleta	4/12/2021	No response received to date.
Pueblo of Jemez	4/12/2021	No response received to date.
Pueblo of Laguna	4/12/2021	No response received to date.
Pueblo of San Felipe	4/12/2021	No response received to date.
Pueblo of San Ildefonso	4/12/2021	No response received to date.
Pueblo of Sandia	4/12/2021	Response received on April 14, 2021. The Pueblo of Sandia does not have any concerns with the proposed project. They commented, "We support implementation of the project. It looks like a much needed riparian project that will support water quality in the reach of the Rio Grande that crosses the Pueblo of Sandia."
Pueblo of Santa Ana	4/12/2021	Response Received on April 15, 2021. They concur with the determination of no historic properties effected.
Pueblo of Santa Clara	4/12/2021	Response received on April 15, 2021. They concur with the determination of no historic properties effected. They requested to be notified within 24 hours of any inadvertant discoveries in order to continue consultation.
Pueblo of Tesuque	4/12/2021	Response received by phone call on April 14, 2021. They requested to be notified in the case of any inadvertant discoveries during construction.
Pueblo of Zia	4/12/2021	No response received to date.
The Hopi Tribe	4/12/2021	No response received to date.

3.5 Land Use and Socioeconomic Considerations

Land use along both sides of New Mexico Highway 528 adjacent to the Industrial Park is characterized primarily by a mixture of residential and commercial developments. The project site is located in a partially disturbed lot between the Rio Rancho Industrial Park and Don Julio Road. Don Julio Road runs along the eastern side of the project area and has residential homes north of Tortugas Arroyo on the eastside of the road, including the Tierra de Corrales subdivision and

several undeveloped residentially zoned properties. Noise from the industrial park is known to be loud during business hours, primarily from the concrete processing business located in the industrial park and immediately adjacent to the Tortugas Arroyo. The City of Rio Rancho and the Village of Corrales are located in Sandoval County, NM. The total estimated population of Sandoval County is 146,748 (U.S. Census Bureau 2019). The ethnic background for Sandoval County is: white (non-Hispanic), 76.2%; Hispanic (any race), American Indian, 14.1%; black, 3.7%; Asian, 2.7%, and other, 7.4%. The median household income in 2018 was estimated to be $59,420. The average annual unemployment rate for Sandoval County in 2018 was 6.7% (New Mexico Department of Labor). Industries making major contributions to Sandoval Counties economy include health care and social assistance, retail trade, and educational services. The proposed project would not affect land use or socioeconomic resources in the project area.

The proposed improvements project would be conducted under Section 595 of the Water Resources Development Act of 1999 (Public Law 106-53), 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. 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 by the proposed action or under the no-action alternative.

3.6 Human Health and Safety

The proposed project would improve water quality and provide flood mitigation for storm flows. Currently, there are no existing facilities in place to treat storm flows and assure these flows reaching the Rio Grande are treated for water quality. Human health and safety would be beneficially affected due to the proposed project. Under the no-action alternative, more concrete debris and other construction related wastes would continue to be dumped in the arroyo, and storm flows would continue to flood the area and accumulate additional debris and trash. Therefore, there would be a negative impact to human health and safety from the no-action alternative.

3.7 Environmental Justice

Executive Order 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations; February 1994) was designed to focus the attention of federal agencies' actions on the human health and environmental conditions of minority and low-income communities. It requires federal agencies to adopt strategies that address environmental justice concerns within the context of agency operations and 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. 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 Tortugas Arroyo Improvements Project would be conducted under Section 595 of the Water Resources Development Act of 1999 (Public Law 106-53), 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 Tortugas Arroyo would benefit Sandoval County. 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 or by the no-action alternative.

4. CONCLUSION and SUMMARY

The proposed action evaluated in this Draft EA addresses the method and potential effects for the flood management infrastructure modifications and water quality improvements. The proposed project is located in a previously disturbed area that collects construction related waste from the Rio Rancho Industrial Park. Impacts to the environment would be non-significant, short-term, and related solely to construction. Therefore, the proposed project would not significantly affect the quality of the human environment and is recommended for implementation.

5. PREPARATION, CONSULTATION and COORDINATION

5.1 Preparation

This Draft Environmental Assessment was prepared for the Southern Sandoval County Arroyo Flood Control Authority (SSAFCA) by the U.S. Army Corps of Engineers, Albuquerque District. Personnel primarily responsible for preparation include:

Stephen Ryan	Biologist
Jessica Gisler	Archaeologist
Sarah Moore	Climate & Climate Change
John Stomp	HTRW
Michael Martinez	Project Manager
Danielle Galloway	Quality Control
George MacDonell	Quality Control

5.2 General Consultation and Coordination

Agencies and entities that were contacted in preparation of this EA include:

Shawn Sartorius
U.S. Fish and Wildlife Service

New Mexico Ecological Services Field Office

Ms. Jennifer Faler
U.S. Bureau of Reclamation
Albuquerque Area Office

Mr. Mike Sloane
New Mexico Department of Game and Fish

Mr. Matt Wunder
New Mexico Department of Game and Fish
Conservation Services Division

Mr. David Gray, Acting Regional Administrator
U.S. Environmental Protection Agency, Region 6
Office of Planning and Coordination

Mr. Rolf Schmidt-Peterson
New Mexico Interstate Stream Commission

Ms. Page Pegram
New Mexico Interstate Stream Commission

Ms. Daniela Roth
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New Mexico Forestry

Ms. Shelly Lemon
Surface Water Quality Bureau
NM Environment Division

Mr. Ed Kelley
Water and Waste Management Division
NM Environment Division

Dr. Jeff Pappas
State Historic Preservation Officer
Historic Preservation Division

Mr. John R. D'antonio
NM State Engineer

Mr. Wayne Johnson
Manager Sandoval County

Public Works
Sandoval County

Loma Colorado Main Library
755 Loma Colorado Blvd. NE
Rio Rancho, NM 87124
(505) 891-5013

5.3 Public Involvement under NEPA

5.4 Libraries and Locations the Draft EA was Available

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