Draft Environmental Assessment

# City of Farmington Porter Arroyo Drainage Project

HMGP-DR-1936-NM Project #5

San Juan County, New Mexico

*April 2013*

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DRAFT

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# List of Acronyms

| | |
|---|---|
| ARMS | Archaeological Records Management Section |
| AQB | Air Quality Bureau |
| API | American Petroleum Institute |
| BLM | Bureau of Land Management |
| BMPs | Best Management Practices |
| CADDIS | Causal Analysis/Diagnosis Decision Information System |
| CAA | Clean Air Act |
| CEQ | Council on Environmental Quality |
| CERCLA | Comprehensive Environmental Response, Compensation, and Liability Act |
| CFR | Code of Federal Regulations |
| CGP | Construction General Permit |
| CWA | Clean Water Act |
| EA | Environmental Assessment |
| EIS | Environmental Impact Statement |
| EO | Executive Order |
| ESA | Endangered Species Act |
| FEMA | Federal Emergency Management Agency |
| FIRM | Flood Insurance Rate Map |
| FMPO | Farmington Metropolitan Planning Organization |
| FONSI | Finding of No Significant Impact |
| FPPA | Farmland Protection Policy Act |
| GHG | Greenhouse Gases |
| GWQB | Groundwater Quality Bureau |
| HMGP | Hazard Mitigation Grant Program |
| HPD | New Mexico State Historic Preservation Division |
| HU | Hydrologic Unit |
| IPCC | Intergovernmental Panel on Climate Change |
| LUST | leaking underground storage tank |
| MBTA | Migratory Bird Treaty Act |
| NAAQS | National Ambient Air Quality Standards |
| NEPA | National Environmental Policy Act |
| NFIP | National Flood Insurance Program |
| NHPA | National Historic Preservation Act |
| NMAC | New Mexico Administrative Code |
| NMBGMR | New Mexico Bureau of Geology and Mineral Resources |
| NMDGF | New Mexico Department of Game and Fish |
| NMED | New Mexico Environment Department |
| NMFS | National Marine Fisheries Services |
| NMOC | New Mexico One Call |

| | |
|---|---|
| NMOSE | New Mexico Office of State Engineer |
| $NO_x$ | Nitrogen Oxides |
| NPDES | National Pollutant Discharge Elimination System |
| NRCS | Natural Resources Conservation Service |
| NRHP | National Register of Historic Places |
| NWP | Nationwide Permit |
| OHWM | Ordinary High Water Mark |
| PSD | Prevention of Significant Deterioration |
| RCRA | Resource Conservation and Recovery Act |
| SHPO | State Historic Preservation Officer |
| SWQB | Surface Water Quality Bureau |
| SWPPP | Stormwater Pollution Prevention Plan |
| UDC | Unified Development Code |
| USACE | United States Army Corps of Engineers |
| USCB | United States Census Bureau |
| USDA | United States Department of Agriculture |
| USEPA | United States Environmental Protection Agency |
| USFWS | United States Fish and Wildlife Service |
| USGS | United States Geological Survey |
| WCRM | Western Cultural Resource Management |
| WOUS | Water of the United States |

# 1.0 Introduction

This Environmental Assessment (EA) has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, the President's Council on Environmental Quality regulations to implement NEPA (40 Code of Federal Regulations Parts 1500-1508), and Federal Emergency Management Agency's (FEMA's) regulations implementing NEPA (44 CFR Part 10). FEMA is required to consider potential environmental impacts before funding or approving actions and projects. The purpose of this EA is to analyze the potential environmental impacts of the City of Farmington's proposed Porter Arroyo Detention Basin. FEMA will use the findings in this EA to determine whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI).

# 2.0 Purpose and Need

## *2.1 Purpose*

Through the Hazard Mitigation Grant Program (HMGP), FEMA provides grants to states and local governments to implement long-term hazard mitigation measures. The purpose of HMGP is to reduce the loss of life and property due to natural disasters and to enable mitigation measures to be implemented during the immediate recovery from a disaster. HMGP is authorized under Section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act.

## *2.2 Need*

Past rain events in Farmington have resulted in flash flooding, which has threatened public safety and caused damages to commercial businesses, residences, and public infrastructure located along Porter Arroyo in the northeastern portion of the City of Farmington (hereafter referred to as "the City") in San Juan County, New Mexico.

The most recent significant flood event occurred on August 1, 2010. During this flood event the National Weather Service measured 2.5 inches of rain over a three-hour period, most of which fell over a span of only 45 minutes. According to meteorologists this was equal to a 200 year flooding event. This event resulted in damages to 10 area businesses and 35 residential properties located along the Porter Arroyo. The cost of cleanup and repair was estimated at approximately three million dollars.

Based on the current and continued risk of flooding, the City has identified the need to control flooding and prevent future flood damages and losses along Porter Arroyo.

# 3.0 Alternatives

## *3.1 Alternative One: No Action*

Under this alternative, no action would be taken to reduce flood risk. Flood waters would continue to follow their present southeasterly course through Porter Arroyo and under Piñon Hills Boulevard, Windsor Drive, 30th Street, and Main Street (NM 516) eventually discharging to the Animas River. Infrastructure, residences, and commercial structures would experience no change in the effect of floodwaters.

## *3.2 Alternative Two: Proposed Action*

The City proposes to construct the Porter Arroyo Detention Basin to control the storm water flow rate of the Porter Arroyo. Construction of the basin would remove many of the downstream residential and commercial properties from the regulatory floodplain. The detention basin has been designed to detain the runoff generated by a 100-year storm within the Porter Arroyo drainage system. The Porter Arroyo drainage area covers approximately 1,500 acres and is roughly 3.5 miles in length from its upper basin limits on Hood Mesa to its outfall into the Animas River.

The proposed project is located within the Farmington city limits north of Piñon Hills Boulevard, approximately 2.4 miles north of the Animas River. The 40-acre parcel is bound on the south by Piñon Hills Boulevard, a four-lane paved road, and on the west and north by College Boulevard, a two-lane paved road (Latitude: 36.77892; Longitude: -108.16340). Piedra Vista High School is located immediately east of the proposed project area. The surrounding area is moderately developed with education institutions, private residences, and a variety of businesses, including the BLM. A Topographic Site Location Map is presented as Figure 1 in Appendix A.

The detention basin would hold surface runoff and release it in a controlled manner over an approximate 27 hour time period to reduce the potential for flooding downstream. Hydrology for the detention basin design was based on earlier studies performed by the U.S. Army Corps of Engineers (USACE). The hydrology was recently updated using recently compiled rainfall data and recent aerial photography and contour mapping, which were ultimately used for sizing the basin volume and spillway capacity. The project also includes construction of a berm and outfall channel. The basin is tentatively planned for construction during 2013. Construction plans prepared by the Larkin Group NM, Inc. are presented in Appendix B.

Below is a quantity/dimension summary chart from the construction plans:

THE OUTLET STRUCTURE FROM THE DETENTION POND IS LOCATED IN THE SOUTHWEST QUARTER (SW 1/4) OF SECTION 25, TOWNSHIP 30 NORTH, RANGE 13 WEST, NEW MEXICO PRINCIPAL MERIDIAN, AT A POINT WHOSE STATE PLANE COORDINATES ARE:
X = 127,317.34, Y = 103,547.60, CENTRAL ZONE, N.A.D. 1927.

THE PORTER ARROYO DETENTION POND HAS THE FOLLOWING PROPERTIES:

| | |
|---|---|
| HAZARD CLASSIFICATION | HIGH |
| MAXIMUM HEIGHT OF DIKE ABOVE FOUNDATION | 23 FEET |
| LENGTH OF DIKE | 650 FEET |
| MAXIMUM DIKE WIDTH AT BASE | 135 FEET |
| CREST WIDTH | 20 FEET |
| SLOPE UPSTREAM FACE | 2.5:1 |
| SLOPE DOWNSTREAM FACE | 2.5:1 |
| ELEVATION AT CREST OF DIKE | 5654.9 |
| ELEVATION AT EMERGENCY SPILLWAY CREST | 5645.0 |
| ELEVATION AT BOTTOM OPENING OF OUTLET STRUCTURE | 5629.0 |
| ELEVATION OF FLOWLINE OF OUTLET CONDUIT | 5625.6 |
| FREEBOARD | 11.4 FEET |
| WIDTH OF EMERGENCY SPILLWAY | 35 FEET |
| DISCHARGE CAPACITY OF EMERGENCY SPILLWAY | 7690 CFS |
| OUTLET CONDUIT, TYPE AND SIZE | 30" RCP |
| OUTLET CONDUIT, CAPACITY AT EMERGENCY SPILLWAY CREST | 99 CFS |
| EVACUATION TIME | 26.6 HOURS |
| DRAINAGE AREA | 467 ACRES |
| STORAGE CAPACITY TO SPILLWAY CREST | 25.9 AC-FT |

A topographic site location map is included as Figure 1, and an aerial location map is presented as Figure 2.

## *3.3 Alternatives Considered and Eliminated*

In addition to the Proposed Action and the No Action Alternative, the City initially considered two additional alternatives in association with this project.

The first involved locating a detention basin north of the proposed project area and north of College Boulevard on land administered by the Bureau of Land Management. The location is in Zone X and outside the 500-year floodplain, and is upstream of the properties affected by flood events. However, this alternative was rejected because the location of the detention basin in this area could not have been situated to capture all of the tributaries that contribute to Porter Arroyo. Therefore, a detention structure located in this area would not have provided sufficient flood mitigation.

The second alternative involved locating a detention basin in Kiwanis Park on the north side of 30th Street between College Boulevard and Main Street, approximately one mile south of the proposed project area. Portions of the proposed detention basin would have been located within the base floodplain. This alternative was eliminated from further consideration because, although commercial properties would have been removed from the flood zone, the location of the detention basin would have failed to provide flood mitigation for the 35 residential homes

currently in the FEMA 100 year floodplain and subject to flooding of Porter Arroyo. Additionally, the City would have lost use of one of its recreational parks.

# 4.0 Affected Environment and Potential Impacts

## *4.1 Physical Resources*

### 4.1.1 Geology, Soils and Seismicity

#### *4.1.1.1 Geology*

Elevation within the project area ranges from approximately 5,630 to 5,665 feet above mean sea level. Bedrock geology in the project area is the Tertiary Ojo Alamo Sandstone Formation, a yellow to orange to tan, medium to coarse grained, poorly sorted, weakly cemented, locally tuffaceous sandstone with gravel and pebble clasts which is interbedded with grey to green to maroon shale and sand intervals and which forms crossbeds, cliffs, spires, hoodoos and caves (New Mexico Bureau of Geology and Mineral Resources (NMBGMR) and USGS, 2004). The Ojo Alamo Formation is regionally overlain by the Tertiary Nacimiento Formation, a poorly consolidated, slope forming unit consisting of interbedded tuffaceous shale and fine- to medium-grained, porous, weakly to moderately cemented sandstone (NMBGMR 2004). Quaternary alluvium occupies the channels and floodplains within the project area, and consists of greyish tan to reddish tan, moderately well-sorted, silt to coarse-grained sand to cobbly gravel (NMBGMR 2004). Two significant sandstone outcrops trend north to south within the project area as shown on the Aerial Site Map in Figure 2 in Appendix A.

According to Terracon Consultants, Inc. in a Geotechnical Engineering Report prepared on behalf of the Larkin Group NM, Inc. on October 30, 2008 (Terracon), sandstone outcrops observed during field reconnaissance of the project area are comprised of the Ojo Alamo Formation overlain by the Nacimiento Formation, and exhibit crossbedding and gradational bedding. Moderately weathered sandstone bedrock was encountered at between 5 and 19 feet bgs. Quaternary alluvium was observed in the streambed, consisting of medium- to coarse-grained sands with gravel in active washes and arroyos, and fine- to medium-grained clayey sands on floodplains. The report is presented in Appendix C

#### *4.1.1.2 Soils*

Based on the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey, the proposed project area includes the following soil map units:

- **Stumble loamy sand, 0 to 3 percent slopes**. The Stumble series consists of very deep, somewhat excessively drained soils that formed in eolian sand and alluvium derived from mixed rocks, and occupy dunes within the project area.

- **Farb-Persayo-Rock outcrop complex, moderately steep**. The Farb series consists of shallow and very shallow, excessively or somewhat excessively drained soils that formed in residuum, eolian material, colluvium and slope alluvium derived from sandstone and shale. Farb soils are on hills, mesas, cuestas, escarpments, canyons and structural benches. The Persayo series consists of shallow and very shallow, well drained soils on hills, terraces, and ridges. These soils formed in thin sediments weathered from underlying soft sedimentary bedrock.

Detailed soil descriptions are available at the USDA NRCS Official Soil Series Descriptions online resource (https://soilseries.sc.egov.usda.gov/osdname.asp).

The Farmland Protection Policy Act (FPPA) was enacted in 1981 (Public Law 97-98, December 22, 1981) with the purpose of minimizing the impact of federal programs on the permanent conversion, either directly or indirectly, of important farmland to non-agricultural uses (Farmland Protection Policy Act Manual, 2012). On the basis of soil characteristics of data compiled by the NRCS National Cooperative Soil Survey Program, the FPPA designates farmland as prime, unique, statewide or locally important. Prime farmland is defined under the FPPA as "land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is also available for these uses."

No soils within the project area are designated as prime farmland by NRCS. However, Stumble loamy sand, 0 to 3 percent slopes, is designated as farmland of statewide importance for the production of food, feed, fiber, forage, and oil seed crops. Generally, soils with this designation have the potential to produce high yields of crops when managed according to acceptable farming methods, and may be capable of producing as high a yield as prime farmland under favorable conditions. An NRCS Custom Soil Resource Report for San Juan County, New Mexico, Eastern Part is included as Appendix D.

According to Terracon, subsurface soils at the site consist of moist clayey sands and poorly graded silty sands underlain by moderately weathered sandstone bedrock encountered at between 5 and 19 feet bgs. The Terracon report which details this information is included as Appendix C.

*4.1.1.3 Seismicity*

Earthquakes occur along faults when the rock on one side of the fault slips with respect to the other. According to the USGS Quaternary Faults database, no faults are located within or near the project location. The closest Quaternary fault is located in the mountainous region east of

Cuba, New Mexico, approximately 100 miles southeast of Farmington. Most earthquake activity in New Mexico has been concentrated in the Rio Grande Valley between Socorro and Albuquerque. The probability of an earthquake with a magnitude 5.0 or higher, or one which is felt by everyone but results in slight damage, occurring within 50 kilometers of the project area and within 100 years is approximately 2 percent. This information is presented in a map generated by the USGS online Earthquake Probability Mapping tool (available here: https://geohazards.usgs.gov/eqprob/2009/index.php) in Appendix E.

According to Terracon, there have been two recorded earthquakes within a 100 kilometer (km) radius of the project location since 1973, varying in magnitude from 2.5 to 4.2. In the same time frame, five earthquakes have been recorded within a 150 km radius of the site, and varied in magnitude from 2.7 to 4.6, located approximately 104 km from the site. None of these earthquakes were recorded within 30 kilometers of the site. According to the document, the peak acceleration (percent gravity (g) with 2 percent probability of exceedance in 50 years) at the site is 7.8 percent, or 0.078 g, and there is not a significant potential for geologic hazards. The report is included in Appendix C.

Because the proposed undertaking is not located in an area that has significant seismological activity or potential hazards, no further review regarding seismicity was conducted.

#### *4.1.1.4 Alternative One: No Action*

No adverse impacts to geology or soils would be anticipated with the No Action Alternative, since the project would not be constructed. However, without the implementation of the proposed detention basin, soils within the project area would continue to be inundated by unmitigated floodwaters with the potential for significant sediment transport via the Porter Arroyo into the Animas River.

#### *4.1.1.5 Alternative Two: Proposed Action*

Under the proposed action alternative, impacts to geology and seismicity are not anticipated. Impacts to soils within the project area would occur as part of the proposed action, which includes cut and fill activity and soil compaction to construct the detention basin.

A request for project comment was sent to the New Mexico Environment Department (NMED) Environmental Impact Review Coordinator in August 2012. A response was made by the NMED on September 13, 2012, and comments by the Surface Water Quality Bureau (SWQB) included obtaining coverage of applicable permits for excavation, cut and fill activities. Note that a Pre-Construction Notice and associated required materials were submitted by the City to the U.S. Army Corps of Engineers in 2011 for coverage under the Nationwide Permit (NWP) 43.

Erosion and sediment control measures to be taken during construction of the proposed basin include conducting work during dry conditions, the use of existing disturbed areas as staging areas, the installation of a silt fence and the planting of erosion control seed mix. These measures, along with the engineering specifications of the proposed detention basin, will serve to mitigate the impacts of sediments and erosion in surface waters during and after construction activities. Additionally, the contractor will obtain a Land Grading Permit as specified in the Section 12-4-31 of the City's Unified Development Code (UDC).

### 4.1.2 Air Quality

The Clean Air Act (CAA) requires that states adopt ambient air quality standards. The standards have been established in order to protect the public from potentially harmful amounts of pollutants. Under the CAA, the U.S. Environmental Protection Agency (USEPA) establishes primary air quality standards which protect the public health; including the health of populations that are sensitive to air quality such as people with asthma, children, and older adults. The EPA has established National Ambient Air Quality Standards (NAAQS) for six air pollutants. These pollutants include sulfur dioxide (SO2), particulate matter with a diameter less than or equal to ten micrometers (PM10) and 2.5 micrometers (PM2.5), carbon monoxide (CO), nitrogen dioxide (NO2), ozone (O3), and lead. USEPA has designated specific areas as NAAQS attainment or non-attainment areas. Non-attainment areas are areas that do not meet (or that contribute to ambient air quality in a nearby area that does not meet) the quality standard for a pollutant.

Air quality in the San Juan Basin is affected both by nearby industry and by natural terrain. The primary sources of air pollutants in the basin are from electrical power generation plants, oil/gas refineries and treating facilities, compressor stations, and oil/natural gas well locations. Additional air quality impairment results from the cumulative impact of area motor vehicle emissions and dust. Since the San Juan Basin is a natural depression, air masses sometimes stagnate from lack of circulation resulting in diminishing air quality. The NMED Air Quality Bureau (AQB) is responsible for enforcing the state and national ambient air quality standards in New Mexico. Any emission source must comply with the AQB regulations.

The project area lies within the Four Corners Interstate Air Quality Control Region. The states of New Mexico and Colorado have convened an Air Quality Task Force to work on the air quality issues and challenges facing the Four Corners region. Specific concerns include NAAQS and Prevention of Significant Deterioration (PSD) increment compliance, degradation of visibility, and increased deposition. The Four Corners Air Quality Task Force Final Report (November 1, 2007) outlined potential mitigation strategies under development and evaluation. Additional information can be found at the following website: http://www.nmenv.state.nm.us/aqb/4C/.

Correspondence from the NMED Environmental Impact Review Coordinator in September 2012 included the comment from the NMED-AQB that the information submitted for the proposed Porter Arroyo Detention Basin was evaluated and that San Juan County, New Mexico, is currently considered to be in attainment with all New Mexico and NAAQS.

#### *4.1.2.1 Alternative One: No Action*

No adverse impacts to air quality would be anticipated with the No Action Alternative, since no construction would take place.

#### *4.1.2.2 Alternative Two: Proposed Action*

During construction of the Porter Arroyo Detention Basin, minor short-term air quality impacts, primarily associated with particulates, volatile organics, Nitrogen Oxides ($NO_x$), carbon dioxide, and carbon monoxide, may be realized. Though it is not anticipated, the contractor will obtain any applicable air quality permits prior to operating construction equipment which requires coverage under an air quality permit. Dust control techniques, such as covering or treating disturbed areas with dust suppression techniques, sprinkling, and other dust abatement controls will be implemented during construction of the proposed project. Vehicle running times on site will be kept to a minimum and engines will be properly maintained. No adverse air quality impacts are anticipated during the operation of the Porter Arroyo detention basin.

### 4.1.3 Climate Change

Global mean surface temperatures have increased about 0.8°C from 1890 to 2012, with 2012 ranking as the ninth warmest year since 1880. All ten of the warmest years have occurred since 1998 (Goddard Institute for Space Studies, 2013). However, observations and predictive models indicate that average temperature changes are likely to be greater in the Northern Hemisphere. Without additional meteorological monitoring systems, it is difficult to determine the spatial and temporal variability and change of climatic conditions, but increasing concentrations of greenhouse gases (GHGs) are likely to accelerate the rate of climate change.

In 2004, the Intergovernmental Panel on Climate Change (IPCC) predicted that by the year 2100, global average surface temperatures would increase by approximately 0.6°C above 1980 levels, with a projected warming over the next two decades of about 0.2°C per decade. National Academy of Sciences (2011) supports these predictions but has acknowledged that there are uncertainties regarding how climate change may affect different regions. Computer model predictions indicate that increases in temperature will not be equally distributed but are likely to be accentuated at higher latitudes. Warming during the winter months is expected to be greater than during the summer, and increases in daily minimum temperatures is more likely than increases in daily maximum temperatures. It is not, however, possible to predict with any

certainty regional or site specific effects on climate relative to the proposed lease parcels and subsequent actions.

#### *4.1.3.1 Alternative One: No Action*

No adverse impacts to climate change would be anticipated with the No Action Alternative, since the project would not be constructed.

#### *4.1.3.2 Alternative Two: Proposed Action*

No adverse impacts to climate change are anticipated during the construction or operation phases of the Porter Arroyo detention structure, and additionally, the detention basin will serve as a mitigation measure for potential significant rainfall/flooding events associated with climate change.

## *4.2 Water Resources*

The project area is located within Hydrologic Unit (HU) #140801041006 (City of Farmington-Animas River) on the southeastern side of Hood Mesa. The intermittent Porter Arroyo flows south-southeast through the project area, with an ultimate discharge into the perennial Animas River approximately 2.4 miles south of the project area.

Groundwater is generally encountered near the surface of the Tertiary Nacimiento Formation, which outcrops near the project area. The Nacimiento Formation comprises one lithologic unit of the Uinta-Animas Aquifer, the principal aquifer in the region. The Nacimiento Formation is characterized by tuffaceous shales and interbedded sandstones (USGS, 2004). The thickness of the Nacimiento Formation in this area is reported to be less than approximately 420 feet (NMBGMR and USGS, 2004). New Mexico Office of State Engineer (NMOSE) registered water well SJ 01503 is located approximately 1,500 feet north-northeast of the project area at approximately 5,743 feet amsl. Depth to groundwater in this well was recorded as 260 feet bgs in 1981. Based upon topographic interpretation, local groundwater gradient is estimated to flow in a southerly direction into Porter Arroyo and the Animas River.
The Ordinary High Water Mark (OHWM) of the Porter Arroyo was determined during the assessment process, and it was found that the proposed project will impact approximately 0.298 acres within the OHWM of the Porter Arroyo. Up to 0.298 acres of permanent fill will take place in the OHWM as a result of construction of the berm, retention pond, and outfall channel features of the structure.

The creation of the detention basin will offset the proposed permanent fill by dredging material from within the existing OHWM and expanding the OHWM further to the east and west than the current limits of the OHWM. A detention basin, outfall channel, and compacted soil berm will be constructed within and along the OHWM. The berm will result in the placement of 915

cubic yards of material within the existing OHWM. The detention basin upstream of the berm will increase the effective area of the OHWM and offset the above losses by dredging material from within the existing OHWM channel and creating an area for stormwater detention that extends further to the east and west of the existing OHWM of the arroyo channel.

A project comment request letter was sent to the New Mexico Office of State Engineer on August 8, 2012, and a response was received by Blaine Watson, District V Supervisor, Aztec New Mexico, via electronic mail on August 13, 2012. Mr. Watson requested clarification on the basin design and the design detention time. If the basin met the definition of a dam, then dam safety regulations would apply (paragraphs B, C, and E of NMSA 72-5-32). If the retention time of the of basin is greater than 96 hours, then a water rights permit through the NMOSE would be required. These concerns were forwarded to City of Farmington Project Engineer, Chico Quintana, who confirmed that neither of these issues was applicable to the proposed project.

### 4.2.1 Water Quality

Under Section 404 of the Clean Water Act (CWA), the U.S. Army Corps of Engineers (USACE) regulates the discharge of dredged or fill material into waters of the U.S., including wetlands. Waters of the U.S. are defined as all waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide in 33 CFR 328.3. Section 404 of the CWA requires a permit from the USACE to perform activities that involve the discharge of dredged or fill material into the waters of the U.S.

Data obtained from the USGS (1995) indicates that the Uinta-Animas aquifer contains fresh to moderately saline water, with concentrations of dissolved-solids increasing along the groundwater flow path from less than 1,000 milligrams per liter (mg/L) in recharge areas to about 4,000 mg/L near discharge areas along the valley of the San Juan River.

The Animas River (between Estes Arroyo and San Juan River) has been determined by the U.S. Environmental Protection Agency (USEPA) to be impaired (i.e. not fully supporting) marginal coldwater aquatic life, primary contact, and warm water aquatic life, with probably causes of impairment associated with nutrients (total nitrogen and total phosphorus), E. coli, temperature and turbidity. Probable sources of impairment are listed as including: municipal (urbanized high density area), drought-related impacts, flow alterations from water diversions, and stream bank modifications/destabilization (NMED SWQB, 2012).

#### *4.2.1.1 Alternative One: No Action*

The No Action Alternative would result in the continued potential for sediment-laden floodwaters to negatively impact downstream ecologic and economic resources.

The USEPA Causal Analysis/Diagnosis Decision Information System (CADDIS) identifies excessive sediment as a stressor, or cause of impairment, of aquatic systems. According to CADDIS, the impacts from excessive suspended sediment and excessive deposited and bedded sediments include changes in composition of fish assemblages due to impaired visibility and the modification of a normally coarse substrate, changes in composition of invertebrate assemblages (reductions in gilled species and increases in filter feeders), changes in composition and abundance of submerged aquatic vegetation and changes in the abundance of macrophytes.

Continued adverse economic impacts due to the No Action Alternative include the continued deposition of floodwater-transported sediment on public and private property and the associated cost of removal and cleanup.

*4.2.1.2 Alternative Two: Proposed Action*

Based upon a review of groundwater resources, topographic interpretation, and information obtained from the NMED Groundwater Quality Bureau (GWQB), construction activities are not expected to adversely affect ground water. However, the operation of the detention basin is expected to increase local shallow groundwater resources since infiltration of detained stormwater runoff will occur, removing sediment from floodwaters and reducing downstream flows and contaminants. The project will involve the use of heavy equipment, thereby leading to a possibility of contaminant releases (e.g., fuel, hydraulic fluid, etc.) associated with equipment malfunctions. The GWQB advised all parties involved in the project to be aware of notification requirements for accidental discharges contained in New Mexico Administrative Code (NMAC) 20.6.2.1203. Compliance with the notification and response requirements will further ensure the protection of groundwater quality in the vicinity of the project.

Surface water may be impacted during construction of the proposed action by the discharge of sediment or other contaminants during rainfall events. Stormwater discharges from construction activities that disturb one or more acres are regulated under the USEPA National Pollutant Discharge Elimination System (NPDES) Construction General Permit (CGP). Prior to commencement of the proposed construction activities and conditional to the CGP requirements, a Stormwater Pollution Prevention Plan (SWPPP) will be developed, and the City and the construction contractor will both apply for coverage (as owner and operator, respectively) under the CGP. The SWPPP and Best Management Practices (BMPs) will be implemented in order to prevent pollutants (primarily sediment) in storm water runoff from entering WOUS, namely the Animas River. The applicant is responsible for coordinating with and obtaining any required Section 404 Permit(s) from the United States Army Corps of Engineers (USACE) prior to initiating work. The applicant must comply with all conditions of the required permit. All coordination pertaining to these activities should be documented and copies forwarded to the State and FEMA as part of the permanent project files. A Pre-Construction Notice and associated required materials were submitted by the City to the U.S.

Army Corps of Engineers in 2011 for coverage under the Nationwide Permit (NWP) 43. Once constructed, the detention basin would hold a maximum approximate volume of 26 acre-feet of surface runoff and release it in a controlled manner over an approximate 27 hour time period, effectively reducing the potential for discharge of sediment or other contaminants to surface water.

### 4.2.2 Wetlands

Executive Order (EO) 11990 (Protection of Wetlands) requires federal agencies to limit negative impacts from but not limited to construction activities resulting in the destruction or modification of wetlands unless there is no practicable alternative to such construction and all practicable measures are to be taken to minimize the impact of the proposed action. Each federal agency must provide opportunity for public review of the proposed action. To satisfy the requirements of EO 11990 and 44 CFR Part 9, FEMA uses an Eight-Step Decision-Making Process to evaluate projects with the potential to affect wetland resources.

A wetland delineation study was performed by Ecosphere Environmental Services (Ecosphere) in November 2010 as part of Section 404 of the Clean Water Act. The 40 acre project area does not contain any perennial water sources, springs, or seeps. No hydrophytic vegetation was observed within the project area. Porter Arroyo has a sandy channel that is occasionally used for off road vehicles. Vegetation along the banks and undisturbed portions of the channel is composed of big sagebrush (*Artemisia tridentata*), Indian ricegrass (*Achnatherum hymenoides*), rubber rabbitbrush (*Ericameria nauseosa*), sand sage (*Artemisia filifolia*) and Russian thistle (*Salsola iberica*). Less than five individual saltcedar (*Tamarix pentandra*) are scattered throughout the project area. The remainder of the project area is vegetated with open canopy piñon juniper woodland. The woodland understory is dominated by big sagebrush, antelope bitterbrush (*Purshia tridentata*) and Mormon tea (*Ephedra sp.).* Results of the wetland delineation survey are detailed in the Ecosphere report entitled *Farmington Porter Arroyo Detention Facility Wetland Survey Report* and dated May 2011 and included as Appendix F.

Additionally, no portion of the project area is designated as wetlands by the U.S. Fish and Wildlife Service (FWS), based on information obtained from the USFWS Wetlands Mapper (http://www.fws.gov/wetlands/Wetlands-Mapper.html). The FWS map reviewed in citing this determination is presented in Appendix G.

Due to the lack of hydrophytic vegetation and perennial hydrologic features, no wetland impacts are anticipated as a result of this project. Pursuant to EO 11990, the project area does not lie within a designated wetland, and no further review is necessary.

### 4.2.3 Floodplains

Executive Order 11988 (Floodplain Management) requires federal agencies to limit negative impacts from but not limited to construction activities resulting in the destruction or modification of an area designated as a 100-year floodplain, or a 500-year floodplain for critical actions. To satisfy the requirements of EO 11988 and 44 CFR Part 9, FEMA uses an Eight-Step Decision-Making Process to evaluate projects with the potential to affect an area within a designated 100-year floodplain. The Eight-Step Decision-Making Process for the proposed action is outlined below:

Step 1. Determine if the Proposed Action is Located within the Base Floodplain.
EO 11988 defines a 100-year floodplain or base floodplain as a low-lying, flat area subject to a one percent or greater chance of flooding in any given year. A 500-year floodplain is defined as the "area, including the base floodplain, which is subject to inundation from a flood having a 0.2 percent chance of being equaled or exceeded in any given year." FEMA further describes a floodplain as "any land area susceptible to being inundated by flood waters from any source" (FEMA National Flood Insurance Program).

Floodplains are typically found near rivers, lakes, and the coast. However, many of the flood-prone lands in the southwestern U.S. are simply low-lying areas or depressions where water naturally collects when it rains. Floodplains are typically dry or semi-dry land areas to which water naturally flows as water levels rise.

According to the Flood Insurance Rate Map (FIRM) Community Panel 35045C0695F (Revised August 5, 2010) prepared by the Federal Emergency Management Agency (FEMA), sections of the project area are located within the base or 100-year floodplain Zone AE for which flood elevations have been determined, namely the main channel of Porter Arroyo and Porter Arroyo Tributary B and C. After the detention pond is constructed, the City intends to pursue removal of the FEMA 100-year floodplain designation from the downstream residential and commercial properties. The associated FIRM panel is included in Appendix H.

Step 2. Early Public Notice
A public notice concerning the proposed detention basin will be published as part of the notice of availability of the draft Environmental Assessment.

Step 3. Identify and Evaluate Alternatives to Locating in the Base Floodplain
In addition to the No Action Alternative discussed in detail in this report, the City initially considered two additional alternatives in association with this project. The first alternative involved locating a detention basin north of the proposed project area and north of College Boulevard. However, this alternative was eliminated from further consideration because the location of the detention basin in this area could not have been situated to capture as many

tributaries that contribute to Porter Arroyo and would not have provided sufficient flood mitigation.

The second alternative involved locating a detention basin in Kiwanis Park on the north side of 30th Street between College Boulevard and Main Street. This alternative was eliminated from further consideration because the detention pond would have failed to provide flood mitigation for the 35 residential homes currently in the FEMA flood zone and subject to flooding of Porter Arroyo, although commercial properties may have been removed from the flood zone. Additionally, the City would have lost use of one of its recreational parks.

Step 4. Identify Impacts of Proposed Action associated with Occupancy or Modification of the Floodplain

Construction of the proposed flood mitigation structure would remove downstream residential and commercial properties from the floodplain. The proposed detention basin has been designed to detain the runoff generated by a 100-year storm within the Porter Arroyo drainage system. The detention basin would hold surface runoff and release it in a controlled manner over an approximately 27 hour time period to reduce the potential for flooding downstream. Ground disturbing activities are estimated to be less than 10 acres within the 40 acre site.

The proposed detention basin would provide a reduction in the effects associated with flooding events, of which there have been several in the past few years which caused extensive damage to property and infrastructure. Removing these properties from the 100-year floodplain would result in a decrease in flood hazards, including decreased cost of flood-related cleanup, decreased sediment transportation and deposition, a decrease in flood-caused damages, an increased level of public safety, and a decrease in the danger posed to flood-damaged infrastructure, including utilities, roadways and natural gas pipelines.

Step 5. Design or Modify the Proposed Action to Minimize Threats to Life and Property and Preserve its Natural and Beneficial Floodplain Values.

The proposed basin is designed to create minimal impact to floodplains within the project area. The detention basin is not expected to contribute to development nor affect the functions or values within the 100-year floodplain downstream of the project area.

Step 6. Re-evaluate the Proposed Action

The proposed undertaking is not expected to lead to an increased degree of development on floodplains that does not exist currently or which differs from areas not designated as floodplains. The proposed undertaking would serve to diminish the current flood hazard for downstream residences, businesses and infrastructure. Less than ten acres within the project area are expected to be permanently altered, parts of which are designated as located within the base floodplain.

Step 7. Findings and Public Explanation (Final Notification)

Upon evaluating the proposed alternatives, the City determined that the proposed undertaking is the most practicable alternative. The No Action Alternative would fail to provide flood mitigation for properties affected by the flooding of Porter Arroyo, resulting in an ongoing risk of the hazards associated with flood events. As discussed in Step 3 above, two additional alternatives were discarded for failure to provide sufficient flood mitigation. For these reasons, the determination was made that no practicable alternative exists to locating within the base floodplain. In accordance with 44 CFR §9.12, the City of Farmington must prepare and provide a final public notice 15 days prior to the start of construction activities. Documentation of the final public notice is to be forwarded to FEMA for inclusion in the permanent project files.

Step 8. Implement the Action

The proposed detention pond will be constructed in accordance with applicable floodplain development requirements. The City of Farmington must coordinate with the local floodplain administrator and obtain required permits prior to initiating work. All coordination pertaining to these activities and applicant compliance with any conditions should be documented and copies forwarded to the state and FEMA for inclusion in the permanent project files.

#### *4.2.3.1 Alternative One: No Action*

The No Action Alternative would result in no modification of floodplains or wetlands, but would present the continued potential for floodwaters to inundate downstream properties and infrastructure.

#### *4.2.3.2 Alternative Two: Proposed Action*

The Proposed Action Alternative would have no impact on wetlands. It would result in the modification of less than ten acres of base floodplain within the project area and remove the mapped 100-year floodplain status from downstream areas adjacent to the Porter Arroyo. As discussed in the Eight-Step Decision-Making Process outlined above, the Proposed Action Alternative constitutes the most practicable and effective course of action in mitigating the current flood hazard associated with the Porter Arroyo. Floodplain preservation efforts will be incorporated into both the construction phase and the design of the proposed undertaking, and all measures will be taken to preserve the integrity and quality of existing floodplains within the project area. Note that San Juan County is currently updating its Flood Mitigation Plan. Once approved, the Proposed Action will need to be in compliance with the approved Flood Mitigation Plan. The City of Farmington must coordinate with the local floodplain administrator and obtain required permits prior to initiating work. All coordination pertaining to these activities and applicant compliance with any conditions should be documented and copies forwarded to the state and FEMA for inclusion in the permanent project files.

## *4.3 Coastal Resources*

No coastal resources are present within or near the project area.

## *4.4 Biological Resources*

The City retained Ecosphere to conduct a biological assessment and threatened and endangered species survey of the proposed project area. The biological assessment was completed in November 2010. The following sections summarize the information contained within that report. Detailed results of the biological assessment are presented in the Ecosphere report entitled *Porter Arroyo Detention Facility Biological Assessment* and dated May 2011. The report is included in Appendix I.

### 4.4.1 Threatened and Endangered Species and Critical Habitat

Section 7 of the Endangered Species Act (ESA) of 1973 requires federal agencies to ensure any action authorized, funded, or carried out by them is not likely to jeopardize the continued existence of listed species or modify their critical habitat. The National Marine Fisheries Services (NMFS) and the U.S. Fish and Wildlife Service (USFWS) share the responsibility of implementing the ESA.

The State of New Mexico lists 13 endangered or threatened species with the potential to occur in San Juan County, New Mexico. However, the project area does not contain potential habitat for any state threatened or endangered species listed for San Juan County. The state species list for San Juan County is comprised of the following:

- Brown pelican (*Pelecanus occidentalis carolinensis*)
- Southwestern willow flycatcher (*Empidonax traillii extimus)*
- Bald eagle (*Haliaeetus leucocephalus*)
- Gray vireo *(Vireo vicinior)*
- Colorado pikeminnow (*Ptychocheilus lucius*)
- Roundtail chub (*Gila robusta*)
- Mexican tetra (*Astyanax mexicanus*)
- Brack's hardwall cactus (*Sclerocactus cloveriae* ssp. *brackii*)
- Aztec gilia (*Aliciella formosa*)
- Goodding's onion (*Allium gooddingii*)
- Mesa Verde cactus (*Sclerocactus mesae-verdae*)
- Parish's alkali grass (*Puccinellia parishii*)
- Zuni fleabane(*Erigeron rhizomatus*)

A detailed list of these species, their habitats associations, and their potential to occur within the project area is provided in Table 2 in the Ecosphere report *Porter Arroyo Detention Facility Biological Assessment* in Appendix I.

The USFWS lists 11 federally threatened, endangered or candidate species have the potential to occur in San Juan County. However, no federally listed species, or habitats thereof, were identified during the biological assessment conducted by Ecosphere. The federal species list for San Juan County is comprised of the following:

- Black-footed ferret (*Mustela nigripes*)
- Canada lynx (*Lynx canadensis*)
- Southwestern willow flycatcher (*Empidonax traillii extimus*)
- Mexican spotted owl (*Strix occidentalis lucida*)
- Yellow-billed cuckoo (*Coccyzus americanus occidentalis*)
- Colorado pikeminnow (*Ptychocheilus lucius*)
- Razorback sucker (*Xyrauchen texanus*)
- Roundtail chub (*Gila robusta*)
- Knowlton's cactus (*Pediocactus knowltonii*)
- Mancos milkvetch (*Astragalus humillimus*)
- Mesa Verde cactus (*Sclerocactus mesae-verdae*)

A detailed list of these species, their habitats associations, and their potential to occur within the project area is provided in Table 2 in the Ecosphere report *Porter Arroyo Detention Facility Biological Assessment* in Appendix I.

#### *4.4.1.1 Alternative One: No Action*

Adverse impacts to threatened or endangered species or critical habitat could possibly be realized with the No Action Alternative, since the project would not be constructed and significant deposition of sediment could occur in the Animas River, which in turn could impact downstream critical habitat (in the San Juan River).

#### *4.4.1.2 Alternative Two: Proposed Action*

Based on the findings of the *Porter Arroyo Detention Facility Biological Assessment,* federally listed species and their habitat are not likely to be present within the project area. Therefore, no adverse impacts to threatened or endangered species or critical habitat are anticipated under the Proposed Action Alternative. Further, the Proposed Action could be considered a beneficial effect to species, since discharge of sediment to the Animas River would be decreased once the project is implemented. FEMA has determined that the proposed action will have no effect on federally listed species.

### 4.4.2 Wildlife and Fish

The Migratory Bird Treaty Act (MBTA) decrees that all migratory birds and their parts (including eggs, nests, and feathers) are fully protected. Nearly all native North American bird species are protected by the MBTA. Under the MBTA, taking, killing, or possessing migratory birds is unlawful. While no longer listed as a threatened species, the bald eagle (*Haliaeetus leucocephalus*) is protected under the MBTA and the Bald and Golden Eagle Protection Act of 1940. The Bald and Golden Eagle Protection Act provides protection for the bald and golden eagles by prohibiting the take, possession, sale, purchase, barter, offer to sell, transport, and export or import of any bald or golden eagle, alive or dead, including any part, nest, or egg.

Vegetation within the majority of the project area exhibits an estimated cover of 10 to 40 percent. The remainder of the project area is vegetated with open canopy piñon-juniper (*Pinus edulis-Juniperus osteosperma*) woodland. The woodland understory is dominated by big sagebrush, antelope bitterbrush (*Purshia tridentata*) and Mormon tea (*Ephedra* sp.). Canopy cover was visually estimated at 20 percent. Understory cover ranged from 20 to 30 percent. Vegetation along the banks and undisturbed portions of the channel is composed of big sagebrush (*Artemisia tridentata*), Indian ricegrass (*Achnatherum hymenoides*), rubber rabbitbrush (*Ericameria nauseosa*), sand sage (*Artemisia filifolia*) and Russian thistle (*Salsola iberica*). Less than five individual saltcedar (*Tamarix pentandra*) are scattered throughout the project area. Signs of wildlife within the project area were limited to desert cotton tail (*Sylvilagus audubonii*), fox (*Vulpes sp.*), piñon jay (*Gymnorhinus cyanocephalus*), and domestic dog (*Canine familaris*). No fish species are present within the project area.

The New Mexico Department of Game and Fish (NMDGF) was contacted requesting comments on the proposed undertaking. The department's response included the following suggestions: divert water around the construction site; preserve natural areas; revegetate the post-construction area; maintain a vegetated buffer zone around water courses, including ephemeral arroyos; use properly engineered drainage swales and vegetated channel systems; and minimize impacts to vegetation during construction.

#### *4.4.2.1 Alternative One: No Action*

No adverse impacts to fish or wildlife would be anticipated with the No Action Alternative, since the project would not be constructed.

#### *4.4.2.2 Alternative Two: Proposed Action*

Vegetation removal would result in a loss of habitat for a variety of birds protected under the MBTA. Vegetation would be removed to construct the dam, and to provide access to the site. Impacts to migratory birds would be greater should construction occur during the breeding season from April through August when construction activities may cause some nest

abandonment in adjacent areas. No nests were identified in the proposed project area during the biological survey; however the survey was conducted outside the breeding season. Direct impacts would include approximately 10 acres of vegetation with a long-term loss of approximately one acre of sage grassland habitat. If the project activities occur adjacent to any bald or golden eagle nest, both occupied and unoccupied, the applicant must contact FEMA and consult with the USFWS before work begins. If the project activities involve impacts to an occupied migratory bird species' nest, the applicant must contact FEMA and consult with the USFWS before work begins.

## *4.5 Cultural Resources*

### 4.5.1 Historic Properties

The National Historic Preservation Act of 1966 (NHPA) is the chief federal policy outlining the federal government's role and responsibility, in cooperation with state, local, and tribal authorities, toward the protection of designated and potential places of historic and cultural significance. The Advisory Council on Historic Preservation (the Council) is the independent federal agency responsible for administering the requirements of Section 106 of the NHPA. Section 106 is a review process for federal agencies to follow to consider the impact to historic properties by any federal project or a project which is the recipient of federal funding or assistance, and to provide the Council with an opportunity to review and provide comments on the proposed project.

A historic property is any property which is listed in or is eligible for the National Register of Historic Places (Register). The Register is maintained and administered by the Secretary of the Interior and serves as an inventory of the country's historic resources, including but not limited to buildings, sites, objects and archeological resources. The Section 106 review process not only protects properties listed in the Register, but those properties which have or have not formally been determined eligible or even discovered yet (such as archeological sites). The State Historic Preservation Officer is designated by the NHPA and is the individual responsible for coordinating the state's historic preservation program and for consulting with federal agencies during the Section 106 review process.

Acting under the authority of Section 211 of the NHPA, the Council has developed a process for carrying out the responsibilities of the Section 106 review process. These implementing regulations are outlined in "Protection of Historic Properties" in 36 CFR Part 800. These regulations and the Section 106 review process outline the measures to be taken for identifying and evaluating historic properties within the Area of Potential Effects, defined in 36 CFR Part 800.16 (d) as "the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties." If and when a historic property is identified within the Area of Potential Effects, Section 106 provides further steps in

assessing the effects of the proposed project on such properties and for determining ways to address and mitigate those effects.

A cultural records file search in the Archaeological Records Management Section (ARMS) of the New Mexico State Historic Preservation Division (HPD) through the New Mexico Department of Cultural Affairs, New Mexico State Historic Preservation Office (SHPO), was conducted for known archaeological sites. A review of the archeological data in ARMS indicates that the Area of Potential Effect was surveyed by Western Cultural Resource Management, Inc. (WCRM), in 1996. The study revealed no sites located on, or directly adjacent to the project area, and after testing, no further archaeology mitigation was recommended for the closest site to the project area, LA 113650. A copy of the original WCRM archeological survey is included in Appendix J.

In correspondence dated July 19, 2011, between WCRM and the City, WCRA confirmed the validity of the findings of the archeological survey conducted in 1996. Based upon the negative findings of the 1996 survey and the subsequent mitigation efforts undertaken, WCRA recommended cultural resource approval to proceed for the proposed Porter Arroyo Detention Structure. Additionally, FEMA initiated consultation with SHPO in correspondence dated June 19, 2012, and SHPO concurred that no historic properties are anticipated to be affected on July 27, 2012. This correspondence is included in Appendix J.

#### *4.5.1.1 Alternative One: No Action*

No adverse impacts to historic properties would be anticipated with the No Action Alternative, since the project would not be constructed.

#### *4.5.1.2 Alternative Two: Proposed Action*

Based upon the information gathered during this review process, FEMA has reached the determination of No Historic Properties Affected [36 CFR Part 800.4 (d)(1)] as a result of the proposed undertaking. The New Mexico SHPO concurred with this determination in a correspondence letter dated July 26, 2012. As such, no adverse impacts to historic properties are anticipated with the Proposed Action Alternative, since no historic properties are located within the project area.

Mitigation measures include contractor education and awareness prior to construction, and in the event that cultural resources are encountered during construction, construction activities in the immediate area will be suspended and the SHPO will be contacted immediately by the City of Farmington.

In the event that archeological deposits, including any Native American pottery, stone tools, bones, or human remains, are uncovered, the project shall be halted and the applicant shall stop all work immediately in the vicinity of the discovery and take all reasonable measures to

avoid or minimize harm to the finds. All archeological findings will be secured by the applicant and access to the sensitive area will be restricted by the applicant. The applicant will inform the New Mexico Department of Homeland Security and Emergency Management and FEMA immediately, and FEMA will consult with the State Historic Preservation Officer (SHPO). Work in sensitive areas shall not resume until consultation is completed and until FEMA determines that the appropriate measures have been taken to ensure complete project compliance with the National Historic Preservation Act (NHPA) and its implementing regulations.

### 4.5.2 American Indian/Native Hawaiian/Native Alaskan Cultural or Religious Sites

Occupation of the San Juan River valley area dates back to 3000 B.C., evidenced by the remains of short-term encampments. By 350 A.D., the Anasazi culture was erecting permanent shelters in the form of pit-houses, and was a thriving society between 1050 and 1300 A.D., occupying the area of present day Chaco Culture National Historic Park south of Farmington, Aztec Ruins National Monument in Aztec, and Mesa Verde National Park in Colorado. Following the occupation of the Anasazi, the Athabaskan-speaking ancestors of the present day Navajo people inhabited the area, as evidenced by forked-stick hogans dating from 1500 to 1700 A.D. discovered northwest of Farmington (Register).

With respect to the public comment period delineated in Section 106 of the NHPA, on August 13, 2012, the Region 6 FEMA office mailed consultation letters to pertinent tribal authorities associated with San Juan County, as determined and listed by the SHPO in the New Mexico Department of Cultural Affairs. The contents of the letters described the location, purpose and related construction activities of the proposed Porter Arroyo Detention Basin, as well as the determination of No Historic Properties Affected. Comments were requested within 30 days of the mailing. Tribes contacted are listed in Section 6.1: Agency Coordination.

The Pueblo of Laguna and the Hopi Tribe each issued a response, with the determination that the project will not have a significant impact and requesting notification in the event that new archeological artifacts or sites are found in the course of the project. These and all other tribal correspondence are included in Appendix K.

#### *4.5.2.1 Alternative One: No Action*

No adverse impacts to cultural or religious sites are anticipated with the No Action Alternative, since the project would not be constructed.

#### *4.5.2.2 Alternative Two: Proposed Action*

Based upon the opportunity for comment by affected tribes and the recommendation for approval of the undertaking by the archeology firm which conducted the 1996 survey after

which all artifacts were cataloged and removed from the site, no adverse impacts to cultural or religious sites are anticipated with the Proposed Action Alternative.

Mitigation measures include contractor education and awareness prior to construction, and in the event that cultural resources are encountered during construction, construction activities in the immediate area will be suspended and the SHPO will be contacted immediately by the City of Farmington.

In the event that archeological deposits, including any Native American pottery, stone tools, bones, or human remains, are uncovered, the project shall be halted and the applicant shall stop all work immediately in the vicinity of the discovery and take all reasonable measures to avoid or minimize harm to the finds. All archeological findings will be secured by the applicant and access to the sensitive area will be restricted by the applicant. The applicant will inform the New Mexico Department of Homeland Security and Emergency Management and FEMA immediately, and FEMA will consult with the State Historic Preservation Officer (SHPO). Work in sensitive areas shall not resume until consultation is completed and until FEMA determines that the appropriate measures have been taken to ensure complete project compliance with the National Historic Preservation Act (NHPA) and its implementing regulations.

## *4.6 Socioeconomic Resources*

Early industry in the San Juan River valley area revolved around livestock and grazing, with the later introduction of agriculture in the form of orchards and farming. The City of Farmington was incorporated in 1901, and by 1905 the Denver and Rio Grande Railroad had been built, connecting the previously isolated municipality with Durango, Colorado. Oil seeps were discovered as early as 1879, but commercial production did not commence until the 1920s with the operation of the first commercial oil well in New Mexico in 1923. After World War II and the technological advances in pipeline construction, commercial oil and gas production intensified while agricultural production dropped. Today, the City encompasses an area of approximately 32 square miles. Oil and gas production is a chief economic resource of the Farmington area, along with cattle ranching and agriculture (Register).

### 4.6.1 Socioeconomics

Based on the U.S. Census Bureau (USCB) 2007-2011 American Community Survey 5-Year Estimates for Farmington, New Mexico, in 2011:

- The City had an average household size of 2.77 persons per household;
- Approximately 49.3 percent of the population were male, and 50.7 percent were female;
- Approximately 86 percent of people over the age of 25 were high school graduates, and approximately 20 percent were college graduates; and

- The per capita income for Farmington residents was $26,029, and the median household income was $52,980, both of which are higher than the state average.

In order to assess potential socioeconomic issues specific to the proposed undertaking, EJ View (formerly the Environmental Justice Geographic Assessment Tool) was accessed at http://epamap14.epa.gov/ejmap/entry.html to review such socioeconomic indicators as population, per capita income, percentage of females, percent with high school diplomas, percent with college degrees and percentage of minority households in the project area. The following socioeconomic statistics are the results of a search performed within a four mile buffer around the center of the project area using the EJ View tool. Based upon the 2010 American Community Survey Report generated by the EJ View tool:

- The per capita income was $25,834, higher than the average for New Mexico;
- 20 percent of households made less than $25,000; and
- 28 percent were high school graduates while 21 percent had a bachelor's degree.

Environmental justice maps and tabulated data for economic, environmental, health and social factors were generated with the EJ View tool and are included in Appendix L.

*4.6.1.1 Alternative One: No Action*

Adverse impacts to the economics of Farmington and the area within a four-mile radius of the project area associated with the No Action Alternative include a continued risk of damage to residential and commercial property and infrastructure due to flooding, with the potential for ongoing economic impacts deriving from the cost of repairs.

*4.6.1.2 Alternative Two: Proposed Action*

The Proposed Action Alternative would have a beneficial impact within and downstream of the project area by limiting the economic impact of damaging flood events, including overflow of floodwaters and the resultant deposition of sediment on roadways and other infrastructure.

### 4.6.2 Environmental Justice

EO 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, and its implementing regulations (59 CFR 7629) direct "federal agencies to identify and address the disproportionately high and adverse human health or environmental effects of their actions on minority and low-income populations."

Based on the USCB 2007-2011 American Community Survey 5-Year Estimates for Farmington, New Mexico:

- The city's total population in 2011 was 45,256;
- Approximately 66 percent were white, non-Hispanic;
- Approximately 25 percent were American Indian, 2 percent were Black, 1 percent was Asian, less than 1 percent was Native Hawaiian and Other Pacific Islander, and 11 percent was some other race; and
- 15.7 percent of individuals in the City had incomes below the poverty level, which is 3.3 percent lower than the New Mexico state poverty level of 19.0 percent and 1.4 percent higher than the national poverty level of 14.3 percent.

The following environmental justice statistics are the results of a search performed within a four mile buffer around the center of the project area using the EJ View tool. Based upon the 2010 US Census Summary Report generated by the EJ View tool:

- The population was 37,232, with a population density of 313 persons per square mile;
- 40 percent of the population were classified as a minority;
- 16 percent of the population were American Indian, 20 percent were Hispanic, 1 percent was Black, 1 percent was Asian, and 2 percent were two or more races; and
- 51 percent of the population was female.

*4.6.2.1 Alternative One: No Action*

Continued adverse impacts to the minority and low-income populations of Farmington and the area within a four-mile radius of the project area would be anticipated with the No Action Alternative, since no flood mitigation strategies would be implemented. There will be no disproportionate impacts to minority and low-income populations.

*4.6.2.2 Alternative Two: Proposed Action*

The Proposed Action Alternative would have a beneficial effect on the population which lives and works in the area, including low-income and minority populations, by providing hazardous flood mitigation and limiting the economic impact of damaging flood events. As such, the Proposed Action complies with EO 12898.

### 4.6.3 Hazardous Materials

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 was enacted to address abandoned hazardous waste sites in the U.S. Under the Act, a substance is considered hazardous when it presents a detriment to human health or the environment.

The Resource Conservation and Recovery Act (RCRA) defines hazardous waste as "a solid waste (or combination of solid wastes) which, because of its quantity, concentration, or physical,

chemical, or infectious characteristics, may: (1) cause or contribute to an increase in mortality or an increase in serious irreversible, or incapacitating illness; or (2) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed."

The determination of the presence of hazardous materials in or upgradient to the project area has the potential to impact project specifications and planning. Based upon a review of Envirofacts, the USEPA online database of federally monitored generators of pollutants, no facilities which produce hazardous waste are located within the project area. A search of the NMED Petroleum Storage Tank Bureau (PSTB) list of actively leaking petroleum storage tanks revealed no tanks located within the project area.

According to the New Mexico State Land Office, an existing natural gas well pad is located adjacent to the project area. Two active wells are located on the pad: Panther #001 (API No. 3004529573) and Piedra Vista #001 (API No. 3004509141). Two existing gas lines have been relocated within the project area, namely a Williams Field Services pipeline, and an Enterprise Field Services pipeline. Both pipelines were relocated as part of the anticipated construction of the detention basin.

#### *4.6.3.1 Alternative One: No Action*

No adverse impacts owing to the presence of hazardous materials would be anticipated with the No Action Alternative, since no hazardous materials are located within the project area and the project would not be constructed.

#### *4.6.3.2 Alternative Two: Proposed Action*

No hazardous materials were found to exist within the project area nor are expected to be encountered during construction activities. Any hazardous materials generated during construction, such as petroleum hydrocarbons, must be mitigated using best management practices outlined in the SWPPP, which includes covering construction materials which may contribute pollutants to stormwater runoff, the prompt cleanup of spills and the inspection of heavy equipment for leaks. Accidental discharges or releases will be reported in accordance with notification requirements contained in NMAC 20.6.2.1203. Compliance with the notification and response requirements will further ensure the protection of the environment in the vicinity of the project. Unusable equipment, debris, and material shall be disposed of in an approved manner and location. In the event significant items (or evidence thereof) are discovered during implementation of the project, the City of Farmington will handle, manage, and dispose of petroleum products, hazardous materials and toxic waste in accordance to the requirements and to the satisfaction of the governing local, state and federal agencies.

### 4.6.4 Noise

The USEPA defines noise as "unwanted or disturbing sound (which) interferes with normal activities such as sleeping, conversation, or disrupts or diminishes one's quality of life." Persistent and escalating sounds can create an annoyance, which in turn can have detrimental effects on one's health. These effects include stress, high blood pressure, speech interference, hearing loss, sleep disruption and lost productivity.

Sources of noise within the project area include climatic conditions, such as wind, rain, and thunder, transportation noise, including vehicular traffic and aircraft, community sounds such as talking, and industry noise deriving from the operation of natural gas wells.

#### *4.6.4.1 Alternative One: No Action*

No adverse impacts due to noise would be anticipated with the No Action Alternative, since the project would not be constructed.

#### *4.6.4.2 Alternative Two: Proposed Action*

Noise levels within the project area are expected to temporarily increase due to construction activities associated with the Proposed Action. The project area is adjacent to Piñon Hills Boulevard, a major traffic artery in Farmington. The noise associated with construction activities is not expected to differ significantly from that of the traffic deriving from roadways. Noise associated with the operation of the construction equipment would be limited to the construction period, approximately 34 weeks. To minimize the disturbances created by increased noise levels, all vehicles and construction equipment would be fitted with noise reduction devices, such as mufflers, and construction activities would be limited to daytime hours. By taking these efforts to control noise levels, the negative impact of increased noise levels would be minimal and temporary. Additionally, construction activities will comply with the noise ordinance outlined in the City's UDC Section 12-5-12.

No adverse impacts associated with noise are anticipated as part of operations of the detention basin, although there may be moderate and temporary noise levels resulting from maintenance of the detention pond.

### 4.6.5 Traffic

The project area is located northeast of the intersection of Piñon Hills Boulevard and College Boulevard. Piñon Hills Boulevard is a divided four-lane road that runs west to east at the southern edge of the project area, and is a major traffic artery in Farmington. A traffic count location monitored by the Farmington Metropolitan Planning Organization (FMPO) located on Piñon Hills Boulevard approximately one-half mile west of the project area recorded an average daily traffic count of 17,680 vehicles on October 10, 2012. College Boulevard runs north from

the intersection with Piñon Hills Boulevard and curves to the east at the northern edge of the project location. A FMPO location on College Boulevard located approximately one mile south of the project location recorded a daily traffic count of 11,490 on December 11, 2012, and another located on College Boulevard adjacent to the west boundary of the project area recorded a count of 6,210 on October 10, 2012.

Unpaved access roads branch from College Boulevard north of Piñon Hills Boulevard and serve as access drives for residences in the area. A service road entering from College Boulevard approximately 700 feet north of Piñon Hills Boulevard on the western edge of the project area will be constructed to provide access to the site. An aerial photo of the project area is presented as Figure 2, which illustrates the current distribution of roadways, and the location of the proposed access road is illustrated in the City's construction plans in Appendix B.

Porter Arroyo crosses beneath Piñon Hills Boulevard approximately ¼ mile downstream of the project location through two steel culverts. Piñon Hills has been inundated in the past by floodwaters from the Porter Arroyo which overtop the roadway. Several more roads transect Porter Arroyo downstream, namely Windsor Drive, Country Club Drive, 30th Street and Main Street (NM 516), all of which were flooded during the August 2010 flood event. These roads are at risk of being overtopped or damaged due to future flood events, resulting in deposition of sediment on driving surfaces and creating a disruption in traffic flow and a public safety hazard.

#### *4.6.5.1 Alternative One: No Action*

Adverse impacts associated with the No Action Alternative include a risk of public hazard due to overtopping of roadways during flood events, the associated disruption in traffic flow due to road closures and cleanup activities and the cost of such mitigation efforts.

#### *4.6.5.2 Alternative Two: Proposed Action*

In the long term, the Proposed Action Alternative would have a positive impact on roadways and traffic flow due to the minimization of the flood hazard posed by the current state of Porter Arroyo.

Construction is expected to have a minor and temporary adverse impact on traffic due the activity of vehicles and equipment and the transportation of excavated soils offsite. The contractor who is awarded the bid for construction will be responsible for the traffic plan for the removal of excavated soils. Construction activities are expected to last a total of 34 weeks. Staking is expected to take two weeks, and excavation of the basin, grading, construction of intake and outfall, and rip rap placement are expected to take 30 weeks, with fencing and seeding another two weeks. Access to residences, businesses, Piedra Vista High School and all other properties in the area would be maintained during construction. No detours or road

closures are expected; however, notification of detours and road closures would be made in advance to affected residents via a public service announcement in the Farmington Daily Times and media poll. The traffic plan will incorporate appropriate signage to warn drivers of construction activities and traffic related issues.

### 4.6.6 Public Service and Utilities

Utilities located in the general downstream area are presented below.

Table 1. Public Utilities near Proposed Action

| Utility | Provider |
|---|---|
| Water | City of Farmington |
| Sewer | City of Farmington |
| Residential Natural Gas | Gas Co. of New Mexico |
| Cable | Comcast |
| Telephone/Internet | Century Link |
| Electric | Farmington Electric |
| Fiber Optic | Century Link, Comcast |
| Fire Protection | City of Farmington |
| Law Enforcement | City of Farmington |

The City of Farmington provides water and sanitary sewer to residences and commercial businesses downstream of the Proposed Action. Additionally, a 30-inch main water distribution line for the City of Farmington is located along East Main Street. Buried fiber optic lines are located where Porter Arroyo crosses under Piñon Hills Boulevard, as well as along 30th Street from Main Street, and along the east side of Main Street.

#### *4.6.6.1 Alternative One: No Action*

The No Action Alternative would not directly affect any utilities in the project area. However, if flooding occurred, utilities associated with the private residences, commercial businesses, and along streets and roads could be adversely affected by flood waters. Law enforcement, in addition to their normal duties, would be called on to help with flood-related issues and could be unavailable to respond to other emergencies in their service area.

#### *4.6.6.2 Alternative Two: Proposed Action*

The Proposed Action Alternative may have short-term impacts on public services and utilities during construction activities. New Mexico law requires notification to New Mexico One Call (NMOC) at least 3 business days before any excavation to minimize the risk of damaging underground utilities. Additionally, caution should be used during construction to avoid contact with overhead utility lines. With NMOC notification, the Proposed Action Alternative is

not expected to have any impact on public services and utilities in the project area. If any interruption of service is necessary to complete the project, affected users would be notified ahead of time, and the loss of service would be expected to be short-term and minor.

### 4.6.7 Public Health and Safety

The potential for flooding in Porter Arroyo is a safety concern for the City and San Juan County. Flooding poses a potentially life-threatening situation for people caught in the floodwaters. Damaged and flooded roads are a public safety concern due to direct hazards and increased response times for emergency services. Currently, flooding activity has the potential to overtop local streets and roads, including Piñon Hills Blvd, 30th Street and East Main Street (NM 516), which are major thoroughfares in Farmington.

Standing water in residential and commercial properties may pose a health and safety risk for local residents due to the presence of biological hazards, such as sanitary sewer backup. Additionally, there are significant public safety risks associated with buried natural gas pipelines that may be damaged by floodwaters.

Construction of the detention basin may present an attractive nuisance for nearby residents or students attending the adjacent Piedra Vista High School.

#### *4.6.7.1 Alternative One: No Action*

Adverse impacts to the public health and safety of Farmington residents under the No Action Alternative include the continued risk to public health and safety due to future flooding events.

#### *4.6.7.2 Alternative Two: Proposed Action*

Under the Proposed Action, the impacts to public health and safety would be lessened by reducing the potential for flooded roadways and the associated risk of people getting caught in floodwaters, increased emergency response times, and damaged roadways, streets and buried utilities. Additionally, there would be less likelihood of sanitary sewer backups or disruptions, which can present biological hazards to residents. However, the detention basin may be an aesthetic nuisance for nearby residents and/or students from Piedra Vista High School. Appropriate signage and barriers must be in place prior to construction activities to alert pedestrians and motorists of project activities.

## *4.7 Summary Table*

Table 2. Anticipated Affected Environment and Environmental Issues for Proposed Action

| Resource Area | Alternative 1: No Action | Alternative 2: City of Farmington Porter Arroyo Detention Structure (Proposed Action) | | |
|---|---|---|---|---|
| | | **Impacts** | **Agency Coordination/ Permits** | **Mitigation/BMPs** |
| Geology, Soils and Seismicity | Continued erosion of soils and sediment | Moderate to high soil impacts during construction (cut/fill; soil erosion; discharge of sediment) | Excavation, cut and fill permitted by USACE NWP 43 (NMED-SWQB); City of Farmington Grading Permit | City filed Pre-Construction Notice for NWP-43 to USACE in 2011; Contractor to obtain City Grading Permit |
| Air Quality | No impact | Low to moderate during construction; Low post construction | No permit anticipated (NMED-AQB) | Apply for air permit coverage for regulated equipment used during construction; Sprayed water application to minimize dust during construction, as needed |
| Climate Change | No impact | Minor and short-term during construction | No permit anticipated (NMED-AQB) | -- |
| Water Quality | Continued impact to surface water and aquatic environments | Moderate to high during construction (potential discharge of sediment to surface water); Moderate but beneficial impact post construction (increase in groundwater infiltration; decrease in sediment and other contaminants to storm water flows) | No groundwater permits anticipated (NMED-GWQB); Coverage under USEPA NPDES Storm Water Construction General Permit (USEPA/NMED-SWQB); | Follow reporting procedures outlined in NMAC 20.6.2.1203 for releases; Develop and implement SWPPP (with specific BMPs) as part of construction; both owner and operator to apply for coverage under NPDES CGP; |
| Wetlands | No impact | Not anticipated – no jurisdictional wetlands identified within the project area. | USACE & NMED-SWQB; Wetland Delineation Survey, May 2011 | -- |
| Floodplains | Continued | Proposed action would remove | FEMA, City Floodplain | Compliance with updated County |

| Resource Area | Alternative 1: No Action | Alternative 2: City of Farmington Porter Arroyo Detention Structure (Proposed Action) | | |
|---|---|---|---|---|
| | | Impacts | Agency Coordination/ Permits | Mitigation/BMPs |
| | downstream impacts to floodplains | flood zone designation from downstream commercial and residential properties. | Manager | Flood Mitigation Plan (currently being developed). |
| T&E Species and Critical Habitat | Potential adverse impact to downstream critical habitat for listed fish species in San Juan River | No impact; potential net benefit to downstream critical habitat for listed fish species in San Juan River | Biological Survey Report, May 2011; No permits anticipated ( | -- |
| Wildlife and Fish | Continued adverse impact from discharge of sediment to surface water (i.e. aquatic habitat) | Moderate impact – proposed project will remove approx. 10 acres of open canopy pinon-juniper habitat. | Biological Survey Report, May 2011 | Revegetate the post-construction area; maintain a vegetated buffer zone; use properly engineered drainage swales and vegetated channel systems; and minimize impacts to vegetation during construction |
| Historic Properties | No impact | No impact anticipated | Cultural Resources Survey and Data Recovery, 1996-1997 WCRM | Contractor training before construction; Contact NM SHPO if cultural resources are encountered during construction |
| Cultural/Religious Sites | No impact | No impact anticipated. | NM SHPO Tribal Consultation List | Notify FEMA, State, and relevant tribes if cultural resources are encountered during construction |
| Socioeconomic/ Environmental Justice | Adverse impact during flooding events | No impact or beneficial impact – reduction in flood related damages | USEPA EJ Index and EJ Mapping Tool | -- |
| Hazardous Materials | No impact | Low and short-term impact during construction; No impact post | NMED Hazardous Waste Bureau | Follow industry standards and appropriate BMPs for handling and |

| Resource Area | Alternative 1: No Action | Alternative 2: City of Farmington Porter Arroyo Detention Structure (Proposed Action) | | |
|---|---|---|---|---|
| | | Impacts | Agency Coordination/ Permits | Mitigation/BMPs |
| | | construction | | storage of hazardous materials during construction; Follow NMAC 20.6.2.1203 and other applicable regulations for reporting releases |
| Noise | No impact | Low to moderate during construction; Low post construction | City | Follow City noise ordinances; conduct construction activities during daylight hours |
| Traffic | Adverse impact from disruptions during flood events | Low to moderate during construction; No impact post construction. | City – Traffic Plan | Implement traffic control plan |
| Public Service and Utilities | Adverse impacts during flooding events | No impact or beneficial impact – decrease stormwater drainage impacts to downstream areas | City Public Works Department | Implement NMOC notifications prior to earth disturbing activities- |
| Public Health and Safety | Adverse impacts during flooding events | Low impact – potential attractive nuisance post construction; beneficial impact – decrease stormwater drainage impacts to downstream areas; | City Public Works Department | Install appropriate signage post construction to deter entry |

## 5.0 Cumulative Impacts

Section 1508.7 of the Council on Environmental Quality (CEQ) regulations defines cumulative impacts as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable actions." Cumulative impacts are considered by placing seemingly isolated or insignificant direct and indirect effects of past, present, and foreseeable future projects in context with respect to overall impacts, both over time and in an area larger than that evaluated for direct and indirect effects. Cumulative effects are discussed in terms of being additive, synergistic, or reductive. In addition to the Proposed Action, the following past, present, and foreseeable future projects within the vicinity of the City of Farmington's Porter Arroyo Detention Basin project were included in the assessment of cumulative impacts:

- Continued residential and commercial development downstream of the proposed project area;

The development of residential and commercial properties downstream involve disturbance of existing soil and vegetation, and may contribute to downstream sedimentation during the construction period. These projects would also contribute to temporary and minor increased air emissions during construction, as well as to temporary increased noise levels during construction. These construction-related impacts are not additive, synergistic, or reductive because the disturbed areas would be stabilized and revegetated prior to the start of another project. Air emissions and noise levels would cease after construction activities are complete.

Cumulative effects from the Proposed Action will be long-term and will mitigate effects (storm water flow and discharge of sediment) from significant rainfall events within the Porter Arroyo watershed. Additionally, the Proposed Action will counteract effects from ongoing residential and commercial development downstream which may result in increased concentrated flows into Porter Arroyo and ultimately the Animas River.

# 6.0 Agency Coordination, Public Involvement, and Permits

In this section, the following is provided: a description of permits or approvals required for the proposed project; federal, state, and local agencies and offices and other stakeholders that were contacted and asked to review the project; and a description of public involvement that has occurred regarding the proposed project.

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## *6.1 Agency Coordination*

As part of preparing the Environmental Assessment, several local, state and federal agencies were consulted. Any comments or requests are identified within the EA under the applicable section. An agency coordination tracking table is included in Appendix M, along with copies of correspondence to and from applicable agencies. A list of the agencies consulted is included below.

**Local Contacts:**

| | |
|---|---|
| San Juan County<br>Emergency Management/Floodplain Manager | Michelle Truby-Tillen, CFM<br>209 S. Oliver Drive<br>Aztec, New Mexico 87410 |
| Farmington Municipal Planning Organization | Joe Delmagori, Planner<br>800 Municipal Drive<br>Farmington, New Mexico 87401 |

**State Contacts:**

| | |
|---|---|
| New Mexico Department of Game and Fish<br>Conservation Services Division | Jim Lane, Director<br>P.O. Box 25112<br>Santa Fe, New Mexico 87504 |
| NM Office of the State Engineer - Santa Fe | Scott A. Verhines, State Engineer<br>P.O. Box 25102<br>Santa Fe, New Mexico 87504-5102 |
| NM Office of the State Engineer - Aztec | Blaine Watson, District V Supervisor<br>100 Gossett Dr., Suite A<br>Aztec, New Mexico 87410 |
| NM State Historic Preservation Office<br>Santa Fe, New Mexico 87501 | Jan V. Biella<br>Acting State Historic Preservation Officer<br>Attention Bob Estes, Archaeologist<br>Department of Cultural Affairs<br>Bataan Memorial Building<br>407 Galisteo Street, Suite 236<br>Santa Fe, New Mexico 87501 |

| | |
|---|---|
| NMED Hazardous Waste Bureau | John Kieling, Chief<br>2905 Rodeo Park Drive East, Building 1<br>Santa Fe, New Mexico 87505 |
| NMED Air Quality | Richard Goodyear, Chief<br>1301 Siler Road, Building B<br>Santa Fe, New Mexico 87507 |
| NMED Environmental Impact Coordinator | Morgan Nelson<br>P.O. Box 26110<br>Santa Fe, New Mexico 87502 |

**Federal Contacts:**

| | |
|---|---|
| U.S. Department of Agriculture<br>Natural Resources Conservation Service | J. Xavier Montoya, State Conservationist<br>Natural Resources Conservation Service<br>New Mexico State Office<br>6200 Jefferson, NE<br>Albuquerque, New Mexico 87109-4462 |
| U.S Department of Interior<br>Bureau of Land Management | Gary Torres<br>Bureau of Land Management<br>Farmington Field Office<br>6251 College Blvd. Suite A<br>Farmington, New Mexico 87402 |
| U.S. Army Corps of Engineers–<br>Durango Field Office | Chris Wrbas<br>U.S. Army Corps of Engineers<br>Albuquerque District<br>1970 East 3rd Ave., Suite 109<br>Durango, CO 81301 |

**Tribal Contacts (Consultation by FEMA)**

- Acoma Pueblo
- Hopi Tribe
- Laguna Pueblo
- Kiowa Tribe
- Navajo Nation
- Ohkay Owingeh (San Juan) Pueblo
- Southern Ute Tribe

- Tesuque Pueblo
- Ute Mountain Ute Tribe
- Zia Pueblo

Note that agency consultation also included the Bureau of Land Management (BLM), which has Farmington Field Office headquarters located upgradient and also administers public lands in the immediate vicinity of the proposed project.

## *6.2 Public Involvement*

### 6.2.1 Public Notices

The public will be invited to comment on the proposed action and the Draft EA. A notice of availability to review the Draft EA will be posted in a local newspaper and on FEMA's website (https://edit.fema.gov/environmental-planning-and-historic-preservation-program/environmental-documents-public-notices-2). Additionally, the Draft EA will be made available for review for a period of 30 days at a local public facility.

### 6.2.2 Public Comments

FEMA will consider and respond to all public comments in the Final EA. If no substantive comments are received, the Draft EA will become final and a Finding of No Significant Impact (FONSI) will be issued for the project.

## *6.3 Permits*

The agency coordination and permits that would be required under the Proposed Action are described below. All required permits and permits applications are presented in Appendix N.

- **City of Farmington**. A Grading Permit would need to be obtained from the City of Farmington.

- **U.S. Environmental Protection Agency.** A SWPPP would need to be developed, and application for coverage under the NPDES Construction General Permit would need to be obtained prior to the start of construction.

- **U.S. Fish and Wildlife Service**. No additional coordination or permits are required regarding federally listed threatened and endangered species and migratory birds.

- **U.S. Army Corps of Engineers**. Application to the USACE for a Section 404 Nationwide Permit 43 was made by the City in 2011 for proposed construction activities. A copy of the USACE permit application and supporting documents are included in Appendix N.

- **Natural Resources Conservation Service**. No additional coordination under FPPA would be required.

- **New Mexico State Historic Preservation Officer**. No additional coordination required.

- **New Mexico Department of Game and Fish**. No additional coordination would be required regarding State-listed threatened and endangered species.

- **New Mexico Environment Department**. A 401 Water Quality Certification was already obtained as part of USACE permitting.

- **Tribal Coordination.** No additional coordination required.

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# 8.0 List of Preparers

This EA was prepared by Animas Environmental Services, LLC., on behalf of the City of Farmington.

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