

ENVIRONMENTAL ASSESSMENT

for the

ACEQUIA DEL LLANO REHABILITATION PROJECT
SAN MIGUEL COUNTY
NEW MEXICO

SECTION 1113 WATER RESOURCES DEVELOPMENT ACT

Prepared by



**US Army Corps
of Engineers®
Albuquerque District**

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July 2009

Finding of No Significant Impact
Section 1113 Water Resources Development Act
Acequia del Llano
San Miguel County
New Mexico

The U.S. Army Corps of Engineers (Corps), Albuquerque District, in cooperation with and at the request of the Acequia del Llano, San Miguel County, New Mexico, is planning to improve the acequia water delivery system.

The construction work is authorized under Section 1113 of the Water Resources Development Act of 1986 (Public Law 99-662). The Act authorizes the Acequia Rehabilitation Program to conduct restoration and rehabilitation of irrigation ditch systems (acequias) in New Mexico. Under Section 1113 of the Act, Congress has found that New Mexico's acequias date from the eighteenth century and, due to their significance in the settlement and development of the western United States, should be restored and preserved for their cultural and historic values to the region. The Acequia del Llano Association is the local sponsor. The duration of the proposed construction will be five months, and is expected to start in September 2009.

The proposed action involves the improvement of the diversion dam for the Acequia del Llano. The project would: 1) remove and replace the existing diversion structure with a concrete-capped gabion weir; 2) remove a dislodged portion of an older structure from the river; and 3) remove and replace the existing pipe leading to the Acequia del Llano sluice box/headgate. Under the no action alternative, there would not be any improvements made to the acequia ditch.

A couple of alternatives were considered to repair the existing diversion structure. The first alternative considered drilling holes on the upstream surface of the weir to install rebar, epoxy, or concrete reinforcing material. Tool vibration would likely damage the old concrete further, increasing the likelihood of weir failure. The second alternative considered rebuilding the entire weir overflow, apron floor, and apron lip between the existing headwalls. However, exposure of the failing south side headwall during construction would increase the likelihood of weir failure.

The proposed acequia construction work would maintain the same downstream flow in the Sapello River. Under the criteria for the Irrigation Exemption for Section 404 of the Clean Water Act (CWA; 33 U.S.C. 1251 et seq.), a Section 404(b)(1) analysis will not be needed for the project because downstream flow will not be affected. Construction along the existing acequia alignment will not affect the adjacent floodplain. Therefore, the planned action is consistent with Executive Order 11988 (Floodplain Management). The proposed work complies with Executive Order 11990 (Protection of Wetlands) as no wetlands are within the project area.

One prehistoric archaeological site was found within and immediately adjacent to the project area during cultural resources surveys. The current project design avoids the area of highest artifact concentration, and no excavation or earth-moving activities will take place within site boundaries. The Corps will ensure that temporary fencing delineating the boundary of the staging area will be erected, ensuring that no construction or staging activity will occur outside of these limits. Based on this information, the Corps determines that there will be **no adverse**

effect to historic properties by the proposed undertaking. The Corps received concurrence on this determination from the New Mexico State Historic Preservation Office on June 25, 2009. To date, the Corps has received no indication of tribal concerns that will impact this project.

Under the Endangered Species Act, none of the species of concern listed for San Miguel County are expected to occur in the project area. There will be no effects to Bald Eagles, Southwestern Willow Flycatchers, or black-footed ferrets.

Best Management Practices (BMPs) that will be employed during construction include the use of silt fences (as part of the Fugitive Dust Control Permit), wetting of soils within the construction zone, and compliance with local soil sedimentation and erosion-control regulations. The contractor will be required to have emission control devices on all equipment, and to use paved or graveled roads for access to the work area if possible. Construction has been scheduled during winter months when reptiles and amphibians are less active. Sloped escape ramps will be provided along the ditch during construction to facilitate passive escapement by small animals. The trenches will be examined daily, prior to starting work, for small mammals and reptiles to be removed prior to initiating work. A Storm Water Pollution Prevention Plan will be prepared by the contractor and implemented during construction. Disturbance to vegetation during construction will be mitigated by native re-seeding and re-vegetation with plant species native to New Mexico. All equipment will be cleaned when moving between areas to prevent transfer of noxious weeds.

Only minor short-term adverse impacts to visual resources, soils, air, noise, vegetation, and wildlife, will occur during construction. No impacts will occur to physiography, geology, land use, water resources, climate, wetlands or other waters of the U.S., special status species, floodplains, socioeconomic, environmental justice or cultural resources. The proposed project will not result in any moderate or significant, short-term, long-term, or cumulative adverse effects.

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

7/24/09
Date

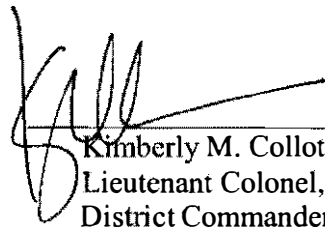

Kimberly M. Colloton
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TABLE OF CONTENTS

	<u>Page</u>
1.0 INTRODUCTION	1
1.1 Background and Location	1
1.2 Purpose and Need	1
1.3 Regulatory Compliance	3
1.4 Scoping and Issues	4
2.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES	4
2.1 Proposed Action.....	5
2.2 Alternative Analysis.....	5
2.3 The No Action Alternative.....	6
3.0 EXISTING ENVIRONMENT AND FORESEEABLE EFFECTS.....	6
3.1 Physical Resources.....	6
3.1.1 Physiography and Geology	6
3.1.2 Soils.....	6
3.1.3 Climate.....	7
3.1.4 Water Resources	9
3.1.5 Floodplains and Wetlands.....	9
3.2 Air Quality and Noise	10
3.2.1 Air Quality	10
3.2.2 Noise Levels.....	11
3.3 Biological Resources	12
3.3.1 Vegetation Communities	12
3.3.2 Noxious Weeds	12
3.3.3 Wildlife	12
3.3.4 Special Status Species.....	13
3.4 Cultural Resources	15
3.5 Land Use and Visual Resources	16
3.5.1 Land Use	16
3.5.2 Visual Resources.....	17
3.6 Socioeconomic Considerations	17
3.6.1 Socioeconomics	17
3.6.3 Environmental Justice.....	19
3.7 Cumulative Impacts	19
4.0 CONCLUSIONS AND SUMMARY	20
5.0 PREPARATION, CONSULTATION AND COORDINATION.....	20
5.1 Preparation	20
5.2 Quality Control	21
5.3 General Consultation and Coordination.....	21
5.4 Distribution List for the DEA	21
5.5 Summary of Comments Received on the DEA and Corps' Response	22
6.0 REFERENCES	23

APPENDICES

	<u>Page</u>
Appendix A.....	25
Scoping Letter and Tribal Response Letters.....	25
Appendix B.....	26
Cultural Resources Survey Report and SHPO Concurrence	26
Appendix C.....	27
Site Photos	27
Appendix D.....	29
Notice of Availability and Public Comment Letter	29
Appendix E	31
Irrigation Ditch Exemption Public Notice	31

LIST OF FIGURES

Figure 1. Vicinity Map of Proposed Location for Acequia del Llano, San Miguel County, New Mexico.	2
Figure 2. Schematic plan-view drawing of the Acequia del Llano diversion structure and sluice box (not to scale).....	3
Figure 3. Temperature characteristics in Las Vegas, San Miguel County near project area. Graph generated by City.com (2008).....	7
Figure 4. Precipitation characteristics in Las Vegas, San Miguel County near project area. Graph generated by City.com (2008).....	7
Figure 5. Snowfall patterns in Las Vegas, San Miguel County near project area.	8

LIST OF TABLES

Table 1. Special Status Species Listed for San Miguel County, New Mexico, that potentially occur in the vicinity of the Proposed Project Area.	14
Table 2. Selected social demographic 2000 data for San Miguel County and the United States (U.S. Census Bureau 2008).....	18

1.0 INTRODUCTION

1.1 Background and Location

The Water Resources Development Act (WRDA) of 1986 (Public Law 99-662; 33 U.S.C. 2201 et. seq. as amended), authorizes the Acequia Rehabilitation Program for the restoration and rehabilitation of irrigation ditch systems (acequias) in New Mexico. Under Section 1113 of the Act, Congress has found that New Mexico's acequias date from the eighteenth century and, due to their significance in the settlement and development of the western United States, should be restored and preserved for their cultural and historic values to the region. The Secretary of the Army, therefore, has been authorized and directed to undertake, without regard to economic analysis, such measures as are necessary to protect and restore New Mexico's acequias. The Act also recognized community acequias as public entities, allowing acequia officials to serve as local sponsors of water related projects through the Department of Defense.

The proposed Acequia del Llano Diversion Structure Rehabilitation Project area is located approximately 10 miles north of Las Vegas, New Mexico on Sapello River approximately two miles east of the intersection of State Highway 518 and Sapello Ranch Road (Figure 1). The principal objective of the acequia rehabilitation project is to replace the existing diversion structure with a concrete-capped gabion weir (Figure 2). Project construction will begin in September 2009, during the non-irrigation season with an expected duration of about five months.

1.2 Purpose and Need

The purpose of this project is to replace the existing diversion structure with a concrete-capped gabion weir (Figure 2). The existing dam is a concrete structure built during or before 1926 and the last repair occurred in the 1960s (see existing project area photos in Appendix B). The entire structure suffers from age and damage caused by flood events. Erosion is occurring beneath the apron floor of the weir and the concrete is cracked and beginning to fail. Seepage beneath the south side headwalls is causing the area downstream of the weir to undercut. Given the forces at work on the weir, the potential exists for the weir to be washed out during a storm event.

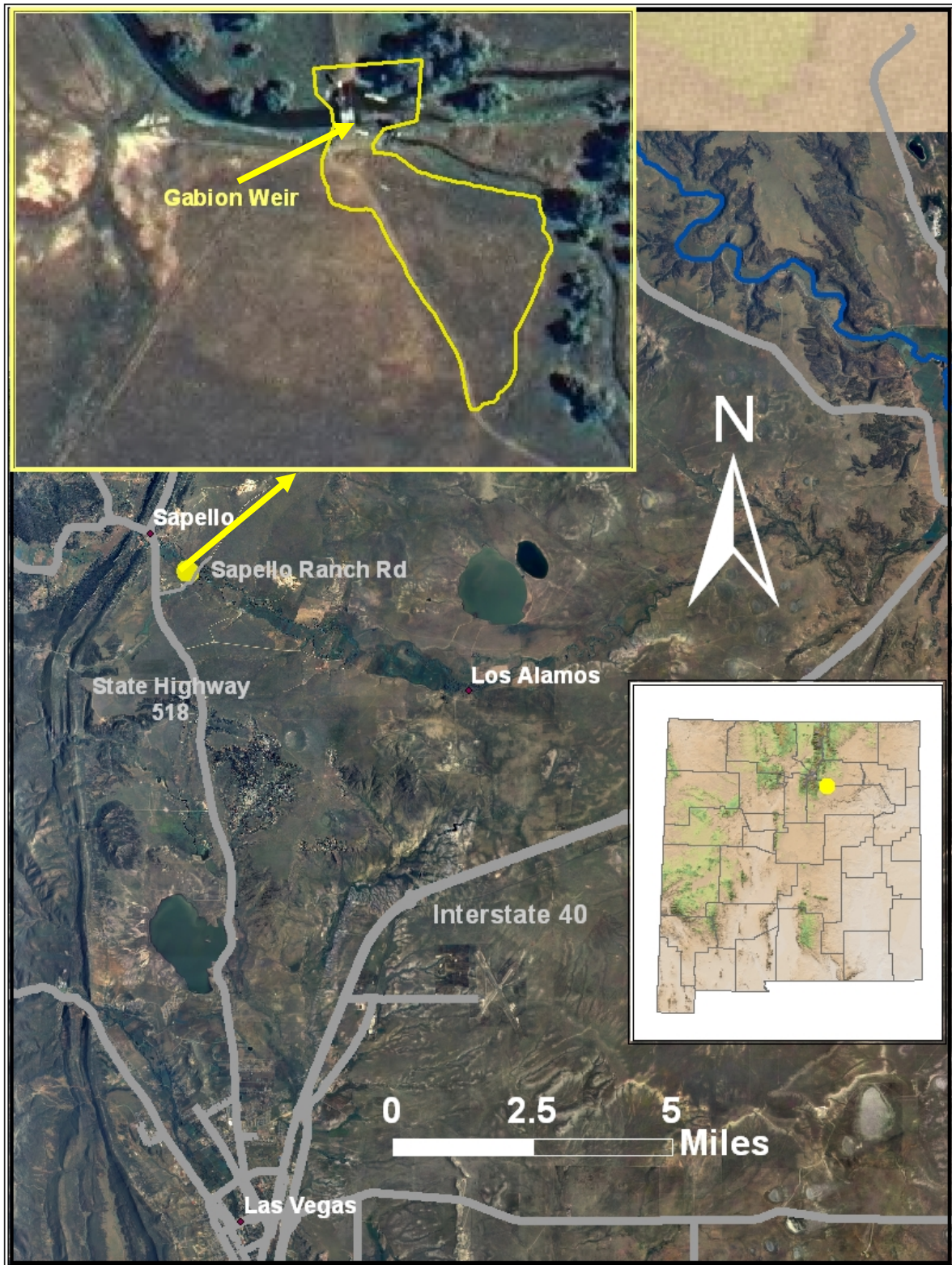


Figure 1. Vicinity Map of Proposed Location for Acequia del Llano, San Miguel County, New Mexico.

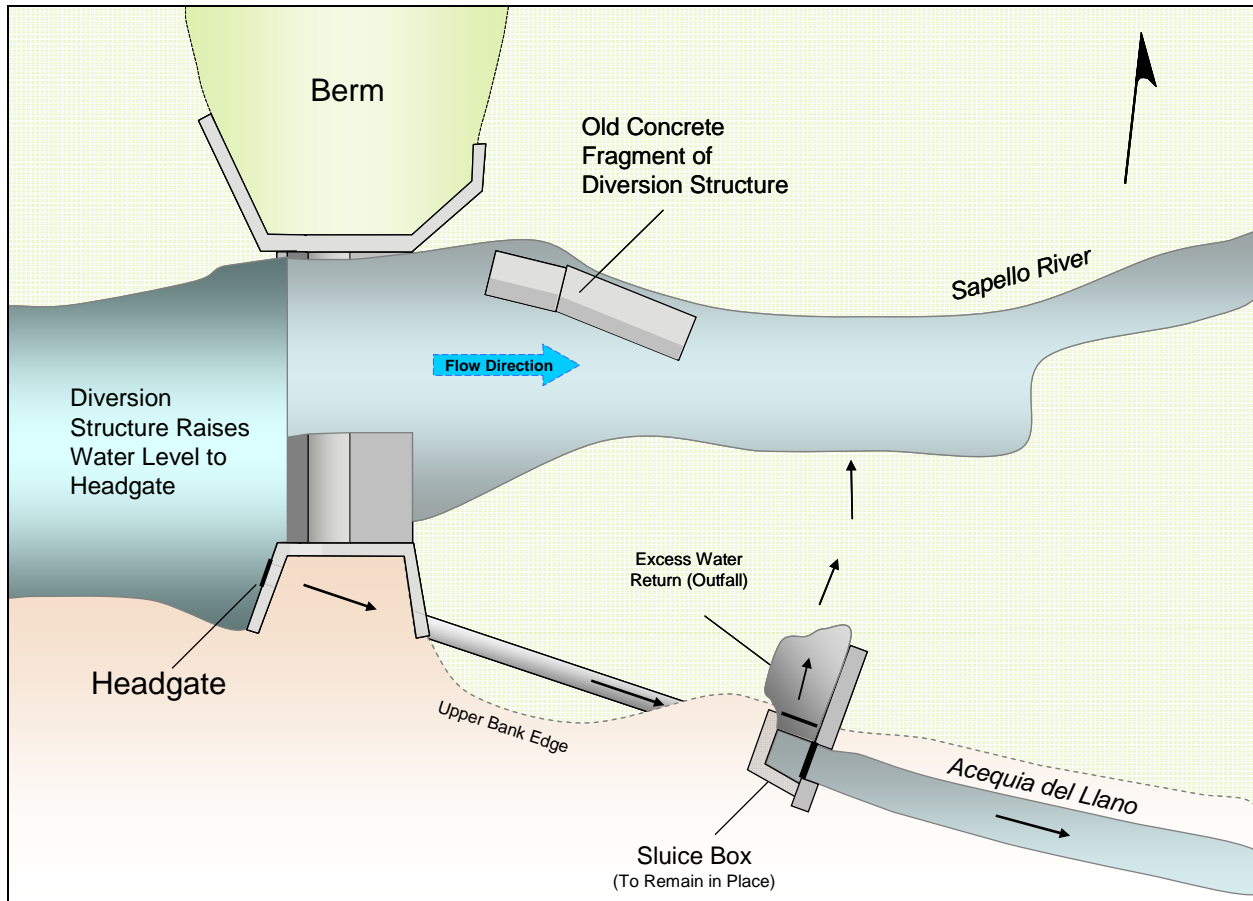


Figure 2. Schematic plan-view drawing of the proposed Acequia del Llano diversion structure and sluice box (not to scale).

1.3 Regulatory Compliance

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

- Archaeological Resources Protection Act of 1979 (16 U.S.C. 470)
- Clean Water Act of 1972 and Amendments of 1977 (CWA)
- Clean Air Act of 1972, as amended (42 U.S.C. 7401 *et seq.*)
- Endangered Species Act of 1973, (ESA) as amended (16 U.S.C. 1531 *et seq.*)
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations, 1994
- Executive Order 13112, Invasive Species, sec. 2(a)(2)(IV), 1999
- Farmland Protection Policy Act of 1981, as amended (7 U.S.C. 4201 *et seq.*)
- Federal Noxious Weed Act of 1974 (Public law 93-269; 7 U.S.C. 2801)
- Floodplain Management (Executive Order 11988)
- National Environmental Policy Act of 1969, as amended (42 U.S.C. 4321 *et seq.*)

- Council for Environmental Quality Regulations of Implementing the Procedural Provisions of NEPA (40 CFR 1500 *et seq.*)
- National Historic Preservation Act of 1966, as amended (16 U.S.C. 470 *et seq.*)
- Native American Graves Protection and Repatriation Act of 1990 (25 U.S.C. 3001 *et seq.*)
- Procedures for Implementing NEPA (33 CFR 230; ER 200-2-2)
- Protection and Enhancement of the Cultural Environment (Executive Order 11593)
- Protection of Wetlands (Executive Order 11990)
- Safe Drinking Water Act (SDWA)
- U.S. Army Corps of Engineers Procedures for Implementing NEPA (33 CFR 230; ER 200-2-2)

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

1.4 Scoping and Issues

Scoping for this EA focused on potential cultural resource issues at the proposed project site. Appendix A contains a copy of the cultural resources scoping letter, dated April 9, 2009, submitted to tribal agencies. Consistent with the Department of Defense's American Indian and Alaska Native Policy, signed by Secretary of Defense William S. Cohen on October 20, 1998, and based on the State of New Mexico Indian Affairs Department's Native American Consultations List, American Indian tribes that have indicated they have concerns in San Miguel County have been contacted regarding the proposed project. To date, the Corps has received responses from the Pueblo of Isleta, the Hopi Tribe, the Navajo Nation, and the Kiowa Tribe of Oklahoma. All have indicated that they have no current concerns about the proposed project, but wish to be notified of any project changes or additional in-field discoveries. No Traditional Cultural Properties are known by the Corps to occur in or near the project area. A copy of the scoping letter sent to Tribes and copies of all Tribal responses are included in Appendix A.

2.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

All agencies that assist or take part in projects that utilize Federal funding are mandated by the National Environmental Policy Act (NEPA) to evaluate alternative courses of action. Typically, alternatives are a set of different locations that satisfy certain defined project criteria. However, alternatives can also include design considerations and/or attributes that may mitigate or reduce impacts generated by a given action. In general, the NEPA process provides decision makers with an evaluation of the present and future conditions with regard to the implementation and timing of an alternative at a given site. Finally, a particular design chosen from alternatives evaluated can then be implemented in the best interest of the public and environment.

2.1 Proposed Action

The Corps, Albuquerque District, in cooperation with the Acequia del Llano Association proposes to remove and replace the existing diversion structure with a concrete-capped gabion weir, remove a dislodged portion of an older structure from the river, and remove and replace the existing pipe leading from the Acequia del Llano headgate to the sluice box. The existing diversion structure is primarily a failing 1940s concrete structure with parts of the spillway having been washed downstream (Figure 2), the majority of which (including the wing walls and part of the spillway) were rebuilt in 1965. The primary point of failure for the existing structure is the articulation between the 1940s and 1960s portions of the spillway, where the earlier portion is undercut and eroded underneath, and has shifted so that water no longer flows over it; rather, this tilted segment forces water over the 1960s portion, increasing the erosion of the concrete in that segment and erosion under the 1940s portion. No modification will be made to the ditch itself, which will retain its traditional “open earthen ditch” form. Under the no action alternative, there would not be any improvements made to the diversion structure.

As the action agency, the Corps will provide 75-percent of construction funding for this project. The non-Federal financial responsibility of any work carried out under this section of the Act is 25 percent. The New Mexico Office of the State Engineer is the project sponsor, and with the local ditch association, will be responsible for the remaining 25-percent of construction costs. Project design has been completed by the Corps.

The present diversion structure is outdated and failing. The current proposed improvements will replace the diversion structure and pipe leading from the headgate to the sluice box. This alternative was selected because repairing sections of the existing weir probably will result in additional damage, necessitating further repairs. The proposed construction period for the proposed action is five months and is expected to be scheduled in September 2009. The Federal costs for the proposed project are \$750,000 with a non-Federal cost share of \$250,000.

2.2 Alternative Analysis

One alternative to completely replacing the existing diversion structure was to repair the portions that are currently failing. Methods considered include reinforcing the upstream portion of the existing weir with epoxy and rebar. This method would require drilling holes on the upstream surface of the weir to either inject reinforcing material or add another layer of concrete. Drilling holes and other tool vibration would likely damage the old concrete further and the potential for loss of the entire structure was determined to be high. The likelihood of weir failure with this alternative makes it unfeasible and not recommended.

Additionally, rebuilding the weir as it currently exists was also considered. For this approach, the entire weir overflow, apron floor, and apron lip would be replaced and the existing headwalls would be maintained. However, the headwalls would be exposed all the way to the foundation for a period of time until the new concrete was placed. The south side headwall is currently failing and likely would not withstand exposure. The likelihood of weir failure with this alternative makes it unfeasible and not recommended.

2.3 The No Action Alternative

Under the no action alternative, there would be no repairing or replacing of the existing diversion structure. No federal funding would be expended and there would be no new effects to the project site or surrounding environment. The no action alternative would have no impact to the ensuing resources; however, the diversion structure would continue to age and likely would fail in the future.

3.0 EXISTING ENVIRONMENT AND FORESEEABLE EFFECTS

3.1 Physical Resources

3.1.1 Physiography and Geology

The project area is on the western edge of the Great Plains Province east of the Rocky Mountains (Hawley 1986; Natural Resources Conservation Service 2008a). The Acequia del Llano is located on Sapello River upstream of its confluence with the Mora River in the Canadian River Drainage. The Great Plains Province is characterized by broad, gently undulating to rolling piedmont plains with extensive basalt flows and varying degrees of dissection. Elevation ranges from 5,000 to 7,000 feet (1,525 to 2,135 meters). Immediately west of the project area are the Southern Rocky Mountains foothills with remnants of the uplifted and folded sedimentary rocks forming north-south hogbacks, ridges, and hills.

The Southern Rocky Mountains were uplifted 50 to 70 million years ago during the Laramide uplift. This physiographic region is adjacent to the Laramide uplift, which induced erosion of the relatively soft Late Pennsylvanian to Cretaceous sedimentary rocks from the uplands. The relief of the area was reduced by a combination of erosion of uplands and alluvial filling. A large portion of the area was uplifted again 7 million years ago to elevations of 14,000 feet (4,270 meters) or more at the core of the Laramide uplift. Stream erosion from the eastern front of the Southern Rocky Mountains fostered the creation of a sequence of large alluvial fan remnants, pediments, and terrace deposits in this physiographic region.

Physiographic characteristics of the project area and local geologic conditions will not be affected by either the no action or the proposed action alternative. The proposed action will not cause any marked changes in local surface topography.

3.1.2 Soils

The project area extends across fine textured La Brier and Ustifluvents (Natural Resources Conservation Service 2009) soils adjacent to Sapello River (Figure 1). The loamy Ustifluvents soils consist of floodplain alluvium derived from igneous and sedimentary rock. The clayey La Brier soils consist of alluvium derived from sandstone and shale which is rarely flooded. These soils are well drained with a mesic temperature regime.

Soil conditions in the project area will not change with the no action alternative. No soil disturbance is expected at the staging area for the proposed action as it will be used only for stockpiling materials and equipment. Soil will be disturbed only for a short time during

construction. After construction, soils will be stabilized with re-seeding and the reestablishment of native vegetation.

3.1.3 Climate

San Miguel County has a semiarid climate. Summer temperatures are warm and winters are mild (Figure 3). Average diurnal temperature fluctuations of 30° F to 40° F are characteristic of the project area. Precipitation is irregular with summer monsoonal rains and winter snow (Figures 4 and 5). The project area has a mid-latitude arid climate, with an annual precipitation of 16.30 inches and 37.2 inches of snow (Western Regional Climate Center 2009).

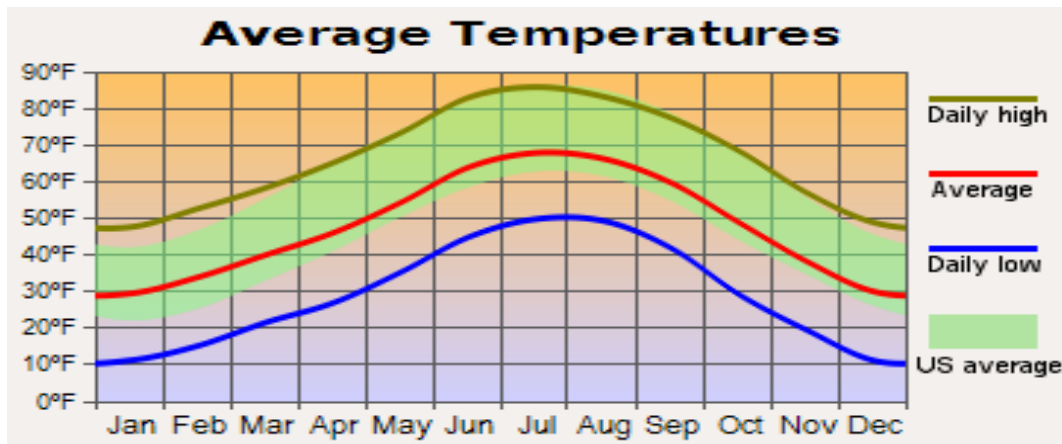


Figure 3. Temperature characteristics in Las Vegas, San Miguel County near project area. Graph generated by City.com (2008).

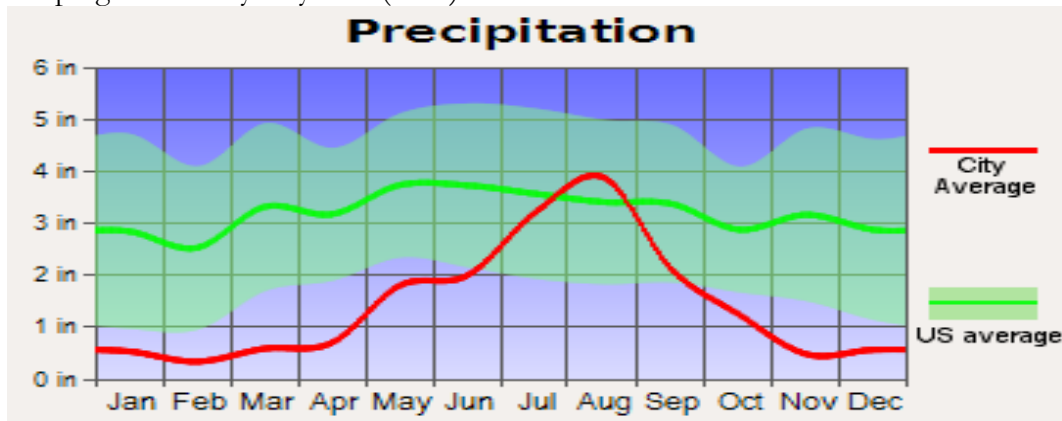


Figure 4. Precipitation characteristics in Las Vegas, San Miguel County near project area. Graph generated by City.com (2008).

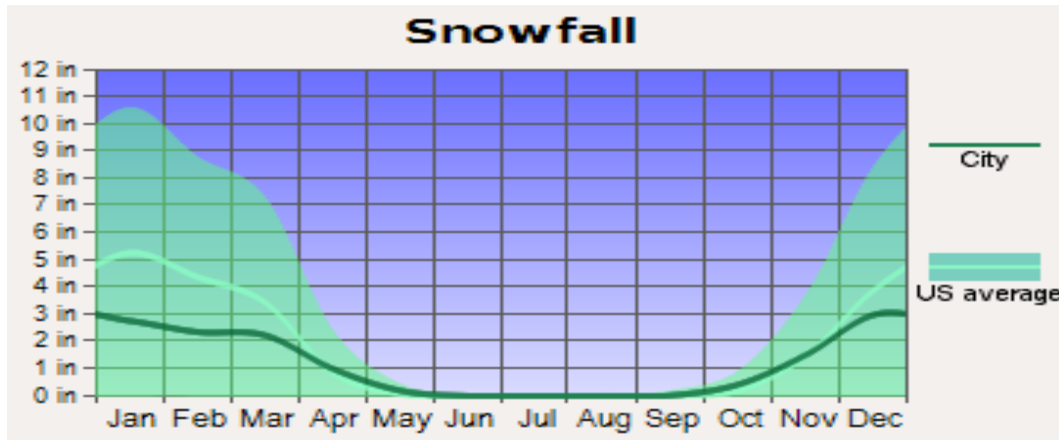


Figure 5. Snowfall patterns in Las Vegas, San Miguel County near project area. Graph generated by City.com (2008).

Average air temperatures worldwide are predicted to increase beyond the current range of natural variability because human activities have, since the Industrial Revolution, caused accumulation of greenhouse gases (*e.g.* carbon dioxide, methane, nitrous oxide, chlorofluorocarbons) in the atmosphere (U.S. Environmental Protection Agency 1998, 2005). The potential impacts resulting from climate change are varied, even within the State of New Mexico (New Mexico Agency Technical Work Group 2005). Summer air temperatures in the southwestern U.S. are predicted to rise considerably from 2010 through 2039; average annual precipitation is expected to decrease, and mountain snow-packs are predicted to decrease significantly (Field *et al.* 2007: 627).

New Mexico Governor Bill Richardson signed Executive Order 05-33 in 2005, which included development of recommendations for reducing greenhouse gas emissions in the State to year 2000 levels by 2012, 10 percent below 2000 levels by 2020, and 75 percent below 2000 levels by 2050. The year 2000 reference level is 83 million metric tons of carbon dioxide equivalent gases (MMtCO₂ e; New Mexico Climate Change Advisory Group 2006: 2-2). Residential and commercial fuel use accounted for about five percent of total emissions in the State in 2000 (New Mexico Climate Change Advisory Group 2006: 2-4), or about 7.3 MMtCO₂ e (New Mexico Climate Change Advisory Group 2006: 2-6).

The proposed action will result in additional temporary and minimal greenhouse gas emissions during construction of the project, and will cumulatively add to past, ongoing, and future greenhouse gas emissions in New Mexico. The project-related emissions will be a very small proportion of the total greenhouse gas emissions in the State (83,000,000 metric tons). Project-related greenhouse gas emissions can be reduced by implementing one or more of the Best Management Practices (BMPs) described in section 3.2.1. Climate will not be adversely impacted by the proposed project.

The no action alternative would not result in any construction in the project area. Therefore, there would be no increase of greenhouse gas emissions, and no effect on climate.

3.1.4 Water Resources

The project area is located on the alluvial floodplain of Sapello River. The nearest USGS Gage at Golondrinas, NM on the Mora River has a range of average annual discharge between 2 and 200 cfs. The project area includes the diversion structure for the Acequia del Llano irrigation ditch.

Section 404 of the Clean Water Act, (CWA; 33 U.S.C. 1251 *et seq.*) as amended, provides for the protection of waters of the United States through regulation of the discharge of dredged or fill material. Projects that involve a discharge, or placement, of dredged or fill material in the waters of the United States, including wetlands, require the Corps to complete a Section 404 (b)(1) evaluation. Construction or maintenance of irrigation facilities is exempted from Section 404 of the Clean Water Act (CWA; 33 U.S.C. 1251 *et seq.*) where flow downstream of the diversion is not affected by the proposed action (Appendix E). Flow in the Sapello River downstream of the project is expected to remain unchanged to its confluence with the Mora River. Therefore a Section 404(b)(1) analysis will not be needed for the project.

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

Surface water resources are not affected by existing operation and management. There is likely some recharge of the shallow ground water aquifer by diversions in the ditch during irrigation under current conditions. The proposed project will not change or affect water rights or the amount of water diverted. Surface water resources will not be impacted by the proposed action.

Section 402 of the CWA (CWA; 33 U.S.C. 1251 *et seq.*), as amended, regulates point-source discharges of pollutants into waters of the United States and specifies that storm-water discharges associated with construction activities will be conducted under the National Pollution Discharge Elimination System (NPDES) guidance. Construction activities associated with storm-water discharges are characterized by such things as clearing, grading, and excavation, subjecting the underlying soils to erosion by storm-water, which results in a disturbance to one or more acres of land. The NPDES general permit guidance will apply to this project because the total area (2.5 acres) is greater than one acre. Therefore, a Storm-Water Pollution Prevention Plan (SWPPP) is required. Standard Best Management Practices to prevent on- and off-site erosion will be incorporated in contract specifications. Impacts from storm-water are expected to be negligible.

There would be no effect on surface water resources in the Sapello River with the no action alternative. There would be no changes to water quality from construction activities.

3.1.5 Floodplains and Wetlands

Executive Order 11988 (Floodplain Management) provides Federal guidance for activities within the floodplains of inland and coastal waters. The order requires Federal agencies to take action to reduce the risk of flood loss, to minimize the impact of floods on human safety, health, and welfare, and to restore and preserve the natural and beneficial values served by floodplains.

Construction will occur at the diversion structure and not result in permanent alterations to the adjacent floodplain. Therefore, impacts to the historic or current floodplains are not expected due to the proposed project.

Executive Order 11990 (Protection of Wetlands) requires the avoidance, to the greatest extent possible, of both long- and short-term impacts associated with the destruction, modification, or other disturbance of wetland habitats. Wetlands do not occur within the proposed project location. Therefore, no impacts to wetlands will occur. There will be no effects to wetlands and floodplains with the no action alternative.

3.2 Air Quality and Noise

3.2.1 Air Quality

The Clean Air Act of 1970, as amended, established National Ambient Air Quality Standards for six criteria air pollutants: ozone, airborne particulates, carbon monoxide, nitrogen dioxide, sulfur dioxide, and lead. If measured concentrations of the six pollutants exceed their respective standards, the U.S. Environmental Protection Agency can designate the area as a non-attainment area for that pollutant.

The Upper Rio Grande Valley Intrastate Air Quality Control Region 157 covers 6,136 square miles in the northern section of the state including that portion of San Miguel County lying east of the Continental Divide. No exceedences of the National Ambient Air Quality Standards have been measured in the air quality monitoring network in San Miguel County (New Mexico Environment Department 2008a). The nearest air quality monitoring stations are in Santa Fe County (New Mexico Environment Department 2008b). Therefore, the area is currently in attainment of all Federal air quality standards.

The no action alternative would not affect existing air quality as no changes would occur in regards to rehabilitation of the acequia.

The proposed project will result in short-term minimal effects to local air quality from operation of a backhoe during construction. A temporary increase in particulates (dust) will be expected as a result of soil disturbance. Also, local concentrations of carbon monoxide will increase minutely from equipment emissions during the five month construction period. No long-term effects to air quality are anticipated as a result of operation of the proposed facilities.

The nearest Class I air quality area is the Pecos Wilderness northwest of the project area. The appropriate area for cumulative effects analysis for air quality is the area within 300 feet of the project area. Effects of the project on air quality beyond that distance will be negligible.

The effects of past and ongoing actions on air quality in the airshed are represented by the existing conditions. There are no known future actions that may impact air quality and that will overlap spatially and temporally with the proposed action. Consequently, the project will not have any cumulative effects on air quality.

Construction-related effects to air quality will be minimized with Best Management Practices (BMPs) by: 1) requiring the contractor to have emission control devices on all equipment; 2)

employing the use of best management practices to control wind erosion, including wetting of soils within the construction zone; 3) compliance with local soil sedimentation and erosion-control regulations; and 4) the use of already paved or graveled roads for access to the work area. Construction and maintenance of the proposed project will conform to air quality control regulations as established by the Clean Air Act and the New Mexico Air Quality Control Act.

3.2.2 Noise Levels

In considering potential effects of increased noise levels, sensitive noise receptors are identified in a project area. Sensitive receptors include but are not limited to homes, livestock and undeveloped natural areas.

The project area generally has a low level of noise as the project area is in the floodplain on the edge of pastures. Sounds created by humans heard in the project area included farm machinery operations and travel on dirt roads.

The no action alternative would not result in any construction in the project area. Therefore, there would be no effect on current noise levels.

If the proposed action is implemented, there will be minor temporary increases in noise levels from the operation of construction equipment, lasting for about five months during the construction period. Additional construction-related noise from vehicles and people at the site will persist throughout the construction period. These increases in noise will occur in day time hours and may disrupt the relatively quiet project setting. Birds and other wildlife that use this area may be temporarily displaced by the increased level of noise.

Cumulative effects of noise increases were assessed using an approximately one-half mile radius from the project area, assuming that large equipment noise may be heard from that distance at times. The increase in noise generated by construction of the project will add to noise levels generated from surrounding homes, resulting in a cumulative increase in noise levels during the period of construction.

To reduce temporary construction noise, construction contract BMPs will require that construction equipment and activities comply with state and local noise control ordinances.

Background noise levels in the proposed project area are relatively low. According to the Noise Center for the League for the Hard of Hearing (League for the Hard of Hearing, 2007), a typical, quiet, residential area has a noise level of 40 decibels. A residential area near heavy traffic has a noise level of 85 decibels. Heavy machinery has a noise level of 120 decibels. During construction, noise will temporarily increase in the vicinity during vehicle and equipment operation. The Noise Center advises that noise levels above 85 decibels will harm hearing over time and noise levels above 140 decibels can cause damage to hearing after just one exposure. However, the increase in noise during construction will be minor and temporary, ending when construction is complete. Therefore, the proposed project will have no significant affect on noise.

3.3 Biological Resources

3.3.1 Vegetation Communities

The project area is located on the edge of the Great Plains Grassland biotic community as described by Brown (1982). The vegetation along Sapello River is typical native short or mid prairie grasses in the lowlands. Fine textured soils support vegetation characterized by western wheatgrass, blue grama, sideoats grama, and galleta. Alkali sacaton and western wheatgrass dominate drainageways. Riparian vegetation includes cottonwoods and willows.

BMPs will include re-vegetation of the disturbed project areas with native plant species following construction. No significant impacts will occur to vegetation as a result of the proposed project or no action alternative.

3.3.2 Noxious Weeds

The Federal Noxious Weed Act of 1974 (Public law 93-269; 7 U.S.C. 2801) provides for the control and eradication of noxious weeds and their regulation in interstate and foreign commerce. Executive Order 13112 directs Federal agencies to prevent the introduction of invasive (exotic) species and to control and minimize the economic, ecological, and human health impacts that invasive species cause. In addition, the State of New Mexico, under administration of the U.S. Department of Agriculture, designates and lists certain weed species as being noxious (Nellessen 2000). “Noxious” in this context means plants not native to New Mexico that may have a negative impact on the economy or environment and are targeted for management or control. Class C- listed weeds are common, widespread species that are fairly well established within the state. Management and suppression of Class C weeds is at the discretion of the lead agency. Class B weeds are considered common within certain regions of the state but are not widespread. Control objectives for Class B weeds are to prevent new infestations, and in areas where they are already abundant, to contain the infestation and prevent their further spread. Class A weeds have limited distributions within the state. Preventing new infestations and eliminating existing infestations is the priority for Class A weeds. In order to prevent this, all equipment will be cleaned with a high-pressure water jet prior to entering the project area, and before leaving an area and entering a new area.

3.3.3 Wildlife

Some of the major wildlife species in this area are mule deer, antelope, jackrabbit, cottontail, pheasant, bobwhite quail, and mourning dove. Fish species for Sapello River include central stoneroller (*Campostoma anomalum*), white sucker (*Catostomus commersoni*), Sand shiner (*Notropis stramineus*), longnose dace (*Rhinichthys cataractae*), and creek chub (*Semotilus atromaculatus*).

The proposed project construction will take place at the diversion structure routing the river around the site in a bypass channel. Therefore, no significant impacts will occur to wildlife or wildlife habitat as a result of the proposed project or the no action alternative. Movement of fish will not be adversely impacted during construction.

3.3.4 Special Status Species

Three agencies have primary responsibility for protecting and conserving plant and animal species within the proposed project area. The United States Fish and Wildlife Service (USFWS), under authority of the Endangered Species Act of 1973 (16 U.S.C. 1531), as amended, has the responsibility for Federal listed species (USFWS 2009). The New Mexico Department of Game and Fish (NMDGF 2009), has the responsibility for state-listed wildlife species. The New Mexico State Forestry Division (Energy, Minerals, and Natural Resources Department) has the responsibility for state-listed plant species. Plant species of concern are listed on the New Mexico Rare Plants Technical Council Website (NMRPTC 1999). Each agency maintains a continually updated list of species that are classified, or are candidates for classification, as protected based on their present status and potential threats to future survival and recruitment into viable breeding populations. These types of status rankings represent an expression of threat level to a given species survival as a whole and/or within local or discrete populations. Special status species that potentially occur in San Miguel County and may occur near the proposed project area are listed in Table 1.

The plants listed in Table 1 are known to exist in San Miguel County, but are not likely to occur within the project area. The preferred site condition for these plants is not present within or near the project area. Therefore, there will be no effect to these endangered plants by the proposed project or the no action alternative.

Special status animal species listed by USFWS (USFWS 2009) and New Mexico Department of Game and Fish for San Miguel County (NMDGF 2009) that might occur in or near the project area but are not anticipated to occur include the following:

The Southwestern Willow Flycatcher (Flycatcher) is a State and Federally listed Endangered species that relies on dense riparian habitat for nesting. It has been reported as occurring along the Rio Grande, but not in the Canadian River drainage. There are no willow stands in the general vicinity of the project. Construction will occur during the winter months, outside the breeding season for migratory birds. There will be no effect to Flycatchers due to the lack of preferred breeding habitat.

The Interior Least Tern breeds on exposed sandbars in larger rivers and reservoirs in New Mexico. The Sapello River does not have any sandbars in the project area, and is highly disturbed by cattle grazing. There will be no effect to Interior Least Terns because there is no suitable breeding habitat in the project area.

The White-tailed Ptarmigan resides in alpine tundra habitat at higher elevations in New Mexico. The project area is at lower elevations and does not have any alpine vegetation. There will be no effect to White-tailed Ptarmigans because there is no suitable alpine habitat in the project area.

The black-footed ferret is dependent on prairie dogs for burrows and food. Prairie dog colonies generally occur in grasslands, and do not occur in the project area. There will be no effect to ferrets because there are no suitable prairie dog colonies in the project area.

Table 1. Special Status Species Listed for San Miguel County, New Mexico, that potentially occur in the vicinity of the Proposed Project Area.

Common Name	Scientific Name	Federal Status (FWS 2009) ^a	New Mexico status (NMDGF 2009) ^b
Animals			
Southwestern Willow Flycatcher	<u><i>Empidonax traillii extimus</i></u>	E	E
Interior Least Tern	<u><i>Sterna antillarum athalassos</i></u>	E	E
White-tailed Ptarmigan	<u><i>Lagopus leucura altipetens</i></u>	E	--
Black-footed Ferret	<u><i>Mustela nigripes</i></u>	E	E
Arkansas River Shiner	<u><i>Notropis girardi</i></u>	T	E
Spotted Mexican Owl	<u><i>Strix occidentalis lucida</i></u>	T	--
Peregrine Falcon	<u><i>Falco peregrinus anatum</i></u>	SC	T
Arctic Peregrine Falcon	<u><i>Falco peregrinus tundrius</i></u>	SC	T
Common Black-Hawk	<u><i>Buteogallus anthracinus anthracinus</i></u>	SC	--
Northern Goshawk	<u><i>Accipiter gentilis atricapillus</i></u>	SC	--
Burrowing Owl	<u><i>Athene cunicularia hypugaea</i></u>	SC	--
Mountain Plover	<u><i>Charadrius montanus</i></u>	SC	--
Baird's Sparrow	<u><i>Ammodramus bairdii</i></u>	SC	--
Townsend's Big-eared Bat	<u><i>Corynorhinus townsendii pallescens</i></u>	SC	--
Swift Fox	<u><i>Vulpes velox velox</i></u>	SC	--
Pecos River Muskrat	<u><i>Ondatra zibethicus ripensis</i></u>	SC	--
Black Tern	<u><i>Chlidonias niger surinamensis</i></u>	SC	--
Brown Pelican	<u><i>Pelecanus occidentalis carolinensis</i></u>	--	E
Suckermouth Minnow	<u><i>Phenacobius mirabilis</i></u>	--	T
Bald Eagle	<u><i>Haliaeetus leucocephalus alascanus</i></u>	--	T
Broad-billed Hummingbird	<u><i>Cynanthus latirostris magicus</i></u>	--	T
White-eared Hummingbird	<u><i>Hylocharis leucotis borealis</i></u>	--	T
Boreal Owl	<u><i>Aegolius funereus</i></u>	--	T
Gray Vireo	<u><i>Vireo vicinior</i></u>	--	T
American Marten	<u><i>Martes americana origenes</i></u>	--	T
Plants (NMRPTC 1999)			
Holy Ghost ipomopsis	<u><i>Ipomopsis sancti-spiritus</i></u>	E	E
Sapello Canyon larkspur	<u><i>Delphinium sapellonis</i></u>	SC	SC
Pecos mariposa lily	<u><i>Calochortus gunnisonii var. perpulcher</i></u>	SC	SC
Pecos fleabane	<u><i>Erigeron subglaber</i></u>	SC	SC
New Mexico stickseed	<u><i>Hackelia hirsuta</i></u>	SC	SC

^a **Endangered Species Act (ESA)** (as prepared by U.S. Fish and Wildlife Services) **status:** Only Endangered and Threatened species are protected by the ESA.

E= Endangered: any species that is in danger of extinction throughout all or a significant portion of its range

T= Threatened: any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

SC= Species of Concern: taxa for which information now in the possession of the Service indicates that proposing to list as endangered or threatened is possible appropriate, but for which sufficient data on biological vulnerability and threat are not currently available to support proposed rules.

^b **State of New Mexico status:**

E= Endangered Animal species whose prospects of survival or recruitment within the state are in jeopardy.

T= Threatened Animal species whose prospects of survival or recruitment within the state are likely to become jeopardized in the foreseeable future.

SC= Species of Special Concern.

The Bald Eagle is a State Threatened species that recently was Federally delisted, but is still protected under the Golden and Bald Eagle Act. The Bald Eagle is known to occur in New Mexico primarily during the late fall and winter months. The Bald Eagle utilizes large trees for perching and forages primarily for fish, ducks, and carrion along rivers and at local reservoirs. Sapello River is a small stream lacking preferred habitat in the project area. Due to the ease of mobility of the Bald Eagle, the limited disturbance of the proposed project and the lack of preferred habitat in the project area, there will be no effect to the Bald Eagle.

Continued operation and maintenance of the open ditch under the no action alternative would not have any effects on any threatened, endangered, or sensitive species that may occur in San Miguel County. The proposed action would have no effect on any threatened, endangered, or sensitive species that may occur in San Miguel County, as none are likely to occur in the project area.

3.4 Cultural Resources

San Miguel County is an area rich in cultural resources. However, a search of the New Mexico Cultural Resource Information System showed no record of any previous survey of the immediate area, and thus returned no previously-identified cultural resources in the project footprint. The proposed project area is located on the Sapello River. Corps archaeologists conducted an 8.9-acre survey of the project area on November 19, 2008 and January 9, 2009, including a small portion on the north bank of the river, the area including the Acequia del Llano diversion structure and sluice box, and a large area extending southward from the diversion structure. The survey identified the following cultural properties: the Acequia del Llano, including the diversion structure and sluice box; one newly documented archaeological site (LA 162432); and three individual artifacts (isolated occurrences, or IOs).

Consistent with the Department of Defense's American Indian and Alaska Native Policy, signed by Secretary of Defense William S. Cohen on October 20, 1998, and based on the State of New Mexico Indian Affairs Department's Native American Consultations List, American Indian tribes that have indicated they have concerns in San Miguel County have been contacted regarding the proposed project. To date, the Corps has received no indication of tribal concerns that would impact this project. Copies of Tribal correspondence are included in Appendix A. No Traditional Cultural Properties are known by the Corps to occur in or near the project area.

The project will replace the existing diversion structure as well as one metal gate in the outfall portion of the sluice box. No modification will be made to the ditch itself, which will retain its traditional "open earthen ditch" form. The existing diversion structure is a concrete weir across the Sapello River, containing components that were built and repaired in the 1940s, 1950s, and 1960s. The diversion structure will be removed and replaced with a concrete-capped gabion weir. In addition, a dislodged segment of the 1940s structure, currently resting within the river channel immediately downstream of the diversion, will be removed. A portion of the sluice box was constructed in 1925, and the Association wants to keep the sluice box largely as it is. A single metal gate on the sluice box outfall, in a portion built in April, 1959, will be replaced. The

sluice box is the oldest extant portion of the diversion mechanism and will otherwise be left intact.

A portion of the proposed project will encroach on the eastern margin of LA 162432. This is a mostly prehistoric surface artifact scatter containing hundreds of chipped stone artifacts, several groundstone artifacts, and two prehistoric/early historic ceramic sherds, and four historic Euro-American whiteware sherds; no features were identified. The Corps considered alternatives for avoiding and/or minimizing impact to the site, but in the end could not avoid the site entirely because of local topography and the site's proximity to the diversion structure. In turn, the project was designed such that the staging area will be largely outside of site boundaries, although it will encroach slightly on the site margin. The current project design avoids the area of highest artifact concentration; further, the portion of the project area intersecting the site will only be used for staging activities (such as stockpiling materials and vehicular traffic); no excavation or earth-moving activities will take place within site boundaries. The Corps will ensure that temporary fencing delineating the boundary of the staging area will be erected, ensuring that no construction or staging activity will occur outside of these limits.

On May 6, 2009, the Corps submitted its determination of **no adverse effect to historic properties** to the New Mexico State Historic Preservation Office (SHPO), and received SHPO's concurrence with that determination on June 25, 2009 (HPD log number 086808; see Appendix B for copy of SHPO concurrence). Should previously undiscovered artifacts or features be discovered during construction, work will stop in the immediate vicinity of the find, a determination of significance made, and consultation will take place with the New Mexico State Historic Preservation Officer and with Native American groups that may have concerns in the project area, to determine the best course of action. Documentation of the cultural resources survey and consultation is presented in Appendix A.

3.5 Land Use and Visual Resources

3.5.1 Land Use

The Acequia del Llano irrigates 495 acres of land owned by seven properties with multiple owners. Premium grass hay for livestock feed is the principle crop, with the acequia providing irrigation for small family fruit orchards and gardens. The proposed action will provide a beneficial effect on current land use in the project area. Farmland will remain in production using the water supply provided from the acequia. Land uses will continue with implementation of the proposed project as are currently being undertaken

The no action alternative would affect current land uses in the project area. The gradual deterioration of the structure would reduce the amount of water that would be diverted for agriculture. Complete failure of the structure would result in no water delivery to the fields and orchards, having an adverse impact to current land use.

The major soil resource concerns are wind erosion, water erosion, maintenance of the productivity of the soils, and management of soil moisture. Conservation practices on cropland generally include crop residue management, minimum tillage, and irrigation water management.

Proper grazing use is a concern on grazing lands. The primary concerns are controlling erosion along roads and minimizing surface compaction.

3.5.2 Visual Resources

The project area is a rural landscape located on the Sapello River. Homes are separated by agricultural fields, which are used as pasture or for hay production. Background views of the surrounding area include low hills and mountains. The Acequia del Llano is not visible from Hwy. 518.

The land adjacent to the project area is used for crop production and livestock grazing. Man-made features visible from the project area include wire fences, dirt roads, and homes and outbuildings. The no action alternative would not result in any effect on current visual resources in the project area. Land uses would continue as are currently being undertaken with the proposed project.

The presence of construction equipment and workers' vehicles in the project area will have minimal effect on the visual quality of the project area during construction. The proposed action will retain the current rural character of the project area and surrounding lands. There will be a beneficial effect to the visual resources. Rehabilitation of the diversion structure will continue to supply water to farm fields and retain the rural visual resource. As the project will not affect visual resources or land uses, there will be no cumulative effects to land use and visual resources.

3.6 Socioeconomic Considerations

Regulations for implementing NEPA require analysis of social effects when they are interrelated with effects on the physical or natural environment (40 CFR §1508.14). Federal agencies are required to "*identify and address disproportionately high and adverse human health or environmental effects*" of their programs and actions on minority populations and low-income populations, as directed by Executive Order 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations).

3.6.1 Socioeconomics

The project area is located in unincorporated San Miguel County north of Las Vegas, New Mexico. The acequia users are served by county services for police and fire protection. Las Vegas has emergency services, a public library, and public schools, including a community college.

San Miguel County had a population of 30,126 (Table 2) in 2000 (U.S. Census Bureau 2008). There are no residences adjacent to the project area boundaries. The leading employment sectors in San Miguel County (U.S. Census Bureau 2008) are health care and social services (47.5 percent), retail (22.3 percent), and hospitality services (17.4 percent) (U.S. Census Bureau 2009).

Farming practices may be in jeopardy if the weir is washed out (no action). If the proposed project is implemented, there will be no effects related to socioeconomics of the area and no effects related to environmental justice issues. The Acequia del Llano will continue to maintain and operate the diversion. Replacement of the diversion structure will result in a reduction of current maintenance

costs and improved water delivery for the Acequia del Llano. Reduced costs for association members will result in more profitable farming operations.

Table 2. Selected social demographic 2000 data for San Miguel County and the United States (U.S. Census Bureau 2008).

	San Miguel County	New Mexico
Total population	30,126	1,819,046
Male	49.2%	49.2%
Female	50.8%	50.8%
Median age (years)		
Under 5 years	6.5%	7.2%
18 years and over	72.6%	72.0%
65 years and over	11.7%	11.7%
One race	95.7%	96.4%
White	56.2%	66.8%
Black or African American	0.8%	1.9%
Native American	1.8%	9.5%
Asian	0.5%	1.1%
Native Hawaiian and Other Pacific Islander	0.1%	0.1%
Some other race	36.2%	17.0%
Two or more races	4.3%	3.6%
Hispanic or Latino (of any race)	78.0%	42.1%
Household population	28,735	1,782,739
Average household size	2.58	2.63
Average family size	3.10	3.18
Total housing units	14,254	780,579
Occupied housing units	78.1%	86.9%
Vacant housing units	21.9%	13.1%
Economic Characteristics	San Miguel	New Mexico
In labor force (population 16 years and over)	12,468	834,632
Mean travel time to work in minutes	23.6	21.9
Median household income in 1999 (dollars)	\$26,524	\$34,133
Median family income in 1999 (dollars)	\$31,250	\$39,425
Per capita income in 1999 (dollars)	\$13,268	\$17,261
Families below poverty level	1,506	68,178
Individuals below poverty level	7,110	328,933

Note: Percentages may not always sum to 100 due to rounding.

There will be no effect from the proposed project on county services, such as law enforcement, fire protection, emergency medical care, or schools. No property will be acquired so no residents or businesses will be affected by relocations. The proposed project is not expected to create adverse effects on human health or the environment.

Construction of the project will provide some short-term economic benefits for local businesses. Depending on the location of the contractor selected, local financial expenditures by the contractor may result in the form of purchasing supplies, renting equipment, workers' wages, and meal purchases. Some state gross receipts taxes on goods and services purchased locally (e.g. in Las Vegas) will return to San Miguel County for local government use. These

expenditures will contribute to cumulative economic effects on the local economy.

The proposed project will take place entirely at the diversion structure. The entire Acequia del Llano will benefit from the proposed water system improvements. The proposed project will benefit current land use and socioeconomic resources in the project area.

3.6.3 Environmental Justice

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

Selected demographic characteristics of the population of New Mexico and San Miguel County are shown in Table 2. San Miguel County has a higher percent composition of Hispanics or Latinos (78 percent), but a lower percentage of Native Americans (1.8 percent) compared to 42 and 10 percent respectively for all New Mexico residents (Table 2). The per capita income in San Miguel County is approximately 77 percent of the average New Mexico resident (Table 2). Correspondingly, the percentage of persons living below the poverty level in the county (23.6 percent) is five percent greater than the state average (18.4 percent).

The Acequia del Llano Rehabilitation Project will be conducted under Section 1113 of the Water Resources Development Act of 1999 (Public Law 106-53; 33 U.S.C. 2201 *et seq.*) as amended. This program is largely intended to provide needed assistance (technical, financial, etc.) to protect and rehabilitate acequias for their community. As such, this project will benefit an area within a minority and low-income farming community. No adverse impacts on minority and low-income populations are expected. Under the definition of Executive Order 12898, there will be no adverse environmental justice impacts under the proposed action.

3.7 Cumulative Impacts

Cumulative effects are analyzed individually for each resource area in Sections 3.1 through 3.3. These analyses address the cumulative impact of the direct and indirect effects of the proposed action when added to the aggregate effects of past, present, and reasonably foreseeable future actions. For all resources, the aggregate effect of past and present actions was considered to be represented by the current, existing condition of the resource (Council on Environmental Quality 2005). Therefore, the specific effects of individual past and present actions typically were not

cataloged in the analysis. In order for direct or indirect effects to incrementally add to the effects of past, present, or reasonably foreseeable future actions, they must overlap with those effects in time or space (Council on Environmental Quality 1997).

The time frame for analysis of cumulative effects varied, depending on the duration of direct and indirect effects. For example, direct effects resulting from construction were expected to persist for relatively short periods of time (about five months). Conversely, indirect effects resulting from operation of the rehabilitated acequia system will persist for the life of the facility. Similarly, the geographic bounds for cumulative effects analysis varied with the resource under consideration, depending on zone of influence of the direct or indirect impact being analyzed.

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

The footprint of the proposed project lies within a rural area. The proposed acequia improvements will take place within San Miguel County (Figure 1). The improvements to the acequia will not significantly impact the current conditions of the local environment and will help retain the farming practices of the community. For these reasons, the proposed project when combined with past, present, or future activities in the Acequia del Llano will not significantly add to or raise local cumulative adverse environmental impacts to a level of significance.

4.0 CONCLUSIONS AND SUMMARY

The proposed action evaluated in this EA addresses the method and potential effects for the replacement of the acequia diversion structure. The proposed replacement diversion structure is located over one mile from the nearest public road in San Miguel County, New Mexico. Impacts to the environment will be negligible and short-term. The proposed acequia improvements will benefit the local community and the county. The proposed project will not result in any moderate or significant, short-term, long-term, or cumulative adverse effects. Therefore, the proposed project will not significantly affect the quality of the human environment and is recommended for implementation.

5.0 PREPARATION, CONSULTATION AND COORDINATION

5.1 Preparation

This EA was prepared for the Acequia del Llano by the U.S. Army Corps of Engineers, Albuquerque District (USACE). Personnel primarily responsible for preparation include:

Michael D. Porter	Fishery Biologist
Jonathan Van Hoose	Archaeologist

5.2 Quality Control

This EA has been reviewed for quality control purposes. Personnel who reviewed this EA include:

John Schelberg	Archaeologist, USACE, Albuquerque District
Danielle A. Galloway	Biologist, USACE, Albuquerque District
Julie Alcon	Supervisory Ecologist, USACE, Albuquerque District

5.3 General Consultation and Coordination

Agencies and entities contacted formally or informally in preparation of this EA include:

US Fish and Wildlife Service	NM Department of Game and Fish
New Mexico Ecological Services Field Office	Conservations and Services Division Albuquerque,
Albuquerque, New Mexico	New Mexico
Water and Waste Management Division	Surface Water Quality Bureau
NM Environmental Department	NM Environmental Department
Santa Fe, New Mexico	Santa Fe, New Mexico
NM Interstate Stream Commission	NM State Engineer
Santa Fe, New Mexico	Santa Fe, New Mexico
NM Forestry and Resources Conservation Division	
Energy, Minerals, and Natural Resources Department	
Santa Fe, New Mexico	

5.4 Distribution List for the DEA

Mr. Wally Murphy	Mr. Rob Lawrence
U.S. Fish and Wildlife Service	USEPA, Region 6
NM Ecological Services Field Office	Office of Planning and Coordination
Ms. Marcy Leavitt	Mr. Steve Hansen
Water and Waste Management Division	Bureau of Reclamation
New Mexico Environmental Department	Albuquerque Area Office
Mr. Sam DesGeorges	Mr. Matt Wunder
Bureau of Land Management	New Mexico Department of Game and Fish
Taos Field Office	Conservation Services Division
Mr. John R. D'Antonio, Jr.	Mr. Robert Sivinski
State Engineer	New Mexico State Forestry Division
New Mexico State Engineer	Energy, Minerals, and Natural Resources Department

Mr. Lorenzo Valdez
County Manager
San Miguel County

Head Librarian
Carnegie Public Library
Las Vegas

5.5 Summary of Comments Received on the DEA and Corps' Response

1. **New Mexico Department of Game and Fish:** The Department does not anticipate significant impacts to wildlife or sensitive habitats.

Corps Response: Concur.

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Appendix A

Scoping Letter and Tribal Response Letters

Appendix B

Cultural Resources Survey Report and SHPO Concurrence

Appendix C

Site Photos



Appendix D

Notice of Availability and Public Comment Letter

Notice of Availability of Draft Environmental Assessment for the
Acequia del Llano Rehabilitation Project, San Miguel County, New Mexico

Pursuant to the Council on Environmental Quality Regulations for Implementing the Procedural Provision of the National Environmental Policy Act, the U.S. Army Corps of Engineers (Corps), Albuquerque District, has completed a Draft Environmental Assessment (DEA) and Finding of No Significant Impact (FONSI) for a proposal for involves the improvement of the diversion dam for the Acequia del Llano.

The Acequia del Llano project would 1) remove the existing structure, and adjacent pieces of concrete; 2) construct a new concrete capped gabion weir diversion structure with the same approximate dimensions, slide gate, and piped ditch; and remove and replace the existing pipe from the headgate to the sluice box. The proposed project is located on the Sapello River approximately 10 miles north of the City of Las Vegas, and approximately 2 miles east of the intersection of State Highway 518 and Sapello Ranch Road in San Miguel County, New Mexico.

Public review of the DEA will begin on May 29, 2009 and will run for 30 days until June 28. The document will also be available on the Corps web site at <http://www.spa.usace.army.mil> (go to FONSI/Environmental Assessments). A hard copy will be sent upon written request. Comments and concerns on the proposed project or the DEA / FONSI should be sent to:

U.S. Army Corps of Engineers
Albuquerque District
Environmental Resources Section
Attn: CESP-PM-LE (Michael Porter)
4101 Jefferson Plaza NE
Albuquerque, New Mexico 87109-3435

Paper copies of this document are also available for review at:

Carnegie Public Library
500 National Avenue
Las Vegas, New Mexico 87701
505-454-1401, extension 272

For more information please contact Michael Porter, USACE, (505) 342-3264 or Michael.D.Porter@usace.army.mil

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Appendix E

Irrigation Ditch Exemption Public Notice