

RECLAMATION

Managing Water in the West

DRAFT ENVIRONMENTAL ASSESSMENT

**LA PLATA WEST WATER AUTHORITY INTAKE STRUCTURE
AND WATER TREATMENT PLANT AT LAKE NIGHTHORSE**

Environmental Assessment Number: WCAO-DUR-02-2008

**Technical Services Division
Environmental and Planning Group
Western Colorado Area Office
Durango, CO**



**U.S. Department of the Interior
Bureau of Reclamation
August 2008**

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WESTERN COLORADO AREA
Environmental Assessment
LPWWA Intake Structure and Water Treatment Plant at Lake Nighthorse**

MISSION STATEMENT

The mission of the Department of the Interior is to protect and provide access to our Nation's natural and cultural heritage and honor our trust responsibilities to Indian Tribes and our commitments to island communities.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

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Proposed Action:

The Bureau of Reclamation (Reclamation) Western Colorado Area Office (WCAO) approval of an Out Grant License Agreement for the proposed La Plata West Water Authority (LPWWA) intake structure, water treatment plant and utility corridor at Lake Nighthorse, La Plata County, Colorado.

Location of Proposed Action:

The project will be located in Section 2, Township 34 North, Range 10 West, on the northwest shoreline of future Lake Nighthorse. The lake is a project feature of the Animas-La Plata Project (ALP), constructed and operated by Reclamation. The project is located entirely on Reclamation lands, within the area surveyed for the ALP Project. ALP Project lands have been studied within the Final Supplemental Environmental Impact Statement for the Animas-La Plata Project (FSEIS) (July 2000). See Figures 1 and 2 for the location of the proposed action.

Applicant:

The applicant is the La Plata West Water Authority through the Land and Recreation Group, Resource Division, Western Colorado Area Office – Durango.

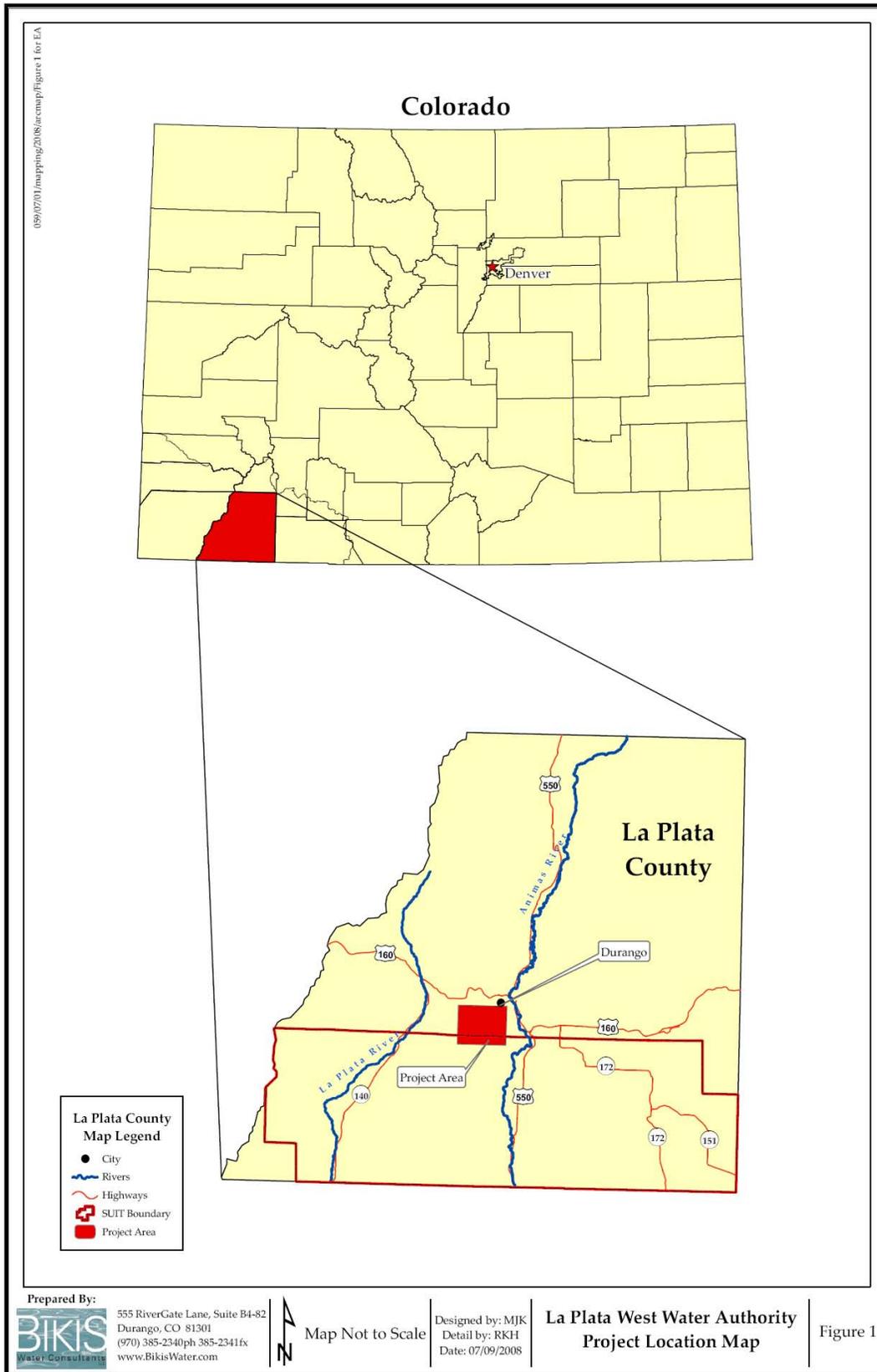
1. Introduction

This Environmental Assessment (EA) has been prepared by Reclamation to determine whether issuance of the out grant represents a significant impact on the human environment. This document reviews only effects of licensing the proposed facilities that will be built on approximately 11 acres of ALP Project lands at Lake Nighthorse. All subsequent development of the rural domestic water supply system to deliver the water pumped and treated in the subject facilities will be evaluated in the future under appropriate county, state, and Federal regulations..

The ALP Project was developed to meet Tribal water rights settlement requirements and to supply future municipal and industrial needs in Colorado and New Mexico. One of the end-uses of the ALP Project water is a domestic water supply, such as the one proposed by the LPWWA. The proposed LPWWA system will potentially serve southwest La Plata County, Colorado, northern San Juan County, New Mexico, the Southern Ute Indian Tribe and the Ute Mountain Ute Indian Tribe (Figure 1). Residential development in this area is limited by the lack of a reliable water supply, the poor quality of groundwater, and the lack of a water delivery system. Such a water delivery system would bring a reliable supply of quality domestic water to southwestern La Plata County.

Currently, there are no means for pumping water out of Lake Nighthorse. The ALP Project water must be accessed at the Ridges Basin Dam outlet works or diverted from the Animas River following release from the dam outlet works. The LPWWA intake structure would provide an alternate means to access ALP Project waters and deliver it to water-poor regions, including areas to the south and west of the reservoir that are not on the Animas River.

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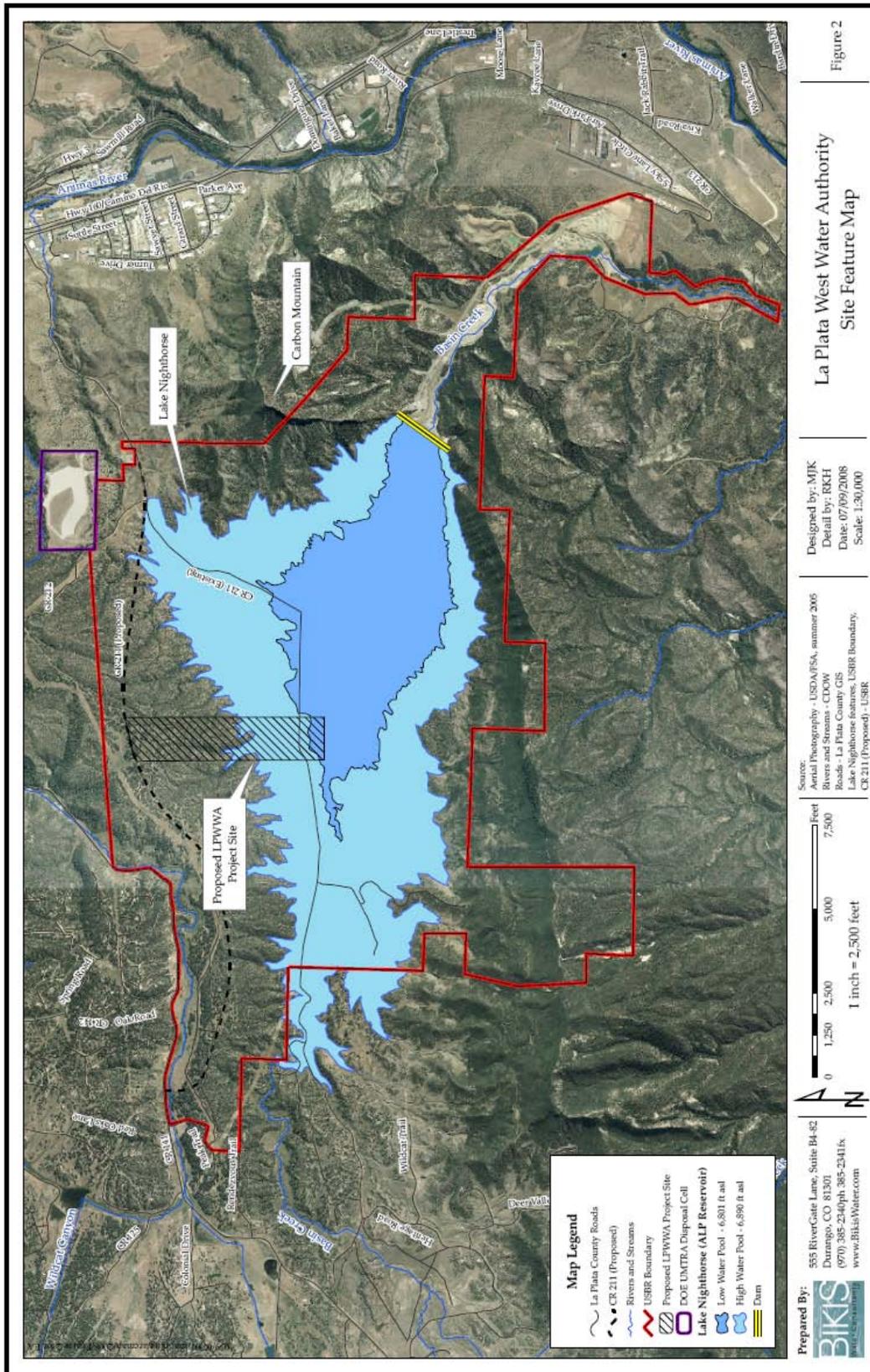


Figure 2

**La Plata West Water Authority
 Site Feature Map**

Designed by: MJK
 Detail by: RKH
 Date: 07/09/2008
 Scale: 1:30,000

Source: Aerial Photography - USDA/FSA, summer 2005
 Rivers and Streams - CDOOW
 Roads - La Plata County GIS
 Lake Nighthorse features, USBR Boundary,
 CR 211 (Proposed) - USBR

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Map Legend

- La Plata County Roads
- CR 211 (Proposed)
- Rivers and Streams
- USBR Boundary
- Proposed LPWWA Project Site
- DOE UMTRA Disposal Cell
- Lake Nighthorse (ALP Reservoir)
- Low Water Pool - 6,801 ft aal
- High Water Pool - 6,890 ft aal
- Dam

0 1,250 2,500 5,000 7,500 feet
 1 inch = 2,500 feet

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1.1. Background

The ALP Project features located outside of Durango Colorado include: the Durango Pumping Plant, Ridges Basin Inlet Conduit, and Ridges Basin Dam and Reservoir (renamed Lake Nighthorse). The water source for the project will be the Animas River. The project was developed to meet Colorado Ute Indian Tribes' water rights and to provide a future source of water for municipal and industrial needs in the area. The total capacity of the reservoir will be approximately 120,000 acre-feet. The ALP project underwent extensive evaluation and NEPA analysis. The general data, findings, conclusions and recommendations of the FSEIS have been utilized as part of development of the design guidelines for the proposed LPWWA project and for reference within this EA. Although this project is not specifically part of the scope of the ALP project, it is within the ALP project area and, therefore, much of the information and evaluations from the FSEIS are valid for this project. The environmental commitments, conservation measures and mitigation requirements of the FSEIS pertaining to construction and operation have been integrated, as appropriate, into the plan for the proposed action. The FSEIS has been used as an information source for this EA; however, this EA is not considered a supplement to the FSEIS. The rural water supply system is one of the possible end-uses of ALP Project waters, as discussed in the FSEIS. The proposed project (construction of an intake structure and water treatment plant) is a critical first step in developing a water supply system and meeting current and future domestic water needs.

The demand for a reliable potable water supply in southwest La Plata County has long been recognized. Several studies have been conducted to analyze the need and feasibility of bringing a rural domestic water supply system to southwestern Colorado. The La Plata West Water Company, a Colorado non-profit, was formed to direct the development of this system. Under this body, studies and meetings were conducted in order to develop a project plan. In 2007, the La Plata West Water Authority was formed from the Animas La Plata Water Conservancy District and La Plata Water Conservancy District. The LPWWA has taken over the responsibilities of the Company and is now responsible for funding, procurement, developing agreements with participating parties, acquisition and compliance with permits and regulations, project design, and construction of the proposed project. The LPWWA will be responsible for operations of the facilities, possibly under new agreements with participating parties.

1.2. Purpose and Need for Proposed Action

Currently, there is no domestic water supply system in southwestern La Plata County. The water supply in the La Plata River Basin cannot support the current population and agricultural activities. Area residents either haul water or have domestic wells. Existing domestic wells in the region are unreliable in quantity and quality.

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The proposed rural domestic water supply system in southwestern La Plata County would require access to the water in Lake Nighthorse. There is no other viable water supply source for this system; southwestern La Plata County is in the water-short La Plata River basin. The intake structure and water treatment plant will require utilities, maintenance facilities, access, a pipeline between the structures and a pipeline connecting the water treatment plant to the future water supply system. All of these structures and facilities are considered within the study area for this EA. This EA is a necessary step in procuring a license agreement from Reclamation for the proposed facilities which will be on Reclamation land. The intake structure needs to be constructed prior to reservoir filling. The future water supply system and consequences of its end-uses are not within the scope of this EA; the delivery system will be evaluated by appropriate regulatory authorities under future actions.

2. Description of Proposed Action and Alternatives

This section provides an overview of the alternatives evaluated in this EA. These alternatives were developed over several years of research and scoping studies for a rural water supply system, as discussed previously (see Section 6.1 Public Scoping for more information on previous studies). The design alternatives were developed in the preliminary engineering process and are the basis for the alternatives discussed below.

2.1. No Action Alternative

The project area will be impacted by the clearing of Ridges Basin and filling of Lake Nighthorse, as concluded in the FSEIS, regardless of the development of the proposed intake structure and water treatment plant. Under the No Action Alternative impacts associated with construction of these project features will not occur.

There are currently no other proposals to meet the growing municipal and industrial water needs in southwest La Plata County. If the no action alternative is selected and a water supply system is not developed, service area residents will continue to depend on limited groundwater wells and hauling water; conflict for water use and limits on development will persist and increase in the area.

2.2. Preferred Alternative / Proposed Action

The proposed action is licensing (out grant) by Reclamation of the construction and operation of an intake structure, water treatment plant with water storage tanks, and utility corridor adjacent to Lake Nighthorse on Reclamation lands. These structures will eventually provide a water supply for the proposed southwest La Plata County rural domestic water supply system. The intake structure and water treatment plant are critical components in developing a water supply system for this area.

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The proposed intake structure will be built on Reclamation land on the northwest shore of Lake Nighthorse with intakes at two elevations within the reservoir (Figure 2). LPWWA has retained a licensed design-build firm, EPC Corporation, to develop the design and capacity for the intake structure. One goal of the project is to complete below-water portion of the structure before the reservoir begins to fill in the spring of 2009. If the structure is not built before filling, project costs would increase dramatically. Also, potential water quality impacts would be minimized if the construction is performed before reservoir is filled. The intake structure will be capable of pumping up to 18 million gallons per day (mgd) from the reservoir to the water treatment plant. The future pumping rate will vary according to the capacity required by participating parties. All water pumped from Lake Nighthorse will be in accordance with water supplies allocated to the ALP Project sponsors. A preliminary design of the intake structure has been developed. The basic design includes bored horizontal shafts from within the reservoir to the onshore structure where they will intersect the vertical bore shafts that are fitted with pumps to withdraw water from the reservoir. By horizontally boring, the disturbance and potential impacts to the surface are minimized. It is estimated that the boring will be 10 feet below ground surface.

The water treatment plant likely will have the capability of processing 2 mgd of raw water, with the ability to increase to 4 mgd with future modifications. The capacity of the plant will be finalized in the future, with the development of the water supply system. The plant likely will use a packaged surface water treatment method or a membrane technology to filter the raw water. The water treatment plant will be located adjacent to the intake structure. This location of the plant will minimize the distance required to pump raw water, thereby increasing efficiency and reducing operational costs and wear of the system. The exact location for the intake structure was determined by evaluating several potential sites along the north shore of the reservoir. The preferred site has been chosen because of better water quality, adequate access and minimized potential of cultural resource disturbances.

The proposed action will meet or exceed all relevant environmental commitments, as specified for potential end-uses in Chapter 5 of the FSEIS. This will include construction related Best Management Practices (BMPs), a hazardous materials review, noise limitations, dust suppression and other measures. For a detailed discussion of analysis of potential impacts in the project area see Chapter 3 of the FSEIS. The LPWWA proposed action will also be required to comply with state and county permits that are relevant to the project.

2.3. Alternatives Considered, But Eliminated from Detailed Analysis

The Preliminary Engineering Report, CWE 2007, considered five options for the project design, all relying on Lake Nighthorse as the water supply source. The four eliminated options are summarized below:

- Option 1: Intake structure in Lake Nighthorse, water treatment plant at Blue Hill, and delivery of water to Lake Durango area. The cost of pumping raw water to Blue Hill and the number of existing taps (that could not finance additional infrastructure) in the Lake Durango service area eliminated this option.

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- Option 2: Intake structure in Lake Nighthorse and use of Lake Durango water treatment plant. The limited capacity of Lake Durango facilities, the number of existing taps (that could not finance additional infrastructure), and the distance from the service area of location of the Lake Durango facilities eliminated this option from further consideration.
- Option 3: Connection at the Ridges Basin Dam outlet works and water treatment plant near Durango, (possibly shared with the City of Durango), and pumping water over topography to service area. The City of Durango's need for additional water treatment capacity differs in timing, location and design from the needs of LPWWA. Therefore, sharing a water treatment plant with the City has been eliminated from consideration for the project. The building and operation of a pipeline to pump water to the service area would likely pose many easement issues as well as significantly increase the cost of constructing and operating the project.
- Option 5: Connection at Durango Pumping Plant, water treatment plant near Durango, (possibly shared with the City of Durango), and pumping water around topography to service area. Differs from Option 3 in route for pumping and location of storage; eliminated for same reasons.

3. Affected Environment, Environmental Impacts and Conservation Measures

This section discusses the critical elements of the human environment that may or may not be affected by the proposed action. The following critical elements were identified by the Reclamation as necessary for evaluation. The discussion also includes an assessment of potential environmental impacts and the measures integral to the project design to help to avoid potential impacts.

3.1. Proposed Action/Preferred Alternative

3.1.1. Water Resources / Hydrology

The project proposes to use water stored in Lake Nighthorse. The reservoir hydrology will not be significantly impacted by fluctuations associated with the proposed diversions as they are fundamental to the design of the reservoir. The use of the water supply represents a significant commitment of water resources, as intended with the allocation of the water under federal legislation. No other impacts on hydrology and water resources are anticipated from the proposed project.

3.1.2. Water Quality

The proposed intake structure will pump water from Lake Nighthorse to the water treatment plant. The treatment plant is designed to be connected to a rural domestic water supply system and eventually the treated water will be delivered via this system to end users. No contaminants relating to construction or operation are expected to be released via the intake structure or water treatment plant to the reservoir. The intake structure will be made from standard construction

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materials (primarily steel, concrete and rock). Therefore, it is not anticipated that this project will have any impacts on surface or groundwater quality in Lake Nighthorse or the project area.

The volume of water that may be pumped from the reservoir is relatively small compared to the total volume of the reservoir or the predicted annual inflow to the reservoir. Therefore, it is considered unlikely that the pumping of water from the reservoir will affect the water quality in the reservoir (LPWWA operations will be coordinated with ALP operations.) The FSEIS Technical Appendix 3 - Water Quality Analysis determined that once the reservoir is operational (including withdrawals from the intake structure), “the reservoir would remain aerobic at all reservoir stages and pumping conditions.” The intake structure may have a positive impact on the reservoir water quality by stimulating mixing, dissolved oxygen and enhancing nutrient cycling.

The water treatment plant will be operated according to Colorado Department of Public Health and Environment standards by a licensed operator. These standards include the storage, handling and disposal of materials that could potentially degrade water quality in the reservoir. The facilities will be designed and built to incorporate BMPs, and an onsite drainage plan that will minimize runoff, water quality degradation and other impacts from the facilities. A storm water management plan and discharge permit will be prepared, for the facility, as required.

Due to the utilization of BMPs, implementation of permitting requirements and incorporation of site plan features in the project, no significant impacts are anticipated to water quality in the study area.

3.1.3. Vegetation Resources

The proposed action is within the Ridges Basin portion of the ALP project area that is characterized by upland vegetation cover. This vegetation type is composed of piñon-juniper woodlands, sagebrush understory, and formerly irrigated agricultural lands. The agricultural areas will be inundated by the reservoir. The FSEIS describes in detail the grasslands, sagebrush, piñon-juniper, mountain shrub, and coniferous forest within the project site. The construction of the project will only cause short-term impact to upland areas (approximately 6.0 acres of upland disturbance) (See Figure 2). Impacts to grasslands will be minimal and short-term, associated with the boring sites for the upper and lower intake structure. The grasslands will be inundated by the reservoir after the proposed structure is complete. As described in the proposed action, conservation measures will include BMPs to preserve vegetation where possible. Additionally, disturbed areas (not within the final footprint of the facilities) will be restored and revegetated following construction. The revegetation requirements for County Road 211 construction will be utilized as guidelines for this project (see Public Law 93638, Solicitation No. 08-NA-40-8216). Overall vegetation losses due to construction and operation are considered to be less than significant effects.

3.1.4. Wildlife Resources

The proposed project site is north of Lake Nighthorse and east of the conservation easement that is being acquired by the Reclamation as a wildlife migratory corridor (west side of the Reservoir). The proposed access road to the facilities will not be open to the public. The proposed action will not be within the primary elk migration corridor and construction is not

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scheduled to occur during elk calving season. Therefore this project is not anticipated to adversely affect elk. The project location is also located north and west of Carbon Mountain and is not anticipated to disturb nesting golden eagles from this distance. Noise reduction measures (see Section 3.1.15) will be employed to reduce the potential for disturbance to wildlife. Due to the noise reduction measures and conservation measures integrated into the project plan, no significant long-term impacts to wildlife are anticipated. Construction-related short term disturbance will occur in the immediate project area but are not anticipated to have a significant impact on wildlife.

3.1.5. Aquatic Resources

Construction of the project intake structure will occur prior to the filling of Lake Nighthorse; therefore there will be no short or long-term construction effects to aquatic resources within the reservoir.

The proposed project will pump water from Lake Nighthorse to supply a rural domestic water system. Withdrawals will be within the range analyzed in the ALP FSFEIS. The amount of water pumped from the reservoir is not anticipated to be significant relative to the total volume stored in the reservoir. The intake portals will be located below the depths of most fish species. Steve McCall (WCAO Aquatic Biologist) and Mike Japhet (CDOW Aquatic Biologist) believe that no significant effects will occur to aquatic species. (Verbal communication, WCAO June 2008) Based on their analyses LPWWA will not be installing fish screens. However, if, in the future it is determined that fish screens would be beneficial to aquatic resources, then LPWWA will work cooperatively with Reclamation to install the screens on the intake structures.

The intake structure design includes plans for preventing the establishment of invasive species that may be introduced to the reservoir. Therefore, the facilities will not spread any invasive species.

3.1.6. Threatened and Endangered Species

This section addresses potential impacts to special status species that could result from actions associated with the preferred alternative. Threatened and endangered species are plants and animals that are legally protected under the Endangered Species Act (ESA). The requirements of this act are aimed at avoiding and not jeopardizing the existence of threatened and endangered species or their critical habitat. The project area has been previously surveyed for proposed, threatened, and endangered species for the Biological Assessment (1999) and Final Biological Opinion (FBO) (2000) which were components of the FSEIS. Because this project is within the study area of the Final Biological Opinion, the same findings of the opinion are assumed to apply to the proposed action. The following table is a list of potential endangered, threatened and candidate species within the proposed project area, as provided by the Fish and Wildlife Service (USFWS, Correspondence March 31, 2008). The table also shows the potential effect of the proposed action on each species, as concluded in this report.

No terrestrial species were identified within the FBO or over the course of construction at Ridges Basin. The potential impacts due to depletions from filling the reservoir were addressed under the FSEIS.

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<u>Endangered Species</u>		
Black-footed ferret	(<i>Mustela nigripes</i>)	No Effect
Colorado pikeminnow	(<i>Ptychocheilus lucius</i>)	No Effect
Razorback sucker	(<i>Xyrauchen texanus</i>)	No Effect
Southwestern willow flycatcher	(<i>Empidonax trallii extimus</i>)	No Effect
Knowlton's cactus	(<i>Pediocactus knowltonii</i>)	No Effect
<u>Threatened Species</u>		
Canada Lynx	(<i>Lynx Canadensis</i>)	No Effect
Mexican spotted owl	(<i>Strix occidentalis lucida</i>)	No Effect
<u>Candidate Species</u>		
Yellow-billed cuckoo	(<i>Coccyzus americanus</i>)	No Effect

As noted in correspondence with the U.S. Fish and Wildlife Service (March 31, 2008), the proposed intake structure project would not affect endangered fish species because the water supply source is Lake Nighthorse which has already been consulted on. Potential impacts from the ALP project on endangered fish in the San Juan basin led to the development of a 'reasonable and prudent alternative' which was incorporated in the San Juan Basin Recovery Implementation Program. The FSEIS also addresses potential effects to endangered fish and discusses associated mitigation measures.

Black-Footed Ferret

The FBO also concluded that the ALP project is not likely to adversely affect the black-footed ferret, provided that prairie dog communities are not affected. Only two limited areas will be impacted within the basin where prairie dog communities may occur. The majority of disturbed area will be on upland benches that do not support prairie dogs. Reclamation has stated that no black-footed ferrets have been identified in association with prairie dog communities in the basin over the period of Ridges Basin Dam construction (approximately 2001-2008) (Personal Communication, WCAO, July 2008). Therefore, no effects to Black-Footed Ferrets are anticipated.

Colorado Pikeminnow

The Colorado pikeminnow will not be present in Lake Nighthorse and the construction and operation of the project will not affect downstream (New Mexico) critical habitat; depletion impacts were consulted on as part of the FSEIS; therefore there will be no effect on this species.

Razorback Sucker

The Razorback sucker will not be present in Lake Nighthorse and the construction and operation of the project will not affect downstream (New Mexico) critical habitat; depletion impacts were consulted on as part of the FSEIS; therefore there will be no effect on this species.

Southwestern Willow Flycatcher

The location of the proposed action does not include any riparian habitat (such as cottonwoods or willows—no potential habitat); therefore no effect is anticipated on the Southwestern willow flycatcher.

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Knowlton's Cactus

The FBO found that there would be no effect on the Knowlton's cactus because it is not present in the area. Therefore there will be no effect on this species from the proposed action.

Canada Lynx

According to the FSEIS, the Canada lynx was considered to be unlikely to exist in the project area because suitable habitat is not found in the vicinity. Therefore, no effects are anticipated.

Mexican Spotted Owl

The project area also does not include appropriate habitat (such as narrow canyons and montane forests) for the Mexican spotted owl, therefore there will be no effects on this species.

Yellow-Billed Cuckoo

The location of the proposed action does not include any riparian habitat (such as cottonwoods or willows); therefore, there will be no effects on this species.

3.1.7. Geology and Soils

The geology and soils of the project area are described in detail in the FSEIS. The proposed site is comprised of Cliffhouse Sandstone and potentially Lewis Shale within the reservoir as well as some Quaternary surficial deposits. Geologic borings have been taken at the proposed site and have verified that the bedrock is competent of supporting the proposed structure and no geologic hazards have been identified at the site (Western Technologies, Inc. Geotechnical Evaluation for LPWWA Intake Structure, 2008). If future geologic hazards are identified, they will be addressed and mitigated through engineering and design.

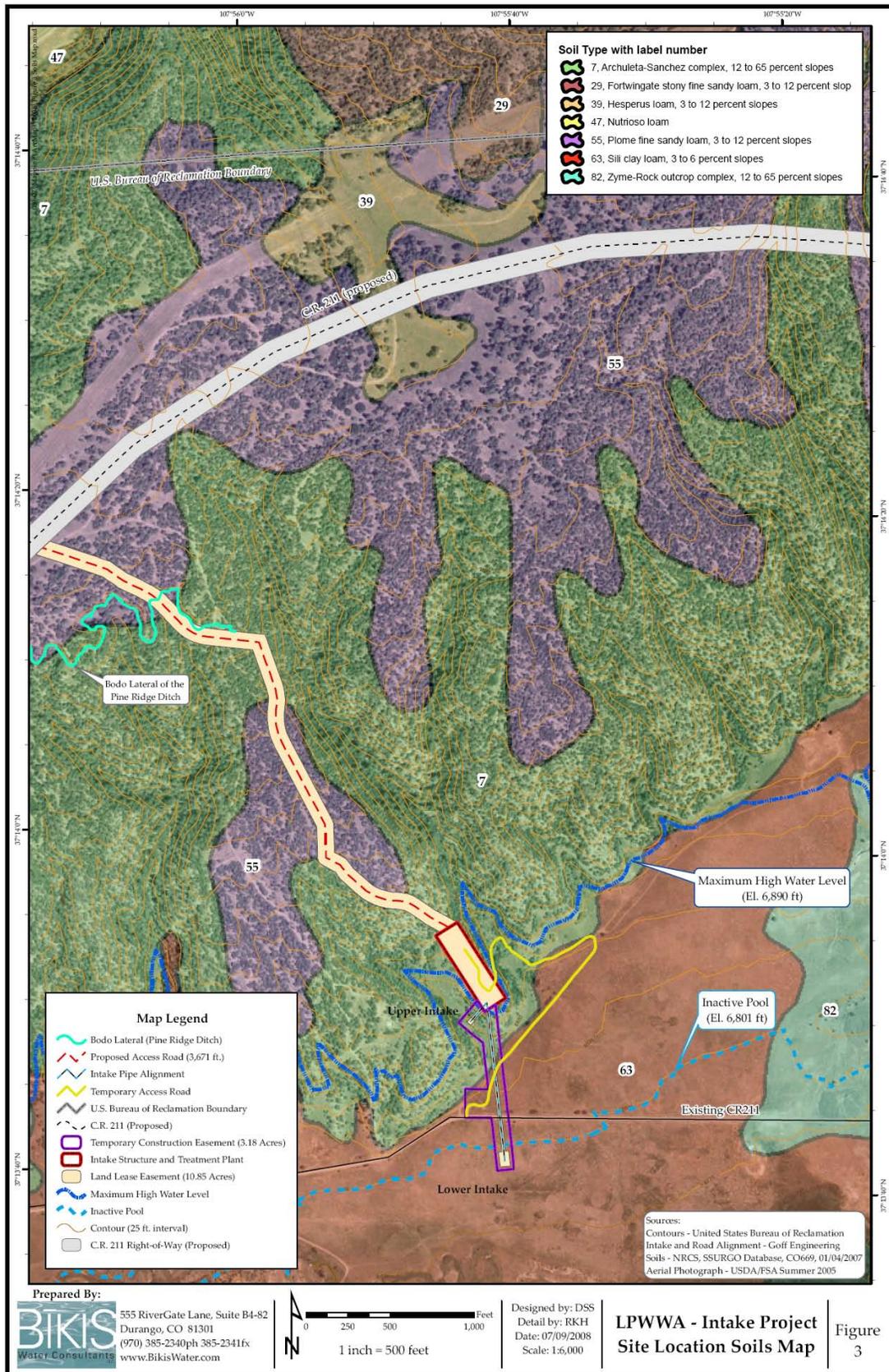
Soils in the project area consist of Sili clay loam within the reservoir basin and Archuleta-Sanchez complex and Plome fine sandy loam above the Reservoir where the intake structure pumps, water treatment plant and access road will be built (see Figure 3). These soils have been successfully revegetated in other projects in the vicinity. Therefore, construction will result in only short-term impacts. Long-term impacts will occur within the footprint of the final facilities.

Standard construction BMPs and proper facility design will help to protect soil quality and prevent erosion. Specific measures include watering temporary roads and limiting vehicle speeds to 20 mph. Also, an approved chemical stabilizer may be applied to road surfaces.

3.1.8. Cultural Resources and Indian Sacred Sites, and Paleontology

According to the FSEIS: "Cultural resources are physical or other expressions of human activity or occupation. Such resources include culturally significant landscapes, prehistoric and historic archaeological sites and isolated artifacts or features, historic structures, human burials, sacred sites and traditional cultural properties (TCPs).

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TCPs are sites or areas of important cultural value to existing communities. They may not have actual physical remnants associated with their existence. Cultural resources that are eligible for inclusion in the National Register of Historic Places (NRHP) are protected under the National Historic Preservation Act of 1966, as amended in 1992 (NHPA). Cultural resources may also be protected under the Native American Graves Protection and Repatriation Act of 1990 (NAGPRA), and Executive Order 13007, Protection of Native American Sacred Sites, and other state, agency, or tribal laws and policies.”

The project area lies within the Ridges Basin Archaeological District, an area 100% inventoried for cultural resources and which contains a total of 240 sites. Its primary significance is to the Pueblo I (700 – 900 A.D.) Ancient Puebloan occupation, but other (Archaic, Basketmaker, Numic/Navajo, and Euroamerican homesteading) are also extant. From 2001 to 2005 Ridges Basin Dam and Reservoir was the subject of one of the largest (if not the largest) cultural resource investigation programs in the western U.S thus far in the 21st century.

Identified cultural resources within the vicinity of the project include prehistoric habitations, seasonal habitations and limited activity sites, some with multiple components.

In order to avoid and/or minimize impacts, the proposed location for permanent facilities as well as the temporary construction disturbance area has been field reviewed by Reclamation archeologist, Warren Hurley, to identify any cultural resources that may be present. Two historic properties may potentially be impacted by the proposed permanent facilities. These sites will be evaluated, according to a Reclamation approved plan, for significance and effect prior to construction. If impacts are identified, they will be mitigated under the supervision of Reclamation according to the protocol outlined in the ALP Programmatic Agreement (FSEIS, Attachment H). In the unlikely event that Native American cultural items (as described under NAGPRA) are encountered, the NAGPRA Plan (FSEIS, Attachment H) developed for the ALP project will be followed. All cultural resource activities will be performed under the supervision of Reclamation.

Paleontological resources may exist at the site. If, during construction, any paleontological resources are observed or uncovered, work in the vicinity will stop immediately and the Reclamation specialist will be notified. Resources will be recovered and/or impacts mitigated under the supervision of Reclamation.

3.1.9. Recreation

The FSEIS cites the increasing demand in Colorado for use of reservoirs as justification for future development of recreational facilities associated with Lake Nighthorse. However, the recreational component of Lake Nighthorse has not yet been defined, developed or funded. Recreation facilities will tentatively be located on the northern shore of the reservoir. There is a potential overlap of land use for the proposed water treatment facilities and future recreation facilities. Special provisions in the license agreement are designed to protect public access and area aesthetics in order to minimize any potential impacts on future recreation.

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3.1.10. Socioeconomics

The future end-uses of the water supply system likely will improve socioeconomic conditions and opportunities in the area. The proposed action may improve socioeconomic conditions by providing job opportunities in construction, operations and maintenance. For a description of socioeconomic conditions in the region, refer to the FSEIS. No significant impacts resulting to socioeconomic criteria are anticipated from the project.

3.1.11. Land Use

The proposed action is compatible with the use of the federal project lands for Lake Nighthorse. The proposed project will permanently require approximately 11 acres of Reclamation land adjacent to Lake Nighthorse. This is a small portion of the total amount of Reclamation land in the reservoir area.

The Bodo Lateral of the Pine River Ditch crosses the proposed access road for the project (see Figure 2). The proposed project will take necessary measures during construction and permanent use of the access road to avoid impacts to the ditch and allow operation of the ditch to continue.

Land use issues associated with the future water supply system, off of Reclamation lands, will be addressed when the system is developed under planning documents and permits reviewed by the appropriate local and federal government agencies.

The goals of the LPWWA project are compatible with purpose and need for the ALP Project and no significant impacts are expected for land use from the construction and operations of the LPWWA facilities.

3.1.12. Hazardous Materials

A pre-construction review for the presence of hazardous materials on all properties involved in the action area was conducted by Reclamation in June 2008. The study did not identify the presence of hazardous materials or past use of the area for activities utilizing hazardous materials. In the event that hazardous materials are uncovered during construction, LPWWA will take steps to address removal and disposal in accordance with Federal, State and local standards.

During construction the use, storage and disposal of hazardous materials and wastes on-site will be managed in accordance with Federal, State and local standards. All storage areas must be sited no closer than 50 feet from water bodies or drainages. Containments will be bermed in order to contain no less than 115% of volume of all containers, and no less than 50 mil liners will be utilized for secondary containment. Spill response kits will be placed in close proximity to hazardous material use, and personnel will be trained in spill response. All spill locations will be immediately cleaned up and contaminated materials including soils must be disposed of properly.

For the purposes of long-term operation, LPWWA will develop a hazardous material management program, which meets Federal, State and local standards. LPWWA will take all necessary steps to protect the public and on-site workers from exposure to hazardous conditions (use of fencing, signage, sealed/secured containment equipment, etc.) Additionally, LPWWA

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will work with Reclamation to prevent potential contaminants from reaching Lake Nighthorse, and will notify the local emergency response agencies of quantities of hazardous material on-site. No significant impacts are identified for this resource criterion.

3.1.13. Transportation

Construction of the intake facilities is anticipated to be completed in less than 6 months. During this time, vehicles will use existing county roads to access the site. This will be a short-term increase in traffic and not anticipated to make a significant impact to traffic on the proposed access route. Construction of the water treatment plant will occur after County Road 211 is relocated and use the future site access road for construction of the water treatment plant and utilities. Construction permits will be obtained for these facilities and will include requirements on access and egress to the site.

The proposed action will comply with all relevant county requirements for permits to adjoin a public road. Also, the project will include conservation measures to protect the quality of public roads through the construction process.

Once completed, the proposed facilities will only be accessed on a regular basis by a small number of operational staff. The proposed facility will not have public access and is not anticipated to have long-term effects to traffic on public roads.

3.1.14. Air Quality

The local and regional ambient air quality and climate are described in detail in the FSEIS. A potential impact of the proposed action is creation of fugitive dust during excavation and construction activities. Application of standard dust suppression techniques such as spraying areas to be excavated and soil stabilization will reduce daily PM₁₀ emissions. The proposed project will include a Fugitive Dust Control Plan that specifies BMPs such as watering of unpaved roads and disturbed surface areas, vehicle speed controls, and revegetation. This project does not require an Air Pollution Emission Notice or air permit because it is less than 25 acres and the construction period will be less than 6 months. The permanent facilities will not have hazardous air emissions. Therefore, no significant impacts to air quality are anticipated from project construction or operations.

3.1.15. Noise

The ALP project has brought construction and associated noise issues to the project area. The project site will be part of the reservoir and no longer near a public thoroughfare (once County Road 211 is moved north of its existing location). There are no residential areas in the vicinity of the proposed action. Construction activities may increase noise in the area and appropriate mitigation measures will be employed. These include timing loud activities for non-offensive times and notifying affected area residents of proposed blasting schedules, as required. Additionally, vehicles used for construction will have appropriate mufflers, intake silencers and engine enclosures. Potential noise impacts related to construction are considered temporary.

Noise intensity decreases by 6 dB(A) for the doubling of distance from the source (FSEIS). Noise is expected to diminish to below disturbance levels within the site vicinity. Noise at the proposed site is far enough from Carbon Mountain that it is not anticipated to affect golden

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eagles. Because there are no residences, wildlife protection areas or planned activities in the immediate vicinity of the site, no significant effects are anticipated.

The water treatment plant facilities will be fully enclosed and therefore are not anticipated to generate a significant volume of noise. Operations of the intake structure (primarily pumps) will generate noise in the immediate vicinity of the facilities. Noise reduction measures will be installed if necessary to comply with local, state, or Federal regulations. Therefore no significant impacts noise levels in the project vicinity are identified.

3.1.16. Public Health and Safety

The proposed treatment plant and pumping plant will not be open to public access and will meet all requirements for signage and fencing to prevent public safety hazards. This includes protecting the public from access or exposure to hazardous materials that may be used for future operations. Specifically, the water treatment plant and intake structure will be fenced off permanently. The access road will be gated to adequately control public use of the road. Therefore, the proposed facilities are not anticipated to cause a risk to public safety.

3.1.17. Public Services

The proposed action would require use of public utilities and roads. Eventually, the proposed system would improve public services by providing additional municipal and/or industrial water supply to the area.

Tri-State Generation and Transmission Association, Inc. (Tri-State) has issued a letter to LPWWA on June 9, 2008, stating that Tri-State has no objection to the construction of the facilities, given that certain construction and notification guidelines will be adhered to. Some portion of the Tri-State transmission lines will be relocated because of the ALP project. The future relocation of Tri-State lines has not yet been determined; LPWWA will work with Tri-State in the future to meet all necessary crossing requirements and not conflict with the Tri-State realignment.

Atmos Energy is required to relocate a gas line that is currently within the basin of Lake Nighthorse. The proposed relocation of this line to the future County Road 211 is not anticipated to have any conflict with LPWWA construction or facilities operations.

The project will coordinate work with the County and receive all necessary approvals to protect public utilities.

No significant adverse impacts to existing utilities in the vicinity are anticipated.

3.1.18. Visual

Lake Nighthorse and ALP structures will be visible from the surrounding area, as described in the FSEIS. The LPWWA's corridor area will be revegetated and returned to original contours to the extent possible to minimize disturbance. Reclamation will work with LPWWA in the design of facilities and the design of revegetation and vegetation screening plans to reduce adverse aesthetic impacts. Short-term impacts will occur during construction of the project. Much of the

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disturbed area will be reclaimed through revegetation and recontouring after construction is complete.

3.1.19. Indian Trust Assets

The Colorado Ute Tribes are sponsor parties to the ALP project and potentially will benefit from the development of an intake structure and water treatment plant for the reservoir. The development of water supply infrastructure is listed as a potential use of funds allotted in the 2002 Colorado Ute Settlement Act. The proposed action would provide means to divert and deliver Tribal water supplies; the water used in the proposed action has been allocated under ALP agreements and legislation. Both Tribes have been informed of the project from its inception and been kept up to date on project design and planning. The Tribes have both issued Letters of Support for the LPWWA project. The Ute Mountain Ute Tribe stated in an April 10, 2008 letter that “the Tribe fully understands the "value" that a domestic pipeline can bring to Southwest Colorado” and has explored options for participating in the project. The Southern Ute Indian Tribe issued a letter (April 10, 2008) confirming their support of the project and interest in potentially participating in the funding and use of the facilities. Based on the Tribal support of the program and the potential benefit to ALP sponsor parties, no negative impacts to Indian Trust Assets (ITAs) are anticipated, rather the project serves to further secure ITAs.

3.1.20. Environmental Justice

The scope of the proposed action is to construct an intake structure and water treatment plant on federal lands. There are no economically disadvantaged groups within the project area (federal lands adjacent to Lake Nighthorse); therefore no disproportionate adverse effects to low income or minority populations are anticipated as a result of the proposed action

3.1.21. Floodplains

The proposed action is located above Lake Nighthorse and is not in a floodplain, therefore no impacts are anticipated.

3.1.22. Wild and Scenic Rivers

There are no wild and scenic rivers in the project area, therefore no impacts are anticipated. The depletions associated with the project will only affect Lake Nighthorse and are not significant. The depletions associated with filling Lake Nighthorse were evaluated in the FSEIS and allocated in the Colorado Ute Settlement Act of 2000.

3.1.23. Wetlands and Riparian zones

The proposed intake facilities will be constructed before Lake Nighthorse is filled and, therefore, before Waters of the U.S. are present. It is the opinion of the U.S. Army Corps of Engineers (USACE) that if the proposed LPWWA facilities are in place first, then there is no impact to Waters of the U.S. (Correspondence with USACE, June 9 2008). Construction of the water treatment plant and access road will be completed after the reservoir is full. These facilities are above the high-water line of the lake and are not anticipated to have an adverse impact on the reservoir.

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If the proposed access road is required to cross a drainage north of the reservoir or impact any other Waters of the U.S. during construction, an appropriate permit will be acquired from the USACE before construction begins. Compliance with USACE guidelines and permits are anticipated to mitigate any potential impacts to wetlands and riparian zones in the project area. The future water supply system may impact wetlands, depending on the location of the delivery pipelines. This will be addressed under a future action by appropriate regulatory agencies, once the water supply delivery system has been fully defined.

Currently, no impacts to Waters of the U.S., including wetlands, are anticipated; therefore, this action should have no significant impacts.

3.2. General Statement on Environmental Commitments and Compliance

The proposed action was selected, in part, because its location minimized potential impacts to resources. The proposed action will comply with all federal, state and local laws, ordinances, regulations, and standards for construction and operations (such as BMPs).

No significant impacts were determined to resources from the proposed action; therefore no new environmental commitments are required. Mitigation of impacts discussed in the FSEIS has been integrated as conservation measures in the proposed action. These measures were based on relevant mitigation measures in Chapter 5 of the FSEIS. In addition the following special provisions will be included in the license agreement:

- Prior to initiating design of storage tanks/treatment plant, discussions will be held with Reclamation on methods to minimize adverse aesthetic impacts of the facilities. The final design will address aesthetics of the facilities and will need to be reviewed by Reclamation prior to construction.
- Final designs will include plans for the planting and maintenance of vegetation to provide screening of the facilities.
- Reasonable public access and recreation use and development will be allowed on and across the license agreement corridor.
- Disturbed areas will be revegetated per plans to be approved by Reclamation.

4. Cumulative Impacts

At this time, other projects occurring or proposed for the vicinity of the project area include relocation of County Road 211, Tri-State, and Atmos facilities, clearing of vegetation from the basin, filling of the reservoir, and potentially construction of recreation facilities (i.e. boat ramp). The proposed action would not affect the new County Road 211 or the pumping or filling of the Reservoir. The proposed action will comply with all relevant county permits for joining the public thoroughfare and likely using the road to develop access to the site. Clearing the basin vegetation will be coordinated with Weeminuche Construction Authority to ensure that there are

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no conflicts in completing all work. The area and duration of disturbance of the proposed action are small and short-term, and long-term impacts are not expected to raise cumulative impacts to a significant level.

5. Irreversible and Irretrievable Impacts

The construction of the proposed project would constitute an irreversible impact to a small amount of soils, vegetation and other resources within the footprint of the permanent facilities. No destructive actions will be taken without prior approval from Reclamation and other appurtenant regulatory agencies.

6. Consultation and Coordination

6.1. Scoping/Public Involvement

The proposed project was developed over many years as a means to address the growing need for domestic water supply in rural southwestern La Plata County. During the development, the public needs were assessed through interviews and open meetings as well as through demographic data analysis for the region.

Reports and development of the project are summarized as follows:

- The Southwestern La Plata County Regional Water System Study, Phase I, June 2003 (Harvey Economics) evaluated the need for a domestic water system in the project area. The study was commissioned by the Animas La Plata Water Conservancy District, the Southern Ute Indian Tribe, La Plata County and the Upper La Plata Water Users Association (New Mexico). The study gathered information through interviews of major stakeholders (including tribal representatives, government agencies, local residents, local irrigators and potential water users). The study also reviewed and incorporated area demographic data, La Plata County planning documents developed by area residents, and background information on the water supply circumstances in the vicinity. The study concluded that the water demand and potential economic resources were sufficient to pursue the development of water supply in this region.
- The Southwestern La Plata County Rural Domestic Water System Appraisal Level Study, March, 2004 (Bureau of Reclamation Technical Service Center) determined an appraisal-level cost to construct a rural domestic water system from Lake Nighthorse to New Mexico, with main distribution lines to areas in southwestern La Plata County.
- The Preliminary Engineering Report for Southwestern La Plata County Rural Domestic Water System, August 2007, by Cheney Walters Echols, Inc., evaluated the feasibility, construction cost and operation and maintenance costs for five different domestic water supply system designs. Based on this report, the proposed LPWWA preliminary water supply system design and location for the proposed intake structure and water treatment plant were developed.

Ongoing development of the project is conducted by the LPWWA, a quasi-governmental public entity. LPWWA meetings are noticed and open to the public. The Southern Ute Indian Tribe

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and Ute Mountain Ute Indian Tribe have been consulted on the project design and are involved in the process. Additional involvement has included La Plata County, Southwestern Water Conservancy District, the State of Colorado Water Conservation Board and others.

This EA will be posted on the Reclamation website and availability will be advertised in the Durango Herald Newspaper. If approved, the Finding of No Significant Impact for this Federal Undertaking will also be posted on Reclamation's website and available to the public.

6.2. Agencies Consulted

This EA was prepared for the Bureau of Reclamation, Western Colorado Area Office by LPWWA through a contract with BIKIS Water Consultants, LLC of Durango Colorado. Several local, federal, tribal, private and other agencies were consulted in preparing the EA, including the following:

Federal:

- U.S. Bureau of Reclamation, Department of Interior, Four Corners Construction Office, Durango, CO
- U.S. Dept. of Interior, Fish and Wildlife Service, Ecological Services, Grand Junction, CO
- U.S. Army Corps of Engineers, Durango Regulatory Office

Tribal:

- Southern Ute Indian Tribe – Attorneys and Tribal Council, Ignacio, CO
- Ute Mountain Ute Tribe - Attorneys and Tribal Council, Towaoc, CO
- Weeminuche Construction Authority, Tom Hall-Project Engineer, Durango, CO

State:

- Colorado Department of Public Health and Environment, Air Pollution Control Division, Denver, CO
- Colorado Division of Wildlife, Southwest Region, Durango Office
- Colorado Water Conservation Board, Department of Natural Resources, Water Supply Reserve Account, Denver, CO

Local:

- La Plata County – Board of County Commissioners, La Plata County, CO
- La Plata Water Conservancy District, Board, La Plata County, CO
- Animas La Plata Water Conservancy District, La Plata County, CO
- Upper La Plata Water Users Association, San Juan County, NM

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