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1 INTRODUCTION AND NEED FOR THE PROPOSED ACTION

Alameda dam was built by the Civilian Conservation Corps (CCC) during the 1930's. The dam was built for the purpose of flood control in Doña Ana County, protecting property associated with the city of Las Cruces. The dam is located on the east mesa of Las Cruces, NM at the following legal description:

New Mexico Principal Meridian, Dona Ana County, New Mexico
T. 22S R2E Sec. 25 N1/2NE1/4SE1/4 and 26 N1/2NW1/4SW1/4

A BLM Project Description Sheet (PDS) was submitted in 2008 to perform deferred maintenance to Alameda Dam. This maintenance entails vegetation treatment, erosion remediation, debris removal, sediment excavation, and structure repair and armoring. This is maintenance that should have been performed on an annual basis but was neglected for many years.

1.1 Purpose and Need for Proposed Action

The purpose of this proposed action is to perform repairs and maintenance to Alameda dam. Due to the lack of maintenance the dam is in disrepair and does not meet the dam safety standards as outlined in BLM Manual 9177 and Handbook H-9177-1. This action will continue the BLM mission of protecting the health and safety of the public and natural resources.

1.2 Need for Proposed Action

Alameda dam has not been maintained for many years. The current state of disrepair presents a safety concern for people and property downstream. The proposed action would bring the structure up to safety standards. This action will allow the dam to meet safety standards, protect the safety of people and property downstream and continue to benefit the watershed by maintaining the existing sediment level and vegetation.

1.3 Conformance with Land Use Plan

This proposed action conforms with the Mimbres RMP, page 2-35, approved December 1993 because it is clearly consistent with the following decisions, objectives, and conditions of the RMP: "The soil and water programs will continue to emphasize protection...as well as provide support to other resource activities in the Mimbres Resource Area." "Project level planning will consider the sensitivity of the watershed resource..., 'Control of soil erosion, sediment movement, and salt contamination of surface water remains a high priority management goal."

1.4 Scoping and Public Involvement Issues

An interdisciplinary review by BLM subject matter experts brought to light the importance of the dam for amphibian habitat and recreation and cultural significance of the dam. These issues are further examined in this EA.

This Environmental Assessment will be posted on the BLM Planning Webpage, <http://www.blm.gov/nm/st/en/prog/planning.html> 30 days to allow public input.

2 DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

2.1 Alternative 1: Proposed Action

Under this alternative the BLM would allow repairs and maintenance to be performed on Alameda dam. The work would be carried out by BLM personnel or a private contractor. The maintenance would be done within the original footprint of the dam and basin. The repairs and maintenance would consist of:

- removal of vegetation on the dam and within 200 feet of the upstream toe of the dam
- select herbicide treatment of vegetation on the dam and spillways
- re-sloping the crown of the dam to prevent erosion on the embankments
- repairing existing erosion
- removal of debris on the intake structure
- excavation of sediment behind dam
- installation of gabion baskets at the outlet structure
- armoring the embankments with rip-rap

Anticipated materials for the construction and operation of the proposed action can be provided by local suppliers. Access to the site will be through an existing dirt road. A right of access to use the road will be requested from the State of New Mexico. The access road will be graded prior to delivery of materials. The road through the BLM and State of New Mexico properties will be graded by BLM operators. The section of road with a right of way to Plains Pipeline L.P. will be graded by said company or the BLM, under an agreement with Plains Pipeline, L.P. Water bars may be constructed on sections of the access road. The materials will be delivered and staged in areas adjacent to the dam. These storage areas will be marked and cleared through the appropriate BLM staff, such as an archaeologist and biologist, prior to delivery.

The proposed action will commence during the drier part of the year. This period is between January and May.

2.1.1 Design Features

Air Quality

Best Available Control Measures (BACMs) are outlined in within the Dona Ana County Natural Events Action Plan (NEAP). The measures address reduction and elimination of windblown dust in areas with exposed soils. The BACMs that would be taken into account for the proposed action include adjusting the construction time period to avoid the high wind season (January – June), application of non-chemical stabilizers such as straw, rock mulch or geotextiles, limiting the use of the dirt access road through closure and stockpiling excavated material in areas with natural, topographic windbreaks, .

Topography, Geology, and Soils

Approximately 2 acres of soils will be disturbed within the basin. This action consists of removing deposited sediment and re-sloping the basin ponding area. The excavated material will be used for any fill applications of the proposed action or will be stockpiled outside the ponding area to limit re-entry. Silt fences and other storm water BMPs will be implemented to reduce or eliminate the material from entering the waterway. Also, the proposed action will be scheduled to avoid the high precipitation or monsoon season (July – August).

Surface Water

The proposed action will take place in an arroyo determined to be part of waters of the United States of America. Section 404 permits have been issued for the proposed action. These can be found in the appendix.

Vegetation

The proposed project area will be monitored after project completion for re-establishment of grasses in the basin. An abundant seed source should be available for re-establishment in the basin. However, if monitoring determines this source inadequate, re-seeding will be done with native plant species, certified free of noxious weeds. The structure will be maintained to prevent the re-establishment of plants such as mesquite and creosote.

Noxious Weeds

The proposed project area will be managed to control noxious weeds within the project area and outside to other areas. BLM noxious weeds stipulations will be followed to prevent the spread of such plants from outside or inside the project area. Outside materials brought into the project area will be certified free of noxious weeds. Also, any material transported off site will be monitored for the spread of noxious weeds. Chemical treatment may be used if determined necessary for the control of noxious weeds. After project completion the site will be monitored to detect noxious weed occurrences. Should noxious weeds be identified on the site BLM will use standard operating procedures to control noxious weed establishment.

Wildlife

Seasonal wildlife habits, such as bird migration, nesting, will be taken into consideration before commencement of the proposed action. If aquatic or terrestrial wildlife species are encountered, they will be avoided or moved to prevent significant impacts to the populations. The proposed actions will be altered to limit or avoid impacts to wildlife. Since work will not be done when soil conditions are wet, most amphibians would be avoided during reconstruction, with the exception of those individual animals (amphibians as well as reptiles and small mammals) burrowed into the ground in the disturbance area.

Transportation

The dirt access road will be graded by the BLM and or Plains Pipeline, L.P. prior to delivery of materials and construction. This will limit the impact of traffic to the road. The road runs through land owned by the State of New Mexico and connects with a public road. A representative from the State of New Mexico land office will be on site to insure these actions are in conformance with the State's stipulations. The existing pipeline located along the right of way road will be marked by Plains Pipeline, L.P. prior to the BLM performing any maintenance. Afterwards, the entrance from the public road will be blocked to control traffic on the road.

Cultural Resources

The proposed project area will be cleared for the proposed actions by a member of the BLM cultural resources staff. A survey of the structural dimensions will be completed prior and after construction. The site will be monitored for cultural resources. A member of the BLM cultural resources staff will be

notified if cultural resources are discovered during the proposed actions. The graphic art noted on the structure will be documented prior to any removal.

2.2 Alternative 2: No Action

Under this alternative the dam would not be repaired or maintained. The dam would not meet safety standards as outlined in BLM manual 9177.

3 AFFECTED ENVIRONMENT

The proposed site lies generally east of Las Cruces and west of the Organ Mountain Range in Southern New Mexico. The disturbance site area is characterized by shallow arroyos draining into the dam basin. The proposed site is located at an elevation of approximately 4,400 feet above mean sea level (MSL). The area has a continental climate characterized by light and variable total precipitation, large diurnal and moderate annual temperature range, low relative humidity and plentiful sunshine. The average annual precipitation in the project area is approximately 9.2 inches. Approximately sixty percent to the annual precipitation occurs between May and October. The highest amounts of precipitation occur during the Summer monsoon season between July and August. On average, the diurnal temperature range is 65-94° F in the summer and 29-60° F in the winter. The average annual temperature range is 45-80° F. The adjacent Organ Mountains to the east range in elevation from approximately 5,000 feet to 9,000 feet above MSL.

3.1 Wildlife and Wildlife Habitat

The BLM conducted an inventory of wildlife habitats in Doña Ana County using the Integrated Habitat Inventory and Classification System (IHICS) in 1978-1980.

The wildlife habitat of the Alameda Dam area is classified as creosote rolling upland, mesquite rolling upland, and arroyo habitats. These habitats support approximately 10 species of amphibians, 40 species of reptiles, 55 species of mammals, and 150 species of birds. Tables of wildlife found in Doña Ana County, by habitat type, are available from the BLM Las Cruces District Office.

Representative Herptiles include side-blotched lizards, western whiptails, eastern fence lizards, Couch's spadefoots, gopher snakes, coachwhips, and western diamondback rattlesnakes. Common mammals include Ord's kangaroo rats, desert pocket mice, desert cottontails, and black-tailed jackrabbits. Birds include black-chinned sparrows, Say's phoebe, cactus wrens, mourning doves, red-tailed hawks, turkey vultures, Chihuahuan ravens, and many species of small songbirds. Mule deer occur in the area, and sumac bushes are an important forage resource for mule deer. Ocotillos in the area provide food for hummingbirds and other pollinators. The catchment area of the dam is primarily a dense stand of Johnson Grass, which provides habitat for ground-nesting birds. The ponding area of the dam is a significant breeding habitat for amphibians during the Summer monsoon season. The drains may provide den sites for snakes such as Western diamondback rattlesnakes.

3.2 Special Status Species

3.2.1 Plant Species

Presence of special status plant species and their habitats in Doña Ana County was considered using LCDO species occurrence/habitat records and New Mexico Natural Heritage Program species records. Species descriptions and distributions were derived from LCDO office records and New Mexico Rare Plant Technical Council [NMRPTC. 1999. New Mexico Rare Plants. Albuquerque, NM: New Mexico Rare Plants Home Page: <http://nmrareplants.unm.edu> (Latest update: 18 January 2006)]. Based on evaluation of the referenced information, of the 21 rare or special status plant species known to occur in Doña Ana County, one species may occur in the Alameda dam area.

Night-blooming cereus (*Peniocereus greggii* variety *greggii*) occurs in scattered locations in Doña Ana County, often associated with creosote bush. It is a nondescript plant that looks like a dead twig, but is actually a square-stemmed, pencil-shaped cactus. It produces a large, fragrant white flower that lasts only one night in the summer, which then develops into a bright-red fruit. There are scattered records of this plant from the east mesa of Las Cruces.

3.2.2 Animal Species

Special Status animal species lists for Dona Ana County were compiled from: (www.wildlife.state.nm.us/conservation/threatened_endangered_species/index.htm and www.fws.gov/ifw2es/NewMexico/SBC_view.cfm?spcnty=DonaAna). Known geographic distribution and habitat requirements were considered for each species in comparison with habitat types at the dam. Of the species listed by the FWS as species of concern in Dona Ana County, six species are considered to have potential habitat within the proposed treatment area (Table 1).

Table 1 Special Status Animal Species

Species Name	Status
Ferruginous hawk	BLMS
Common ground dove	NME
Loggerhead shrike	BLMS, USFWS
Burrowing owl	BLMS, USFWS
Texas horned lizard	BLMS
Fringed myotis	BLMS
BLMS=BLM SENSITIVE, NME=STATE OF NEW MEXICO ENDANGERED, USFWS=UNITED STATES FISH AND WILDLIFE SERVICE SPECIES OF CONCERN	

Habitat descriptions for these special status wildlife species are available from the Bureau of Land Management, Las Cruces District Office.

Ferruginous hawks winter in the area, and may occasionally feed or roost at the Alameda Dam. Common ground doves are rare, but nest in dense grass such as the Johnson grass stand in the pond area. Loggerhead shrikes are not uncommon in the area, nor are Texas horned lizards. Burrowing owls select dirt banks such as dam banks and arroyo sides for burrowing and nesting, and occur around the dam. Fringed myotis feed over water bodies and drink from water bodies, it is likely that they use the pond for both activities.

3.3 Cultural Resources

A BLM and NMCRIS records search revealed no prehistoric sites within the area of potential affect. Alameda Dam was recorded in the BLM Cultural Resources report 030-93-85, "An Archaeological Survey of a Proposed Nature Park Near Las Cruces, New Mexico" Clifton (1993) (NMCRIS Activity Number 42973).

Alameda dam was built by the CCC during the 1930's. It was constructed as an earthen, flood retention dam. The dam is determined eligible for the National Register of Historic Places by the LCDO BLM archaeologists. Also, the SHPO has concurred with the eligibility determination for the National Register of Historical Place.

An assessment of the effects due to the proposed actions on cultural resources was performed at Alameda Dam by LCDO BLM archaeologists on June 1, 2009. They concluded that the proposed actions will not have any adverse affects on the characteristics of the dam which make it eligible for the National Register of Historic Places. However, the following stipulations were made from that assessment:

The graphic art on the south emergency spillway will not be removed during this action. Future maintenance actions on the south spillway will require that the existing graphic art be taken into account. If cultural resources are discovered during the proposed actions, work will be halted and culture resource staff will be consulted for further recommendations.

3.4 Watershed Hydrology

The watershed contributing to Alameda Dam is approximately 10 square miles. The watershed above the site begins at the top of the Organ Mountains, which is characterized by steep rocky terrain and transitioning into rolling uplands. The average rainfall for the project area is 8-10 inches annually. Most of the precipitation occurs during the monsoon season (July-September). The design storm for Alameda dam is not known but most dams built during this period were designed for a 50 year precipitation event. The 50 year, 24 hour precipitation event for the project area is 3.18 inches. This is the precipitation event over a 24 hour period that is statistically likely to occur at least once in 50 years.

3.4.1 Surface Water Resources

The watershed can experience flashy runoff events, which can lead to high erosion rates. Most of the watershed is undeveloped, except for dirt access roads. These roads require maintenance after heavy precipitation events. Residential development is encroaching on the north side of the watershed and downstream of Alameda Dam. Increased development could lead to increased runoff, erosion rates, and higher safety and health concerns. The upland vegetation does not significantly restrict runoff or sediment transport.

3.4.2 Groundwater Resources

Ground water in the vicinity of the project location occurs in alluvial aquifers of Rio Grande alluvium and underlying Santa Fe Group. Each aquifer is hydraulically connected and is usually unconfined, although semi-confined conditions may exist locally in the Santa Fe Group. Ground water at the site flows towards the west and the water-table surface is approximately 350 feet below grade.

3.4.3 Water Quality

The project area is located in a dry arroyo. The water quality in the project area is not a known concern. High sediment loads are common in the arroyo due to highly erosive soils and intense flow events. Excess runoff and pollutants from adjacent development is not a current issue. If surrounding development continues, water quality issues could arise.

3.5 Soils and Minerals

The watershed above Alameda Dam is comprised mostly of four soil groups: Haplargids, dissected (HD), Pinaleno-Nolam association (PN) and Rock Outcrop – Argids cool and association (RG and RH). HD soils are comprised of loamy sand and sandy loams, occurring in alluvial fans, slopes 5 - 65 percent and the lower elevations of the watershed. PN soils are profiled as very gravelly sandy loam to very gravelly loamy sand. They occur in terraces and fan piedmonts and slopes 1 to 5 percent. The RG and RH soil groups occur in the higher elevations of the hill and mountain landforms. They are comprised of loamy sand to fine sandy loam and bedrock. The RH group is at the highest elevation in the watershed and receives more precipitation (15-17 in annually). More information on the soils can be found at: websoilsurvey.nrcs.usda.gov.

The geology in the proposed site consists of the Upper Santa Fe group. The soils within the area correspond to the Haplagrids, 5 to 65 percent slopes, which consists of loamy sand and sandy loam alluvium. This soil has a moderate infiltration rate and susceptibility to surface erosion. It is more susceptible to wind erosion.

3.6 Vegetation

The vegetation community of the Alameda Dam area is creosote dominated uplands and arroyos. The uplands have little perennial or annual herbaceous understory. Therefore the vegetation does little to impede runoff or sediment movement.

The vegetation in the arroyos consists of desert willow, salt cedar, mesquite and other various herbaceous and shrub species. The dam basin includes a dense stand of Johnson grass.

3.7 Invasive/Non-native species

Some invasive and non-native species are present within the project area. These include mesquite, creosote and salt cedar. The removed mesquite, creosote and salt cedar will be piled on site and burned to prevent further spread of salt cedar. Also, equipment and vehicles will be power washed prior to entering and leaving the site to prevent spread of invasive/non-native species.

3.8 Wetland/Riparian/Floodplain

Alameda Dam is located on a USGS designated blue line stream and considered waters of the United States. Therefore permitting is required for the proposed Actions through the United States Corps of Engineers (USCOE). Compliance with Section 404 of the Clean Water Act is required. A Nation Wide Permit through USCOE is required for the proposed Action. An application for this permit has been submitted to USCOE. No jurisdictional wetlands are known to occur within project area, therefore compliance with Section 401 of the Clean Water Act or Executive Order 11990 is not required. The dredging or removal of soil in the basin is part of maintenance to the original footprint and is exempted from permitting as defined in 33 CFR 323.4(2). Permitting actions with the and New Mexico Environment Department (NMED), beyond those with USCOE, are not required. Coordination with the New Mexico Department of Game and Fish (NMDGF) and United States Fish and Wildlife Service (USFWS) are not required for this project.

3.9 Recreation and Visual Impacts

Visual resources within the proposed project area have been inventoried and classified into Visual Resource Management (VRM) classes. VRM classes are management zones where management actions and controls on proposed actions vary in relation to scenic values. The proposed project action is within a VRM Class III area. The management objective for Class III is to partially retain the existing character of the landscape. The level of change to the characteristic landscape can be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape. No Wilderness Study Areas (WSA) or Areas of Critical Environmental Concern (ACEC) are located within the proposed project area.

The proposed project area is currently used for recreational uses such as horseback riding, photography, hiking, hunting, shooting and public art. The area is designated as “limited” to existing roads and trails.

4 ENVIRONMENTAL EFFECTS

4.1 Wildlife and Wildlife Habitat

4.1.1 Impacts of the Proposed Action

Directly, repair of the dam is expected to cause short-term impacts to wildlife habitat. These impacts would include temporal displacement of wildlife during equipment operation, staging and delivering materials, alteration of soils structure and vegetation over approximately 3.5 acres, and direct mortality of wildlife, primarily fossorial species such as toads, spadefoots, and rodents. Indirectly, over the long-term, the dam repair would have beneficial effects on wildlife habitat by providing long-term storage of runoff water as a water source for wildlife and as breeding habitat for amphibians.

4.1.2 Impacts of the No Action

Directly, this alternative would not have any effects on wildlife. Cumulatively, lack of repairs and maintenance could lead to dam failure. In this case, habitat including standing water, moist soil and vegetation, would be lost.

4.2 Special Status Species

4.2.1 Plant Species

4.2.1.1 Impacts of the Proposed Action

Directly, the proposed action is not anticipated to have any impact to night-blooming cereus, although there is the potential that if this plant occurs in the area, it could be crushed. No population-level impacts are anticipated.

4.2.1.2 Impacts of the No Action

Directly, this alternative would not have any effects on special status species. Cumulatively, the lack of repairs and maintenance could lead to dam failure. In this case, soil and existing plants could be lost due to erosion.

4.2.2 Animal Species

4.2.2.1 Impacts of the Proposed Action

Implementation of the proposed action would be anticipated to have the following impacts to habitat for special status animal species:

- **Ferruginous hawks** - no impacts. These hawks may temporarily relocate during construction activities.
- **Common ground doves** - a temporary reduction in Johnson grass cover in the pond area. This non-native grass would be expected to re-colonize the disturbed bottom over a few years.
- **Loggerhead shrikes** - no impacts. These birds may temporarily relocate during construction activities.
- **Burrowing owls** - there would be temporary reduction in potential roost and nest sites as the drainage outlets are repaired. These owls would be expected to temporarily vacate the area to avoid construction disturbance. After completion of the project, the area would remain suitable habitat for burrowing owls.
- **Fringed myotis** - no impacts from construction, since diurnal equipment work would not affect these nocturnal mammals. Repair of the dam would be expected to insure a feeding and watering site for fringed myotis at the Alameda Dam for many years.

4.2.2.2 Impacts of the No Action

Directly, the no action alternative would continue to provide the current habitat for wildlife. Cumulatively, wildlife habitat could be lost in the event of dam failure.

4.3 Cultural Resources

4.3.1 Impacts of the Proposed Action

Directly, the proposed actions will help preserve the characteristics of the dam, which make it culturally significant.

4.3.2 Impacts of the No Action

The historical characteristics would become less noticeable due to vegetation overgrowth and erosion and possibly disappear in the case of dam failure.

4.4 Watershed Hydrology

4.4.1 Surface Water Resources

4.4.1.1 Impacts of the Proposed Action

Under both alternatives, effects to surface water will remain, mostly, the same as current. Directly, the dam basin will be cleaned out and more water will pond around the inlet. However, the dam will still release most of the water within 96 hours, as required by the State of New Mexico Dam Safety Office. A small amount of water (less than 10 acre feet) will probably be retained behind the dam for a short period. Indirectly and cumulatively, this could positively affect vegetation and wildlife.

The water bars constructed along the right of way road will direct water off of the road. The receiving area adjacent to the road will require remediation to reduce erosion. Overall, the water bars will decrease the erosion and maintenance to the road.

4.4.1.2 Impacts of the No Action

Under the no action alternative, the dam and all the associated natural processes would continue to function at the current state. The dam could degrade to the point of failure. This would allow surface water to flow unobstructed, which would create a head cut at the point of dam failure and send a plug of sediment downstream. The increased sediment load downstream and head cut would alter the channel geometry and flow pattern of the drainage. The sediment load in the drainage would increase significantly until the head cut and drainage reaches equilibrium or new actions were performed to curtail the erosion. Failure would also create a serious safety risk.

4.4.2 Groundwater Resources

4.4.2.1 Impacts of the Proposed Action

Directly, the continued function of the dam will retain water within the watershed. This will maintain or possibly increase the groundwater level.

4.4.2.2 Impacts of the No Action

Directly, the dam will continue to function as is. It will continue to hold water back in the watershed and maintain the current ground water level.

Cumulatively, if the dam failed, water would not be held back in the watershed for as long and the ground water level could decrease.

4.4.3 Water Quality

4.4.3.1 Impacts of the Proposed Action

With the dam in place and functioning, water quality should not be adversely affected. The dam holds sediment and slows down flows allowing more sediment to drop out. This decreases the amount of sediment that flows downstream. The decrease in sediment will directly reduce the suspended solids in the water but reduce the amount of channel aggradation due to sediment deposited within the channel downstream.

Indirectly, construction activities could have an impact on water quality. Best management practices will be exercised during construction to prevent indirect effects such as: the release of hazardous materials, such as gasoline or used oil, from construction equipment or introducing herbicides during chemical vegetation treatment.

4.4.3.2 Impacts of the No Action

Directly, the dam will continue to function as is and reduce the sediment load in the water downstream. Cumulatively and as mentioned earlier, if the dam were to fail, the sediment load downstream could increase greatly. This would significantly affect the amount of suspended solids in the water.

4.5 Soils and Minerals

4.5.1 Impacts of the Proposed Action

Directly, sediment will be disturbed within the basin of the dam. The disturbed area will extend approximately 200 feet upstream of the dam and along the full length of the structure. The area within the basin to be disturbed is approximately 1.5 acres and approximately 12,000 cubic yards of material will be removed from around the dam inlet. This material will be disposed of within the basin and footprint of the structure. The total area of disturbance is approximately 3.2 acres.

Indirectly, the disturbed soil could be transported downstream more rapidly and deposited in the downstream channel and floodplain. Erosion control practices will be performed to reduce excessive erosion.

Cumulatively, if a need for soil arises outside the project area, the excavated sediment could be transported off site. The proper material use permit will be obtained through the BLM LCDO in the case of this event. Also, sterilization of the soil for noxious weeds will be completed at the expense of the using party.

4.5.2 Impacts of the No Action

No soil will be disturbed and no effects produced. Cumulatively, if the dam failed, soil behind the dam would be eroded and washed downstream.

4.6 Vegetation

4.6.1 Impacts of the Proposed Action

Directly, vegetation will be disturbed within the 3.2 acres of the proposed actions. Disturbed vegetation such as creosote, mesquite, salt cedar, cactus, tarbush and Johnson grass will be removed from the dam embankments and within 200 feet of the upstream toe. The vegetation removal is required in the dam safety protocol. Most of the vegetation listed will be mechanically removed using a back hoe, dozer, or by hand tools. Some vegetation may be disturbed during the delivering and staging of materials. This will be a temporary impact and the materials will not be placed in a location that will affect any sensitive species. In the case of larger, more persistent vegetation such as mesquite and creosote, chemical treatment will be administered when necessary. Necessity will be in the case of mesquite and when creosote re-buds after mechanical removal. Grasses will re-establish within the basin.

Chemical treatment will consist of hand sprayed foliage application to creosote. The chemical to be used for treatment of creosote will be Spike 20 (tebuthiron). Mesquite will be stump treated, which will consist of hand application of the herbicide on the cut stump. The chemical to be used for mesquite stump treatment is Remedy Reclaim. These two forms of hand application will reduce the area of herbicide application and reduce the risk of herbicides entering into the waterway and amount of herbicide entering the soil.

Indirectly, the removal of vegetation could lead to a local, temporary increase in erosion until other vegetation could re-establish ground cover. The increase in erosion could block the principal spillway. Monitoring and maintenance will be performed until vegetation is re-established to prevent blockage and adverse effects.

4.6.2 Impacts of the No Action

Directly, vegetation would continue to overgrow the dam and basin. Indirectly, this could lead to more debris blocking the principal spillway, restricting flows and increasing stress on the dam. The vegetation on the dam and spillways could weaken the structural integrity of the dam. This could lead to dam failure.

4.7 Invasive/Non-native Species

4.7.1 Impacts of the Proposed Action

Directly, invasive species such as creosote and mesquite will be removed and treated with an herbicide. Indirectly, the transport of materials and equipment from off site could potentially introduce other invasive and non-native species. BLM noxious weed stipulations will be followed during removal of invasive plant species, transportation of materials and construction activities to reduce the potential. Cumulatively, this action will decrease the spread and re-emergence of these plants on the dam and surrounding area and increase the structural stability and safety of the dam.

4.7.2 Impacts of the No Actions

Directly, the invasion of the noxious plant species will continue uninhibited. Cumulatively, the no action alternative could lead to further spread of the noxious plant species outside of the proposed project area.

4.8 Wetland/Riparian/Floodplain

4.8.1 Impacts of the Proposed Action

The project area is not a known wetland or riparian area. Therefore the proposed actions would have no effect.

4.8.2 Impacts of the No Action

Cumulatively, in the event of dam failure, the downstream floodplain could be inundated with water and incur increased erosion. This would adversely affect the populations downstream.

4.9 Recreation and Visual Impacts

4.9.1 Impacts of the Proposed Action

Directly, the proposed actions to the dam, such as surface disturbance will affect the visual aspects of the area on a temporary basis. Some vegetation and sediment will be removed and rock placed on the embankments. However, grasses should grow back within the basin quickly and eventually some vegetation will grow on the dam. These effects will be moderate as per Mimbres RMP VRM class III designation.

The proposed actions will prevent OHV traffic on the dam embankments. The existing road across the dam crest will be affected during construction. After construction has ceased the road will be usable for the groups mentioned above. All recreation activities will be able to continue under the proposed action.

4.9.2 Impacts of the No Action

Directly, the no action alternative will allow recreation activities to continue as is. The OHV use on the dam embankments will continue to cause erosion and weaken the structural stability of the dam. This could lead to dam failure.

5 Individuals, Organizations, or Agencies Consulted

6 List of Preparers

Dan Carter – Hydrologist and Civil Engineer, BLM LCDO

Mark Hakkila – Wildlife Biologist, BLM LCDO

Joe Sanchez – Natural Resources Specialist, BLM LCDO

DECISION RECORD AND FINDING OF NO SIGNIFICANT IMPACT

Finding of No Significant Impact:

Based on the analysis of the analysis of potential environmental impacts contained in the attached EA, I have determined that impacts on the human environment are not expected to be significant and an environmental impact statement is not required.

Decision:

It is my decision to implement the proposed action in the attached Environmental Assessment (EA) which is to authorize maintenance on Alameda Dam, located at T. 22S R2E Sec. 25 N1/2NE1/4SE1/4 and 26 N1/2NW1/4SW1/4. Mitigation measures identified for the proposed action in the environmental impacts section of the EA have been formulated into stipulations. This decision incorporates by reference the attached stipulations.

- BLM Cultural stipulations,
- BLM Weed stipulations

Rationale for Decision:

The proposed action will not result in any undue or unnecessary environmental degradation and conforms with the Mimbres RMP, approved on April 30, 1993, and/or the White Sands RMP, approved on September 5, 1986. In addition, based on the environmental analysis in the attached EA, there will be no significant impacts to the human environment.

Impacted Areas:

Wildlife and vegetation will be impacted directly by displacement, habitat disturbance and destruction. This will be short term and will be less than one breeding or growing season. This impact is not significant because it does not affect the long term viability of local populations nor any threatened or endangered species.

Public Involvement :

This EA was posted to the web for a period of 30 days to allow public viewing and comment.

Protest and Appeal:

If this decision is adverse to you and you believe it is incorrect, you may appeal the decision to the Interior Board of Land Appeals as prescribed in 43 CFR 4.4 and in the attached form.

Compliance and Monitoring:

Compliance and monitoring is outlined in the design features of this EA.

Stop: Are you posting the FONSI on the web? If so, you will have to create two FONSI. 1) The first will have the original signature and will be scanned into the final document for the EA archive in the m:drive. 2) The second will have /s/, the name typed out, and the date typed out so that it conforms to our web standards. And I don't understand why, but Jim Salas asked us to then scan the FONSI. He needs the EA itself in Word and then the FONSI scanned as a . Thanks. JM

Tim Sanders /s/
Assistant District Manager

Date

Appendix:

-Cultural Clearance letter and letter to SHPO

-Map

-Section 404 Nationwide Permit