

**LONE JUNIPER AND ARROYO HONDO
CAMPGROUND RE-CONSTRUCTION
EA: NM-020-03-013**

**U.S. Department of Interior
Bureau of Land Management
Taos Field Office
226 Cruz Alta Road
Taos, NM 87571**

Lone Juniper and Arroyo Hondo Campground EA

PURPOSE OF AND NEED FOR ACTION

The purpose of the project is to improve Lone Juniper and Arroyo Hondo Campgrounds for current uses while maintaining a natural appearance and healthy resource condition. The project site is located in Section 21 of Township 24 North, Range 11 East. These sites were built in the 1970s by New Mexico State Parks and need to be re-constructed. Please see map in Appendix A. Currently water runs from the uplands, State Road 570, and various arroyos over these sites causing erosion to the campgrounds and increasing sediment discharge in the Rio Grande.

The overall goal of the project is to define and limit activity within the campgrounds in order to limit vegetation loss, erosion, and sedimentation. Lone Juniper and Arroyo Hondo Campgrounds have poorly defined day use/camp sites, parking areas, and access to the river. Unrestricted parking and diffuse and uncontrolled access between sites and from the campgrounds to the river resulted in disturbance to vegetation and additional erosion. The denuding of vegetation along with inadequate signing and landscaping make the campgrounds into bare, compacted areas. All riparian vegetation should be protected and some reclaimed.

At Lone Juniper traffic flow, access, and parking does not accommodate both use from visitors and launching for commercial rafting trips. This can be confusing and cause congestion when commercial outfitters are trying to give safety presentations, launch boats and direct passengers from shuttles to the river.

Moreover, these campgrounds do not meet federal standards for accessibility from parking areas to the toilets. Accessibility needs to be enhanced and traffic flow defined in the parking areas, day use/camp sites, paths to the river, and the boat ramp.

Conformance with Land Use Plans

The direction to improve Lone Juniper and Arroyo Hondo Campgrounds comes from and is tiered to the Rio Grande Corridor Final Plan, (2000) and the Orilla Verde Campground Re-Construction Environmental Assessment (EA: NM-020-99-018) See Appendix B. The 1994 Taos Resource Management Plan Amendment called for providing a recreation experience emphasizing increased accessibility, visitor safety, and reduced potential for conflict between user groups.

PROPOSED ACTION

Lone Juniper

Control erosion by creating a slope in toward State Road 570 and catch the runoff in shallow depressions and landscaping. Runoff will also be diverted beneath the campground at the southeast end and to the river via a culvert. Native vegetation would be planted between State Road 570 and the campground for privacy screening and shade between sites.

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Install a gravel road and hardened (some form of concrete) boat launch approximately 240' southwest of the existing campground in order to improve boating accessibility and traffic flow. The campground and boat launch road would be partly single-lane, one-way and partly double-lane and two-way. Beginning at the downstream entrance to the campground, the road would have a 30' travel width tapering to 24' for approximately 60'. The road travel width would then taper from 24' to 20' for approximately 100'. The travel width would continue at a 20' width for 100' before expanding back to 24' for 60' in length. The travel width would then expand up to 30' wide for 100' where it would accommodate two-way travel. The remainder of the road would be 24' wide for 60' extending into the furthest upstream area of the campground. The total length of the road will be 480'. Part of road construction will include fill on the river-side of the road that would be approximately 1' wide and an approximately 3' bar ditch on the other side of the road which will drain toward State Road 570 and landscaping vegetation. An asphalt approach would be built from the highway to the campground to allow safe ingress and egress to State Road 570. To provide an all weather surface, compacted gravel would be added for the parking area.

The boat launch would be approximately 30' wide x 50' long with removable posts installed 7' apart near the top to prevent vehicle access to the river. The ramp would be sloped semi-parallel to the river. An area approximately 10' wide, 100' long and 2' deep of the existing boat ramp would be removed, re-contoured, and planted with willows. This should eliminate existing erosion and create a physical barrier between day use areas and the river. Traffic flow will be managed with signs and ranger patrols.

Provide parking for nine cars and 4 busses with trailers. The site would be landscaped with native tree and shrub species that are likely to establish in one year. Landscaping would include vegetative screening between the campground and the river which will be phased in as funding becomes available. A new two-seat toilet, with benches for changing, would be located near the new entrance and boat ramp.

Reclaim the northwestern edge of the campground, (160') to riparian vegetation by blocking access, scarifying the road, and planting native grass seed. This would also provide a buffer area between the campground and a willow stand that is potential avian habitat. The approach and roadway at the cul-de-sac on the north end of the site would be closed and rehabilitated. Develop a small interpretive sign, designed in-house, to educate visitors of the value of endangered species and habitat. Locate the sign at one of the main entrances to the Orilla Verde Recreation Area (OVRA).

To concentrate use and limit vegetative disturbance and erosion, define three either 12'x12' or 16'x16' day use/camp sites, partly by installing exposed aggregate or textured, colored concrete pads for picnic tables and grills. One additional day use/camp site would be 20' diameter. Paths from parking areas to camp/picnic sites would be a hardened (gravel, compacted gravel, or concrete) surface. Access to the river would be limited to one well-defined, less than 3' wide and hardened (gravel, compacted gravel, or concrete) access path with steps (if necessary) to the river-bank to prevent erosion. Location of this path would be coordinated with a wildlife biologist and phased in as

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funding becomes available. Access from the campground to the river would be blocked with a combination of landscaping, rocks, and/or posts.

Construction maps and drawings can be obtained from the process file or the civil engineer at the Taos Field Office.

These campgrounds have fewer facilities than what is offered in the rest of Orilla Verde Recreation Area. The intent is to keep the current level of development in Lone Juniper in order to provide some diversity of opportunities within the recreation area as a whole.

Arroyo Hondo

Control erosion from the parking lot by catching water against a concrete curb and gutter to be installed on the west end of the site and diverting it down a channel to the river. This channel would double as a stair structure with a railing and is also referred to as a path to the river. The toilet would be relocated at the north end of the site.

Access to the river would be limited to one or two well-defined paths (with steps if needed) that are less than 3' wide and hardened (gravel, compacted gravel, or concrete). One path would double as the drainage to the river referred to in the previous paragraph. One of the paths would wrap partially around the parking area and down to the river-bank to accommodate universal access. Location of these paths would be coordinated with a wildlife biologist and phased in as funding becomes available.

An asphalt approach would be built from the highway to the campground to allow for safe ingress and egress from State Road 570. Compacted gravel would be added for the parking area to provide an all weather surface.

To concentrate use and reduce resource disturbance, define 5, 16' x 16' day use/camp sites, partly by installing either colored and textured concrete or exposed aggregate pads for picnic tables and grills. Eight accessible parking areas would be colored, textured concrete.

Construction maps and drawings can be obtained from the process file or the civil engineer at the Taos Field Office.

These campgrounds have fewer facilities than what is offered in the rest of Orilla Verde Recreation Area. The intent is to keep the current level of development in Arroyo Hondo in order to provide some diversity of opportunities within the recreation area as a whole.

The site would be landscaped with native trees and shrubs (that can establish in one year) for privacy screening and shade. Landscaping would include vegetative screening between the campground and the river which will be phased in as funding becomes available.

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AFFECTED ENVIRONMENT

Recreation

The campground facilities have minimal signing, vault toilets, and bare and compacted soil with picnic tables and fire grates. Visitors to both sites engage in camping, fishing, picnicking, boating, and swimming.

Traffic flow, access, and parking (especially at Lone Juniper) can be confusing and cause congestion when commercial outfitters are trying to give safety presentations, launch boats and direct passengers from shuttles to the river. Visibility and egress from these sites to State Road 570 is challenging.

The lower gorge of the Rio Grande is designated as Rural on the Recreation Opportunity Spectrum in the Taos Resource Management Plan (1988). Rural recreation opportunities provide visitors with experiences of convenience through facilities, numerous social interactions, and a high level of access. Single lane gravel roads, cultural and management modifications that harmonize with the landscape, as well as site hardening that blends with the environment, would be consistent with providing this type of experience.

Tables below display the extent of visitation over the past six years. Please note that private boaters have not been counted on the river segment corresponding to Lone Juniper. However, they were counted for the Racecourse segment in the year 2000 and 2002, which is downstream of Lone Juniper. In the year 2000 private boaters consisted of 18% of all boating on the Racecourse and in 2002 only 2%.

There are two river segments within the Orilla Verde Recreation Area; which are referred to as the Orilla Verde segment and the Pilar segment. The number of commercial passengers who have floated one or both of these two segments are displayed in Table 3. Table 1 displays the number of commercial boaters launching or portaging at Lone Juniper. However, most launching/portaging would occur at Lone Juniper since Arroyo Hondo is only used as an overflow area.

Table 1: Lone Juniper Visitation

Year	Camping & Day Use Visits	Commercial Boating Passengers	Total
2002	957	2,158	3,115
2001	849	4,660	5,509
2000	2,843	Data not recoverable	???
1999	1,156	4,215	5,371
1998	2,767	3,250	6,017
1997	2,515	6,113	8,628

Data gathered from fee envelopes and outfitter trip logs.
Commercial boaters using site for launching or portaging.
Private boaters were not counted.

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Table 2: Arroyo Hondo Visitation

Year	Camping & Day Use Visits
2002	1,038
2001	872
2000	835
1999	3,161
1998	4,205
1997	3,823

Data gathered from fee envelopes.
Launching and landing for overflow only.

Table 3: Boating Passengers and Visits within Orilla Verde Recreation Area

Year	Orilla Verde Passengers *	Pilar Passengers*	Visits for Recreation Area**
2002	77	611	12,612
2001	2,360	1,745	17,100
2000	Data not recoverable	Data not recoverable	12,349
1999	3,164	2,074	26,528
1998	1,700	1,334	63,731
1997	3,073	2,634	57,938

*Please note that some passengers may have floated both segments.

**Visits to campgrounds within the Recreation Area

Visual Resource Management

Campgrounds in Orilla Verde Recreation Area are to be managed for VRM III objectives (RG Corridor 2000). The objective is to partially retain the existing character of the landscape. The level of change allowed is moderate and may attract attention but not dominate the view of the casual observer (BLM 8431-1 1986).

The lower gorge and river of the Rio Grande is narrow and sinuous. Gentle but rocky slopes rise up to the columnar cliff-rimmed mesa. The gorge is randomly vegetated with pinon, juniper, sage and some grasses. The riparian area near these campgrounds is composed of pockets of willow and tamarisk and the river-bank is composed of cobble and sand.

The campgrounds have entrance roads, rock barriers, Carsonite signs, toilets, fire grates, and picnic tables. They are basically sparsely vegetated and undefined, bare and compacted open areas. Lack of orientation and signage as well as site definition and design have resulted in denuding of vegetation, erosion, and bare and compacted sites.

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Cultural Resources

Over the last ten years the BLM has recorded eleven sites within the Orilla Verde Recreation Area. These sites (LA 89398, 102343-102348, and 112525-112526) include petroglyphs and lithic scatters dating to the Archaic and Anasazi Cultures. In 1989 the state Highway Department surveyed 4.5 acres of land of Lone Juniper day use site for a bridge replacement project. One site, LA 73444, comprised of two large boulders of petroglyphs was recorded. These boulders were avoided by the bridge construction, and should be avoided by the proposed recreation facility construction. All of the area that will be impacted by proposed construction activities is within the previously disturbed recreation facility and the area surveyed during the Highway Department survey.

The Arroyo Hondo Campground was visited by Paul Williams, Taos Field Office Archaeologist, on March 27, 2003. A small area (1 acre) south of the existing recreation facility, that would be impacted by the proposed construction project was inventoried. No cultural resources were located.

Habitat/Wildlife/Soils/Vegetation

OVRA is located approximately 12 miles southwest of the town of Taos, New Mexico, along NM 570 for approximately five miles adjacent to the Rio Grande. Elevations range from 6,900 feet on the rim to 6,000 feet at the river on the south end of the recreation area.

Vegetation in the canyon consists of upland and riparian vegetation types. Some of the common plant species in the uplands are pinon pine, juniper, ponderosa pine, Wyoming sagebrush, rabbit brush, snakeweed, blue grama, Indian ricegrass, western wheatgrass, needle and thread, and many forbs. Vegetation in the riparian zone includes cottonwoods, willows, tamarisk, grasses, rushes, sedges and forbs. The principle differences between characteristic types of vegetation is water availability and depth to groundwater.

Human disturbance has contributed to altered riparian plant composition along the eastern side of the river. Large mature cottonwoods are no longer present, possibly as a consequence of historic human activities, as well as loss of the over bank flooding necessary to provide opportunity for cottonwood seedlings to establish. Historical grazing practices caused degradation of riparian vegetation allowing invasion of several undesirable plant species. Grazing in the riparian zone was halted in 1990 when BLM assumed control of the area.

Tamarisk (*Tamarisk petandra*), an exotic tree species, is prolific throughout the recreation area. It is found in many southwest riparian areas, often out competing native plants and becoming a monoculture. Whitetop (*Cardaria draba*) and pepperweed (*Lepidium latifolium*) are noxious weeds that also occur in the recreation area adjacent to State Road 570. Whitetop is known to severely infest areas once it becomes established. Russian knapweed (*Centaurea repens*), a Class B noxious weed in New Mexico, is also found in the Lone Juniper site.

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Soils are described as an Orthents-Rock outcrop association. The association consists of steep soil and rock outcrops typical of canyons along the Rio Grande. Orthents are deep well-drained soils on canyon slopes, found in material that is derived from old alluvium of the Santa Fe formation. The surface layer is very gravelly or cobbled loam; the underlying material is gravelly loam or gravelly clay loam. Rock outcrops characteristic of this soil association consist of nearly vertical escarpments of basalt that form a protective cap over the alluvial sediment. The erosion and slumping hazards, steepness of slope, and stoniness restrict the human use of this association. (USDA, SCS, 1982).

The portion of the Rio Grande that flows through the area demonstrates the importance of riparian vegetation to a variety of wildlife species. It is particularly unique in its ability to support large numbers of bird species. 133 species of birds have been recorded along the river, representing about 29% of the total numbers known to occur in New Mexico. More importantly, the area provides essential habitat for migratory birds during spring and winter migration seasons, including that for the Southwestern willow flycatcher (SWWF). The Southwestern Willow Flycatcher Management Plan (SWFMP) was developed in 1998 to implement reasonable and prudent alternatives of the Biological Opinion dated April 17, 1997 (Cons #2-22-95-F-410), for the Taos RMP (USDI, BLM, 1988). The BLM is committed to protecting threatened and endangered species and their habitats pursuant to the Endangered Species Act through implementation of the SWFMP.

The fish fauna within the area are represented by five major families and eleven species. Game species typically make up approximately 8% of the total biomass within the system. Aquatic insects within the system are represented by groups most commonly observed in clean water systems, including Ephemeroptera, Plecoptera and Tricoptera.

Big game species seen in the area include mule deer, Rocky Mountain elk and black bear. Beaver are present throughout the area, evidenced by severe cutting of willow and cottonwood, as well as tamarisk and other tree and shrub species. Raptors, including osprey, golden and bald eagles, falcons, and hawks are common sights in the gorge. Habitat for bats is abundant in the rocky crevices and boulder fields throughout the gorge. Ringtail has been seen and rodent species such as mice, pack rats, and gophers inhabit the rocky slopes and benches of the canyon.

BLM, in cooperation with the New Mexico Game and Fish Department, does not allow hunting in the recreation area due to visitor safety concerns.

Threatened and Endangered Species

There are no known threatened or endangered plant species occurring within the boundaries of OVRA.

The BLM has determined, based on a Biological Assessment dated April 28, 2003, that the actions described for the Arroyo Hondo and Lone Juniper campgrounds (including cumulative effects) will result in the following determinations for all the listed or proposed species: “No Affect,” or “May Affect-Not Likely to Adversely Affect (Insignificant/Discountable)” (refer to Table 4).

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Table 4: Species Assessed, Orilla Verde Recreation Area

Species	Classification	Determination of Affect
<u>Mammals</u>		
Black-footed ferret	Endangered	No Affect
Canada lynx	Threatened	No Affect
<u>Birds</u>		
Southwestern willow flycatcher	Endangered	May Affect (N)
Bald eagle	Threatened	May Affect (N)
Mexican spotted owl	Threatened	No Affect
Mountain plover	Proposed Threatened	No Affect

(N) Not Likely to Adversely Affect (Insignificant/Discountable)

Hydrology

Aspects of hydrology relevant to Lone Juniper campground and boat launch have been identified in EA# NM-020-99-018. Please see Appendix B. Hydrology at the Arroyo Hondo campground is mostly related to surface runoff characteristics. Proximity of Highway 570 to the entrance combined with a slope of approximately 7% across the bare soil surface of the parking area appears to have resulted in high runoff velocities. Unchecked water flow across the compacted surface of the parking area has resulted in significant soil erosion along the lower slope from the river front edge of the parking area to the floodplain. This process has probably been exacerbated by loss of vegetation on the lower slope due to foot traffic from cars and campsites to the river. Projected upgrades to this area will impede water flow from denuding the lower slope.

In addition to the surface runoff described above, the adjacent arroyo is also known to carry high flood flows during short duration storm events. Seasonal Rangers observed flood flow conditions in 2002 which resulted in extensive channel changes in the Rio Grande and contributed water across the Arroyo Hondo campground. It is not likely nor recommended that the BLM try to alter flow in the arroyo.

The Upper Rio Grande within the project area has been listed as an impaired river that does not currently meet water quality standards for turbidity (*1998-2000 State of New Mexico 303(d) List for Assessed Streams & River Reaches*). The standards are intended to protect cold-water fisheries. Due to the impaired status of the river, it is critical that unnatural turbidity and sedimentation be prevented or minimized.

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ENVIRONMENTAL IMPACTS

No Action

Recreation and Visual Resource Management

The campgrounds would continue to be poorly defined in terms of parking areas, boat launching, and access to the river resulting in continued erosion and vegetative disturbance.

The guidance from BLM planning documents to increase opportunities for universal access, reduce potential for conflict between users groups, and increase the safety of sites would not be carried out.

The campgrounds would continue to look like bare, compacted, open areas devoid of vegetation.

Cultural Resources

This alternative would have no effect on cultural resources since no construction would take place.

Habitat/Wildlife/Soils/Vegetation

The campgrounds would continue to be poorly defined in terms of parking areas, boat launching, and access to the river resulting in continued erosion and vegetative disturbance. Unusually large crowds will continue to assemble and will continue to cause sporadic disturbance and displacement of wildlife species. Exotic plant species may continue increasing with further losses to the native riparian vegetation.

Threatened and Endangered Species

This alternative would have no effect on threatened or endangered plants since no construction would take place and no known populations exist within the project area.

This alternative would allow the current level of disturbance to the willow stand adjacent to the Lone Juniper site and may displace SWWF from nesting or foraging in that area. There would be no effect on any other animal species listed as threatened or endangered by the U.S. Fish and Wildlife Service (USFWS).

Floodplains

The No-Action Alternative would result in no new impact to floodplains at Arroyo Hondo. Compaction due to foot traffic and soil erosion from parking area runoff would continue to occur.

Wetlands and Waters of the US

The No-Action Alternative would result in no new impacts to wetlands or WoUS at Arroyo Hondo. Continued degradation of these areas, including loss of vegetation and increases in exotic vegetation, is likely to occur.

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Water Quality

No new impacts to water quality are likely to occur under the No-Action Alternative. Existing erosional features such as, undefined parking areas, paths, and unhardened launch areas, are likely to continue to contribute sediment to the Rio Grande resulting in elevated turbidity. These conditions would continue to contribute to water quality impairments in violation of state standards.

Proposed Action

Recreation and Visual Resource Management

The campgrounds would exhibit the appearance of a greater management presence which typically increases a sense of personal safety and care for the resources by visitors. There would be increased opportunity for universal access. Access would be better defined thereby concentrating use and reducing erosion and vegetative disturbance. Defined areas and paths may be more appealing and less confusing to visitors because it will be clear where to park and where to walk.

Traffic flow and access would be improved for boating use and the chance for conflict between user groups would be reduced. Safety in entering and leaving sites would also be improved.

Landscaping would improve screening between sites and provide shade for visitors. It would also provide screening between the river and the campgrounds for boaters. The campgrounds would have more vegetation thereby improving their visual quality. Materials used would blend with the existing landscape. In the short term construction in the new disturbed area would result in loss of vegetation thereby creating a change in the existing color, line and texture. The new road and boat ramp will cause a short term, moderate contrast but can be reduced by randomly planting native trees and shrubs to help blend the line from the road. Successful vegetative regrowth may be expected within five to ten years.

Cultural Resources

Under this alternative new recreation facilities would be constructed. Construction at Arroyo Hondo Campground will have no effect on cultural resources. Construction at Lone Juniper Campground could harm the petroglyphs recorded as LA 73444. However, with the stipulation that a temporary fence be placed around the boulder with petroglyphs to isolate it from construction activities, there will be no effect on cultural resources at Lone Juniper.

Habitat/Wildlife/Soils/Vegetation

Cumulative impacts to vegetation and wildlife species over the long term would be positive due to increased management attention in the area, reduced surface disturbance, and a limited number of vehicles and users within each site. There would be no irreversible or irretrievable adverse impacts from the proposed action.

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Currently, large bare areas in both sites lend themselves to large numbers of vehicles and users that disburse in all directions impacting the vegetation and causing resource damage. The proposed action contains a finite number of parking spots, much less than current capacity at each site, which will decrease the numbers of users at any one time in the respective campgrounds and allow vegetation to rehabilitate and wildlife to reestablish.

Restrictions on removal of vegetation during construction will result in positive long-term impacts to vegetation, soil and water resources. The restrictions would reduce the amount of surface disturbance and reduce erosion and sedimentation to the Rio Grande. Noxious plant control and rehabilitation of disturbed areas would result in positive impacts to vegetation, soil and water resources on approximately 2 acres.

Construction of the boat ramp during low flow conditions will prevent excessive turbidity and sedimentation to the Rio Grande. Posts at the top of the boat ramp will prevent vehicles from entering the river, and cottonwoods and willows along the side will deter off-ramp boat traffic.

Most of the facilities should remain screened from the river by thick stands of willow and tamarisk. Proposed landscaping would mitigate any remaining effects of reconstruction activities. The use of native plants to control traffic and human uses as well as to screen facilities will greatly improve the scenic quality of the area.

Patches of pepperweed and other exotic vegetation occur within the campgrounds. All construction equipment will be cleaned before leaving the site to minimize the spread of these species.

Threatened and Endangered Species

To mitigate potential habitat loss on 0.6 acres at the Lone Juniper site, approximately 1 acre of riparian vegetation will be planted near the Taos Junction Bridge. This planting will become part of a long-term plan to manage exotic plant species in OVRA. BLM will develop an exotic species management plan to a) reduce conditions that allow exotics to succeed, and b) re-establish the conditions that allow native plants to thrive, by removing stressors and restoring natural processes to allow for natural recovery. This plan will be done in cooperation with adjacent landowners to ensure long-term success and prevent reinvasion of said exotic species.

Floodplains

Impact to floodplains at the Lone Juniper campground and boat launch has already been assessed in EA #NM-020-99-018. The construction at the Arroyo Hondo campground is primarily located outside of the 100 year floodplain. The bottom most steps of the proposed stairway will likely be built within the 100 year floodplain and may be at risk to loss in the event of high flows. The construction impacts to the floodplain are considered to be short-term and small in scale

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Wetlands and Waters of the US

Impacts to wetlands at the Lone Juniper campsite have been permitted by the Army Corps of Engineers under a 404 Nationwide permit #36 (COE file #2000-00300) that is valid for 5 years.

A site visit to Arroyo Hondo with Jim Woods from the COE occurred on 17 April 2003. During this visit we identified the jurisdictional limit in areas likely to be impacted by reconstruction of the Arroyo Hondo campground. Discussions with the BLM Engineer indicate that the jurisdictional area can be closed off to construction. This area will need to be clearly marked for the contracting crew.

Water Quality

The Lone Juniper campground reconstruction has received a 401 Water Quality Certification (file#2000-025) from the New Mexico Environment Department. This certification stipulates particular best management practices to be used during construction and regulates timing of construction. For example, construction would need to be conducted during low flows. Please see Appendix C for a complete listing of the conditions of the 401 Certification and email from the New Mexico Environment Department.

The impacts of construction in this area could result in environmental degradation without the implementation of best management practices to prevent soil loss and water quality problems. Therefore, the contractor is required to develop a storm water plan and implement best management practices during construction. BLM will be responsible for monitoring this activity.

Construction sites over 1 acre require a 402 Storm Water permit. BLM will submit the required application to be in compliance with existing regulations for Lone Juniper. The Arroyo Hondo construction area is less than an acre and will occur separately and after funding becomes available. Therefore, Arroyo Hondo will not require a 402 permit due to the small size.

Table 5 presents a brief comparison of the level of long-term impact expected on each resource area under each alternative. This is a summary of the general long term impacts.

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Table 5: Comparison of Long Term Impacts for Each Resource Area under Each Alternative

Resource	Proposed Action	No Action
Wild and Scenic Rivers	No impact	No impact
Wilderness or WSA	No impact	No impact
Visual Resources	Consistent with visual planning objectives. Short term changes to vegetation. Long term positive change with increased vegetation and landscaping.	Continued compacted, open areas devoid of vegetation
Recreation	Increased opportunity for universal access, sites would be defined with clarity about where to park, camp, and walk, reduced erosion and vegetative disturbance, improved traffic flow, and screening from river and between sites with landscaping.	Continued erosion and vegetative disturbance. Guidance to improve access, reduce conflict and increase safety would not be followed.
Air and Water Quality	Reduced sediments to the river.	Continued level of sedimentation.
Soils	Reduced erosion. Increased vegetation.	Continued erosion.
Environmental Justice/Socio-Economic	No impact	No impact
Noxious Weeds	Potential for spread of noxious weeds avoided by cleaning heavy equipment prior to construction.	Continued spread of noxious weeds.
Cultural Resources	Potential for site disturbance avoided by flagging off site during trail construction.	No impact
Wildlife/T&E	May affect, not likely to adversely affect.	May affect, not likely to adversely affect.
Floodplains	Short term and small in scale from construction.	No new impacts.
Hazardous or Solid wastes	No impact	No impact
Prime or Unique Farmlands	No impact	No impact
Wetlands or Riparian areas	Corp of Engineers 404 permit for Lone Juniper. Corp of Engineers jurisdictional area of Arroyo Hondo will be closed off during construction.	Continued loss of vegetation and increases in exotic vegetation is likely to occur.
Native American Religious Concerns	No impact	No impact
Grazing Allotments	No impact	No impact

Indirect Impacts of Proposed Action

Recreation and Visual Resources

Increasing a management presence through site controls might change the type of visitor that uses these campgrounds. Typically, recreation managers have been able to reduce unauthorized activity by using methods such as: natural or synthetic barriers, education, and/or patrolling. With these methods there may be a reduction in people who visit that are negligent or intent on vandalism and crime and an increase in more responsible visitors looking to experience the natural environment.

Increasing a management presence through site controls could increase visitor use slightly but it seems to be related to how the site and changes are marketed. Interviews with regional recreation professionals revealed that improvements at an existing trailhead

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with no marketing resulted in no new use (Elder 2003), whereas a new trailhead with a sign on the highway and website advertising resulted in approximately four new visitors per week (Rael, 2003). The BLM Taos Field Office does not intend to change its marketing scheme for OVRA which includes: brochures distributed at a visitor center in Pilar, a visitor center at Wild Rivers Recreation Area, the Taos Field Office, and the Taos Chamber of Commerce visitor center, at this time.

Displacement to Lone Juniper or Arroyo Hondo site could occur if someone planned to visit one of those sites specifically during construction. However, they would still be able to access one of the other six campground sites within OVRA given they are rarely all full at the same time.

Cumulative Impacts

Lone Juniper and Arroyo Hondo are two of six campgrounds scheduled for reconstruction in OVRA. Re-construction of Pilar and Rio Bravo (formerly Orilla Verde) campgrounds is nearly completed. One result of improvements to parking and design of paths to all of these sites is reduced erosion or runoff of sediments into the Rio Grande. Another positive impact would be an improvement to scenic quality from reduced disturbance to natural vegetation and increased landscaping.

Mitigation and Monitoring

The following stipulations will be undertaken. Several steps will be taken to protect avian habitat. One acre of riparian vegetation will be planted at Taos Junction Bridge to replace the .6 acre lost at Lone Juniper. The northwestern 160' of Lone Juniper will be reclaimed by use of barricades, scarifying, and seeding to provide a buffer to a willow stand and potential avian habitat. In addition, an educational sign will be posted at one of OVRA entrances regarding endangered species and habitat. The sign would be created and posted by OVRA staff of seasonal interns.

To protect floodplains and water quality, the Corp of Engineers jurisdictional area will be fenced off during construction. Also the conditions of the 401 Water Quality permit will be met as outlined in file #2000-025 in Appendix C. To protect cultural resources, part of Arroyo Hondo campground will be fenced off during construction. These closed areas and construction activities will be monitored by a BLM engineer.

To prevent the spread of noxious weeds, all heavy equipment will be cleaned prior to construction (as stipulated in the construction contract) and a long term plan to eliminate noxious weeds in these riparian areas will be implemented as called for in the Rio Grande Corridor Final Plan 2000.

All areas disturbed during construction will be reseeded with a native grass mix and randomly planted with willow. Natural or natural looking materials and colors will be used for pathways and facilities. Colors will be submitted for BLM approval.

Success of seeding and tree plantings will be monitored on an annual basis until successfully established by a BLM engineer.

Lone Juniper and Arroyo Hondo Campground EA

Persons and Agencies Consulted

Valerie Williams, Wildlife Biologist, BLM
Paul Williams, Archaeologist, BLM
Greg Gustina, Fisheries Hydrologist, BLM
Herb Chavez, Engineer, BLM
John Bailey, Assistant Field Manager, BLM
Mark Sundin, River Manager, BLM
Tami Torres, Outdoor Recreation Planner, BLM
US Fish and Wildlife Service
New Mexico Environment Department
US Army Corp of Engineers

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