



Albuquerque Field Office

**Riparian and Aquatic Habitat Management Plan
and
Environmental Impact Statement**

Record of Decision

Edwin J. Singleton 10-20-00

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Date

Prepared by:
U.S. Department of the Interior
Bureau of Land Management
Albuquerque Field Office
New Mexico

DECISION

To meet the ongoing need for long-term stewardship of riparian habitats, the Albuquerque Field Office will adopt the Preferred Alternative, described as Adaptive Management, in the *Albuquerque Riparian and Aquatic Proposed Habitat Management Plan (HMP) and Final Environmental Impact Statement (FEIS)*. The Preferred Alternative includes an HMP that provides specific direction for restoring and protecting identified riparian habitats on lands under the jurisdiction of the Bureau of Land Management (BLM) in the Albuquerque Field Office. In addition, the HMP guidance will be applied to riparian habitats under BLM jurisdiction that are subsequently identified by the Albuquerque Field Office.

For over a decade, BLM has emphasized the restoration and protection of riparian areas for the benefit of ecosystem and watershed integrity, unique plant associations, threatened and endangered species, and other riparian-dependent species in New Mexico. Although much has been accomplished to meet BLM goals for riparian area improvement, much more remains to be done. For example, new data on the current condition of riparian habitats need to be obtained and utilized in riparian management. A process for obtaining such data and using it to develop management actions is presented in the HMP. The HMP also gives the public a set of published goals and objectives that the Albuquerque Field Office will use to develop future management actions and to judge the success of riparian stewardship.

ALTERNATIVES

Three alternatives were presented in the *Draft Environmental Impact Statement for Riparian and Aquatic Habitat Management in the Albuquerque Field Office - New Mexico (DEIS)*: (1) Current Management, (2) Adaptive Management, and (3) Grazing Management. While all alternatives followed current regulatory and legal requirements and BLM policy guidance, each alternative provided a different approach, management strategy and set of implementation procedures for achieving riparian habitat stewardship. As a set, the three alternatives also addressed technical and policy issues developed in public scoping.

Under the Current Management Alternative (No Action Alternative), the Albuquerque Field Office would continue to manage riparian areas in accordance with applicable BLM guidance, with the objective of protecting and restoring them in conjunction with other authorized land management activities. This alternative is considered equivalent to the No Action Alternative required by NEPA analysis. Current management has already resulted in the improvement of some riparian areas by restricting domestic livestock use either completely or during the growing season, as well as by implementing other management practices.

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The current plans and activities derive from those aspects of BLM policy and guidance for riparian-wetland area management that seek to protect riparian habitat from potential adverse effects from other authorized uses of the land. Within the Albuquerque Field Office, the policy and guidance is usually applied in the form of stipulations or conditions of approval for other uses that are authorized for the public lands. For example, livestock grazing may be limited by location, season of use, or numbers of animals to protect riparian habitats; mineral developers may be precluded from locating facilities in or adjacent to riparian areas; utility rights-of-way permits may prescribe against any activities that would impair riparian function. In addition, authorization for other uses of the land may require actions such as water development, vegetation manipulation, or bank stabilization to protect or restore riparian habitats as a condition of approval. Finally, current management may also undertake actions specifically designed to protect or restore riparian habitats as a specific Albuquerque Field Office initiative. For example, field inventories have been conducted to determine the condition of riparian habitats under the current budget priorities and staffing levels.

In the late 1980s, the Albuquerque Field Office began to develop special management actions to maintain or restore riparian habitats. In addition, management plans have been developed that specifically pertain to the lands administered by the Albuquerque Field Office, for example, the Rio Puerco Resource Area Southwestern Willow Flycatcher Management Plan and the Rio Puerco Resource Management Plan (RMP). Portions of these documents have relevance for the management of riparian/wetland areas.

Under the Adaptive Management Alternative (the Preferred Alternative), the BLM would assign a high priority to implementing those management practices identified in current BLM management guidance to restore and protect all riparian habitats under BLM jurisdiction. For riparian areas, this alternative would require a specific focus on riparian management, and decisions regarding other land management activities would be constrained to limit or prevent adverse impact on riparian areas.

Application of the Adaptive Management Alternative (the Preferred Alternative) represents a proactive approach to plan and implement strategies for restoring and protecting riparian habitats on the basis of a set of activities intended to achieve measurable improvement of riparian habitat and function. The management actions would be implemented irrespective of other public land administrative actions or functions. Riparian management would receive staffing and budget resources independent of other Albuquerque Field Office business requirements or work tasks. Alternative 2 is based on the concept that riparian habitats are critical elements in the landscape and that specific management actions are necessary to enable them to function at their full potential. BLM policy, direction, and guidance are specifically formulated to accomplish this objective and prescribe a set of comprehensive practices for riparian-wetland management. Compared with the Current Management Alternative, the Adaptive Management Alternative seeks first to do what is necessary to ensure the restoration and protection of riparian areas and then to approve those other

uses to the extent that they are compatible with the preservation of riparian resources.

Implementation of adaptive management practices would involve the following basic procedures:

- (1) Survey and analyze riparian conditions,
- (2) Use survey results to describe a desired future condition and identify appropriate management actions,
- (3) Implement management actions,
- (4) Monitor the success of the management actions, and
- (5) Modify the management actions, if necessary, on the basis of the monitoring results.

The ordered sequence of these procedures describes an adaptive management approach that provides a means to change management activities when monitoring data show that current actions are no longer required or when current actions are not resulting in achievement of a desired restoration or enhancement goal outlined in item 2 above. A guiding principle is that all information is collected and analyzed to judge success in achieving (1) the endpoints associated with proper functioning condition and (2) a desired vegetation composition and structure. It should be noted that when adaptive management practices are being implemented, the development of management actions is a decision outcome derived from the results of baseline riparian area surveys and analyses.

Under the Grazing Management Alternative, the BLM would exclude domestic livestock use in riparian areas by modifying grazing allotments to exclude such areas. For each allotment affected, this provision would include changing the description of the allotment, installing fences or other physical barriers to exclude livestock from riparian areas, and, if appropriate, adjusting the number of livestock permitted to use a modified allotment. This alternative, if selected, may require the amendment of the Rio Puerco RMP.

Many of the riparian areas under the management of the Albuquerque Field Office are within grazing allotments, and grazing is currently allowed (managed or unmanaged) in a number of these areas. Under Alternative 3, the Albuquerque Field Office would develop management actions that would exclude domestic livestock use from these riparian areas.

Following publication of the DEIS and analysis of all comments received, the Preferred Alternative was selected for implementation and is developed further in the FEIS. This alternative

requires a specific focus on riparian management and stewardship such that authorizing decisions regarding other associated land management activities will be constrained to limit or prevent any adverse impact on riparian areas. The HMP component of the FEIS presents a set of actions, procedures, goals and objectives, and monitoring activities that the Albuquerque Field Office will use to implement the Preferred Alternative.

RATIONALE

While each of the alternatives could be expected to accomplish the objective of protecting and restoring riparian habitats, the Preferred Alternative specifies adaptive management practices that incorporate technical survey and data collection protocols tailored to individual riparian areas. Adaptive management allows the Albuquerque Field Office to implement actions on the basis of a clear set of measurable goals in which ongoing data collection is used to measure success in achieving the goals. Since riparian ecosystems are inherently dynamic (i.e., subject to change from year to year), adaptive management provides a process for adjusting decisions and actions to future riparian conditions. Compared with the other alternatives, the Adaptive Management Alternative is simultaneously more focused on achieving riparian habitat objectives and more flexible in identifying and responding to the need for change. In addition, the Preferred Alternative places riparian management on a priority basis that is not dependent on other field office program activities.

By comparison, the Current Management Alternative relies on accomplishing riparian habitat objectives through conditions placed on other authorized land uses. Since the Albuquerque Field Office required new information on riparian conditions and a clear set of restoration goals and objectives, Current Management could result in an *ad hoc* set of riparian management actions that would be implemented in the context of other field office activities. Current management would, by default, continue the dependence of riparian management on the outcome of other field office authorizing activities.

The Grazing Management Alternative would categorically exclude domestic livestock grazing in all riparian areas, but would otherwise rely on continuation of current management to accomplish riparian management objectives. The Grazing Management Alternative is highly prescriptive and continues the dependence of riparian management and riparian restoration on the outcome of other field office actions.

PUBLIC COMMENTS ON THE PROPOSED PLAN

The views of the public have been sought throughout the process of producing the Riparian and Aquatic Habitat Management Plan for the Albuquerque Field Office. Public involvement was initiated and documented in detail during public scoping, including open meetings held early in the scoping process. Public scoping was followed by an open house and public hearing on the Draft

Environmental Impact Statement. The Proposed Riparian and Aquatic Habitat Management and Final Environmental Impact Statement was made available to the public as a printed document, as a digital document (CD-ROM) and placed on the BLM/New Mexico web site at www.nm.blm.gov. All individuals and organizations listed on the current Albuquerque Field Office mailing list for this project have been sent a copy of the Record of Decision to complete the public involvement process. No comments were received on the Proposed Riparian and Aquatic Habitat Management and Final Environmental Impact Statement in the Albuquerque Field Office-New Mexico.

SECTION 7 CONSULTATION UNDER THE ENDANGERED SPECIES ACT

A letter of concurrence with the biological evaluation presented in the Final Environmental Impact Statement (Volume 1) was issued by the United States Fish and Wildlife Service (Service) on October 3, 2000. The BLM is committed to the following actions as agreed to in the Service letter dated October 3, 2000:

- Riparian vegetation monitoring summary reports will be provided to the Service annually after the data become available,
- The BLM will coordinate with the Service to ensure that potential southwestern willow flycatcher habitat is improved to a suitable condition and that suitable habitat is maintained, and
- The BLM will continue southwestern willow flycatcher surveys until the subspecies is delisted or the BLM receives concurrence from the Service that surveys are no longer necessary.

MITIGATION

The Habitat Management Plan presents a set of procedures designed, in part, to mitigate the loss of riparian habitat values through the cumulative effects of past activities. The management strategies contained in the HMP are designed to avoid or minimize adverse environmental impacts as much as possible. The HMP places special emphasis on the protection and enhancement of riparian vegetation and habitat for threatened and endangered species. For example, restrictions on use activities in riparian areas that contain potential habitat for the southwestern willow flycatcher are designed to mitigate past actions that have degraded natural riparian vegetation.

Management actions described in Table 1, 2, and 3, as well as those indicated from monitoring observations, will be implemented using the best available management practices as described in Table 4. The management actions address the need to restore and maintain riparian ecosystem conditions. None of the management actions include tasks that could potentially degrade

riparian conditions. In addition, ongoing monitoring and adaptive management enable the Albuquerque Field Office to proactively respond to changing conditions and to mitigate unforeseen events.

MONITORING AND ENFORCEMENT

Monitoring protocols are prescribed for each identified riparian area (Tables 1, 2, and 3), and adaptive management strategies are designed to adjust management actions to meet riparian habitat objectives. Similarly, monitoring will provide information relative to the effect of other use authorizations that may affect or alter riparian management objectives.

Generally, monitoring activities follow standard procedures outlined in BLM guidance manuals, including photopoints, green line surveys, proper functioning condition (PFC) surveys, and if suitable habitat is present, yearly threatened and endangered species surveys. All monitoring will be conducted according to schedules that reflect the conditions currently found within individual riparian areas. Riparian areas that are currently classified as not in PFC will receive more frequent and intensive monitoring than areas that are at PFC and not threatened by other use activities. Riparian areas subject to seasonal grazing will be monitored to determine whether domestic livestock grazing is impacting riparian habitat.

CONCLUSION

This Record of Decision constitutes the final BLM action on approving the EIS for Riparian and Aquatic Habitat Management in the Albuquerque Field Office - New Mexico. Copies of this Record of Decision are available on request from the BLM, Albuquerque Field Office, 435 Montano Road NE, Albuquerque, NM 87107-4935 or from the New Mexico State Office, Division of Resources, 1474 Rodeo Road, Santa Fe, NM 87505-1689.

TABLE 1 Current Management Actions and Adaptive Management Tasks for the Riparian Areas Administered by the Albuquerque Field Office^a

Riparian Areas	Current Management Situations, Practices, and Activities	Adaptive Management Tasks				
		Survey and Analyze Riparian Areas	Define Required Management Actions	Implement Management Actions	Monitor Management Actions	Modify Management Actions, if Necessary
Rio Gallina	Access road crosses stream, beaver activity present, domestic livestock grazing, no tasks or projects planned or implemented.	PFC rating (1998): FAR-U.	Restrict grazing, improve visitor management, redesign stream crossing.	Dormant season grazing only, improve ford or construct new bridge.	PFC survey every 2 years until PFC; greenline survey every 5 years until PFC.	Fencing may be required to limit domestic livestock grazing.
Rito Leche	Domestic livestock grazing not permitted, north bank fenced in 1986, beaver activity present, south fence needs survey and repair.	PFC rating (1998): PFC miscellaneous monitoring and surveys (e.g., greenline transects, photopoints, breeding bird counts; macroinvertebrate survey).	Restrict domestic livestock access, improve educational and recreational opportunities, potential long-term SWF habitat.	Improve fencing on the south bank, develop nature trail, maintain existing physical boundaries.	PFC survey every 6 years; greenline survey every 6 years.	Cadastral boundary line survey may require several years to complete.
Senorito Canyon	Domestic livestock grazing does not occur, four riparian exclosures (three in 1992, one in 1996), saltcedar treatment since 1995, native woody plantings since 1989.	PFC rating (1998): PFC miscellaneous monitoring and surveys (e.g., greenline transects, photopoints, breeding bird counts, macroinvertebrate survey).	Continue the restriction of domestic livestock grazing, maintain restoration activities, potential long-term SWF habitat.	Maintain riparian exclosures.	PFC survey every 6 years; greenline survey every 6 years.	Cottonwood plantings have not been successful to date, determine cause; work with watershed committee on a long-term plan for entire watershed.

TABLE 1 (Cont.)

Riparian Areas	Current Management Situations, Practices, and Activities	Adaptive Management Tasks				
		Survey and Analyze Riparian Areas	Define Required Management Actions	Implement Management Actions	Monitor Management Actions	Modify Management Actions, if Necessary
Wilson Canyon	Domestic livestock use not permitted, riparian exclosure constructed in 1993, two ponds constructed in 1998, saltcedar control, cottonwood and willow plantings since 1993.	PFC rating (1998): FAR-U, miscellaneous monitoring and surveys (e.g., greenline transects, photopoints, breeding bird counts, macroinvertebrate).	Continue to exclude livestock use, potential long-term SWF habitat.	Maintain exclosures.	PFC survey every 2 years until PFC, greenline survey every 5 years until PFC.	Elk appear to be damaging cottonwoods, implement protective measures, as necessary.
Two Bridges	Potential future (2001+) riparian area, no tasks or projects have been completed, domestic livestock grazing is currently permitted.	Stream flow has not yet been returned to the original channel. Baseline surveys have been completed.	Restrict grazing use and restore water flow and habitat vigor.	Develop riparian exclosure, planned new water releases in or about 2001.	PFC survey every 2 years until PFC, greenline survey every 5 years until PFC.	Rio Puerco Management Group to restore the flow of the Rio Puerco within this channel section in or about 2001.
Coal Creek	Riparian exclosures constructed 1996–1998, some saltcedar treatment completed.	PFC rating (1998): FAR-U, miscellaneous monitoring and surveys (e.g., greenline transects, photopoints, macroinvertebrate survey).	Riparian segment has been withdrawn from the allotment, continue livestock exclusion, potential long-term SWF habitat.	Maintain exclosures.	PFC survey every 2 years until PFC, greenline survey every 5 years until PFC.	Determine the progress of the habitat within the exclosure as it results in PFC.
Cerros Colorados	Invasive species (saltcedar, rabbitbrush, big sage) control and plantings of native woody species continuing.	PFC rating (1998): FAR-U, miscellaneous monitoring and surveys (e.g., photopoints).	Evaluate riparian pasture and formalize dormant season grazing use, potential long-term SWF habitat.	Maintain riparian pasture, develop a plan with surrounding landowners to refine livestock use pattern.	PFC survey every 2 years until PFC, greenline survey every 5 years until PFC.	Evaluation of livestock use and vegetative response, as managed within the dormant season.

TABLE 1 (Cont.)

Riparian Areas	Current Management Situations, Practices, and Activities	Adaptive Management Tasks				
		Survey and Analyze Riparian Areas	Define Required Management Actions	Implement Management Actions	Monitor Management Actions	Modify Management Actions, if Necessary
Cachulie	Fencing along the east channel bank prevents livestock access into the Rio Puerco channel. Use from the west is still possible.	PFC rating (1998): FAR-D.	Negotiate the restriction of livestock with private landowners. Potential long-term SWF habitat.	Consider fencing the west channel bank to restrict livestock use in the Rio Puerco.	PFC survey every 2 years until PFC, greenline survey every 5 years until PFC.	Inability to achieve an agreement with private landowners regarding access to the Rio Puerco.
San Luis Community	Fencing along the east channel bank prevents livestock from having easy access into the Rio Puerco channel. Use from the west is still possible. No tasks or projects have been completed.	PFC rating (1998): FAR-D.	Evaluate dormant season grazing, potential long-term SWF habitat.	New fences to manage access by domestic livestock.	PFC survey every 2 years until PFC, greenline survey every 5 years until PFC, SWF survey every year.	Evaluation of livestock use and vegetative response, as managed within the dormant season.
Lost Valley	Riparian exclosure constructed in 1994, small monitoring exclosure constructed in 1997.	PFC rating (1998): FAR-U. Monitoring and surveys (e.g., greenline transects, photopoints, breeding bird counts).	Evaluate dormant season grazing, potential long-term SWF habitat.	Maintain monitoring exclosures.	PFC survey every 2 years until PFC, greenline survey every 5 years until PFC, monitor vegetation in test exclosure every two years.	Evaluation of livestock use and vegetative response, as managed within the dormant season in achieving PFC.
Cabazon Community	No tasks or projects have been completed.	PFC rating (1998): FAR-U.	Manage domestic livestock access to improve riparian conditions.	Evaluate dormant season grazing, maintain water gaps.	PFC survey every 2 years until PFC, greenline survey every 5 years until PFC.	Determine if fences need to be constructed to control access by domestic livestock.
Rio Salado Community	No tasks or projects have been completed.	PFC rating (1998): Nonfunctional (FAP).	Highly saline environment precludes active restoration program, monitor only.	None planned.	PFC survey every 6 years, greenline survey every 6 years.	Current water and soil quality (highly saline) preclude management actions.

TABLE 1 (Cont.)

Riparian Areas	Current Management Situations, Practices, and Activities	Adaptive Management Tasks				
		Survey and Analyze Riparian Areas	Define Required Management Actions	Implement Management Actions	Monitor Management Actions	Modify Management Actions, if Necessary
Long Ridge	No tasks or projects have been completed.	PFC rating (1998): Nonfunctional (FAP).	Highly saline environment precludes active restoration program, monitor only.	None planned.	PFC survey every 6 years, greenline survey every 6 years.	Current water and soil quality (highly saline) preclude management actions.
Arroyo Chico – Azabache	Riparian enclosure constructed in the western portion in 1998.	PFC rating (1998): FAR-D, miscellaneous monitoring and surveys (e.g., photopoints).	Establish dormant season grazing, a part of the area has been designated long-term SWF potential habitat.	Construct gap fences, develop cooperative agreement with adjacent landowners to control domestic livestock grazing.	PFC survey every 2 years until PFC, greenline survey every 5 years until PFC, monitor vegetation in enclosure after each use period.	Use enclosure data to develop domestic livestock grazing program.
Arroyo Chico – Charlotte's Well	Riparian enclosure (first half 1996, second half 1999), water trough and pipeline provided outside the enclosure.	PFC rating (1998): FAR-U, miscellaneous monitoring and surveys (e.g., greenline transects, photopoints, breeding bird counts, macroinvertebrate survey).	Continue to exclude domestic livestock, establish water rights, potential long-term SWF habitat.	Maintain enclosures.	PFC survey every 6 years, greenline survey every 6 years.	Develop plan of action to establish water rights.
Arroyo Chico – Chico Crossing	Limited cottonwood planting in 1998.	PFC rating (1998): NF.	Curtail livestock access and use. Restore native vegetation.	Determine if fences can be constructed in wilderness study area (WSA), control tamarisk, continue cottonwood planting.	PFC survey every 2 years until PFC, greenline survey every 5 years.	Develop a strategy that will result in the exclusion of domestic livestock grazing in a WSA.

TABLE 1 (Cont.)

Riparian Areas	Current Management Situations, Practices, and Activities	Adaptive Management Tasks				
		Survey and Analyze Riparian Areas	Define Required Management Actions	Implement Management Actions	Monitor Management Actions	Modify Management Actions, if Necessary
Guadalupe Community	No tasks or projects completed.	PFC rating (1998): NF (FAP).	Marginal riparian location, steep banks, current high flows, and degraded upstream watershed conditions preclude the establishment of vegetation.	None planned.	PFC survey every 2 years until PFC, greenline survey every 5 years until PFC.	If PFC surveys show that riparian areas can be improved because of positive changes in the watershed, develop a new domestic livestock grazing plan.
Rinconada Canyon	No tasks or projects completed.	PFC rating (1998): FAR, no trend.	Exclude livestock.	Exclude livestock with use agreement or fenced enclosure; potential bird watching area; possible hiking trail development.	PFC survey every 2 years until PFC, greenline survey every 5 years until PFC, aquatic biota survey.	Develop overall plan in cooperation with other land managers that will result in PFC for all riparian locations in the canyon.
Cebolla Canyon	No tasks or projects completed.	PFC rating (1998): FAR-U.	Develop grazing strategy that results in PFC.	Create riparian pasture.	PFC survey every 2 years until PFC, greenline survey every 5 years until PFC.	Determine if riparian pasture results in PFC, if not develop fencing and exclude from domestic livestock grazing.
Bluewater Canyon	Entire area exclosed in 1989, ACEC status, willows planted in 1989, internal fences and old house removed 1991–1992, parking area established in 1992.	PFC rating (1998): PFC.	Continue current management, identified as current SWF habitat.	Exclude livestock, visitor day use only, hiking only on designated trails.	PFC survey every 6 years, greenline survey every 6 years, SWF survey every year.	Manage as ACEC status lands.

TABLE 1 (Cont.)

Riparian Areas	Current Management Situations, Practices, and Activities	Adaptive Management Tasks				
		Survey and Analyze Riparian Areas	Define Required Management Actions	Implement Management Actions	Monitor Management Actions	Modify Management Actions, if Necessary
Las Huertas Creek	No actions to date.	None completed to date.	PFC survey completed by 2001.	Management actions will be based on results of PFC survey.	PFC survey every 6 years, greenline survey every 6 years.	Results of initial PFC survey required to define management actions.

^a D = downward; FAP = functioning at potential; FAR = functional-at risk; NF = nonfunctional; PFC = proper functioning condition; SWF = southwestern willow flycatcher; and U = upward.

TABLE 2 Management Tasks and Projects Planned or under Consideration for the Specified Wetland Areas within the Albuquerque Field Office Jurisdiction

Wetland Area	Management Tasks and Projects Planned or under Consideration
Cebolla Spring	Develop ponds in the enclosure, with livestock water outside of the enclosure; extend the fence across Cebolla Creek to protect the developing riparian area of approximately 3 acres; remove the area from the associated allotment by official decision.
Charlotte's Well	Remove exotic woody plants, provide long-term cover, replace with native species where possible; conduct macroinvertebrate and fish surveys; place nest boxes in and around lentic area; possible leopard frog transplant site; remove the area from the associated grazing allotment by official decision.
Azabache Flowing Well	Increase open water, provide island and improve for waterfowl nesting habitat; modify drop pipe to raise water level and broaden surface area; remove exotic woody plants and replace with natives, where possible; due to presence of halogeton (noxious weed), careful treatment of the population should be undertaken.
Rio Salado Community	Continue to develop the nature trail; expand the boardwalk across the marsh; maintain treatment of saltcedar and continue with plantings; continue breeding bird, bat, and neotropical bird surveys.
Ojo Frio	Assess and maintain the area, including the associated lotic segment; exclude the riparian area from the allotment by official decision; continue alkali grass monitoring.
La Lena Artesian Well	Extend the fence around the whole lentic area; replace the artesian well connection to provide more efficient wetland supply and livestock water.
Mound Springs	Assess and maintain the sources; establish special status for this area; remove the area from the associated allotment by official decision; survey for rare and sensitive plants and insects.
Oak Spring	Assess and maintain the source.
Chamisa Losa Spring and Canyon	Assess and maintain the source; further development and protection (e.g., fencing) will depend upon assessment and conditions.
Ojo de las Yeguas	Assess and maintain the source; further development and protection (e.g., fencing) will depend upon assessment and conditions.
Road Spring	Assess and maintain the source; because of the extent of existing and potential lentic vegetation and accessibility to livestock, the area will be protected (e.g., fenced); water will be made available if supply and flow allow.

TABLE 3 Management Tasks and Projects Planned or under Consideration for the Specified Spring/Seep Areas within the Albuquerque Field Office Jurisdiction

Spring/Seep Area	Management Tasks and Projects Planned or under Consideration
Cebollita Spring	Assess and discuss protection of spring and associated lotic reach.
Los Indios Canyon (BLM) Spring	Assess and maintain the area, including the associated lotic reach.
Coal Spring	Assess and maintain the area.
Azabache Station Spring	Assess and maintain the source; further development and protection (e.g., fencing) will depend upon assessment and conditions.
Ojo Jarido Spring	Assess and maintain the source.
Moreno Spring	Assess and maintain source.
Toruno Spring	Assess and maintain the source; further development and protection (e.g., fencing) will depend upon assessment and conditions.
Ojo Atascoso	Assess and maintain the source; further development and protection (e.g., fencing) will depend upon assessment and conditions; study and monitor the Parish's alkali grass.
Chupadera Spring	Assess and maintain the source; further development and protection (e.g., fencing) will depend upon assessment and conditions.
Ojo Navajo Spring	Assess and maintain the source; further development and protection (e.g., fencing) will depend upon assessment and conditions.
Lagunitras Spring and Canyon Complex	Assess and maintain the source; further development and protection (e.g., fencing) will depend upon assessment and conditions.
Ojo Alamo Spring	Assess and maintain the source; further development and protection (e.g., fencing) will depend upon assessment and conditions.
Seccion Arroyo Spring	Assess and maintain the source; further development and protection (e.g., fencing) will depend upon assessment and conditions.
Little Joe (Montoya) Spring	Assess and maintain the source; further development and protection (e.g., fencing) will depend upon assessment and conditions.
Kinaird Arroyo Spring	Assess and maintain the source; further development and protection (e.g., fencing) will depend upon assessment and conditions.

TABLE 3 (Cont.)

Spring/Seep Area	Management Tasks and Projects Planned or under Consideration
Smokey Spring	Assess and maintain the source; further development and protection (e.g., fencing) will depend upon assessment and conditions.
Ojo de Guitierrez	Assess and maintain the source; further development and protection (e.g., fencing) will depend upon assessment and conditions.
Chijuilla Spring	Assess and maintain the source; no plans to repair and replace watering facilities; further development and protection (e.g., fencing) will depend upon assessment and conditions.
Dry Spring	Assess and maintain the source; further development and protection (e.g., fencing) will depend upon assessment and conditions.
Elk Spring	Assess and maintain the source; trespass problem must be addressed; acquire the 90 acres of New Mexico State land downstream with the intent of protecting and developing more riparian habitat.
Barrel Spring	Assess and maintain the source; remove livestock water pipe; fence the area; increase lentic water supply.
Tamarisk Spring	Assess and maintain the source; evaluate the need and benefit of further development and protection (e.g., fencing); saltcedar must be treated and replaced with native vegetation.
Endelmann Spring	Assess and maintain the source; further development and protection (e.g., fencing) will depend upon assessment and conditions (this is a unique water source that should be officially protected, and further development should be curbed).
Ojo Grande Spring	Assess and maintain the source; further development and protection (e.g., fencing) will depend upon assessment and conditions.
Armijo Spring	Assess and maintain the source.
Soda Spring	Assess and maintain the source; further development and protection (e.g., fencing) will depend upon assessment and conditions.

TABLE 4 Riparian Area Management Practices

Practice	Objective	Comment
Fencing	Isolate degraded habitats.	Consider big-game migration, public access, beaver activity, falling trees, and vehicles.
Prescribed burns	Modify vegetation communities.	Primarily for upland areas; prudent use in areas of special concerns (e.g., endangered species).
Forestry practices	Improve woody vegetation communities.	Cover or canopy manipulation of coniferous and deciduous stands, woody debris, and slash management.
Vegetation plantings	Reestablish native communities.	Cuttings work well for woody vegetation; insert below water table; seeding generally occurs in fall or spring; rake after application.
Opportunities from mineral activities	Mitigate mineral exploitation effects.	Reclaim to utilize beneficial runoff or drainage; riparian habitat development in association with evaporation ponds; water spreaders to direct runoff from road construction.
Structures	Control erosion.	Bank protection, gradient restoration, water energy-transfer structures, sediment traps, spring developments, removal or modification of channelization structures, etc.
Beaver complex cycling	Transform pioneer woody vegetation into riparian community.	Cycling of beaver complexes; special management to maximize vegetation regrowth rates; maximize initial construction population followed by reductions for maintenance levels.
Bank stabilization	Accelerate soil and water conservation efforts.	Anchoring green trees (or discarded Christmas trees) into banks; log structures (10–12 in. diameter) at base of bank; rock in wire baskets (gabions).
Recreation planning	Protect, manage, and improve habitats.	Maintain visitor compliance; retain vegetation; locate sites outside of riparian areas; prohibit vehicles from uncontrolled stream access; plant dense vegetation to screen and reduce use of sensitive areas; install signs; designate sites within riparian areas.
Road relocation, construction, and maintenance	Protect, manage, and improve habitats.	Locate outside of riparian area; prohibit vehicles from leaving roads; install signs; minimize impact to stream bank and vegetation; revegetate disturbed areas; design and maintain culverts to allow fish passage and free debris flow; haul waste material away.
Public education	Provide information to public land users on protection methods.	Develop environmental education and interpretative displays designed to direct visitor or user behavior in or adjacent to riparian areas.

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