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First name: Paula
Last name: Garcia
Organization: New Mexico Acequia Association
Title: Executive Director
Comments: Alternative A, No Action Alternative

Commented [AO1]: The No-Action Alternative would leave acequia diversions and conveyance systems exposed to erosion and sedimentation, perpetuating risks to downstream agricultural communities. The Environmental Analysis should acknowledge the disproportionate adverse effects of inaction on acequia communities. This baseline should underscore the urgency of coordinated watershed and acequia restoration under Alternative B.

Table 2-1: Considerations used in the Flexible Toolbox Approach for Aquatics and Watershed Restoration ActivitiesCommented [AO2]: The Flexible Toolbox should include acequias as priority restoration features under "Projects that improve impaired waters." The Environmental Analysis should identify acequia diversions as hydrologically significant points within the watershed condition framework. Coordination with acequia commissions can help target riparian and upland treatments that directly reduce sedimentation and protect water quality.Hazard Tree Abatement Around Improvements: Areas within 100 feet of National Forest System (NFS) roads (not including unauthorized or undetermined NFS roads), new and existing fences, new and existing range improvements, powerlines, acequias, springs, and trails.Commented [AO3]: Site-specific coordination with local acequia associations prior to mechanical operations near ditches. Heavy machinery and vegetation removal within as designated distance (in feet) of acequias should be minimized, and any necessary work should employ low-impact methods to prevent bank destabilization and sediment delivery.Hazard Tree Abatement for Watershed ProtectionCommented [AO4]: Treatments near streams that feed acequia diversions should incorporate sediment barriers and debris-catch structures upstream of headgates. The Environmental Analysis should clarify how felled-wood removal will prevent increased turbidity in acequia supply channels. Include acequia systems as monitoring points for watershed-protection effectiveness.Removal of hazardous fuels and harvest of trees to control insects or diseaseCommented [AO5]: When thinning in unburned or low-severity areas, retain vegetative buffers along acequia corridors. NMAA recommends that thinning residues be chipped or removed rather than piled near irrigation ditches to prevent nutrient leaching and erosion during monsoon storms.Aquatic Organism Passages: Completely removing culverts, bridges, or other obstructionsCommented [AO6]: Acequias that have culverts that are damaged and/or need upsizing have been reported through the HPCC Claims process.Aquatic Organism Passages: Replacing improperly sized culverts or bridges with properly sized culverts and bridges [bull] Replacing a damaged culvert or bridgeCommented [AO7]: Bridge and culvert replacements should also address acequia crossings. Where acequia diversions share stream channels, design aquatic-passage structures to maintain irrigation diversion function. Consultation with contractors who are familiar with acequias and/or NMAA technical staff should precede installation.Instream, Side-Channel, and Floodplain ProjectsCommented [AO8]: The New Mexico Acequia Association (NMAA) supports post-fire streambank stabilization but requests that acequia systems be explicitly integrated into streambank-restoration design. Many acequia intakes and conveyance ditches originate along degraded streambanks impacted by debris flow and channel incision. Restoration activities such as bank shaping, soil reinforcement, and vegetative stabilization.Erosion control structures, head cut, and grade stabilization:Commented [AO9]: Prioritize erosion-control and grade-stabilization structures above acequia intakes. NMAA recommends incorporating one-rock dams, log vanes, and willow plantings to trap sediment and protect headgates. Post-implementation monitoring should include acequia turbidity and sediment deposition metrics.Streambank restoration: Commented [AO10]: NMAA supports streambank-restoration activities aimed at stabilizing channels impacted by post-fire runoff and erosion. However, because many acequia intakes and diversion structures are directly connected to these same streambanks, the EA should explicitly recognize acequia corridors as priority restoration sites.NMAA recommends that streambank-restoration designs and implementation plans include the following:[bull] Mapping and prioritization of acequia diversion points and headgates to ensure they are included in bank-stabilization

zones;[bull] Use of bioengineering techniques[mdash]such as willow staking, brush mattresses, and live fascines[mdash]that reinforce banks naturally while maintaining acequia access for maintenance and limpieza;[bull] Avoidance of riprap or hard-armoring materials that may redirect flow or undercut acequia embankments during high flows;
[bull] Coordination with local acequia commissioners, mayordomos, and parciantes during design and implementation to align streambank work with acequia repair and sediment-management priorities; and[bull] Integration of long-term monitoring to assess post-restoration sedimentation, turbidity, and structural stability near acequia diversion points.Implementing these measures will ensure that streambank-restoration efforts strengthen both the hydrologic resilience of the watershed and the functional continuity of New Mexico[rsquo]s traditional acequia systems, which are vital for agricultural recovery and cultural heritage in the fire-impacted communities.Legacy structure removal:Commented [AO11]: NMAA agrees that ineffective or failing grade-control structures should be removed but urges the Forest Service to verify that legacy features with acequia utility are not inadvertently eliminated. In several tributaries, historic rock or log structures serve dual functions[mdash]providing aquatic habitat complexity while stabilizing acequia diversion flows. Prior to removal, the agency should:[bull] Consult with local acequia commissions and the New Mexico Office of the State Engineer to identify structures tied to water-righted diversions;[bull] Evaluate whether partial modification rather than full removal can improve habitat while maintaining irrigation stability; and[bull] Ensure that any removal does not cause channel incision or sediment pulses that threaten downstream headgates.Where removal is necessary, replacement with low-impact natural-material weirs that maintain channel grade and flow continuity into acequias is recommended.Channel reconstruction or relocation:Commented [AO12]: Channel reconstruction and relocation must explicitly assess impacts to existing acequia intakes, diversion dams, and legal points of diversion. Because many acequias are hydrologically connected to streams proposed for realignment, NMAA requests that:[bull] Hydrologic and geomorphic modeling include acequia diversion points to prevent unintended dewatering or redirection of supply flows;[bull] Any proposed gradient or sinuosity adjustment maintain the hydraulic head required for acequia diversion;[bull] Design plans be reviewed jointly with acequia commissioners, mayordomos, and parciantes before final alignment approval; and[bull] Construction sequences include temporary bypass systems or protective berms to ensure continuous acequia operation during restoration.NMAA further recommends that restored channels incorporate grade-control features or vegetated benches to trap sediment before it reaches acequia intakes, supporting both water-quality protection and long-term maintenance efficiency.Off- and side-channel habitat restoration:Commented [AO13]: NMAA supports reconnecting floodplains and side channels as part of holistic watershed recovery but emphasizes the need to consider downstream acequia hydrology. Creating or reopening side channels can alter flow distribution and sediment routing that directly affect acequia diversions. To ensure compatibility, the Forest Service should:[bull] Model changes in baseflow and flood routing at known acequia diversion sites before excavation or berm removal;[bull] Install sediment-settling or grade-stabilization structures at reconnected channels to protect acequia intakes from clogging;
[bull] Include acequia corridors as monitoring stations for post-implementation flow and turbidity; and[bull] Engage local acequia commissioners and parciantes early in design workshops to integrate community knowledge of historical flood behavior and irrigation flows.These steps will ensure off- and side-channel projects strengthen overall watershed resilience while safeguarding the cultural and hydrologic continuity of acequia systems.Riparian Vegetation TreatmentsCommented [AO14]: NMAA supports the restoration of riparian vegetation to stabilize soils, improve water quality, and reestablish ecological function in post-fire landscapes. Because many acequia diversions and conveyance systems are directly tied to riparian corridors, this restoration activity is vital for protecting both hydrologic and cultural resources.To ensure that riparian-vegetation treatments fully support acequia recovery and resilience, NMAA recommends the following measures:[bull] Prioritize revegetation upstream and adjacent to acequia headgates, embankments, and conveyance ditches where fire and debris flow have destabilized banks;
[bull] Utilize native, deep-rooted plant species[mdash]such as willow (Salix spp.), cottonwood (Populus deltoides wislizenii), and native sedges[mdash]that reinforce bank stability while maintaining acequia access for annual cleaning (limpieza) and maintenance;[bull] Avoid the use of non-native or invasive grasses that can impede ditch flow or overtake embankments, complicating maintenance;[bull] Limit or prohibit herbicide applications within 100

feet of acequias to prevent contamination of irrigation and drinking water supplies;[bull] Coordinate with local acequia commissioners, mayordomos, and parciantes to schedule planting and stabilization work during non-irrigation periods, reducing interference with water deliveries; and[bull] Establish joint monitoring programs with acequia associations and Soil & Water Conservation Districts to track vegetation success, soil stability, and sediment capture in acequia-fed riparian reaches.Conifer and nonnative invasive plant removal:Commented [AO15]: Re-vegetation plans should favor native species that reinforce acequia banks and shade irrigation waters. Coordinate plantings with parciantes to ensure species do not obstruct maintenance (limpieza). Avoid herbicide use near ditches.Road and trail relocation:Commented [AO16]: When relocating roads or trails, ensure acequia access routes remain open for maintenance vehicles and hand crews. Stabilize decommissioned paths crossing acequias with rock armoring and reseeding. Require notice to acequia associations before any temporary access restriction.Erosion Control:Commented [AO17]: The New Mexico Acequia Association (NMAA) supports erosion-control actions that protect watersheds but emphasizes that many forest roads and trails drain toward acequia corridors and irrigated valley floors. To prevent secondary sedimentation impacts, NMAA recommends that:[bull] All erosion-control designs include mapping of downstream acequia crossings and diversions so that runoff energy and sediment are intercepted before reaching ditches;[bull] Rolling dips, drainage pipes, and lead-off ditches discharge to vegetated filter strips or sediment basins, not directly toward acequia embankments;[bull] When out-sloping or regrading roads near acequias, project engineers consult with local acequia commissioners and mayordomos to confirm safe flow dispersion away from irrigation infrastructure; and[bull] Monitoring sites be co-located with acequia headgates to evaluate post-construction turbidity and sediment delivery.These measures will ensure that erosion-control improvements simultaneously stabilize upland travelways and safeguard acequia water quality, soil integrity, and long-term operational health.Decommissioning:Commented [AO18]: The NMAA recognizes the ecological value of road and trail decommissioning but requests careful evaluation where routes provide access for acequia maintenance, emergency diversion repair, or seasonal limpieza. Before a route is fully obliterated or recontoured, the Forest Service should:[bull] Inventory and classify any road or trail that serves as a traditional or functional acequia access path;[bull] Engage local acequia commissioners and parciantes to determine whether controlled access must be retained for ditch cleaning, debris removal, or headgate inspection;[bull] Incorporate drivable or walk-in maintenance easements into decommissioning designs where access is essential; and[bull] Apply revegetation and drainage treatments that prevent future gully formation leading toward acequia embankments.NMAA further recommends that decommissioned routes adjacent to irrigation systems include erosion-resistant cross-slopes and native grass seeding to prevent renewed sediment delivery. These steps will allow the agency to meet ecological restoration goals without compromising acequia functionality or community stewardship responsibilities.Restoration of seeps and springs:Commented [AO19]: Springs historically feeding acequias must be cataloged and protected. Restoration designs should maintain flow continuity to downstream ditches. Include acequia users in spring restoration prioritization.Restoration of National Forest System TrailsCommented [AO20]: Many trails parallel or intersect acequias. NMAA requests that reroute designs incorporate erosion-resistant crossings and avoid ditch compaction. Coordination with acequia commissioners is necessary when trail maintenance affects ditch banks or lateral access paths.Restoration of Developed Recreation InfrastructureCommented [AO21]: Campground and picnic-area repairs should identify any nearby acequia channels. Storm-water controls such as bio-swales should prevent runoff into acequias. Public signage can educate visitors about acequia importance and discourage dumping or washing near ditches.Replacing and Repairing BridgesCommented [AO22]: Bridge replacements in Gallinas Canyon must preserve acequia diversion points downstream. Include acequia representatives in hydrologic design reviews to confirm that crossing structures do not redirect flow or increase sediment delivery into ditches.Road and Drainage Improvements, Stabilization, or RelocationCommented [AO23]: Road drainage outfalls should be mapped relative to acequia systems. Install sediment traps or vegetated filter strips at discharge points. When relocating roads, maintain legal acequia access easements.Road MaintenanceCommented [AO24]: Maintenance grading must avoid side-casting material into acequia corridors. Operator training on acequia-awareness and signage identifying irrigation crossings would be recommended.Reconstructing Existing FencesCommented [AO25]: Fence realignment should respect acequia easements and allow maintenance access. Consult acequia commissions prior to post setting within 50 ft of ditches.Virtual Fencing (Base Stations)Commented [AO26]: Base-station placement should

avoid acequia right-of-way corridors and not block access for limpieza or repairs. Coordinate with mayordomos to identify suitable upland locations.Cattle GuardsCommented [AO27]: Cattle-guard excavation can alter hydrology near acequia crossings; install drainage features to prevent redirection of flow into ditches.Corral ConstructionCommented [AO28]: Corrals must not be located in flood-prone areas feeding acequia diversions. Require setbacks and vegetative buffers to prevent manure runoff.Water DevelopmentsCommented [AO29]: New tanks or pipelines sourcing from springs tied to acequias require joint planning with acequia officials to ensure water allocations and flow rights are maintained.Alternatives Considered but EliminatedCommented [AO30]: Clarify whether acequia-specific restoration alternatives (e.g., direct funding or cooperative agreements) were evaluated. If excluded, provide rationale. NMAA urges inclusion of a future programmatic alternative dedicated to acequia repair and resilience.The no action alternative (alternative A) is included in the EA as a baseline for evaluating the environmental effects of the proposed action, as required by NEPA. Under the no action alternative, no coordinated restoration or recovery actions would occur beyond those already planned or underway.Commented [AO31]: The New Mexico Acequia Association appreciates the Forest Service[rsquo]s commitment to watershed recovery. We urge that acequias be formally integrated as both hydrologic infrastructure and cultural heritage systems throughout implementation. Long-term acequia health requires technical assistance, cost-share support, and consistent communication with commissioners, mayordomos, and parciantes. Doing so will align federal recovery with community-based stewardship that has sustained New Mexico[rsquo]s watersheds for generations.