DOE/EA 2552

FINDING OF NO SIGNIFICANT IMPACT FOR THE LOS ALAMOS COUNTY RESERVOIR ROAD PROJECT LOS ALAMOS NATIONAL LABORATORY, LOS ALAMOS, NEW MEXICO

RESPONSIBLE AGENCY: Department of Energy, National Nuclear Security Administration, Los Alamos Field Office

ACTION: Finding of No Significant Impact

SUMMARY:

The Los Alamos County Department of Public Utilities (LADPU) is planning to restore and address sedimentation from post wildfire flooding impacts in Los Alamos Canyon. This restoration project includes: the upper watershed area above the reservoir, the reservoir, and the area where Los Alamos Canyon Creek, water pipeline and access road run parallel to each other down the valley. LADPU is collaborating with contractors who specialize in bio-engineering and low impact stream restoration techniques, to reduce erosion and preserve riparian health while maintaining pipeline and access road infrastructure.

The project is located on United States Forest Service (USFS) and Department of Energy (DOE)/National Nuclear Security Administration (NNSA) lands. Los Alamos County retains a 40-foot-wide easement for the road surface between the reservoir and West Road. The project is being done in coordination with the NNSA and the U.S. Forest Service as the land managers for the project area.

The DOE/NNSA portion of the project is located at the far bottom end (east) of the project area near the intersection of the Creek with West Road and starts about 500 feet above the intersection. The DOE/NNSA project area is about 1000 feet long and is centered around a concrete stream crossing on the road that is presently covered with sediment from the erosion upstream in the burned watershed.

Purpose and Need:

Los Alamos Canyon Creek was severely burned by two fires; the Cerro Grande Fire in 2000 and the Las Conchas Fire in 2011. The almost complete elimination of the forest canopy and ground cover has increased runoff rates in the watershed. Consequently, increased runoff creates an enormous amount of erosion in Los Alamos Canyon, which filled the Los Alamos Reservoir several times with rock and debris. Initial observations indicate that the source of sediment is from the destabilization of the channel of Los Alamos Creek in the upper watershed. This sediment has filled Los Alamos Reservoir several times and is beginning to encroach on the reservoir again. Until the upstream watershed and Los Alamos Creek are stabilized and revegetated, this process is likely to continue for many years.

Downstream from the reservoir, the Los Alamos County water pipeline, conduit, and road have been destabilized and washed out by several extreme flood events. These events threaten access

to the reservoir and the safety of the pipeline and associated infrastructure. This issue is exacerbated by the original realignment of the channel to accommodate the roadway and pipeline. The channel of Los Alamos Canyon Creek in one location is at a higher elevation than the road and pipeline; overbank flows are forced towards the road embankment, leading to a continuing problem with flooding and erosion of the road base.

Proposed Action:

LADPU has contracted contractors to create a bio-engineering and geomorphic restoration design to mitigate the continuing erosion and channel instability within Lost Alamos Canyon. The project would maintain a stable and functioning stream channel that would provide habitat for wildlife and have the capacity to move sediment and water downstream. This naturally stable channel would be maintained by the installation of cross vanes, rock riffle features, and log vanes. These natural channel design structures would be constructed using natural materials and work to create natural channel features such as pools and riffles that provide habitat to aquatic organisms.

The road would be restored to a functioning and stable condition by using the sediment removed from the reservoir as a resource to re-build the road base. Natural materials such as ponderosa logs and boulders would be used to construct log and rock vanes (barbs) to protect the road from floodwater.

Proposed Design by Location

Upper Watershed

The primary source of flooding and sediment is the upper watershed of Los Alamos Canyon, including Quemazon Canyon. The channel in the upper watershed is extremely destabilized, with areas of deep gullying, headcutting and erosion. The sediment produced by erosion moves downstream in flood events and is deposited in wide, flat locations in the channel. This leads to additional destabilization and can begin more gullying and incision.

A conceptual design for Los Alamos Canyon channel restoration has been prepared and would involve careful implementation of restoration techniques using rubber-tracked machines such as excavators and skid steers to move native materials such as boulders and logs to create a stable channel and floodplain. Revegetation using native riparian plants such as Coyote willow, bluestem willow and narrow-leaf cottonwood would be done by machine, and possibly hand planting with contractor support and volunteers off DOE property.

Reservoir

The LA Canyon Reservoir is an original water supply to Los Alamos. It is still part of the County's water supply allocation by the State. It is used as a non-potable water source for irrigation or supplemental fire suppression water and has the distinction of being the only "swimming hole" in the County and is widely used for recreation by families. However, years of filling with sediment and sediment removal have left it with steep, eroding banks, little shade, and poor water quality. The winter snowmelt of 2019 began to fill the reservoir with sediment again, and this sediment is reducing water storage capacity and introducing nutrients such as

phosphorus. The reservoir would be dredged, and sediments used to raise elevation of the access road base.

Below the Reservoir

This section begins where Los Alamos Canyon Creek approaches the road at a narrow point in the canyon with cliffs on both sides of the valley. An approved LA County on-call construction company would move dredged sediment to build up road base elevation in this area where creek and road are side by side.

Where the valley is wider and can contain both a bankfull channel and a flood-prone area (25-year floodplain), the road would be filled in with dredged material and protected with rock vanes. Rock vanes are placed at a 20-degree upstream angle to the road and dip downward into the floodplain at about 15 degrees. Water rolls off of the vane and returns into the floodplain, leaving sediment behind the vane which gets colonized by riparian vegetation for additional bank stability.

Vanes are more effective than riprap alone as they reduce scour at the road embankment by directing the flow of the water away from the road to the tip of the vane arm. Willows and cottonwoods would be planted by contractors between the vanes to add additional root stability and roughness to the road embankment.

The channel in this reach has been filled in due to the large flood events that impinged upon and washed away the road base. During the flood, the Creek flowed into the road and the remaining channel was left as a backwater. Sediment carried in the flood filled the channel in and riparian vegetation colonized this vegetation. Careful clearing of the channel of vegetation and removal of flood debris from the floodplain would maintain channel capacity for the next large flood event. Throughout this section of the project, the bankfull area, approximately 10 feet wide, will have large vegetation over 2 inches in diameter clipped.

DOE/NNSA Property

The DOE/NNSA portion of the project is located at the far bottom end of the project area near the intersection of the Creek with West Road and starts about 500 feet above the intersection. The project area is about 1000 feet long and is centered around a concrete stream crossing the road that is presently covered with sediment from the erosion upstream in the burned watershed. All of the project boundary that is within DOE/NNSA portion falls within Core and Buffer habitat for the Jemez Mountains salamander (JMS). The JMS is endemic to the Jemez Mountains. DOE/NNSA surveyed the area for cultural resources in 2017 and none are present in the project area.

At the downstream end of the project area, the road has impinged on the floodplain and channel, and a narrow, 10-foot swath exists between the road and the hillside for Los Alamos Canyon Creek. The Creek would be cleared of excess sediment and the road embankment protected with rock vanes.

The low water crossing is designed to carry large flows across the road; however, the wide and flat surface does not maintain sediment transport across the road. Creating an armored low water

crossing with a narrow active channel in the center will ensure that gravel and sand are washed through the crossing, and it remains clear of sediment. This will reduce the amount of maintenance needed at this crossing and prevent it from getting clogged and forcing the Creek to flow elsewhere.

Downstream, a cross vane weir would provide grade control to protect the road and direct the flow of the Creek into the center of the channel. Several rock vanes would protect the downstream, north, bank of the Creek.

EA REVIEW AND COMMENT:

The United States Department of Agriculture Forest Service has prepared an Environmental Assessment for the Northern New Mexico Riparian, Aquatic, and Wetland Restoration Project (EA) and subsequent Decision Notice and Finding on No Significant Impact to analyze the potential effects of restoration activities for riparian, aquatic, and wetland activities on the Carson, Cibola, and Santa Fe National Forests and the Kiowa National Grassland. This project location and activities are covered by this EA under two project categories: 1) *Instream, Side-channel, and Floodplain Projects*. Activities included in this category include: a) erosion control structures, head cut and grade stabilization, b) large wood, boulder and gravel placement, porous boulder weirs and vanes, gravel augmentation, tree removal, c) legacy structure removal, d) channel reconstruction/ relocation and of-and-side channel habitat restoration, and e) set back or remove existing berms, dikes and levees, 2) Road and trail erosion control, relocation, and decommissioning. Activities included in this category include a) blocking the entrance, b) revegetating and water barring, c) removing fills and culverts, d) establishing drainage-ways and removing unstable road shoulders, e) and use of porous road fill, or implementing full obliteration recontouring and restoring natural slopes.

Public scoping was held from October 4 to November 4, 2019. The Forest Service posted a scoping notice designed to elicit comments, concerns, and issues pertaining to the Proposed Action Alternative on its website and mailed approximately 675 scoping letters to individuals, public organizations, and agencies. A total of 32 comment letters or emails were received during the public scoping period. All comment letters were reviewed for substantive comments, and contact information for each commenter was entered into a master database. All substantive comments were considered in the development of the Northern New Mexico Riparian, Aquatic, and Wetland Restoration Project EA.

On May 1, 2020, the Forest Service initiated another 30-day public comment period on the Draft Northern New Mexico Riparian, Aquatic, and Wetland Restoration Project EA through publication of a legal notice in the Albuquerque Journal, the newspaper of record. Legal notices were also published in the Taos News and Union County Leader. Comments were received from 29 individuals.

All comments received during the comment period on the Draft EA are fully responded to in a response to comments document available on the project website (https://www.fs.usda.gov/project/?project=56975). The substantive comments received during the public comment period on the Draft EA were focused on impacts to riparian vegetation,

livestock grazing, water resources, fish and wildlife, special status species, tribal interests and traditional cultural resources, land use, recreation, special designations, and air quality. A number of comments were focused on the NEPA process or suggested particular changes to the Proposed Action or design criteria.

To initiate tribal consultation, the Forest Service invited 34 Tribes in October 2019 to participate in government-to-government consultation on the proposed project. The Forest Service held a meeting with attendees from the Pueblo of Sandia, Pueblo of Pojoaque, Pueblo of Santa Ana, Pueblo of Tesuque, Pueblo of Cochiti, and Pueblo of Santa Clara on November 14, 2019, and with members of the Hopi Tribe on March 11, 2020, to discuss the project and tribal concerns. After the draft EA was released, the Forest Service met virtually with Pueblo of Santa Ana, Pueblo of Tesuque, Pueblo of San Felipe, and Pueblo de San Ildefonso on June 11, 2020. A list of Tribes, agencies, and persons consulted regarding this proposal is provided in Chapter 4 of the EA.

AGENCY CONSULTATION: Formal consultation with the U.S. Fish and Wildlife Service (USFWS) pursuant to Section 7 of the Endangered Species Act was conducted for the EA (BO #02ENNM00-2020-F-0337). The Forest Service's Biological Opinion stated: "Implementation of the Selected Alternative includes conservation measures that will minimize effects to: Jemez Mountains Salamander; New Mexico meadow jumping mouse; Mexican spotted owl; Zuni bluehead sucker; southwestern willow flycatcher; yellow-billed cuckoo; Chiricahua leopard frog; Alamosa springsnail; Wright's marsh thistle; Mexican gray wolf; and Holy Ghost ipomopsis. USFWS issued a Biological Opinion on December 14, 2020, concluding that the project may affect and is likely to adversely affect New Mexico meadow jumping mouse and its designated critical habitat, Jemez mountains salamander and its designated critical habitat, Mexican spotted owl and its designated critical habitat, southwestern willow flycatcher and its designated critical habitat, Zuni bluehead sucker and its designated critical habitat, and Holy Ghost ipomopsis. The USFWS concurred that the proposed action may affect but is not likely to adversely affect the yellow-billed cuckoo, Chiricahua leopard frog, Alamosa springsnail and the Wright's marsh thistle. The USFWS also concurred that the proposed action may affect but is not likely to jeopardize the continued existence of the Mexican gray wolf. The BA and EA contain additional information to support the rationale for this determination. As a result, I have determined that the Selected Alternative will not result in significant adverse effects to any threatened or endangered species or their critical habitats.". The Forest Service's conclusion is predicated on the full implementation of the project as described in the EA and incorporation of all stated mitigation measures. For this project all mitigations will be implemented by Los Alamos County.

A Biological Assessment was prepared for the portion of the Proposed Action located on DOE/NNSA property (consultation number 2023-0098599). The consultation is complete (consultation number 2023-0098599), and the biological opinion was received with specific requirements for the DOE section of the project. Habitat does exist at LANL for the Southwestern willow flycatcher (*Empidonax traillii extimus*), the Mexican spotted owl, and the Jemez Mountains salamander (*Plethodon neomexicanus*). LANL biologists evaluated these species individually in this assessment. No habitat for the flycatcher or owl would be removed

or disturbed during project activities. Thus, the proposed action would have no effect on this species or its' designated critical habitat. The proposed actions would occur in Jemez Mountains salamander core and buffer habitat. The occupancy status of an area is very difficult to ascertain for this species and all project areas are assumed to be occupied. A detailed analysis of the potential magnitude of the effects led to the assessment decision that this action may adversely affect the Jemez Mountains Salamander. Several conservation measures shall be implemented by Los Alamos County to mitigate these effects as much as possible.

DETERMINATION: NNSA has independently reviewed the USFS's final EA and determined that the analysis meets President's Council on Environmental Quality and DOE NEPA regulations, and adequately assesses and discloses the environmental impacts of the Proposed Action. Based on the NNSA's independent evaluation, the Final EA is hereby adopted by DOE (DOE/EA 2552) for this Proposed Action pursuant to 40 C.F.R. § 1506.3.

Based on the evaluation presented in the final EA, DOE has determined there would be no significant impact from proceeding with the Proposed Action. The basis of this determination, provided all specified mitigations identified in the project floodplain assessment are implemented by Los Alamos County, is that there are no adverse direct, indirect, or cumulative environmental effects that would likely result from the Proposed Action based on the analysis of relevant issues of environmental concern in the EA and the implementation of mitigation actions.

The DOE therefore approves this Finding of No Significant Impact (FONSI) for the portions of the project on DOE/NNSA property with mitigation measures pursuant to the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.). the Council on Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA (40 CFR 1500), and DOE NEPA Implementing Procedures (10 CFR 1021). No Environmental Impact Statement is required for this proposal. The Forest Service portion of this Proposed Action will also use the analysis in the final EA and previous Forest Service determination of a FONSI.

FOR FURTHER INFORMATION CONTACT: For further information on this EA, contact Ms. Kristen Dors, NEPA Program Manager, U.S. Department of Energy, National Nuclear Security Administration, Los Alamos Field Office (NA-LA), 3747 W. Jemez Road, Los Alamos, NM 87544 or via email at NA-LA_NCO@nnsa.doe.gov.

For further information on the DOE NEPA process contact the Office of NEPA Policy and Compliance (GC-54), U.S. Department of Energy, 100 Independence Avenue, SW, Washington DC 20585: telephone (202) 586-4600 or (800) 472-2756.

Issued this 15th day of March 2024, in Los Alamos, New Mexico.

Theodore A. Wyka

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