Floodplain Statement of Findings
for the Los Alamos Canyon
Sediment Reduction and Restoration Project,
Los Alamos National Laboratory
Los Alamos County, New Mexico

AGENCY: U.S. Department of Energy (DOE) National Nuclear Security Administration (NNSA), Los Alamos Field Office

ACTION: Floodplain Statement of Findings

DESCRIPTION Of THE PROPOSED ACTION: Los Alamos Department of Public Utilities (LADPU) has contracted with Keystone Restoration Ecology and Natural Channel Design Engineering to create a bio-engineering and geomorphic restoration design to mitigate the continuing erosion and channel instability within Lost Alamos Canyon. LADPU has received a River Stewardship Grant from the State of New Mexico's Surface Water Quality Bureau to work on channel instability and restoration of channel form and function. In addition, LADPU and Los Alamos County have contributed a large amount of funding to design and construct the phases of the project that require an engineering and construction approach, such as dredging the reservoir, re-building the access road to the Los Alamos Canyon Reservoir, and protecting the road and water pipeline from future flooding events. Los Alamos County is proposing a bioengineering approach so that the channel will be carefully excavated to a stable form so that it can carry flood events in the channel rather than spilling on the floodplain. This project will maintain a stable and functioning stream channel that will provide habitat for wildlife and have the capacity to move sediment and water downstream. This naturally stable channel will be maintained by the installation of cross vanes, rock riffle features and log vanes. These natural channel design structures are constructed using natural materials and work to create natural channel features such as pools and riffles that provide habitat to aquatic organisms.

The U.S. Department of Energy (DOE)/National Nuclear Security Administration (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 (Figure 1). 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. This statement of finding, while providing information on the entire project, is only a requirement of DOE.

LOCATION WITHIN A FLOODPLAIN EXPLANATION: Given that restoration activities focus on the floodplain, there are no practical alternatives that would avoid an action within the floodplain.

ALTERNATIVES: The alternatives available to DOE/NNSA include the no action alternative. The no action alternative was not selected by DOE/NNSA because without treatment and restoration of the watershed, channel erosion will continue to occur along the access road, banks, and channel bed of Los Alamos Canyon Creek. The Creek will continue to erode and change course to flow into the road, which is currently 5 feet lower than the Creek elevation. Continual maintenance of the road will cause additional destabilization of the Creek. Sediment is continually dredged from the reservoir and used for road repairs. This sediment also continues to be eroded in large flood events and deposited downstream in highly impaired and contaminated portions of Los Alamos Creek which are more complicated and a higher risk to treat and restore.

FLOODPLAIN PROTECTION STANDARDS: The proposed project would result in limited and minor direct and indirect impacts to the Sandia Canyon 100-year floodplain and would not result in adverse impacts to the floodplain's values or functions. Temporary disturbance within the

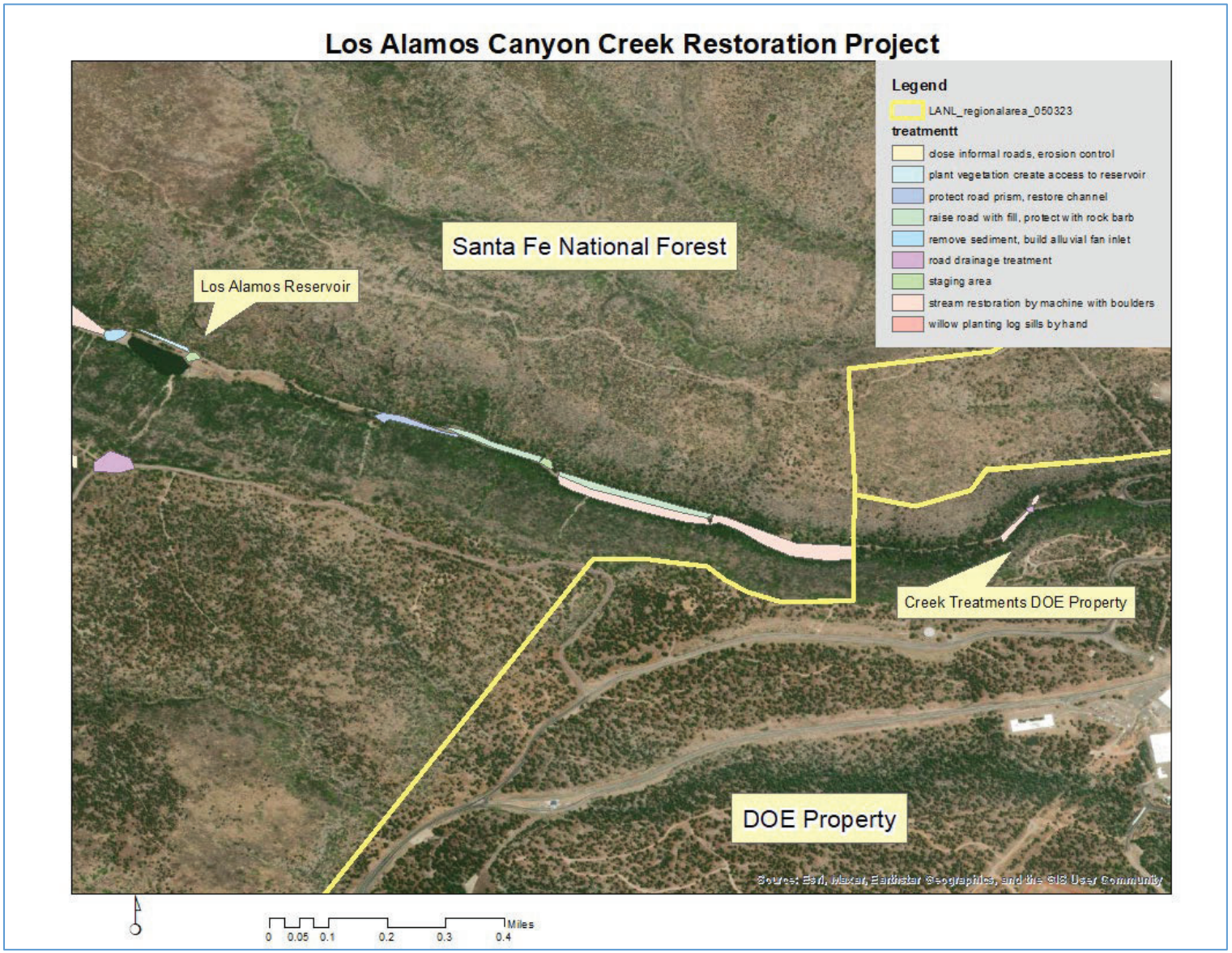

Figure 1. Map of Property Boundaries and Creek Treatments on DOE Lands.

floodplain would cease following completion of installation activities. Best management practices would be implemented. This proposed project would not significantly modify flow paths within the floodplain from pre-project conditions to post project conditions. No effects to lives and property associated with floodplain modifications are anticipated.

STEPS TO BE TAKEN TO MINIMIZE POTENTIAL HARM TO OR WITHIN THE FLOODPLAIN: Potential short-term direct and indirect floodplain impacts from construction would include soil compaction, removal of habitat, and change of aesthetics. Indirect adverse environmental effects involve temporary impacts to the project area with regards to noise and pollution from heavy machinery. These impacts will cease following completion of construction activities.

Other short-term direct and indirect impacts from the project will be avoided or minimized through implementation of the following best management practices:

- Rubber tracked machinery will be used for all stream restoration work, reducing soil compaction impact.
- All machinery will be re-fueled away from the creek and other water sources.
- The disturbance area will be minimized; pre-existing disturbed areas will be used for staging areas for machinery and materials.
- Whenever possible, in-stream structures will be built by equipment remaining on the existing access road with the machine reaching into the stream channel.
- Vegetation will be cut at grade; roots will remain in place.
- All disturbed soils will be revegetated using native species appropriate for this elevation and forest type.
- Compliance with the Migratory Bird Treaty Act (MBTA) requires that no vegetation removal occurs during the peak bird breeding season, May 15 through July 31, unless biological resources staff at LANL have conducted a nest check to ensure that there are no nesting birds present. If active nests are found, the nest tree or bush will be left until the nesting is complete.
- All debris (eg. construction material) will be removed from the floodplain at completion.
- All field equipment (including footwear) used within/or passing through the LANL Jemez Mountains salamander habitat areas will be required to follow the disinfectant protocol standards set to ensure *Batrachochytrium dendrobatidis* (Bd) is not transported between sites (i.e., all equipment must be sprayed clean of all soil and vegetation debris, and then all equipment and footwear must be sprayed with either 3% solution of 6% concentrate of household bleach or 1% solution of Virkon S. This includes application of the disinfectant to all field tools, machinery, vehicles, and work boots before entry, between sites, and after exiting the field.
- Retention of downed logs larger than 12 in. (30 cm) in diameter will be retained, when possible. Rocks/boulders will be left in place, when possible.
- Any “hazard trees” within DOE lands will be evaluated by a LANL biologist before final disposition.
- No earthwork or ground disturbing activities will take place during active weather events (e.g., rainfall), or if standing water are present.

- All work will be completed before 5 pm daily, to avoid disturbance of the nearby Turkey Vulture roosting area.
- Revegetation removal will avoid rare plant species such as *Corallrhiza wisteriana* (Spring Coralroot Orchid), *Moehringia macrophylla* (Bigleaf Sandwort), *Lactuca biennis* (Blue Lettuce), and *Sedum cockerelli* (Cockerell's Stonecrop).
- Revegetation will include a variety of native species not only willows and cottonwoods.

The long-term impacts of this restoration project will be a positive impact to the riparian area, wildlife habitat and public recreation. Beneficial long- term effects from the restoration of Los Alamos Canyon Creek include a reduction of sedimentation from the creek running onto the access road. Improvements in water quality and aquatic habitat are expected. Although the project will impact the aesthetics of the area in the short term, overall vegetation will re-sprout and the creek will be more accessible for public use.

SUPPLEMENTARY INFORMATION: A Floodplain Statement of Findings was prepared in accordance with Executive Order 11988, *Floodplain Management* and DOE implementing regulations 10 Code of Federal Regulations 1022 *Compliance with Floodplain and Wetland Environmental Review Requirements* and provided a summary of the *Los Alamos National Laboratory Floodplain Assessment for the Technical Area 72 Outdoor Live Fire Range Storage Units Installation Project* (Floodplain Assessment) analysis and determination.

The notification for the availability of the Floodplain Assessment and request for comments was sent to appropriate government agencies, tribes, organizations, and persons known to be interested in or potentially affected by the proposed floodplain action via the GovDelivery system and published online on September 11, 2023, for a 15-day public review and comment period on the DOE National Environmental Policy Act (NEPA) website at https://energy.gov/nepa/articles/los-alamos-canyon-sediment-reduction-and-restoration-project-floodplain-statement. Ten comments were received that were not specific to the DOE/NNSA portion of the project. These comments were sent to the project team for consideration in project planning and implementation. Several recommendations provided by the public are now included in the steps to be taken to minimize impacts.

FOR FURTHER INFORMATION ON THIS STATEMENT OF FINDINGS CONTACT: For further information or questions regarding this Floodplain Statement of Findings contact Ms. Kristen Dors via email at Kristen.Dors@nnsa.doe.gov; fax (505) 667-5948 or mail to:

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