

**Floodplain Statement of Findings
for the
Los Alamos National Laboratory Floodplain Assessment for the Primary Circuit
Extension from Technical Area-36 to Technical Area-68**

September 2020

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: In support of the Water Canyon Test site that supports mission critical programs that respond to current and emerging threats by providing the capabilities for the research, development, and equipment calibration for imaging techniques to detect materials of interest the NNSA is proposing to take action at Los Alamos National Laboratory (LANL) Technical Areas (TA) 36 and 68 (Figure 1). The Primary Circuit Extension to TA-68 Project is proposing to construct approximately 1 mile of a 13.8 kilovolt electrical power distribution line from TA-36, southeast across the Fence Canyon and Water Canyon 100-yr floodplains to the TA-68 Water Canyon Test Site. Ultimately, a fiber optic cable would be added to the power line structures to provide reliable internet to the site. A 50-foot (ft) wide corridor would be cleared and maintained free of woody vegetation for maintenance and fire safety requirements. The distribution line is a combination of single pole and 2-pole supports.

There are two Areas of Concern¹ (AOCs) within the project area. The power line will cross both floodplains and their respective AOCs. Risk assessment results indicate the Water Canyon and Fence Canyon AOCs are below risk levels to the recreational user. AOC construction disturbed areas will be stabilized and revegetated with perennial localized native vegetation following completion of construction activities. There is no requirement to characterize and dispose of excavated soils offsite, which is typical, as the soils will be relocated within the AOC construction zone and stabilized. All personnel conducting work in and around the AOCs will be made aware of potential site contamination and adhere to established procedures that are protective of worker health and safety.

Soil will not be removed during corridor thinning or equipment access. No poles would be placed in Fence Canyon. Soils excavated from the Water Canyon AOC during pole placement (Figure 1 - poles 16, 17, 18) would be stabilized within the construction limits and the site revegetated. All personnel conducting work in and around the AOCs [Fence and Water Canyons] will be made aware of potential site contamination.

LOCATION WITHIN A FLOODPLAIN EXPLANATION: There are no alternatives that would have ensured the uninterrupted research, development, and equipment calibration for imaging techniques to detect materials of interest while avoiding activities within the floodplain.

ALTERNATIVES: Two action alternatives were considered. The first was placement of a 100 kilowatt (kW) portable generator at the Water Canyon Test Site. A 100kW generator would require significant maintenance and operation challenges. The second alternative considered was the installation of a 100kW photovoltaic solar array panels and a 120 volt inverter. The solar array would require the clearing of 800 square meters of trees and brush plus removal of any vegetation, primarily trees that would shade the solar array. The project could incur downtime during adverse climatic conditions (e.g., snow, overcast skies) and nighttime operations would require the addition of a battery bank to provide 24 hours a day power. The

¹ An AOC is any area having a known or suspected release of hazardous waste or hazardous constituents that is not from a solid waste management unit and that the Secretary of New Mexico Environment Department has determined may pose a current or potential threat to human health or the environment.

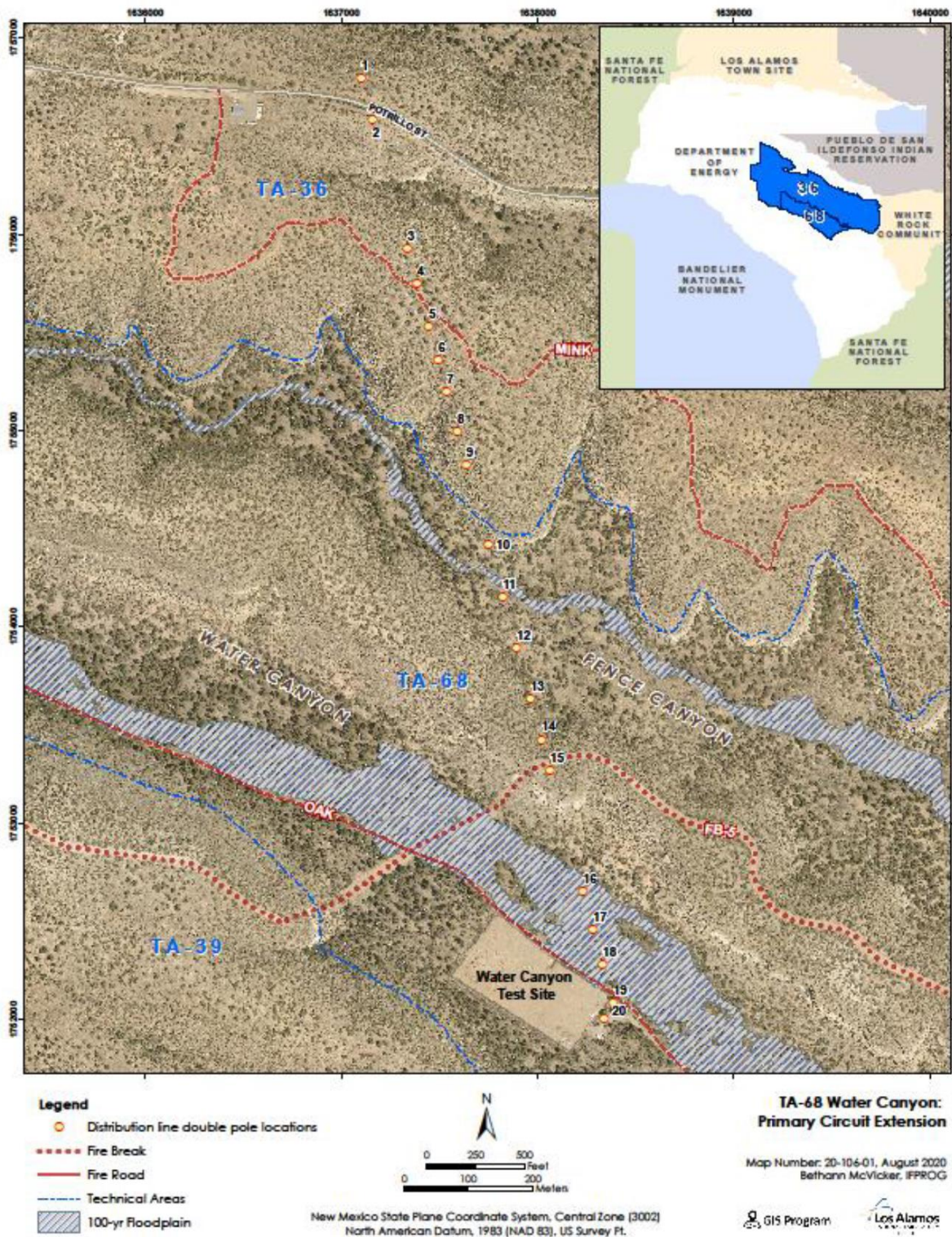


Figure 1. Location of the Fence Canyon and Water Canyon 100-yr floodplains and distribution line pole locations in Technical Areas 36 and 68.

battery bank would require an additional building to provide for battery protection and safe storage. Regular maintenance of the solar array and battery bank would be required with the battery bank having a service life less than the project. Given that the cost of a solar array, batteries, inverter, and battery storage structure was estimated to be similar to the power line this alternative does not have an advantage

compared to power line construction and operation. The No Action alternative would not meet the purpose and need for the project.

FLOODPLAIN PROTECTION STANDARDS: The Proposed Project will result in limited impacts to the 100-yr floodplains via changes in vegetation structure [shrub and tree clearing] but will not result in adverse impacts to the floodplain values or functions. There would be no adverse effects to lives and downstream property. Temporary disturbance within the floodplain will cease following completion of construction activities. Best management practices will be implemented throughout the construction activities including revegetation of disturbed areas. This proposed project will not significantly modify existing elevations and flow paths within the floodplain from pre-project conditions to post project conditions. Post construction, the floodplain would retain the similar preconstruction floodplain values and functions as present prior to the electrical power distribution line construction and operation. No impacts to human safety, health and welfare, or private property would occur as the natural and beneficial floodplain values will be preserved. The Proposed Action, with implementation of project mitigation measures, conforms to applicable floodplain protection standards.

STEPS TO BE TAKEN TO MINIMIZE POTENTIAL HARM TO OR WITHIN THE FLOODPLAIN: Engineering and administrative controls to limit soil erosion, sediment loss, and spills and leaks will be in place during and after construction. Specific mitigations include the following:

- Construction scarred areas would be revegetation post construction.
- Controls will be in place to limit soil erosion, sediment loss, and fuel spills during and after construction. Heavy equipment will not be used if conditions are too wet to prevent damage to the soil structure. Equipment will be refueled at least 100ft from the Canyon bottoms. Project disturbed areas will be stabilized and revegetated post construction
- If vegetation removal is required during the nesting season (May 15 through July 31), an onsite inspection for bird nests by LANL Biologists would be required. Construction activities will conform to requirements stipulated in the LANL migratory bird best management practices.

Although the proposed project will result in limited and minor impacts to the 100-yr floodplains, including changes in vegetation structure within the 50ft maintenance corridor, it will not result in adverse impacts to the floodplain values or functions.

SUPPLEMENTARY INFORMATION: This 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 provides a summary of the *Los Alamos National Laboratory Floodplain Assessment for the Primary Circuit Extension from TA-36 to TA-68* (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 August 12, 2020 for a 15-day public review and comment period on the NNSA Reading Room at <https://www.energy.gov/nnsa/other-environmental-documents> and on the DOE website at <https://www.energy.gov/nepa/downloads/floodplain-assessment-primary-circuit-extension-ta-36-ta-68-los-alamos-national>. Two sets of comments were received on the Proposed Action and considered by NNSA prior to issuance of this Floodplain Statement of Findings. No further analysis nor modification to the Floodplain Assessment were found to be required.

FOR FURTHER INFORMATION CONTACT: For further information on this proposed floodplain action contact Ms. Vicki Loucks via email at vicki.loucks@nnsa.doe.gov or mail information requests to Ms. Vicki Loucks, NNSA Los Alamos Field Office, 3747 West Jemez Road Los Alamos, NM 87544.