

NA-LA NEPA COMPLIANCE OFFICER (NCO) COMPLIANCE DETERMINATION FORM  
LAN No: 17-08

<b>PROJECT/ACTIVITY TITLE:</b> Los Alamos County Reservoir Waterline Replacement Project	<b>Accession No:</b> 22767 <b>PRID No:</b> 17P-0089	<b>Date:</b> October 25, 2017
<b>PURPOSE:</b> Los Alamos County (County) Department of Public Utilities proposes to replace the irreparably damaged original 10" steel non-potable water line from the Los Alamos Canyon Reservoir to the Los Alamos Townsite so that the storm water runoff from Los Alamos Canyon watershed may be claimed and utilized by the County. Approximately 2,880 linear feet (lf) of the 7,200 lf pipeline corridor would cross Department of Energy (DOE) lands via an existing easement. The Federal action triggering a NEPA review is the proposed pipeline construction within the DOE and United States Forest Service (FS) easement and Special Use Permit respectively, with the County and, when completed, County maintenance and operation of the County owned and operated pipeline on DOE and FS lands.		
<b>Location:</b> The pipeline would originate at the existing Los Alamos Canyon Reservoir dam control valve and extend approximately 7,200 lf down Los Alamos Canyon (eastward) to reconnect to the existing 10" pipeline that continues to the Los Alamos Townsite. Starting from the Los Alamos Canyon Reservoir dam control valve and running east, approximately 4,320 lf of the pipeline route is on FS land within the Santa Fe National Forest, Española Ranger District. The remainder of the pipeline route is within DOE land via an existing easement with Los Alamos County. See Figure 1.	<b>Project Contact:</b> Cassandra Begay, NA-LA Utilities & Sustainability Program Manager, (505) 665-4246	
<b>NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) COVERAGE:</b> Department of Energy National Environmental Policy Act Implementing Procedures 10 Code of Federal Regulations Part 1021, Appendix B to Subpart D of Part 1021—Categorical Exclusions Applicable to Specific Agency Actions:  <i>B5.4 Repair or replacement of pipelines</i> Repair, replacement, upgrading, rebuilding, or minor relocation of pipelines within existing rights-of-way, provided that the actions are in accordance with applicable requirements (such as Army Corps of Engineers permits under section 404 of the Clean Water Act). Pipelines may convey materials including, but not limited to, air, brine, carbon dioxide, geothermal system fluids, hydrogen gas, natural gas, nitrogen gas, oil, produced water, steam, and water.  The FS has concluded that the proposed action on FS lands is categorically excluded from documentation in an environmental impact statement or an environmental assessment and a decision memo is not required. The Special Use Permit will be modified accordingly with no further NEPA action required.		

## BACKGROUND

The original 10" non-potable water pipeline that was aligned in the streambed downstream from the Los County Reservoir in Los Alamos Canyon was destroyed from floods due to the lack of vegetation caused by the Cerro Grande and Las Conchas wildfires.

**DESCRIPTION OF PROPOSED ACTION**

The County proposes the construction and operation of a 7,200 lf, 10" SDR-11<sup>1</sup> High Density Polyethylene Pipe (HDPE) butt-welded, non-potable (purple stripe) pipe, including two connections to an existing 10" steel pipe, on both the western and eastern ends of the proposed project location (Figure 1.). Additionally, one 6" fire hydrant with 6" gate valve would be installed, along with two 10" gate valves on the eastern end of the pipeline. The conveyed water would not be treated [non-potable] and used for landscape irrigation in the Los Alamos Townsite.

The proposed new pipeline would connect at its upper (western) terminus at the existing (original) pipe location at the base of the Los Alamos Canyon Reservoir dam, extending approximately 7,200 lf down the canyon (eastward) in the recently reconstructed roadway prism<sup>2</sup> to a point adjacent to the currently existing gate (DOE land), where it would turn northward to cross the stream bed, in easement, to reconnect to the existing (original) 10" pipeline that extends into town (Figure 1). The primary ground disturbance involves trenching through fill material. The reservoir has filled in several times from flooding that resulted after the Las Conchas Fire. The sand and gravel material dredged from the reservoir was used to build-up the roadway to a height of 4 - 6 feet. The trenching would stay within the road surface and would not trench deeper than the fill material, leaving buried native surfaces undisturbed.

The western end of the project would have two options:

1. Conventional excavation-and-bury pipe installation, requiring some additional earthwork
2. Pipe installation by HDD<sup>3</sup>, excavating only for the point of connection below the dam

Additionally, four pre-cast concrete section structures 2' wide, 4' height, and approximately 48' long, would be buried alongside the new pipeline to protect those sections that would be most vulnerable to the stream's tendency to change course during flood events.

The final portion of the project at the eastern limit, near the Los Alamos Canyon West Road would remove the existing water system control appurtenances, along with the concrete vault structure which is on DOE lands.

The abandon irreparably damaged 10" pipeline would remain in place.

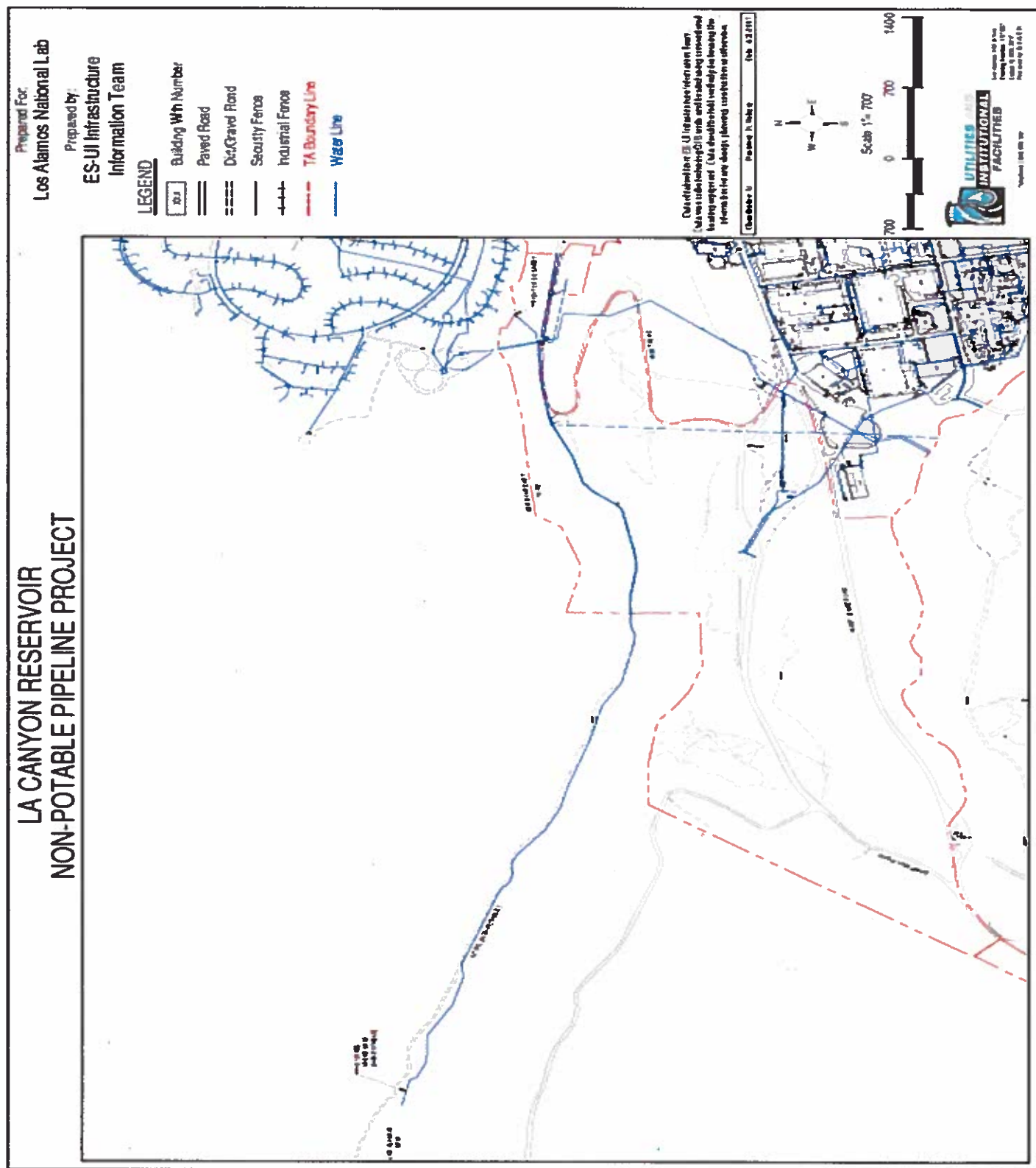
Post construction; slope restoration and erosion control measures, including reseeded would be conducted.

The estimated project start date is November or December, 2017 with an anticipated project completion date of March 30, 2018.

<sup>1</sup> SDR = "Standard Dimension Ratio" is used by many PE pipe manufacturers as a method of rating pressure piping. SDR 11 means that "D" outside diameter of the pipe is eleven times the thickness "s" of the wall. With a high SDR ratio the pipe wall is thin compared to the pipe diameter and would have a low pressure rating. With a low SDR ratio the pipe wall is thick compared to the pipe diameter and would have a high pressure rating.

<sup>2</sup> Roadway prism - That portion of the highway right of way between back of ditch, bottom of ditch, back of curbs including slopes, shoulders, pavement and a median of less than sixteen feet in width.

<sup>3</sup> Directional boring, commonly called horizontal directional drilling or HDD, is a steerable trenchless method of installing underground pipe, conduit, or cable in a shallow arc along a prescribed bore path by using a surface-launched drilling rig, with minimal impact on the surrounding area. Directional boring is used when trenching or excavating is not practical.



### Figure 1: Project Location

**IMPACT ASSESSMENT**

See Table 1 below for an assessment of potential impacts.

**Table 1. Environmental Factors Checklist**

<b>Environmental Factor</b>	<b>Analysis</b>
<b>Land Use</b>	No change to current conditions.
<b>Visual</b>	Post construction there would be no change to current conditions.
<b>Geology and Soils</b> (geologic hazards, soil productivity, capability, erodibility, and mass failure)	No change to current conditions.
<b>Water</b> (surface and groundwater quality and quantity, groundwater recharge, streamflow regimes)	There would be no alteration to surface or groundwater quality or flow.
<b>Non - radiological Air Quality</b>	Very minor increase in dust and exhaust generation during construction
<b>Radiological Air Quality</b>	N/A
<b>Noise</b>	Localized and very minor increase in noise during construction.

NA-LA NEPA COMPLIANCE OFFICER (NCO) COMPLIANCE DETERMINATION FORM  
LAN No: 17-08

Environmental Factor	Analysis
<b>Ecological</b> (floodplains, wetlands, threatened or endangered species and habitat, migratory birds, exotic organisms)	<p>In compliance with 10 Code of Federal Regulations Part 1022—<i>Compliance With Floodplain And Wetland Environmental Review Requirements</i> DOE has determined the proposed action would be within the Los Alamos Canyon floodplain. Therefore, DOE prior to construction, will complete a floodplain assessment; publish a notice of proposed floodplain action allowing a 15 day public comment period; followed by a floodplain statement of findings; and endeavor to allow a minimum of 15 days for public review prior to implementing the proposed action.</p> <p>The project would not be located in a wetland.</p> <p>There would be no effect to threatened or endangered species or their habitat or migratory birds as the pipeline would replace the existing pipeline within the existing roadway. No exotic organisms would be introduced during construction or operation of this project.</p> <p>Construction disturbed areas would be re-contoured and reseeded as necessary.</p> <p>The Española Ranger District, Santa Fe National Forest Biological Assessment reached a determination of No Effect to any Federally listed threatened and endangered species<sup>4</sup>.</p>
<b>Human Health – Radiological Impacts on the Public</b>	N/A
<b>Human Health – Chemical Impacts on the Public</b>	N/A
<b>Human Health – Worker Health</b>	Standard construction practices that are protective of worker health and safety would apply.
<b>Cultural Resources</b> (archeological and historical)	No effect. There are no cultural resources present within the construction corridor.
<b>Socioeconomics</b>	No change to current conditions.
<b>Infrastructure</b> (roads, utility corridors, communications systems, energy & fuels, distribution systems, and water)	The replacement pipeline would restore water service infrastructure that was destroyed during flooding events.
<b>Waste Management</b>	Very minor amounts of construction waste that would be disposed of in a legally prescribed manner.

<sup>4</sup> Biological Assessment for the Los Alamos Reservoir Pipeline. Española Ranger District, Santa Fe National Forest Sandoval County, New Mexico. Prepared by Raulin W. Amy, Wildlife Program Manager, Santa Fe National Forest. September 2017.

NA-LA NEPA COMPLIANCE OFFICER (NCO) COMPLIANCE DETERMINATION FORM  
LAN No: 17-08

Environmental Factor	Analysis
Transportation	For safety considerations; during construction the public would have limited or no pedestrian or bicycle access to the Los Alamos Canyon Reservoir. Privately owned motorized vehicles have been and would continue to be prohibited from roadway use.
Environmental Justice	N/A
Facility Accidents	N/A

### CONCLUSION

There are no extraordinary circumstances related to the proposed action that may affect the significance of the environmental effects or threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, or similar requirements of DOE or Executive Orders. Based on this NEPA determination analysis; the Española Ranger District, Santa Fe National Forest determination of no effect to any Federally listed threatened and endangered species [see footnote 4]; and that effects are similar to both DOE and Santa Fe National Forest resources this project meets the criteria for a DOE and a US Forest Service categorical exclusion. Consequently, no further NEPA analysis is necessary or required.

### NEPA Determination

Based on my review of the Proposed Action, as the National Nuclear Security Administration's Los Alamos Field Office (NA-LA) NEPA Compliance Officer (as authorized under DOE Order 451.1B), I have determined that the Proposed Action as described herein, falls within the DOE NEPA Implementing Procedures listed in 10 CFR Part 1021, Subpart D, Appendix B 10 CFR Part 1021, Appendix B to Subpart D of Part 1021—Categorical Exclusions Applicable to Specific Agency Actions: Categorical exclusion *B5.4 Repair or replacement of pipelines*. **However, prior to construction the floodplain assessment and public notification and comment period must have been completed. Should any changes to the proposed action be identified during the floodplain assessment process the project will undergo further NEPA review.**

There are no extraordinary circumstances related to the proposed action that may affect the significance of the environmental effects or threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, or similar requirements of DOE or executive orders. If changes are made to the scope of the action so that it is no longer bounded by the enclosed description, or the project is changed to encompass other actions, NEPA requirements for the action would need to be reassessed at that time and further analysis may be required.

NA-LA NEPA Compliance Officer: Jane Summerson	Date:
Signature: 	10/26/17