

**PROJECT-SPECIFIC CATEGORICAL EXCLUSION FOR THE UPGRADE
AND INSTALLATION OF A WATER SUPPLY LINE IN THE 300 AREA OF
THE HANFORD SITE, PACIFIC NORTHWEST NATIONAL
LABORATORY, RICHLAND, WASHINGTON**

Proposed Action:

Pacific Northwest National Laboratory (PNNL) proposes to install new water supply lines to upgrade the existing drinking water system and service the occupied facilities of the 300 Area of the Hanford Site in Benton County, Washington.

Location of Action:

The new water supply lines will be located in the 300 Area of the Hanford Site in Benton County, Washington, within the project area shown in Figure 1. The majority of the project area is within a developed area and is adjacent to or along access roads, parking lots, and other infrastructure. Approximately 0.8 km (0.5 mi) of the 3.2 km (2 mi) of new waterlines are located within previously disturbed, marginal shrub-steppe habitat.

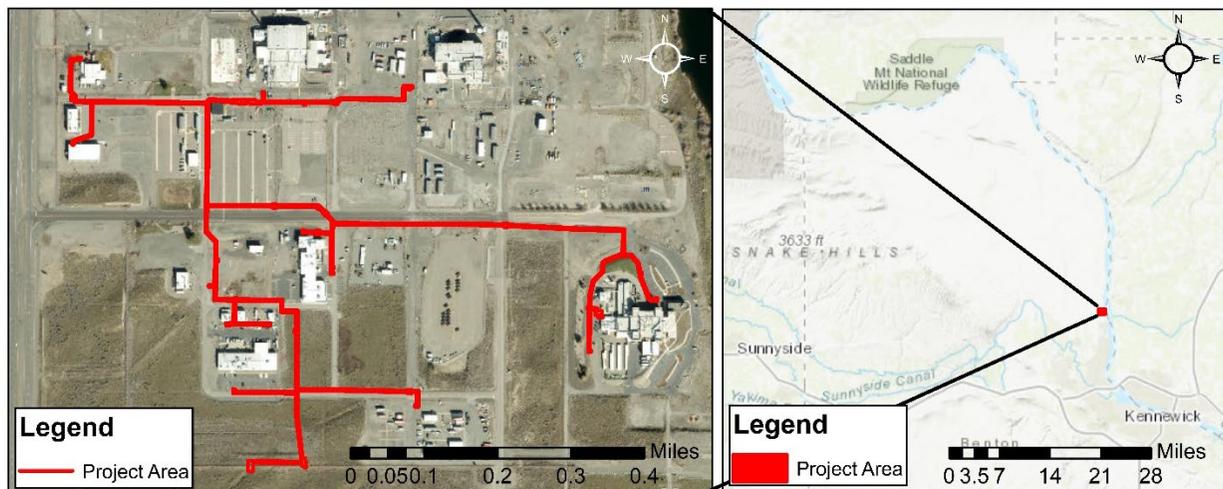


Figure 1. The Project Area.

Description of the Proposed Action:

The proposed action is to install new water supply lines to upgrade the existing drinking water system and support occupied facilities in the 300 Area of the Hanford Site. When the 300 Area drinking water system was originally designed and installed there were many more buildings and personnel in the area. As a result of Hanford cleanup activities and changing U.S. Department of Energy (DOE) mission, there are now significantly fewer of both. As a result, drinking water usage has declined and is causing stagnation and low levels of chlorine in the lines, which necessitates

regular flushing of the lines as well as supplemental chlorination. Replacement of the water supply line is expected to eliminate the need for regular flushing and supplemental chlorination.

The upgraded water supply line will be a standalone water supply line that will service the occupied buildings in the 300 Area with quality drinking water. To achieve this, the new waterlines will be routed to each facility and connected to 300 Area buildings. At each facility location the old waterlines separate in a “T” with separate entries in the buildings for fire and drinking water. The project will isolate the fire waterline and connect the new drinking water system supply to the existing drinking water entries at the buildings. The existing water supply line will remain in place and act as the fire waterline. The new waterline will be connected to the PNNL North Infrastructure water supply lines at the southern end of the 300 Area. Environmental impacts associated with the PNNL North Infrastructure project have been evaluated in the *Final Environmental Assessment and Finding of No Significant Impact for Pacific Northwest National Laboratory Richland Campus Future Development* (DOE/EA-2025).

Installation of the new water system will require approximately 3.2 km (2 mi) of trenching to route water to all facilities along the route shown in Figure 1. The trenching will be approximately 0.6 m (2 ft) wide and up to 1.2 m (4 ft) deep. Excavation dimensions for line intersections, valve/hot boxes, cleanouts, and building tie-in areas will be approximately up to 3 m (10 ft) by 3 m (10 ft) and 2.4 m (8 ft) deep to allow safe working area for personnel. The disturbed areas will be backfilled upon completion of waterline installation. Within the approximately 0.8 km (0.5 mi) long portion of the project area that intersects vegetated habitat, disturbed areas will be revegetated following requirements in the *Hanford Site Biological Resources Management Plan* (DOE/RL-96-32 Rev. 2) and the *Hanford Site Revegetation Manual* (DOE/RL-2011-116, Rev. 2).

The proposed action also includes reasonably foreseeable actions necessary to implement the proposed action, such as excavation, equipment and material staging, waste management, equipment maintenance, award of contracts, and revegetation. These activities would be managed in accordance to, and in compliance with, DOE orders, as well as federal, state, and local regulations and guidelines.

Biological and Cultural Resources:

Biological and cultural resource reviews have been conducted for the proposed action to evaluate potential impacts to environmental resources. The biological and cultural resource reviews found the proposed action would have no significant impacts to sensitive resources.

The biological resource review identified plant and animal species listed as threatened or endangered at the state level; candidate, threatened, and endangered species listed under the federal Endangered Species Act (ESA; 16 U.S.C. 1531-1544); and avian species protected under the Migratory Bird Treaty Act (16 U.S.C. 703-712). The biological resource review includes an evaluation of the protected species with the potential to occur in the project area, along with an analysis of potential impacts to priority habitats as defined by Washington State.

The biological resource review found that the proposed action would not affect species listed as threatened or endangered by Washington State or under the ESA. The biological resource review characterizes the project area as previously disturbed based on the vegetative community, substrate, and proximity to existing infrastructure such as fencing, powerlines, and the existing waterline.

Migratory birds may occur in the project area but given the scope of the proposed action, habitat within the project area, and requirements in the biological resource review, adverse effects to migratory birds are not expected. Biological resource review recommendations will be followed to assure there are no adverse impacts to sensitive species and resources. The biological resource review will be updated on an annual basis until the proposed action is completed. If an update to the biological resource review finds that resources may be adversely impacted, the use of this categorical exclusion (CX) would be reevaluated. Potential options could be, but are not limited to, changing the proposed activity location, the development of mitigation measures to render the impacts not significant, or the performance of additional National Environmental Policy Act (NEPA) analysis and review.

The cultural resource review was conducted to comply with the National Historic Preservation Act (54 U.S.C. 306108). A literature review was performed to determine the extent of known cultural resources within a 500 m (0.31 mi) radius of the project area. Based on this information, DOE made a finding of “No Adverse Effect”. DOE initiated consultation with the Washington State Historic Preservation Officer (SHPO) on September 6, 2023. The SHPO provided written concurrence with DOE’s finding on October 17, 2023.

Categorical Exclusions to be Applied:

As the proposed action is to upgrade a waterline, the following CX, as listed in the DOE NEPA implementing procedures, 10 CFR 1021, would apply:

- B5.4 *Repair or Replacement of Pipelines*
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.

Eligibility Criteria:

The proposed activity meets the eligibility criteria of 10 CFR 1021.41O(b) because the proposed action does not have any extraordinary circumstances that might affect the significance of the environmental effects, is not connected to other actions with potentially significant impacts [40 CFR 1508.25(a)(1)], is not related to other actions with individually insignificant but cumulatively significant impacts [40 CFR 1508.27(b)(7)], and is not precluded by 40 CFR 1506.1 or 10 CFR 1021.211 concerning limitations on actions during environmental impact statement preparation.

The "Integral Elements" of 10 CFR 1021 are satisfied as discussed below:

INTEGRAL ELEMENTS, 10 CFR 1021, SUBPART D, Appendix B (1)-(5)	
<i>Would the Proposed Action</i>	Evaluation
Threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health?	The proposed action would not threaten a violation of regulations, DOE orders, or Executive Orders.
Require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities?	No waste management facilities would be constructed under this CX. Any generated waste would be managed in accordance with applicable regulations in existing facilities. Waste disposal pathways would be identified prior to generating waste and waste generation would be minimized.
Disturb hazardous substances, pollutants, or contaminants that preexist in the environment such that there would be uncontrolled or unpermitted releases?	No preexisting hazardous substances, pollutants, or contaminants would be disturbed in a manner that results in uncontrolled or unpermitted releases.
<p>Have the potential to cause significant impacts on environmentally sensitive resources, including, but not limited, to:</p> <ul style="list-style-type: none"> • protected historic/archaeological resources, • protected biological resources and habitat, • jurisdictional wetlands, 100-year floodplains, • Federal- or state-designated parks and wildlife refuges, wilderness areas, wild and scenic rivers, national monuments, marine sanctuaries, national natural landmarks, and scenic areas. 	<p>No environmentally sensitive resources would be adversely affected by the proposed action. Refer to the Biological and Cultural Resources section for details regarding the completion of cultural and biological resource reviews.</p> <p>The proposed action would not cause significant impacts to floodplains, wetlands regulated under the Clean Water Act, or other specially designated areas. Per 10 CFR 1022 there are no base or critical floodplains present in the project area and there are no wetlands present in the project area per the U.S. Fish and Wildlife Service National Wetlands Inventory.</p>
Involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species?	The proposed action does not involve the use of genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species.

Summary of Environmental Impacts:

The following table summarizes environmental impacts considered when preparing this CX determination.

Environmental Impacts Considered when Preparing this CX Determination	
<i>Would the Proposed Action</i>	Evaluation
Result in more than minimal air impacts?	There may be temporary and localized dust and fumes from construction equipment during waterline installation. These would be minimized as necessary, using water applications or other emission controls, and would be compliant with applicable permits, local, state, and federal regulations, DOE orders, and PNNL guidelines.
Increase offsite radiation dose measurably?	The proposed action would not increase offsite radiation dose.
Require a radiological work permit?	The proposed action is not expected to require a radiological work permit, however, if unexpected radiological materials are encountered during the excavation process a radiological work permit may be required.
Discharge any liquids to the environment?	There may be minor quantities of liquid effluents as a result of the proposed action, for example, construction rinse water, hydrotest water, cleanup rinse water, and water used for soil compaction after excavation. Effluents will be managed in accordance with applicable regulations and best management practices.
Require a Spill Prevention, Control, and Countermeasures plan?	The proposed action is not expected to require a formal Spill Prevention, Control, and Countermeasures plan. Standard best management practices would be implemented to prevent and control accidental releases of fluids or erosion from project work.
Involve hazardous, radioactive, polychlorinated biphenyl, or asbestos waste?	The proposed action has the potential to involve hazardous, radioactive, or asbestos waste. There is potential for the existing pipes to contain asbestos or lead. Due to the excavation area, there is potential for waste to be radioactive. All waste will be disposed of following best management practices through existing disposal pathways.

<p>Use carcinogens, hazardous, or toxic chemicals/materials?</p>	<p>The proposed action may involve the use of carcinogens, hazardous and/or toxic chemicals and materials. For example, excavation equipment might contain or require the use of chemicals such as antifreeze, hydraulic fluids, or fuel. Utility alteration activities might require the use of adhesives, cleaning solvents, and other potentially toxic substances. Project inventories would be maintained at the lowest practicable levels, and chemical wastes would be recycled, neutralized, or regenerated if possible. Product substitution (use of less toxic chemicals in place of more toxic chemicals) would be considered when reasonable.</p>
<p>Cause more than a minor or temporary increase in noise level?</p>	<p>Equipment used for installing the waterline may cause short-term, intermittent increases in noise. These would be typical of construction equipment and would be within regulatory limits and temporary.</p>
<p>Create light/glare, or other aesthetic impacts?</p>	<p>Construction of the waterline may require construction lighting to allow for work to proceed after dark. This would be a temporary impact and no other aesthetic impacts are expected to occur.</p>
<p>Require an excavation permit (e.g., for test pits, wells, utility installation)?</p>	<p>Installation of the waterline will require a Hanford Site Excavation Permit. All permits will be acquired prior to construction and activities will abide by all applicable permit requirements.</p>
<p>Disturb an undeveloped area?</p>	<p>The location of the proposed action is within land that has been changed such that its functioning ecological processes have been and remain altered by human activity. Though the vegetated area is disturbed, revegetation will occur to minimize the environmental impacts of this project.</p>
<p>Result in more than minimal impacts on transportation and public services?</p>	<p>The proposed action will not have more than minimal impacts on transportation and public services.</p>
<p>Disproportionately impact low-income or minority populations?</p>	<p>The proposed action will not disproportionately impact low income or minority populations.</p>
<p>Require environmental or other permits from federal, state, or local agencies?</p>	<p>Federal, state, and/or local environmental permits will be required for the proposed action. All permits will be acquired prior to construction and activities will abide by all applicable permit requirements.</p>

Compliance Action:

I have determined that the proposed action satisfies the DOE NEPA eligibility criteria and integral elements, does not pose extraordinary circumstances, and meets the requirements for the CX referenced above. Therefore, using the authority delegated to me by DOE Policy 451.1, I have determined that the proposed action may be categorically excluded from further NEPA review and documentation.

Signature: _____

Tom McDermott
PNSO NEPA Compliance Officer

cc: ES Norris, PNNL