



## NEPA Categorical Exclusion Determination Form

**Program or Field Office:** U.S. Department of Energy (DOE) Office of Legacy Management (LM)

**Project Title:** Install Groundwater Monitoring Wells at the Tuba City, Arizona, Disposal Site in 2023

**Location:** Tuba City, Arizona, Disposal Site

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### Proposed Action or Project Description:

The U.S. Department of Energy (DOE) Office of Legacy Management (LM) is proposing to:

drill and install 14 groundwater monitoring wells at the Tuba City, Arizona, Disposal Site in 2023, which is located on Navajo Nation land approximately 6 miles east of Tuba City. DOE LM has an extensive network of groundwater monitoring wells at the site and installing additional monitoring wells would enhance evaluation and monitoring of contaminated groundwater within and outside the site boundaries.

The 14 monitoring wells would be installed in pairs in 7 compact areas outside the site boundaries on the south, east, and west sides of the disposal cell, with the wells in each pair approximately 10 feet apart and projected to range from 30 – 240 feet in depth. Contaminated soil is not present at the locations that would be drilled and uncontaminated water from an onsite well would be used as a source to support the proposed work. The planned drilling method is roto sonic, with mud or air rotary options, though other drilling methods could be considered depending on drilling conditions encountered at the site. A drilling subcontractor under Legacy Management Support (LMS) contractor oversight would drill and install the wells in accordance with project plans and Navajo Nation requirements, which use State of Arizona well drilling and construction requirements as guidelines. Well drilling and installation would generally consist of the steps listed below.

- Equipment used to drill the wells and support well installation would travel to the proposed well locations using existing site roads and vehicle paths. Proposed well locations would be adjacent to or only a short distance from those site roads and vehicle paths. Equipment (some tracked) used for the well drilling and installation could include the drilling rig, a water truck, an extended lift or forklift, and trucks with trailers used to support the project and haul project equipment and materials (e.g., drilling rods and well casing, pumps and hoses, mixers, cement mix, bentonite pellets, and fuel). An LMS contractor-approved fueling plan would be used for fueling equipment onsite. Small quantities of gasoline or diesel fuel would be kept temporarily onsite to refuel equipment, such as in a pickup truck bed fuel storage tank.
- If necessary, a small area of vegetation could be removed from each proposed drilling location. Removal could include cutting vegetation off at ground level or uprooting vegetation as needed. However, the site has sparse desert vegetation, with frequent areas of no vegetation, therefore vegetation removal would likely be unnecessary.
- Perform borehole drilling, well installation, and well development.
- During drilling, soil samples or geologic core samples may be collected for laboratory analysis as part of the proposed work, or samples may be stored offsite for later study.
- Drill cuttings, borehole residue removed from drilling equipment when lifted from boreholes (e.g., drill bits and rods), bentonite grout that escapes from boreholes, and residues rinsed from containers and mixing tanks used to support drilling would be spread evenly on the ground in the vicinity of boreholes. Any excess mixed bentonite grout or cement would be dried and removed from the site as waste.
- Once drilling is completed, a seed mix specific for site revegetation would be applied to land disturbed by drilling activities.

The following Navajo Nation agencies would need to approve the proposed drilling project before drilling and well installation can proceed:

- Navajo Nation Heritage and Historic Preservation Department (commonly referred to as the tribal historic preservation office [THPO]) – The drilling project was initiated in 2021 when LM initially proposed drilling at 57 potential monitoring well locations; however, those 57 locations were later reduced to 29 potential locations. LM conducted a National Historic Preservation Act Section 106 consultation with the Navajo Nation THPO in a September 2, 2022, letter that determined no historic property would be affected by the proposed action. That letter described 57 potential well locations but the map included with the letter illustrated the 29 potential locations where 18 monitoring wells could be installed. The THPO concurred with LM's determination of No Effect to Historic Properties in correspondence dated September 13, 2022. The 14 proposed wells that are currently planned are included in the areas the Navajo Nation THPO concurred could be drilled; therefore, the 2022 consultation between LM and the Navajo Nation THPO is applicable to this proposed action and no further Section 106 consultation is needed.



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Navajo Nation Department of Water Resources (NNDWR) – The NNDWR must approve drilling permits and water use permits for the proposed wells before drilling can proceed; applications for those permits have been submitted.

The proposed work would not adversely impact air quality, water quality, or natural resources and is not expected to contact any hazardous or radioactive materials or generate hazardous or radioactive waste. The proposed work also would not adversely impact any federally or tribally listed threatened and endangered species that are within range of the site because there is no suitable habitat for these species on or near the site. As a best management practice, proposed work activities would avoid trimming, crushing, or spraying milkweed plants, if present, as those plants provide important habitat for monarch butterfly species, which are a listed candidate species within range of the site. The site is not in or near potential habitat for bald or golden eagles; however, other species of birds protected under the Migratory Bird Treaty Act could potentially be adversely impacted by noise and ground disturbing activities. To avoid adverse impacts to migratory birds, if an active bird's nest is identified in the work area, work would pause and LMS ecology staff would be contacted for further instruction.

### Categorical Exclusion(s) Applied:

- B3.1 Site characterization and environmental monitoring

For the complete DOE National Environmental Policy Act (NEPA) regulations regarding categorical exclusions, including the full text of each categorical exclusion, see Subpart D of Title 10 *Code of Federal Regulations* Section 1021 (10 CFR 1021).

Regulatory Requirements in 10 CFR 1021.410(b): (See full text in regulation)

- The proposal fits within a class of actions that is listed in Appendix A or B to 10 CFR Part 1021, Subpart D

To fit within the classes of actions listed in 10 CFR Part 1021, Subpart D, Appendix B, a proposal must be one that would not: (1) threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, or similar requirements of DOE or Executive Orders; (2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators), but the proposal may include categorically excluded waste storage, disposal, recovery, or treatment actions or facilities; (3) disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that preexist in the environment such that there would be uncontrolled or unpermitted releases; (4) have the potential to cause significant impacts on environmentally sensitive resources, including, but not limited to, those listed in paragraph B(4) of 10 CFR Part 1021, Subpart D, Appendix B; (5) involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species, unless the proposed activity would be contained or confined in a manner designed and operated to prevent unauthorized release into the environment and conducted in accordance with applicable requirements, such as those listed in paragraph B(5) of 10 CFR Part 1021, Subpart D, Appendix B.

- There are no extraordinary circumstances related to the proposal that may affect the significance of the environmental effects of the proposal.
- The proposal has not been segmented to meet the definition of a categorical exclusion. This proposal 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 preparation of an environmental impact statement.

Based on my review of the proposed action, as NEPA Compliance Officer (as authorized by the LM Director per DOE Policy 451.1), I have determined that the proposed action fits within the specified classes of action, the other regulatory requirements set forth above are met, and the proposed action is hereby categorically excluded from further NEPA review.

NEPA Compliance Officer Signature and  
Determination Date

JOYCE CHAVEZ Digitally signed by JOYCE CHAVEZ  
Date: 2023.02.27 13:31:16 -07'00'