

**U.S. Department of Energy Office of Legacy Management  
National Environmental Policy Act Environmental Checklist for**

**Project/Activity:** Hand Auger Samples in East Fork Arroyo, Shiprock, NM, Disposal Site

**A. Brief Project/Activity Description**

The U.S. Department of Energy (DOE) Office of Legacy Management (LM) needs to identify the source of contaminated groundwater that is seeping into Many Devils Wash. Current studies indicate that the contamination may originate in the East Fork Arroyo, a tributary to the wash. A hand auger would be used in the East Fork Arroyo to obtain groundwater that would be tested for contaminants. Up to 50 locations may need to be augered before sufficient information is obtained to characterize the contaminant source.

In order to maintain the integrity of the hole for sampling purposes, a 2-inch (inside diameter) PVC pipe would be placed in the hole before withdrawing water. When groundwater is reached, a portable peristaltic pump, which would be powered by a portable generator, would be used to obtain groundwater samples. Groundwater is expected to be present at 1.5 to 2 feet below ground surface.

Vehicles would be left on the west side of the wash near the recently completed dam, and personnel would access the East Fork arroyo by foot. This project is estimated to take 2 weeks.

**B. Environmental Concerns**

Evaluate the following elements and indicate by checking "yes" or "no" if any phase of the project/activity would result in a change or impact that is subject to regulatory permits, controls, or plans or that would require additional evaluation. If the "yes" column is checked, provide a brief explanation below and attach sheets with additional detail as necessary or appropriate.

Element	Yes	No	Element	Yes	No
Air emissions/air quality	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Exposure/impacts to public or workers	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Noise	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Need for public awareness/involvement	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Solid waste generation	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Transportation/traffic control required	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Mixed waste management	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Access to/use of DOE property	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Chemical storage on site	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Visual resources impacted	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Pesticide/herbicide use	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Cultural/archaeology resources present	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Toxic substances management	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Wetland/floodplain impacted	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Regulated quantities of petroleum used or stored on site	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Protected species present: federal, state, or tribe listed	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Radioactive materials/soils	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Migratory birds breeding or nesting	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Surface (ground) disturbance	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Wild/scenic rivers impacted	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Surface water use/contamination	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Prime/unique farmlands present	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Surface water quality	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Groundwater use/contamination	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Groundwater quality affected	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Other considerations	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### C. Explanation and Qualification of All “Yes” Responses

Noise: The use of the portable generator would result in elevated noise levels during the period of operation. There are no nearby residents.

Surface ground disturbance: Surface disturbance related to use of the auger is expected to be less than one square foot for each hole.

Access to/use of DOE property: DOE has a cooperative agreement with the Navajo Nation that includes access across Navajo Nation property to conduct studies.

Cultural/archaeology resources present: The Tribal Historic Preservation Officer was contacted, and he confirmed that a cultural resource inventory and cultural clearance are not required for work in the bottom of an arroyo.

Wetland/floodplain impacted: The work would be conducted within a 100-year floodplain. Site characterization and environmental research activities are exempt from DOE floodplain requirements, and therefore no floodplain permits are needed for the proposed work. Portions of the proposed work may occur within a U.S. Army Corps of Engineers (USACE) jurisdictional channel. Excavation of small test pits is excluded from 404 regulation. The installation of scientific measurement devices (e.g., monitoring wells) is permitted by Nationwide permit #5, which does not require Corps notification. No significant effects are expected from the proposed work.

Protected species present: The East Fork Arroyo of Many Devils Wash in the project area does not contain vegetation that would be suitable for southwest willow flycatcher nesting. This species inhabits riparian vegetation near running water. In addition, although the federally and Navajo Nation-listed Mesa Verde cactus has been found on areas west of Many Devils Wash, it is highly unlikely that any cactus would occur in the East Fork arroyo.

Groundwater use/contamination: The purpose of the proposed action is to locate the source of the contaminated groundwater that is seeping into Many Devils Wash. It is expected that approximately one gallon per borehole would be pumped for sampling purposes.

### D. Eligibility/Conditions

The proposed action fits within a class of actions listed in Appendix A or B to Subpart D of Title 10 *Code of Federal Regulations* Part 1021 (10 CFR 1021); DOE has determined that these classes of actions do not individually or cumulatively have a significant effect on the human environment (see 10 CFR 1021.410). There are no extraordinary circumstances related to the proposed action that may affect the significance of the environmental effects of the proposed action, and the proposed action is not "connected" to other actions with potentially significant impacts. Finally, the action is not related to other proposed actions with cumulatively significant impacts and is not precluded by 40 CFR 1506.1 or 10 CFR 1021.211.

### E. Recommendation

The proposed actions of obtaining soil and water samples would be considered categorically excluded from further environmental evaluation under 10 CFR 1021, Appendix B to Subpart D, B 3.1 (f), “Onsite and offsite site characterization and environmental monitoring, including sampling and characterization of water, soil, rock, or contaminants”.

Meets Criteria

Does Not Meet Criteria

Unsure



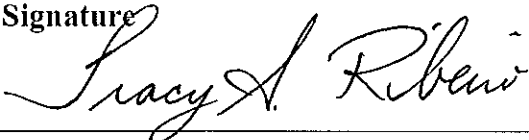

### F. NEPA Determination

The scope of actions proposed under Section A of this Environmental Checklist, and the information relevant to the potential for environmental impacts in Section B have been reviewed, and the following has been determined:

- The proposed actions meet the criteria for categorical exclusion.
- The proposed actions do not meet the criteria for categorical exclusion; therefore, I recommend that the LM NEPA Planning Board be convened based on my recommendation (see attached rationale) to complete:
  - an Interim Action
  - an Environmental Assessment
  - an Environmental Impact Statement
  - a Supplemental Analysis

## Concurrences

**Project/Activity:** Hand Auger Samples in East Fork Arroyo, Shiprock, NM, Disposal Site

<b>LM Site Name</b> Shiprock, CO, Disposal Site	<b>LM Site Program</b> UMTRCA Title I Sites	
<b>Contractor</b> <b>NEPA Coordinator</b> Sandy Beranich	<b>Signature</b> 	<b>Date</b> 3-4-2010
<b>Contractor Site Lead</b>  David Miller	<b>Signature</b> 	<b>Date</b> 3/4/2010
<b>LM Site Manager</b>  Tracy Ribeiro	<b>Signature</b> 	<b>Date</b> 3/4/2010
<b>LM NEPA</b> <b>Compliance Officer</b> Richard Bush	<b>Signature</b> 	<b>Date</b> 3/4/10

Distribution upon signature:

R. Bush, LM NEPA Compliance officer

T. Ribeiro, LM Site Manager

S. Beranich, Stoller NEPA Coordinator and Compliance Lead for Shiprock

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