

DOE-ID NEPA CX DETERMINATION

Idaho National Laboratory

SECTION A. Project Title: Unpaved Roads Overarching Environmental Checklist

SECTION B. Project Description and Purpose:

Idaho National Laboratory (INL) has a variety of highways and roads ranging from heavily used, paved State Highways to lightly used, unpaved two-track trails. Roads that access the interior of the INL include gravel roads, dirt roads, and trails, and they are often designated as “T-Roads”, “unpaved”, “unimproved”, or “two-track roads”. INL has many unpaved roads that cross the site and require ongoing maintenance to be usable. The Department of Energy (DOE), the United States Geological Survey, Bureau of Land Management, and several contractor organizations use these unpaved roads to conduct security exercises, evacuate facility areas, and to access things like wildland fires, power lines and other easements, water and monitoring well sites, research & development activities, cultural and biological survey areas, and other remote locations or activities.

Note: Unpaved roads are those INL dirt and two-track roads and some trails, and they are often designated as “T” roads (such as T-1, T-5, and T-20), but this is not always the case.

This environmental checklist (EC) establishes a “baseline” for unpaved roads on the INL. It incorporates information from other documents such as the “Idaho National Engineering and Environmental Laboratory Wildland Fire Management Environmental Assessment and Finding of No Significant Impact (FONSI) (DOE/EA-1372)” and the INL Roads and Grounds Rangeland Management Plan (PLN-1084). It covers the maintenance of unpaved roads on the INL and selected off-site unpaved roads.

INL has classified its unpaved roads by priority. The priority of an unpaved road affects its usage and what maintenance activities can be performed on it. INL’s Roads and Grounds organization performs maintenance of unpaved roads based on the level of priority listed (Priority 1, 2, 3, and 4) to support normal and emergency access and egress to facilities, wildland fires, security patrols, power distribution and environmental project access. The following section details INL’s ranking system for unpaved roads.

Priority 1 roads are those designated as emergency evacuation routes and security access roads. Roads and Grounds personnel maintain Priority 1 roads for emergency evacuation and security response activities. The level of maintenance requires grading and graveling roadways within rights-of-way.

Priority 2 roads give graded access to the INTEC percolation ponds, National Security Test Range, East Butte, some wellheads, spreading area dike near RWMC, the Experimental Field Station, and includes the Haul road between CTRIC and MFC. INL also maintains the access road to Howe Peak, which is off the INL Site, and works directly with the U.S. Forest Service. Roads and Ground personnel maintain Priority 2 roads passable and graveled and spot graded, as needed.

Unpaved Road Priority Rank and Use	
Priority 1	= Emergency evacuation / Security roads (graveled and graded routinely)
Priority 2	= Project access road (maintained to passable (graveled and spot graded, as needed)
Priority 3	= Wildland fire access / Maintained as passable to 4x4 vehicles using dump and level techniques, but not graded
Priority 4	= Not maintained

Priority 3 roads are two-track roads generally for wildland fire access, but also are used for power line maintenance, environmental monitoring, cultural and biological surveys. Roads and Ground personnel maintain Priority 3 roads as passable to 4x4 vehicles by dumping gravel fill material in holes and ruts and using the dump vehicle to level and compact fill by driving back and forth over new material, and using a hand rake or shovel, if necessary.

Priority 4 roads are those unpaved roads that Roads and Grounds do not maintain without a demonstrated specific need such as access to a new project or facility. Maintaining or upgrading a Priority 4 road requires an approved EC. Ranchers and hunters use some Priority 3 and Priority 4 roads to access designated grazing and hunting areas on the INL.

Table 1 (see box at bottom of this page) identifies 50 unpaved roads (or road segments) on the INL and lists the activities associated with maintaining them, including grading, snow removal, and filling potholes or low areas in the roads. The table designates each road’s “use” category as well as its priority rank. Unpaved roads not listed in Table 1 require contacting Environmental Support and Services (ES&S).

This EC covers the maintenance activities associated with maintaining unpaved roads at the INL. The extent of maintenance on a road depends on its intended use. For instance, a graveled emergency evacuation road requires frequent and more extensive maintenance than an unpaved (two-track) road to an inactive borrow source or abandoned well, which would require infrequent and less extensive maintenance. Vegetation control and the removal of windblown sand during the maintenance of Priority 1 and 2 roads is covered in this EC as long as the work is within the normal width of the roadway.

In addition, this EC covers snow removal, which will occasionally be required in order to support security surveillance, emergency response, R&D project access, environmental monitoring activities, railroad maintenance, Power Management access, USGS well access, etc. Snow removal that will occur on Priority 3 or 4 unpaved roads will require completion of a Cultural Resource Review Record (CRRR) prior to starting snow removal activities. Typical snow removal equipment used on the INL range from road graders and front loaders to snow blowers, or augers. Instructions/requirements/stipulations from a CRRR regarding snow removal can include the following operation restrictions:

- Keep equipment within the width of the established roadway
- If using a grader, raise the equipment blade to prevent contact with the gravel/dirt surface of the road, and
- Stop work and notify the Cultural Resources Management Office (CRMO) if artifacts are uncovered.

Additional requirements may be established in these CRRR’s and therefore must be obtained and reviewed prior to starting work. Snow removal from priority 1 and 2 roads may occur without further review.

Actions not covered by this EC include:

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- Vegetation control and the removal of windblown sand on priority 3 and 4 roads
- Constructing an unpaved road
- Upgrading an unpaved road

Project personnel must submit an EC to ES&S for review and approval of these activities.

Table 1 is located online at the following URL

http://webfiles/esh/ess/nepa/files/Unpaved_Road_Table.pdf

SECTION C. Environmental Aspects or Potential Sources of Impact:

Air Emissions

Project activities may generate fugitive dust during soil disturbing activities. Operating equipment will also create fugitive dust.

Discharging to Surface-, Storm-, or Ground Water

At crossings of water bodies, maintenance of unpaved roads could cause pollution of surface water. In addition, unpaved road maintenance activities could cause pollution of storm water in areas where storm water may reach surface waters at the Site. Road maintenance activities involving soil disturbance (disturbance of unstable road segments) greater than 1 acre could influence aquatic habitat or waters of the United States, including wetlands.

Disturbing Cultural or Biological Resources

The Cultural Resource Management (CRM) Office has completed surveys of most Priority 1 and Priority 2 roads for cultural resources. The surveys found archaeological sites along the edges of some of these roads but did not find sensitive remains within the roadbeds. Ongoing maintenance of Priority 1 and 2 roads should have no effect on cultural resources and can go forward (consult Table 1 for guidance).

Most Priority 3 and 4 roads on the INL have not been surveyed for cultural resources. The limited surveys along these roads confirm the presence of archaeological sites within and beside the vehicle tracks. Several of the roads are cultural resources themselves because they have been in use as routes of travel for horses, wagons, stagecoaches, and now 4 x 4 vehicles for more than 100 years. Finally, there may be other resources of importance to the Shoshone-Bannock Tribes within, along, or included as part of Priority 3 and 4 roads. Therefore, ongoing maintenance of Priority 3 and 4 roads on the INL may cause impacts to the cultural resources as described above. Prior to any maintenance activities occurring on Priority 3 and 4 roads the INL CRMO must be contacted for review, and a Cultural Resource Review Record (CRRR) must be obtained.

Due to the historic nature and association with EBR-I, the section of Van Buren from the junction at Adams Blvd. to EBR-I and the EBR-I parking lot must be treated as a Priority 3 road. As such, snow removal activities should be conducted in a manner that will not damage or disturb the existing roadbed or parking lot. If snow removal activities are to be conducted on this historic landscape, care should be taken to raise the grading or plowing blade so as not to inadvertently damage portions of the site.

Diverse complements of small mammals, reptiles, and breeding bird species common to the sagebrush steppe, including sage-grouse use the roads and areas surrounding the roads. Pronghorn and mule deer also use these areas throughout the year but primarily in a transitory manner. Measurable long-term impacts on any species of federal or state concern are unlikely as long as project personnel carry out the activities and follow instructions in this EC. Short-term impacts include temporary removal and disturbance of habitat for some species. Maintenance activities may cause minimal noise impacts.

Generating and Managing Waste

Project personnel may generate small amounts of industrial waste during maintenance activities. The activities will not generate contaminated waste. WGS personnel will manage waste streams and non-hazardous and non-radioactive waste streams will go to the INL Landfill complex.

Releasing Contaminants

The project will purchase, store, and use chemicals in maintenance activities such as oils, petroleum products, cleaners, etc. Project personnel may use non-hazardous chemical substitutes in the place of hazardous chemicals if the non-hazardous substitutes meet the requirements and specifications of the requester. In addition, project personnel will use spill prevention/minimization measures during storage and use of chemicals and fuels. Ensure chemical Safety Data Sheets (SDSs) are submitted and approved through the Facility Chemical Coordinator prior to use. The Facility Chemical Coordinator will enter these chemicals into the INL Chemical Management Database. All chemicals will be managed in accordance with laboratory procedures. When dispositioning surplus chemicals, project personnel must contact the facility Chemical Coordinator for disposition instructions. Although not anticipated, spills could occur when using chemicals or fueling equipment. In the event of a spill, notify facility Environmental Staff. If the

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Environmental Staff cannot be contacted, report the release to the Spill Notification Team (208-241-6400). Clean up the spill and turn over spill cleanup materials to WGS.

Near wells, unpaved road maintenance activities could influence wells, potentially contaminating drinking water if work is near wells.

Several stretches of unpaved roads are within the 100-year floodplain of the Big Lost River.¹ Roads and Grounds personnel must consider the potential effect of a flood on roads and road maintenance activities and the potential effects of the maintenance activities on the floodplain dimensions, and flow characteristics. Activities such as grading and filling potholes or low areas in the road, dumping gravel fill material in holes and ruts and using the dump vehicle to level and compact fill by driving back and forth over new material, and hand raking or shoveling are considered road maintenance activities, within the scope of this EC. ES&S does not expect these maintenance activities to increase the height profile or horizontal extent of unpaved roads, and thus, alter floodplain dimensions or flow characteristics. However, if the 100-year flood occurs, erosional forces of the floodwaters may damage or destroy portions of the unpaved roads.

Roads and Grounds personnel use the above-listed road maintenance activities to repair damage from floods. However, ES&S does not consider the activity maintenance if repair activities involve changing the character, scope, or size of original crossing designs or making bigger roadway embankments or increasing the elevation or width of the roadbed or bringing in several loads of fill and heavy equipment. ES&S considers construction or modification work necessary to repair or replace unpaved roads damaged by flooding beyond the scope of road maintenance under this EC.

Using, Reusing, and Conserving Natural Resources

INL will reuse and recycle materials where economically practicable and will divert waste from disposal in the CFA Landfill, where conditions allow.

INL SUSTAINABILITY PLAN GOALS - Proposed activities must support attaining INL's Site Sustainability Plan goals as applicable. Project personnel must contact the Sustainability TPOC for new projects/processes or changes to project/processes that affect any of the following INL Sustainability Goals:

- Greenhouse Gases - (burning fossil fuels, operating vehicle fleet, purchasing electricity, business travel, etc.)
- Building Energy Use
- Renewable Energy Generation or Consumption
- Potable, Industrial, or Irrigation Water Consumption
- Storm Water Management
- Landfill Waste or Construction and Demolition Wastes.

SECTION D. Determine Recommended Level of Environmental Review, Identify Reference(s), and State Justification: Identify the applicable categorical exclusion from 10 Code of Federal Regulation (CFR) 1021, Appendix B, give the appropriate justification, and the approval date.

For Categorical Exclusions (CXs), the proposed action must not: (1) threaten a violation of applicable statutory, regulatory, or permit requirements for environmental, safety, and health, or similar requirements of Department of Energy (DOE) or Executive Orders; (2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment or facilities; (3) disturb hazardous substances, pollutants, contaminants, or Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)-excluded petroleum and natural gas products that pre-exist in the environment such that there would be uncontrolled or unpermitted releases; (4) have the potential to cause significant impacts on environmentally sensitive resources (see 10 CFR 1021). In addition, no extraordinary circumstances related to the proposal exist that would affect the significance of the action. In addition, the action is not "connected" to other action actions (40 CFR 1508.25(a)(1) and is not related to other actions with individually insignificant but cumulatively significant impacts (40 CFR 1608.27(b)(7)).

References: B1.3 'Routine Maintenance'

Justification: The National Environmental Policy Act Implementing Procedure; Final Rule Categorical Exclusion (CX) B1.3 "Routine Maintenance / Custodial Services for Buildings, Structures, Infrastructures, Equipment", the Wildland Fire Management Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) (DOE/EA-1372), the 'INEEL Sagebrush Steppe Ecosystem Reserve FONSI' (and Final Management Plan)' (EA ID-074-02-067), and the Multipurpose Haul Road EA and FONSI (DOE/EA-1772 covers the maintenance actions described in this EC. The CX covers action such as corrective, preventive, and predictive maintenance of infrastructure (including pathways, roads). The Wildland Fire Management EA, for Alternative 2 allows for the maintenance of certain roads as wildland fire access roads.

Is the project funded by the American Recovery and Reinvestment Act of 2009 (Recovery Act)

Yes No

Approved by Jason Sturm, DOE-ID NEPA Compliance Officer on: 4/28/20

¹ Flood Routing Analysis for a Failure of Mackay Dam," EGG-EP-7184, by Koslow and Van Haften, 1986.