

DOE-ID NEPA CX DETERMINATION

Idaho National Laboratory

SECTION A. Project Title: NRCS Soil Inventory

SECTION B. Project Description and Purpose:

NRCS Soil Inventory of the INL

The purpose of this project is to provide integrated resource information needed to manage the physical and biological components of landscapes. Soils form the foundation of the ecological systems. By understanding the combination of the factors that form soils; e.g. geologic and geomorphic deposits, climatic patterns, vegetation, topography and the length of time materials weather in place, managers can gain a better understanding of factors driving use and management of soil resources and ecological sites. This information can be used for land management planning, environmental assessments, and for project support related to rangeland management, watershed management, travel management, fire management, and minerals and energy development.

The soil inventory of the INL will be conducted according to standards set forth by The National Cooperative Soil Survey (NCSS) (NRCS 2022). The NCSS is a nationwide partnership of Federal, regional, State, and local agencies and private entities and institutions. This partnership works together to cooperatively investigate, inventory, document, classify, interpret, disseminate, and publish information about soils of the United States and its trust territories and commonwealths. The activities of the NCSS are carried out on National, regional, and State levels. The Natural Resources Conservation Service (NRCS) is responsible for the leadership of soil survey activities of the U.S. Department of Agriculture and for the leadership and coordination of NCSS activities.

NRCS proposes digging 23 soil pits within INL properties to describe soil profiles and determine the soil properties. Personnel will record georeferenced descriptions of soils, plant types and vegetation data, habitat types, geomorphology, and geology at each location. Plot photos will document the soils and sites. Excavations are hand dug pits approximately 18 inch in diameter and up to 60 inches deep or to a restrictive layer (such as bedrock) using hand tools. Excavated soil will be replaced after description and sampling is completed. Every effort is made to remove the surface of the soil as an intact mat which is replaced once the hole is filled. Soil layers are backfilled in the order they were excavated when the pit is closed.

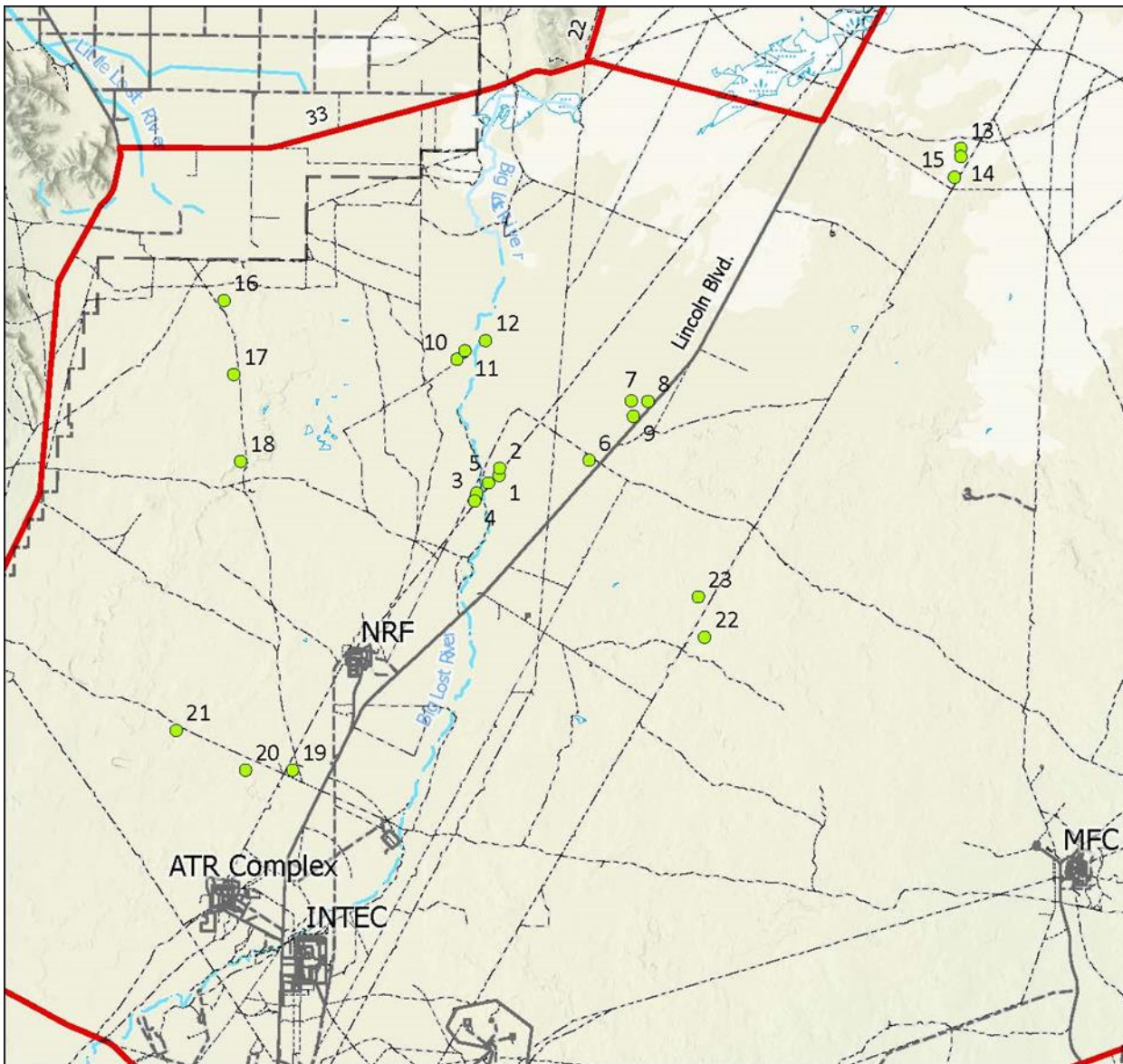
Some soils are suitable (if not too rocky) for sampling with a bucket auger. Even when auguring is possible, it is standard procedure to open a small soil pit down to the rooting depth (approximately 12 inches) to get a better look at the soil horizons and then auger below that depth to a restrictive layer or 60 inches. To access the proposed soil inventory locations, all personnel will travel on established roads and park on the road then travel on foot to inventory pit locations.

Locations for the proposed soil inventory pits (pedons) were provided by the NRCS as a shapefile that can be viewed in ArcGIS. The figure on the following page shows the location of proposed pedons relative to major INL roads and facilities.

References:

U.S. Department of Agriculture, Natural Resources Conservation Service. (2022) National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/ref/?cid=nrcs142p2_054242 (accessed 30 March, 2022).

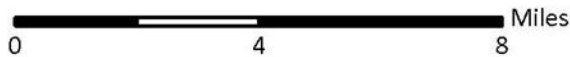
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ERP-INL-22-019 NRCS soil inventory



● NRCS proposed pedon locations relative to major INL roads and facilities



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Scale 1:200,000

ID State Plane NAD 1983

PINKJW 3/8/2022

SECTION C. Environmental Aspects or Potential Sources of Impact:

Air Emissions

The proposed action has the potential to generate fugitive dust

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Discharging to Surface-, Storm-, or Ground Water

N/A

Disturbing Cultural or Biological Resources

Some soil pits are planned for areas of the Big Lost River floodplain where there is potential for subsurface cultural materials. The project will have a limited impact on vegetation, but no other biological resources. All requirements outlined in CRR BEA-22-027 must be followed. Please contact Jeremias Pink (208)232-5552 for questions or concerns.

Generating and Managing Waste

N/A

Releasing Contaminants

N/A

Using, Reusing, and Conserving Natural Resources

N/A

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: 10 CFR 1021, Appendix B, B3.1 "Site characterization and environmental monitoring."

Justification: Activities proposed are consistent with 10 CFR 1021, Appendix B3.1 Site characterization and environmental monitoring (including, but not limited to, siting, construction, modification, operation, and dismantlement and removal or otherwise proper closure (such as of a well) of characterization and monitoring devices, and siting, construction, and associated operation of a small-scale laboratory building or renovation of a room in an existing building for sample analysis). Such activities would be designed in conformance with applicable requirements and use best management practices to limit the potential effects of any resultant ground disturbance. Covered activities include, but are not limited to, site characterization and environmental monitoring under CERCLA and RCRA. (This class of actions excludes activities in aquatic environments. See B3.16 of this appendix for such activities.) Specific activities include, but are not limited to: Geological, geophysical (such as gravity, magnetic, electrical, seismic, radar, and temperature gradient), geochemical, and engineering surveys and mapping, and the establishment of survey marks. Seismic techniques would not include large-scale reflection or refraction testing; Installation and operation of field instruments (such as stream-gauging stations or flow-measuring devices, telemetry systems, geochemical monitoring tools, and geophysical exploration tools); Drilling of wells for sampling or monitoring of groundwater or the vadose (unsaturated) zone, well logging, and installation of water-level recording devices in wells; Aquifer and underground reservoir response testing; Installation and operation of ambient air monitoring equipment; Sampling and characterization of water, soil, rock, or contaminants (such as drilling using truck- or mobile-scale equipment, and modification, use, and plugging of boreholes); Sampling and characterization of water effluents, air emissions, or solid waste streams; Installation and operation of meteorological towers and associated activities (such as assessment of potential wind energy resources); Sampling of flora or fauna; and Archeological, historic, and cultural resource identification in compliance with 36 CFR part 800 and 43 CFR part 7.

Is the project funded by the American Recovery and Reinvestment Act of 2009 (Recovery Act) Yes No

Approved by Jason L. Anderson, DOE-ID NEPA Compliance Officer on: 04/14/2022