

DOE-ID NEPA CX DETERMINATION

Idaho National Laboratory

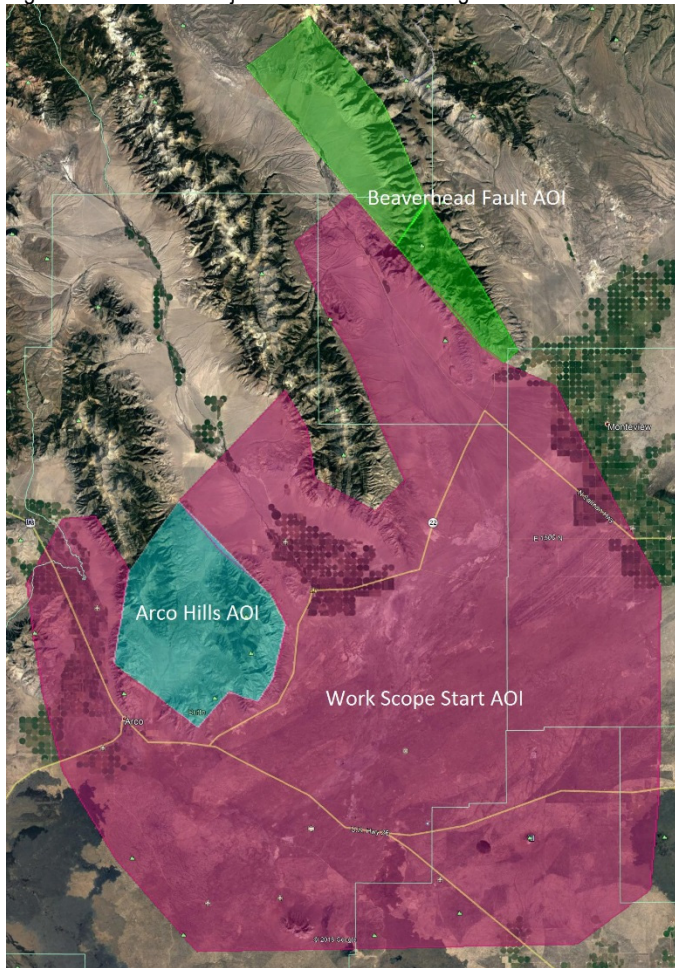
SECTION A. Project Title: Sitewide LiDAR

SECTION B. Project Description and Purpose:

The purpose of this revision is to capture additional project scope. Idaho National Laboratory (INL) needs site characterization data for natural hazards analyses for nuclear facility compliance with DOE O 420.1C. The proposed action uses LiDAR (light detection and ranging) to identify, characterize, and classify natural hazards that could impact INL Site facilities. LiDAR measures distance to a target by illuminating the target with pulsed light and measuring the reflected pulses with a sensor. Differences in return times are used to create digital 3D representations of the target. An aircraft equipped with LiDAR instrumentation passes over the area of interest, and the LiDAR equipment gathers surface data for a variety of site characterization needs.

The proposed flight area encompasses approximately 2,000 square miles (originally 1,747 square miles) and is shown in Figure 1. Flight operations will be performed out of Idaho Falls airport. Airplane flight altitude is at 5,000 feet above ground level (AGL). No airplanes will land on the INL Site. Two additional areas are being added to accommodate seismic analysis needs and are shown in green and blue below.

Figure 1. INL LiDAR Project area of interest for flights



The remaining scope from the original EC is unchanged.

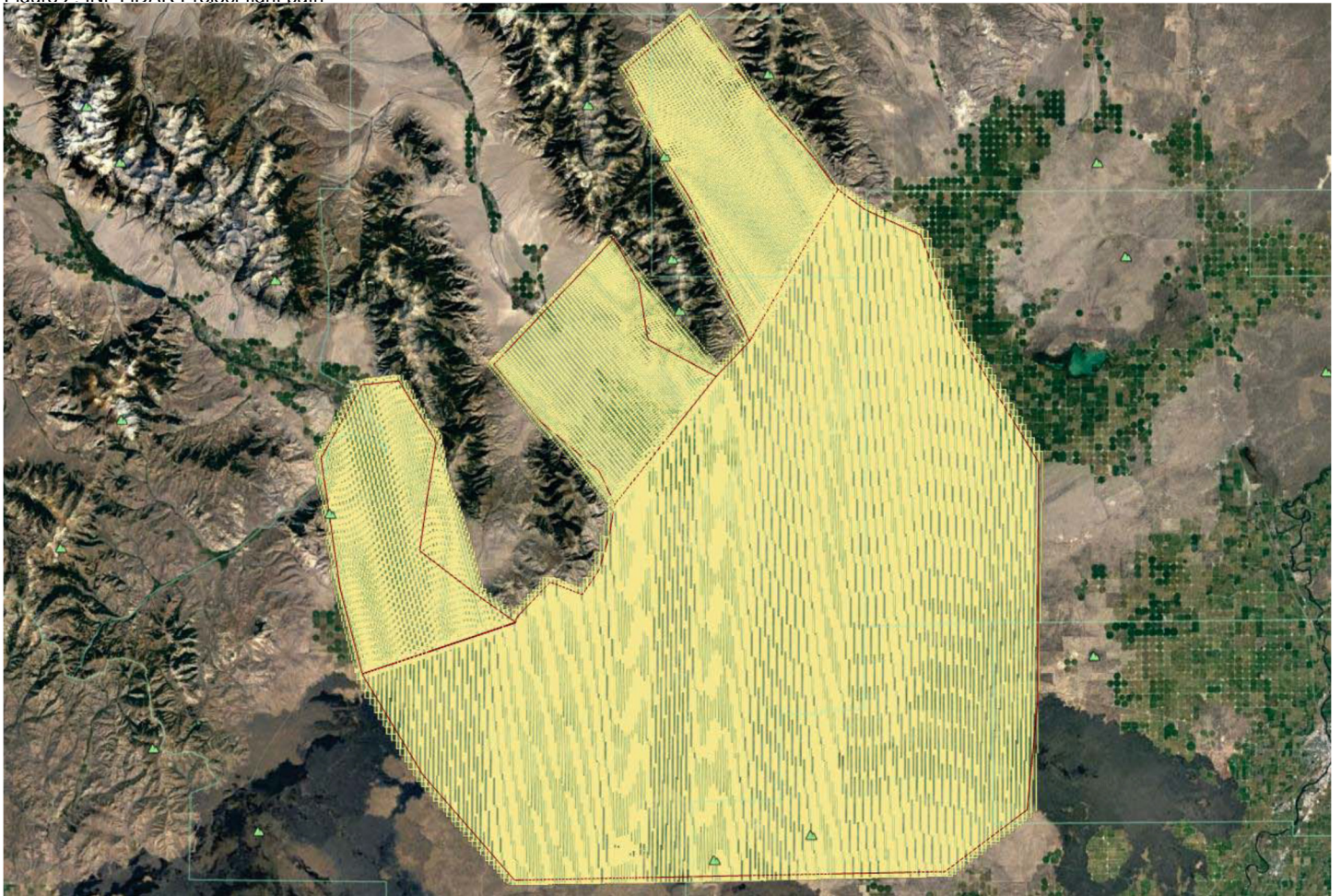
Original EC:

Idaho National Laboratory (INL) needs site characterization data for natural hazards analyses for nuclear facility compliance with DOE O 420.1C. The proposed action uses LiDAR (light detection and ranging) to identify, characterize, and classify natural hazards that could impact INL Site facilities. LiDAR measures distance to a target by illuminating the target with pulsed light and measuring the reflected pulses with a sensor. Differences in return times are used to create digital 3D representations of the target. An aircraft equipped with LiDAR instrumentation passes over the area of interest, and the LiDAR equipment gathers surface data for a variety of site characterization needs.

The proposed flight area encompasses 1,747 square miles and is shown in Figure 2. Flight operations will be performed out of Idaho Falls airport. Airplane flight altitude is at 5,000 feet above ground level (AGL). No airplanes will land on the INL Site.

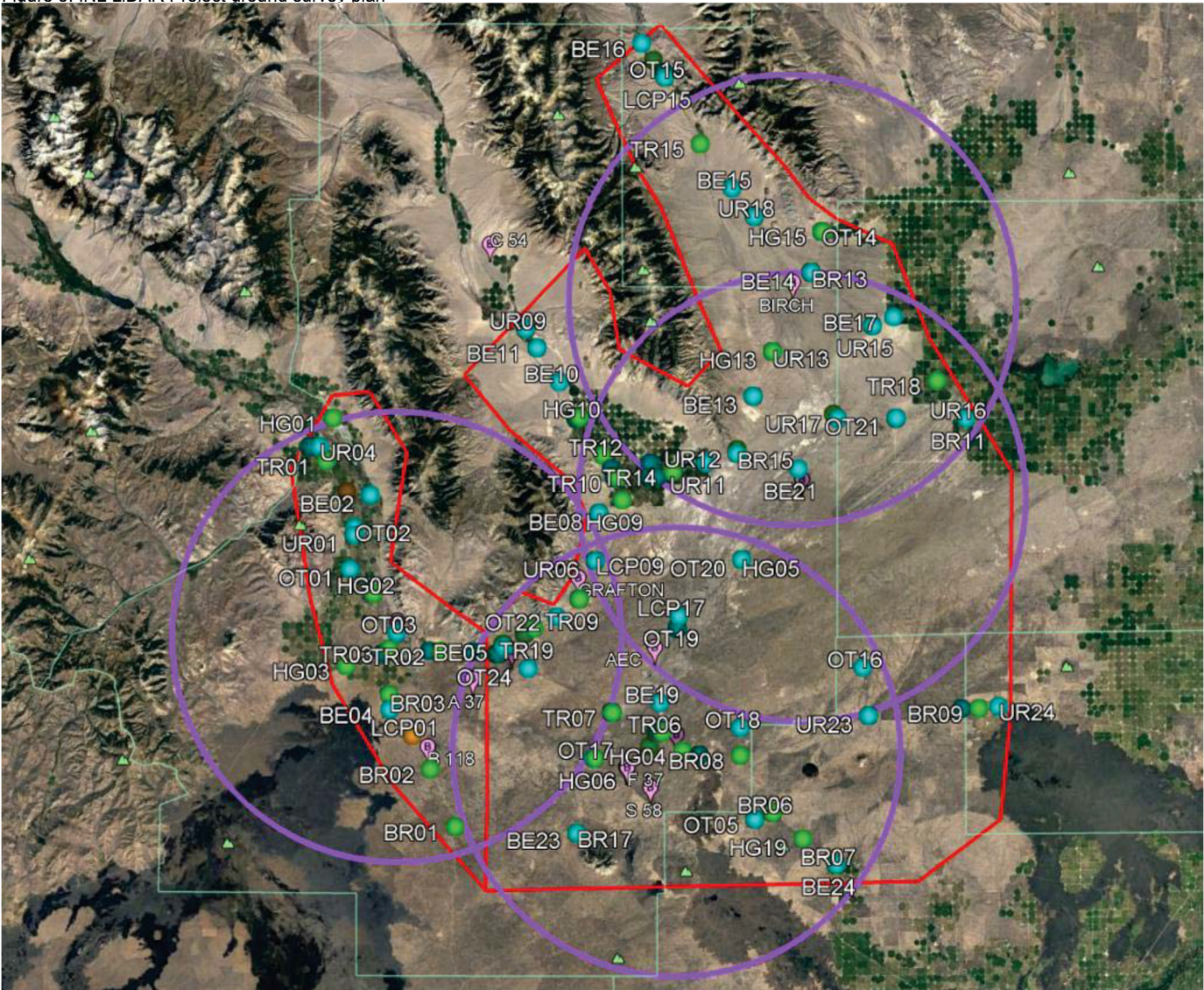
**DOE-ID NEPA CX DETERMINATION
Idaho National Laboratory**

Figure 2. INL LiDAR Project flight path



A ground survey via truck of 147 points to gather high resolution GPS data is also a supporting activity. Ground survey points are on established paved roads, dirt roads, intersections, and parking lots as shown in Figure 3.

Figure 3. INL LiDAR Project around survey plan



Flights over the project area and ground surveys are both anticipated to take two weeks. These activities are planned to be accomplished in the spring following snow melt. Snow-free conditions are required.

SECTION C. Environmental Aspects or Potential Sources of Impact:

Air Emissions

Minor amounts of fugitive dust and vehicle emissions will be generated while performing surveys.

Disturbing Cultural or Biological Resources

Noise control within a specified distance of a lek may require time of day and seasonal restrictions (March 15 – May 15). Contact Jackie Hafra (208-227-9031).

Generating and Managing Waste

The proposed action would generate common office trash.

**DOE-ID NEPA CX DETERMINATION
Idaho National Laboratory**

Releasing Contaminants

Although not anticipated, there is a potential for spills when fueling equipment. In the event of a spill, notify facility PEL. If the PEL 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.

Using, Reusing, and Conserving Natural Resources

Fuel will be used for surveys. Paper products will be used for note-taking.

All applicable waste would be diverted from disposal in the landfill when possible. Program personnel would use every opportunity to recycle, reuse, and recover materials and divert waste from the landfill when possible. The program would practice sustainable acquisition, as appropriate and practicable, by procuring construction materials that are energy efficient, water efficient, are bio-based in content, environmentally preferable, non-ozone depleting, have recycled content, and are non-toxic or less-toxic alternatives.

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: Project activities are consistent with 10 CFR 1021, Appendix B, 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 Resource Conservation and Recovery Act (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:

- a) Geological, geophysical (such as gravity, magnetic, electrical, seismic, radar, and engineering surveys and mapping, and the establishment of survey marks. Seismic techniques would not include large-scale reflection or refraction testing;
- b) Installation and operation of field instruments (such as stream-gauging stations or flow-measuring devices, telemetry systems, geochemical monitoring tools, and geophysical exploration tools);
- c) 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;
- d) Aquifer and underground reservoir response testing; (e) Installation and operation of ambient air monitoring equipment;
- e) 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);
- f) Sampling and characterization of water effluents, air emissions, or solid waste streams;
- g) Installation and operation of meteorological towers and associated activities (such as assessment of potential wind energy resources);
- h) Sampling of flora or fauna; and
- i) 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 Sturm, DOE-ID NEPA Compliance Officer on: 3/12/2019