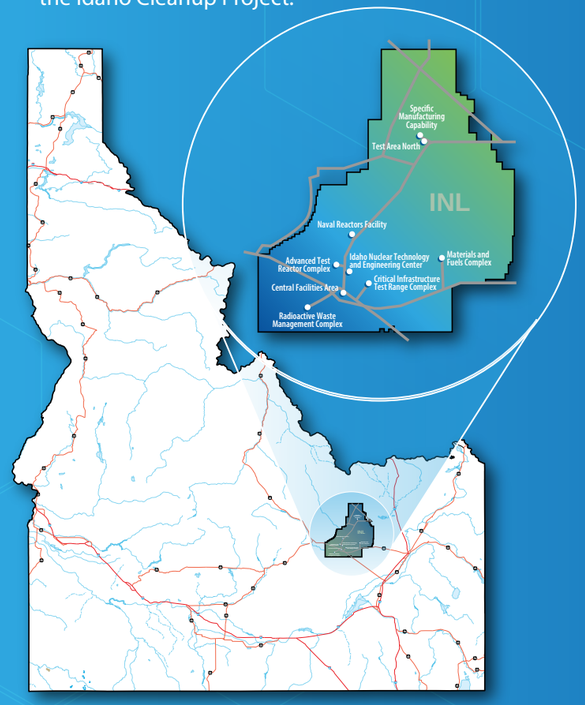
CURRENT MISSION AND FACILITIES

Mission Statement:

Our mission is to discover, demonstrate and secure innovative nuclear energy solutions, other clean energy options and critical infrastructure.

Major Facilities:

- **Advanced Test Reactor Complex:** Home to the world's most advanced nuclear test reactor.
- **Central Facilities Area:** Supports INL Site operations.
- **Critical Infrastructure Test Range Complex:** Focuses on national and homeland security missions.
- **Idaho Nuclear Technology and Engineering Center:** Manages spent nuclear fuel and high-level waste.
- **Materials and Fuels Complex:** Supports INL's nuclear mission with facilities for handling radioactive materials and testing new reactor designs.
- **Radioactive Waste Management Complex:** Handles waste treatment and remediation.
- **Research and Education Campus:** Located in Idaho Falls, focuses on various energy and security research programs.
- **Idaho Environmental Coalition, LLC:** Manages cleanup operations at the INL Site as the contractor for the Idaho Cleanup Project.



INL SITE OVERVIEW

- **Location and size:** Situated in southeastern Idaho, 25 miles west of Idaho Falls, covering 890 square miles.
- **History:** Established in 1949 as the National Reactor Testing Station, it became the location where the first usable nuclear-generated electricity was produced in 1951. Originally home to 52 reactors, there are currently four reactors on the Site.
- **Today:** INL is a science-based, applied engineering national laboratory supporting the Department of Energy's nuclear and energy research, science, and national defense missions. Battelle Energy Alliance manages INL for DOE's Office of Nuclear Energy.

ENVIRONMENTAL STEWARDSHIP AND COMPLIANCE

Operations at the INL Site are subject to numerous federal and state environmental statutes, regulations, executive orders and DOE directives. As a requirement of many of these regulations, the lab must document the status of compliance with regulations and releases of non-permitted hazardous materials to the environment.

www.inl.gov/aser

INL ENVIRONMENTAL PERFORMANCE

Idaho National Laboratory

24-50105

ANNUAL SITE ENVIRONMENTAL REPORT

Idaho National Laboratory's (INL's) Annual Site Environmental Report is published to inform the public, regulators, stakeholders and other interested parties of INL environmental performance and compliance.

ENVIRONMENTAL PROGRAMS AND MONITORING

Environmental pathway samples are collected over 9,000 square miles in southeastern Idaho and Jackson, Wyoming, each year. The analytical results are compared with historical data, background measurements, and applicable standards and requirements to verify that INL activities do not adversely impact the environment or the health of humans or biota.

The environmental media sampled are:

AIR MONITORING:
Ambient air, atmospheric moisture and precipitation

WATER MONITORING:
Groundwater, drinking water and surface water

ECOLOGICAL MONITORING:
Agricultural products, wildlife and direct radiation.

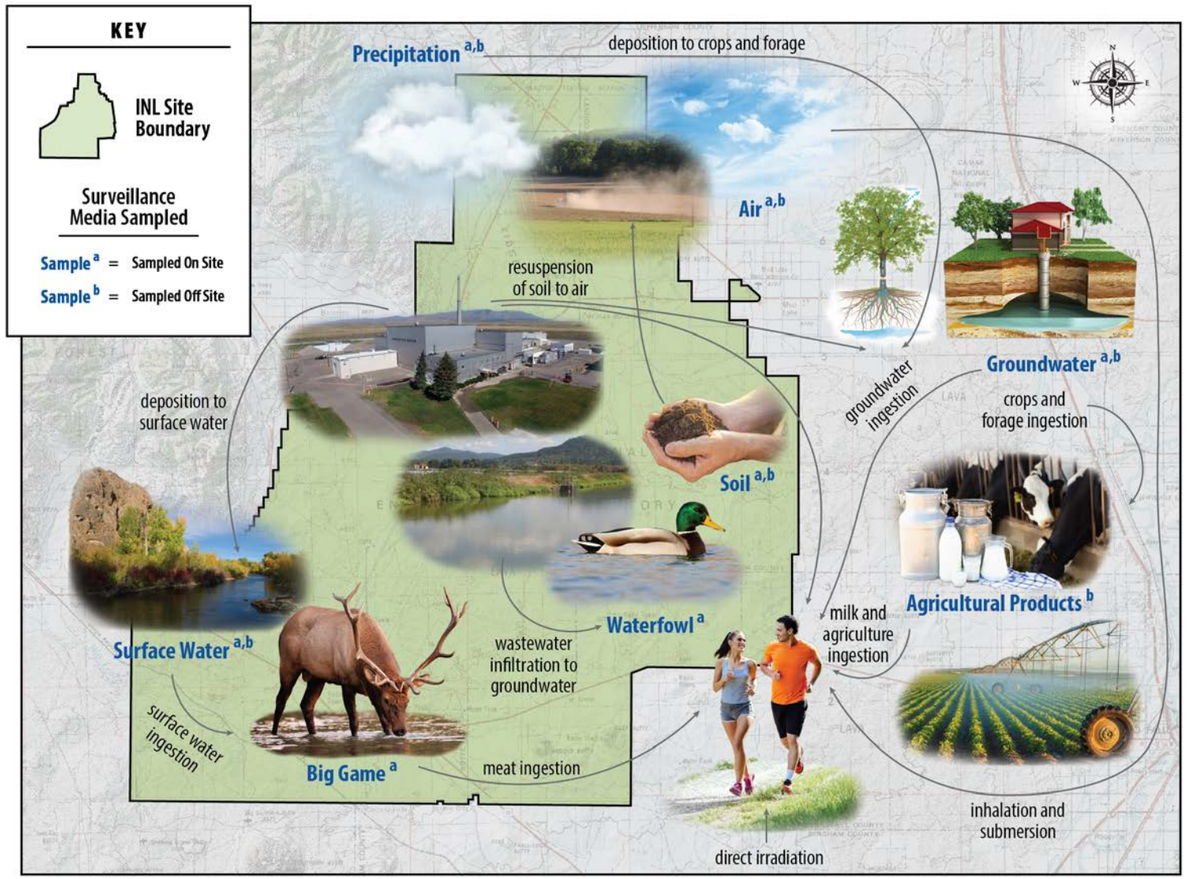
QUALITY ASSURANCE

Quality assurance and quality control programs for environmental monitoring are maintained by INL Site contractors and laboratories performing environmental analyses. These programs ensure that all laboratory data reported for environmental monitoring are reliable and of acceptable quality.

ENVIRONMENTAL RESTORATION is conducted at the INL Site in compliance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Resource Conservation and Recovery Act (RCRA) of legacy waste; cleanup of hazardous materials such as asbestos, acids, radionuclides, explosives, polychlorinated biphenyls and heavy metals.

The INL Site is divided into 10 waste area groups. Comprehensive studies and closeout activities have been completed at six of the waste area groups.

ENVIRONMENTAL PATHWAYS



NATURAL AND CULTURAL RESOURCE MANAGEMENT

- **Natural resource monitoring and management**
  There are four key areas of emphasis: (1) conservation planning; (2) special status species; (3) natural resource monitoring and research; and (4) land stewardship to ensure the INL Site mission and goals can be achieved with minimal impacts to natural resources.
- **Cultural resource management**
  Actively managed cultural resources include: (1) precontact sites related to the earliest occupations of Idaho and Shoshone-Bannock Tribes cultural heritage; (2) historic-era sites related to trade, commerce and homesteading activities; (3) World War II and Cold War era buildings and structures; and (4) archival collections that document the development and evolution of INL.

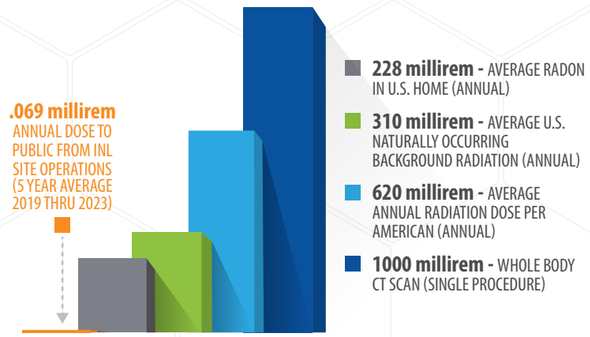
RISK AND DOSE ASSESSMENT

RADIATION DOSE: To protect the public, the DOE has set an exposure limit of 100 millirem per year from its activities. The graphic below shows the five-year average from INL Site operations is **0.069 mrem**, significantly below the regulatory limit.

Exposure to radiation occurs in a variety of ways. Simply breathing particles in the air may cause some exposure. Direct exposure to radiation can come from the sun or the ground. Contaminants in the air can deposit on grass, which can then be eaten by animals and transferred to humans through consumption of animal products and produce. Natural radiation can also be found in foods such as bananas, peanut butter, etc. **Exposure to radiation potentially occurs by the following:**

- **Cosmic radiation (produced by the sun and stars)**
- **Terrestrial radiation (produced by rocks and soil)**
- **Inhalation**
- **Ingestion**

Radiation dose refers to the amount of energy absorbed by the human body from a radioactive source, whether the source is internal or external. This dose is typically measured in units called "millirem" (mrem). On average, a U.S. resident receives an annual radiation dose of 620 millirems from both natural and man-made sources. Additional sources of exposure include industrial applications, air travel and certain household items containing small amounts of radioactive materials. Indeed, radiation is ubiquitous in our environment.



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