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U.S. Department of Energy
Idaho Operations Office

INL Site-Wide Institutional Controls, and Operations and Maintenance Plan for CERCLA Response Actions

February 2008

Idaho Cleanup Project

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Prepared for the
U.S. Department of Energy
DOE Idaho Operations Office

ABSTRACT

On November 9, 2002, the U.S. Environmental Protection Agency, the U.S. Department of Energy, and the Idaho Department of Environmental Quality approved the *Record of Decision Experimental Breeder Reactor-I/Boiling Water Reactor Experiment Area and Miscellaneous Sites,* which required a Site-wide institutional controls plan for the then Idaho National Engineering and Environmental Laboratory (now known as the Idaho National Laboratory). This document, first issued in June 2004, fulfilled that requirement. This revision identifies and consolidates the institutional controls and operations and maintenance requirements into a single document.

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FIGURE

ACRONYMS

ANL	Argonne National Laboratory-West (now MFC)
AOC	area of contamination
ARA	Auxiliary Reactor Area
BORAX	Boiling-Water Reactor Experiment
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFA	Central Facilities Area
CFLUP	Comprehensive Facility and Land-Use Plan
CFR	Code of Federal Regulations
COC	contaminant of concern
CPP	Chemical Processing Plant
D&D	decontamination and decommissioning
DEQ	(Idaho) Department of Environmental Quality
DOE	U.S. Department of Energy
DOE-ID	U.S. Department of Energy Idaho Operations Office
EPA	U.S. Environmental Protection Agency
ESD	explanation of significant differences
FFA/CO	Federal Facility Agreement and Consent Order
IC	institutional control
ICDF	Idaho CERCLA Disposal Facility
ICP	Idaho Cleanup Project
ICPP	Idaho Chemical Processing Plant
ICS	Institutional Control Sites
IDAPA	Idaho Administrative Procedures Act
IDHW	Idaho Department of Health and Welfare
IET	Initial Engine Test
INEEL	Idaho National Engineering and Environmental Laboratory
INL	Idaho National Laboratory
INTEC	Idaho Nuclear Technology and Engineering Center
MCL	maximum contaminant level
MCP	management control procedure
MFC	Materials and Fuels Complex
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NOAA	National Oceanic and Atmospheric Administration

NRF	Naval Reactors Facility
NSD	notice of soil disturbance
O&M	operations and maintenance
OCVZ	organic contamination in the vadose zone
OMRE	Organic Moderated Reactor Experiment
OU	operable unit
PBF	Power Burst Facility
PCB	polychlorinated biphenyl
RCRA	Resource Conservation and Recovery Act
ROD	record of decision
RTC	Reactor Technology Complex
RWMC	Radioactive Waste Management Complex
SCA	soil contamination area
SDA	Subsurface Disposal Area
SPERT	Special Power Excursion Reactor Test
SRPA	Snake River Plain Aquifer
STF	Security Training Facility
TAN	Test Area North
TRA	Test Reactor Area (now RTC)
TRU	transuranic
TSF	Technical Support Facility
USC	United States Code
USGS	United States Geological Survey
UXO	unexploded ordnance
WAG	waste area group
WRRTF	Water Reactor Research Test Facility

INL Site-Wide Institutional Controls, and Operations and Maintenance Plan for CERCLA Response Actions

1. INTRODUCTION/PURPOSE

This plan identifies institutional controls (ICs) and operations and maintenance (O&M) requirements at the Idaho National Laboratory (INL) — mandated by the Comprehensive Environmental Response and Liability Act (CERCLA) (42 United States Code [USC] § 9601 et seq.) — and documents how these requirements are implemented. The primary long-term objective of ICs and O&M at the INL is to protect human health by preventing exposure to contaminants or hazardous substances, and to protect the environment by preventing migration of contaminants and hazardous substances that are left in place following remedial actions. However, in some cases ICs and O&M activities have been specified for CERCLA sites during the pre-remediation phase. Therefore, this plan includes pre- and post-remediation IC requirements and O&M activities.

Institutional controls at the INL Site are based on guidance in the *Region 10 Final Policy on the Use of Institutional Controls at Federal Facilities* (Environmental Protection Agency [EPA] 1999); *Institutional Controls: A Site Manager's Guide to Identifying, Evaluating, and Selecting Institutional Controls at Superfund and RCRA Corrective Action Cleanups* (EPA 2000); and U.S. Department of Energy (DOE) policy DOE P 454.1, "Use of Institutional Controls."

Individual waste area group (WAG)-specific Records of Decision (RODs), IC plans, and O&M plans have mandated specific activities to ensure that the remedies remain protective of human health and the environment after the remedial activities are completed. Requirements identified in this plan have been compiled from those plans. The IC requirements with Site-wide applicability are established in Section 11.2 of the *Record of Decision Experimental Breeder Reactor-I/Boiling Water Reactor Experiment Area and Miscellaneous Sites Operable Units 6-05 and 10-04* (WAG 6 OU 6-05 and WAG 10 OU 10-04) (DOE-ID 2002). Those requirements specify that this plan must address the following:

NOTE: *Language quoted from the ROD includes "INEEL" (Idaho National Engineering and Environmental Laboratory), which would now be referred to as the INL.*

- "A comprehensive listing of all areas or locations on the INEEL that have ICs for protection of human health or the environment. The information on the list will include, at a minimum, the location of the area, the objectives of the restriction or control, the timeframe during which the restrictions apply, and the tools and procedures that will be applied to implement the restrictions or controls and to evaluate the effectiveness of these restrictions or controls." (Appendix A)

- "Identification, made legally binding where appropriate, of all entities and persons, including, but not limited to, employees, contractors, lessees, agents, licensees, and invitees relevant to INEEL and WAGs 6 and 10 institutional controls." (Section 3)

- "Identification of all activities, and reasonably anticipated future activities, including, but not limited to, soil disturbance, routine and non-routine utility work, well placement and drilling, grazing activities, groundwater withdrawals, paving, construction, renovation work on structures, or other activities that could occur on INEEL CERCLA sites with ICs." (Section 6)

- "A tracking mechanism that identifies all land areas under restriction or control." (Section 4.3)

- "A process to promptly notify both EPA and the State of Idaho before any anticipated change in land-use designation, restriction, land users, or activity for any IC required by a decision document." (Section 4.3)

- "... incorporate by reference the INEEL Land-Use Plan, DOE/ID-10514, installation maps, a comprehensive permitting system, and other installation policies and orders." (Section 6)

In addition, the ROD commits the U.S. Department of Energy Idaho Operations Office (DOE-ID) to notify EPA and the Idaho Department of Environmental Quality (DEQ) upon discovery of any deficiencies or activities that are inconsistent with IC objectives or upon discovery of a change in land use or land-use designation. For the purposes of this plan, timely notification of minor deficiencies will be considered adequate if DOE-ID makes the notification during the first routine (e.g., weekly) remediation conference call following the discovery of an inconsistency. DOE-ID shall report major deficiencies to EPA and DEQ by telephone, fax, or e-mail within two working days of the discovery. Major deficiencies may result in changes to Site ICs that would require preparation of an explanation of significant differences (ESD) or other decision document. These parameters should allow DOE-ID enough time to obtain additional information about the inconsistency and prepare the pertinent information for discussion with the Agencies.

The ROD also specifies that the IC assessment report must contain, at a minimum, the following:

- "A description of the means employed to meet IC requirements"
- "A description of the means employed to meet waste site-specific objectives, including results of visual field inspections of all areas subject to operable waste-specific restrictions"
- "An evaluation of the effectiveness of the approach at meeting all WAG-wide IC requirements and waste site-specific objectives"
- "A description of any deficiencies and the approach and efforts or measures that have been or will be taken to correct problems."

This plan addresses the requirements stated above and demonstrates how DOE-ID will implement and maintain the IC requirements at the INL Site. This plan will be reviewed after each five-year review period at a minimum and will be revised, as necessary, to address new IC requirements and/or changes in the IC requirements. Minor or insignificant changes will be agreed upon with the Agencies and implemented only after agreement with the Agencies. The discussions and agreement for minor changes will be documented in the minutes of the routine remediation conference call. In accordance with the OU 10-04 ROD (DOE-ID 2002) requirement to develop an INL-wide IC plan, this plan will integrate applicable requirements from previously issued CERCLA IC plans and O&M plans.

O&M measures implemented at the INL are based on guidance in *Operation and Maintenance in the Superfund Program* (EPA 2001a), and DOE P 580.1, "Management Policy for Planning, Programming, Budgeting, Operation, Maintenance, and Disposal of Real Property."

This plan focuses on O&M activities that are in place to address the protectiveness and integrity of CERCLA remedial measures at the INL Site. Examples of such activities are inspection of and reporting on the condition of engineered barriers and performance of radiological surveys. This plan excludes day-to-day facility operations such as transportation of waste to the Idaho CERCLA Disposal Facility (ICDF), operation of the Pump and Treat Facility and associated activities at Test Area North (TAN), performance of organic contamination in the vadose zone (OCVZ) activities at the Radioactive Waste Management Complex (RWMC), and Tank Farm O&M activities at the Idaho Nuclear Technology and Engineering Center (INTEC). The TAN Pump and Treatment and associated activities at TAN are

addressed in the *New Pump and Treat Facility Operations and Maintenance Plan for Test Area North Final Groundwater Remediation, Operable Unit 1-07* (DOE-ID 2007a), the *In situ Bioremediation Operations and Maintenance Plan for Test Area North Operable Unit 1-07B*, (DOE-ID 2004), and the *Monitored Natural Attenuation Operations Monitoring and Maintenance Plan for Test Area North, Operable Unit 1-07B* (DOE-ID 2003). The OCVZ activities are addressed in PLN-2291, "Operations and Maintenance Plan for the OU 7-08 Organic Contamination in the Vadose Zone Project." Tank Farm O&M activities are discussed in the *Operable Unit 3-14, Tank Farm Soil and INTEC Groundwater Operation and Maintenance Plan* (DOE-ID 2007b).

This Site-wide IC and O&M plan applies to OUs that are under the direct control of DOE-ID. Therefore, this plan excludes WAG 8, the Naval Reactors Facility. Refer to Figure 1 for a map of the WAGs at the INL Site.

2. INSTITUTIONAL CONTROLS AT THE IDAHO NATIONAL LABORATORY SITE

The Region 10 Final Policy (EPA 1999) states that ICs:

> "… generally include all non-engineered restrictions on activities, access, or exposure to land, groundwater, surface water, waste and waste disposal areas, and other areas or media. Some common examples of tools to implement ICs include restrictions on use or access, zoning, governmental permitting, public advisories, or installation master plans. ICs may be temporary or permanent restrictions or requirements."

DOE P 454.1 adds that ICs:

> "… may include administrative or legal controls, physical barriers or markers, and methods to preserve information and data, and inform current and future generations of hazards and risks."

Established IC requirements at the INL are specified in CERCLA decision documents and are based on a number of factors, including an evaluation of residual contamination, the spatial location of that material (e.g., at the surface or at depth), reasonably anticipated future human land uses, and environmental impacts. If, upon completion of a selected remedy, sites cannot be released for unrestricted human use, ICs are continued to protect human health and the environment. Appendix A provides a list of institutionally controlled sites at the INL, and the required controls for each. The locations of the IC sites are shown on the maps in Appendix B.

EPA guidance in the Site Manager's Guide (EPA 2000) identifies four general categories of institutional controls: governmental, proprietary, enforcement and permitting tools, and informational devices. Governmental controls impose land or resource restrictions, and are usually implemented by a state or local government. Governmental controls may include zoning, building codes, ordinances, or other provisions. Proprietary controls, which are based on state law, generally create legal property interests and may include easements and covenants. Enforcement and permitting tools are legal tools including orders, permits, and consent decrees that compel a party to limit activities and ensure the performance of obligations. Informational devices provide information or notification that residual contamination may remain at a site. Informational devices may include state registries, deed notices, or advisories. Because of federal ownership, there are significant differences in the way ICs are applied at

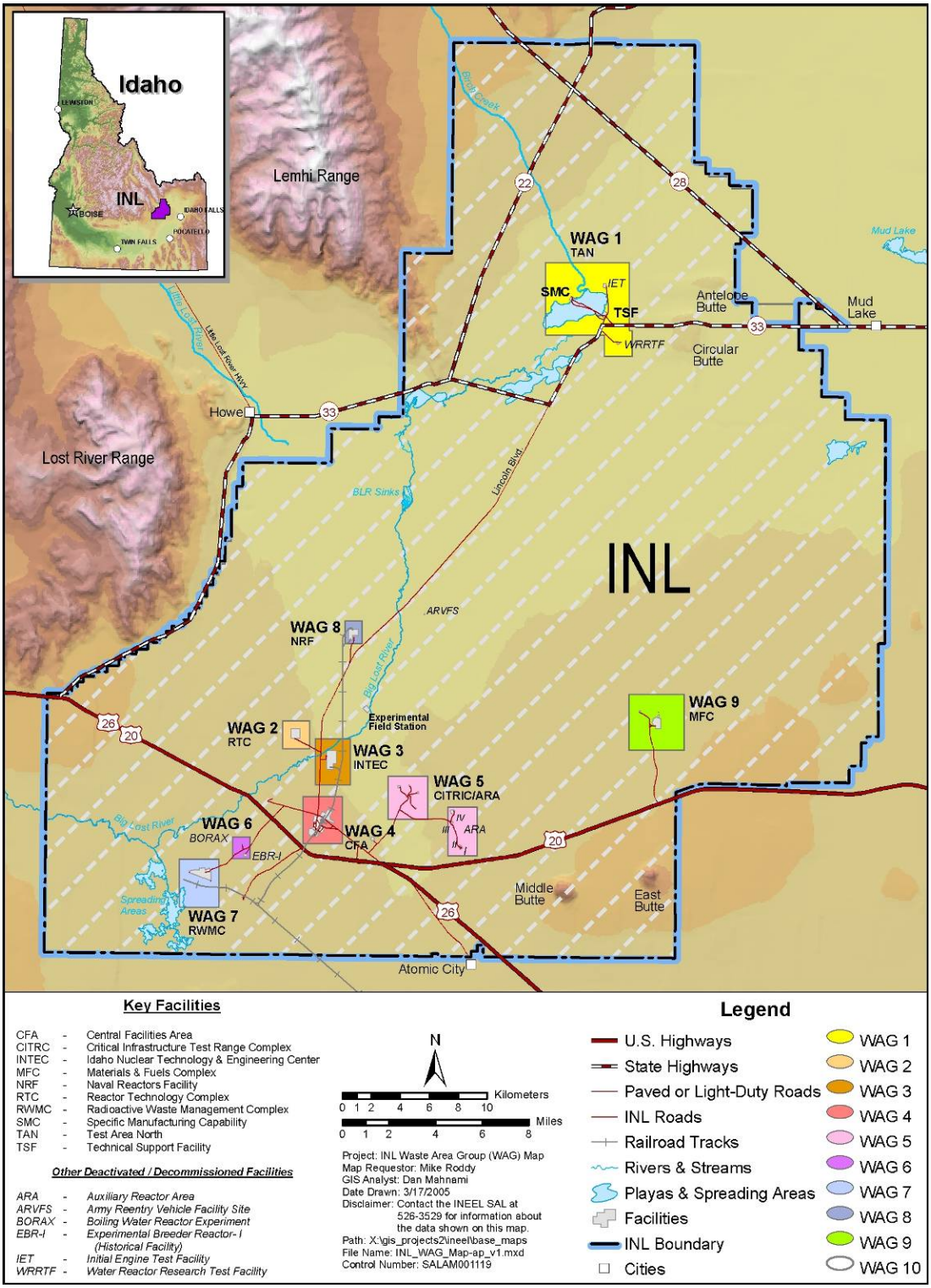

Figure 1. Idaho National Laboratory Site map showing the waste area group locations.

federal facilities. At active facilities, such as the INL, ICs are commonly addressed in remedy-selection documents, and local government involvement is limited. This Site-wide plan consolidates ICs developed in remedy-selection documents.

ICs at the INL are divided into two general categories: (1) physical controls and (2) administrative controls. Physical controls provide material means for controlling access to a site, such as warning signs, fences, and permanent markers. Administrative controls are designed to control land or resource use at a site and may include, but are not limited to, property lease or transfer requirements, government permitting, and soil disturbance restrictions. A discussion of the various types of ICs in place at the INL is presented in the following sections.

2.1 Physical Controls

2.1.1 Warning signs

Warning signs at institutionally controlled sites at the INL are commonly called IC signs. They are the predominant method of visible access restriction at the INL Site. They identify the location of controlled sites to any person who may intentionally or inadvertently enter or disturb a site. Signs are posted when residual contamination at the site could pose a current or future risk to human health or the environment.

Newly identified sites at the INL may be posted with IC signs prior to being subjected to a ROD. These sites are tracked in the Institutional Control Sites (ICS) Database. Permanent controls are established once an agency decision is documented in a ROD or other decision document. Signs for new sites must reflect the requirements of this plan.

At a minimum, the IC signs provide information on the principle hazard(s) at the site, the media of concern, a point of contact with phone number, and a warning to *not* disturb the area unless authorized. The point of contact for the INL is the Warning Communications Center, which coordinates any calls to Long-Term Stewardship contact persons as needed or to contact persons in the related WAG. The signs list generalized hazard(s) information (e.g., organics, inorganics, radionuclides, polychlorinated biphenyls [PCBs], asbestos, or ordnance) without identifying specific chemicals or radionuclides unless necessary. The INL CERCLA warning signs are orange in color and the format of the signs is consistent throughout the INL Site (see Appendix C for an example of an INL CERCLA warning sign).

Placement and frequency of warning signs are sufficient to prevent inadvertent access to an IC site. While the configuration of IC sites varies greatly at the INL and exceptions will occur, the following guidelines are used in determining the placement of signs:

- Signs will be clearly posted
- Signs will be placed at normal approach points
- At least one sign will be placed at sites that require signs; however, more signs may be placed, depending on the size and configuration of the site (e.g., signs may be placed intermittently along the boundary of larger sites)
- The effect upon visibility from opening doors or other changes in configuration will be considered when posting warning signs
- Signs will be securely affixed and located so that signs and labels remain in place.

At sites where the sign location may interfere with traffic patterns or be inaccessible because of geographic restrictions, the signs are placed such that they best advise personnel of the presence of a hazard. In some cases, signs are placed near but not on the site. Signs may include a map showing the configuration of the site and adjacent buildings and structures, but will not include reference to coordinates. Signs and labels are built to endure expected environmental conditions. Existing signs are replaced or repaired on an as-needed basis.

2.1.2 Permanent Markers

Permanent markers may be used as a second method of visual access restriction, but should not be used as the sole method of visual access restriction at the INL. Permanent markers at the INL are usually made from stone or concrete and are installed at or near the boundaries of selected sites. Markers may have a combination of symbols commonly used to indicate warning or danger (e.g., skull-and-crossbones or Tri-Foil, etc.), or may have site information embedded or engraved in the marker. Markers are intended to provide a method of warning that is designed to endure environmental conditions. Depending on the size and configuration of a site, one or more markers may be placed at a site. Currently, only a small fraction of the institutionally controlled sites at the INL use permanent markers as a method of IC.

2.1.3 Fences

Fences may be used as an additional method of physically restricting access to a site. Although not typically considered an institutional control (EPA 2000), fences are utilized as an institutional control at several sites at the INL. At sites where fences are considered ICs, the fences are inspected as part of the routine periodic IC inspections, and are maintained to keep them in good condition, and repaired as necessary. Appendix A provides a complete list of institutionally controlled sites at the INL, and identifies which sites utilize fences as an institutional control.

2.1.4 Wellhead Controls

Currently, over 300 groundwater-monitoring wells are utilized at the INL for the purpose of collecting water level data and groundwater. Wells at the INL are constructed in accordance with Idaho Administrative Procedures Act (IDAPA) requirements to ensure that the well does not act as a conduit for contamination to enter the groundwater. Consequently, wellhead controls are implemented to prevent intentional or inadvertent spread of contamination to the groundwater through the opening of an existing well, and to provide an awareness of wells. These controls include requirements to ensure that the wellhead is secured and that the well is adequately marked or identified. Wellheads are locked at the INL to restrict unauthorized access, and a well identifier is affixed to each of the monitoring wells. Approximately 20% of the wells are visited during the routine annual IC/O&M inspections to verify that wells utilized by the groundwater monitoring program are appropriately identified, locked, and secure. Well use is reviewed to verify that CERCLA monitoring wells are not being used for human consumption or irrigation purposes. Table A-2 provides a complete list of the wells that are used by the Idaho Cleanup Project (ICP) groundwater monitoring program.

2.1.5 Physical Security

Although not controlled or enforced under the authority of ICs or CERCLA, the INL Site utilizes physical security measures as a means of controlling access to the Site. Physical security includes guard gates, security badging, and warning signs at the INL boundary. Access to the INL is granted following presentation of a security badge to a guard at one of the entrances to the INL Site. Access to several of the INL Site facilities is also controlled through the use of guard gates. INL physical security provides an

additional layer of physical and visual access control, beyond the requirements enforced through the IC process.

2.2 Administrative Controls

2.2.1 Property Lease/Transfer Requirements

Land within the INL Site boundary is projected to be under government control and not released for residential use at least until 2095; however, it is anticipated that some facilities at the INL will remain under government control beyond that date. Consequently, controls on property leases or transfers and land owner limitations are not likely to be of concern until land is released from government control. Any changes to these assumptions will be reflected in future revisions of this document.

The Hall Amendment of the *National Defense Authorization Act of 1994* (Public Law 103-160, Section 3154) requires concurrence from EPA on the lease of any National Priorities site during the period of DOE control, and CERCLA requires that the state be notified of a lease involving contamination (42 USC 9620 [h] [3], "Federal Facilities"). When DOE no longer manages INL activities and controls are needed as prescribed in 42 USC 9620 (h) (3), DOE is required to indicate the presence of contamination and any restrictions in the property transfer documentation.

2.2.2 Site Disturbance Requirements

Site disturbance requirements include measures that control the process of physically disturbing the soil or penetrating the ground at a site. Disturbances are managed through the implementation of drilling/excavation controls and soil disturbance controls. Both of these processes are governed by company management control procedures (MCPs). Specifically, MCP 3480 identifies drilling/excavation requirements and MCP-3002, "Managing Disturbed Soils," describes the soil disturbance process at the INL. As contractors at the INL change, the current company MCPs are transferred to the new contractor, thus applicable procedures are maintained at contractor transition.

2.2.2.1 Drilling/Excavation Controls. Drilling and excavation activities at CERCLA sites are controlled to prevent inadvertent spread of contamination and to minimize worker exposure. Where drilling or excavation restrictions are identified as ICs, they are implemented in accordance with the requirements identified in MCP-3480, "Environmental Instructions for Facilities, Processes, Materials, and Equipment." Drilling and excavation controls identified in MCP-3480 include, but are not limited to, the following:

- Preparation and receipt of a drilling permit from the State of Idaho
- Restrictions on use of drilling fluids or additives
- Requirements for documentation and reporting of drilling activities
- Completion and approval of an environmental checklist, as appropriate, prior to drilling or excavating.

Prior to initiating a drilling project at the INL, an environmental checklist will be prepared to ensure that hazards associated with the site will be adequately evaluated and addressed in work control documentation. Environmental checklists are subject to review by appropriate subject matter experts.

2.2.2.2 Groundwater Consumption/Irrigation Controls. Use of groundwater from the portion of the Snake River Plain Aquifer (SRPA) that exceeds Maximum Contaminant Limits (MCLs) is controlled to prevent drinking, and/or use for irrigation. Controls include the following:

- Publishing a statement in the ICS database indicating control of activities
- Publishing a map in the ICS database identifying area(s) under control
- Restricting use of groundwater to CERCLA monitoring purposes.

2.2.2.3 Soil Disturbance Controls. To accommodate construction, maintenance, or investigation activities, soil disturbances within CERCLA controlled sites are occasionally necessary. In order to properly manage and document soil disturbance activities at the INL Site, consistent with the Federal Facility Agreement and Consent Order (FFA/CO) (DOE-ID 1991) response actions, a notice of soil disturbance (NSD) package will be prepared and coordinated as set out in Appendix D to describe the action and identify the CERCLA activity that authorizes it. Because of the complexity of subsurface structures and soils within the INTEC area (including the OU 3-14 industrial use area), a notification of soil disturbance is required for planned disturbance, excavation, placement, and management of soils, structures, and debris within the CERCLA OU 3-13 area of contamination (AOC).

Soil disturbances at CERCLA "no action" or "no further action" locations within the INL Site also will be managed through the NSD process as minor modifications to the applicable RODs when additional information is identified that demonstrates there are potential unacceptable risks to human health and the environment associated with the site. As minor modifications to the applicable RODs, these soil disturbances that will be reviewed as an NSD are not significant enough to require an ESD or a ROD amendment.

In addition, the NSD process will be used to manage soil disturbances at newly identified CERCLA sites that are undergoing investigation in accordance with the CERCLA new site identification process or those sites being investigated under the OU 10-08 CERCLA process. As minor components of on-Site CERCLA response actions, these soil disturbances are performed in accordance with and under authority of CERCLA (42 USC § 9601 et seq.), the "National Oil and Hazardous Substances Pollution Contingency Plan" (NCP) (40 Code of Federal Regulations [CFR] 300), and the FFA/CO (DOE-ID 1991), including CERCLA Section 121(e) (1).

When contamination is discovered during soil disturbances at non-CERCLA sites and is determined to pose a possible risk to human health and the environment, the new site identification process will be implemented. The Agencies are included in the new site identification process. When unexpected contamination or unexpected conditions are identified at NSD sites, the Agencies will be notified.

The process for implementing NSDs at the INL and a sample NSD form are presented in Appendix D.

2.2.3 Site Boundary Controls

Current information on each institutionally controlled is maintained in the Institutional Control Site (ICS) database. That information includes, but is not limited to the following:

- Maps identifying the location of each site
- Site coordinates.

The ICS database in routinely reviewed prior to the annual site inspections to verify that the information is up-to-date and accurate.

3. OPERATIONS AND MAINTENANCE AT THE IDAHO NATIONAL LABORATORY SITE

O&M is an essential component of a Superfund response to ensure that the remedy performs as intended. The NCP defined O&M as "the measures initiated after the remedy has achieved the remedial action objectives and remediation goals in the ROD, and is determined to be operational and functional" (40 CFR § 300.435 [f] [1], "Remedial Design/Remedial Action, Operation and Maintenance"). O&M measures are designed to maintain the remedy at a site to ensure that the remedy remains protective of human health and the environment. In accordance with EPA guidance, remedies requiring O&M may include, but are not limited to, actions that typically require five-year reviews (e.g., landfill caps, gas collection systems, and groundwater containment, etc.). O&M measures also may include requirements for maintaining ICs.

The O&M activities identified in this plan are performed and reported annually unless noted otherwise. The timing of O&M inspections is coordinated with the annual inspection of ICs, when possible, in order to avoid duplication of visits. Inspection and maintenance activities will be reported as discussed in Section 10. O&M activities at the INL include sampling/monitoring, inspections, and maintenance/repair, and are discussed in the following sections.

3.1 Sampling and Monitoring

3.1.1 Radiological Monitoring

Surface radiological monitoring is performed to identify potential migration of contamination and to ensure that the existing remedies are protective for occupational exposure. The surveys are performed around the perimeter and on the surface of applicable sites using an in situ high-purity germanium detector, a global positioning radiometric scanner, or a hand-held Geiger counter. Results of the surveys are compared with previous surveys to verify site conditions.

3.1.2 Sampling for Releasing Restrictions

Currently some of the CERCLA sites at the INL Site include active disposal ponds/lagoons. These sites have controls in place to prohibit access and control use, and they will remain in use until final actions at the sites are completed, and discharge ceases. When discharge ceases at each of these sites, sediments within the ponds/lagoons will be sampled to determine contaminant concentrations and whether cleanup actions will be necessary prior to releasing restrictions at the site. Sampling plans, work control documentation, or other appropriate documentation will be developed at the time the discharge ceases.

3.2 Inspections

3.2.1 Subsidence/Erosion/Intrusion

Visual inspections identify areas of erosion and/or subsidence, animal intrusions, and other potential issues that may affect the stability of the site or may have an effect on human health or the environment. The areas exhibiting these characteristics will be documented, photographed, and, as necessary, repaired with additional soil or rock to return them to the surrounding grade.

Engineered covers are inspected annually for erosion, subsidence, and intrusion. Visual inspection is used to identify impacted areas on the covers. Specifically, inspectors look at areas of the covers that

exhibit the following characteristics: (1) erosion rills in excess of 2 in. deep or 6 in. wide for a distance of more than 10 ft, (2) areas showing signs of ponding or localized subsidence in excess of 6 in., and (3) animal intrusions into the top of the cover. The areas exhibiting these characteristics will be documented and repaired with additional soil, as necessary, to return them to the required grade. They will then be reseeded as necessary. If soil movement—as evidenced by the accumulation of soil on the upslope side of plants, pedestalling of plants or rocks, or the formation of rills or gullies—is observed, it will be recorded with the extent of erosion noted. If rills and gullies are observed, appropriate soil will be added and compacted to bring the area up to the surrounding grade, as determined by visual approximation. Photographs will be taken as needed.

Contingency inspections also may be conducted as needed after severe rainstorms, floods, tornadoes, earthquakes, fires, or vandalism. The frequency of the engineered barrier inspection will be evaluated during the five-year review.

3.2.2 Vegetative Growth

The growth of newly planted native vegetation will be inspected annually on completed remedial action sites until the vegetation is confirmed to be well established (to within 70% of natural conditions). Areas where the native vegetation is not growing will be reseeded, as necessary, to establish growth. Except on sites with native soil covers, when the native vegetation has been confirmed to be well established, further annual inspection will be discontinued upon notification to the applicable agencies.

The growth of noxious weeds will be inspected annually on completed remedial action sites where native vegetation is not well established. Noxious weeds will be eradicated to control the spread of the noxious weeds in the area.

3.2.3 Topographic Surveys

As necessary, topographic surveys of engineered barriers are conducted in conjunction with five-year reviews to check for subsidence. Survey points will follow established survey grids ensure consistency of survey results. Areas of concern demonstrating excess subsidence are documented, and subsequent topographical surveys will be conducted annually for a minimum of three years. Continual movement or subsidence over a period of three years may indicate failure of the cover. If that occurs, the slopes will be evaluated to determine the cause of the movement. Evaluation of cover failure will consist of the following:

- Ascertaining the type of slope failure that occurred (circular slope failure, subsidence, block/sliding failure) based on visual inspection of the area
- Ascertaining the cause of the failure.

If a cover fails, DOE-ID will ascertain the nature and extent of necessary repairs with concurrence from DEQ and EPA. The frequency of topographic surveys will be evaluated during the five-year review.

3.3 Maintenance and Repair

Minimal maintenance will be necessary to ensure that signs, markers, etc. are in place and remain legible. To the extent possible, maintenance or repairs to signs and markers will be performed during the routine annual site inspections. However, no routine maintenance or repair is planned for the engineered barriers (ie. caps, covers, etc.). Maintenance and repair of engineered barriers will be performed as necessary, based on the inspection results. Nevertheless, routine periodic inspections will be performed. In addition, follow-up or contingency inspections will be performed as necessary. Follow-up inspections

will be performed to verify adequacy of maintenance and repairs. Contingency inspections are unscheduled inspections ordered by DOE-ID. Events that may trigger contingency inspections include but are not limited to severe rainstorms, floods, fires, and highly unusual events such as tornadoes or earthquakes.

4. RESPONSIBILITIES

4.1 Department of Energy Idaho Operations Office Responsibilities

The ICs and O&M requirements at the INL Site are established through an agreement among the DOE, EPA, and DEQ and are documented in a ROD, ROD amendment, ESD, or other decision document. However, DOE is the primary agency responsible for implementation, oversight, integration, maintenance, and compliance with these requirements at the INL Site as well as communication with state, local, tribal, and federal government agencies. While DOE-ID has ownership for the implementation and maintenance of ICs and O&M, the actions that provide for implementation and maintenance are performed under contracts issued by DOE-ID.

DOE-ID will adhere to the requirements specified in decision documents and this plan by utilizing internal procedures, Federal Register notices, informational announcements, and contracts, consistent with all applicable laws, regulations, agreements, and consent orders. Contractors are required to comply with applicable regulations and legal requirements, DOE orders, and administrative orders by way of contract requirements with the DOE-ID.

DOE-ID is responsible for the following:

- Ensuring that activities are performed in accordance with the approved plan, including implementation, performance, inspection, and reporting
- Ensuring that relevant DOE orders, directives, and policies are enforced
- Ensuring that National Environmental Policy Act (42 USC § 4321 et seq.) requirements are followed
- Ensuring that sites are maintained
- Notifying EPA and DEQ of failed controls
- Conducting assessments using personnel trained to the requirements of the approved plan
- Implementing corrective actions to address failure of ICs and providing updated site information to the ICS database
- Developing and transmitting the annual reports
- Ensuring document control of this plan (includes revisions) and annual reports, including their placement in the project file and in the information repository.

DOE-ID executes work through the use of contractors. The DOE-ID is responsible for ensuring that the contractors adhere to all applicable requirements.

4.2 Contractor Responsibilities

Although responsibility for ICs and O&M ultimately resides with DOE-ID, the actions that provide for implementation and maintenance are performed under contracts issued by DOE-ID. Contractor responsibilities are divided into two phases: (1) during remediation and (2) after remedy completion. These responsibilities include assessing sites and controls, preparing the reports, recordkeeping for the ICs, communicating deficiencies or failed ICs, and consulting with the individual WAGs on appropriate responses to these deficiencies/failures, as applicable. The Long-Term Stewardship Program interfaces with DOE-ID and implements corrective actions for failed ICs under the O&M program. The primary operational functions within the stewardship organization at the INL Site consist of the following:

- **Operations and Maintenance**—O&M consists of operations and maintenance of systems and components of long-term remedial actions, maintenance and repair of engineered remedies, maintenance and repair of failed physical ICs, and preparation of status reports summarizing the results of O&M activities.
- **Surveillance and Monitoring**—Surveillance and monitoring consists of groundwater sampling, environmental monitoring, and preparation of status reports summarizing the analytical results of the monitoring activities.
- **Institutional Controls**—ICs consist of implementation and evaluation of IC measures and preparation of status reports summarizing the results of the IC evaluation. They also include implementation of ICs at newly identified sites and notifying DEQ and EPA of failed controls and negotiating corrective actions.

4.3 Regulatory Agencies' Responsibilities

EPA and DEQ are the primary regulatory agencies that oversee INL Site cleanup activities in accordance with CERCLA § 120 (42 USC § 9601 et seq.) and the FFA/CO (DOE-ID 1991). DOE-ID is required by the FFA/CO to obtain agency approval and concurrence on the selected remedial actions in accordance with the requirements of CERCLA § 120 and the NCP (40 CFR 300). In addition, the regulatory agencies review and comment on the IC assessment reports and the CERCLA-required five-year reviews, and can propose additional work or modifications to primary documents in accordance with Paragraphs 8.21 to 8.24, 15.1 to 15.4, and 22.1 of the FFA/CO (DOE-ID 1991).

4.4 OU 1-10 Institutional Control Requirements

Institutional controls for the sites within OU 1-10 were originally identified in the OU 1-10 ROD, and are incorporated in this plan. However, with remedial actions at OU 1-10 coming to a conclusion, site boundaries or IC requirements at some of the sites may change. Specifically, remedial actions at sites TSF-08 and TSF-19 are done, but D&D activities in the area are still ongoing. As discussed in the OU 1-10 RA Report (DOE-ID 2007c), the D&D program will backfill the depression created by remedial action excavations for the V-tanks with rubble generated by D&D activities. The upper 10 ft will be covered with clean soil, but the final condition of the sites has not been achieved. Therefore, the institutional controls identified in the OU 1-10 ROD will remain in effect until D&D actions are completed, and they are determined to be no longer necessary. In addition, until D&D work is completed, access to the site will continue to be controlled through the standard INL work control process. Upon completion of the D&D activities, the Long-term Stewardship program will coordinate with the regulatory agencies to review institutional controls requirements and ensure the appropriate controls are identified and implemented Changes to the IC requirements will be addressed in a future revision to this document.

5. ASSESSMENTS

The effectiveness of IC and O&M requirements is evaluated through an annual assessment process. The purpose of the assessments is to determine whether IC mechanisms remain in place and are providing the protection required by the remedy, and to identify any necessary maintenance or repairs. The assessment process may include: (1) site visits to determine if physical controls are in place and functioning, (2) review of documentation to determine whether appropriate land or resource use is occurring, and (3) review of legal and administrative documentation to determine whether proprietary controls have been modified or terminated. The assessments are documented on the checklist and inspection logs. (Examples in Appendix E.)

6. RESPONSE TO FAILED CONTROLS

Failed controls most likely will be found during the annual assessments; however, failed controls may be discovered at any time. Personnel identifying a failed control will notify DOE-ID as the point of contact. DOE-ID will notify EPA and DEQ within two business days after discovery of any major activity (e.g., unauthorized well drilling, intrusion into engineered covers, change in land use from industrial to residential) that is inconsistent with the specific ICs for a site or of any change in the land use or land-use designation of a site addressed in the applicable ROD and listed in the Institutional Control Sites (ICS) database. Minor inconsistencies (e.g., signs down or missing) will be resolved as necessary. If minor inconsistencies are identified during the annual assessment, they will be noted, and resolution will be identified in the annual IC report.

If DOE-ID believes that an emergency exists, DOE-ID can respond to the emergency immediately, before notification to EPA and DEQ, and need not wait for any EPA or DEQ input to determine a plan of action. DOE-ID will identify the root cause of the IC process failure, evaluate how to correct the process to avoid future problems, and implement these changes after consulting with EPA and DEQ.

7. CHANGING/TERMINATING CONTROLS

The ICs are required as long as land use or access restrictions are necessary to maintain protection of human health and the environment. The ICs are established through an agreement between DOE, EPA, and DEQ. New sites that are determined to require ICs will be included in this plan and in the ICS database. Such sites will be included in the annual IC assessments and will be reported in the annual IC summary report.

The adequacy of the continued use of ICs for each site will be evaluated during the annual IC assessments and the five-year review process. Based on the results of the annual inspections and five-year reviews, sites may be determined to no longer require ICs. Therefore, the five-year review process provides a mechanism for terminating ICs and documenting that the parties of the FFA/CO (DOE-ID 1991) approve of the terminated ICs. In addition, upon completion of remedial actions, institutional controls may be determined to be no longer necessary. If so, changes in institutional controls will be coordinated with the regulatory agencies prior to implementing.

8. NEW SITES

Institutionally controlled sites at the INL that are currently identified within a decision document are addressed in this plan and are listed in Appendix A. However, it is likely that additional sites that require ICs will be identified in the future. These sites and the applicable ICs will be established in a decision document. Future decision documents that institute, maintain, or evaluate ICs shall be consistent with this plan and shall be integrated into future versions of this plan. As new sites requiring ICs are identified, they will be documented in the ICS database and included in this plan during the routine revisions to the plan. New sites and deleted sites accumulated in the electronic database will be listed in the report following the annual review of the ICs.

9. REPORTING

9.1 Institutional Control/Operation and Maintenance Reports

The information obtained during the annual inspection is used to develop routine annual IC/O&M reports. The reports follow EPA Region 10 institutional control guidance, including *Institutional Controls: A Site Manager's Guide to Identifying, Evaluating, and Selecting Institutional Controls at Superfund and RCRA Corrective Action Cleanups* (EPA 2000). The reports are prepared on an exception basis. That is, the reports summarize the assessment activities and report the deficiencies. The deficiencies are identified along with corrective actions, forecasted completion dates, and a status of each corrective action. The site photographs and assessment checklists are maintained in the project file and are not routinely included in the reports. The project file is available at the INL Site for review by the Agencies as necessary to allow Agency verification of the assessment process.

If, at some time in the future, the frequency of the inspections is changed from annual inspections to another identified frequency, then the frequency of the reports will be modified to match.

9.2 Five-Year Reviews

Section 121(c) of CERCLA (42 USC § 9601 et seq.), as amended by the "Superfund Amendments and Reauthorization Act of 1986 (SARA)" (Public Law 99-499), requires a review every five years at sites that have remaining hazardous substances, pollutants, or contaminants after remedial actions. "Remedial Investigation/Feasibility Study and Selection of Remedy" (40 CFR 300.430 [f][4][ii]) further provides that sites that have remaining hazardous substances, pollutants, or contaminants above levels that allow for unlimited use and unrestricted exposure after remedial actions, must be reviewed every five years to ensure protection of human health and the environment. The five-year review requirement applies to all remedial actions selected under CERCLA § 121. DOE-ID will conduct a Site-wide five-year review of ICs in accordance with any regulations, policies, and guidance applicable at the time (*Comprehensive Five Year Review Guidance*, EPA 2001b). New sites that have been identified since the previous five-year review will be reported in the current five-year review, and sites for which IC requirements have been discontinued since the previous five-year review will be documented in the current report.

10. RECORDKEEPING

A set of files specific to this plan is maintained by the contractor. The documentation will include, but is not limited to, the following:

- This and subsequent revisions to this plan
- Initial assessment reports
- Routine periodic assessment checklists and photographs
- Routine periodic reports
- Five-year review reports.

Previous versions of this plan referenced the CERCLA Comprehensive Facility Land Use Plan (CFLUP) as the tracking mechanism for institutionally controlled sites at the INL Site. However, because the CFLUP for the INL Site was recently discontinued, the ICS database was developed to track the status of IC sites at the INL. It provides current and projected land use for each IC site at the INL. Information contained in the ICS database includes the following:

- CERCLA site name
- Location of the site
- Description of the site
- Contaminants of concern
- ROD selected remedy
- Controls
- Objective of controls
- WAG under which ICs were developed.

The CFLUP has been reviewed during the annual site inspections to determine whether the site requirements data is accurate. In the future, the ICS database will be reviewed to verify that site requirement data is accurate. The ICS database is available electronically at http://cleanup.icp.doe.gov/ics. Agency-approved methods of public dissemination of information will be used to notify the public of any change in land use designation, restrictions, land users, or activities.

11. REFERENCES

40 CFR 300, 2007, "National Oil and Hazardous Substances Pollution Contingency Plan," *Code of Federal Regulations*, Office of the Federal Register, October 30, 2007.

40 CFR 300.430, 2007, "Remedial Investigation/Feasibility Study and Selection of Remedy," *Code of Federal Regulations*, Office of the Federal Register, October 30, 2007.

40 CFR 300.435 (f) (1), 2007, "Remedial Design/Remedial Action, Operation and Maintenance," *Code of Federal Regulations*, Office of the Federal Register, October 30, 2007.

42 USC § 4321 et seq., 2005, "National Environmental Policy Act of 1969," *United States Code,* January 3, 2005.

42 USC § 9601 et seq., 2005, "Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA/Superfund)," *United States Code,* January 3, 2005.

42 USC § 9620 et seq., 2005, "Federal Facilities," *United States Code*, January 3, 2005.

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DOE-ID 2007c, *Remedial Action Report for OU 1-10 Sites at Test Area North, WAG 1*, DOE/ID-11262, Rev. 0 Draft, U.S. Department of Energy Idaho Operations Office, December 2007.

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EPA, 2001b, *Comprehensive Five-Year Review Guidance*, EPA 540-R-01-007, OSWER No. 9355.7-03B-P, U.S. Environmental Protection Agency, June 2001.

MCP-3002, 2007, "Managing Disturbed Soils," Rev. 7, Idaho Cleanup Project, January 16, 2007.

MCP-3480, 2007, "Environmental Instructions for Facilities, Processes, Materials, and Equipment," Rev. 15, Idaho Cleanup Project, November 14, 2007.

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Appendix A

Institutionally Controlled Sites at the INL and Monitoring Wells Subject to IC Inspections

Appendix A

Institutionally Controlled Sites at the INL and Monitoring Wells Subject to IC Inspections

Table A-1. Institutionally controlled sites at the INL.

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
WAG 1						
Initial Engine Test (IET)-04 *IET stack rubble site* Contaminants of concern (COCs) Radionuclides	c) Visible access restrictions, control of activities, property lease requirements including land use, if necessary d) Property transfer requirements including issuance of a finding of suitability to transfer and control of land use, if necessary	c) Limit exposure to contaminated soil and ensure that land use is appropriate d) Ensure land use is appropriate	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning sings (2.1.1) Manage property lease/transfer requirements (2.2.1) Control soil disturbances (2.2.2.3)	No O&M requirements at this site	Not applicable	IC OU 1-10 ROD (DOE/ID-10682) Table 12-2 O&M Not applicable
TSF-05 *TAN Injection well* COC Radionuclides and organics	c) Visible access restrictions, control of activities, prevent well drilling, and property lease requirements including control of land use, if required based on results of remedial action d) Property transfer requirements including issuance of a finding of suitability to transfer and control land use, if required based on remedial action	c) Prevent consumption and use of groundwater >MCL and/or 1E-04 risk d) Prevent consumption and use of groundwater >MCL and/or 1E-04 risk	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning sings (2.1.1) Manage property lease/transfer requirements (2.2.1) Control soil disturbances (2.2.2.3) Control drilling/excavation (2.2.2.1)	No O&M requirements at this site	Not applicable	IC OU 1-10 ROD (DOE/ID-10682) Table 12-2 O&M Not applicable
TSF-06 Area 1 *Area northeast of turntable* COC Radionuclides	c) Visible access restrictions, control of activities, property lease requirements including land use, if necessary d) Property transfer requirements including issuance of a finding of suitability to transfer and control of land use, if necessary	c) Limit exposure to contaminated soil and ensure that land use is appropriate d) Ensure land use is appropriate	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning sings (2.1.1) Manage property lease/transfer requirements (2.2.1) Control soil disturbances (2.2.2.3)	No O&M requirements at this site	Not applicable	IC OU 1-10 ROD (DOE/ID-10682) Table 12-2 O&M Not applicable

Table A-1. (continued).

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
TSF-06 Area 5 *Radioactive soil berm* COC Radionuclides	c) Visible access restrictions, control of activities, property lease requirements including land use, if necessary d) Property transfer requirements including issuance of a finding of suitability to transfer and control of land use, if necessary	c) Limit exposure to contaminated soil and ensure that land use is appropriate d) Ensure land use is appropriate	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning sings (2.1.1) Manage property lease/transfer requirements (2.2.1) Control soil disturbances (2.2.2.3)	No O&M requirements at this site	Not applicable	IC OU 1-10 ROD (DOE/ID-10682) Table 12-2 O&M Not applicable
TSF-06 Area 10 *Reactor vessel burial site* COC Radionuclides	c) Visible access restrictions, control of activities, and property lease requirements including land use, if necessary d) Property transfer requirements including issuance of a finding of suitability to transfer and control of land use, if necessary	c) Ensure limited exposure to contaminated soil, and ensure land use is appropriate d) Ensure land use is appropriate	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning sings (2.1.1) Manage property lease/transfer requirements (2.2.1) Control soil disturbances (2.2.2.3)	No O&M requirements at this site	Not applicable	IC OU 1-10 ROD Amendment (DOE/ID-10682) Table 11-4 O&M Not applicable
TSF-06 Area 11 *Contaminated ditch* COC Radionuclides	c) Visible access restrictions, control of activities, property lease requirements including land use, if necessary d) Property transfer requirements including issuance of a finding of suitability to transfer and control of land use, if necessary	c) Limit exposure to contaminated soil and ensure that land use is appropriate d) Ensure land use is appropriate	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning sings (2.1.1) Manage property lease/transfer requirements (2.2.1) Control soil disturbances (2.2.2.3)	No O&M requirements at this site	Not applicable	IC OU 1-10 ROD (DOE/ID-10682) Table 12-2 O&M Not applicable
TSF-06 Area B *Area south of turntable* COC Radionuclides	a) *Until final action implemented:* Visible access restrictions, control of activities b) Property lease requirements including control of land use, if necessary d) Property transfer requirements including issuance of a finding of suitability to transfer control of land use if necessary	a) *Until final action implemented:* Limited direct exposure to radiologically contaminated soil b) Ensure land use is appropriate if contamination is left in place d) Ensure land use is appropriate if contamination is left in place	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning sings (2.1.1) Manage property lease/transfer requirements (2.2.1) Control soil disturbances (2.2.2.3)	Periodic intrusion, subsidence, erosion inspections	(3.1.1) Visual inspections (3.2.1, and 3.2.2) Maintenance/repair (3.3)	IC OU 1-10 ROD (DOE/ID-10682) Table 12-2 O&M 1-10 O&M plan (DOE/ID-10711) Table 4-1 & 4-2

Table A-1. (continued).

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
TSF-07 *Disposal pond* COC Radionuclides	a) Visible access restrictions, control of activities b) Visible access restrictions, control of activities, property lease requirements including control of land use d) Property transfer requirements including issuance of a finding of suitability to transfer and control of land use	a) Limit direct exposure to radiologically contaminated soil b) Limit direct exposure to radiologically contaminated soil d) Limit direct exposure to radiologically contaminated soil	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning sings (2.1.1) Maintain fences (2.1.3) Manage property lease/transfer requirements (2.2.1) Control soil disturbances (2.2.2.3)	Sampling for releasing land use restrictions when the pond is no longer used	Sampling for releasing restrictions (3.1.2)	IC OU 1-10 ROD (DOE/ID-10682) Table 12-2 O&M 1-10 O&M plan (DOE/ID-10711) Section 3, Tables 4-1 & 4-2 Site-wide five-year review (DOE/NE-ID-11201)
TSF-08 *Mercury spill* COC Mercury	See WAG 10					
TSF-09 *V-Tanks V-1, V-2, and V-3* COC Radionuclides	a) *Until final action implemented:* Visible access restrictions, control of activities b) Property lease requirements including control of land use, if necessary d) Property transfer requirements including issuance of a finding of suitability to transfer control of land use, if necessary	a) *Until final action implemented:* Limited direct exposure to radiologically contaminated soil b) Ensure land use is appropriate if contamination is left in place d) Ensure land use is appropriate if contamination is left in place	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning sings (2.1.1) Manage property lease/transfer requirements (2.2.1) Control soil disturbances (2.2.2.3)	Periodic animal intrusion, subsidence, erosion inspections	Visual inspections (3.2.1, and 3.2.2) Maintenance/repair (3.3)	IC OU 1-10 ROD (DOE/ID-10682) Table 12-2 O&M 1-10 O&M plan (DOE/ID-10711) Tables 4-1 & 4-2 Site-wide five-year review (DOE/NE-ID-11201)
TSF-10 *Drainage pond* COC Radionuclides and metals	c) Visible access restrictions, control of activities, property lease requirements including land use, if necessary d) Property transfer requirements including issuance of a finding of suitability to transfer and control of land use, if necessary	c) Limit exposure to contaminated soil and ensure that land use is appropriate d) Ensure land use is appropriate	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning sings (2.1.1) Manage property lease/transfer requirements (2.2.1) Control soil disturbances (2.2.2.3)	No O&M requirements at this site	Not applicable	IC OU 1-10 ROD (DOE/ID-10682) Table 12-2 O&M Not applicable

Table A-1. (continued).

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
TSF-18 *V-Tank V-9* COC Radionuclides	a) *Until final action implemented:* Visible access restrictions, control of activities b) Property lease requirements including control of land use, if necessary d) Property transfer requirements including issuance of a finding of suitability to transfer control of land use, if necessary	a) *Until final action implemented:* Limited direct exposure to radiologically contaminated soil b) Ensure land use is appropriate if contamination is left in place d) Ensure land use is appropriate if contamination is left in place	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning sings (2.1.1) Manage property lease/transfer requirements (2.2.1) Control soil disturbances (2.2.2.3)	Periodic animal intrusion, subsidence, erosion inspections	Visual inspections (3.2.1, and 3.2.2) Maintenance/repair (3.3)	IC OU 1-10 ROD (DOE/ID-10682) Table 12-2 O&M 1-10 O&M plan (DOE/ID-10711) Table 4-1 & 4-2
TSF-23 *Groundwater contamination* COC Radionuclides and organics	c) Visible access restrictions, control of activities, prevent well drilling, and property lease requirements including control of land use, if required based on results of remedial action d) Property transfer requirements including issuance of a finding of suitability to transfer and control land use, if required based on remedial action	c) Prevent consumption and use of groundwater >MCL and/or 1E-04 risk d) Prevent consumption and use of groundwater >MCL and/or 1E-04 risk	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning sings (2.1.1) Manage property lease/transfer requirements (2.2.1) Control soil disturbances (2.2.2.3) Control drilling/excavation (2.2.2.1)	No O&M requirements at this site	Not applicable	IC OU 1-10 ROD (DOE/ID-10682) Table 12-2 O&M Not applicable
TSF-26 *PM-2A area* COC Radionuclides	a) *Until final action implemented:* Visible access restrictions, control of activities b) Property lease requirements including control of land use, if necessary d) Property transfer requirements including issuance of a finding of suitability to transfer control of land use, if necessary	a) *Until final action implemented:* Limited direct exposure to radiologically contaminated soil b) Ensure land use is appropriate if contamination is left in place d) Ensure land use is appropriate if contamination is left in place	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning sings (2.1.1) Manage property lease/transfer requirements (2.2.1) Control soil disturbances (2.2.2.3)	Periodic animal intrusion, subsidence, erosion inspections.	Visual inspections (3.2.1, and 3.2.2) Maintenance/repair (3.3)	IC OU 1-10 ROD (DOE/ID-10682) Table 12-2 O&M 1-10 O&M plan (DOE/ID-10711) Tables 4-1 & 4-2

Table A-1. (continued).

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
TSF-28 *Sewage treatment plant* COC Radionuclides	c) Visible access restrictions, control of activities, property lease requirements including land use, if necessary d) Property transfer requirements including issuance of a finding of suitability to transfer control of land use, if necessary	c) Limit exposure to contaminated soil and ensure that land use is appropriate d) Ensure land use is appropriate	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning sings (2.1.1) Manage property lease/transfer requirements (2.2.1) Control soil disturbances (2.2.2.3)	No O&M requirements at this site	Not applicable	IC OU 1-10 ROD (DOE/ID-10682) Table 12-2 O&M Not applicable
TSF-29 *Acid pond* COC Radionuclides	c) Visible access restrictions, control of activities, property lease requirements including land use, if necessary d) Property transfer requirements including issuance of a finding of suitability to transfer control of land use, if necessary	c) Limit exposure to contaminated soil and ensure that land use is appropriate d) Ensure land use is appropriate	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning sings (2.1.1) Manage property lease/transfer requirements (2.2.1) Control soil disturbances (2.2.2.3)	No O&M requirements at this site	Not applicable	IC OU 1-10 ROD (DOE/ID-10682) Table 12-2 O&M Not applicable
TSF-39 *Asbestos in gravel pit* COC Asbestos	c) Visible access restrictions, control of activities, property lease requirements including land use if necessary d) Property transfer requirements including issuance of a finding of suitability to transfer and control of land use, if necessary	c) Limit exposure to contaminated soil and ensure that land use is appropriate d) Ensure land use is appropriate	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning sings (2.1.1) Manage property lease/transfer requirements (2.2.1) Control soil disturbances (2.2.2.3)	No O&M requirements at this site	Not applicable	IC OU 1-10 ROD (DOE/ID-10682) Table 12-2 O&M Not applicable
TSF-42 *Contaminated pipe* COC Radionuclides	c) Visible access restrictions, control of activities, property lease requirements including land use, if necessary d) Property transfer requirements including issuance of a finding of suitability to transfer and control of land use, if necessary	c) Limit exposure to contaminated soil and ensure that land use is appropriate d) Ensure land use is appropriate	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning sings (2.1.1) Manage property lease/transfer requirements (2.2.1) Control soil disturbances (2.2.2.3)	No O&M requirements at this site	Not applicable	IC OU 1-10 ROD (DOE/ID-10682) Table 12-2 O&M Not applicable

Table A-1. (continued).

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
TSF-43 *Radioactive Parts Security Storage Area building and pad* COC Radionuclides	c) Visible access restrictions, control of activities, property lease requirements including land use, if necessary d) Property transfer requirements including issuance of a finding of suitability to transfer and control of land use, if necessary	c) Limit exposure to contaminated soil and ensure that land use is appropriate d) Ensure land use is appropriate	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning sings (2.1.1) Manage property lease/transfer requirements (2.2.1) Control soil disturbances (2.2.2.3)	No O&M requirements at this site	Not applicable	IC OU 1-10 ROD (DOE/ID-10682) Table 12-2 O&M Not applicable
TSF-46 *Soils beneath TSF-616* COC Radionuclides	This site is currently under remediation. Controls will be established in the OU 1-10 Remedial Action Report.	Visible access restrictions are implemented	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning sings (2.1.1) Manage property lease/transfer requirements (2.2.1) Control soil disturbances (2.2.2.3)	No O&M requirements at this site	Not applicable	IC To be determined O&M Not applicable
TSF-47 *TSF-615 sewer line soils* COC Radionuclides	This site is currently under remediation. Controls will be established in the OU 1-10 Remedial Action Report.	Visible access restrictions are implemented	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning sings (2.1.1) Manage property lease/transfer requirements (2.2.1) Control soil disturbances (2.2.2.3)	No O&M requirements at this site	Not applicable	IC To be determined O&M Not applicable
TSF-48 *TAN-615 sump soils* COC Radionuclides	This site is currently under remediation. Controls will be established in the OU 1-10 Remedial Action Report.	Visible access restrictions are implemented	Annual site inspection. Maintain warning signs and site as necessary. Verify and update site status and requirements in the ICS database. Soil disturbances will be controlled in accordance with MCP-3002.	No O&M requirements at this site	Not applicable	IC To be determined O&M Not applicable
TSF-52 *Soil around TAN-607 decontamination shop door* COC Radionuclides	See WAG 10					
TSF-53 *TAN-633 soil area* COC Radionuclides	This is a new site currently under remediation. Controls are pending and will be identified in the OU 1-10 Remedial Action Report.	Visible access restrictions are implemented	Annual site inspection. Maintain warning signs and site as necessary. Verify and update site status and requirements in the ICS database. Soil disturbances will be controlled in accordance with MCP-3002.	No O&M requirements at this site	Not applicable	IC To be determined O&M Not applicable

Table A-1. (continued).

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
TSF-54 *Soil beneath TAN-607 decontamination shop sump* COC Radionuclides	See WAG 10					
TSF-55 *Soil in pipe trench west of TAN-666* COC Radionuclides	See WAG 10					
Water Reactor Research Test Facility (WRRTF)-01 *Burn pits* COC Asbestos	a) *Until final action implemented:* Visible access restrictions and control of activities b) Visible access restrictions, control of activities, and property lease requirements including control land use d) Property transfer requirements including issuance of a finding of suitability to transfer and control of land use	a) *Until final action implemented:* Limit exposure to contaminated soil and maintain the integrity of the native cover and/or engineered cover b) Maintain the integrity of the native cover and/or engineered cover d) Maintain the integrity of the native cover and/or engineered cover	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning sings (2.1.1) Manage property lease/transfer requirements (2.2.1) Control soil disturbances (2.2.2.3)	Periodic native soil cover, animal intrusion, subsidence, erosion inspections	Visual inspections (3.2.1, and 3.2.2) Maintenance/repair (3.3)	IC OU 1-10 ROD (DOE/ID-10682) Table 12-2 O&M 1-10 O&M plan (DOE/ID-10711) Tables 4-1 & 4-2
WAG 2						
TRA-03 *Warm waste pond* COC Radionuclides	a) Visible access restrictions (warning signs), control of activities (drilling or excavating), publication of surveyed boundaries and descriptions of controls in the INEEL Land-Use Plan b) Visible access restrictions (warning signs), control of activities (drilling or excavating), property lease requirements including control of land consistent with the WAG 2 ROD and ESD, notice to affected stakeholders (e.g., Bureau of Land Management, Sho-Ban	a) Maintain integrity of containment barrier b) Maintain integrity of containment barrier d) Maintain integrity of containment barrier	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning sings (2.1.1) Maintain permanent markers (2.1.2) Manage property lease/transfer requirements (2.2.1) Control drilling/excavations (2.2.2.1) Control soil disturbances (2.2.2.3) Publish surveyed boundaries (2.2.3)	Periodic inspection and maintenance to ensure cover integrity and surface drainage away form the covers Periodic aboveground radiological surveys, following completion of the covers, to assess the effectiveness of the remedial action	Visual inspections (3.2.1, and 3.2.2) Maintenance/Repair (3.3) Radiological monitoring (3.1.1)	IC ESD to the OU 2-13 ROD (DOE/ID-10744) Appendix B Table B-3 O&M 2-13 O&M Plan (DOE/ID-10658) Tables 4-1 & 4-2

Table A-1. (continued).

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
	Tribal Council, local county governments, Idaho Department of Health and Welfare (IDHW), and the EPA) for any change in land-use designation, restriction or land users d) Property transfer including issuance of a finding of suitability to transfer and control land use consistent with the WAG 2 ROD and ESD, notice to affected stakeholders for any change in land use designations, restrictions or land users					
TRA-04 *Warm waste retention area* COC Radionuclides	a) Visible access restrictions (warning signs), control of activities (drilling or excavating) b) Visible access restrictions (warning signs), control of activities (drilling or excavating), property lease requirements including control of land consistent with the WAG 2 ROD and this ESD d) Property transfer including issuance of a finding of suitability to transfer and control land use consistent with the WAG 2 ROD and this ESD	a) Limit exposure to contaminated soil b) Limit exposure to contaminated soil d) Limit exposure to contaminated soil	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning sings (2.1.1) Manage property lease/transfer requirements (2.2.1) Control drilling/excavations (2.2.2.1) Control soil disturbances (2.2.2.3)	No O&M requirements at this site	Not applicable	IC ESD to the OU 2-13 ROD (DOE/ID-10744) Appendix B Table B-3 O&M Not applicable

Table A-1. (continued).

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
TRA-06 *Chemical waste pond* COC Mercury	b) Visible access restrictions (warning signs), control of activities (drilling or excavating), property lease requirements including control of land consistent with the WAG 2 ROD and this ESD d) Property transfer requirements including issuance of a finding of suitability to transfer control of land use consistent with the WAG 2 ROD and this ESD	b) Limit residential land use d) Limit residential land use	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning sings (2.1.1) Manage property lease/transfer requirements (2.2.1) Control drilling/excavations (2.2.2.1) Control soil disturbances (2.2.2.3)	Periodic inspection and maintenance, following completion of the covers, to ensure cover integrity and surface drainage away form the covers	Visual inspections (3.2.1, and 3.2.2) Maintenance/repair (3.3)	IC ESD to the OU 2-13 ROD (DOE/ID-10744) Appendix B Table B-3 O&M 2-13 O&M Plan (DOE/ID-10658) Tables 4-1 & 4-2
TRA-08 *Cold waste pond* COC Radionuclides	b) Property lease requirements including control of land use consistent with the WAG 2 ROD and this ESD	b) Control land use as industrial until residential risk is less than 1E-04 in 30 years, or sooner if released in a five-year review	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning sings (2.1.1) Manage property lease/transfer requirements (2.2.1) Control drilling/excavations (2.2.2.1) Control soil disturbances (2.2.2.3)	No O&M requirements at this site	Not applicable	IC ESD to the OU 2-13 ROD (DOE/ID-10744) Appendix B Table B-3 O&M Not applicable
TRA-13 *Sewage leach pond* COC Radionuclides and mercury	a) Visible access restrictions (warning signs), control of activities (drilling or excavating), publication of surveyed boundaries and descriptions of controls in the INEEL Land-Use Plan b) Visible access restrictions (warning signs), control of activities (drilling or excavating), property lease requirements including control of land consistent with the WAG 2 ROD and ESD, notice to affected stakeholders (e.g., Bureau of Land Management, Sho-Ban Tribal Council, local county governments, IDHW, and the EPA) for any change in land-use designation, restriction or land users	a) Maintain integrity of containment barrier b) Maintain integrity of containment barrier d) Maintain integrity of containment barrier	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning sings (2.1.1) Manage property lease/transfer requirements (2.2.1) Control drilling/excavations (2.2.2.1) Control soil disturbances (2.2.2.3) Publish surveyed boundaries (2.2.3)	Periodic inspection and maintenance, following completion of the covers, to ensure cover integrity and surface drainage away from the covers Periodic aboveground radiological surveys, following completion of the covers, to assess the effectiveness of the remedial action.	Visual inspections (3.2.1, and 3.2.2) Maintenance/repair (3.3) Radiological monitoring (3.1.1)	IC ESD to the OU 2-13 ROD (DOE/ID-10744) Appendix B Table B-3 O&M 2-13 O&M Plan (DOE/ID-10658) Tables 4-1 & 4-2

Table A-1. (continued).

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
	d) Property transfer including issuance of a finding of suitability to transfer and control land use consistent with the WAG 2 ROD and this ESD, notice to affected stakeholders (e.g., Bureau of Land Management, Sho-Ban Tribal Council, local county governments, IDHW, and the EPA) for any change in land-use designation, restriction, or land users					
TRA-M Soil contamination area (SCA) *Sewage leach ponds' berm and soil contamination area* COC Radionuclides and mercury	b) Visible access restrictions, control of activities (drilling or excavating)	b) Limit exposure to contaminated soil	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning sings (2.1.1) Manage property lease/transfer requirements (2.2.1) Control drilling/excavations (2.2.2.1) Control soil disturbances (2.2.2.3)	Periodic aboveground radiological surveys, following completion of the covers, to assess the effectiveness of the remedial action Periodic inspection and maintenance, following completion of the covers, to ensure cover integrity and surface drainage away from the covers	Radiological monitoring (3.1.1) Visual inspections (3.2.1, and 3.2.2) Maintenance/repair (3.3)	IC ESD to the OU 2-13 ROD (DOE/ID-10744) Appendix B Table B-3 O&M 2-13 O&M Plan (DOE/ID-10658) Tables 4-1 & 4-2
TRA-15 *Soil at hot waste tanks at TRA-613* COC Radionuclides	a) Visible access restrictions (warning signs), control of activities (drilling or excavating) b) Visible access restrictions (warning signs), control of activities (drilling or excavating), property lease requirements including control of land consistent with the WAG 2 ROD and this ESD d) Property transfer including issuance of a finding of suitability to transfer and control land use consistent with the WAG 2 ROD and this ESD	a) Limit exposure to contaminated soil b) Limit exposure to contaminated soil d) Limit exposure to contaminated soil	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning sings (2.1.1) Manage property lease/transfer requirements (2.2.1) Control drilling/excavations (2.2.2.1) Control soil disturbances (2.2.2.3)	No O&M requirements at this site	Not applicable	IC ESD to the OU 2-13 ROD (DOE/ID-10744) Appendix B Table B-3 O&M Not applicable

Table A-1. (continued).

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
TRA-19 *Soil at Tanks 1 and 2 at TRA-630* COC Radionuclides	a) Visible access restrictions (warning signs), control of activities (drilling or excavating) b) Visible access restrictions (warning signs), control of activities (drilling or excavating), property lease requirements including control of land consistent with the WAG 2 ROD and this ESD d) Property transfer including issuance of a finding of suitability to transfer and control land use consistent with the WAG 2 ROD and this ESD	a) Limit exposure to contaminated soil b) Limit exposure to contaminated soil d) Limit exposure to contaminated soil	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning sings (2.1.1) Manage property lease/transfer requirements (2.2.1) Control drilling/excavations (2.2.2.1) Control soil disturbances (2.2.2.3)	No O&M requirements at this site	Not applicable	IC ESD to the OU 2-13 ROD (DOE/ID-10744) Appendix B Table B-3 O&M Not applicable
TRA-34 *North storage area* COC Radionuclides	b) Property lease requirements including control of land use consistent with the WAG 2 ROD and this ESD	b) Control land use as industrial until residential risk is less than 1E-04 in 30 years, or sooner if released in a five-year review	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning sings (2.1.1) Manage property lease/transfer requirements (2.2.1) Control drilling/excavations (2.2.2.1) Control soil disturbances (2.2.2.3)	No O&M requirements at this site	Not applicable	IC ESD to the OU 2-13 ROD (DOE/ID-10744) Appendix B Table B-3 O&M Not applicable
TRA-56 *TRA Acid Transfer Line from TRA-631 to TRA-645* COC Mercury	See WAG 10					
TRA-57 *Abandoned buried diesel fuel oil line* COC Diesel fuel	See WAG 10					

Table A-1. (continued).

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
TRA-58 *Abandoned Buried Fuel Oil Lines* COC Organic	See WAG 10					
TRA-59 *Abandoned buried acid line* COC Inorganic	See WAG 10					
TRA-62 *Abandoned discharge pipe between TRA-608 and TRA-701* COC Metals	See WAG 10					
TRA-63 *TRA-605 Warm Waste Line* COC Radionuclides	See WAG 10					
TRA-74 *Contaminated soil beneath the TRA-718 water tower* COC Metals	See WAG 10					

Table A-1. (continued).

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
TRA-B *PCB spill at TRA-619* COC PCBs	b) Property lease requirements including control of land use consistent with the WAG 2 ROD and ESD d) Property transfer requirements including issuance of a finding of suitability to transfer and control of land use consistent with the WAG 2 ROD and ESD	b) Control land use as industrial d) Ensure land use is appropriate	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning sings (2.1.1) Manage property lease/transfer requirements (2.2.1) Control drilling/excavations (2.2.2.1) Control soil disturbances (2.2.2.3)	No O&M requirements at this site	Not applicable	IC ESD to the OU 2-13 ROD (DOE/ID-10744) Appendix B Table B-3 O&M Not applicable
TRA-C *PCB spill at TRA-626* COC PCBs	b) Property lease requirements including control of land use consistent with the WAG 2 ROD and this ESD d) Property transfer requirements including issuance of a finding of suitability to transfer and control of land use consistent with the WAG 2 ROD and this ESD	b) Control land use as industrial d) Ensure land use is appropriate	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning sings (2.1.1) Manage property lease/transfer requirements (2.2.1) Control drilling/excavations (2.2.2.1) Control soil disturbances (2.2.2.3)	No O&M requirements at this site	Not applicable	IC ESD to the OU 2-13 ROD (DOE/ID-10744) Appendix B Table B-3 O&M Not applicable
TRA-E *PCB spill at TRA-653* COC PCBs	b) Property lease requirements including control of land use consistent with the WAG 2 ROD and this ESD d) Property transfer requirements including issuance of a finding of suitability to transfer and control of land use consistent with the WAG 2 ROD and this ESD	b) Control land use as industrial d) Ensure land use is appropriate	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning sings (2.1.1) Manage property lease/transfer requirements (2.2.1) Control drilling/excavations (2.2.2.1) Control soil disturbances (2.2.2.3)	No O&M requirements at this site	Not applicable	IC ESD to the OU 2-13 ROD (DOE/ID-10744) Appendix B Table B-3 O&M Not applicable
TRA-J *TRA perched water and Snake River Plain Aquifer* COC Radionuclides	a) Control of activities, publish estimated conservative boundaries in INEEL Land-Use Plan b) Control of activities, property lease requirements including control of land use consistent with the WAG 2 ROD and this ESD	a) Prevent consumption of groundwater that is greater than the MCLs b) Prevent consumption of groundwater that is greater than MCLs	Review and update site status in the ICS database, and perform site inspections (2.1.6) Manage property lease/transfer requirements (2.2.1) Control drilling/excavations (2.2.2.1) Control soil disturbances (2.2.2.3) Publish surveyed boundaries (2.2.3)	No O&M requirements at this site	Not applicable	IC ESD to the OU 2-13 ROD (DOE/ID-10744) Appendix B Table B-3 O&M Not applicable

Table A-1. (continued).

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
TRA-X *Hot Tree Site* COC Radionuclides	b) Property lease requirements including control of land use consistent with the WAG 2 ROD and this ESD	b) Control land use as industrial until residential risk is less than 1E-04 in 30 years, or sooner if released in a five-year review	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning sings (2.1.1) Manage property lease/transfer requirements (2.2.1) Control drilling/excavations (2.2.2.1) Control soil disturbances (2.2.2.3)	No O&M requirements at this site	Not applicable	IC ESD to the OU 2-13 ROD (DOE/ID-10744) Appendix B Table B-3 O&M Not applicable
TRA-Y *Brass cap area* COC Radionuclides	a) Visible access restrictions (warning signs), control of activities (drilling or excavating) b) Visible access restrictions (warning signs), control of activities (drilling or excavating), property lease requirements including control of land consistent with the WAG 2 ROD and this ESD d) Property transfer including issuance of a finding of suitability to transfer and control land use consistent with the WAG 2 ROD and this ESD	a) Limit exposure to contaminated soil b) Limit exposure to contaminated soil d) Limit exposure to contaminated soil	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning sings (2.1.1) Manage property lease/transfer requirements (2.2.1) Control drilling/excavations (2.2.2.1) Control soil disturbances (2.2.2.3)	No O&M requirements at this site	Not applicable	IC ESD to the OU 2-13 ROD (DOE/ID-10744) Appendix B Table B-3 O&M Not applicable
WAG 3						
Group 1 Tank Farm Soils						
CPP-15 *Contaminated soil in the Tank Farm* COC Radionuclides	a) *Until final action implemented:* Visible access restrictions (warning signs, provide copies of surveyed maps), control of activities (drilling or excavating), publish surveyed boundaries and description of controls in INEEL Land-Use Plan	a) *Until final action implemented:* Prevent intrusion into the underlying contaminated soils, except for approved activities pursuant to FFA/CO (DOE-ID 1991). Limit access to only authorized personnel and/or DOE certified radiation workers	Annual site inspection. Maintain warning signs and site as necessary. Verify and update site status and requirements in the ICS database. Soil disturbances will be controlled in accordance with MCP-3002.	No O&M requirements at this site	Not applicable	IC OU 3-13 ROD (DOE/ID-10660) Table 11-1 O&M Not applicable

Table A-1. (continued).

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
CPP-16 *Contaminated soil from leak in line from CPP-WM-181 to the process equipment waste evaporator* COC Radionuclides and metals						
CPP-20 *CPP-604 radioactive waste unloading area* COC Radionuclides and metals						
CPP-24 *CPP Tank Farm area bucket spill* COC Radionuclides and metals						
CPP-25 (same as CPP-20) *Contaminated soil in the Tank Farm area north of CPP-604* COC Radionuclides and metals						

Table A-1. (continued).

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
CPP-26 *Contaminated soil in the Tank Farm* COC Radionuclides and metals						
CPP-27 *Contaminated soil in the Tank Farm* COC Radionuclides						
CPP-28 *Contaminated soil in the Tank Farm* COC Radionuclides and metals						
CPP-30 *Contaminated soil in the Tank Farm* COC Radionuclides and metals						
CPP-31 *Contaminated soil in the Tank Farm* COC Radionuclides and metals						
CPP-32 *Contaminated soil in the Tank Farm* COC Radionuclides and metals						

Table A-1. (continued).

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
CPP-33 *Contaminated soil in the Tank Farm* COC Radionuclides						
CPP-58 *Contaminated soil in the Tank Farm* COC Radionuclides						
CPP-58W *1954 service waste line leak inside tank farm boundary between CPP-601 and CPP-604* COC Radionuclides						
CPP-79 *Contaminated soil in the Tank Farm* COC Radionuclides and metals						
CPP-96 *Contaminated soil in the Tank Farm* COC Radionuclides and metals						

Table A-1. (continued).

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
Group 2 Soils Under Buildings and Structures						
CPP-02 *French drain* COC Radionuclides and metals **CPP-80** *Vent tunnel drain leak* COC Radionuclides and metals **CPP-85** *Waste Calcining Facility (WCF) blower corridor* COC Radionuclides and metals **CPP-86** *Waste trench sump* COC Radionuclides and metals **CPP-87** *Cell sump and floor drain* COC Radionuclides and metals	a) *Prior to D&D of building:* Visible access restrictions (warning signs, provide copies of surveyed maps), control of activities (drilling or excavating), publish surveyed boundaries and description of controls in INEEL Land-Use Plan a) *After building D&D contamination left in place:* Visible access restrictions (warning signs, provide copies of surveyed maps), control of activities (drilling or excavating), publish surveyed boundaries and description of controls in INEEL Land-Use Plan, notice to affected stakeholders (e.g., Bureau of Land Management (BLM), Sho-Ban Tribal Council, local county governments; State and EPA), including notice of any change in land use designation, restriction, land users or activities b) Visible access restrictions (warning signs), control of activities (drilling or excavating), notice to affected stakeholders, (e.g., BLM, F&W, Sho-Ban Tribal Council, local county governments, State and EPA), including notice to any change in land use designation, restriction, land users or activities, property lease requirements including requirements for control of land-use consistent with the ROD	a) *Prior to D&D of building:* Limit access to only authorized personnel and/or DOE certified radiation workers a) *After building D&D contamination left in place:* Limit direct exposure to underlying radiologically contaminated soil areas by public to <1E-04 risk through shielding provided by building, limit water recharge activities adjacent to Group 2 buildings, maintain integrity of cap b) Maintain integrity of cap d) Maintain integrity of cap	Annual site inspection. Maintain warning signs and site as necessary. Verify and update site status and requirements in the ICS database. The site is currently projected to remain in DOE control until at least 2095; consequently, property lease and property transfer requirements are applicable at that time. Drilling and excavation requirements identified in MCP-3480 apply to this CERCLA site. Soil disturbances will be controlled in accordance with MCP-3002.	No O&M requirements at this site	Not applicable	IC OU 3-13 ROD (DOE/ID-10660) Table 11-1 O&M Not applicable

Table A-1. (continued).

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
CPP-89 *Tunnel excavation* COC Radionuclides and metals	d) Notice to affected stakeholders, (e.g., BLM, F&W, Sho-Ban Tribal Council, local county governments, State and EPA), including notice to any change in land use designation, restriction, land users or activities, property lease requirements including Finding of suitability to transfer and requirements for control of land use consistent with the ROD					
Group 3 Other Soil Site						
CPP-01 *East of CPP-603* COC Radionuclides **CPP-04** *Soil around CPP-603 setting tank* COC Radionuclides **CPP-05** *CPP-603 filter line failure* COC Radionuclides **CPP-08** *Northeast corner of CPP-603* COC Radionuclides	a) Review and control of activities as applicable b) Property lease requirements including requirements for control of land use consistent with the ROD d) Property transfer requirements including Finding of suitability to transfer and requirements for control of land use consistent with the ROD	a) Ensure land use is appropriate if contamination left in place is >10 ft. b) Ensure land use is appropriate if contamination left in place >10 ft. d) Ensure land use is appropriate if contamination left in place >10 ft. *Expected Date for Terminating Institutional Controls:* *CPP-37A: 2011* *CPP-37B: 2023* *CPP-67: 2049*	Annual site inspection. Maintain warning signs and site as necessary. Verify and update site status and requirements in the ICS database. The site is currently projected to remain in DOE control until at least 2095; consequently, property lease and property transfer requirements are applicable at that time. Soil disturbances will be controlled in accordance with MCP-3002.	No O&M requirements at this site	Not applicable	IC OU 3-13 ROD (DOE/ID-10660) Table 11-1 RA Report, Group 3 Phase I (DOE/ID-11311) Table 13-1 O&M Not applicable

Table A-1. (continued).

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
CPP-09 *Contaminated soils around CPP-603* COC Radionuclides **CPP-10** *CPP-603 plastic pipeline break* COC Radionuclides **CPP-11** *CPP-603 sludge release* COC Radionuclides **CPP-13** *Pressurization of the Solid Storage Cyclone NE of CPP-633* COC Radionuclides **CPP-14** *Sewage Treatment Plant* COC Radionuclides						

Table A-1. (continued).

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
CPP-19 *Line leak* COC Radionuclides **CPP-35** *Decontami-nation spill* COC Radionuclides **CPP-36** *Transfer line leak* COC Radionuclides **CPP-37a** *Gravel Pit Outside INTEC Fence* **CPP-37b** *Landfill* COC Radionuclides **CPP-44** *Grease pit* COC Radionuclides **CPP-48** *French drain* COC Radionuclides						

Table A-1. (continued).

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
CPP-67 *CPP Percolation Ponds #1 and #2* COC Radionuclides **CPP-91** *Blower pit drain* COC Radionuclides **CPP-93** *Simulated calcine storage* COC Radionuclides **CPP-130** *Buried debris beneath site CPP-03* COC Radionuclides						
Group 4 Perched Water						
CPP-83 *Strontium-contaminated perched water* COC Radionuclides	a) Control of activities (drilling of wells for drinking) b) Control of activities (drilling of wells for drinking), property lease requirements including finding of suitability to transfer and requirement for control of activities. d) *>2095:* Property transfer requirements including finding of suitability to transfer and requirements for control of activities consistent with ROD	a) Prevent consumption and use of >MCL and/or >1E-04 risk drinking water b) Prevent consumption and use of >MCL and/or >1E-04 risk drinking water d) *>2095:* Prevent drilling through contaminated interbeds and dragging contamination downhole to the SRPA	Verify and update site status and requirements in the ICS database. The site is currently projected to remain in DOE control until at least 2095; consequently, property lease and property transfer requirements are applicable at that time. Drilling and excavation requirements identified in MCP-3480 apply to this CERCLA site. Soil disturbances will be controlled in accordance with MCP-3002.	No O&M requirements at this site	Not applicable	IC OU 3-13 ROD (DOE/ID-10660) Table 11-1 O&M Not applicable

Table A-1. (continued).

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
Group 5 Snake River Plain Aquifer						
CPP-23 *Injection well* COC Radionuclides	a) Control of activities (drilling of wells for drinking) b) *Applies up to 2095:* Control of activities (drilling of wells for drinking), property lease requirements including finding of suitability to transfer	a) Prevent consumption and use of >MCL and/or >1E-04 risk drinking water b) *Applies up to 2095:* Prevent consumption and use of >MCL and/or >1E-04 risk drinking water	Verify and update site status and requirements in the ICS database. The site is currently projected to remain in DOE control until at least 2095; consequently, property lease and property transfer requirements are applicable at that time. Drilling and excavation requirements identified in MCP-3480 apply to this CERCLA site. Soil disturbances will be controlled in accordance with MCP-3002.	No O&M requirements at this site	Not applicable	IC OU 3-13 ROD (DOE/ID-10660) Table 11-1 O&M Not applicable
Group 7 Hot Waste Tank System Prior to Excavation						
CPP-69 *SFE-20 Hot Waste Tank System* COC Radionuclides and metals	a) Visible assess restrictions (warning signs, provide copies of surveyed maps), control of activities (drilling or excavating), publish surveyed boundaries and description of controls in the ICS database	a) Prevent intrusion into underlying contaminated soils, except for approved activities pursuant to the FFA/CO (DOE-ID 1991). Limit access to only authorized personnel and/or DOE-certified radiation workers	Annual site inspection. Maintain warning signs and site as necessary. Verify and update site status and requirements in the ICS database. Drilling and excavation requirements identified in MCP-3480 apply to this CERCLA site. Soil disturbances will be controlled in accordance with MCP-3002.	No O&M requirements at this site	Not applicable	IC OU 3-13 ROD (DOE/ID-10660) pp. x, 4-5, 4-10, and Table 11-1 O&M Not applicable
WAG 3 No Further Action Sites						
CPP-06 *Trench east of CPP-603* COC Radionuclides **CPP-17** *Soil storage south of Peach Bottom Fuel Storage area CPP-749* COC Radionuclides	b) Property lease requirements including requirements for control of land use consistent with the ROD d) Property transfer requirements including finding of suitability to transfer and requirements for control of land use consistent with the ROD	b) Control land use as protective and consistent with "no further action" (NFA) determination d) Control land use as protective and consistent with NFA determination *CPP-97: Expected date for Terminating Institutional Controls 2029*	Review and update site status in the ICS database (2.1.6) Manage property lease/transfer requirements (2.2.1) Control soil disturbances (2.2.2.3)	No O&M requirements at this site	Not applicable	IC OU 3-13 ROD (DOE/ID-10660) and Table 11-1 RA Report, Group 3 Phase I (DOE/ID-11311) Table 13-1 O&M Not applicable

Table A-1. (continued).

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
CPP-22 *Particulate air release south of CPP-603* COC Radionuclides						
CPP-61 *PCB spill at CPP-718 transformer yard* COC PCBs						
CPP-88 *Radiologically contaminated soil* COC Radionuclides						
CPP-90 *Ruthenium detection* COC Radionuclides						
CPP-95 *Airborne plume* COC Radionuclides						
CPP-97 *Tank Farm soil stockpiles* COC Radionuclides						

Table A-1. (continued).

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
OU 3-14 Industrial Use Area						
No CERCLA site code	Ensure land use within the "industrial land use" area remains industrial and that use of the property for nonindustrial uses is prohibited. Control the disturbance of soil in the area designated as the OU 3-114 land use area. Maintain the integrity of current of future remedial monitoring systems.	Caution workers of potential hazards at the site remaining in the soil, and prevent potential spread of contaminated soil exceeding the OU 3-14 remedial action objectives. Restrict actions or activities that would permanently disrupt or lessen the performance of the low permeability pavement and the ET/CB.	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning sings (2.1.1) Manage property lease/transfer requirements (2.2.1) Control soil disturbances (2.2.2.3)	O&M requirements are not included in this plan.	O&M requirements are implemented by WAG 3 personnel in accordance with DOE/ID-11337	IC OU 3-14 ROD (DOE/ID-11296) O&M OU 3-14 O&M Plan (DOE/ID-11337)
OU 3-14 Groundwater and Drilling IC Area						
No CERCLA site code	Prohibit use of groundwater for drinking water or irrigation purposes in the portion of the SRPA that exceeds MCLs within the groundwater and drilling IC area until groundwater quality has been restored. Control drilling of new wells and boreholes within the groundwater and drilling IC area.	Prevent spread of contamination to the SRPA and prevent irrigation or drinking of groundwater that exceeds MCLs.	Review and update site status in the ICS database(2.1.6) Control drilling/excavations (2.2.2.1) Control groundwater use (2.2.2.2) Control soil disturbances (2.2.2.3)	No O&M requirements	Not applicable	IC OU 3-14 ROD (DOE/ID-11296)
WAG 4						
CFA-01 *Landfill I* COC Buried waste including asbestos	a) Visible access restrictions (warning signs and permanent markers), control of activities (drilling or excavating and drilling of residential drinking water wells), publication of surveyed boundaries and descriptions of controls in the ICS database b) Visible access restrictions (warning signs), control of activities (drilling or excavating), property lease requirements including control of land use consistent with this ROD, notice to affected stakeholders (e.g., Bureau of Land Management, Sho-Ban Tribal Council, local	a) Maintain integrity of soil cover b) Maintain integrity of soil cover d) Maintain integrity of soil cover	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning signs (2.1.1) Manage property lease/transfer requirements (2.2.1) Control drilling/excavations (2.2.2.1) Control soil disturbances (2.2.2.3) Publish surveyed boundaries (2.2.3)	Periodic topographical surveys and maintenance of soil cover's slope and contours; inspection for animal intrusion, vegetative growth, and cover erosion to verify cover integrity and drainage away from the cover.	Topographic surveys (3.2.3) Maintenance/repair (3.3) Visual inspections (3.2.1, and 3.2.2)	IC OU-4-13 ROD (DOE/ID-10719) Table 12-2 O&M 4-13 O&M Plan (DOE/ID-10931) Section 3, Table 1

Table A-1. (continued).

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
	county governments, IDHW, and the EPA) of any change in land-use designation, restriction, or land users d) Property transfer requirements including issuance of a finding of suitability to transfer and control of land use consistent with this ROD					
CFA-02 *Landfill II* COC Buried waste including asbestos	a) Visible access restrictions (warning signs and permanent markers), control of activities (drilling or excavating and drilling of residential drinking water wells), publication of surveyed boundaries and descriptions of controls in the ICS database b) Visible access restrictions (warning signs), control of activities (drilling or excavating), property lease requirements including control of land use consistent with this ROD, notice to affected stakeholders (e.g., Bureau of Land Management, Sho-Ban Tribal Council, local county governments, IDHW, and EPA) of any change in land-use designation, restriction, or land users d) Property transfer requirements including issuance of a finding of suitability to transfer and control of land use consistent with this ROD	a) Maintain integrity of soil cover b) Maintain integrity of soil cover d) Maintain integrity of soil cover	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning signs (2.1.1) Manage property lease/transfer requirements (2.2.1) Control drilling/excavations (2.2.2.1) Control soil disturbances (2.2.2.3) Publish surveyed boundaries (2.2.3)	Periodic topographical surveys and maintenance of soil cover's slope and contours; inspection for animal intrusion, vegetative growth, and cover erosion to verify cover integrity and drainage away from the cover. Periodic inspection and corrective maintenance of rock armoring.	Topographic surveys (3.2.3) Maintenance/repair (3.3) Visual inspections (3.2.1, and 3.2.2)	IC OU-4-13 ROD (DOE/ID-10719) Table 12-2 O&M 4-13 O&M Plan (DOE/ID-10931) Section 3, Table 1

Table A-1. (continued).

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
CFA-03 *Landfill III* COC Buried waste including asbestos	a) Visible access restrictions (warning signs and permanent markers), control of activities (drilling or excavating and drilling of residential drinking water wells), publication of surveyed boundaries and descriptions of controls in the ICS database b) Visible access restrictions (warning signs), control of activities (drilling or excavating), property lease requirements including control of land use consistent with this ROD, notice to affected stakeholders (e.g., Bureau of Land Management, Sho-Ban Tribal Council, local county governments, IDHW, and EPA) of any change in land-use designation, restriction, or land users d) Property transfer requirements including issuance of a finding of suitability to transfer and control of land use consistent with this ROD	a) Maintain integrity of soil cover b) Maintain integrity of soil cover d) Maintain integrity of soil cover	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning signs (2.1.1) Manage property lease/transfer requirements (2.2.1) Control drilling/excavations (2.2.2.1) Control soil disturbances (2.2.2.3) Publish surveyed boundaries (2.2.3)	Periodic topographical surveys and maintenance of soil cover's slope and contours; inspection for animal intrusion, vegetative growth, and cover erosion to verify cover integrity and drainage away from the cover. Periodic inspection of soil monitoring equipment.	Topographic surveys (3.2.3) Maintenance/repair (3.3) Visual inspections (3.2.1, and 3.2.2)	IC OU-4-13 ROD (DOE/ID-10719) Table 12-2 O&M 4-13 O&M Plan (DOE/ID-10931) Section 3, Table 1
CFA-07 *French drains* COC Radionuclides and metals	b) Visible access restrictions/signs, property lease requirements including control of land use consistent with this ROD d) Property transfer requirements including issuance of a finding of suitability to transfer and control of land use consistent with this ROD	b) Limit residential land use for depths greater than 10 ft d) Limit residential land use	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning signs (2.1.1) Manage property lease/transfer requirements (2.2.1) Control drilling/excavations (2.2.2.1) Control soil disturbances (2.2.2.3)	No O&M requirements at this site	Not applicable	IC OU-4-13 ROD (DOE/ID-10719) Table 12-2 O&M Not applicable

Table A-1. (continued).

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
CFA-08 *Sewage Treatment Plant drainfield* COC Radionuclides	a) *Prior to remediation:* Visible access restrictions (radioactivity barriers), control of activities (drilling or excavating) a) *After remediation:* Visible access restrictions (warning signs), control of activities (drilling or excavating), publication of surveyed boundaries and descriptions of land-use controls in the ICS database b) Visible access restrictions (warning signs), control of activities (drilling or excavating), property lease requirements including control of land use consistent with this ROD d) Property transfer requirements including issuance of a finding of suitability to transfer and control of land use consistent with this ROD	a) *Prior to remediation:* Prevent exposure to contaminated soil, except for approved activities pursuant to the FFA/CO (DOE-ID 1991) a) *After remediation:* Maintain integrity of containment barrier b) Maintain integrity of containment barrier d) Maintain integrity of containment barrier	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning signs (2.1.1) Manage property lease/transfer requirements (2.2.1) Control drilling/excavations (2.2.2.1) Control soil disturbances (2.2.2.3) Publish surveyed boundaries (2.2.3)	Periodic inspection and maintenance of soil cover's slope, inspection for animal intrusion, vegetative growth, and cover erosion to verify cover integrity and surface drainage away from cover.	Topographic surveys (3.2.3) Maintenance/repair (3.3) Visual inspections (3.2.1, and 3.2.2) Radiation surveys will be conducted in conjunction with the five-year reviews	IC OU-4-13 ROD (DOE/ID-10719) Table 12-2 O&M 4-13 O&M Plan (DOE/ID-10931) Section 3, Table 1
CFA-54 *Buried pipe near CFA-674* COC Metals	See WAG 10					
WAG 5						
ARA-03 *ARA-I sheeting pad* COC Radionuclides	b) *After operations cease and before institutional controls terminate in 2095:* Property lease requirements including control of land use consistent with the WAG 5 ROD c) Warning sign, INL security gate, industrial land use pending five-year review d) *After 2095:* Property transfer requirements including issuance of a finding of suitability to	b) *After operations cease and before institutional controls terminate in 2095:* Control land use as industrial until 2095 or sooner if released in a five-year review d) *After 2095:* Control land use as industrial until 2095 or sooner if released in a five-year review	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning signs (2.1.1) Physical security (2.1.5) Manage property lease/transfer requirements (2.2.1) Control drilling/excavations (2.2.2.1) Control soil disturbances (2.2.2.3)	No O&M requirements at this site	Not applicable	IC OU-5-12 ROD (DOE/ID-10700) Table 33 c) OU 5-12 O&M Plan (DOE/ID-10805) Table 3-2 O&M Not applicable

Table A-1. (continued).

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
	transfer and control of land use consistent with the WAG 5 ROD					
ARA-06 *ARA-II burial ground* COC Radionuclides	a) Visible access restrictions (warning signs), control of activities (drilling or excavating), publication of surveyed boundaries and descriptions of controls in the INEEL Land-Use Plan b) *After operations cease and before institutional controls terminate in 2095:* Visible access restrictions (warning signs), control of activities (drilling or excavating), property lease requirements including control of land use consistent with the WAG 5 ROD, notice to affected stakeholders (e.g., Bureau of Land Management, Sho-Ban Tribal Council, local county governments, IDHW, and EPA) for any change in land-use designation, restriction, or land users c) Warning sign, permanent marker, RWP required for entry, INL security gate, land-use restrictions will accompany land transfer d) *After 2095:* Property transfer requirements including issuance of a finding of suitability to transfer and control of land use consistent with the WAG 5 ROD, notice to affected stakeholders (e.g., Bureau of Land Management, Sho-Ban Tribal Council, local county governments, IDHW, and EPA) for any change in land-use designation, restriction, or land users	a) Maintain integrity of containment barrier b) *After operations cease and before institutional controls terminate in 2095:* Maintain integrity of containment barrier d) *After 2095:* Maintain integrity of containment barrier	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning signs (2.1.1) Maintain permanent markers (2.1.2) Physical security (2.1.5) Manage property lease/transfer requirements (2.2.1) Control drilling/excavations (2.2.2.1) Control soil disturbances (2.2.2.3) Publish surveyed boundaries (2.2.3)	Periodic intrusion, subsidence, erosion inspections. Radiological survey of site perimeter.	Maintenance/repair (3.3) Visual inspections (3.2.1, and 3.2.2) Radiological monitoring (3.3)	IC OU-5-12 ROD (DOE/ID-10700) Table 33 c) OU 5-12 O&M Plan (DOE/ID-10805) Table 3-2 O&M OU 5-12 O&M Plan (DOE/ID-10805), Section 3.3 & Table 4-1

Table A-1. (continued).

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
ARA-07 *ARA-II seepage pit to east* COC Radionuclides	c) Visible access restrictions—CERCLA sign, prevention of unauthorized access—INL security gate	Not applicable	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning signs (2.1.1) Physical security (2.1.5) Manage property lease/transfer requirements (2.2.1) Control drilling/excavations (2.2.2.1) Control soil disturbances (2.2.2.3)	No O&M requirements at this site	Not applicable	IC OU 5-12 RA Report (DOE/ID-11205), p. 7-10 O&M Not applicable
ARA-08 *ARA-II seepage pit to west* COC Radionuclides	c) Visible access restrictions—CERCLA sign, prevention of unauthorized access—INL security gate	Not applicable	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning signs (2.1.1) Physical security (2.1.5) Manage property lease/transfer requirements (2.2.1) Control drilling/excavations (2.2.2.1) Control soil disturbances (2.2.2.3)	No O&M requirements at this site	Not applicable	IC OU 5-12 RA Report (DOE/ID-11205), p. 7-10 O&M
ARA-23 *Contaminated soils around CPP-603* COC Radionuclides	a) *Until remedial action implemented:* Visible access restrictions (warning signs), control of activities (drilling or excavating) b) *After operations cease and before institutional controls terminate in 2095:* Property lease requirements including control of land use consistent with the WAG 5 ROD c) Visible access restrictions—CERLCA sign, prevention of unauthorized access—INL security gate, RWP required for entry d) *After 2095:* Property transfer requirements including issuance of a finding of suitability to transfer and control of land use consistent with the WAG 5 ROD	a) *Until remedial action implemented:* Prevent exposure to contaminated soil, except for approved activities pursuant to the FFA/CO (DOE-ID 1991) b) *After operations cease and before institutional controls terminate in 2095:* Control land use as industrial until 2095 or sooner if released in a five-year review d) *After 2095:* Control land use as industrial until 2095 or sooner if released in a five-year review	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning signs (2.1.1) Physical security (2.1.5) Manage property lease/transfer requirements (2.2.1) Control drilling/excavations (2.2.2.1) Control soil disturbances (2.2.2.3)	Periodic intrusion, subsidence, erosion inspections	Maintenance/repair (3.3) Visual inspections (3.2.1, and 3.2.2)	IC OU-5-12 ROD (DOE/ID-10700) Table 33 c) OU 5-12 RA Report (DOE/ID-11205), p. 7-10 c) OU 5-12 O&M Plan (DOE/ID-10805) Table 3-2 O&M OU 5-12 O&M Plan (DOE/ID-10805), Section 3.3 & Table 4-1

Table A-1. (continued).

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
ARA-24 *ARA-III windblown soil* COC Radionuclides	a) Visible access restrictions (warning signs), control of activities (drilling and excavating), publication of surveyed boundaries and descriptions of controls in the INEEL Land-Use Plan. b) *After operations cease and before institutional controls terminate in 2095:* Visible access restrictions (warning signs), control of activities (drilling and excavating), property lease requirements including control of land use consistent with the WAG 5 ROD c) Warning sign, permanent marker, INL security gate, land-use restrictions will accompany land transfer d) *After 2095:* Property transfer requirements including issuance of a finding of suitability to transfer and control of land use consistent with the WAG 5 ROD	a) Control land use as industrial. b) *After operations cease and before institutional controls terminate in 2095:* Ensure that land use is appropriate d) *After 2095:* Ensure that land use is appropriate	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning signs (2.1.1) Maintain permanent marker (2.1.2) Physical security (2.1.5) Manage property lease/transfer requirements (2.2.1) Control drilling/excavations (2.2.2.1) Control soil disturbances (2.2.2.3) Publish surveyed boundaries (2.2.3)	No O&M requirements at this site	Not applicable	IC OU-5-12 ROD (DOE/ID-10700) Table 33 c) OU 5-12 O&M Plan (DOE/ID-10805) Table 3-2 O&M Not applicable
ARA-25 *Contaminated soils beneath ARA-I hot cells* COC Radionuclides and metals	a) *Until remedial action implemented:* Visible access restrictions (warning signs), control of activities (drilling or excavating) b) *After operations cease and before institutional controls terminate in 2095:* Property lease requirements including control of land use consistent with the WAG 5 ROD c) Visible access restrictions—CERLCA sign, prevention of unauthorized access—INL security gate, monument marking the location of subsurface contamination	a) *Until remedial action implemented:* Prevent exposure to contaminated soil, except for approved activities pursuant to the FFA/CO (DOE-ID 1991) b) *After operations cease and before institutional controls terminate in 2095:* Control land use as industrial until 2095 or sooner if released in a five-year review d) *After 2095:* Control land use as industrial until 2095 or sooner if released in a five-year review	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning signs (2.1.1) Maintain permanent marker (2.1.2) Physical security (2.1.5) Manage property lease/transfer requirements (2.2.1) Control drilling/excavations (2.2.2.1) Control soil disturbances (2.2.2.3)	Periodic intrusion, subsidence, erosion inspections	Topographic surveys (3.2.3) Maintenance/repair (3.3) Visual inspections (3.2.1, and 3.2.2)	IC OU-5-12 ROD (DOE/ID-10700) Table 33 c) OU 5-12 RA Report (DOE/ID-11205), p. 7-10 O&M OU 5-12 O&M Plan (DOE/ID-10805), Section 3.3 & Table 4-1

Table A-1. (continued).

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
	d) *After 2095:* Property transfer requirements including issuance of a finding of suitability to transfer and control of land use consistent with the WAG 5 ROD					
Power Burst Facility (PBF)-10 *PBF evaporation pond* COC Radionuclides	b) *After operations cease and before institutional controls terminate in 2095:* Property lease requirements including control of land use consistent with the WAG 5 ROD c) Warning sign, permanent marker, prevention of unauthorized access—INL security gate, PBF facility fencing, industrial land use pending five-year review d) *After 2095:* Property transfer requirements including issuance of a finding of suitability to transfer and control of land use consistent with the WAG 5 ROD	b) *After operations cease and before institutional controls terminate in 2095:* Control land use as industrial until 2095 or sooner if released in a five-year review d) *After 2095:* Control land use as industrial until 2095 or sooner if released in a five-year review	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning signs (2.1.1) Physical security (2.1.5) Manage property lease/transfer requirements (2.2.1) Control drilling/excavations (2.2.2.1) Control soil disturbances (2.2.2.3)	No O&M requirements at this site	Not applicable	IC OU-5-12 ROD (DOE/ID-10700) Table 33 c) OU 5-12 O&M Plan (DOE/ID-10805) Table 3-2 O&M Not applicable
PBF-12 *Special Power Excursion Reactor Test (SPERT)-IV leach pond* COC Radionuclides	b) *After operations cease and before institutional controls terminate in 2095:* Property lease requirements including control of land use consistent with the WAG 5 ROD c) Warning sign, permanent marker, prevention of unauthorized access—INL security gate, PBF facility fencing, industrial land use pending five-year review d) *After 2095:* Property transfer requirements including issuance of a finding of suitability to transfer and control of land use consistent with the WAG 5 ROD	b) *After operations cease and before institutional controls terminate in 2095:* Control land use as industrial until 2095 or sooner if released in a five-year review d) *After 2095:* Control land use as industrial until 2095 or sooner if released in a five-year review	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning signs (2.1.1) Maintain permanent markers (2.1.2) Physical security (2.1.5) Manage property lease/transfer requirements (2.2.1) Control drilling/excavations (2.2.2.1) Control soil disturbances (2.2.2.3)	No O&M requirements at this site	Not applicable	IC OU-5-12 ROD (DOE/ID-10700) Table 33 c) OU 5-12 O&M Plan (DOE/ID-10805) Table 3-2 O&M Not applicable

Table A-1. (continued).

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
PBF-13 *PBF rubble pit* COC Asbestos	a) Visible access restrictions (warning signs), control of activities (drilling and excavating), publication of surveyed boundaries and descriptions of controls in the INEEL Land-Use Plan b) *After operations cease and before institutional controls terminate in 2095:* Visible access restrictions (warning signs), control of activities (drilling and excavating), property lease requirements including control of land use consistent with the WAG 5 ROD c) Warning sign, permanent marker, prevention of unauthorized access—INL security gate, PBF facility fencing, land use restrictions will accompany land transfer d) *After 2095:* Property transfer requirements including issuance of a finding of suitability to transfer and control of land use consistent with the WAG 5 ROD	a) Control land use as industrial. b) *After operations cease and before institutional controls terminate in 2095:* Ensure that land use is appropriate d) *After 2095:* Ensure that land use is appropriate	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning signs (2.1.1) Maintain permanent markers (2.1.2) Physical security (2.1.5) Manage property lease/transfer requirements (2.2.1) Control drilling/excavations (2.2.2.1) Control soil disturbances (2.2.2.3) Publish surveyed boundaries (2.2.3)	No O&M requirements at this site	Not applicable	IC OU-5-12 ROD (DOE/ID-10700) Table 33 c) OU 5-12 O&M Plan (DOE/ID-10805) Table 3-2 O&M Not applicable
PBF-21 *SPERT-IV large leach pond* COC Radionuclides	b) *After operations cease and before institutional controls terminate in 2095:* Property lease requirements including control of land use consistent with the WAG 5 ROD c) Warning sign, permanent marker, prevention of unauthorized access—INL security gate, PBF facility fencing, industrial land use pending five-year review d) *After 2095:* Property transfer requirements including issuance of a	b) *After operations cease and before institutional controls terminate in 2095:* Control land use as industrial until 2095 or sooner if released in a five-year review d) *After 2095:* Control land use as industrial until 2095 or sooner if released in a five-year review	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning signs (2.1.1) Maintain permanent markers (2.1.2) Physical security (2.1.5) Manage property lease/transfer requirements (2.2.1) Control drilling/excavations (2.2.2.1) Control soil disturbances (2.2.2.3)	No O&M requirements at this site	Not applicable	IC OU-5-12 ROD (DOE/ID-10700) Table 33 c) OU 5-12 O&M Plan (DOE/ID-10805) Table 3-2 O&M Not applicable

Table A-1. (continued).

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
	finding of suitability to transfer and control of land use consistent with the WAG 5 ROD					
PBF-22 *SPERT-IV leach pond* COC Radionuclides	b) *After operations cease and before institutional controls terminate in 2095:* Property lease requirements including control of land-use consistent with the WAG 5 ROD c) Warning sign, prevention of unauthorized access – INL security gate, PBF facility fencing, industrial land use pending five-year review d) *After 2095:* Property transfer requirements including issuance of a finding of suitability to transfer and control of land use consistent with the WAG 5 ROD	b) *After operations cease and before institutional controls terminate in 2095:* Control land use as industrial until 2095 or sooner if released in a five-year review d) *After 2095:* Control land use as industrial until 2095 or sooner if released in a five-year review	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning signs (2.1.1) Physical security (2.1.5) Manage property lease/transfer requirements (2.2.1) Control drilling/excavations (2.2.2.1) Control soil disturbances (2.2.2.3)	No O&M requirements at this site	Not applicable	IC OU-5-12 ROD (DOE/ID-10700) Table 33 c) OU 5-12 O&M Plan (DOE/ID-10805) Table 3-2 O&M Not applicable
PBF-26 *SPERT-IV lake* COC Radionuclides	b) *After operations cease and before institutional controls terminate in 2095:* Property lease requirements including control of land use consistent with the WAG 5 ROD c) Warning sign, prevention of unauthorized access—INL security gate, PBF facility fencing, industrial land use pending five-year review d) *After 2095:* Property transfer requirements including issuance of a finding of suitability to transfer and control of land use consistent with the WAG 5 ROD	b) *After operations cease and before institutional controls terminate in 2095:* Control land use as industrial until 2095 or sooner if released in a five-year review d) *After 2095:* Control land use as industrial until 2095 or sooner if released in a five-year review	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning signs (2.1.1) Physical security (2.1.5) Manage property lease/transfer requirements (2.2.1) Control drilling/excavations (2.2.2.1) Control soil disturbances (2.2.2.3)	No O&M requirements at this site	Not applicable	IC OU-5-12 ROD (DOE/ID-10700) Table 33 c) OU 5-12 O&M Plan (DOE/ID-10805) Table 3-2 O&M Not applicable

Table A-1. (continued).

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
PBF-38 *Abandoned Radioactive Waste Lines between PER-620 and PER-732* COC Radionuclides	See WAG 10					
WAG 6						
Boiling Water Reactor Experiment (BORAX)-01 *BORAX-II through V leach pond* COC Radionuclides	a) Visible access restrictions (warning signs), control of activities (drilling or excavating) b) Property lease requirements including control of land use consistent with the 10-04 ROD d) Property transfer requirements including issuance of a finding of suitability to transfer and control of land use consistent with the OU 10-04 ROD	a) Prevent exposure to contaminated soil, except for approved activities pursuant to the FFA/CO (DOE-ID 1991) b) Control land use as industrial until discontinued based on the results of a five-year review d) Control land use as industrial until discontinued based on the results of a five-year review	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning signs (2.1.1) Maintain permanent markers (2.1.2) Manage property lease/transfer requirements (2.2.1) Control drilling/excavations (2.2.2.1) Control soil disturbances (2.2.2.3)	No O&M requirements at this site	Not applicable	IC OU 6-05 and 10-04 ROD (DOE/ID-10980) Table 34 O&M Not applicable
BORAX-02 *BORAX-I burial site* COC Radionuclides	a) Visible access restrictions (warning signs), control of activities (drilling or excavating) b) Visible access restrictions (warning signs), control of activities (drilling or excavating), property lease requirements including control of land use consistent with the 10-04 ROD d) Property transfer requirements including issuance of a finding of suitability to transfer and control of land use consistent with the OU 10-04 ROD	a) Maintain integrity of the containment barrier b) Maintain integrity of the containment barrier d) Maintain integrity of the containment barrier	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning signs (2.1.1) Maintain permanent markers (2.1.2) Manage property lease/transfer requirements (2.2.1) Control drilling/excavations (2.2.2.1) Control soil disturbances (2.2.2.3)	No O&M requirements at this site	Not applicable	IC OU 6-05 and 10-04 ROD (DOE/ID-10980) Table 34 O&M Not applicable

Table A-1. (continued).

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
BORAX-08 *BORAX ditch* COC Radionuclides	a) Visible access restrictions (warning signs), control of activities (drilling or excavating) b) Property lease requirements including control of land use consistent with the 10-04 ROD d) Property transfer requirements including issuance of a finding of suitability to transfer and control of land use consistent with the OU 10-04 ROD	a) Prevent exposure to contaminated soil, except for approved activities pursuant to the FFA/CO (DOE-ID 1991) b) Control land use as industrial until discontinued based on the results of a five-year review d) Control land use as industrial until discontinued based on the results of a five-year review	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning signs (2.1.1) Maintain permanent markers (2.1.2) Manage property lease/transfer requirements (2.2.1) Control drilling/excavations (2.2.2.1) Control soil disturbances (2.2.2.3)	No O&M requirements at this site	Not applicable	IC OU 6-05 and 10-04 ROD (DOE/ID-10980) Table 34 O&M Not applicable
BORAX-09 *BORAX-II through V* COC Radionuclides	a) Visible access restrictions (warning signs), control of activities (drilling or excavating) b) Visible access restrictions (warning signs), control of activities (drilling or excavating), property lease requirements including control of land use consistent with the 10-04 ROD d) Property transfer requirements including issuance of a finding of suitability to transfer and control land use consistent with the OU 10-04 ROD	a) Maintain integrity of the contaminant barrier b) Maintain integrity of the contaminant barrier d) Maintain integrity of the contaminant barrier	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning signs (2.1.1) Manage property lease/transfer requirements (2.2.1) Control drilling/excavations (2.2.2.1) Control soil disturbances (2.2.2.3)	No O&M requirements at this site	Not applicable	IC OU 6-05 and 10-04 ROD (DOE/ID-10980) Table 34 O&M Not applicable
EBR-08 *EBR-01 (WMO-703) fuel oil tank* COC Diesel fuel	a) Visible access restrictions (warning signs), control of activities (drilling or excavating) b) Visible access restrictions (warning signs), control of activities (drilling or excavating), property lease requirements including control of land use consistent with the 10-04 ROD d) Property transfer requirements including issuance of a finding of suitability to transfer and	a) Prevent exposure to contaminated soil except for approved activities pursuant to the FFA/CO (DOE-ID 1991) b) Control land use as industrial until discontinued based on the results of a five-year review d) Control land use as industrial until discontinued based on the results of a five-year review	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning signs (2.1.1) Manage property lease/transfer requirements (2.2.1) Control drilling/excavations (2.2.2.1) Control soil disturbances (2.2.2.3)	No O&M requirements at this site	Not applicable	IC OU 6-05 and 10-04 ROD (DOE/ID-10980) Table 34 O&M Not applicable

Table A-1. (continued).

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
	control land use consistent with the OU 10-04 ROD					
WAG 7						
Subsurface Disposal Area (SDA) site *SDA* COC Pre-ROD **Pad A** *Pad A cap* COC Radionuclides Organic contamination in the vadose zone (**OCVZ)** *OCVZ treatment units* COC Hazardous chemicals **Pit 9** *Pit 9* COC Transuranic (TRU)	Visible access restrictions, control drilling and excavation activities, property transfer requirements. Property transfer requirements.	Warn of hazards pending OU 7-13/14 ROD. Control land use as industrial.	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning signs (2.1.1) Manage property lease/transfer requirements (2.2.1) Control drilling/excavations (2.2.2.1) Control soil disturbances (2.2.2.3)	Pad A O&M requirements are not included in this plan	Pad A O&M requirements are implemented by WAG 7 personnel	IC OU 7-12 ROD (Document ID: 5632) OU 7-08 ROD (Document ID: 5761) OU 7-10 ROD (Document ID: 5569) O&M OU 7-12 O&M Plan (ICP/EXT-04-00732), Table 1

Table A-1. (continued).

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
WAG 9						
ANL-01 *Industrial waste pond* COC Radionuclides	a) Access restrictions (e.g., fences, posted warning signs against excavation, permanent markers) to prevent residential intrusion, periodic inspection & maintenance to ensure integrity of institutional controls b) Access restrictions (e.g., fences, posted warning signs against excavation, permanent markers) to prevent residential intrusion, periodic inspection & maintenance to ensure integrity of institutional controls d) Access restrictions (posted signs, permanent markers), legal access and development restrictions filed with Bingham County government	a) Prevent current and future worker and resident exposure to radioactively contaminated soils b) Prevent current and future worker and resident exposure to radioactively contaminated soils d) Prevent current and future worker and resident exposure to cesium-137 contaminated soils in the Industrial Waste Pond bottom and the Interceptor Canal —Canal and—Mound sites (ANL-01, 09) *Timeframe of Land Use Restrictions (from 1999): Industrial Waste Pond:* Maximum of 110 years is expected *Timeframe of Land Use Restrictions (from 1999): Ditch B (buried portion):* Maximum of 110 years is expected *Timeframe of Land Use Restrictions (from 1999): Ditch B (open portion):* Expected to be less than 2 years *Timeframe of Land Use Restrictions (from 1999): Ditch A:* Expected to be 5–7 years	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning signs (2.1.1) Maintain permanent markers (2.1.2) Maintain fences (2.1.3) Manage property lease/transfer requirements (2.2.1) Control drilling/excavations (2.2.2.1) Control soil disturbances (2.2.2.3)	O&M requirements are not included in this plan.	O&M requirements are implemented by MFC personnel	IC RA WP OU 09-04 (W7500-0550-ES-00) Appendix H—IC Plan O&M
ANL-04 *Sanitary sewage lagoon* COC Mercury	See WAG 10			O&M requirements are not included in this plan.	O&M requirements are implemented by MFC personnel	

Table A-1. (continued).

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
ANL-09 *Interceptor canal* COC Radionuclides	a) Access restrictions (e.g., fences, posted warning signs against excavation, permanent markers) to prevent residential intrusion, periodic inspection & maintenance to ensure integrity of institutional controls b) Access restrictions (e.g., fences, posted warning signs against excavation, permanent markers) to prevent residential intrusion, periodic inspection & maintenance to ensure integrity of institutional controls d) Access restrictions (posted signs, permanent markers), legal access, and development restrictions filed with Bingham County government	a) Prevent current and future worker and resident exposure to radioactively contaminated soils b) Prevent current and future worker and resident exposure to radioactively contaminated soils d) Prevent current and future worker and resident exposure to cesium-137 contaminated soils in the Industrial Waste Pond bottom and the Interceptor Canal—Canal and—Mound sites (ANL-01, 09) *Timeframe of Land Use Restrictions (from 1999): Interceptor Canal—Mound:* Maximum of 105 years is expected *Timeframe of Land Use Restrictions (from 1999): Interceptor Canal—Canal:* Maximum of 88 years is expected	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning signs (2.1.1) Maintain fences (2.1.3) Manage property lease/transfer requirements (2.2.1) Control drilling/excavations (2.2.2.1) Control soil disturbances (2.2.2.3)	O&M requirements are not included in this plan.	O&M requirements are implemented by MFC personnel	IC RA WP OU 09-04 (W7500-0550-ES-00) Appendix H—IC Plan and Five-year Review O&M Not applicable
WAG 10						
ANL-04 *Sanitary sewage lagoon* COC Mercury	a) Maintain existing fencing and access controls until remedy is complete, maintain water in lagoons to prevent risk to ecological receptors (burrowing mammals) until remedy is complete, access restrictions include fences and posted signs warning against excavation b) Maintain existing fencing and access controls until remedy is complete, maintain water in lagoons to prevent risk to ecological receptors (burrowing mammals) until remedy is complete, access restrictions include fences and posted signs warning against excavation	a) Prevent current and future worker and resident exposure to radioactively contaminated soils b) Prevent current and future worker and resident exposure to radioactively contaminated soils *Timeframe of Land Use Restrictions (from 1999):* Max of 50 years expected	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning signs (2.1.1) Maintain fences (2.1.3) Manage property lease/transfer requirements (2.2.1) Control drilling/excavations (2.2.2.1) Control soil disturbances (2.2.2.3)	O&M requirements are not included in this plan.	O&M requirements are implemented by MFC personnel	IC RA WP OU 09-04 (W7500-0550-ES-00) Appendix H—IC Plan and Five-year Review O&M Not applicable

Table A-1. (continued).

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
	d) Access restrictions (posted signs, permanent markers), legal access, and development restrictions filed with Bingham County government					
Organic-Moderated Reactor Experiment (OMRE)-01 *OMRE leach pond* COC Radionuclides	a) Visible access restrictions (warning signs), control of activities (drilling or excavating) b) Property lease requirements including control of land use consistent with the OU 10-04 ROD d) Property transfer requirements including issuance of a finding of suitability to transfer and control of land use consistent with the OU 10-04 ROD	a) Prevent exposure to contaminated soil, except for approved activities pursuant to the FFA/CO (DOE-ID 1991) b) Control land use as industrial until discontinued based on the results of a five-year review d) Control land use as industrial until discontinued based on the results of a five-year review	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning signs (2.1.1) Manage property lease/transfer requirements (2.2.1) Control drilling/excavations (2.2.2.1) Control soil disturbances (2.2.2.3)	No O&M requirements at this site	Not applicable	IC OU 6-05 and 10-04 ROD (DOE/ID-10980) Table 34 O&M Not applicable
WAG 10 Ordnance sites						
ORD-01 *Arco high-altitude bombing range* COC Unexploded ordnance (UXO)—Potential for unintentional detonation **ORD-03** *CFA-633 Naval Firing Site and downrange area* COC UXO—Potential for unintentional detonation	a) *Until remedial action is implemented:* Visible access restrictions (warning signs), control of activities (drilling or excavating) b) *After operations cease and before DOE institutional controls are terminated:* Visible access restrictions (warning signs), control of activities (drilling or excavating), property lease requirements control of land use consistent with the OU-10-04 ROD d) Property transfer requirements including issuance of a finding of suitability to transfer and control of land use consistent with the OU 10-04 ROD	a) *Until remedial action is implemented:* Prevent exposure to potential UXO, except for approved activities pursuant to FFA/CO (DOE-ID 1991) b) *After operations cease and before DOE institutional controls are terminated:* Control land use as industrial until discontinued based on the results of a five-year review d) Control land use as industrial until discontinued based on the results of a five-year review	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning signs (2.1.1) Manage property lease/transfer requirements (2.2.1) Control drilling/excavations (2.2.2.1) Control soil disturbances (2.2.2.3)	No O&M requirements at this site	Not applicable	IC OU 6-05 and 10-04 ROD (DOE/ID-10980) Table 34 O&M Not applicable

Table A-1. (continued).

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
ORD-04 *CFA gravel pit* COC UXO—Potential for unintentional detonation						
ORD-05 *CFA sanitary landfill area* COC UXO—Potential for unintentional detonation						
ORD-06 *Naval Ordnance Disposal Area* COC Toxic energetic materials UXO—Potential for unintentional detonation						
ORD-07 *Explosive storage bunker north of INTEC* COC UXO—Potential for unintentional detonation						

Table A-1. (continued).

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
ORD-08 *National Oceanic and Atmospheric Administration (NOAA)* COC Explosive materials UXO—Potential for unintentional detonation **ORD-09** *Twin Buttes bombing range* COC UXO—Potential for unintentional detonation **ORD-10** *Fire Station II zone and range fire burn area* COC Toxic energetic materials UXO—Potential for unintentional detonation						

Table A-1. (continued).

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
ORD-11 *Anaconda power line* COC UXO—Potential for unintentional detonation						
ORD-12 *Old military structures* COC UXO—Potential for unintentional detonation						
ORD-13 *Mass Detonation Area* COC UXO—Potential for unintentional detonation						
ORD-14 *Dairy farm revetments* COC UXO—Potential for unintentional detonation						

Table A-1. (continued).

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
ORD-15 *Experimental Field Station* COC Toxic energetic materials UXO—Potential for unintentional detonation **ORD-16** *UXO east of TRA* COC UXO—Potential for unintentional detonation **ORD-17** *Burn ring south of the Experimental Field Station* COC UXO—Potential for unintentional detonation **ORD-18** *Igloo-type structures northwest of the Experimental Field Station* COC UXO—Potential for						

Table A-1. (continued).

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
unintentional detonation **ORD-19** *Rail Car Explosion Area* COC UXO—Potential for unintentional detonation **ORD-20** *UXO east of the Army Reentry Vehicle Facility Site* COC UXO—Potential for unintentional detonation **ORD-22** *Projectiles found near Mile Markers 17 and 19* COC UXO—Potential for unintentional detonation						

Table A-1. (continued).

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
ORD-24 *Land Mine Fuze Burn Area* COC Explosive materials UXO—Potential for unintentional detonation						
ORD-26 *Zone east of the Big Lost River* COC UXO—Potential for unintentional detonation						
ORD-27 *Dirt mounds near the Experimental Field Station, NOAA, and Naval Reactors Facility (NRF)* COC UXO—Potential for unintentional detonation						
ORD-28 *Craters east of INTEC* COC UXO—						

Table A-1. (continued).

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
Potential for unintentional detonation						
ORD-21 *Juniper mine* COC UXO buried at depth	a) Visible access restrictions (warning signs), control of activities (drilling or excavating) b) A*fter operations cease and before DOE institutional controls are terminated:* Visible access restrictions (warning signs), control of activities (drilling or excavating), property lease requirements including control of land use consistent wit the 10-04 ROD d) Property transfer requirements including issuance of a finding of suitability to transfer and control land use consistent with the OU 10-04 ROD	a) Prevent exposure to potential UXO or contaminated soil, except for approved activities pursuant to the FFA/CO (DOE-ID 1991) b) A*fter operations cease and before DOE institutional controls are terminated:* Control land use as industrial until discontinued based on the results of a five-year review d) Control land use as industrial until discontinued based on the results of a five-year review	Annual site inspection. Maintain warning signs and site as necessary. Verify and update site status and requirements in the ICS database. The site is currently projected to remain in DOE control until at least 2095; consequently, property lease and property transfer requirements are applicable at that time. Drilling and excavation requirements identified in MCP-3480 apply to this CERCLA site. Soil disturbances will be controlled in accordance with MCP-3002.	No O&M requirements at this site	Not applicable	IC OU 6-05 and 10-04 ROD (DOE/ID-10980) Table 34 O&M Not applicable
ORD-25 *Ordnance and dry explosives east of the Big Lost River* COC UXO—Potential for unintentional detonation	a) Visible access restrictions (warning signs), control of activities (drilling of excavating) b) Visible access restrictions (warning signs), control of activities (drilling of excavating), property lease requirements control of land use consistent with the OU 10-04 ROD d) Property transfer requirements including issuance of a finding of suitability to transfer and control of land use consistent with the OU 10-04 ROD	a) *Until remedial action is implemented:* Prevent exposure to potential UXO except for approved activities pursuant to the FFA/CO (DOE-ID 1991) b) *After operations cease and before DOE institutional controls are terminated:* Control land use as industrial until discontinued based on the results of a five-year review d) Control land use as industrial until discontinued based on the results of a five-year review	Annual site inspection. Maintain warning signs and site as necessary. Verify and update site status and requirements in the ICS database. The site is currently projected to remain in DOE control until at least 2095; consequently, property lease and property transfer requirements are applicable at that time. Drilling and excavation requirements identified in MCP-3480 apply to this CERCLA site. Soil disturbances will be controlled in accordance with MCP-3002.	No O&M requirements at this site	Not applicable	IC OU 6-05 and 10-04 ROD (DOE/ID-10980) Table 34 O&M Not applicable

Table A-1. (continued).

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
New Sites Controls are pending						
CFA-54 *Buried pipe near CFA-674* COC Metals **MISC-48** *Mud Lake Landfill* COC TBD **PBF-38** *Abandoned Radioactive Waste Lines between PER-620 and PER-732* COC Radionuclides **TRA-56** *TRA Acid Transfer Line from TRA-631 to TRA-645* COC Mercury **TRA-57** *Abandoned Buried Diesel Fuel Oil Line* COC Diesel fuel	Controls are pending. This is a new site. Controls will be addressed in the OU 10-08 ROD.	Control exposure until permanent controls are identified	Review and update site status in the ICS database, and perform site inspections (2.1.6) Post/maintain warning signs (2.1.1) Control soil disturbances (2.2.2.3)	No O&M requirements at this site	Not applicable	IC

Table A-1. (continued).

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
TRA-58 *Abandoned Buried Fuel Oil Lines* COC Diesel fuel **TRA-59** *Abandoned buried acid line* COC Inorganic **TRA-62** *Abandoned discharge pipe between TRA-608 and TRA-701* COC Metals **TRA-63** *TRA-605 Warm Waste Line* COC Radionuclides **TRA-74** *Contaminated soil beneath the TRA-718 water tower* COC Metals						

Table A-1. (continued).

Site Code	Controls	Objective	IC Implementation	O&M Requirements	O&M Implementation	Source Reference
TSF-52 *Soil around TAN-607 decontamination shop door* COC Radionuclides **TSF-54** *Soil beneath TAN-607 decontamination shop sump* COC Radionuclides **TSF-55** *Soil in pipe trench west of TAN-666* COC Radionuclides						
TSF-08 *Mercury spill* COC Mercury	c) Visible access restrictions, control of activities, property lease requirements including land use, if necessary d) Property transfer requirements including issuance of a finding of suitability to transfer and control of land use, if necessary	c) Limit exposure to contaminated soil and ensure that land use is appropriate. d) Ensure land use is appropriate	Annual site inspection. Maintain warning signs and site as necessary. Verify and update site status and requirements in the ICS database. The site is currently projected to remain in DOE control until at least 2095; consequently, property lease and property transfer requirements are applicable at that time. Soil disturbances will be controlled in accordance with MCP-3002.	No O&M requirements at this site	Not applicable	IC OU 1-10 ROD (DOE/ID-10682) Table 12-2 O&M Not applicable

a) Current DOE operations
b) DOE control post operations
c) DOE control
d) Post DOE control

Table A-2 identifies the wells at the INL Site that are used by the ICP groundwater monitoring program to collect water level data, and groundwater samples, and are subject to IC inspections. Approximately 20% of these wells will be visited annually, such that every five years all of the wells will be inspected. Inspections will ensure that the wells are locked and secure, that the wells are properly identified, and that the identification is legible and securely affixed. Issues identified during the IC inspections that will require maintenance or repair of the well will be reported to the well services program to perform the necessary repairs.

Table A-2. Monitoring wells subject to IC inspections at the INL.

WELL_ID	WELL NAME	ICP Monitoring Programs	WELL_ID	WELL NAME	ICP Monitoring Programs
1930	PBF-1930	PER-777	564	USGS-115	WAG 3
72	ANP-04	WAG 1 ISB	565	USGS-116	WAG 3
339	TAN DRAINAGE DISP. 02	WAG 1 ISB	570	USGS-121	WAG 3
346	TAN-09	WAG 1 ISB	572	USGS-123	WAG 3
348	TAN-10A	WAG 1 ISB	196	LF2-08	WAG 3
1008	TANT-MON-A-028	WAG 1 ISB	197	LF2-09	WAG 3
1009	TANT-MON-A-027	WAG 1 ISB	199	LF2-11	WAG 3
1010	TANT-MON-A-029	WAG 1 ISB	207	LF3-08	WAG 3
1012	TANT-MON-A-030A	WAG 1 ISB	571	USGS-122	WAG 3
1117	TANT-MON-A-024	WAG 1 ISB	727	LF3-10	WAG 3
1118	TANT-MON-A-025	WAG 1 ISB	1091	ICPP-MON-A-021	WAG 3
1163	TANT-MON-A-011	WAG 1 ISB	1092	ICPP-MON-A-022	WAG 3
1219	TANT-INJ-A-003	WAG 1 ISB	1442	ICPP-MON-A-230	WAG 3
1859	TAN-1859	WAG 1 ISB	1781	ICPP-1781	WAG 3 ICDF
1860	TAN-1860	WAG 1 ISB	1782	ICPP-1782	WAG 3 ICDF
1861	TAN-1861	WAG 1 ISB	1783	ICPP-1783	WAG 3 ICDF
76	ANP-08	WAG 1 MNA	1800	ICPP-1800	WAG 3 ICDF
162	GIN-04	WAG 1 MNA	1801	ICPP-1801	WAG 3 ICDF
752	TAN-16	WAG 1 MNA	1802	ICPP-1802	WAG 3 ICDF
793	TAN-21	WAG 1 MNA	1803	ICPP-1803	WAG 3 ICDF
1316	TANT-MON-A-051	WAG 1 MNA	1804	ICPP-1804	WAG 3 ICDF
1317	TANT-MON-A-052	WAG 1 MNA	1807	ICPP-1807	WAG 3 ICDF
1340	TANT-MON-A-054	WAG 1 MNA	1829	ICPP-1829	WAG 3 ICDF
1341	TANT-MON-A-055	WAG 1 MNA	1831	ICPP-1831	WAG 3 ICDF
1342	TANT-MON-A-056	WAG 1 MNA	532	USGS-083	WAG 4 GWMP
1343	TANT-MON-A-057	WAG 1 MNA	562	USGS-113	WAG 4 GWMP
1344	TANT-MON-A-058	WAG 1 MNA	563	USGS-114	WAG 4 GWMP
1135	TANT-MON-A-007	WAG 1 P&T	726	LF3-09	WAG 4 GWMP
1138	TANT-MON-A-010	WAG 1 P&T	1213	SOUTH-MON-A-002	WAG 4 GWMP
1164	TANT-MON-A-012	WAG 1 P&T	1347	USGS-OBS-A-127	WAG 4 GWMP
1165	TANT-MON-A-013	WAG 1 P&T	1352	ICPP-MON-A-166	WAG 4 GWMP
1166	TANT-MON-A-014	WAG 1 P&T	1383	ICPP-MON-A-167	WAG 4 GWMP
1167	TANT-MON-A-015	WAG 1 P&T	1349	ICPP-MON-A-164B	WAG 4 GWMP
1168	TANT-MON-A-016	WAG 1 P&T	1350	ICPP-MON-A-164C	WAG 4 GWMP
1169	TANT-MON-A-017	WAG 1 P&T	1077	CFA-MON-A-001	WAG 4 GWMP
1170	TANT-MON-A-018	WAG 1 P&T	1078	CFA-MON-A-002	WAG 4 GWMP
1339	TANT-INJ-A-053A	WAG 1 P&T	1089	CFA-MON-A-003	WAG 4 GWMP
450	USGS-001	WAG 10 GWMP	1254	CFA-GAS-V-004	WAG 4 GWMP
451	USGS-002	WAG 10 GWMP	1255	CFA-GAS-V-005	WAG 4 GWMP
453	USGS-004	WAG 10 GWMP	1256	CFA-GAS-V-006	WAG 4 GWMP

WELL_ID	WELL NAME	ICP Monitoring Programs	WELL_ID	WELL NAME	ICP Monitoring Programs
457	USGS-008	WAG 10 GWMP	1257	CFA-GAS-V-007	WAG 4 GWMP
458	USGS-009	WAG 10 GWMP	1258	CFA-GAS-V-008	WAG 4 GWMP
460	USGS-011	WAG 10 GWMP	1306	STF-MON-A-004	WAG 4 GWMP
463	USGS-014	WAG 10 GWMP	1413	USGS-128	WAG 4 GWMP
468	USGS-019	WAG 10 GWMP	1931	CFA-1931	WAG 4 GWMP
475	USGS-026	WAG 10 GWMP	1932	CFA-1932	WAG 4 GWMP
476	USGS-027	WAG 10 GWMP	280	SPERT-1	WAG 5 GWMP
535	USGS-086	WAG 10 GWMP	1003	ARA-MON-A-001	WAG 5 GWMP
549	USGS-100	WAG 10 GWMP	1004	ARA-MON-A-002	WAG 5 GWMP
550	USGS-101	WAG 10 GWMP	1006	ARA-MON-A-03A	WAG 5 GWMP
552	USGS-103	WAG 10 GWMP	1007	ARA-MON-A-004	WAG 5 GWMP
553	USGS-104	WAG 10 GWMP	1085	PBF-MON-A-001	WAG 5 GWMP
554	USGS-105	WAG 10 GWMP	1087	PBF-MON-A-003	WAG 5 GWMP
555	USGS-106	WAG 10 GWMP	1094	PBF-MON-A-004	WAG 5 GWMP
556	USGS-107	WAG 10 GWMP	1095	PBF-MON-A-005	WAG 5 GWMP
557	USGS-108	WAG 10 GWMP	765	M1SA	WAG 7 GWMP
558	USGS-109	WAG 10 GWMP	766	M3S	WAG 7 GWMP
559	USGS-110	WAG 10 GWMP	769	M7S	WAG 7 GWMP
987	USGS-OBS-A-124	WAG 10 GWMP	1212	SOUTH-MON-A-001	WAG 7 GWMP
988	USGS-OBS-A-125	WAG 10 GWMP	1214	SOUTH-MON-A-003	WAG 7 GWMP
1346	USGS-OBS-A-126B	WAG 10 GWMP	1215	SOUTH-MON-A-004	WAG 7 GWMP
147	DH-1B	WAG 10 GWMP	767	M4D	WAG 7 GWMP
250	P&W-3	WAG 10 GWMP	768	M6S	WAG 7 GWMP
2050	MIDDLE-2050A	WAG 10 GWMP	906	RWMC-MON-A-013	WAG 7 GWMP
2051	MIDDLE-2051	WAG 10 GWMP	1327	RWMC-MON-A-162	WAG 7 GWMP
184	HIGHWAY 3	WAG 2 GWMP	1337	SOUTH-MON-A-010	WAG 7 GWMP
265	PW-9	WAG 2 GWMP	1338	SOUTH-MON-A-009	WAG 7 GWMP
502	USGS-053	WAG 2 GWMP	10	77-1	WAG 7 OCVZ
503	USGS-054	WAG 2 GWMP	15	78-4	WAG 7 OCVZ
504	USGS-055	WAG 2 GWMP	44	88-01D	WAG 7 OCVZ
505	USGS-056	WAG 2 GWMP	142	D-02	WAG 7 OCVZ
507	USGS-058	WAG 2 GWMP	567	USGS-118	WAG 7 OCVZ
514	USGS-065	WAG 2 GWMP	598	WWW1	WAG 7 OCVZ
517	USGS-068	WAG 2 GWMP	770	M10S	WAG 7 OCVZ
519	USGS-070	WAG 2 GWMP	866	9301	WAG 7 OCVZ
522	USGS-073	WAG 2 GWMP	867	9302	WAG 7 OCVZ
731	TRA-07	WAG 2 GWMP	1102	RWMC-VVE-V-068	WAG 7 OCVZ
732	TRA-08	WAG 2 GWMP	1103	RWMC-VVE-V-069	WAG 7 OCVZ
734	PW-14	WAG 2 GWMP	1104	RWMC-GAS-V-073	WAG 7 OCVZ
759	PW-11	WAG 2 GWMP	1105	RWMC-VVE-V-067	WAG 7 OCVZ
760	PW-12	WAG 2 GWMP	1106	RWMC-VVE-V-071	WAG 7 OCVZ
761	PW-13	WAG 2 GWMP	1107	RWMC-VVE-V-070	WAG 7 OCVZ
763	TRA-06A	WAG 2 GWMP	1108	RWMC-GAS-V-072	WAG 7 OCVZ
1823	MIDDLE-1823	WAG 2 GWMP	1109	RWMC-GAS-V-074	WAG 7 OCVZ
1933	TRA-1933	WAG 2 GWMP	1110	RWMC-GAS-V-075	WAG 7 OCVZ
1934	TRA-1934	WAG 2 GWMP	1111	RWMC-GAS-V-076	WAG 7 OCVZ
499	USGS-050	WAG 3	1112	RWMC-GAS-V-077	WAG 7 OCVZ
131	CPP-55-06	WAG 3	1113	RWMC-GAS-V-078	WAG 7 OCVZ
720	CPP-33-4-2	WAG 3	1114	RWMC-GAS-V-079	WAG 7 OCVZ

WELL_ID	WELL NAME	ICP Monitoring Programs	WELL_ID	WELL NAME	ICP Monitoring Programs
735	CPP-33-1	WAG 3	1115	RWMC-GAS-V-080	WAG 7 OCVZ
736	CPP-33-2	WAG 3	1116	RWMC-GAS-V-081	WAG 7 OCVZ
737	CPP-33-3	WAG 3	1216	SOUTH-GAS-V-005	WAG 7 OCVZ
764	CPP-33-4-1	WAG 3	1217	SOUTH-GAS-V-007	WAG 7 OCVZ
806	CPP-37-4	WAG 3	1218	SOUTH-GAS-V-008	WAG 7 OCVZ
1057	ICPP-MON-P-001	WAG 3	1328	RWMC-VVE-V-163	WAG 7 OCVZ
1058	ICPP-MON-P-002	WAG 3	1407	VVE-1	WAG 7 OCVZ
1059	ICPP-MON-P-003	WAG 3	1408	VVE-3	WAG 7 OCVZ
1061	ICPP-MON-P-005	WAG 3	1409	VVE-4	WAG 7 OCVZ
1062	ICPP-MON-P-006	WAG 3	1410	VVE-6	WAG 7 OCVZ
1063	ICPP-MON-P-007	WAG 3	1411	VVE-7	WAG 7 OCVZ
1064	ICPP-MON-P-008	WAG 3	1412	VVE-10	WAG 7 OCVZ
1069	ICPP-MON-P-014	WAG 3	1816	RWMC-1816	WAG 7 OCVZ
1070	ICPP-MON-P-015	WAG 3	89	C-01	WAG 7 VZMP
1071	ICPP-MON-P-016	WAG 3	90	C-02	WAG 7 VZMP
1072	ICPP-MON-P-017	WAG 3	143	D-06	WAG 7 VZMP
1073	ICPP-MON-P-018	WAG 3	146	D-15	WAG 7 VZMP
1074	ICPP-MON-P-020	WAG 3	251	PA-01	WAG 7 VZMP
1187	ICPP-MON-P-019	WAG 3	252	PA-02	WAG 7 VZMP
1229	ICPP-SCI-S-125	WAG 3	335	T-23	WAG 7 VZMP
1231	ICPP-SCI-S-127	WAG 3	352	TH-02	WAG 7 VZMP
1232	ICPP-SCI-S-128	WAG 3	354	TH-04	WAG 7 VZMP
1233	ICPP-SCI-S-129	WAG 3	355	TH-05	WAG 7 VZMP
1235	ICPP-SCI-S-131	WAG 3	448	TW-1	WAG 7 VZMP
1428	ICPP-SCI-P-216	WAG 3	577	W-04	WAG 7 VZMP
1429	ICPP-SCI-P-217	WAG 3	578	W-05	WAG 7 VZMP
1430	ICPP-SCI-P-218	WAG 3	579	W-06	WAG 7 VZMP
1431	ICPP-SCI-P-219	WAG 3	580	W-08	WAG 7 VZMP
1432	ICPP-SCI-P-220	WAG 3	581	W-09	WAG 7 VZMP
1433	ICPP-SCI-P-221	WAG 3	585	W-13	WAG 7 VZMP
1434	ICPP-SCI-P-222	WAG 3	587	W-17	WAG 7 VZMP
1435	ICPP-SCI-P-223	WAG 3	590	W-20	WAG 7 VZMP
1436	ICPP-SCI-P-224	WAG 3	592	W-23	WAG 7 VZMP
1437	ICPP-SCI-P-225	WAG 3	594	W-25	WAG 7 VZMP
1438	ICPP-SCI-P-226	WAG 3	1318	RWMC-SCI-V-153	WAG 7 VZMP
1439	ICPP-SCI-P-227	WAG 3	1319	RWMC-SCI-V-160	WAG 7 VZMP
1440	ICPP-SCI-P-228	WAG 3	1320	RWMC-SCI-V-154	WAG 7 VZMP
1441	ICPP-SCI-P-229	WAG 3	1321	RWMC-SCI-V-155	WAG 7 VZMP
1443	ICPP-SCI-P-247	WAG 3	1322	RWMC-SCI-V-156	WAG 7 VZMP
1444	ICPP-SCI-P-248	WAG 3	1323	RWMC-SCI-V-157	WAG 7 VZMP
1445	ICPP-SCI-P-249	WAG 3	1324	RWMC-SCI-V-158	WAG 7 VZMP
1446	ICPP-SCI-P-250	WAG 3	1325	RWMC-SCI-V-159	WAG 7 VZMP
1447	ICPP-SCI-P-251	WAG 3	1326	RWMC-SCI-V-161	WAG 7 VZMP
1448	ICPP-SCI-P-252	WAG 3	1329	RWMC-SCI-V-203	WAG 7 VZMP
2018	ICPP-2018	WAG 3	1330	SOUTH-SCI-V-014	WAG 7 VZMP
2019	ICPP-2019	WAG 3	1331	SOUTH-SCI-V-011	WAG 7 VZMP
2020	ICPP-2020	WAG 3	1332	SOUTH-SCI-V-012	WAG 7 VZMP
2021	ICPP-2021	WAG 3	1333	SOUTH-SCI-V-013	WAG 7 VZMP
98	CPP-01	WAG 3	1334	SOUTH-SCI-V-018	WAG 7 VZMP

WELL_ID	WELL NAME	ICP Monitoring Programs		WELL_ID	WELL NAME	ICP Monitoring Programs
198	LF2-10	WAG 3		1335	SOUTH-SCI-V-015	WAG 7 VZMP
469	USGS-020	WAG 3		1336	SOUTH-SCI-V-016	WAG 7 VZMP
483	USGS-034	WAG 3		1787	98-1	WAG 7 VZMP
484	USGS-035	WAG 3		1788	98-2	WAG 7 VZMP
485	USGS-036	WAG 3		1789	98-3	WAG 7 VZMP
486	USGS-037	WAG 3		1790	98-4	WAG 7 VZMP
487	USGS-038	WAG 3		1791	98-5	WAG 7 VZMP
488	USGS-039	WAG 3		1792	PA-03	WAG 7 VZMP
489	USGS-040	WAG 3		1793	PA-04	WAG 7 VZMP
490	USGS-041	WAG 3		1809	RWMC-1809	WAG 7 VZMP
491	USGS-042	WAG 3		1810	RWMC-1810	WAG 7 VZMP
492	USGS-043	WAG 3		1812	RWMC-1812	WAG 7 VZMP
493	USGS-044	WAG 3		1813	RWMC-1813	WAG 7 VZMP
494	USGS-045	WAG 3		1818	RWMC-1818	WAG 7 VZMP
495	USGS-046	WAG 3		1819	RWMC-1819	WAG 7 VZMP
496	USGS-047	WAG 3		1898	SOUTH-1898	WAG 7 VZMP
497	USGS-048	WAG 3		1935	RWMC-1935	WAG 7 VZMP
500	USGS-051	WAG 3		1936	RWMC-1936	WAG 7 VZMP
501	USGS-052	WAG 3		2004	RWMC-2004	WAG 7 VZMP
506	USGS-057	WAG 3		2005	RWMC-2005	WAG 7 VZMP
508	USGS-059	WAG 3		2006	RWMC-2006	WAG 7 VZMP
516	USGS-067	WAG 3		1351	ICPP-MON-A-165	WLAP
525	USGS-076	WAG 3		1357	ICPP-MON-V-191	WLAP
526	USGS-077	WAG 3		1363	ICPP-MON-V-200	WLAP
531	USGS-082	WAG 3		1425	ICPP-MON-V-212	WLAP
533	USGS-084	WAG 3		446	TSFAG-5	WLAP
534	USGS-085	WAG 3		749	TAN-13A	WLAP
561	USGS-112	WAG 3		1100	TANT-MON-A-004	WLAP
				1101	TANT-MON-A-005	WLAP

Appendix B

Maps of IC and O&M Sites

List of Figures

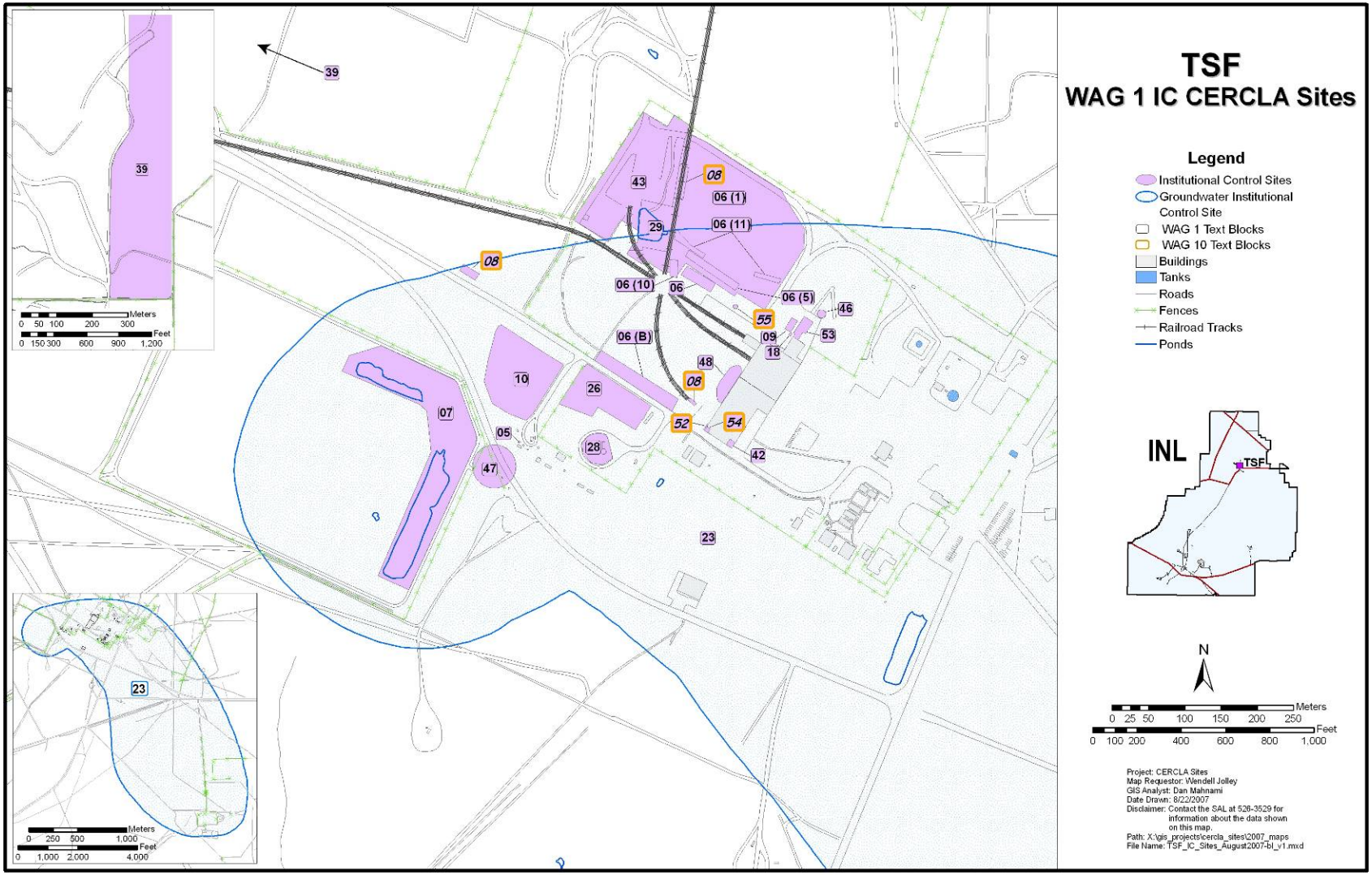

Figure B-1. Sites in the TSF area.

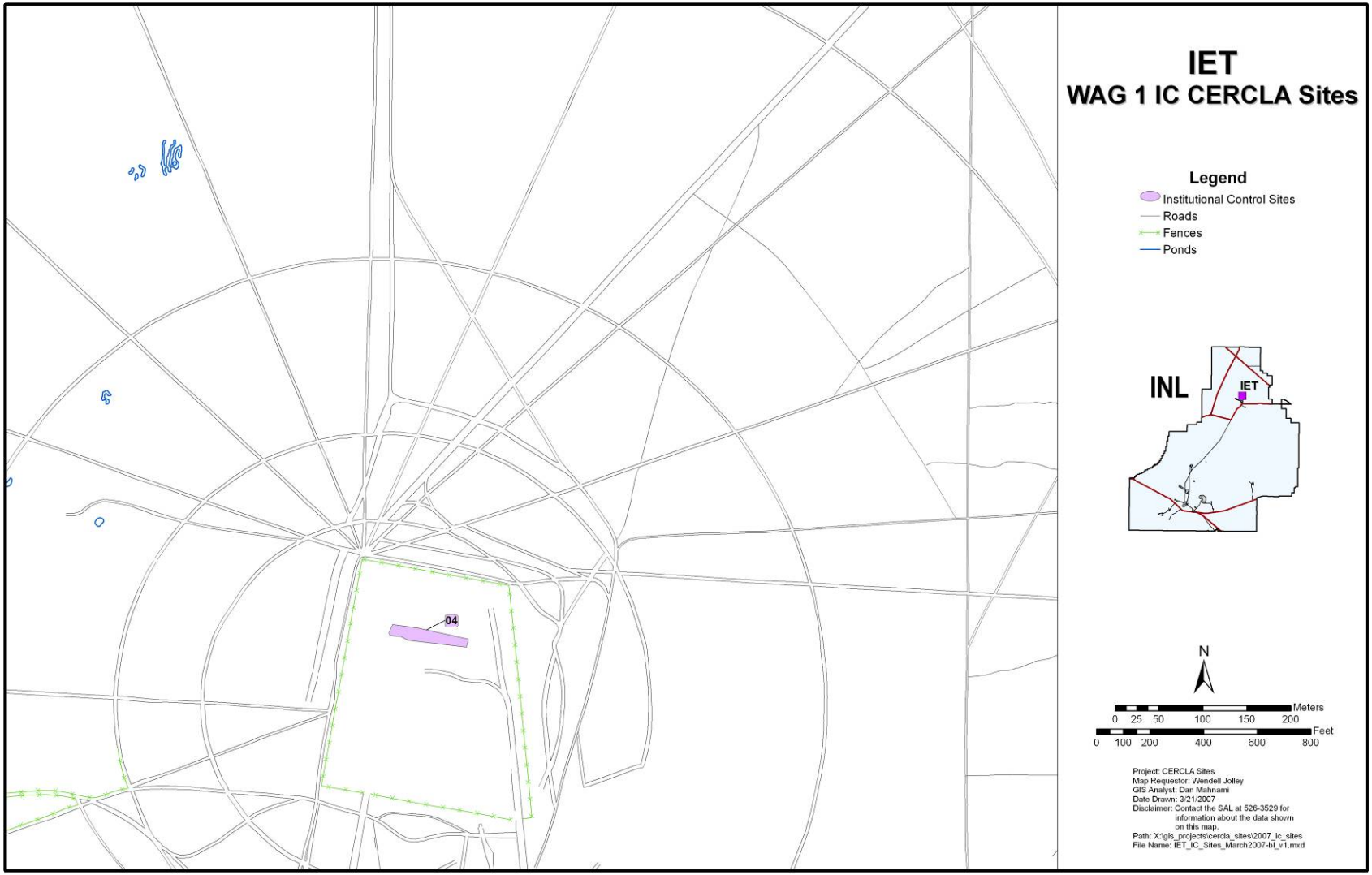

Figure B-2. Sites in the IET area.

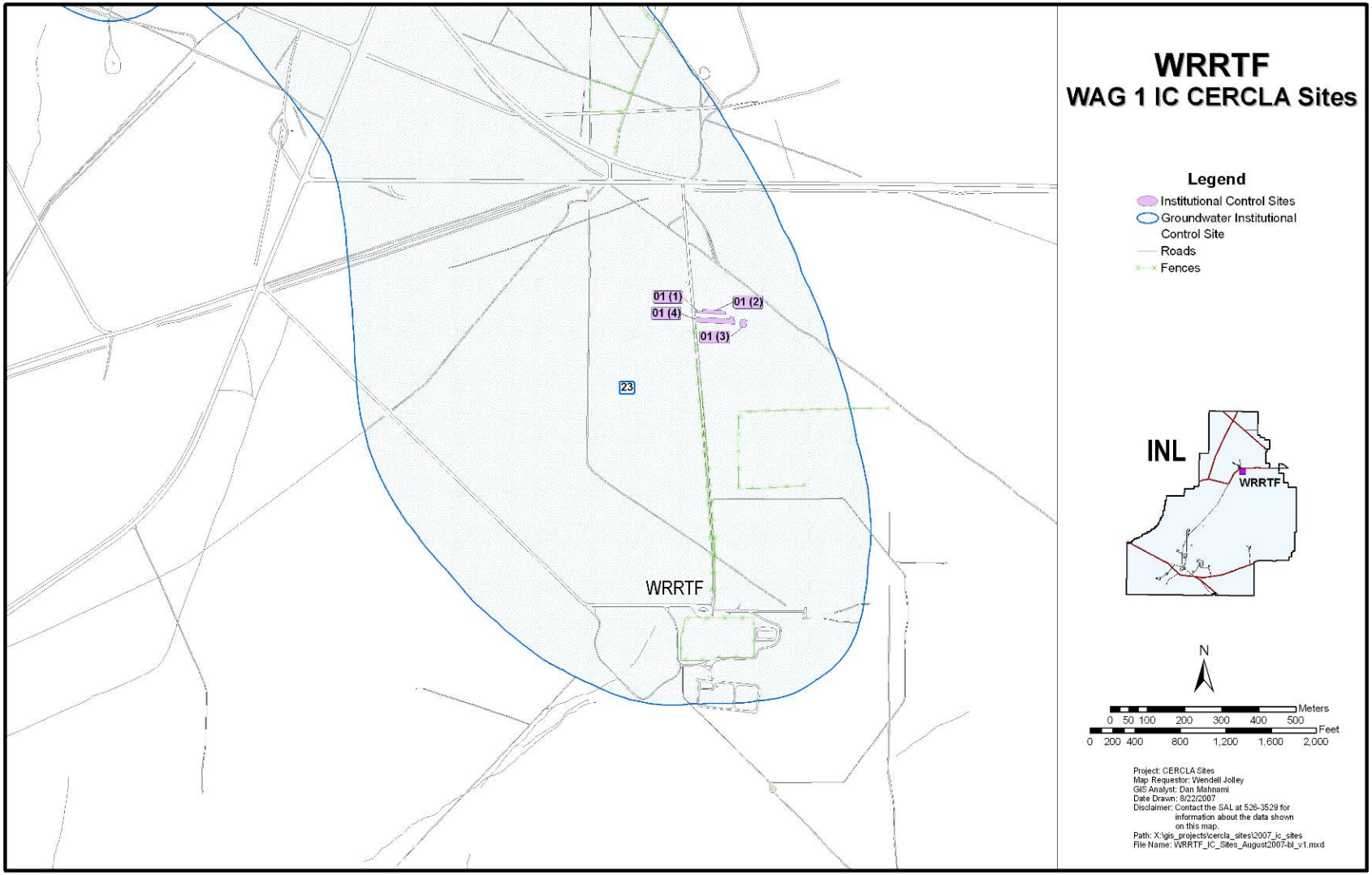

Figure B-3. Sites in the WRRTF area.

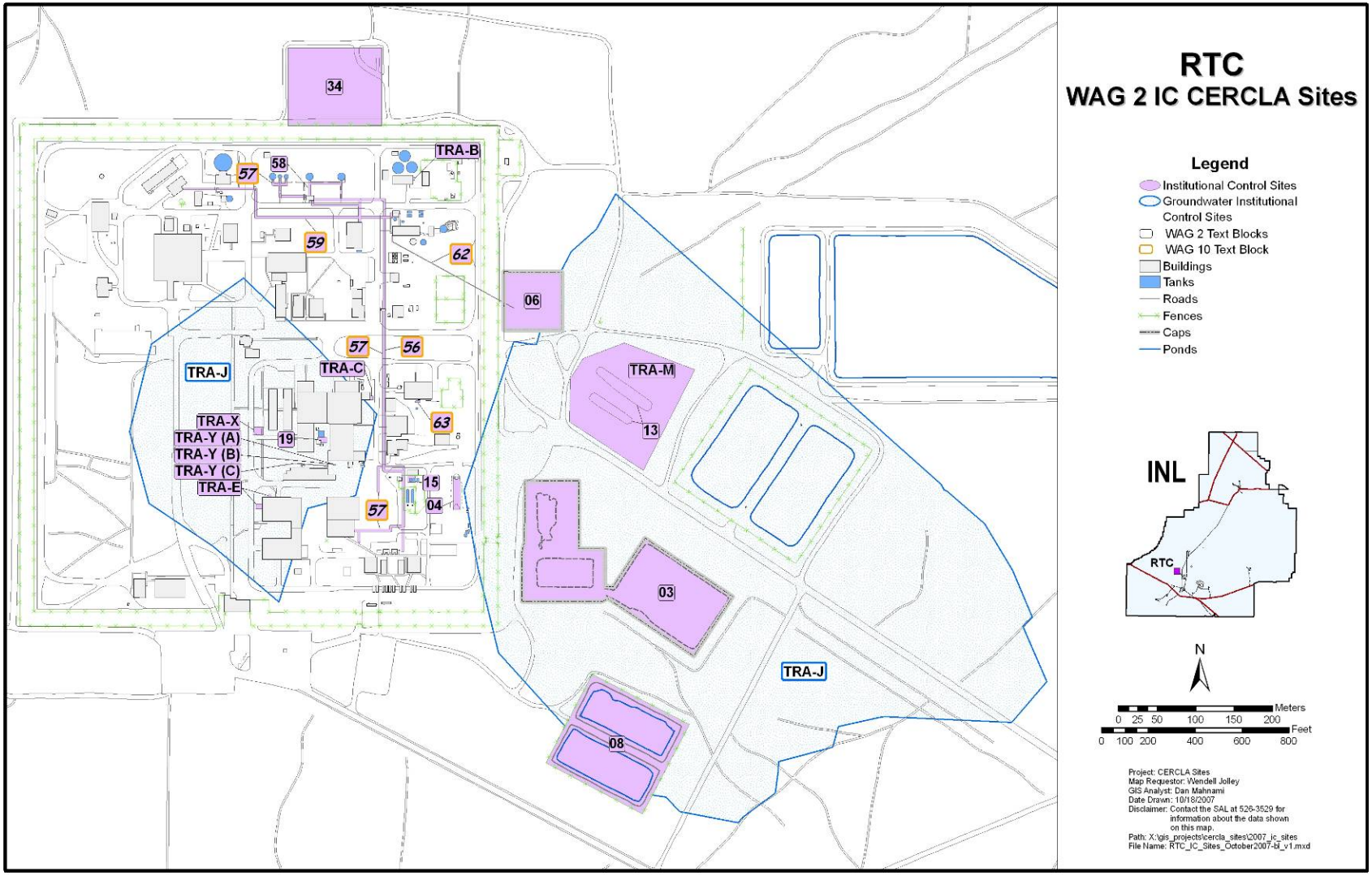

Figure B-4. Sites in the RTC area.

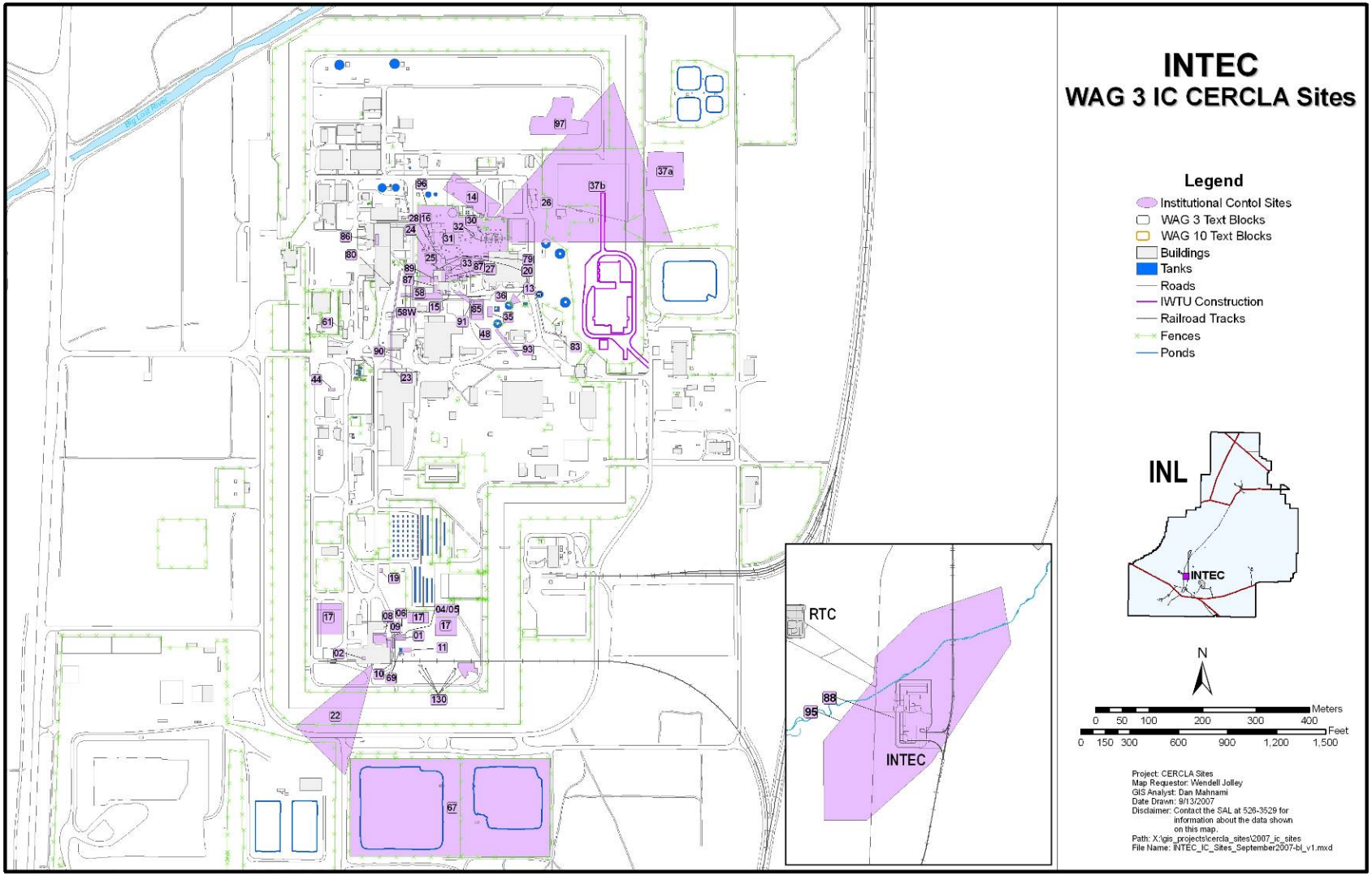

Figure B-5. Sites in the INTEC area.

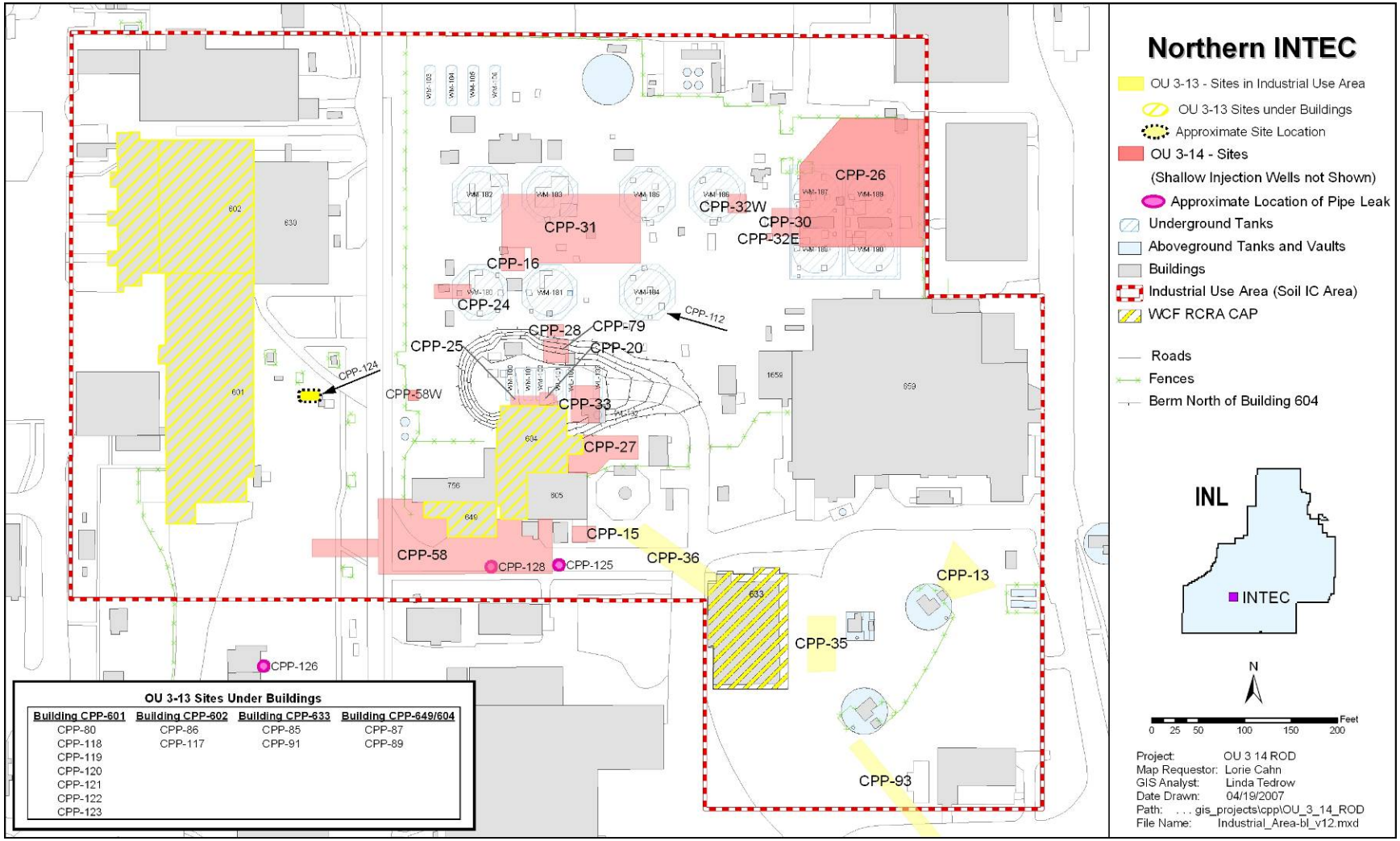

Figure B-6. INTEC industrial use area.

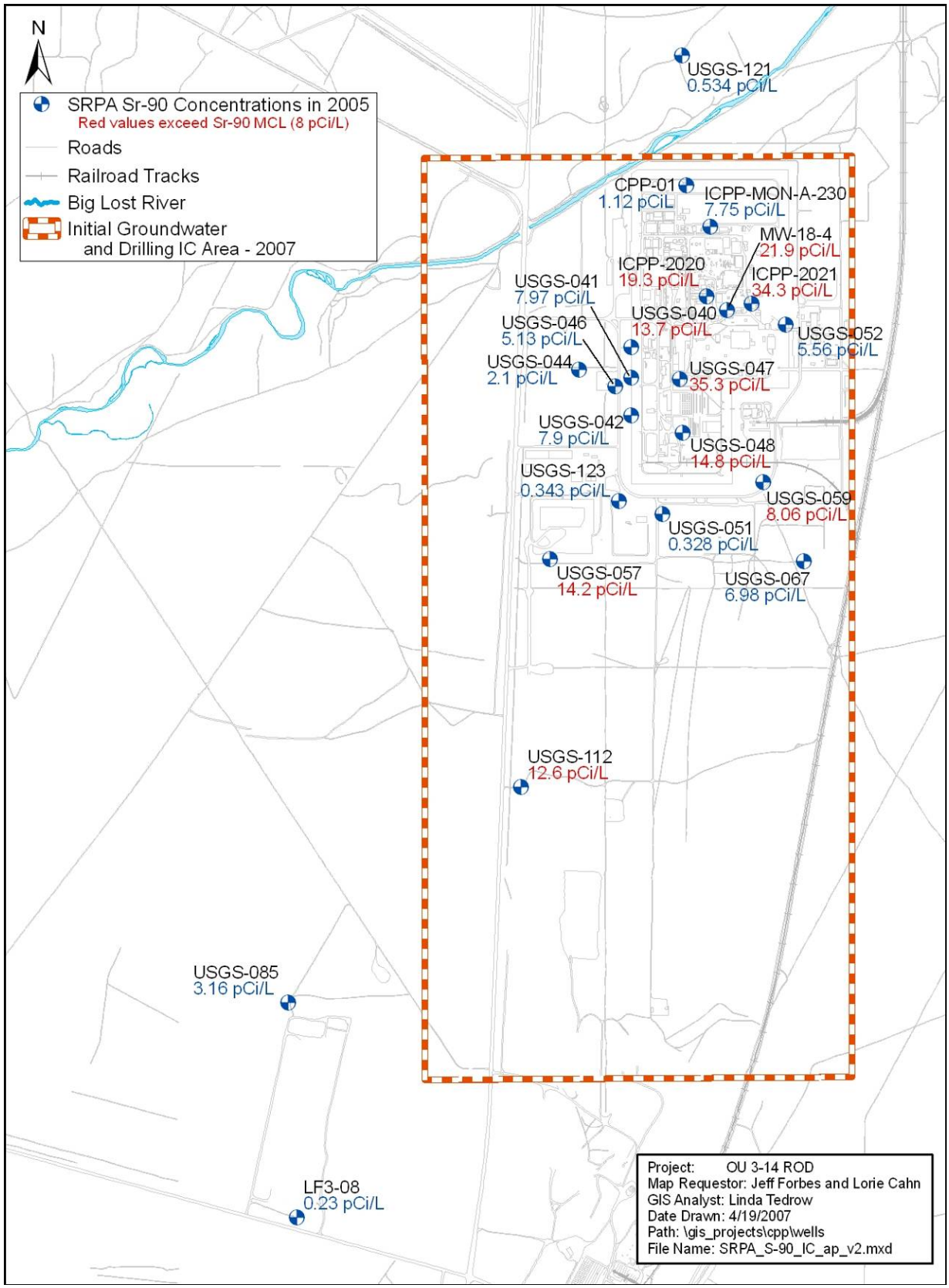

Figure B-7. OU 3-14 Groundwater and drilling IC area.

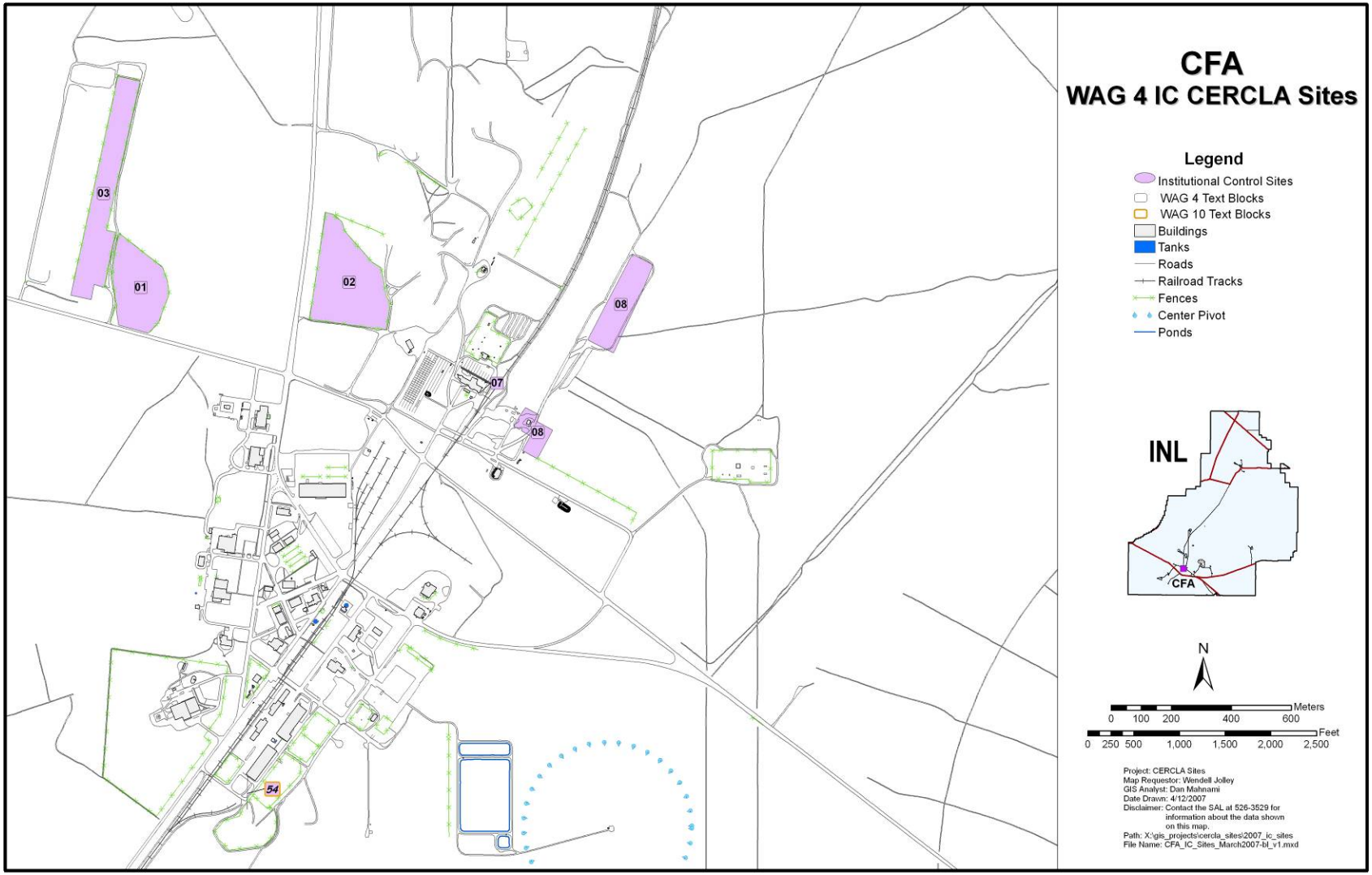

Figure B-8. Sites in the CFA area.

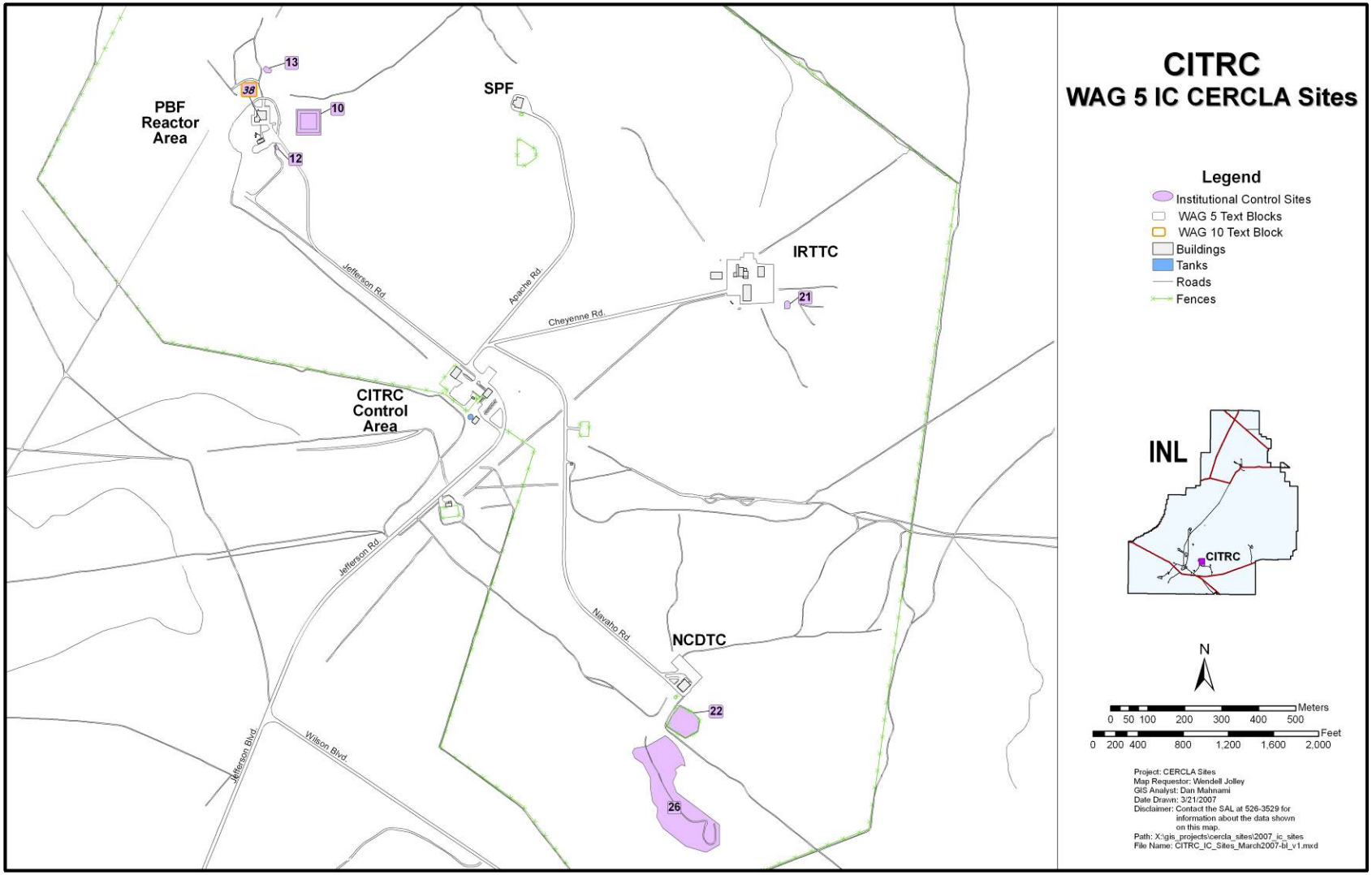

Figure B-9. Sites in the CITRIC area.

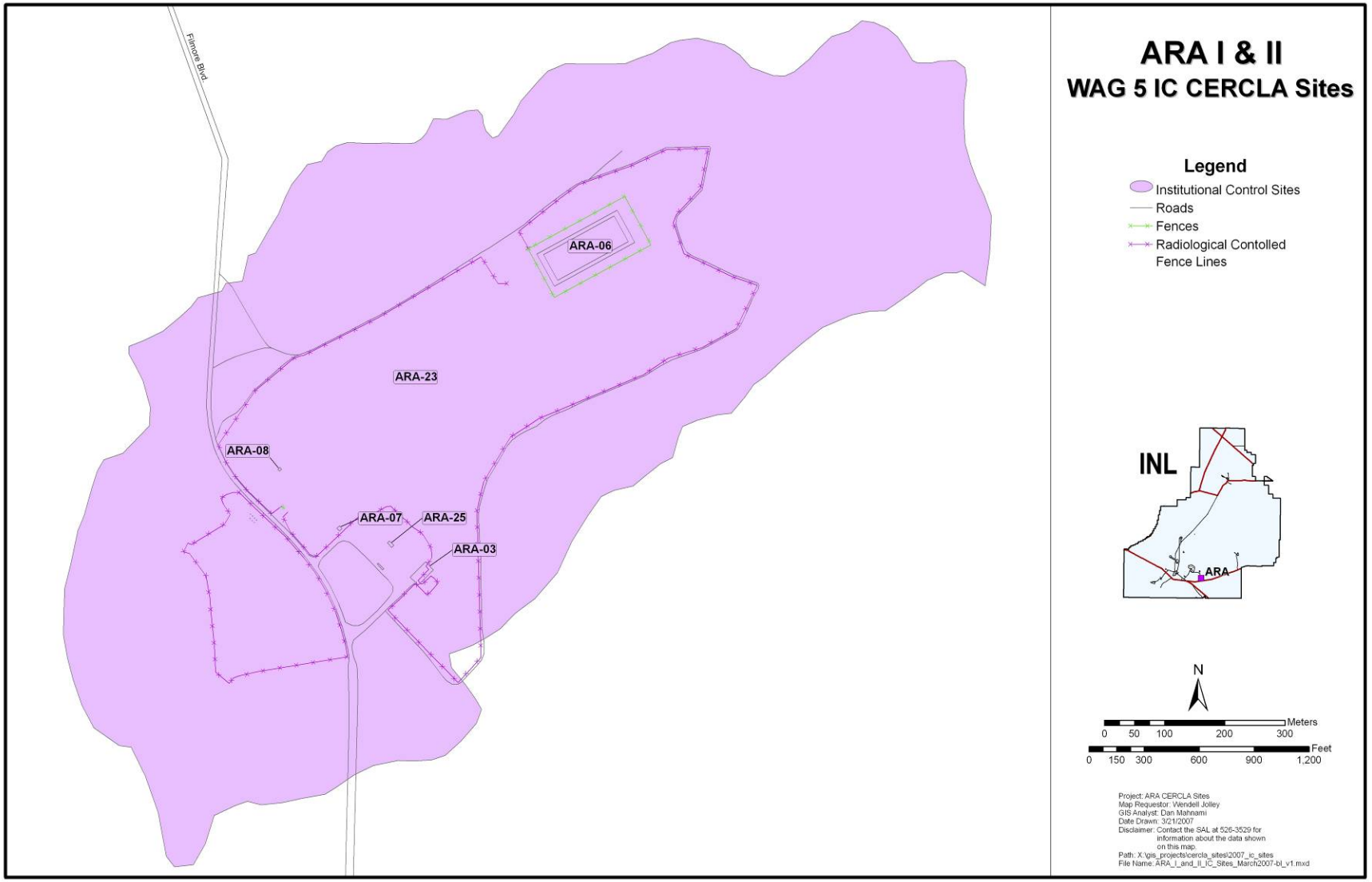

Figure B-10. Sites in the ARA I and ARA II areas.

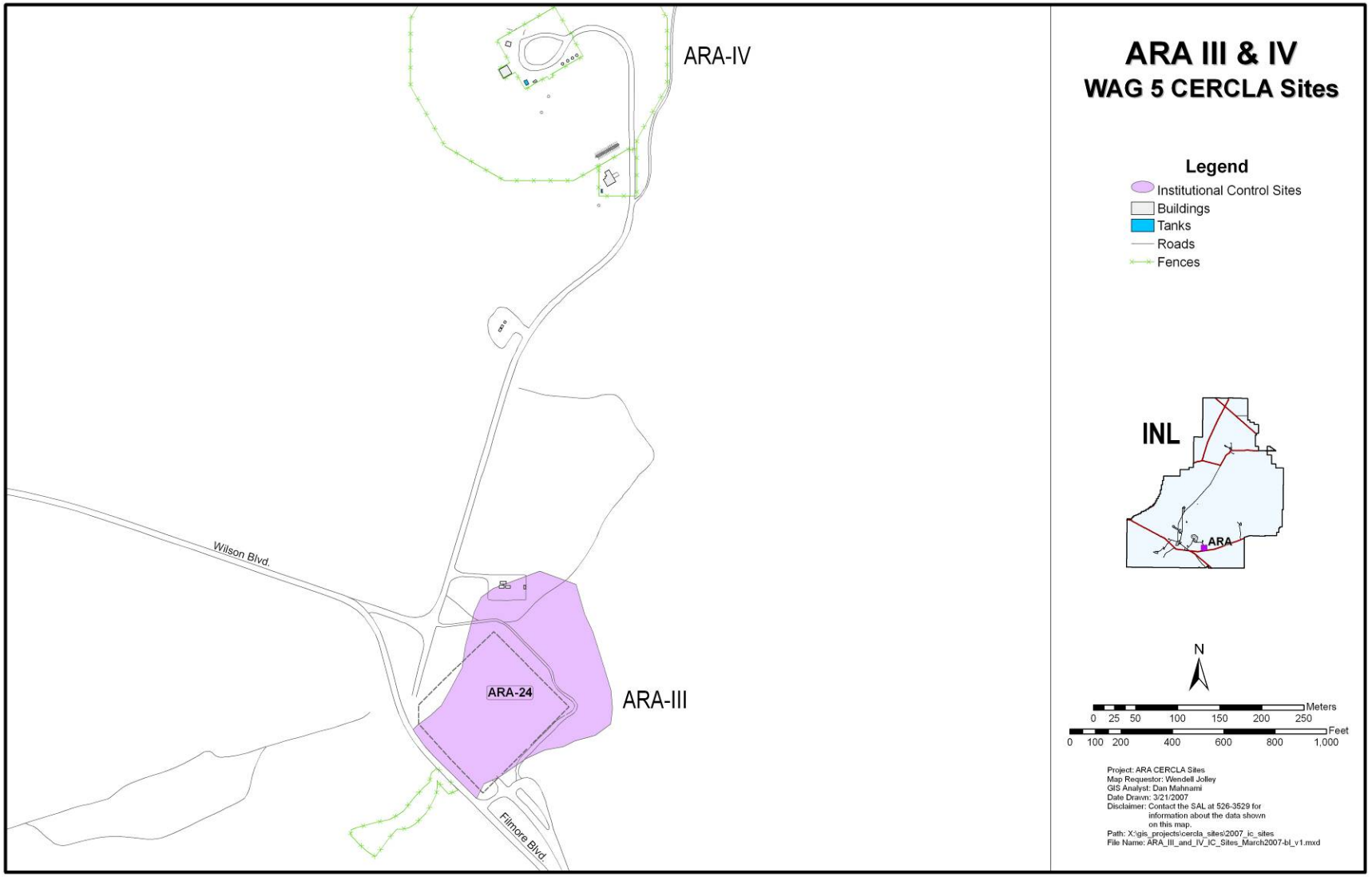

Figure B-11. Sites in ARA III and ARA IV areas.

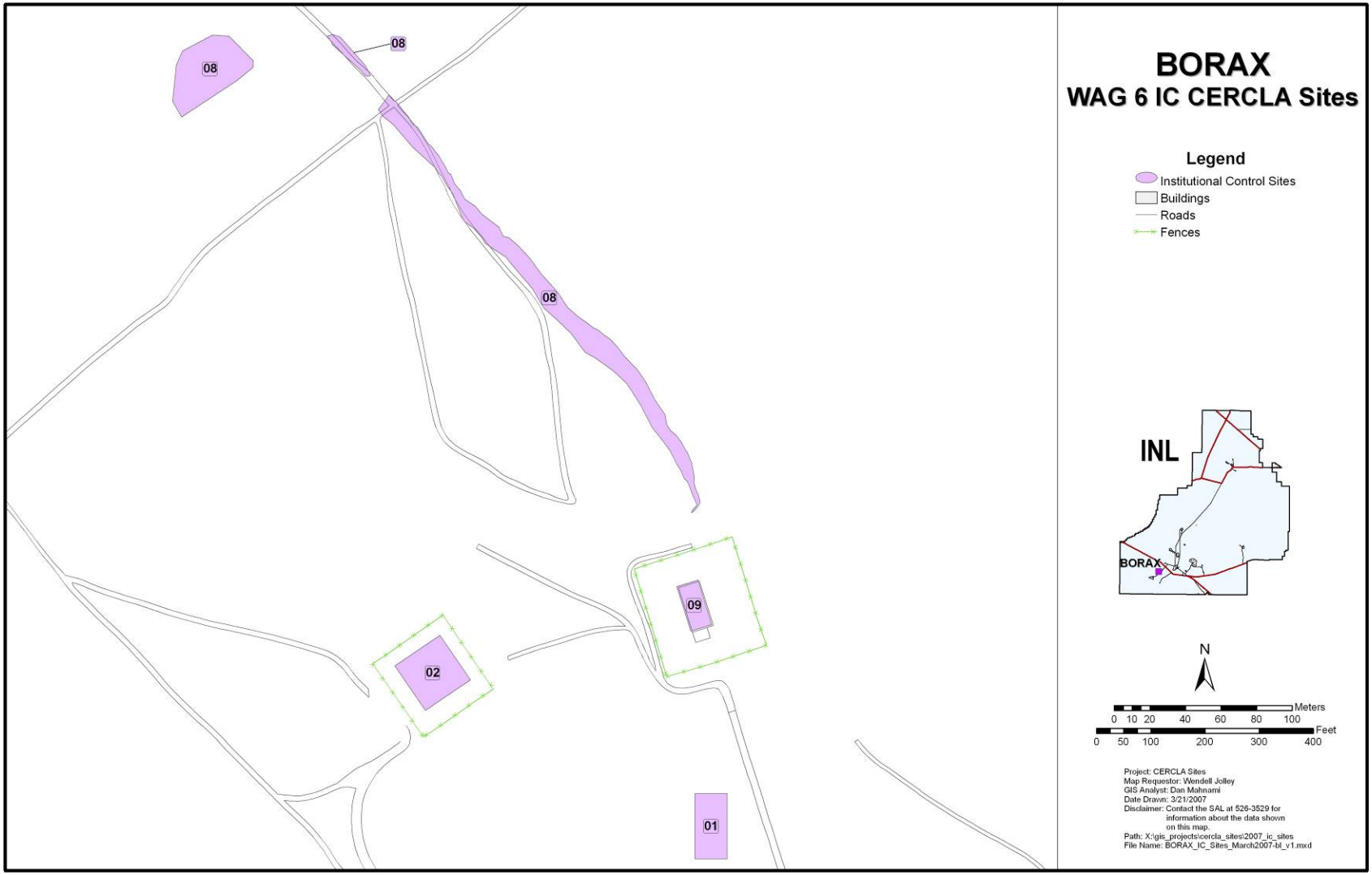

Figure B-12. Sites in the BORAX area.

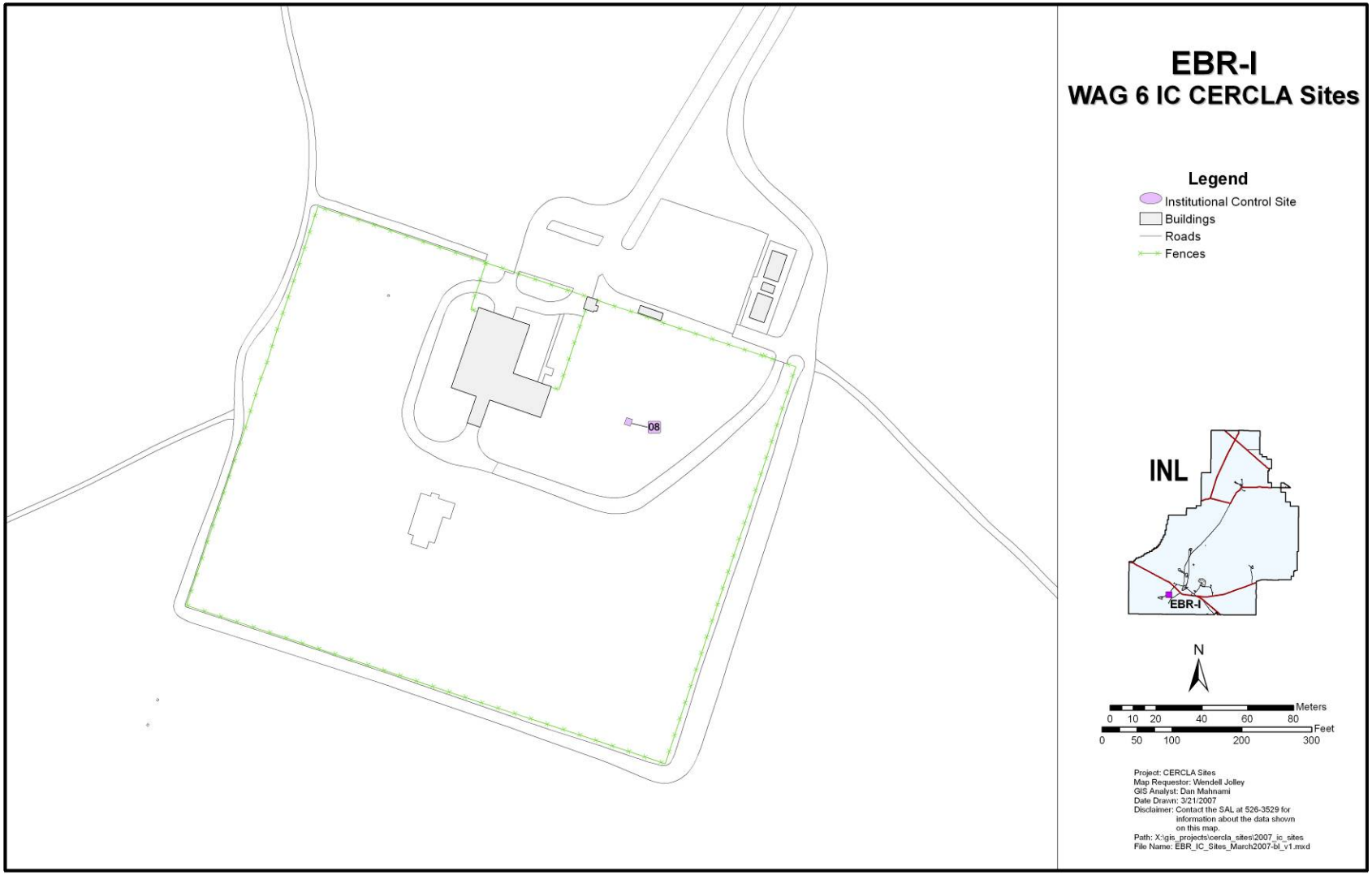

Figure B-13. Sites in the EBR I area.

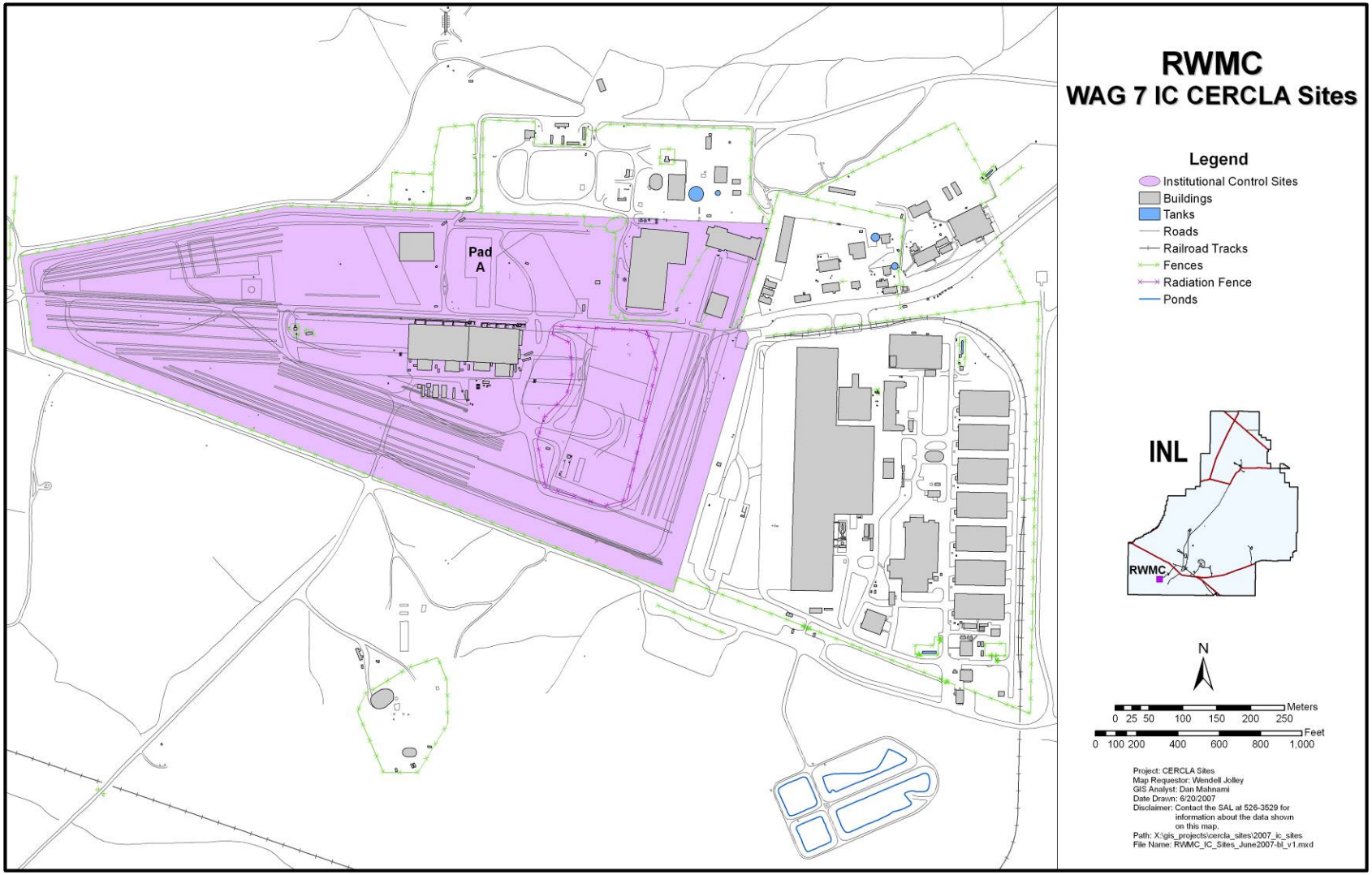

Figure B-14. Sites in the RWMC area.

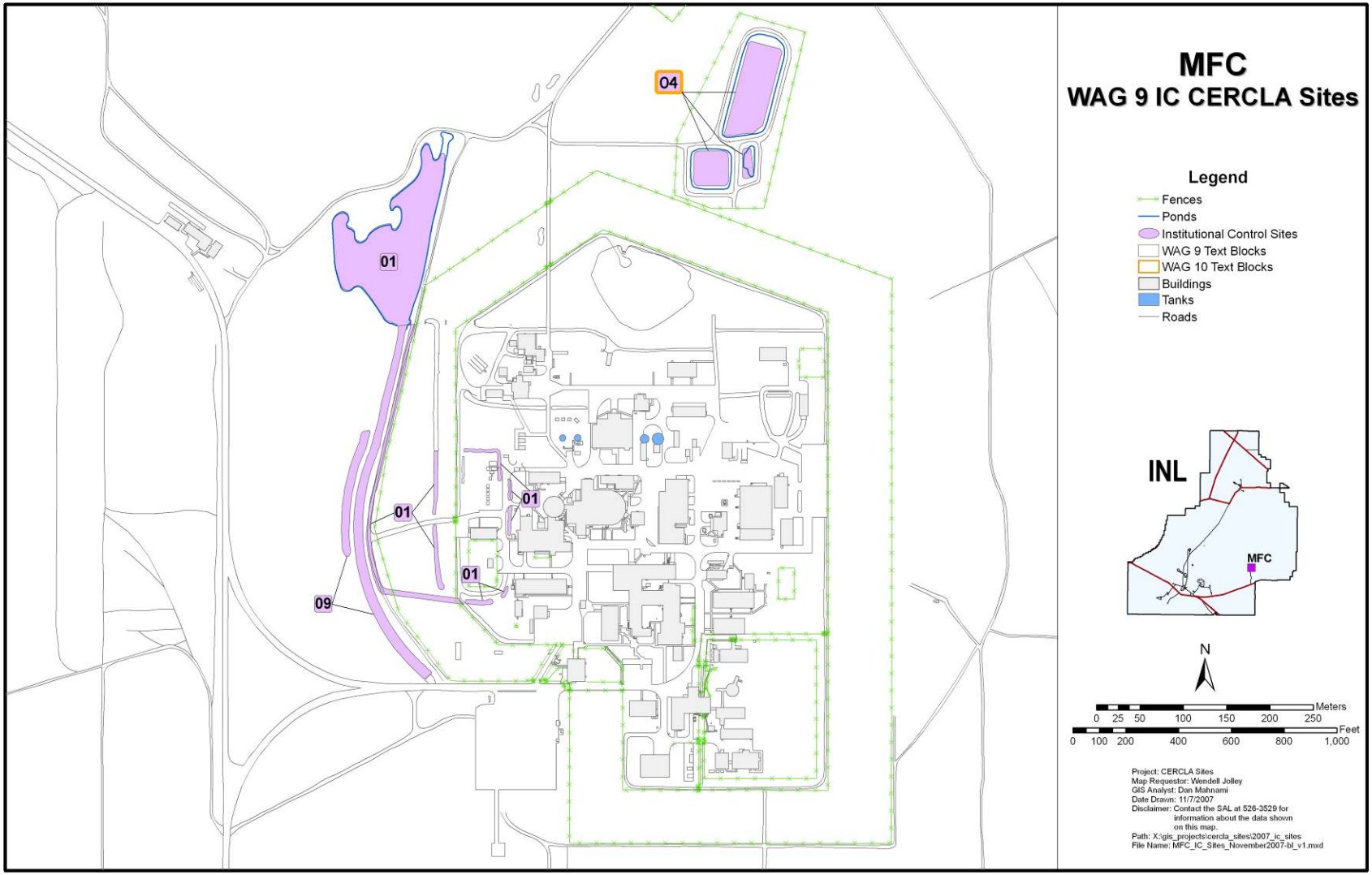

Figure B-15. Sites in the MFC area.

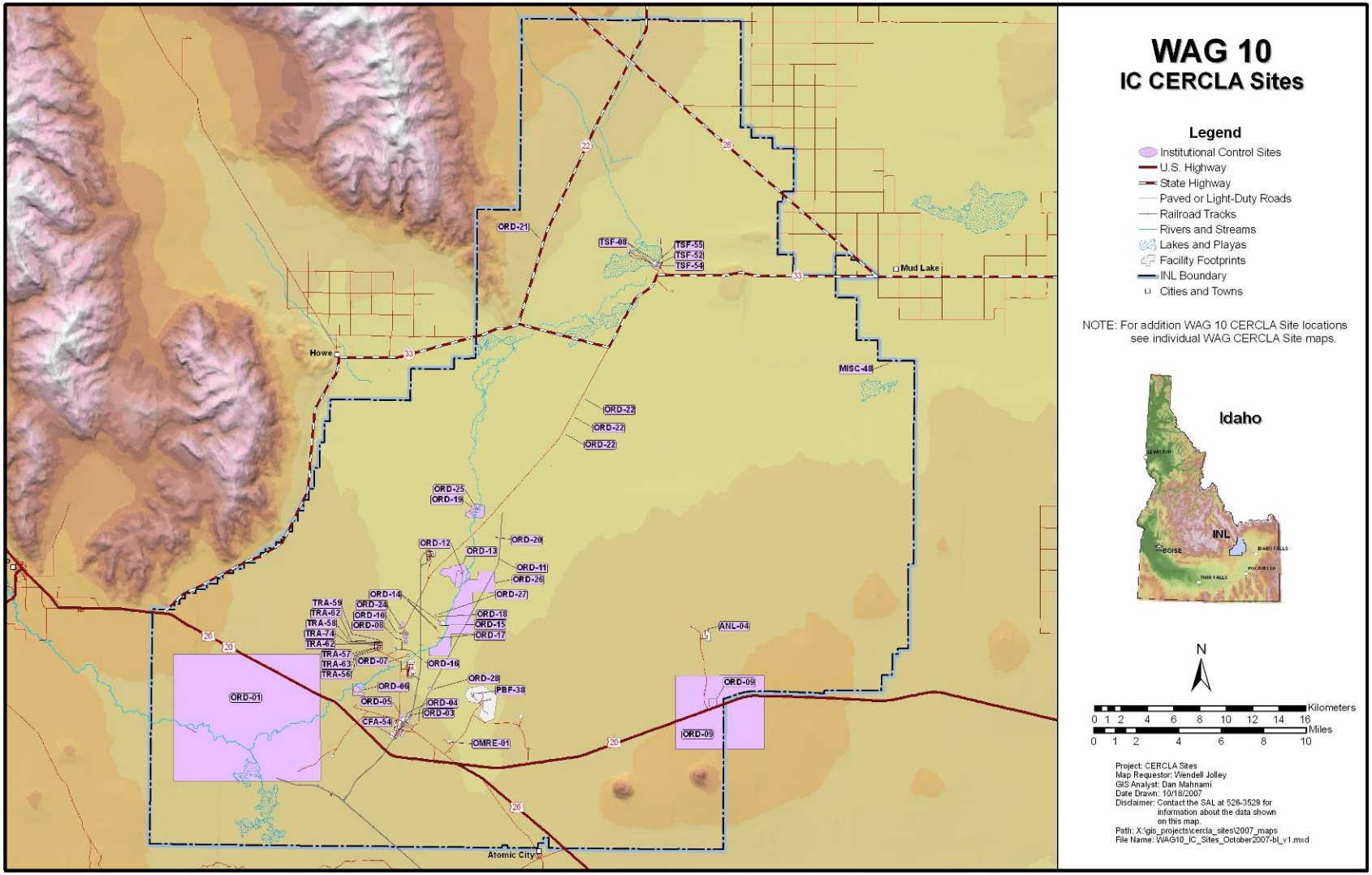

Figure B-16. WAG 10 sites.

Appendix C

Institutional Control Signs at the Idaho National Laboratory

Appendix C

Institutional Control Signs at the Idaho National Laboratory

Color: Orange

Suggested Size: 12 × 12 in.

Figure C-1. Example institutional control sign.

Appendix D

Notice of Soil Disturbance Process

Appendix D

Notice of Soil Disturbance Process

This soil disturbance process manages and documents soil disturbance activities at the Idaho National Laboratory (INL) Site consistent with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (42 USC § 9601 et seq.); the "National Oil and Hazardous Substances Pollution Contingency Plan" (40 CFR 300); and the *Federal Facility Agreement for the Idaho National Engineering Laboratory* (DOE-ID 1991) remedial investigations and response actions. As components of on-Site CERCLA response actions, these soil disturbances are performed in accordance with and under authority of CERCLA, 40 CFR 300, and the Federal Facility Agreement and Consent Order (FFA/CO), including CERCLA Section 121(e)(1). This process will apply to soil disturbances at the following types of locations:

1. Within the Operable Unit (OU) 3-13 area of contamination (AOC) and the OU 3-14 industrial land use area.
2. CERCLA sites within the INL Site that have been determined to be "no action" or "no further action" sites, when additional information is identified that demonstrates there are potential unacceptable risks to human health and the environment associated with the site that can be addressed effectively through a soil disturbance activity. A notice of soil disturbance (NSD) will be prepared as a minor modification to the applicable Record of Decision (ROD) and submitted for Environmental Protection Agency (EPA) and Idaho Department of Environmental Quality (DEQ) review to provide for removal of contamination from the site and management of waste under CERCLA consistent with the agency-approved NSD.
3. Newly identified CERCLA sites being screened in accordance with the CERCLA new site identification process or those sites being investigated under the OU 10-08 CERCLA process.

The following sections provide the information associated with the NSD at the INL. Examples of the NSD forms are shown in Section D-4.

D-1. SOIL DISTURBANCES WITHIN THE OPERABLE UNIT 3-13 AREA OF CONTAMINATION

Soil disturbances within the OU 3-13 AOC and the OU 3-14 industrial land use area require the preparation of an NSD form. In accordance with the requirements in the *Final Record of Decision Idaho Nuclear Technology and Engineering Center Operable Unit 3-13* (DOE-ID 1999), NSD forms completed for institutional control (IC) sites at the Waste Area Group (WAG) 3 AOC will be submitted to the regulatory agencies for review. The OU 3-13 NSD process is intended to:

- Ensure that a disturbance does not interfere with remedial actions
- Ensure that remedies remain operational and functional
- Provide for a review of potential contaminants that may be encountered
- Provide agency notification of planned disturbances in IC sites within the WAG 3 AOC sites.

Soil disturbances will be initiated as follows:

- Review the IC site maps to determine which CERCLA response activities(s) will be affected by the activity

- Prepare an abbreviated activity summary that includes the following information, as applicable:
  - Description and location of the activity
  - CERCLA response activities impacted by the activity
  - Soil quantities and maximum depths
  - Soil sampling requirements
  - Management of soil and waste generated that exceed remediation goals for the location from which they are taken
  - Proposed schedule of the activity.

The Long-Term Stewardship Program will assemble the NSD packages, including maps depicting the location of the planned disturbance, and submit them to the Department of Energy Idaho Operations Office (DOE-ID) for review. Following their review, the Department of Energy (DOE) will transmit the package to EPA and DEQ (the Agencies) for review. The Agencies will provide comment within seven calendar days of notification. If no response is received within seven calendar days, work will proceed.

D-2. SOIL DISTURBANCE AT "NO ACTION" OR "NO FURTHER ACTION" SITES AT THE IDAHO NATIONAL LABORATORY

This section includes soil disturbances at "no action" or "no further action" sites at the INL Site where new information is identified that determines there are potential unacceptable risks to human health and the environment.

An NSD will be prepared at CERCLA "no action" or "no further action" sites when additional information discovered prior to or during excavation demonstrates that there are potential unacceptable risks to human health and the environment associated with the site. The NSD will be submitted for EPA and DEQ review as described above.

Soil disturbances will be initiated as follows:

- Identify CERCLA "no further action" site(s) affected by the proposed soil disturbance
- Provide a description of the new information that identifies the potential unacceptable risks to human health or the environment associated with the site
- Prepare an abbreviated activity summary that includes the following information, as applicable:
  - Description and location of the activity
  - CERCLA sites impacted by the activity and the prior ROD(s) that will be modified by this minor action
  - Soil quantities and maximum depths
  - Soil sampling requirements
  - Management of soil and waste generated
  - Description of the process that will be used to verify that removal of contamination has been successful
  - Description of summary information to be provided to the Agencies at completion of the activities
  - Proposed schedule of the activity.

The Long-Term Stewardship Program will assemble the NSD packages and submit them to DOE-ID for review. Following their review, DOE will transmit the packages to the Agencies for review and approval. Upon obtaining agency approval, work will proceed.

D-3. NEWLY IDENTIFIED CERCLA SITES AND SITES BEING INVESTIGATED UNDER OPERABLE UNIT 10-08

This section discusses the soil disturbances process for newly identified CERCLA sites being screened in accordance with the CERCLA new site identification process or those sites being investigated under the OU 10-08 CERCLA process.

Disturbances at newly identified CERCLA sites undergoing investigation, in accordance with the CERCLA new-site identification process, will be subject to the NSD process. An NSD will be submitted for agency review, as identified above.

Soil disturbances will be initiated as follows:

- Prepare an abbreviated activity summary that includes the following information, as applicable:
  - Description and location of the activity
  - CERCLA site(s) undergoing investigation impacted by the activity
  - Soil quantities and maximum depths
  - Soil sampling requirements
  - Management of soil and waste generated
  - Description of a summary report to be provided to the Agencies at completion of the activities (e.g., summary description of the activity, photos of activity, sampling results if applicable), extent of area disturbed and depths, management of waste (Idaho CERCLA Disposal Facility [ICDF], INL landfill, or off-Site)
  - Proposed schedule of the activity.

The Long-Term Stewardship Program will assemble the NSD packages and submit them to DOE-ID for review. Following their review, DOE will transmit the packages to the Agencies for review and approval. Upon obtaining agency approval, work will proceed.

The following section contains examples of the NSD forms.

D-4. EXAMPLES

Agency Notification Form

The Department of Energy Idaho Operations Office, the Environmental Protection Agency Region 10, and the State of Idaho Department of Environmental Quality have received the attached notice of soil disturbance (NSD) number **NSD-XX-XX.** The stated disturbance will not interfere with the conduct of planned remedial activities pursuant to the FFA/CO. The conditions checked below will be in effect:

- ☐ Soil disturbed in site XXX will be scanned or sampled for XXX per this NSD. Soil contaminated with XXX above the OU X-XX remediation goal (RG) will be managed as CERCLA waste. Soil containing XXX below the Operable Unit (OU) RG will be considered "clean" from an OU X-XX CERCLA standpoint. The characterization of such waste is the responsibility of the requesting project or party.
- ☐ Non-soil waste (e.g., PPE) contaminated from contact with CERCLA soil (i.e., soil containing XXX above the RG may be managed as CERCLA waste. Waste generated as part of the Voluntary Consent Order (VCO) activities that is required to be regulated under the Hazardous Waste Management Act/Resource Conservation and Recovery Act (HWMA/RCRA) will be managed accordingly and will not be managed as CERCLA waste.
- ☐ If as low as reasonably achievable (ALARA) concerns prevent soil from being returned to the excavation, the soil may be managed as CERCLA waste.
- ☐ Results of any soil scan/sampling/characterization activities associated with this soil disturbance will be provided to the NSD Coordinator or designee.
- ☐ If unusual or unexpected conditions are discovered such as discoloration or unexpected contamination during this soil disturbance, the NSD Coordinator or designee will be notified. NSD Coordinator or designee will coordinate the notification of the agencies concerning the unexpected conditions.

Comments on this package are noted below and retained in the file:

DOE-ID OU X-XX manager _____ _____
Date

EPA OU X-XX manager _____ _____
Date

DEQ OU X-XX manager _____ _____
Date

NSD XX-XX
Date
Title of this NSD

Notice of Soil Disturbance Form
NSD-XX-XX

Requestor Name (Phone number)_____

Classification ☐ Emergency ☐ Maintenance ☐ Projects

The CERCLA areas affected by these removal activities include XXXX

This section will provide a brief description of the soil disturbance activities. NSD

Anticipated time period of activity: _____

How much soil disturbance is anticipated? (%, yd^3, etc.) _____

Maximum depth of excavation or soil disturbance: _____

Will proposed activity interfere with the conduct of other planned remedial activities and/or remediation strategies? _____

Map showing area of the anticipated disturbance is ☐ Attached ☐ Not attached

SAMPLING EVALUATION (This section to be completed by the NSD Coordinator.)

1. Disturbed soil will be surveyed by Radiological Control (RadCon).

2. The in situ gamma spectrometer (or approved equivalent) or laboratory analyzed samples shall be used to determine levels of XXXX in the excavated soil. This data will also be used to determine if the soil complies with the OU X-XX remediation goal, if it may be reused, or if it requires removal and management as CERCLA waste.

3. Excavated soil from each excavation will be sampled/scanned for XXXX

4. Soil that exceeds the OU X-XX remediation goal for XXXX will be characterized, containerized, and managed as CERCLA waste for ICDF disposal. These activities are performed at the expense of the requesting organization.

   Soils are required to meet the ICDF Waste Acceptance Criteria before they can be disposed of at that facility.

5. Sample and/or scan data will be reported to the NSD Coordinator. This shall occur prior to backfilling or reuse of the soil or containerization of the soil waste.

REVIEW OF PACKAGE

Requestor _____ _____

Reviewer _____ _____

Reviewer _____ _____

Reviewer _____ _____

Reviewer _____ _____

NSD PACKAGE TRANSMITTED TO DOE BY

NSD Coordinator: _____ Date: _____

D-5. REFERENCES

40 CFR 300, 2007, "National Oil and Hazardous Substances Pollution Contingency Plan," *Code of Federal Regulations*, Office of the Federal Register, October 30, 2007.

42 USC § 9601 et seq., 2005, "Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA/Superfund)," *United States Code,* January 3, 2005.

DOE-ID, 1991, *Federal Facility Agreement and Consent Order for the Idaho National Engineering Laboratory,* Administrative Docket No. 1088-06-29-120, U.S. Department of Energy Idaho Operations Office; Environmental Protection Agency, Region 10; Idaho Department of Health and Welfare, December 4, 1991.

DOE-ID, 1999, *Final Record of Decision Idaho Nuclear Technology and Engineering Center Operable Unit 3-13*, DOE/ID-10660, U.S. Department of Energy Idaho Operations Office, October 1999.

Appendix E

Assessment Guidance, Sample Checklist and Inspection Logs

Appendix E

Assessment Guidance, Sample Checklist and Inspection Logs

E-1. ASSESSMENT GUIDANCE, SAMPLE CHECKLIST AND INSPECTION LOGS

The following is a general description of activities that should take place before field assessment:

1. Review current institutional control and operations and maintenance plan, the ICS database, well maintenance reports, and the last assessment report.

2. Prepare checklists and a photo log for the current assessment.

3. Review Management Control Procedure (MCP) -3562, "Hazard Identification, Analysis, and Control of Operational Activities."

4. Obtain work authorization by placing inspection on the plan of the day/plan of the week. Check with the facility (shift supervisor) prior to beginning work.

INSTITUTIONAL CONTROLS ASSESSMENT CHECKLIST

WAG X CERCLA Site ID _____ Date: _____
CERCLA Site Description _____ Time: _____

Assessment Team:	Title	Signature

The above signatures certify that the information contained on this form is true and accurate to the best of the individual's knowledge.

1) **Physical Controls**

a)	**Warning signs**				
	i) Signs visible	Yes	No	NA	comment:_____
	ii) Signs located as required	Yes	No	NA	comment:_____
	iii) Signs legible/correct	Yes	No	NA	comment:_____
	iv) Contact number (s) correct	Yes	No	NA	comment:_____
b)	**Permanent markers**				
	i) Markers present	Yes	No	NA	comment:_____
	ii) Markers legible	Yes	No	NA	comment:_____
c)	**Fences**				
	i) Fences present	Yes	No	NA	comment:_____
	ii) Repairs needed	Yes	No	NA	comment:_____
d)	**Wellhead Controls**	Yes	No	NA	comment:_____

2) **Administrative Controls**

a)	**Property lease/transfer**	Yes	No	NA	comment:_____
b)	**Drilling/Excavation**	Yes	No	NA	comment:_____
c)	**Groundwater consumption**	Yes	No	NA	comment:_____
d)	**Soil Disturbance Controls**	Yes	No	NA	comment:_____
e)	**Site Boundary Controls:**	Yes	No	NA	comment:_____
	i) ICS information current	Yes	No	NA	comment:_____
	ii) Boundary coordinates published	Yes	No	NA	comment:_____
	iii) Map present	Yes	No	NA	comment:_____
f)	**Soil Disturbance Controls**	Yes	No	NA	comment:_____

Comments: _____

_____

_____

_____

_____

Waste Area Group 1 Operations and Maintenance Inspection Log

Inspection Activity at WAG 1	TSF-06 Area B	TSF-26	TSF-09/18	WRRTF-01 Pits II and IV	Comments/Recommended Repair
Vegetative Cover					
1. Inspect for nongrowth/sparse growth/weeds.					
Soil Cover					
1. Inspect for erosion areas/animal intrusion.					
2. Inspect for subsidence areas or slope movement.					
General Condition of Site					
1. Inspect for erosion areas/animal intrusion.					
2. Inspect for subsidence areas.					

Comments:

Waste Area Group 2 Operations and Maintenance Inspection Log

O&M Inspection Activity at TRA	TRA-03	TRA-06	TRA-13	TRA-13 SCA	Comments/Recommended Repair
Revegetated Areas					
1. Inspect for nongrowth areas.					
2. Inspect for nonsparse growth areas.					
3. Inspect for weed encroachment.					
Native Soil Cover					
1. Inspect for erosion areas/animal intrusion.	**N/A**				
2. Inspect for subsidence areas or slope movement.	**N/A**				
3. Conduct topographical survey.	**N/A**				
Perimeter of Radiological Survey					
1. Perform perimeter radiological survey.	**N/A**		**N/A**	**N/A**	
Radiological Survey of Surface of Soil Cover					
1. Perform surface radiological survey.		**N/A**	**five-year review only**		
Riprap Barrier					
1. Inspect for erosion areas.		**N/A**	**N/A**	**N/A**	
2. Inspect for subsidence areas.		**N/A**	**N/A**	**N/A**	
3. Inspect for biological intrusion.		**N/A**	**N/A**	**N/A**	
4. Inspect for effectiveness of surface water run-off.		**N/A**	**N/A**	**N/A**	

Additional Comments or Notes:

TRA-03 is the warm waste pond. Perimeter is vegetated. Cover is riprap.
TRA-06 is the chemical waste pond.
TRA-13 is the sewage leach ponds.
TRA-13 SCA is the soil contamination area surrounding the leach ponds.

Waste Area Group 4 Operations and Maintenance Inspection Log

Inspection Activity at Landfills	CFA-01	CFA-02	CFA-03	Comments/Recommended Repair
Vegetative Cover				
1. Inspect for nongrowth/sparse growth/weeds.				
Soil Cover				
1. Inspect for erosion areas/animal intrusion.				
2. Inspect for subsidence areas or slope movement.				
3. Conduct topographical survey.				
Time-Domain Reflectometer (TDR)				
1. Inspect cabinet interior for unusual dirt or debris.				
2. Inspect exterior and interior of cabinet for deterioration and presence of moisture or water.				
3. Inspect solar collector barrel for condition/function.				
4. Inspect and verify presence of guard post and/or impingement posts.				
Soil Gas Wells and Neutron Probe Access Tubes (NPATs)				
1. Inspect for integrity/cleanliness.				
2. Inspect rust on cover and well casing damage.				
3. Inspect guard posts around well cover.				
Rock Armor				
1. Inspect to verify no more than 12 in. of subsidence of rock armor.	**N/A**		**N/A**	
2. Conduct topographical survey.	During five-year review		SEE NOTE	

Additional Comments or Notes:

NOTE: Topographical survey is required in 2006 at CFA-03 for the area of subsidence reported in 2004 only.

Waste Area Group 4 Operations and Maintenance Inspection Log – continued

O&M Inspection	CFA-08	Comments/Recommendations
1. Document no excavations or drilling.		
2. Inspect vegetation for sparse growth.		
3. Inspect vegetation for weed encroachment.		
4. Inspect vegetation for nongrowth.		
5. Inspect for erosion.		
6. Inspect for subsidence.		
7. Inspect for animal intrusion.		
8. Inspect permanent markers.		
9. Conduct radiological survey.		**five-year review only**

Additional Comments or Notes:

Waste Area Group 5 Operations and Maintenance Inspection Log

Inspection Activity at ARA and PBF	ARA-01	ARA-02	ARA-06	ARA-12	ARA-16	ARA-23	ARA-25
Revegetated Areas							
1. Inspect for intrusion.							
2. Inspect vegetative cover.							
Environmental Monitoring							
1. Radiological survey of site perimeter at five-year review.	**N/A**	**N/A**		**N/A**	**N/A**	**N/A**	**N/A**

O&M Inspection Activity at SL-1	SL-1 Burial Ground	Comments/Recommended Repair
Biotic Barrier		
1. Inspect for erosion and intrusion.		
2. Inspect cover for settling and erosion.		
Riprap Barrier		
1. Inspect for erosion and intrusion.		
2. Inspect cover for settling and erosion.		
Perimeter of Radiological Survey		
1. Perform perimeter radiological survey.		

Comment or Notes:
Annual monitoring for heavy metals at ARA has been discontinued. Radiological monitoring at ARA-06 is to be performed during the five-year review only.
There are no O&M activities at PBF.

Waste Area Group 6/10 Operations and Maintenance Inspection Log

O&M Inspection Activity at BORAX	BORAX Burial Ground	Comments/Recommended Repair
Biotic Barrier		
1. Inspect for erosion and intrusion.		
2. Inspect cover for settling and erosion.		
Riprap Barrier		
1. Inspect for erosion and intrusion.		
2. Inspect cover for settling and erosion.		
Perimeter of Radiological Survey		
1. Perform perimeter radiological survey.		

Comment or Notes: