APPENDIX G.7.2

200-EAST BURIAL GROUNDS
(CP-LS-14 CENTRAL PLATEAU)
EVALUATION UNIT SUMMARY TEMPLATE

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PART I. EXECUTIVE SUMMARY

EU LOCATION

Evaluation Unit CP-LS-14 (200-E Burial Grounds) is associated with 200-SW-2 Operable Unit (OU), 200-EA-1 OU, WMA-C OU, and some sites that are not assigned an operable unit. CP-LS-14 is located within the inner area of the Central Plateau.

RELATED EUS

Not Applicable

PRIMARY CONTAMINANTS, CONTAMINATED MEDIA AND WASTES[1]

The CP-LS-14 EU is composed of a series of landfills, pipelines, cribs, tanks, unplanned releases, and buildings. Many of the landfills contain uranium, depleted uranium and plutonium radioactive waste that originated from processes in the 200 Area of the Hanford Site, as well as waste from offsite generators.

BRIEF NARRATIVE DESCRIPTION[1]

The 200-SW-2 OU is composed of 24 landfills and includes about 20 caissons that are located below grade in landfills that are part of CP-LS-12. This OU also includes 11 UPRs that have been consolidated with the landfills where they occurred, and six co-located waste sites. The individual 200 E Landfills operated over periods of from four to thirty years between 1945 and 2003.

The 200-SW-2 OU is made up of six types of landfills, four of which are relevant to CP-LS-14 (see Figure 2 for their locations within CP-LS-12):

- **Dry Waste Landfills**. These are past-practice landfills that received radioactive waste packaged 9 primarily in fiberboard or small wooden boxes, wrapped in heavy brown paper or burlap, or placed in the trench without packaging. Small-sized miscellaneous wastes, ranging from contaminated soils and potentially contaminated rags, paper, and wood, have been placed in these landfills. This landfill type includes the 218-E-1 and 218-E-12A Landfills.
- **Industrial Landfills.** These past-practice landfills received radioactive waste that usually was packaged in large wooden or concrete boxes containing large pieces of failed or obsolete equipment. Some equipment was shrouded in plastic or placed directly in the ground after partial decontamination in the facility from which it came; mainly 200 Area chemical processing facilities, although some items came from the 100 Area. Landfills of this type include the 218-E-5A, 218-E-2, 218-E-2A, 218-E-5, 218-E-9 Landfills.
- **Construction Landfills.** These are past-practice landfills mainly limited to disposal of low-activity wastes resulting from construction/demolition work on existing facilities. Landfills of this type include the 218-C-9, 218-E-8, and 218-E-4 Landfills.

[1] *200-SW-2 Radioactive Landfills Group Operable Unit RCRA Facility Investigation/Corrective Measures Study/Remedial Investigation/Feasibility Study Work Plan*, DOE/RL-2004-60, Draft B, CH2MHill Plateau remediation Company, March 2015.

- **TSD Unit Landfills.** These are RCRA TSD units that contain waste forms similar to those in past-practice landfills such as dry waste packaged in small fiberboard cartons, directly disposed dirt and weeds, large concrete and wooden boxes containing used equipment, and construction debris. This landfill type includes the 218-E-10 and 218-E-12B Landfills.

SUMMARY TABLES OF RISKS AND POTENTIAL IMPACTS TO RECEPTORS

Table G.7.2-1 provides a summary of nuclear and industrial safety related risks to humans and impacts to important physical Hanford site resources.

Human Health

A Facility Worker is deemed to be an individual located anywhere within the physical boundaries of the 200 East Burial Grounds (CP-LS-14) area; a Co-located Person (CP) is an individual located 100 meters from the physical boundaries of thee; and the Public is an individual located at the closest point on the Hanford Site boundary not subject to DOE access control. The nuclear-related risks to humans are based on unmitigated (unprotected or controlled conditions) dose exposures expressed in a range of from *Not Discernible* (*ND*) to *High*. The estimated mitigated exposure, which takes engineered and administrative controls and protections into consideration, is shown in Table G.7.2-1 in parentheses. Human health risk ratings under Current Condition and From Cleanup Actions have been noted as IS or having insufficient information on which to base a rating.

Groundwater and Columbia River

Direct impacts to groundwater resources and the Columbia River have been rated based on available information for the current status and estimates for future time periods. These impacts are also expressed in a range of from *Not Discernible* (*ND*) to *Very High*.

Ecological Resources[2]

The risk ratings are based on the degree of physical disruption (and potential additional exposure to contaminants) in the current status and as a potential result of remediation options.

Cultural Resources[2]

No risk ratings are provided for Cultural Resources. The Table identifies the three overlapping Cultural Resource landscapes that have been evaluated: Native American (approximately 10,000 years ago to the present); Pre-Hanford Era (1805 to 1943) and Manhattan/Cold War Era (1943 to 1990); and provides initial information on whether an impact (both direct and indirect) is KNOWN (presence of cultural resources established), UNKNOWN (uncertainty about presence of cultural resources), or NONE (no cultural resources present) based on written or oral documentation gathered on the entire EU and buffer area. Direct impacts include but are not limited to physical destruction (all or part) or alteration such as diminished integrity. Indirect impacts include but are not limited to the introduction of visual, atmospheric, or audible elements that diminish the cultural resource's significant historic features. Impacts to Cultural Resources as a result of proposed future cleanup activities will be evaluated in depth under Section 106 of the National Historic Preservation Act (16 USC 470, et. seq.) during the planning for remedial action.

[2] References throughout this Evaluation Unit Summary Template supporting analyses related to Ecological Resources and/or Cultural Resources may be found in Appendices J and K, respectively. Refer to the specific EU when searching for the reference.

Table G.7.2-1. Risk Rating Summary (for Human Health, unmitigated nuclear safety basis indicated, mitigated basis indicated in parentheses (e.g., "Very High" (Low)).

Population or Resource		Evaluation Time Period	
		Active Cleanup (to 2064)	
		Current Condition: Inactive	**From Cleanup Actions:** Final D&D
Human Health	Facility Worker	Low-ND (IS)	IS
	Co-located Person	Low-ND (IS)	IS
	Public	ND (IS)	IS
Environmental	Groundwater (A&B) from vadose zone[a]	*Very High* – Cr-VI *High* – Cr(tot) *Low* – (C-14, I-129, Tc-99) *ND* – U(tot)[c] & Sr-90[c] **Overall**: *Very High*	*Very High* – Cr-VI *High* – Cr(tot) *Low* – (C-14, I-129, Tc-99) *ND* – U(tot)[c] & Sr-90[c] **Overall**: *Very High*
	Columbia River from vadose zone[a]	Benthic and Riparian: *ND* Free-flowing: *ND* **Overall**: *ND*	Benthic and Riparian: *ND* Free-flowing: *ND* **Overall**: *ND*
	Ecological Resources[b]	ND to Low	Medium to High
Social	Cultural Resources[b]	**Native American** Direct: Unknown Indirect: Known **Historic Pre-Hanford** Direct: Unknown Indirect: Known **Manhattan/Cold War** Direct: Known Indirect: Known	**Native American** Direct: Unknown Indirect: Known **Historic Pre-Hanford** Direct: Unknown Indirect: Known **Manhattan/Cold War** Direct: Known Indirect: Known

a. Threat to groundwater or the Columbia River from Group A and B primary contaminants (PCs) (Table 6-1, CRESP 2015) remaining in the vadose zone.

b. For both Ecological and Cultural Resources see Appendices J and K, respectively, for a complete description of Ecological Field Assessments and literature review for Cultural Resources. Ecological ratings are described in Table 4-11 of the Final Report.

c. There is no current Sr-90 or total uranium plume associated with CP-LS-14 and thus current ratings are *ND*. The corresponding ratings at the end of the Active Cleanup period are *Low* to account for uncertainties in the evaluation.

SUPPORT FOR RISK AND IMPACT RATINGS FOR EACH POPULATION OR RESOURCE HUMAN HEALTH

Current

The author has assigned a Low-ND human health risk rating to the Facility Worker and Co-located Person, and ND to the Public because there is no information to indicate that any of these sites currently represent a risk to human health, there is little or no worker activity at the sites, and the area is restricted from public access.

Risks and Potential Impacts from Selected or Potential Cleanup Approaches

Insufficient information available

Groundwater, Vadose Zone, and Columbia River

Current

The CP-LS-14 (200-E Burial Grounds) EU is in the 200 East Area that run from west of the B-BX-BY Tank and Waste Farms EU to west and north of the C and A-AX Tank and Wastes Farms EUs within parts of both the 200-PO and 200-BP groundwater interest area (GWIAs). The 200-PO and 200-BP GWIAs are described in the CP-GW-1 EU (Appendix D.5). The saturated zone beneath the CP-LS-14 area overlaying the 200-PO and 200-BP GWIAs have elevated levels of cyanide (CN), I-129, nitrate, Sr-90, Tc-99, and total uranium based on 2014 groundwater results (http://phoenix.pnnl.gov/apps/gw/phoenix.html); CP-LS-14 waste sites are suspected of being able to contribute mobile contaminants to the saturated zone (DOE/RL-92-19, Rev. 0). The current threats to groundwater and the Columbia River from contaminants already in the 200-PO and 200-BP groundwater are evaluated as part of the CP-GW-1 EU (Appendix D.5). However, current threats to groundwater corresponding to only the CP-LS-14 EU contaminants *remaining* in the vadose zone (Table G.7.2-8) has an overall rating of *Very High* (related to hexavalent chromium) as described in **Part V**. In the 200 East Area, contaminated 200-PO and 200-BP groundwater is monitored (DOE/RL-2016-09, Rev. 0). As indicated in **Part V**, no plumes have been linked to CP-LS-14 waste sites. Threats from contaminated groundwater in the 200 East Area to contaminate additional groundwater or the Columbia River are evaluated as part of the CP-GW-1 EU (Appendix D.5).

For the 200-PO and 200-BP GWIAs, no plume from the CP-LS-14 EU currently intersects the Columbia River at concentrations exceeding the corresponding water quality standard (WQS) as described in **Part V**. Thus current impacts to the Columbia River benthic and riparian ecology would be rated as *Not Discernible* (*ND*). Furthermore, the large dilution effect of the Columbia River on contamination from the seeps and groundwater upwellings also results in *ND* ratings. Thus the overall rating for the Columbia River during the Current period is *ND*.

Risks and Potential Impacts from Selected or Potential Cleanup Approaches

As described in **Part VI**, the plausible remedial actions for the CP-LS-14 EU waste sites include (Appendix B): i) excavation, treatment (as necessary), and disposal (ETD) of all waste from within individual landfill; ii) ETD of waste from selected sections of individual landfills followed by capping of remaining waste, including continued cap maintenance and monitoring; iii) capping of individual landfills, including continued cap maintenance and monitoring; and iv) *in situ* treatment/stabilization (e.g., vitrification or grouting) of portions of individual landfills followed by capping, including continued cap maintenance and monitoring. If residual contamination remains after cleanup actions are completed, cleanup work will transition to LTS, including institutional controls and 5-year reviews of remedy effectiveness. No final cleanup decisions have been made for CP-LS-14.

Contaminants from the CP-LS-14 EU waste sites are suspected of impacting the vadose zone but not yet the groundwater; treatment options are still being considered for the 200 East groundwater. Secondary sources in the vadose also threaten to continue to impact groundwater in the future, including the Active Cleanup period[3]. The *Very High* (hexavalent chromium) and *High* (total chromium) ratings for the CP-LS-14 EU waste sites (Table G.7.2-8) are associated with primary contaminants that are likely to impact groundwater in the 200 East Area (CP-GW-1, Appendix D.5).

As described in the TC&WM EIS and summarized in **Part V**, because there appears to be insufficient impact to the overall rating for CP-LS-14 from radioactive decay (since chromium is the risk driver) and recharge rate (due to large amounts of contaminants already in the groundwater) and lack of treatment of 200 East groundwater, the current ratings for CP-LS-14 Group A and B contaminants are not changed by the end of the Active Cleanup period. There would not be a sufficient impact on peak concentrations in near-shore region of the Columbia River during or after cleanup to modify ratings (which are already *ND*). Thus the ratings for current threats provided in Table G.7.2-8 would not be modified, except for Sr-90 and total uranium that are modified to *Low* (to address uncertainty) after the Active Cleanup period as described in **Part V**. The overall rating thus remains *Very High* (hexavalent chromium) after the Active Cleanup period.

Ecological Resources

Current

4% % of level 3 or greater resources in the EU and 42% of level 3 or greater in the buffer. Patches of level 3 resources are not continuous and are small. In past Piper's daisy have been observed. Past revegetation efforts used introduced species, and herbicide applications continue.

Risks and Potential Impacts from Selected or Potential Cleanup Approaches

Multiple remediation actions will be used to address the diversity of waste sites. Remediation has the high potential to impact the resources (Piper's daisy within the EU and adjacent buffer. Protection of sensitive species needs to be considered during remediation activities; revegetation with sensitive species is very difficult. Exotic species introduction can preclude the survival of existing native populations. Construction of temporary buildings associated with cleanup will increase pedestrian, car and truck traffic on a daily basis. Care should be taken to place the temporary buildings away from sensitive resources. Revegetation of area after remediation needs to consider the potential for competition with other level 3 resources.

Cultural Resources

Current

Area is heavily disturbed and only small portions of the EU have been inventoried for archaeological resources. Geomorphology indicates a low potential to contain intact archaeological resources on the surface and/or subsurface. Traditional cultural places are visible from EU. Archaeological resources (that remain unevaluated for the National Register) are located within 500 meters of the EU.

A National Register eligible Manhattan Project and Cold War Era archaeological resource is located within 500 meters of the EU, which has been mitigated. Direct impacts to contributing components of

[3] Note that Sr-90 and total uranium, which have large remaining vadose zone sources, may not be considered significant threats to groundwater depending on the subsurface due to limited mobility in the Hanford subsurface and decay. See **Part V** for details.

the archaeological site have not been addressed and are dealt with on a project-by-project basis. National Register eligible Manhattan Project/Cold War Era significant resources located within the EU and 500 meters of the EU will be demolished, but they have already been mitigated.

Risks and Potential Impacts from Selected or Potential Cleanup Approaches

Archaeological investigations and monitoring may need to occur prior to remediation. The geomorphology indicates a low potential for intact archaeological resources. Remediation disturbance may result in impacts to archaeological resources if they are present in the subsurface. Temporary indirect effects to viewshed are possible during remediation. Permanent indirect effects to viewshed are possible from capping and residual contamination that may remain.

National Register eligible Manhattan Project/Cold War Era resources have already been mitigated. Indirect effects to contributing components of the National Register-eligible archaeological resource within 500 meters of the EU may occur if remediation activities disturb these areas. Archaeological monitoring or mitigation may need to occur.

Considerations for Timing of the Cleanup Actions

The saturated zone beneath the CP-LS-14 area currently has elevated levels of cyanide (CN), I-129, nitrate, Sr-90, Tc-99, and total uranium based on 2014 groundwater monitoring results (http://phoenix.pnnl.gov/apps/gw/phoenix.html). Waste sites within the CP-LS-14 EU, including 216-C-1, 216-C-3, 216-C-4, 216-C-6, 216-C-10 Cribs; 216-C-9 Pond; and 216-B-2-1 Ditch are suspected of being able to contribute mobile contaminants to the saturated zone (DOE/RL-92-16, Rev. 0) and are likely currently contributing contamination to the vadose zone. Monitoring of groundwater is being conducted within the 200-PO and 200-BP GWIAs as described in Appendix D.5. Some plume areas have increased (e.g., I-129 in 200-PO and cyanide, total uranium, and I-129 in 200-BP) and concentrations continue to exceed cleanup levels for many primary contaminants. Thus cleanup actions are warranted for this EU.

There is potential for additional contaminant release and migration through the vadose that may continue to impact groundwater as long as cleanup activities are delayed. There is also potential risk from direct radiation to workers (and ecological receptors) from routine maintenance operations. However, there would be no *additional* risk to facility workers, co-located persons, or the public if cleanup is delayed.

Near-Term, Post-Cleanup Risks and Potential Impacts

Groundwater: During the Near-term, Post-Cleanup period (described in **Parts V** and **VI** and Table G.7.2-8), the ratings are maintained at *Low* (C-14, I-129, and Tc-99) to *High* (total chromium) to *Very High* (hexavalent chromium) for all Group A and B primary contaminants with reported inventories to account for the fact that treatment options have not been defined for 200 East groundwater and to address uncertainties. The ratings for Sr-90 and total uranium are *Low* during this period to address uncertainties.

Columbia River: As indicated in **Part V**, no Group A or B primary contaminants from the 200 East Area[4] are predicted to have concentrations exceeding screening values in this evaluation period. Thus ratings will not be modified, and all ratings are *Not Discernible* (*ND*) as is the overall rating (Table G.7.2-8).

[4] As described in Appendix E.7 (CP-TF-5), only the tritium (Group C) plume from 200-PO currently intersects the Columbia River at concentrations exceeding the appropriate water quality standard (WQS). Using the methodology (CRESP 2015a), because this plume is not associated with the CP-LS-14 EU (DOE/RL-2016-09, Rev. 0), a *Not Discernible* (*ND*) rating for the current impact of tritium on the Columbia River would be ascribed. Because there is

PART II. ADMINISTRATIVE INFORMATION

OU AND/OR TSDF DESIGNATION(S)

CP-LS-14 contains the eastern portion of the 200-SW-2 Operable Unit which spans both the West and East Inner Areas.

COMMON NAME(S) FOR EU

The EU is commonly referred to as the 200-E Burial Grounds.

KEY WORDS

Burial Grounds

REGULATORY STATUS

Regulatory basis

The individual sites making up CP-LS-14 are under regulation by CERCLA and RCRA.

Applicable regulatory documentation

DOE/RL-2004-60-Draft B states that a single document that coordinates the evaluations required by the CERCLA RI/FS process and the RCRA RFI/CMS process will be developed. After additional data identified in the WP have been gathered and analyzed, the CSMs updated, and the risk assessment performed, an RFI/CMS/RI/FS document will be completed to present those results and identify and evaluate technologies and development of cleanup alternatives. CERCLA screening criteria and RCRA CA performance standards will be used to evaluate the preliminary alternatives. For the RCRA TSD units within the 200-SW-2 OU, RCRA closure and post-closure requirements will be readily identifiable for a separate review/approval process.

Applicable Consent Decree or TPA milestones[5]

Milestone M-015-93B: Submit RCRA Facility Investigation/Corrective Measures Study & Remedial Investigation/Feasibility Study Report and Proposed Corrective Action Decision/Proposed Plan for the 200-SW-2 OU to Ecology. Due Date January 31, 2023.

Milestone M-015-93C: Initiate characterization field work for the 200-SW-2 Operable Unit landfills in accordance with the schedule in the approved Rl/FS/RFI/CMS Work Plan. Due date September 30, 2018

Milestone M-016-00: Complete remedial actions for all non-tank farm and non-canyon operable units in accordance with schedules established in approved RD/RA work plans. Due date September 30, 2042.

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no likely scenario where CP-LS-14 EU waste sites could contaminate the Columbia River in amounts exceeding the WQS, ratings remain *ND* for the Near-term, Post-Cleanup period.

[5] *Final Approval package for the Tentative Agreement on Hanford Federal facility Agreement and Consent Order Revisions for Central Plateau Cleanup*, US Department of Energy, US Environmental Protection Agency, and State of Washington, Department of Ecology, May 2016

The schedule for completion of the construction of the remedy will reflect the scope and complexity of the selected remedial action. The schedule for remedial action implementation will be established upon regulatory agency approval of the RD/RA Work Plans and is enforceable as a HFFACO requirement.

RISK REVIEW EVALUATION INFORMATION

Completed

August 25, 2016, updated February 19, 2017

Evaluated by

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Ratings/Impacts Reviewed by

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PART III. SUMMARY DESCRIPTION

CURRENT LAND USE

The current land use is classified as industrial.

Table G.7.2-2. Summary Information for the 200-SW-2 OU Eastern Landfills[6]

Landfill	Number of Trenches	Volume[a] of Buried Waste		Area	
		m^3	ft^3	ha	ac
Eastern Inner Area (12 Landfills)					
218-C-9[b]	1	7,600	270,000	1.8	4.5
218-E-1	15	3,000	110,000	1.0	2.4
218-E-2	9	9,000	320,000	1.3	3.3
218-E-2A	d	d	d	0.3	0.7
218-E-4	e	1,500	53,000	1.2	2.9
218-E-5	2	3,200	110,000	1.1	2.6
218-E-5A	1	6,200	220,000	0.38	0.9
218-E-8	1	2,300	81,000	0.44	1.1
218-E-9	d	d	d	0.56	1.4
218-E-10[c]	14	26,000	920,000	23	57
	Portion that was unused			13	32
218-E-12A	28	15,000	530,000	10	25
218-E-12B[c]	39	62,000	2,200,000	23	57
	Portion that was unused			26	64
	U.S. Navy nuclear reactors (out of scope)			21	52

a. All numbers are estimates based on historical information, rounded to the nearest tenth (trench length) or two significant figures (waste volume and area). Waste volumes include in-scope waste only.

b. The 218-C-9 Landfill is collocated with the 216-C-9 Pond.

c. Landfill is a permitted TSD unit landfill under RCRA. These landfills include the "Green Islands".

d. The 218-E-2A and 218-E-9 Landfills may have been used only for aboveground storage of contaminated equipment. There are no records or inventories of disposal.

DESIGNATED FUTURE LAND USE

CP-LS-14 as part of the Inner 200 Area will remain designated Industrial pursuant to DOE/EIS-0222F, *Final Hanford Comprehensive Land-Use Plan Environmental Impact Statement* (HCP EIS) and associated ROD (64 FR 61615, "Record of Decision: Hanford Comprehensive Land-Use Plan Environmental Impact Statement (HCP EIS)") issued in 1999, and a supplemental analysis (DOE/EIS-0222-SA-01, *Supplement Analysis: Hanford Comprehensive Land-Use Plan Environmental Impact Statement*) in 2008.

[6] Developed from "Table 1-1. Summary Information for the 200-SW-2 OU Landfills", *200-SW-2 Radioactive Landfills Group Operable Unit RCRA Facility Investigation/Corrective Measures Study/Remedial Investigation/Feasibility Study Work Plan*, DOE/RL-2004-60, Draft B, CH2MHill Plateau Remediation Company, March 2015.

PRIMARY EU SOURCE COMPONENTS

Legacy Source Sites

The 200-SW-2 OU is composed of 24 landfills and includes about 20 caissons that are located below grade in landfills that are part of CP-LS-12. This OU also includes 11 UPRs that have been consolidated with the landfills where they occurred, and six co-located waste sites. No facilities or aboveground structures are present in the 200-SW-2 OU. The individual 200 W Landfills operated over periods of from four to thirty years between 1945 and 2003.

Landfills:

The CP-LS-14 EU landfills all contain dry waste from onsite Hanford and some waste that comes from offsite. All the waste sites contain uranium and plutonium except 218-E-2A and 218-E-9 which records show have no uranium or plutonium currently. 218-E-1 contains mixed fission products and transuranic elements, dry waste which the known items include mostly machinery. There are no records of what exactly was put in 218-E-2 landfill but it came from the 200 East area. There are no burial records for 218-E-2A, what is known is that it was used as an above ground equipment storage site. The source of the waste in 218-E-4 was repair and construction from the modifications of B plant as well as above ground storage of equipment. Waste in this 218-E-5 landfill comes from the PUREX (202-A) and existing records indicate that the waste includes mostly machinery. For 218-E-5A, the source of the waste is landfill PUREX (202-A) and contains wooden burial boxes containing equipment.

For 218-E-8, the waste from PUREX (202-A and 293-A) contains construction equipment and a ventilation barricade. For 218-E-9 there are no burial records. It is known that it was used as an above ground storage of equipment contaminated with fission products and uranium. For 218-E-10, the landfill waste is from the 100 Area, B Plant (221 B/224-B), offsite, PUREX (202-A) and is mostly construction materials and machinery. Waste in 218-E-12A is from the 200 East Area and the waste is in the form of cardboard boxes and plastic bags of radioactive waste. In 218-E-12B, waste was received from the 200 East Area, B-Plant (221 B), offsite, PUREX, and the Tank Farms with the site has good records. 218-E-12B also received U.S. Navy vessel defueled reactor components [HNF-26850 Rev. 0 2005. Page 2-1]. The waste in 218-E-12B is from offsite from Rocky Flats and General Electric Vallecitos Nuclear Center [HNF-26850 2005. Page 2-12]. 218-C-9 waste was received from the Hot Semi-works (201C) and is dry waste and loose soil with strontium and cesium from UN-216-E-37 and UN-216-E-39. 218-E-12B was examined in 2003 with an aerial radiological survey which showed contaminated tumbleweeds which were removed. More extensive dose rate information for 218-E-12B can be found in HNF-26850, Page 2-2.

Sites 218-E-10 and 218-E-12B are TSD Unit Landfills. They have “Potential for areas of subsidence, high dose rates, potential for small volumes of sorbed, containerized liquids, some contain retrievably-stored TRU waste (M-091 Project), burial records more numerous, better quality than for other landfill types.” [DOE/RL-2004-60, Draft B. March 2015. Page 2-3. Table 2-1: Summary of 200-SW-2 OU Landfill Types].

Sites 218-E-2, 218-E-2A, 218-E-5, 218-E-5A are Industrial Landfills. They have “Potential for subsidence, high dose rates, high internal void volume, disposal of failed/obsolete equipment, waste typically contained in large wooden or concrete boxes.” [DOE/RL-2004-60 Draft B 2015 Page 2-3. Table 2-1: Summary of 200-SW-2 OU Landfill Types]

Sites 218-E-1 and 218-E-12A are dry waste landfills. They have, “Low potential for subsidence, medium dose rate (up to 2,000 mR/hr), primarily beta-gamma-contaminated waste, waste primarily packaged in fiberboard cartons, boxes, or drums, surface stabilized with fly ash (218-E-1) or plastic barriers/gravel (218-E-12A) [DOE/RL-2004-60 Draft B 2015. Page 2-3].

The site 218-E-10 has Green Islands which contain TRU waste that is segregated. "AEC initially defined TRU waste as "wastes with known or detectable contamination of Transuranic nuclides." In March 1970, The AEC Immediate Action Directive 0511-21, Policy Statement Regarding, Solid Waste Burial (AEC, 1970), directed AEC sites to segregate TRU waste and place it in retrievable storage that would allow the waste to be retrieved within 20 years. Before this date, no effort was made to segregate TRU waste from LLW or to make waste retrievable. The Hanford Site used 1 nCi/g as the dividing point between LLW and TRU waste. 1973, the TRU waste segregation limit was established at 10 nCi of transuranic isotopes per gram. In 1982, the limit was changed to 100 nCi/g." [DOE/RL-2004-60 Draft B 2015. Appendix C Page C-9]

Sources of information for 200-SW-2 OU contaminant inventories vary widely among the different landfills. An effort begun in 2004 continues to reconcile and combine sources of information to obtain data based on the best knowledge available.

See *Part V, Waste and Contamination Inventory* of this document for estimates of Plutonium and Uranium for each of the Landfill sites.

Non-Landfill Sites:

Table G.7.2-3 below provides a listing of the non-landfill sites within this EU and a summary of information available on legacy source contaminants.

Table G.7.2-3. Non-Landfill Site Descriptions[7]

Site Name	Site Type	General Description
218-C-9	Burial Ground	Historically used for disposal of cooling water and steam condensate from Hot Semi-works facility. The pond was allowed to dry out and was covered with washed gravel. Another section of the site was then used for radiologically contaminated dry waste (mostly demolished building materials). Waste contains asbestos. Site is now backfilled and surface stabilized and is posted as Underground Radioactive Material Area.
216-C-1	Crib	Received waste from cold run waste and process condensate from Hot Semi-works test facility. Waste neutralized in 241-CX-71 tank discharged to crib. The site waste was high in salt and neutral to basic. Crib marker located within the chained 241-CX-71 tank area. Has 1.5 meters of gravel, then 2 feet soil, then 5 feet excavation left unfilled.
216-C-10	Crib	Crib received acidic waste effluent from 201-C building. Crib was filled with gravel and backfilled with soil. In 2015 site received 3000 square feet of additional gravel to prevent tumbleweed growth.
216-C-3	Crib, Leaching Pit	Crib received process effluent acidic waste from 201-C, 215-C, and 271-C buildings. The crib is identified

[7] *Hanford Site Waste Management Units Report*, DOE/RL-88-30, Revision 25, CH2MHill Plateau Remediation Company, February 2016.

Site Name	Site Type	General Description
		with concrete post and located in the Underground Radioactive Material area 200-E-41. The crib was deactivated by blanking the inlet pipe, backfilling the excavation with sand and gravel.
216-C-4	Crib	Site received process effluent low in salt and neutral to basic from 276-C building. Crib constructed of galvanized, corrugated, perforated piping in H formation. Crib has been surface stabilized and marked as Underground Radioactive Material Area.
216-C-5	Crib	Site received high salt waste and cold run waste from 201-C building; some waste passed through the 241-CS-71 neutralization tank. Site marked with concrete AC-540 marker and is located within the surface stabilized area 200-E-41.
216-C-6	Crib	Site received acidic waste from 201-C building and 241-CX vault floor drainage. Unit constructed from 15cm diameter galvanized, corrugated, perforated piping. Site contains gravel and is backfilled. Marked with cement posts and posted as Underground Radioactive Material Area.
216-C-7	Crib	Received liquid waste containing nitric acid, plutonium, uranium and neutron poisons (boron, cadmium, gadolinium). Crib was placed on standby in 1983. Crib contains gravel and has been backfilled. Site marked as Underground Radioactive Material Area.
200-E-116-PL	Pipelines	Buried (Not encased) pipeline that transported effluent from B Plant resulting in some contaminated soil and resulting contaminated vegetation. Pipeline associated with 2 discovery sites of contaminated vegetation that have high contamination postings and have been covered with bio-barrier and gravel.
216-B-2-1	Ditch	Unlined ditch that introduced cooling water to 218-E-12B burial ground. The water came from a storage tank coil leak in 1963 and consisted of 4.9 million L. Also received condensate from B-Plant storage in 1970.
200-E-301	Demolished Guard House	Asbestos containing material left in place and abated following the demolition of the guard house in March 2011.
200-E-217-PL	Pipelines	Buried stainless steel pipeline encased in concrete; pipeline crossed 218-E-5A burial ground.
200-E-293	Concrete Slab	Contaminated slab after demolition of 2718E building. Slab was left in place, covered with plastic, plywood and soil and posted as Underground Radioactive Material Area.

Site Name	Site Type	General Description
200-E-294	Concrete Slab	The remaining slab and contaminated soil beneath slab of the demolished Critical Mass Laboratory building. Slab covered with gravel and posted as Underground Radioactive Material. Also has possible asbestos containing material which was left in place and abated.
200-E-4	Dry Well	4 Foot diameter dry well connected to Critical Mass Lab by underground piping. Well covered with yellow metal cap and is within a larger area covered with gravel cap and marked as Underground Radioactive Material Area.
200-E-WS-2	French Drain	French drain from Critical Mass Laboratory that received condensate from HEPA filters and heat exchange system. Drains into gravel area, covered with metal and under gravel cap posted as Underground Radioactive Material Area.
2704-C-WS-1	French Drain	Drain received steam condensate but occasionally had radioactive postings, radioactive inventory not found. Was attached to the 2704-C building; exact location unknown under the gravel cap. Area posted as Underground Radioactive Material Area.
216-C-2	Dry Well	Received unknown amount of 291-C stack drainage. Waste low in salt, neutral to basic, contains less than 1 curie beta activity. Well is no longer visible. Part of stabilized area posted Underground Radioactive Material Area.
216-C-9	Semi-Works Swamp	Site received cooling water from 201-C building and waste water from 209-E building. Site is now backfilled and surface stabilized, posted as Underground Radioactive Material Area.
201-C	Process Building	Building entombed in concrete and covered with ash material. Building was main processing center for the Hot Semi Works Area. 1989 inventory: 4.9 Ci Plutonium 239, 3.7 Ci Plutonium 238, 0.2 Ci Americium 241, 9000 Ci Strontium 90, 2.5 tons of lead.
291-C	Fan and Filter Building	Demolished prior to the 291-C-1 stack demolition in 1988. Waste type: Equipment.
200-E-114-PL	Pipeline	2 parallel pipelines with uranium recovery process waste (tri-butyl phosphate solvent extraction). Marked with metal posts, labeled Underground Radioactive Material Area. Part of area that had contaminated vegetation.
200-E-126-PL-B	Pipeline	The portion of the 200-E-126-PL contained in the inner area. Pipeline held B plant effluent that went to the 216-B-3 Pond and ditch system. Pipelines

Site Name	Site Type	General Description
		include twenty-two-inch diameter poly pipe and twenty-four-inch corrugated metal pipe.
200-E-250-PL	Pipeline	2.5 cm diameter carbon steel line is located underground and exists within a 200-E-41 stabilized area.
200-E-251-PL	Pipeline	10 cm carbon steel pipe connected to 291-C stack and is part of the Hot Semi-works Stabilized Area (200-E-41).
200-E-252-PL	Pipeline	Pipeline is 2-inch diameter cast iron pipeline from 291-C air filter to 216-C-2 reverse well. Pipeline associated with the 291-C filter building, 216-C-2 stack and the 200-E-41 stabilized area.
200-E-255-PL	Pipeline	15 cm diameter vitrified clay pipe to the 216-C-9 runs north/south and under 7th street.
200-E-258-PL	Pipeline	Underground carbon steel pipeline carried effluent to 216-C-9 pond. Mostly 15 cm pipe. Runs east/west along 7th street.
200-E-259-PL	Pipeline	5 cm diameter carbon steel pipeline to 216-C-9 pond from 291-C Fan house.
200-E-41	Strontium Semi-Works Area	Leak from unencased transfer line leading from the sealed utility pit. 30 Curies of cesium released, half removed with soil excavation. Initial measurements read 15 rad/hr.
200-E-56	Waste Line Leak	Leak from a line from the demolished 201-C building. Measured rate of 100 rad/hr in 1957 and consists of process effluent from the Hot Semi-works facility.
200-E-57	Waste Line Leak	Leak from a line from the demolished 201-C building. Contaminated soil below the line. Measured rate of over 100 rad/hr in 1957 at a depth of 4.5 meters. The line received waste from the Hot Semi-works facility.
UPR-200-E-11	Railroad Track Contamination	Waste was water used to wash down railroad cars and lines contaminated with fission products. Waste occurred along the railroad track. No longer marked.
UPR-200-E-112	Railroad Track Contamination	Contaminated fluid from a cesium ion exchange column contaminated railroad track; 40,000-80,000 counts per minute. Area was immediately cleaned; Occurrence Report 79-24 recommends continued cleaning of site.
UPR-200-E-23	Burial Box Collapse	In 1960 a burial box with PUREX process steam tube bundles collapsed causing airborne contamination; area found contaminated with levels from 10-60 mR/hr. Contaminated burial site 218-E-4 with maximum reading 1 rad/hr. Migration of contaminants unlikely even with water influx. Site contains asbestos.

Site Name	Site Type	General Description
UPR-200-E-24	Contamination Plume	The plume resulting from the contamination event as UPR-200-E-23. The waste type is the contaminated soil that came into contact with the aerial plume.
UPR-200-E-30	Contamination in 218-E-10	A wooden drag off box collapsed as it was being backfilled, contamination largely within the waste trench. Contamination of maximum 500 mrad/hour was spread of 400,000 square feet.
UPR-200-E-36	Road Contamination	Fan shaped road contamination 150 yards by 300 yards released from Strontium Semi-works facility causing readings of 30,000 -80,000 counts per minute.
UPR-200-E-37	Semi-Works Contamination	No documentation found. Waste from this Unplanned released was put in 218-C-9 landfill.
UPR-200-E-53	Contamination 218-E-1	"Contamination spread by bulldozer when shallow buried contaminated waste was unearthed during backfilling activities… contamination at levels up to 150 mR/hr". [DOE/RL-2004-60 Draft B March 2015, Page 2-21]
UPR-200-E-62	Transportation Spill	Radioactive liquid dripped from a pressure test assembly during transportation and contaminated a 5 cm by 30 m section of dirt road. It was cleaned up within 3 days of initial contamination and is no longer marked.
UPR-200-E-95	Ground Contamination	Equipment with unknown beta & gamma contamination stored on railroad tracks and contaminated the area; max readings 100,000 cpm. In 1998, the track and area was covered with gravel, marked as Underground Radioactive Material Area.
UPR-200-E-98	Ground Contamination	Primarily strontium-90 ground contamination from Hot Semi-works operation. Most of the contamination removed and placed in 218-C-9 pit. Area has been stabilized with powerhouse ash and posted as Underground Radioactive Material Area.
209-E-WS-3	Underground Storage Tank	Tank (also called valve pit) that received liquid process effluent waste that was discharged to 216-C-7 crib. Valve pit sump was found to have radioactive contamination but no specific waste inventory is known. Pit is located underground and has a metal lid. Site will not be backfilled with gravel because there are still lines to the valve pit that are not part of the facility demolition scope.
HSVP	Semi-Works Valve Pit	Site Decommissioned. Had waste from pilot REDOX, pilot PUREX, and strontium recovery efforts. Site sealed, concrete filled, vertically configured, stainless-

Site Name	Site Type	General Description
		steel cylinder and is buried beneath ash barrier. Area stabilized area is posted with Underground Radioactive Material signs.
276C	Solvent Handling Building	No Documentation on Building Found. Septic tank associated with 276C received sanitary wastewater and sewage from Critical Mass facilities. Septic tank received waste water from toilet and showers used by personnel working within the Hot Semi-works facilities.

High-Level Waste Tanks and Ancillary Equipment

Not applicable

Groundwater Plumes

The saturated zone beneath the CP-LS-14 area currently has elevated levels of cyanide (CN), I-129, nitrate, Sr-90, Tc-99, and total uranium based on 2014 groundwater monitoring results (http://phoenix.pnnl.gov/apps/gw/phoenix.html). The 200 East Area plumes are described in detail in the CP-GW-1 EU (Appendix D.5). Several waste sites within the CP-LS-14 EU are suspected of being able to contribute mobile contaminants to the saturated zone (DOE/RL-92-19, Rev. 0) but no plumes have been linked to CP-LS-14 sources (DOE/RL-2016-09, Rev. 0). Monitoring of groundwater is being conducted within the 200-PO and 200-BP GWIAs, which are described as part of the CP-GW-1 EU (Appendix D.5).

Operating Facilities

Not applicable

D&D of Inactive Facilities

Not applicable

LOCATION AND LAYOUT MAPS

CP-LS-14 is located in the inner area of the Hanford site as seen below in Figure G.7.2-1 below.

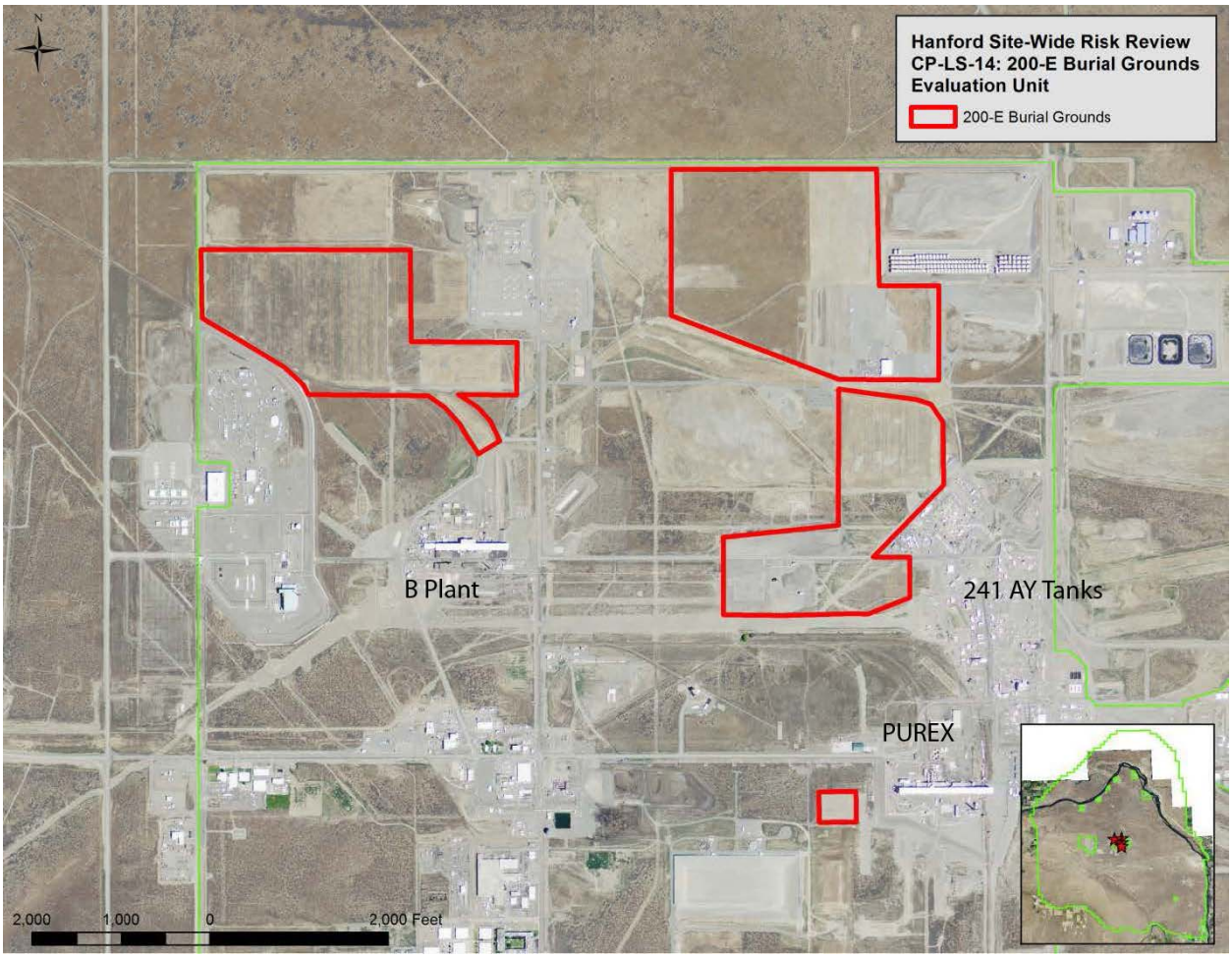

Figure G.7.2-1. 200-E Burial Grounds Location

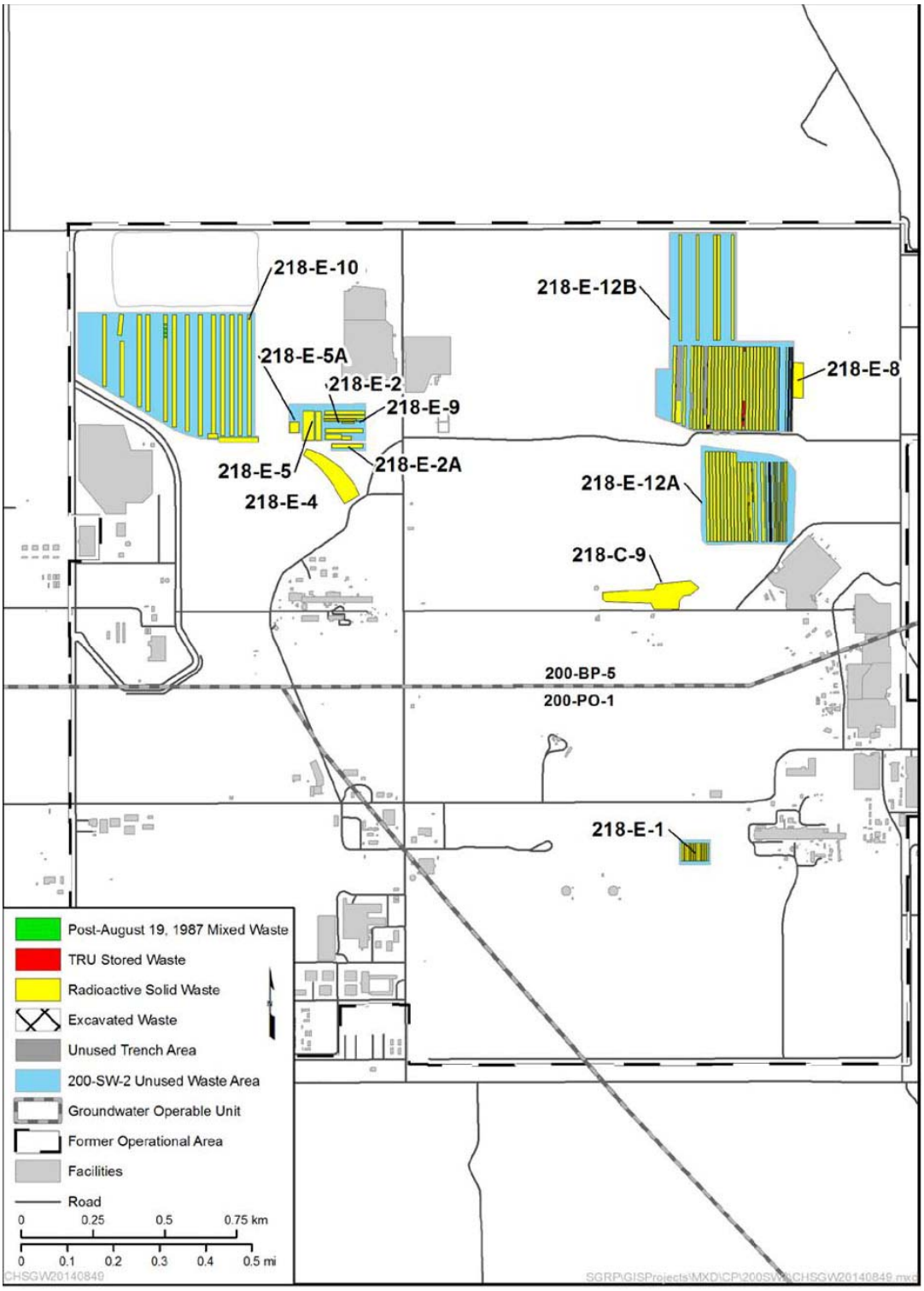

Figure G.7.2-2. Location of 200-SW-2 OU Landfills in 200-E Burial Area (DOE/RL-2004-60, Draft B)

PART IV. UNIT DESCRIPTION AND HISTORY

EU FORMER/CURRENT USE(S)

LEGACY SOURCE SITES

The landfill waste sites exist un-remediated at present excluding work done to patch the soil caps of some of the landfill waste sites.

The landfill in CP-LS-14 are mostly dry and industrial wastes. Liquid waste was seen in the 218-C-9 burial ground as well as the associated pipelines, cribs, French drains, and tanks.

Each landfill has its own records of when covers and stabilizations were put in place. Some of the landfills experienced sinkholes due to the nature of buried waste and repairs imposed on the individual landfills.

Not all of the landfills have detailed inventories of the contents or information on potential dose rates. "Before 1980, dry waste landfills generally were restricted from receiving waste with surface dose rates over 100 mrem/h. However, packages were evaluated on an individual basis, depending on container integrity and method of handling, and some surface dose rates are considerably higher. Industrial waste landfills typically received waste with surface dose rates over 100 mrem/h." [DOE/RL-2004-60 Draft B 2015. Appendix C Page C-13]

The CP-LS-14 landfills received waste between 1945 and 2004. The exact time frames in which the landfills received waste can be seen below.

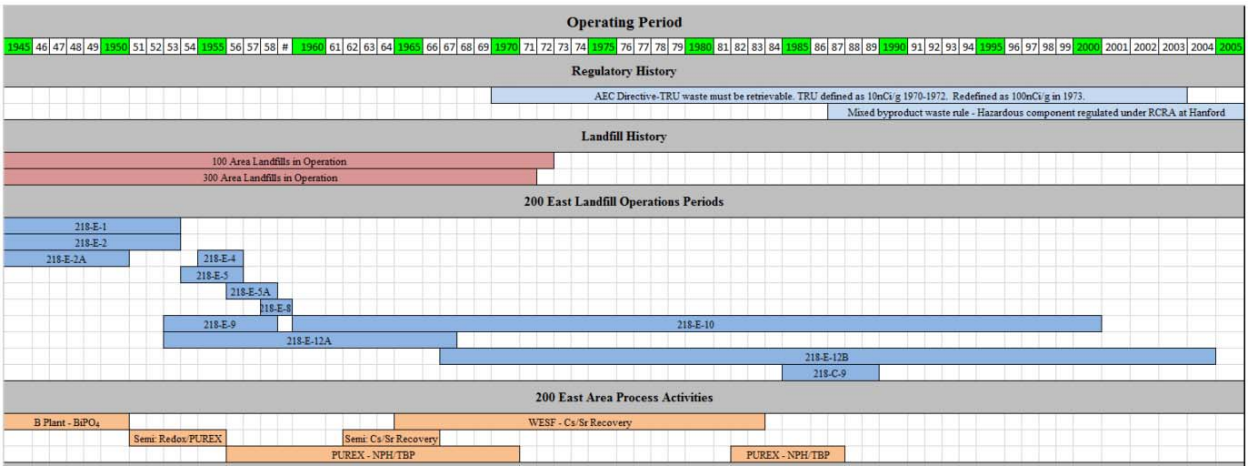

Figure G.7.2-3. Schedule of Waste Burials in Landfills (DOE/RL-2004-60, Draft B)

"Before 1965, wastes were covered with approximately 0.6 m (2 ft) of soil. Since 1965, these wastes were covered with approximately 1.2 m (4 ft) of soil cover but, by the late 1960s, the standard was changed to approximately 2.4 m (8 ft). After 1967, all alpha-contaminated wastes from the 105-N Reactor and 300 Area were sent to the 200 Area for disposal (DOE/RL-96-81). Since the mid-1960s, increasing attention to reducing potential contamination to groundwater led to a decision to send all LLW from all Hanford Site facilities for burial within the 200 Area, 60 to 90 m (200 to 300 ft) above groundwater. The last 300 Area landfill (618-7 Burial Ground) was closed in 1972. The last 100 Area landfill closed in 1973 (WHC-EP-0912)" [DOE/RL-2004-60, Draft B 2015. Appendix C Page C-12].

The only sites of the EU that are listed in the Hanford Site-Wide Risk Review as still active are 218-E-10 (Equipment burial ground waste site), 2107 (218-E-12B Drum Vent System), 277E (Locker Room N of 209E off of 7th St), 2202E (Weather Enclosure for Waste Retrieval), 223E (105A Mock Tank), and CC2W0251 (Antech Mobile Assay lab Next To MO248).

GROUNDWATER PLUMES

The saturated zone beneath the CP-LS-14 area currently has elevated levels of cyanide (CN), I-129, nitrate, Sr-90, Tc-99, and total uranium based on 2014 groundwater monitoring results (http://phoenix.pnnl.gov/apps/gw/phoenix.html). Plumes in the 200-PO and 200-BP GWIAs are described in CP-GW-1 EU (Appendix D.5). Several CP-LS-14 waste sites with reported inventories (Table G.7.2-4 through Table G.7.2-6), including 216-C-1, 216-C-3, 216-C-4, 216-C-6, 216-C-10 Cribs; 216-C-9 Pond; and 216-B-2-1 Ditch, are suspected of being able to contribute mobile contaminants to the saturated zone (DOE/RL-92-19, Rev. 0). Monitoring of groundwater is being conducted within the 200-PO and 200-BP GWIAs.

D&D OF INACTIVE FACILITIES

Not applicable

ECOLOGICAL RESOURCES SETTING

Landscape Evaluation and Resource Classification

Much of the land in the 200-E Burial Grounds EU has been disturbed to some extent; consequently more than 96% (1443 acres) of the EU is characterized as resource level 2 or below (Appendix J, Figure J.36, and Table J.34). Burial grounds are mostly revegetated and sprayed to prevent growth of deep-rooted forbs and shrubs. On the outskirts or between sections of the burial grounds, patches of habitat classified as resource level 3 remain. No habitat classified as resource levels 4 or 5 occurs within the EU.

The amount and proximity of biological resources surrounding the 200-E Burial Grounds EU were examined within the adjacent landscape buffer area. The buffer areas were created by adding a strip 1 times the maximum width of each burial ground parcel to its EU boundary. The buffer areas for the 4 burial ground parcels overlap and were merged into one buffer area that encompasses 1970.1 acres (Appendix J, Table J.34). The combined EU and adjacent buffer area encloses 2274.3 acres, of which approximately 63% is classified as resource level 2 or below.

The combined buffer area extends beyond the 200-E Area fence to the north and west, where resource level 3 and 4 habitats occur. These habitats outside the 200-E Area are contiguous with similar areas across the Hanford Site, but the level 3 resources within the 200-E Area are fragmented and are not contiguous with habitats beyond the fence (Appendix J).

Field Survey

The 200-E Burial Grounds EU consists of 4 separate parcels of land in the 200-E Area (Apppendix J, Table J.33). Each of these parcels was surveyed on June 10, 2015 and assigned a number to keep track of survey information for each parcel; the following data and discussions use these numbers (e.g., Burial Ground 1 or BG 1).

Most of the surfaces of the three of the four burial grounds (BG 1, BG 2 and BG 3) have been revegetated with crested wheatgrass (*Agropyron cristatum*) and are sprayed with a broad-leaf herbicide to prevent the growth of deep-rooted forbs and shrubs. Native grasses such as sand dropseed

(*Sporobolus cryptandrus*) and Sandberg's bluegrass (*Poa secunda*) are gradually moving into these areas since they are not impacted by the herbicide; in places they form a significant component of the plant community. Areas dominated by introduced crested wheatgrass are classified as resource level 1 and constitute approximately 41% of the EU. Burial Ground 4 is sprayed with herbicides to prevent all vegetation growth and is classified as a level 0 resource.

Areas around or between sections of each burial ground parcel are less disturbed and patches of successional and climax plant communities occur. Successional vegetation includes native grasses such as Sandberg's bluegrass (20%-25% cover, cheatgrass (5 -25%), gray rabbitbrush (*Ericameria nauseosa*) and scattered big sagebrush (*Artemisia tridentata*) (Appendix J). Small patches of climax communities containing big sagebrush (40% cover) and other climax shrubs along with an understory dominated by cheatgrass and Sandberg's bluegrass occur in the center and south portions of Burial Ground 3 (Appendix J).

A Swainson's hawk (*Buteo swainsoni*) was observed flying over Burial Ground 1. This species is a Washington state monitor species. Small circular patches of resource level 3 in Burial Grounds 1 and 3 are previously observed locations of Piper's daisy (*Erigeron piperianus*), a state sensitive species. Piper's daisy was not observed in the June 2015 surveys. Field data records at the end of this EU description in Appendix J provides lists of plant and animal species observed during the June surveys.

CULTURAL RESOURCES SETTING

Portions of the CP-LS-14, 200-E Burial Grounds EU have been inventoried for cultural resources as part of five previous inventory surveys efforts, each with negative results within the EU. It is unknown if an NHPA Section 106 review has been completed specifically for the remediation of the CP-LS-14, 200-E Burial Grounds EU. Not all of the EU appears to have been inventoried for cultural resources. It is highly unlikely that intact archaeological material is present in the EU, which has been extensively disturbed by Hanford Site activities with the exception of undisturbed areas located in the northern portion of the EU.

Two National Register-eligible buildings that are contributing properties within the Manhattan Project and Cold War Era Historic District are located within the CP-LS-14, 200-E Burial Grounds EU (both are considered contributing properties within the Manhattan Project and Cold War Era Historic District, 1 with individual documentation required, and 1 with no additional documentation required). In accordance with the *Hanford Site Manhattan Project and Cold War Era Historic District Treatment Plan (*DOE/RL-97-56) (DOE-RL 1998), all documentation requirements have been completed for these properties. These properties are the Critical Mass Laboratory (building 209-E) and the Gas Preparation Building (building 215-C).

There are two archaeological sites (one associated with the Pre-Hanford Early Settlers/Farming Landscapes and one associated with the Manhattan Project and Cold War Era Historic District) located within 500 meters of the CP-LS-14, 200-E Burial Grounds EU. The archaeological site associated with the Manhattan Project and Cold War Era Historic District is National Register-eligible. The remaining archaeological site remains unevaluated for listing in the National Register of Historic Places. Five archaeological isolates (1 associated with the Native American Precontact and Ethnographic Landscape, and 4 with the Pre-Hanford Early Settlers/Farming Landscape) have been recorded within 500 meters of the EU. In addition, segments of the National Register-eligible Hanford Site Plant Railroad, a contributing property within the Manhattan Project and Cold War Era Historic District, with documentation required, are located within 500-meters of the CP-LS-14, 200-E Burial Grounds EU. There are 25 National Register-eligible buildings that are contributing properties within the Manhattan Project and Cold War Era

Historic District that are located within 500-meters of the CP-LS-14 200-E Burial Grounds EU (all 25 are contributing properties within the Manhattan Project and Cold War Era Historic District, 9 with individual documentation required, and 16 with no additional documentation required). In accordance with the *Hanford Site Manhattan Project and Cold War Era Historic District Treatment Plan (*DOE/RL-97-56) (DOE-RL 1998), all documentation requirements have been completed for these contributing properties.

Historic maps and aerial imagery indicate little development within or in the vicinity of the EU, suggesting a low potential for archaeological resources associated with the Pre-Hanford Early Settlers/Farming Landscape to be present within the boundary of the EU. Geomorphology suggests a low potential for the presence of archaeological resources associated with the Native American Precontact and Ethnographic Landscape to be present within the CP-LS-14, 200-E Burial Grounds EU. Extensive ground disturbance within the EU suggests a low potential for intact cultural resources at or below ground surface. Resources, if present, would likely be limited to areas of intact or undisturbed soils.

Because large portions of the EU have not been inventoried, and because of the potential for buried archaeological deposits within the CP-LS-14, 200-E Burial Grounds EU, it may be appropriate to conduct surface and subsurface archaeological investigations in these areas prior to initiating any remediation activities. Indirect effects are always possible when TCPs are known to be located in the general vicinity. Consultation with Hanford Tribes (Confederated Bands of the Yakama Nation, Wanapum, Confederated Tribes of the Umatilla Indian Reservation, and the Nez Perce) and other groups associated with these landscapes (e.g. East Benton Historical Society, the Franklin County Historical Society and the Prosser Cemetery Association, the Reach, and the B-Reactor Museum Association) may be necessary to provide input on indirect effects to both recorded and potential unrecorded TCPs in the area and other cultural resource issues of concern.

PART V. WASTE AND CONTAMINATION INVENTORY

CONTAMINATION WITHIN PRIMARY EU SOURCE COMPONENTS

Legacy Source Sites

The landfill sites contain primarily dry and industrial waste. The Curie contents range from low to highest. See Table 4 below for information on each landfill where available.

The Naval Reactor Trench is located in 218-E-12B and it is assumed that the inventories in the Naval Reactor Trench are included in the values found in Appendix S of DOE/EIS-0391 2012. The inventories for 218-E-12B assessed in this EU represent those inventories not in the Naval Reactor Trench. To prevent double counting, the inventory for WIDS 218-E-12B was calculated by subtracting the inventories of the Naval Reactor Trench (see the inventory discussion in CP-OP-9) from the inventories in DOE/EIS-0391 2012. With the exception of Am-241, the inventories in DOE/EIS-0391 2012 were greater than or equal to (to 2 significant figures) the Naval Reactor Trench inventories. Zero inventories effectively mean that the inventory for that primary contaminant is found only in the Naval Reactor Trench.

DOE/EIS-0391 2012 provides an inventory for Am-241 of 1.91 Ci. The Naval Reactor Trench inventory for Am-241 was 2.18 Ci. Subtracting the values gives a negative number, -0.27. The reason for the discrepancy in not known. However, the difference is small compared to the total inventory for this EU.

The inventory for 218-E-12B is given here as 0 Ci and the inventory Naval Reactor Trench is given as 2.18 Ci, i.e., the inventory for Am-241 is included in the Naval Reactor Trench EU only.

Equipment burial area 218-E-10 received failed equipment and mixed industrial wastes from PUREX, B-Plant and 100-N, including 69 PUREX cover blocks and 4 PUREX centrifuge blocks.

Vadose Zone Contamination

The CP-LS-14 waste sites with reported inventories (Table G.7.2-4 through Table G.7.2-6) consist of 11 burial ground sites (assumed unlined), a pond, eight cribs, a reverse well, a process building, and three unplanned releases (UPRs) that represent soil and other vadose zone contamination. Contamination within the 201-C Building is assumed isolated from the vadose zone and thus this inventory is not associated with the vadose zone. The inventories (minus that for 201-C) represent the reported contamination originally discharged (without decay correction[8]) to the vadose zone from the CP-LS-14 waste sites. These values are used to estimate the inventory remaining in the vadose zone using the process described in the Methodology Report (CRESP 2015) for the 2013 groundwater plume information as revised for the 2015 Groundwater Monitoring Data (DOE/RL-2016-09, Rev. 0) described in Appendix D.1. The focus in this section will be on the Group A and B contaminants (CRESP 2015) in the vadose zone due to their mobility and persistence and potential threats to groundwater (a protected resource); however, no plumes have been associated with CP-LS-14 waste sites. To summarize[9]:

- *Chromium* – There are reported inventories for chromium in the CP-LS-14 waste sites (Table G.7.2-6) but none of the current plumes in 200 East are associated with CP-LS-14 sources. The inventory is dominated by the 216-C-1 Crib.
- *Carbon tetrachloride* (CCl_4), c*yanide* (CN), and *trichloroethene* (TCE) – There are no reported vadose zone inventories in the CP-LS-14 waste sites (Table G.7.2-6).
- *I-129 and Tc-99* – There are reported inventories for the CP-LS-14 EU (Table G.7.2-4 and Table G.7.2-5) that are not related to 200 East Area plumes. The small inventory source (7E-05 Ci) for I-129 and that for Tc-99 is dominated by two UPRs.
- *Uranium* – There are reported vadose zone inventories for the CP-LS-14 EU (Table G.7.2-5 and Table G.7.2-6). The CP-LS-14 vadose zone inventory is dominated by three burial grounds and the 216-C-1 Crib.
- *Sr-90 and other Group A&B Primary Contaminants (PCs)* – There are reported vadose zone inventories for Sr-90 (Table G.7.2-5) and C-14 (Table G.7.2-4) but none for Cl-36 (Table G.7.2-4). The reported Sr-90 vadose zone inventory is distributed over several burial grounds, with largest in 218-E-10 Burial Ground. The reported C-14 inventory is dominated by two UPRs.

No CP-LS-14 waste sites have been linked to existing plumes in the Hanford Central Plateau (DOE-RL/2016-09, Rev. 0). Because of the tendency of uranium and Sr-90 to sorb to Hanford vadose zone

[8] As described in the Methodology Report (CRESP 2015) values are typically not decay corrected because of the large uncertainties in many of the values used in the CRESP evaluations and the rough-order-of-magnitude evaluations presented in the Review. One exception, for example, is when evaluating long-term impacts to groundwater for Group A and B radionuclides (e.g., Sr-90) with half-lives that are relatively short relative to the evaluation period (CRESP 2015).

[9] The plume information is primarily taken from PHOENIX (http://phoenix.pnnl.gov/apps/gw/phoenix.html) that show the 2014 groundwater plumes. These plumes were assumed representative of 2015 groundwater plumes.

media and that the TC&WM EIS groundwater transport analysis at the A and B Barriers[10] (see Section 6.5 in Appendix E.6 and Section 7.5 in Appendix E.7, respectively) indicates that neither Sr-90 or uranium[11] are expected to migrate appreciably in the area (Appendix O, DOE/EIS-0391 2012), these primary contaminants (both with reported inventories) are given *Not Discernible* (*ND*) current ratings and *Low* ratings afterwards to address uncertainties in the evaluation. For the other Group A and B constituents, the TC&WM EIS groundwater transport analysis indicates that predicted peak concentrations at the A and B Barriers for Tc-99, I-129, and chromium could exceed thresholds during the evaluation period; however, sources for the plumes for these contaminants are not part of CP-LS-14 and thus any contributions from CP-LS-14 in the future would be assumed to be subsumed in the exiting plumes. The ratings for these are thus not changed based on this analysis.

Using the process outlined in Chapter 6 of the Methodology Report (CRESP 2015) for the 2013 groundwater results as revised for the 2015 Groundwater Monitoring Data (DOE/RL-2016-09, Rev. 0) described in Appendix D.1, the remaining vadose zone inventories for CP-LS-14 in Table G.7.2-8 are estimated by difference and used to calculate Groundwater Threat Metric (GTM) values for the Group A and B contaminants remaining in the vadose zone. The vadose zone (VZ) ratings range from *Very High* for hexavalent chromium to *High* for total chromium to *Low* for most other primary contaminants where ratings for Sr-90 and total uranium are described above. The overall current rating is defined as the highest over all the ratings and thus *Very High*.

Groundwater Plumes

Multiple sites within the CP-LS-14 EU with reported inventories are suspected of being able to contribute mobile contaminants to the saturated zone (DOE/RL-92-19, Rev. 0). Monitoring of groundwater is being conducted within the 200-PO and 200-BP GWIAs as described in CP-GW-1 EU (Appendix D.5). As shown in Table G.7.2-8, no saturated zone inventories have been associated with CP-LS-14; the process for deriving these inventories is described in CRESP Methodology Report (CRESP 2015) originally for the 2013 groundwater plume information as revised for the 2015 Groundwater Monitoring Data (DOE/RL-2016-09, Rev. 0) described in Appendix D.1.

In general the 2015 groundwater plumes are evaluated in separate EUs (see Appendix D.1 through Appendix D.6); furthermore, as described in the previous sections, no portions of the groundwater plumes are associated with CP-LS-14 (DOE/RL-2016-09, Rev. 0). Note that Sr-90 is the primary risk driver for the 200-BP GWIA and I-129 is the primary risk driver for the 200-PO GWIA; however, there are no CP-LS-14 sources associated with these plumes, and the remaining vadose zone sources from other EUs would drive future risks to groundwater.

[10] The barrier represents the edge of the infiltration barrier to be constructed over disposal areas that are within 100 meters [110 yards] of facility fence lines (DOE/EIS-0391 2012). The A and B Barriers are the closest to CP-LS-14. Despite including sources other than those for CP-LS-14, the analysis in the TC&WM EIS was considered a reasonable source of information to assess the potential transport in the Hanford subsurface.

[11] The B Barrier analysis in Section 7.5 for CP-TF-6 (B-BX-BY Tank and Waste Farms EU) indicates that total uranium is predicted to exceed the drinking water standard at the B Barrier within the 10,000-year TC&WM EIS evaluation period; however, this is likely due to the fact that there is already a plume in the area. Furthermore, the existing plume is not associated with CP-LS-14 sites and the uranium discharged to the vadose zone has to migrate through the vadose zone to reach groundwater.

Impact of Recharge Rate and Radioactive Decay on Groundwater Ratings

As described in Section 6.5 of Appendix E.6 for the A-AX Tank and Waste Farms EU (CP-TF-5) and Section 7.5 of Appendix E.7 for the B-BX-BY Tank and Waste Farms (CP-TF-6), the TC&WM EIS screening groundwater transport analysis (Appendix O, DOE/EIS-0391 2012) indicates that there may be a significant impact from emplacing an engineered surface barrier (and resulting reduction of infiltrating water) on the predicted peak groundwater concentrations (relative to thresholds), which is assumed representative of impacts in the CP-LS-14 area. However, some concentration are predicted to exceed thresholds during the evaluation period; this result is likely due to the significant amounts of contaminants already in the groundwater including from sources including other than CP-LS-14 and not due to an ineffective surface barrier. To summarize, the screening groundwater results at the A Barrier (Appendix O, DOE/EIS-0391 2012) include[12]:

- A Barrier: Tc-99 peak concentration is 41,700 pCi/L (CY 2121) for the No Action Alternative versus 774 pCi/L (CY 2102) for Landfill Closure where the threshold value is 900 pCi/L.

  B Barrier: Tc-99 peak concentration is 26,500 pCi/L (CY 3957) for the No Action Alternative versus 3,570 pCi/L (CY 2056) for Landfill Closure where the threshold value is 900 pCi/L.

- A Barrier: I-129 peak concentration is 38.5 pCi/L (CY 2123) for the No Action Alternative versus 1.5 pCi/L (CY 2104) for Landfill Closure where the threshold value is 1 pCi/L.

  B Barrier: I-129 peak concentration is 58.8 pCi/L (CY 3577) for the No Action Alternative versus 4.5 pCi/L (CY 2056) for Landfill Closure where the threshold value is 1 pCi/L.

- A Barrier: Chromium peak concentration is 323 µg/L (CY 3710) for the No Action Alternative versus 81 µg/L (CY 2168) for Landfill Closure where the threshold value is 100 µg/L (total) or 48 µg/L (hexavalent).

  B Barrier: Chromium peak concentration is 864 µg/L (CY 3882) for the No Action Alternative versus 215 µg/L (CY 2050) for Landfill Closure where the threshold value is 100 µg/L (total) or 48 µg/L (hexavalent).

- Total uranium peak concentration is 7 µg/L (CY 11,823) for the No Action Alternative versus 0 µg/L (CY 11,826) for Landfill Closure where the threshold value is 30 µg/L.

  Total uranium peak concentration is 41 µg/L (CY 11,778) for the No Action Alternative versus 4 µg/L (CY 11,778) for Landfill Closure where the threshold value is 30 µg/L.

- A Barrier: No values are reported for Sr-90 for either scenario, which indicates that peak fluxes that were less than 1×10^{-8} Ci/yr (Appendix O, DOE/EIS-0391 2012, p. O-2).

  B Barrier: No values are reported for Sr-90 for either scenario, which indicates that peak fluxes were less than 1×10^{-8} Ci/yr (Appendix O, DOE/EIS-0391 2012, p. O-2).

Thus an appreciable total uranium plume is not expected in the next 150 years due to retardation in the vadose zone. Similarly, an appreciable Sr-90 plume is also not expected in the next 150 years due to retardation in the vadose zone or after due to radioactive decay (+97% reduction in inventory). The time for the Sr-90 rating (which would rate *Very High* if considered mobile) to be either *Medium* or *Low* due to radioactive decay is approximately 370 or 460 years, respectively. Thus Sr-90 (or uranium) is not

[12] Analyses specific to each Tank Farm or Central Plateau EU are not available; thus the aggregate screening analysis provided in the TC&WM EIS was used as an indication.

considered a significant threat to the Hanford groundwater but remains a threat to the vadose zone or groundwater if conditions change significantly.

Since the predicted peak concentrations are predicted to remain above thresholds for Tc-99, I-129, and chromium even after surface barrier emplacement, it is decided to not alter the CP-LS-14 ratings related to groundwater based on different recharge rate scenarios. This effect is likely not due to an ineffective surface barrier but instead the amount of these contaminants already in the groundwater and possible contributions of sources outside CP-LS-14 (as assumed in the TC&WM EIS analysis). Furthermore, groundwater is not yet being treated in the area and thus there is no basis yet for changing ratings for CP-LS-14.

Columbia River

Threats to the Columbia River similar to those presented by the CP-LS-14 EU were evaluated in Section 6.5 of Appendix E.6 for CP-TF-5 (A-AX Single-shell Tank and Waste Farm) and Section 7.5 of Appendix E.7 (B-BX-BY Tank and Waste Farms) where all risks and potential impacts were rated *Not Discernible* (*ND*).

Table G.7.2-4. Inventory of Primary Contaminants [a]

WIDS	Description	Decay Date	Ref[b, c, d]	Am-241 (Ci)	C-14 (Ci)	Cl-36 (Ci)	Co-60 (Ci)	Cs-137 (Ci)	Eu-152 (Ci)	Eu-154 (Ci)	H-3 (Ci)	I-129 (Ci)
All	Sum			54	0.027	NR	3.9	1,100,000	0.75	59	92	0.00007
218-C-9	Burial Ground		EIS-S	NR	NR	NR	NR	7.50	NR	NR	NR	NR
218-E-1	Burial Ground	1986	EIS-S	NR	NR	NR	NR	2.1	NR	NR	NR	NR
218-E-10	Burial Ground		EIS-S	0.0014	NR	NR	NR	1,000,000	NR	NR	8.00E-08	NR
218-E-12A	Burial Ground	1986	EIS-S	NR	NR	NR	NR	18	NR	NR	NR	NR
218-E-12B[d]	Burial Ground		See note d.	0[e]	0	NR	NR	27,000	NR	NR	0	0
218-E-2	Burial Ground	1986	EIS-S	NR	NR	NR	NR	520	NR	NR	NR	NR
218-E-4	Burial Ground	1986	EIS-S	NR	NR	NR	NR	0.21	NR	NR	NR	NR
218-E-5	Burial Ground	1986	EIS-S	NR	NR	NR	NR	160	NR	NR	NR	NR
218-E-5A	Burial Ground	1986	EIS-S	NR	NR	NR	NR	340	NR	NR	NR	NR
218-E-8	Burial Ground	1986	EIS-S	NR	NR	NR	NR	0.21	NR	NR	NR	NR
291-C-1	Burial Ground		EIS-S	NR	NR	NR	NR	NR	NR	NR	NR	NR
201-C	Process Building	1988	EIS-S	0.2	NR	NR	NR	NR	NR	NR	NR	NR
216-C-9	Pond	2001	SIM	0.0003	0.00024	NR	0.00031	0.27	7.80E-06	0.00058	0.0083	6.00E-07
200-E-4	Cribs	2001	SIM	NR	NR	NR	NR	NR	NR	NR	NR	NR
216-C-1	Cribs	2001	SIM	0.14	7.10E-05	NR	0.01	11	0.002	0.16	0.00019	7.70E-06
216-C-10	Cribs	2001	SIM	0.057	2.80E-05	NR	0.0041	4.4	0.00079	0.062	6.50E-05	6.60E-08
216-C-3	Cribs	2001	SIM	0.028	1.40E-05	NR	0.0021	2.2	0.0004	0.031	7.90E+01	3.30E-08
216-C-4	Cribs	2001	SIM	0.0077	1.20E-05	NR	0.00067	0.00051	0.00011	0.0086	0.00017	4.90E-08
216-C-5	Cribs	2001	SIM	NR	NR	NR	NR	NR	NR	NR	NR	NR

WIDS	Description	Decay Date	Ref[b, c, d]	Am-241 (Ci)	C-14 (Ci)	Cl-36 (Ci)	Co-60 (Ci)	Cs-137 (Ci)	Eu-152 (Ci)	Eu-154 (Ci)	H-3 (Ci)	I-129 (Ci)
216-C-6	Cribs	2001	SIM	0.021	3.30E-05	NR	0.0019	0.39	0.00032	0.024	13	1.30E-07
216-C-7	Cribs	2001	SIM	NR	NR	NR	NR	NR	NR	NR	NR	NR
216-C-2	Other	2001	SIM	NR	NR	NR	NR	0.0094	NR	NR	NR	NR
200-E-41	UPR	2001	SIM	1.00E-08	1.80E-09	NR	8.10E-09	5.90E-05	2.60E-10	2.00E-08	6.50E-08	3.90E-11
200-E-56	UPR	2001	SIM	21	0.011	NR	1.60	1,700	0.30	24	0.025	2.50E-05
200-E-57	UPR	2001	SIM	32	0.016	NR	2.3	2,500	0.45	35	0.037	3.70E-05

a. NR = Not reported for indicated EU

b. EIS-S = DOE/EIS-0391 2012

c. SIM = RPP-26744, Rev. 0

d. The inventories for 218-E-12B represent those inventories not in the Naval Reactor Trench. To prevent double counting, the inventory for WIDS 218-E-12B was calculated by subtracting the inventories of the Naval Reactor Trench (EU CP-OP-9) from the inventories in DOE/EIS-0391 2012 because the Naval Reactor Trench is part of the 218-E-12B burial grounds. With the exception of Am-241 (see note e), the inventories in DOE/EIS-0391 2012 were greater than or equal to (to 2 significant figures) the Naval Reactor Trench inventories. See EU CP-OP-9 for discussion of the Naval Reactor Trench inventories.

e. DOE/EIS-0391 2012 provides an inventory for Am-241 of 1.91 Ci. The Naval Reactor Trench inventory for Am-241 was 2.18 Ci. Subtracting the values gives a negative number, -0.27. The reason for the discrepancy in not known. The inventory for 218-E-12B is given here as 0 Ci and the inventory Naval Reactor Trench is given as 2.18 Ci.

Table G.7.2-5. Inventory of Primary Contaminants (cont)(a)

WIDS	Description	Decay Date	Ref[b, c, d]	Ni-59 (Ci)	Ni-63 (Ci)	Pu (total) (Ci)	Sr-90 (Ci)	Tc-99 (Ci)	U (total) (Ci)
All	Sum			0.55	52	1,000	910,000	1	1.4
218-C-9	Burial Ground		EIS-S	NR	NR	NR	13	NR	NR
218-E-1	Burial Ground	1986	EIS-S	NR	NR	65	1.9	NR	0.13
218-E-10	Burial Ground		EIS-S	NR	NR	0.0039	850,000	0.0051	0.11
218-E-12A	Burial Ground	1986	EIS-S	NR	NR	650	17	NR	0.33
218-E-12B[(d)]	Burial Ground		See note d.	NR	NR	0.31	27,000	0	0.046
218-E-2	Burial Ground	1986	EIS-S	NR	NR	58	490	NR	NR
218-E-4	Burial Ground	1986	EIS-S	NR	NR	0.73	0.19	NR	0.00034
218-E-5	Burial Ground	1986	EIS-S	NR	NR	45	150	NR	0.04
218-E-5A	Burial Ground	1986	EIS-S	NR	NR	100	320	NR	0.04
218-E-8	Burial Ground	1986	EIS-S	NR	NR	1.5	0.19	NR	0.00067
291-C-1	Burial Ground		EIS-S	NR	NR	100	NR	NR	NR
201-C	Process Building	1988	EIS-S	NR	NR	4.9	9,000	NR	NR
216-C-9	Pond	2001	SIM	5.00E-06	0.00048	0.0068	1.3	0.001	3.30E-05
200-E-4	Cribs	2001	SIM	NR	NR	1.10E-09	NR	NR	7.30E-09
216-C-1	Cribs	2001	SIM	0.0015	0.14	3.50E+00	49	0.0027	0.65
216-C-10	Cribs	2001	SIM	0.00058	0.055	0.0032	20	0.0011	4.50E-06
216-C-3	Cribs	2001	SIM	0.00029	0.028	0.0018	9.8	0.0007	0.0031
216-C-4	Cribs	2001	SIM	5.20E-05	0.0049	0.0025	7.4	0.0008	2.30E-06
216-C-5	Cribs	2001	SIM	NR	NR	NR	NR	NR	0.014
216-C-6	Cribs	2001	SIM	0.00014	0.013	0.064	21	0.0028	0.0015
216-C-7	Cribs	2001	SIM	NR	NR	7.60E-09	NR	NR	2.60E-08
216-C-2	Other	2001	SIM	NR	NR	8.90E-04	0.08	NR	9.10E-07
200-E-41	UPR	2001	SIM	4.60E-10	4.40E-08	4.00E-08	6.90E-06	4.80E-08	1.80E-09
200-E-56	UPR	2001	SIM	0.22	21	1.20E+00	7,400	0.41	0.0016

WIDS	Description	Decay Date	Ref[b, c, d]	Ni-59 (Ci)	Ni-63 (Ci)	Pu (total) (Ci)	Sr-90 (Ci)	Tc-99 (Ci)	U (total) (Ci)
200-E-57	UPR	2001	SIM	0.33	31	1.7	11,000	0.62	0.0024

a. NR = Not reported for indicated EU

b. EIS-S = DOE/EIS-0391 2012

c. SIM = RPP-26744, Rev. 0

d. The inventories for 218-E-12B represent those inventories not in the Naval Reactor Trench. To prevent double counting, the inventory for WIDS 218-E-12B was calculated by subtracting the inventories of the Naval Reactor Trench (EU CP-OP-9) from the inventories in DOE/EIS-0391 2012 because the Naval Reactor Trench is part of the 218-E-12B burial grounds. With the exception of Am-241 (see note e), the inventories in DOE/EIS-0391 2012 were greater than or equal to (to 2 significant figures) the Naval Reactor Trench inventories. See EU CP-OP-9 for discussion of the Naval Reactor Trench inventories.

e. DOE/EIS-0391 2012 provides an inventory for Am-241 of 1.91 Ci. The Naval Reactor Trench inventory for Am-241 was 2.18 Ci. Subtracting the values gives a negative number, -0.27. The reason for the discrepancy in not known. The inventory for 218-E-12B is given here as 0 Ci and the inventory Naval Reactor Trench is given as 2.18 Ci.

Table G.7.2-6. Inventory of Primary Contaminants (cont)(a)

WIDS	Description	Ref[b, c, d]	CCl4 (kg)	CN (kg)	Cr (kg)	Cr-VI (kg)	Hg (kg)	NO3 (kg)	Pb (kg)	TBP (kg)	TCE (kg)	U (total) (kg)
All	Sum		NR	NR	58,000	NR	8.3	2,800,000	11,000,000,000	NR	NR	3,700
218-C-9	Burial Ground	EIS-S	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
218-E-1	Burial Ground	EIS-S	NR	NR	NR	NR	NR	NR	NR	NR	NR	400
218-E-10	Burial Ground	EIS-S	NR	NR	NR	NR	NR	NR	450,000	NR	NR	830
218-E-12A	Burial Ground	EIS-S	NR	NR	NR	NR	NR	NR	NR	NR	NR	990
218-E-12B[(d)]	Burial Ground	See note d.	NR	NR	NR	NR	NR	NR	11,000,000,000	NR	NR	260
218-E-2	Burial Ground	EIS-S	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
218-E-4	Burial Ground	EIS-S	NR	NR	NR	NR	NR	NR	NR	NR	NR	1
218-E-5	Burial Ground	EIS-S	NR	NR	NR	NR	NR	NR	NR	NR	NR	120
218-E-5A	Burial Ground	EIS-S	NR	NR	NR	NR	NR	NR	NR	NR	NR	120
218-E-8	Burial Ground	EIS-S	NR	NR	NR	NR	NR	NR	NR	NR	NR	2
291-C-1	Burial Ground	EIS-S	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
201-C	Process Building	EIS-S	NR	NR	NR	NR	NR	NR	2,300	NR	NR	NR
216-C-9	Pond	SIM	NR	NR	0.012	NR	0.44	520	6	NR	NR	0.045
200-E-4	Cribs	SIM	NR	NR	NR	NR	NR	NR	0.00016	NR	NR	1.10E-05
216-C-1	Cribs	SIM	NR	NR	58,000	NR	7.7	2,800,000	92	NR	NR	910
216-C-10	Cribs	SIM	NR	NR	0.08	NR	0.0077	11	0.1	NR	NR	0.0065
216-C-3	Cribs	SIM	NR	NR	0.59	NR	0.015	77,000	0.045	NR	NR	4.5
216-C-4	Cribs	SIM	NR	NR	1.00E-06	NR	0.0015	4.9	0.0025	NR	NR	0.0032
216-C-5	Cribs	SIM	NR	NR	16	NR	0.025	420	0.9	NR	NR	21
216-C-6	Cribs	SIM	NR	NR	2.80E-06	NR	8.80E-05	280	NR	NR	NR	1.8

WIDS	Description	Ref[b, c, d]	CCl4 (kg)	CN (kg)	Cr (kg)	Cr-VI (kg)	Hg (kg)	NO3 (kg)	Pb (kg)	TBP (kg)	TCE (kg)	U (total) (kg)
216-C-7	Cribs	SIM	NR	NR	NR	NR	NR	NR	0.00054	NR	NR	3.60E-05
216-C-2	Other	SIM	NR	NR	NR	NR	0.027	2.9	0.046	NR	NR	0.0012
200-E-41	UPR	SIM	NR	NR	3.20E-06	NR	9.30E-10	0.011	0.00011	NR	NR	2.60E-06
200-E-56	UPR	SIM	NR	NR	30	NR	0.024	3,700	34	NR	NR	2.30
200-E-57	UPR	SIM	NR	NR	45	NR	0.037	5,600	51	NR	NR	3.5

a. NR = Not reported for indicated EU

b. EIS-S = DOE/EIS-0391 2012

c. SIM = RPP-26744, Rev. 0

d. The inventories for 218-E-12B represent those inventories not in the Naval Reactor Trench. To prevent double counting, the inventory for WIDS 218-E-12B was calculated by subtracting the inventories of the Naval Reactor Trench (EU CP-OP-9) from the inventories in DOE/EIS-0391 2012 because the Naval Reactor Trench is part of the 218-E-12B burial grounds. With the exception of Am-241 (see note e), the inventories in DOE/EIS-0391 2012 were greater than or equal to (to 2 significant figures) the Naval Reactor Trench inventories. See EU CP-OP-9 for discussion of the Naval Reactor Trench inventories.

e. DOE/EIS-0391 2012 provides an inventory for Am-241 of 1.91 Ci. The Naval Reactor Trench inventory for Am-241 was 2.18 Ci. Subtracting the values gives a negative number, -0.27. The reason for the discrepancy in not known. The inventory for 218-E-12B is given here as 0 Ci and the inventory Naval Reactor Trench is given as 2.18 Ci.

Table G.7.2-7. Summary of the Evaluation of Threats to Groundwater as a Protected Resource from Saturated Zone (SZ) and Remaining Vadose Zone (VZ) Contamination associated with the Evaluation Unit.

PC	Group	WQS	Porosity[a]	K_d (mL/g)[a]	ρ (kg/L)[a]	VZ Source M^{Source}	SZ Total M^{SZ}	Treated[c] M^{Treat}	VZ Remaining M^{Tot}	VZ GTM (Mm^3)	VZ Rating[d]
C-14	A	2000 pCi/L	0.25	0	1.82	2.71E-02 Ci	---	---	2.71E-02 Ci	1.36E-02	*Low*
I-129	A	1 pCi/L	0.25	0.2	1.82	7.04E-05 Ci	---	---	7.04E-05 Ci	2.87E-02	*Low*
Sr-90	B	8 pCi/L	0.25	22	1.82	8.99E+05 Ci	---	---	8.99E+05 Ci	6.98E+05	*ND*[e]
Tc-99	A	900 pCi/L	0.25	0	1.82	1.05E+00 Ci	---	---	1.05E+00 Ci	1.17E+00	*Low*
CCl4	A	5 µg/L	0.25	0	1.82	---	---	---	---	---	*ND*
Cr	B	100 µg/L	0.25	0	1.82	5.78E+04 kg	---	---	5.78E+04 kg	5.78E+02	*High*
Cr-VI	A	48 µg/L[b]	0.25	0	1.82	5.78E+04 kg	---	---	5.78E+04 kg	1.20E+03	*Very High*
TCE	B	5 µg/L	0.25	2	1.82	---	---	---	---	---	*ND*
U(tot)	B	30 µg/L	0.25	0.8	1.82	3.66E+03 kg	---	---	3.66E+03 kg	1.79E+01	*ND*[e]

a. Parameters obtained from the analysis provided in Attachment 6-1 to Methodology Report (CRESP 2015).

b. "Model Toxics Control Act—Cleanup" (WAC 173‑340) Method B groundwater cleanup level for hexavalent chromium.

c. Treatment amounts from the 2015 Hanford Annual Groundwater Report (DOE/RL-2016-09, Rev. 0).

d. Groundwater Threat Metric rating based on Table 6-3, Methodology Report (CRESP 2015).

e. As discussed in **Part V**, no appreciable Sr-90 or total uranium plume would be expected in the next 150 years due to transport and decay considerations. Thus the *Low* rating would apply to the period at the end of the Active Cleanup is complete to account for uncertainties.

PART VI. POTENTIAL RISK/IMPACT PATHWAYS AND EVENTS

CURRENT CONCEPTUAL MODEL

Pathways and Barriers

Briefly describe the current institutional, engineered and natural barriers that prevent release or dispersion of contamination, risk to human health and impacts to resources:

1. What nuclear and non-nuclear safety accident scenarios dominate risk at the facility? What are the response times associated with each postulated scenario?

Insufficient documentation to answer

2. What are the active safety class and safety significant systems and controls?

Insufficient documentation to answer

3. What are the passive safety class and safety significant systems and controls?

Insufficient documentation to answer

4. What are the current barriers to release or dispersion of contamination from the primary facility? What is the integrity of each of these barriers? Are there completed pathways to receptors or are such pathways likely to be completed during the evaluation period?

The primary barrier for each of the landfills is the cover on top of the landfill. "The cover requirements for landfill wastes varied over the years. Wind erosion exposed some wastes buried shallower in earlier landfills. Shallow burial also resulted in uptake from plants whose roots penetrated into the waste packages. A number of incidents are documented where burial boxes collapsed, dispersing radioactive contamination across wide areas. Most of the collapse issues were resolved through soil compaction, removal of deep-rooted vegetation, and the addition of soil and shallow-rooted vegetation. Site maintenance programs also include the application of herbicides by licensed applicators to control deep-rooted plant growth on stabilized landfills." [DOE/RL-2004-60 Draft B page 3-2]

The other 55 EU sites that are not landfills have various barriers. Most of the sites are buried and surface stabilized. All known details on barriers for the non-landfill sites are in Section III: Primary Source Components.

5. What forms of initiating events may lead to degradation or failure of each of the barriers?

Insufficient documentation to answer

6. What are the primary pathways and populations or resources at risk from this source?

Insufficient documentation to answer

7. What is the time frame from each of the initiating events to human exposure or impacts to resources?

Insufficient documentation to answer

8. Are there current on-going releases to the environment or receptors?

Insufficient documentation to answer; there have been previous unplanned releases (all known information categorized in Section III: Primary Source Components.)

POPULATIONS AND RESOURCES CURRENTLY AT RISK OR POTENTIALLY IMPACTED

Facility Worker

Insufficient documentation to answer

Co-Located Person (CP)

Insufficient documentation to answer

Public

Insufficient documentation to answer

Groundwater

Table G.7.2-8 represents the risks and associated ratings for groundwater from remaining vadose zone contamination associated with the CP-LS-14 waste sites. Sites within the CP-LS-14 EU have likely contaminated the vadose zone, and multiple waste sites are suspected of being able to contribute mobile contaminants to the saturated zone (DOE/RL-92-19, Rev. 0). The current risk and potential impact ratings for the CP-LS-14 EU Group A and B primary contaminants are *Very High* (hexavalent chromium), *High* (total chromium), *Low* (C-14, I-129, and Tc-99), *ND* (Sr-90 and total uranium) (Table G.7.2-8). Monitoring of groundwater is being conducted within the 200-PO and 200-BP GWIAs as described CP-GW-1 EU (Appendix D.5). No current plumes have been linked to CP-LS-14 EU waste sites.

Columbia River

As described in Appendix D.5 (CP-GW-1 EU) and **Part V**, no plumes from CP-LS-14 waste sites currently intersect the Columbia River; thus current ratings for all contaminants for the benthic, riparian, and free-flowing ecology are *ND*.

Ecological Resources

Summary of Ecological Review:

- The 4 parcels of land comprising the 200-E Burial Grounds EU are not adjacent to one another, but all occur within the 200-E Area and 3 of the 4 have roughly similar biological resources. More than 96% (293 acres) of the EU are characterized as resource level 2 or below.
- Three of the 4 burial ground parcels are vegetated, the 4th is maintained to remove vegetation.
- More than 63% (1443 acres) of the combined EU and adjacent landscape area are characterized as resource level 2 or below.
- Small patches of level 3 habitat (4%) of the EU are fragmented and not contiguous with level 3 and 4 habitats in the adjacent landscape buffer. Loss of higher level habitat within the EU is not expected to reduce connectivity with similar habitat outside the 200-E Area.
- In the past, Piper's daisy, a state sensitive species, has been previously observed in relatively dense clusters in Burial Grounds 1 and 3, and although none were noted in 2015, it is considered highly likely to occur in the area. Loss of individual Piper's daisies is not expected to affect population viability.

Cultural Resources

The CP-LS-14, 200-E Burial Grounds EU is located within the 200-East Area of the Hanford Site, an area known to have low potential to contain Native American Precontact and Ethnographic archaeological resources and Pre-Hanford Early Settlers/Farming resources. Much of the 200 Areas were addressed in a cultural resources report entitled *Archaeological Survey of the 200 East and 200 West Areas, Hanford*

Site (Chatters and Cadoret 1990). The focus of this archaeological survey was on inventorying all undisturbed portions of the 200-East and 200-West Areas. This report concluded that much of the 200-East and 200-West Areas can be considered areas of low archaeological potential with the exception of intact portions of an historic/ethnohistoric trail/road corridor which runs through the 200-West Area.

Small portions of the EU have been inventoried for archaeological resources under five cultural resource reviews: HCRC#87-200-001 (Chatters 1987a), HCRC#87-200-004 (Chatters 1987b), HCRC#88-300-038b (Chatters and Cadoret 1990), HCRC#94-600-054 (Nickens 1994), and HCRC#2013-600-012a (Sheldon et al 2014). None of these cultural resource reviews resulted in the identification of any cultural resources within the CP-LS-14, 200-E Burial Grounds EU. It is unknown if an NHPA Section 106 review has been completed specifically for remediation of the CP-LS-14, 200-E Burial Grounds EU. It is unlikely that intact archaeological material is present in the areas that have not been inventoried for archaeological resources (both on the surface and in the subsurface), because soils in the entire EU appear to have been extensively disturbed by Hanford Site activities.

Archaeological sites, buildings and Traditional Cultural Properties (TCPs) located within the EU[13]

- Two National Register-eligible buildings that are contributing properties within the Manhattan Project and Cold War Era Historic District are located within the CP-LS-14, 200-E Burial Grounds EU (both are considered contributing properties within the Manhattan Project and Cold War Era Historic District, 1 with individual documentation required, and 1 with no additional documentation required). In accordance with the *Hanford Site Manhattan Project and Cold War Era Historic District Treatment Plan (*DOE/RL-97-56) (DOE-RL 1998), all documentation requirements have been completed for these properties.

Appendix K, Table K.19 contains more information about the two buildings that are National Register-eligible Manhattan Project and Cold War Era buildings located within the CP-LS-14, 200-E Burial Grounds EU.

Archaeological sites, buildings and TCPs located within 500 meters of the EU

- There are three archaeological sites (one associated with the Native American and Ethnographic Landscape, one with the Pre-Hanford Early Settlers/Farming Landscapes and one associated with the Manhattan Project and Cold War Era Historic District) located within 500 meters of the CP-LS-14, 200-E Burial Grounds EU. The archaeological site associated with the Manhattan Project and Cold War Era Historic District is National Register-eligible. The remaining archaeological sites remain unevaluated for listing in the National Register of Historic Places.
- Five archaeological isolates have been documented within 500 meters of the EU (one associated with the Native American Precontact and Ethnographic Landscape and four with the Pre-Hanford Early Settlers/Farming Landscape). None of these isolates have been formally evaluated for listing in the National Register of Historic Places, however, it should be noted that isolates are typically considered not eligible.

[13] Traditional cultural property has been defined by the National Park Service as "a property, a place, that is eligible for inclusion on the National Register of Historic Places because of its association with cultural practices and beliefs that are (1) rooted in the history of a community, and (2) are important to maintaining the continuity of that community's traditional beliefs and practices" (Parker & King 1998).

- Segments of the National Register-eligible Hanford Site Plant Railroad, a contributing property within the Manhattan Project and Cold War Era Historic District, with documentation required, are located within 500-meters of the CP-LS-14 200-E Burial Grounds EU. In accordance with the *Hanford Site Manhattan Project and Cold War Era Historic District Treatment Plan (*DOE/RL-97-56) (DOE-RL 1998), all documentation requirements have been completed for this property.
- There are 25 National Register-eligible buildings that are contributing properties within the Manhattan Project and Cold War Era Historic District that are located within 500-meters of the CP-LS-14 200-E Burial Grounds EU (all 25 are contributing properties within the Manhattan Project and Cold War Era Historic District, 9 with individual documentation required, and 16 with no additional documentation required). In accordance with the *Hanford Site Manhattan Project and Cold War Era Historic District Treatment Plan (*DOE/RL-97-56) (DOE-RL 1998), all documentation requirements have been completed for these properties. These include:

Appendix K, Table K.20, contains more information about the 25 buildings that are National Register-eligible Manhattan Project and Cold War Era buildings located within 500-meters of the CP-LS-14 200-E Burial Grounds EU.

- The 216-B-5 Reverse Well has been documented within 500 meters of the EU as a contributing component of the Manhattan Project and Cold War Era Historic District.

Closest Recorded TCP

There are two recorded TCPs associated with the Native American Precontact and Ethnographic Landscape that are visible from the CP-LS-14, 200-E Burial Grounds EU.

CLEANUP APPROACHES AND END-STATE CONCEPTUAL MODEL

Selected or Potential Cleanup Approaches

The 200-SW-2 OU includes 24 landfills that include those in CP-LS-14 (200-E Burial Area) as well as this EU and 14 collocated waste sites. Seven of the landfills are RCRA treatment, storage, and/or disposal (TSD) units and 17 are past-practice waste sites. The collocated sites include 11 unplanned release (UPR) sites, the Z Plant burn pit, the T Ponds, and the 216-C-9 Pond.

No cleanup decisions have been made to remediate the 200-SW-2 OU. (Note that this OU is not a single contaminated site, but comprises a large number of land disposal units.)

Range of Plausible Alternatives[14]

- Excavation, treatment (as necessary), and disposal of all waste from within individual landfills.
- Excavation, treatment (as necessary), and disposal of waste from selected sections of individual landfills followed by capping of remaining waste; includes continued cap maintenance and monitoring.
- Capping of individual landfills; includes continued cap maintenance and monitoring.
- In situ treatment/stabilization (e.g., vitrification or grouting) of portions of individual landfills followed by capping; includes continued cap maintenance and monitoring.

[14] DOE/RL-2014-11 Table B-3 CP-14

- If residual contamination remains after cleanup actions are completed, cleanup work will transition to LTS, including institutional controls and 5-year reviews of remedy effectiveness.

Contaminant Inventory Remaining at the Conclusion of Planned Active Cleanup Period

Insufficient documentation to answer

Risks and Potential Impacts Associated with Cleanup

Insufficient documentation to answer

Populations and Resources at Risk or Potentially Impacted During or as a Consequence of Cleanup Actions

Facility Worker

Insufficient documentation to answer

Co-located Person

Insufficient documentation to answer

Public

Insufficient documentation to answer

Groundwater

As described in **Part V**, there is unlikely to be a significant impact during this period to groundwater (as a protected resource) from mobile primary contaminants from CP-LS-14. However, there are contaminant sources (legacy source sites) in the vadose zone that pose continuing risk to groundwater (via the vadose zone). Because the area associated with CP-LS-14 sources is best represented by the A and B Barrier analyses (see previous section), the vadose zone (VZ) GTM values for the Group A and B primary contaminants for CP-LS-14 (during the Active Cleanup period) translate to ratings of up to *Very High* (because of large amounts of contaminants in the vadose zone to be treated). As indicated in **Part V**, Sr-90 and uranium are unlikely to impact the groundwater in sufficient quantities to exceed the drinking water standard by the end of the Active Cleanup period and are thus rated *Low* to address uncertainty in the analysis. Groundwater in the area is being monitored, which when combined with the fact that remedial actions have not yet begun, result in no changes to ratings. These ratings correspond to an overall rating of *Very High* for both the Active and Near-term, Post-Cleanup periods. The 200 East Area will continue to be monitored during this evaluation period to see if major changes result in additional groundwater contamination.

It is considered unlikely that additional groundwater resources would be impacted as a result of either interim remedial actions (e.g., pump and treat) or final closure activities (that are not covered in the Ecological or Cultural Resources results).

Columbia River

As described in **Part V**, impacts to the Columbia River benthic, riparian, and free-flowing ecology for the Active Cleanup and Near-term, Post Cleanup periods are rated as *Not Discernible* (*ND*). Additional information on groundwater plumes and potential threats associated with sources including those from CP-LS-14 waste sites are described in Appendix G.5 for the CP-GW-1 EU.

It is considered unlikely that additional benthic or riparian resources would be impacted as a result of either interim remedial actions (e.g., pump and treat) or final closure activities (that are not covered in the Ecological or Cultural Resources results).

Ecological Resources

Remove, treat and dispose of waste involves personnel through the target (remediation) area, car and pickup truck traffic through the non-target and target (remediation) area, truck, heavy equipment (including drill rigs) traffic on roads through the non-target and target area, caps (and other containment), soil removal and contamination in the soil, vegetation control, and irrigation (for revegetation) will cause the following disturbance from remediation activities: Carry seeds or propagules (pieces of vegetation or other biological parts that can grow and/or reproduce) on tires of vehicles or blowing from heavy equipment; injure or kill vegetation or small invertebrates or small animals; vehicle traffic can make paths, compact soil, scare or displace animals, can impact animal behavior or reproductive success; affect animal dispersion and habitat use (e.g., some birds avoid nesting near roads because of song masking); displacement of animals from near roads due to increased noise or other disturbances; and heavy equipment may permanently destroy areas of the site with intense activity. Soil removal can cause more severe effects because of blowing soil (and seeds). During remediation, radionuclides or other contaminants could be released or spilled on the surface, and depending upon the type and quantity, could have adverse effects on the plants and animals on-site. Use of non-specific herbicides for vegetation control results in some mortality of native vegetation (especially native forbes), and allows exotic species to move in; it may change species composition of native communities, but it also could make it easier for native species to move in; improved methods could yield positive results. Irrigation requires a system of pumps and water, resulting in physical disturbance; repeated irrigation from the same locations could result in some soil compaction, which can decrease plant growth in those areas, decrease abundance and diversity of soil invertebrates, and prevent fossorial snakes or mammals from using the area.

Alternatively, barriers could be the remediation option and involves personnel car and pickup truck traffic through the non-target and target (remediation) area, truck and heavy equipment traffic on roads through the non-target and target area, dust suppression, and irrigation (for revegetation) will cause the following disturbance from remediation activities: Carry seeds or propagules (pieces of vegetation or other biological parts that can grow and/or reproduce) on person (boots, clothes, equipment) or tires of vehicles or blowing from heavy equipment; injure vegetation or small invertebrates or small animals (e.g., insects, snakes); make paths or compact soil; scare or displace animals. Caps and other containment can cause compaction, which can decrease plant growth in those areas, decrease abundance and diversity of soil invertebrates, and prevent fossorial snakes or mammals from using the area. Destruction of soil invertebrates at depths of pits. Potential bringing up of dormant seeds from soil layers; disruption of ground-living small mammals and hibernation sites of snakes and other animals on-site of containment; often disrupts local aquatic environment and drainage; often non-native plants used on caps (which can become exotic/alien adjacent to the containment site). Additional water from dust suppression could lead to more diverse and abundant vegetation in areas that receive water, which could encourage invasion of exotic species; the latter could displace native plant communities; excessive dust suppression activities could lead to compaction, which can decrease plant growth in those areas, decrease abundance and diversity of soil invertebrates, and prevent fossorial snakes or mammals from using the area. Irrigation requires a system of pumps and water, resulting in physical disturbance; repeated irrigation from the same locations could result in some soil compaction, which can decrease plant growth in those areas, decrease abundance and diversity of soil invertebrates, and prevent fossorial snakes or mammals from using the area. These effects will be higher in the EU itself.

Cultural Resources

Potential direct effects are possible from personnel, car, pick-up, truck and heavy equipment traffic/use through both target (remediation) and non-target areas during active cleanup. These activities may inadvertently expose resources close to the surface. Additionally, traffic through these areas may lead to the introduction of invasive species and/or a decrease in the presence of native plants used for medicinal or tribal religious purposes. Heavy equipment use for remedial activities (such as the excavation, treatment and disposal of waste) may lead to an alteration of the landscape, and the act of soil removal may destroy resources; if resources are not destroyed, then, soil removal may disturb or adversely affect resources. Utilization of caps and/or other containments may destroy resources located close to the surface. If resources are not destroyed, containments may disturb or adversely affect resources. Lastly, during remediation, radionuclides or other contamination released or spilled on the surface could have long-term effects if the contamination remains and resources become contaminated and/or plants having cultural importance to Tribes do no recolonize or thrive.

Potential indirect effects are possible from personnel traffic through target (remediation) areas as well as car, pick-up, truck and heavy equipment traffic/use through both target (remediation) and non-target areas. It is possible that these activities may decrease viewshed values and/or impact viewshed through the introduction of increased dust, the creation of trails, etc. Heavy equipment use for remedial actions/soil removal and the utilization of caps and/or other containments could potentially cause alterations to the landscape and impacts to viewsheds. Lastly, during remediation, radionuclides or other contamination released or spilled on the surface could have long-term effects if the contamination remains and resources become contaminated and/or plants having cultural importance to Tribes do no recolonize or thrive.

ADDITIONAL RISKS AND POTENTIAL IMPACTS IF CLEANUP IS DELAYED

Insufficient documentation to answer

NEAR-TERM, POST-CLEANUP STATUS, RISKS AND POTENTIAL IMPACTS

Insufficient documentation to answer

POPULATIONS AND RESOURCES AT RISK OR POTENTIALLY IMPACTED AFTER CLEANUP ACTIONS (FROM RESIDUAL CONTAMINANT INVENTORY OR LONG-TERM ACTIVITIES)

Table G.7.2-8. Summary of Populations and Resources at Risk or Potentially Impacted after Cleanup.

Population or Resource		Risk/Impact Rating	Comments
Human	Facility Worker	IS	
	Co-located Person	IS	
	Public	IS	
Environmental	Groundwater (A&B) from vadose zone[a]	*Very High* – Cr-VI *High* – Cr(tot) *Low* – (C-14, I-129, Tc-99, U(tot)[c] & Sr-90[c]) **Overall**: *Very High*	*Current* GTM values for Group A&B primary contaminants (Table G.7.2-8): *Very High* (Cr-VI), *High* (Cr-tot), *Low* (C-14, I-129, Tc-99), and *ND* (Sr-90 and U(tot)). Sr-90 and U(tot) not likely to impact groundwater (**Part V**) and given *Low* ratings here to address uncertainties. No treatment in 200 East thus no changes to ratings. Also predicted impact from changes in recharge rates not taken into account to address uncertainties.
	Columbia River from vadose zone[a]	Benthic: *Not Discernible* (*ND*) Riparian: *ND* Free-flowing: *ND* **Overall**: *ND*	TC&WM EIS screening results indicate that exposure to radioactive and chemical contaminants from peak groundwater discharge below benchmarks for both benthic and riparian receptors (**Part V**). Dilution factor of greater than 100 million between Columbia River and upwellings.
	Ecological Resources[b]	ND to Low	Post-cleanup monitoring might pose a risk to level 3 and above resources in the buffer area. Possible disruption of Piper's daisy.
Social	Cultural Resources[b]	**Native American** Direct: Unknown Indirect: Known **Historic Pre-Hanford** Direct: Unknown Indirect: Known **Manhattan/Cold War** Direct: None Indirect: Known	Permanent indirect effects are possible if residual contamination remains after remediation. Permanent indirect effects to viewshed are possible from capping and from residual contamination that may remain. National Register eligible Manhattan Project/Cold War Era buildings will be demolished.

a. Threat to groundwater or Columbia River for Group A and B contaminants remaining in the vadose zone. Threats from existing plumes associated with the CP-LS-14 EU are described in **Part V** with more detailed evaluation in Appendix G.5 (CP-GW-1).

b. For both Ecological and Cultural Resources see Appendices J and K, respectively, for a complete description of Ecological Field Assessments and literature review for Cultural Resources. Ecological ratings are described in Table 4-11 of the Final Report.

LONG-TERM, POST-CLEANUP STATUS – INVENTORIES AND RISKS AND POTENTIAL IMPACT PATHWAYS

Insufficient documentation to answer

PART VII. SUPPLEMENTAL INFORMATION AND CONSIDERATIONS

Table G.7.2-9. Waste Sites and Facility List for CL-LS-14 (200E Burial Grounds)

Site Code	Name, Aliases, Description	Feature Type	Site Status	ERS Classification	ERS Reclassification	Site Type	Site Type Category	Operable Unit	Exclude from Evaluation	Comments
218-C-9	218-C-9; 218-C-9 Burial Ground; 218EC9; Dry Waste No.0C9	Waste Site	Inactive	Accepted	None	Burial Ground	Burial Ground	200-SW-2		
218-E-1	218-E-1; 200 East Dry Waste No. 001	Waste Site	Inactive	Accepted	None	Burial Ground	Burial Ground	200-SW-2		
218-E-10	218-E-10; Equipment Burial Ground #10; 200 East Industrial Waste No. 10	Waste Site	Active	Accepted	None	Burial Ground	Burial Ground	200-SW-2		
218-E-12A	218-E-12A; 200 East Dry Waste No. 12A	Waste Site	Inactive	Accepted	None	Burial Ground	Burial Ground	200-SW-2		
218-E-12B	218-E-12B; 218-E-12B Burial Ground; 200 East Dry Waste No. 12B	Waste Site	Inactive	Accepted	None	Burial Ground	Burial Ground	200-SW-2		
218-E-2	218-E-2; Equipment Burial Ground #2; 200 East Industrial Waste No. 002	Waste Site	Inactive	Accepted	None	Burial Ground	Burial Ground	200-SW-2		
218-E-2A	218-E-2A; Burial Trench; Regulated Equipment Storage Site No. 02A	Waste Site	Inactive	Accepted	None	Burial Ground	Burial Ground	200-SW-2		
218-E-4	218-E-4; Equipment Burial Ground #4; 200 East Minor Construction No. 4	Waste Site	Inactive	Accepted	None	Burial Ground	Burial Ground	200-SW-2		
218-E-5	218-E-5; Equipment Burial Ground #5; 200 East Industrial Waste No. 05	Waste Site	Inactive	Accepted	None	Burial Ground	Burial Ground	200-SW-2		
218-E-5A	218-E-5A; Equipment Burial Ground #5A; 200 East Industrial Waste No. 005A	Waste Site	Inactive	Accepted	None	Burial Ground	Burial Ground	200-SW-2		

218-E-8	218-E-8; 200 East Construction Burial Grounds	Waste Site	Inactive	Accepted	None	Burial Ground	Burial Ground	200-SW-2		
218-E-9	218-E-9; Burial Vault (HISS); 200 East Regulated Equipment Storage Site No. 009	Waste Site	Inactive	Accepted	None	Burial Ground	Burial Ground	200-SW-2		
291-C-1	291-C-1; 291-C-1 Stack; 291-C Stack Burial Trench	Waste Site	Inactive	Accepted	None	Burial Ground	Burial Ground	200-EA-1		
200-E-133	200-E-133; Contaminated Soil at 241-C Tank Farm; Contamination Migration Beyond the fence at C Farm	Waste Site	Inactive	Accepted	None	Contamination Migration	Unplanned Release - Surface/Near Surface	WMA C		
216-C-1	216-C-1; 216-C-1 Crib; 216-C Crib	Waste Site	Inactive	Accepted	None	Crib	Crib - Subsurface Liquid Disposal Site	200-EA-1		
216-C-10	216-C-10; 216-C-10 Crib	Waste Site	Inactive	Accepted	None	Crib	Crib - Subsurface Liquid Disposal Site	200-EA-1		
216-C-3	216-C-3; 216-C-3 Crib; 201-C Leaching Pit	Waste Site	Inactive	Accepted	None	Crib	Crib - Subsurface Liquid Disposal Site	200-EA-1		
216-C-4	216-C-4; 216-C-4 Crib	Waste Site	Inactive	Accepted	None	Crib	Crib - Subsurface Liquid Disposal Site	200-EA-1		
216-C-5	216-C-5; 216-C-5 Crib	Waste Site	Inactive	Accepted	None	Crib	Crib - Subsurface Liquid Disposal Site	200-EA-1		
216-C-6	216-C-6; 241-CX Crib	Waste Site	Inactive	Accepted	None	Crib	Crib - Subsurface Liquid Disposal Site	200-EA-1		
216-C-7	216-C-7; 216-C-7 Crib	Waste Site	Inactive	Accepted	None	Crib	Crib - Subsurface Liquid Disposal Site	200-EA-1		
200-E-116-PL	200-E-116-PL; Direct Buried Pipelines V111/V210/V130, 8902; Pipelines from 241-B-154 Diversion Box to 241-C-151 and 241-C-152 Diversion Boxes	Waste Site	Inactive	Accepted	None	Direct Buried Tank Farm Pipeline	Pipeline and associated valves, etc.	TBD_200-IS-1		

216-B-2-1	216-B-2-1; 216-B-2W; B Ditch; B Swamp Ditch; 216-B-1; 216-B-2	Waste Site	Inactive	Accepted	None	Ditch	Pond/Ditch – Surface Liquid Disposal Site	200-EA-1		
200-E-301	200-E-301; 2701EC; 2701-EC Guard House Potential Asbestos in Soil	Waste Site	Inactive	Accepted	None	Dumping Area	Burial Ground	TBD		
200-E-217-PL	200-E-217-PL; Encased Transfer Line from 241-ER-151 Diversion Box to 241-BX Tank Farm; Lines 9808, 9653, 9719 and V225	Waste Site	Inactive	Accepted	None	Encased Tank Farm Pipeline	Pipeline and associated valves, etc.	TBD_200-IS-1		
200-E-293	200-E-293; 2718-E Contaminated Concrete Slab; 2718-E Foundation	Waste Site	Inactive	Accepted	None	Foundation	Burial Ground	TBD		
200-E-294	200-E-294; 209-E Slab; Demolished 209-E Critical Mass Laboratory Building Foundation; Potential Asbestos in Soil	Waste Site	Inactive	Accepted	None	Foundation	Burial Ground	TBD		
200-E-4	200-E-4; 209-E North Dry Well; Critical Mass Laboratory Dry Well North; Miscellaneous Stream #730	Waste Site	Inactive	Accepted	None	French Drain	Crib - Subsurface Liquid Disposal Site	200-EA-1		
209-E-WS-2	209-E-WS-2; Critical Mass Lab French Drain	Waste Site	Inactive	Accepted	None	French Drain	Crib - Subsurface Liquid Disposal Site	200-EA-1		
2704-C-WS-1	2704-C-WS-1; Gatehouse French Drain; 2704-C French Drain	Waste Site	Inactive	Accepted	None	French Drain	Crib - Subsurface Liquid Disposal Site	200-EA-1		
216-C-2	216-C-2; 216-C-2 Dry Well; 216-C-2 Reverse Well; 291-C Dry Well	Waste Site	Inactive	Accepted	None	Injection/Reverse Well	Crib - Subsurface Liquid Disposal Site	200-EA-1		
216-C-9	216-C-9; 216-C-9 C Canyon Excavation Semiworks Swamp; 216-C-9 Pond; 216-C-9 Swamp; Former 221-C Canyon Excavation; Semi-	Waste Site	Inactive	Accepted	None	Pond	Pond/Ditch – Surface Liquid Disposal Site	200-SW-2		

	Works Swamp; 216-C-7 Swamp									
201-C	201-C; 201-C Process Building	Waste Site	Inactive	Accepted	None	Process Unit/Plant	Process Building	TBD		
291-C	291-C; 291-C Fan and Filter Building; 291-C Filter/Fan House; 201-C Air Tunnel	Waste Site	Inactive	Accepted	None	Process Unit/Plant	Process Building	TBD		
200-E-114-PL	200-E-114-PL; 216-BC-2805; 2805-E1, 2805-E2, 2805-E3 and 2805-E4; Pipeline from 216-BY-201 to 216-BC-201; Pipeline from 241-BY Tank Farm to 241-C Tank Farm and BC Cribs Trenches	Waste Site	Inactive	Accepted	None	Radioactive Process Sewer	Pipeline and associated valves, etc.	200-IS-1		
200-E-126-PL-B	200-E-126-PL-B; Segments of 200-E-126-PL Pipeline Located in the Inner Area	Waste Site	Inactive	Accepted	None	Radioactive Process Sewer	Pipeline and associated valves, etc.	TBD_200-IS-1		
200-E-250-PL	200-E-250-PL; Pipeline from 2704-C to 2704-C-WS-1 Quench Tank	Waste Site	Inactive	Accepted	None	Radioactive Process Sewer	Pipeline and associated valves, etc.	TBD_200-IS-1		
200-E-251-PL	200-E-251-PL; Pipeline from 291-C Stack to 216-C-2 Reverse Well	Waste Site	Inactive	Accepted	None	Radioactive Process Sewer	Pipeline and associated valves, etc.	TBD_200-IS-1		
200-E-252-PL	200-E-252-PL; Pipeline from 291-C Air Filter Building to 216-C-2 Reverse Well	Waste Site	Inactive	Accepted	None	Radioactive Process Sewer	Pipeline and associated valves, etc.	TBD_200-IS-1		
200-E-255-PL	200-E-255-PL; Pipeline Connecting 216-C-9 Pond to Pipeline 200-E-169- PL	Waste Site	Inactive	Accepted	None	Radioactive Process Sewer	Pipeline and associated valves, etc.	TBD_200-IS-1		
200-E-258-PL	200-E-258-PL; 216-C-9 Pond Lobe Distribution Piping	Waste Site	Inactive	Accepted	None	Radioactive Process Sewer	Pipeline and associated valves, etc.	TBD_200-IS-1		

200-E-259-PL	200-E-259-PL; Pipeline from 291-C Fan House to 216-C-9 Pond	Waste Site	Inactive	Accepted	None	Radioactive Process Sewer	Pipeline and associated valves, etc.	TBD_200-IS-1		
200-E-41	200-E-41; Stabilized Hot Semiworks Area; Strontium Semi-Works Stabilized Area; UN-216-E-38	Waste Site	Inactive	Accepted	None	Unplanned Release	Unplanned Release - Surface/Near Surface	TBD		
200-E-56	200-E-56; 241-C Waste Line Leak Adjacent to 201-C; Waste Line Leak #1	Waste Site	Inactive	Accepted	None	Unplanned Release	Unplanned Release - Subsurface	200-EA-1		
200-E-57	200-E-57; 241-C Waste Line Leak East of 201-C; Waste Line Leak #2	Waste Site	Inactive	Accepted	None	Unplanned Release	Unplanned Release - Subsurface	200-EA-1		
UPR-200-E-11	UPR-200-E-11; Railroad Track Contamination Spread; UN-200-E-11	Waste Site	Inactive	Accepted	None	Unplanned Release	Unplanned Release - Surface/Near Surface	200-OA-1		
UPR-200-E-112	UPR-200-E-112; Contaminated Railroad Track from B-Plant to the Burial Ground; UN-200-E-112	Waste Site	Inactive	Accepted	None	Unplanned Release	Unplanned Release - Surface/Near Surface	200-EA-1		
UPR-200-E-23	UPR-200-E-23; UPR-200-W-158; Burial Box Collapse at 218-E-10	Waste Site	Inactive	Accepted	Consolidated	Unplanned Release	Unplanned Release - Surface/Near Surface	Not Applicable		
UPR-200-E-24	UPR-200-E-24; Contamination Plume from the 218-E-10 Burial Ground; UN-200-E-24	Waste Site	Inactive	Accepted	Consolidated	Unplanned Release	Unplanned Release - Surface/Near Surface	Not Applicable		
UPR-200-E-30	UPR-200-E-30; Contamination Within 218-E-10; UN-200-E-30	Waste Site	Inactive	Accepted	Consolidated	Unplanned Release	Unplanned Release - Surface/Near Surface	Not Applicable		
UPR-200-E-36	UPR-200-E-36; Contamination Spread North of Semi-Works; Road Contamination North of Semiworks; UN-200-E-36	Waste Site	Inactive	Accepted	Consolidated	Unplanned Release	Unplanned Release - Surface/Near Surface	Not Applicable		
UPR-200-E-37	UPR-200-E-37; Contamination East of Hot Semi-Works; UN-	Waste Site	Inactive	Accepted	None	Unplanned Release	Unplanned Release - Surface/Near Surface	200-EA-1		

	200-E-37; UN-216-E-37; UN-216-E-39									
UPR-200-E-53	UPR-200-E-53; Contamination at 218-E-1; UN-200-E-53	Waste Site	Inactive	Accepted	Consolidated	Unplanned Release	Unplanned Release - Surface/Near Surface	Not Applicable		
UPR-200-E-62	UPR-200-E-62; Transportation Spill Near 200-E Burning Ground; UN-200- E-62; UN-216-E-62	Waste Site	Inactive	Accepted	None	Unplanned Release	Unplanned Release - Surface/Near Surface	200-EA-1		
UPR-200-E-95	UPR-200-E-95; Ground Contamination Around RR Spur Between 218-E- 2A and 218-E-2; UN-200-E-95; UN-216-E-23	Waste Site	Inactive	Accepted	None	Unplanned Release	Unplanned Release - Surface/Near Surface	200-EA-1		
UPR-200-E-98	UPR-200-E-98; Ground Contamination East of C Plant (Hot Semi Works); UN-200-E-98; UN-216-E-26	Waste Site	Inactive	Accepted	None	Unplanned Release	Unplanned Release - Surface/Near Surface	200-EA-1		
209-E-WS-3	209-E-WS-3; Critical Mass Laboratory Valve Pit and Hold Up Tank (209-E- TK-111); IMUST; Inactive Miscellaneous Underground Storage Tank	Waste Site	Inactive	Accepted	None	Valve Pit	Pipeline and associated valves, etc.	200-EA-1		
HSVP	HSVP; Semiworks Valve Pit; 201-C Diversion Box; 201-C Valve Box; Hot Semiworks Valve Pit	Waste Site	Inactive	Accepted	None	Valve Pit	Pipeline and associated valves, etc.	200-IS-1		
218-E-1	218-E-1; 200 East Dry Waste No. 001	Waste Site	Inactive	Accepted	None	Burial Ground	Burial Ground	200-SW-2	X	Duplicative
218-E-12B ANNEX	218-E-12B ANNEX; 218-E-12B Western Portion West of Trench 37; Unused Portion of 218-W-12B	Waste Site	Inactive	Not Accepted	None	Burial Ground	Burial Ground	Not Applicable	X	Not Accepted

200-E-149-PL	200-E-149-PL; Direct Buried Transfer Line from 241-C-252 to 201-C Hot Semi Works; Tank Farm Pipeline; Tank Farm Transfer Line V175	Waste Site	Inactive	Accepted	None	Direct Buried Tank Farm Pipeline	Pipeline and associated valves, etc.	TBD_200-IS-1	X	Included in C Tank Farm Eval.
200-E-150-PL	200-E-150-PL; Direct Buried Transfer Line from 244-CR-TK-003 to 201-C Hot Semi Works Valve Box; Tank Farm Pipeline; Tank Farm Transfer Line 8900	Waste Site	Inactive	Accepted	None	Direct Buried Tank Farm Pipeline	Pipeline and associated valves, etc.	TBD_200-IS-1	X	Included in C Tank Farm Eval.
200-E-226-PL	200-E-226-PL; Promethium Transfer Line; Transfer Line from 221-B to 241-C-154; V743	Waste Site	Inactive	Accepted	None	Direct Buried Tank Farm Pipeline	Pipeline and associated valves, etc.	TBD_200-IS-1	X	Included in 200 Area HLW Transfer Line
241-C-154	241-C-154; 241-C-154 Diversion Box	Waste Site	Inactive	Accepted	None	Diversion Box	Pipeline and associated valves, etc.	200-IS-1	X	Included in 200 Area HLW Transfer Line
200-E-111-PL	200-E-111-PL; 3-38 Encasement; Encased Pipeline from 241-ER-151 Diversion Box and 221-B to 241-C Tank Farm and 244-AR Vault; Lines V108/V837/8618/8653/8901 PAS, 809, 818, V836 and V834	Waste Site	Inactive	Accepted	None	Encased Tank Farm Pipeline	Pipeline and associated valves, etc.	TBD_200-IS-1	X	Included in C Tank Farm Eval.
200-E-145-PL	200-E-145-PL; Interplant Transfer Line; Tank Farm Transfer Line V228; Transfer Pipeline from 241-ER-151 to 241-CR-153	Waste Site	Inactive	Accepted	None	Encased Tank Farm Pipeline	Pipeline and associated valves, etc.	TBD_200-IS-1	X	Included in C Tank Farm Eval.
200-E-147-PL	200-E-147-PL; Interplant Transfer Line; Tank Farm Transfer Line PAS- 244;	Waste Site	Inactive	Accepted	None	Encased Tank Farm Pipeline	Pipeline and associated valves, etc.	TBD_200-IS-1	X	Included in C Tank Farm Eval.

	Transfer Line from 244-CR-TK-003 to 241-ER-153									
200-E-244-PL	200-E-244-PL; Pipeline from 201-C Valve Pit to 241-CX-70	Waste Site	Inactive	Accepted	None	Encased Transfer Piping	Pipeline and associated valves, etc.	TBD_200-IS-1	X	Included in 200 Area HLW Transfer Line
209-E-WS-1	209-E-WS-1; 209-E French Drain	Waste Site	Inactive	Accepted	Rejected	French Drain	Crib - Subsurface Liquid Disposal Site	Not Applicable	X	Rejected
2718-E-WS-1	2718-E-WS-1; 2718 French Drains	Waste Site	Active	Accepted	Rejected	French Drain	Crib - Subsurface Liquid Disposal Site	Not Applicable	X	Rejected
241-CX-71	241-CX-71; 241-CX-TK-71; IMUST; Inactive Miscellaneous Underground Storage Tank; Strontium Hot Semi-Works; 241-CX Neutralization Tank	Waste Site	Inactive	Accepted	None	Neutralization Tank	Underground Storage Tank	200-IS-1	X	Included in 200 Area HLW Transfer Line
200-E-249-PL	200-E-249-PL; Pipelines from 209-E to 200-E-4 French Drain	Waste Site	Inactive	Accepted	None	Process Sewer	Pipeline and associated valves, etc.	TBD_200-IS-1	X	Included in 200 Area HLW Transfer Line
600-291-PL	600-291-PL; LERF Line; TEDF Line; 200 Area Treated Effluent Disposal Facility Pipeline	Waste Site	Active	Accepted	None	Process Sewer	Pipeline and associated valves, etc.	Not Applicable	X	Included in TEDF Eval.
215-C	215-C; 215-C Gas Preparation Building	Waste Site	Inactive	Not Accepted	None	Process Unit/Plant	Process Building	Not Applicable	X	Not Accepted
200-E-156-PL	200-E-156-PL; 216-C-1 Pipelines; Pipelines from 201-C to 216-C-1	Waste Site	Inactive	Accepted	None	Radioactive Process Sewer	Pipeline and associated valves, etc.	TBD_200-IS-1	X	Included in 200 Area HLW Transfer Line
200-E-157-PL		Waste Site	Inactive	Accepted	None	Radioactive Process Sewer	Pipeline and associated valves, etc.	TBD_200-IS-1	X	Included in 200 Area HLW

	200-E-157-PL; 216-C-10 Pipeline; Pipeline from 201-C to 216-C-10 Crib									Transfer Line
200-E-169-PL	200-E-169-PL; Pipeline from 201-C and 215-C to the 216-C-3 Crib	Waste Site	Inactive	Accepted	None	Radioactive Process Sewer	Pipeline and associated valves, etc.	TBD_200-IS-1	X	Included in 200 Area HLW Transfer Line
200-E-170-PL	200-E-170-PL; Pipeline from 276-C to 216-C-4 Crib	Waste Site	Inactive	Accepted	None	Radioactive Process Sewer	Pipeline and associated valves, etc.	TBD_200-IS-1	X	Included in 200 Area HLW Transfer Line
200-E-171-PL	200-E-171-PL; Pipeline from 201-C and 241-CX Vault to the 216-C-6 Crib	Waste Site	Inactive	Accepted	None	Radioactive Process Sewer	Pipeline and associated valves, etc.	TBD_200-IS-1	X	Included in 200 Area HLW Transfer Line
200-E-172-PL	200-E-172-PL; Pipeline from 209-E to the 216-C-7 Crib	Waste Site	Inactive	Accepted	None	Radioactive Process Sewer	Pipeline and associated valves, etc.	TBD_200-IS-1	X	Included in 200 Area HLW Transfer Line
200-E-173-PL	200-E-173-PL; Pipeline from 241-CX-71 to 216-C-5 Crib	Waste Site	Inactive	Accepted	None	Radioactive Process Sewer	Pipeline and associated valves, etc.	TBD_200-IS-1	X	Included in 200 Area HLW Transfer Line
200-E-245-PL	200-E-245-PL; Pipeline from 201-C Hot Shop to 241-CX-71	Waste Site	Inactive	Accepted	None	Radioactive Process Sewer	Pipeline and associated valves, etc.	TBD_200-IS-1	X	Included in 200 Area HLW Transfer Line
200-E-246-PL	200-E-246-PL; Pipeline from 201-C Valve Pit to 241-CX-72	Waste Site	Inactive	Accepted	None	Radioactive Process Sewer	Pipeline and associated valves, etc.	TBD_200-IS-1	X	Included in 200 Area HLW

										Transfer Line
200-E-247-PL	200-E-247-PL; Pipelines from 209-E to the 209-E-WS-2 French Drain	Waste Site	Inactive	Accepted	None	Radioactive Process Sewer	Pipeline and associated valves, etc.	TBD_200-IS-1	X	Included in 200 Area HLW Transfer Line
200-E-248-PL	200-E-248-PL; Pipelines form 209-E to the 209-E-WS-3 Valve Pit	Waste Site	Inactive	Accepted	None	Radioactive Process Sewer	Pipeline and associated valves, etc.	TBD_200-IS-1	X	Included in 200 Area HLW Transfer Line
200-E-254-PL	200-E-254-PL; Pipeline from 209-E to 216-C-9 Pond	Waste Site	Inactive	Accepted	None	Radioactive Process Sewer	Pipeline and associated valves, etc.	TBD_200-IS-1	X	Included in 200 Area HLW Transfer Line
200-E-256-PL	200-E-256-PL; Pipelines from 201-C (South Side) to 216-C-9 Pond	Waste Site	Inactive	Accepted	None	Radioactive Process Sewer	Pipeline and associated valves, etc.	TBD	X	Included in 200 Area HLW Transfer Line
200-E-257-PL	200-E-257-PL; Pipeline from 201-C (East Side) to 216-C-9 Pond	Waste Site	Inactive	Accepted	None	Radioactive Process Sewer	Pipeline and associated valves, etc.	TBD_200-IS-1	X	Included in 200 Area HLW Transfer Line
2607-E5	2607-E5; 276-C, 209-E and 2718-E Septic Tank; 209-E Septic Tank	Waste Site	Inactive	Accepted	None	Septic Tank	Septic System	200-EA-1	X	Septic System
2607-E7A	2607-E7A; 2607-E7	Waste Site	Inactive	Accepted	None	Septic Tank	Septic System	200-EA-1	X	Septic System
2607-E7B	2607-E7B; 2607-E7B Septic System; 2607-E7	Waste Site	Inactive	Accepted	None	Septic Tank	Septic System	200-EA-1	X	Septic System

200-E-35	200-E-35; 209-E 90-Day Waste Accumulation Area; 209-EA	Waste Site	Inactive	Accepted	Rejected	Storage Pad (<90 day)	Storage Pad	Not Applicable	X	Rejected
241-CX-70	241-CX-70; 241-CX-TK-70 Tank; IMUST; Inactive Miscellaneous Underground Storage Tank; Strontium Hot Semi-Works	Waste Site	Inactive	Accepted	None	Storage Tank	Underground Storage Tank	200-IS-1	X	Included in 200 Area HLW Transfer Line
241-CX-72	241-CX-72; 241-CX-72 Waste Self Concentrator; 241-CX-TK-72 Vault and Tank; IMUST; Inactive Miscellaneous Underground Storage Tank; Strontium Hot Semi-Works	Waste Site	Inactive	Accepted	None	Storage Tank	Underground Storage Tank	200-IS-1	X	Included in 200 Area HLW Transfer Line
UPR-200-E-141	UPR-200-E-141; 2718-E Building Uranyl Nitrate Spill to Ground; UN-200- E-141	Waste Site	Inactive	Not Accepted	None	Unplanned Release	Unplanned Release - Surface/Near Surface	Not Applicable	X	Not Accepted
UPR-200-E-58	UPR-200-E-58; Contaminated Tumbleweeds Found on Dirt Road; UN- 200-E-58	Waste Site	Inactive	Accepted	Rejected	Unplanned Release	Unplanned Release - Surface/Near Surface	Not Applicable	X	Rejected
UPR-200-E-61	UPR-200-E-61; Radioactive Contamination from Railroad Burial Cars; UN-200-E-61; UN-216-E-61	Waste Site	Inactive	Not Accepted	None	Unplanned Release	Unplanned Release - Surface/Near Surface	Not Applicable	X	Not Accepted
2107	218-E-12B DRUM VENT SYSTEM	Facility	ACTIVE			BUILDING	Process Building			
241CX40	GROUT REMOVAL TANK BUILDING	Facility	INACTIVE			BUILDING	Infrastructure Building			
276C	SOLVENT HANDLING BUILDING	Facility	INACTIVE			BUILDING	Process Building			
277E	LOCKER ROOM N OF 209E OFF OF 7TH ST	Facility	ACTIVE			BUILDING	Infrastructure Building			
2202E	WEATHER ENCLOSURE FOR WASTE RETRIEVAL	Facility	ACTIVE			STRUCTURE	Infrastructure Building			
223E	105A MOCK TANK	Facility	ACTIVE			STRUCTURE	Field Test Site			

241CXV	SELF CONCENTRATOR VAULT	Facility	INACTIVE			STRUCTURE	Pipeline and associated valves, etc.			
CC2W0251	ANTECH MOBILE ASSAY LAB NEXT TO MO248	Facility	ACTIVE			STRUCTURE	Infrastructure Building			
215C	GAS PREPARATION BUILDING	Facility	INACTIVE			BUILDING	Process Building		X	Duplicative
MO2237	CREW TRAILER AT 12B BURIAL GROUNDS	Facility	ACTIVE			BUILDING	Infrastructure Building		X	Mobile Office
MO2248	OFFICE TRAILER NE OF 105KW	Facility	ACTIVE			BUILDING	Infrastructure Building		X	Mobile Office
MO2339	REMOVED FROM SITE -- RESTROOM TRAILER AT 209E	Facility	REMOVE D			BUILDING	Infrastructure Building		X	Mobile Office
MO247	MOBILE OFFICE SOUTH OF 12B BURIAL GROUND	Facility	ACTIVE			BUILDING	Infrastructure Building		X	Mobile Office
MO248	MOBILE OFFICE SOUTH OF 12B BURIAL GROUND	Facility	ACTIVE			BUILDING	Infrastructure Building		X	Mobile Office
MO576	MOBILE OFFICE AT 12-B BURIAL GROUND	Facility	ACTIVE			BUILDING	Infrastructure Building		X	Mobile Office
241C154	DIVERSION BOX NEAR HOT SEMI-WORKS	Facility	INACTIVE			STRUCTURE	Pipeline and associated valves, etc.		X	Duplicative
241CX70	MIXED WASTE STORAGE TANK	Facility	INACTIVE			TANK	Underground Storage Tank		X	Duplicative
241CX71	ACIDIC WASTE NEUTRALIZATION TANK	Facility	INACTIVE			TANK	Underground Storage Tank		X	Duplicative
241CX72	WASTE SELF CONCENTRATOR UNDERGROUND TANK	Facility	INACTIVE			TANK	Underground Storage Tank		X	Duplicative

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