NEPA REVIEW SCREENING FORM (NRSF) 3
Categorically Excluded Actions

Document ID #: DOE/CX-00222

I. Project Title:

Activity Specific Categorical Exclusion for Decommissioning of Seven Underground Injection Control Wells near the 100-IU-2 Operable Unit in the 100 Area of the Hanford Site

II. Describe the proposed action, including location, time period over which proposed action will occur, project dimension *(e.g., acres displaced/disturbed, excavation length/depth)*, and area/location/number of buildings. Attach narratives, maps and drawings of proposed action. Describe existing environmental conditions and potential for environmental impacts from the proposed action. If the proposed action is not a project, describe the action or plan.

The Department of Energy (DOE), Richland Operations Office (RL), Site Stewardship Division (SSD) proposes to decommission seven Underground Injection Control (UIC) wells (6-U-36, 6-U-37, 6-U-38, 6-U-39, 6-U-40, 6-U-41, and 6-U-62) located in the 100 Area of the Hanford Site near the 100-IU-2 Operable Unit (see Figures 1 through 5). The UIC wells provided non-hazardous steam condensate disposal by infiltration into the underlying soil. The UIC wells would be decommissioned in accordance with Washington Administrative Code (WAC) 173-218, "Underground Injection Control Program" and WAC 173-218-120, "Decommissioning of UIC Wells." The most common type of UIC well used at the Hanford Site is the Class V well, which is a shallow disposal structure such as a drywell, drain field, or French drain (WAC 173-218-040). The seven UIC wells proposed for decommissioning are drywells.

The U.S. Environmental Protection Agency (EPA) UIC Program, which is authorized by the "Safe Drinking Water Act," is administered under Title 40, Part 144, of the Code of Federal Regulations (40 CFR 144), "Underground Injection Control Program." The EPA UIC Program protects underground sources of drinking water from contamination by regulating construction, operation, maintenance, and decommissioning of UIC wells. In 1984, the EPA delegated to the State of Washington Department of Ecology (Ecology) the authority to administer the UIC program in Washington State. Under this program, the UIC wells must be decommissioned in a regulatory compliant manner or operate under a permit issued by Ecology if they remain open. The seven UIC wells are inactive and have no foreseeable future use.

The UIC wells are buried vertical clay tile or concrete pipes filled with gravel. The upper 4-feet of soil around each UIC well would be removed using a soil vacuum device or other excavation equipment. Once exposed, the upper 3-feet of the UIC well casing would be removed and the remaining casing would be filled with cement or other suitable sealing material (bentonite clay). In accordance with WAC 173-218-120(3)(b), each excavation would be backfilled to grade with material that is uncontaminated, chemically and biologically inert, drains equal to or more slowly than surrounding soil, or other structurally sound material common with current engineering practices. The excavation for each UIC well would be approximately 6-feet long, 6-feet wide, and 4-feet deep. If additional backfill material is required, it would be obtained from one of the active borrow areas analyzed in DOE/EA-1934, "Final Environmental Assessment for Expansion of Borrow Areas on the Hanford Site" and "Finding of No Significant Impact" (FONSI), which was signed on August 15, 2013.

Potholing with a soil vacuum device or other excavation equipment at UIC wells 6-U-36 and 6-U-39 may be necessary if geophysical survey results do not verify the location of these wells. If a UIC well cannot be located within an approximate 6-feet radius of its surveyed and recorded location, then the well would be determined to no longer exist.

Backfill material would be contoured to blend with the surrounding terrain and revegetated in accordance with DOE/RL-2011-116, "Hanford Site Revegetation Manual." Any UIC well found to be in contact with the groundwater (even if only during periods of seasonal high groundwater) would be decommissioned in accordance with WAC 173-160, "Minimum Standards for Construction and Maintenance of Wells." DOE-RL/SSD would submit to Ecology an update on the UIC wells decommissioned in accordance with WAC 173-218-120(4)(c).

Access to the project areas would be through existing roads and other previously disturbed areas. Asphalt roads are not maintained and may have vegetation growing in pavement cracks. Vegetation would be removed from asphalt roads using mechanical methods such as mowing or weed whacking. Vegetation removal in off-road areas would use similar mechanical methods to provide equipment access to the UIC wells, as needed. Staging and stockpiling of materials and equipment would be in previously disturbed areas adjacent to each UIC well (asphalt roads, dirt and gravel areas).

ECOLOGICAL RESOURCES REVIEW (ECR-2022-636). DOE-RL Ecological Compliance performed a field survey of the project area on July 18, 2022. The Hanford Site Biological Resources Management Plan (BRMP, DOE/RL-96-32, Rev. 2) ranks wildlife species and habitats based on the level of concern for each resource (Levels 0 through 5). BRMP Level 0 and 1 habitats are of little to no ecological value and no compensatory mitigation is required. BRMP Level 2, 3, and 4 habitats require compensatory mitigation if the total project impact after avoidance, minimization, and onsite rectification is greater than 1.2 acres. Habitat replacement ratios for BRMP Level 2, 3, and 4 habitats are 1:1, 3:1, and 5:1, respectively. BRMP Level 5 resources are irreplaceable if lost and compensatory mitigation is determined on a case-by-case basis. The following summarizes ecological resource observations in the proposed project areas and associated mitigation measures.

ACCESS ROADS. Project area access roads have vegetation growing in dirt-filled cracks in the asphalt pavement. A mix of native and non-native grasses were observed. State-listed Class B noxious weeds were observed on access roads near UIC wells 6-U-38 and 6-U-39. To prevent the spread of weed seeds, project vehicles and equipment used on-road or off-road in areas containing noxious weeds would be washed with cold, low-pressure water over areas of little to no ecological value (cheatgrass, asphalt, gravel, or dirt surfaces) prior to leaving the area. Soap, detergents, or cleaners would not be used and compressed air may be used in lieu of water.

WELL SITES. Vegetation surrounding the UIC wells and other off-road project areas is dominated by a native shrub overstory with an understory dominated by native and nonnative grasses and some remnant landscape plants. Wildlife observed in the project areas included several species of birds and reptiles.

The vegetative communities in the project areas are predominantly BRMP Level 2 habitats and would require replacement at a 1:1 ratio for impacts exceeding 1.2 acres; however, off-road ground disturbances are only estimated to be 0.37 acres. Nevertheless, all ground disturbances in areas that are not needed for continued project use, access, or safety considerations would be replanted using locally derived, native plant species in accordance with the "Hanford Site Revegetation Manual" (DOE-RL-2011-116, Rev 2), which provides guidance regarding species mix, planting rates, and planting methods.

Birds may nest within the project area on the ground, on buildings, or on equipment and the nesting season is typically from mid-March to mid-July. Project personnel would be instructed by DOE-RL Ecological Compliance to watch for nesting birds. If any nesting birds are encountered or suspected, or bird defensive behaviors are observed within the project areas, project personnel would contact DOE-RL Ecological Compliance to evaluate the situation. A nesting bird survey would be performed prior to conducting ground disturbing activities during the nesting season. Project personnel would contact DOE-RL Ecological Compliance and schedule a nesting bird survey at least one week prior to initiation of ground disturbing activities.

No adverse impacts are anticipated from proposed project activities. The ecological resources review is valid for one year from the date the clearance letter was issued and would be renewed by July 27, 2023, if needed.

CULTURAL RESOURCES REVIEW (HCRC#2022-600-006). DOE-RL Cultural and Historic Resources Program (CHRP) conducted a Cultural Resources Review (CRR) of the project areas and sent an "Area of Potential Effects" (APE) notification to the Washington State Historic Preservation Officer (SHPO) and regional Native American Tribes on March 9, 2022. DOE-RL CHRP conducted a cultural resources survey on March 24, 2022. Historical artifacts and structural elements were observed at multiple archaeological sites within the project APE. DOE-RL CHRP transmitted the CRR with a finding of "No Adverse Effects" to the SHPO and regional Native American Tribes for a 30-day comment period on June 8, 2022. The SHPO concurred with the findings of the CRR on June 9, 2022. DOE-RL CHRP provided a notice of compliance with 54 U.S.C. §306108 (formerly known as Section 106) of the "National Historic Preservation Act" (NHPA) for this project on July 11, 2022.

Based on consultations with the SHPO, Washington Department of Archaeology and Historic Preservation (DAHP), and Native American Tribe leadership, DOE-RL CHRP would require the project to adhere to work controls to avoid impacts to cultural resources. These work controls include providing consulting parties an initial seven calendar day advance notice prior to commencing project activities; establishing work restrictions in designated areas such as limiting travel to existing roads within the APE (see Figures 6 through 8); and requiring all project personnel to

receive cultural resources awareness training provided by DOE-RL CHRP prior to starting project activities.

No adverse impacts to cultural resources or historic properties are anticipated. All workers would be directed by project management to watch for cultural materials (bones, stone tools, projectile points, mussel shells, cans, bottles) during work activities. If any cultural materials are encountered, work in the vicinity of the discovery would stop until a DOE-RL CHRP cultural resources specialist has been notified, the significance of the find assessed, appropriate consulting parties notified, and if necessary, arrangements made for mitigation of the find consistent with Section 5.4.2, "Inadvertent Discovery of Native American Cultural Items," and subsequent subsections of the "Hanford Cultural Resources Management Plan" (DOE/RL-98-10, Rev 0).

CONCLUSION. The proposed project would meet the requirements and conditions that are integral elements for applying NEPA categorical exclusions (CXs) without extraordinary circumstances where a normally excluded action may have significant effects. If an extraordinary circumstance is present, DOE nevertheless may categorically exclude a proposed action if the agency determines that there are circumstances that lessen the impacts or other conditions sufficient to avoid significant effects (40 CFR 1501.4(b)(1)).

Therefore, the proposed project would have NEPA coverage under 10 CFR 1021, Subpart D, Appendix B, CX B5.3, "Modification or Abandonment of Wells." Among other things, this CX covers modification or plugging and abandonment of wells, including injection wells, consistent with regulatory requirements, DOE protocols, and best management practices. Site characterization has not identified a risk of seismicity, subsidence, or contamination of freshwater aquifers as a result of these activities. Any changes to the proposed project may result in additional review and approval by the DOE NEPA Compliance Officer.

III. Existing Evaluations *(Provide with NRSF to DOE NCO)*:

Maps:

Figure 1. Project Area of Potential Effects Overview
Figure 2. Project Area of Potential Effects Map 1 of 4 - UIC Wells 6-U-38 and 6-U-39
Figure 3. Project Area of Potential Effects Map 2 of 4 - UIC Wells 6-U-37, 6-U-40, 6-U-41, and 6-U-62
Figure 4. Project Area of Potential Effects Map 3 of 4 - Commercial Avenue Access Route
Figure 5. Project Area of Potential Effects Map 4 of 4 - UIC Well 6-U-36
Figure 6. Project Area of Potential Effects and Work Control Areas Overview
Figure 7. Project Area of Potential Effects and Work Control Areas Map 1 of 2
Figure 8. Project Area of Potential Effects and Work Control Areas Map 2 of 2

Other Attachments:

N/A

IV. List Applicable CX(s) from Appendix B to Subpart D of 10 CFR 1021:

B5.3, "Modification or Abandonment of Wells"

NEPA REVIEW SCREENING FORM 3 **Categorically Excluded Actions** (Continued)	**Document ID #:** DOE/CX-00222

V. Integral Elements and Extraordinary Circumstances ***(See 10 CFR 1021, Subpart D, B. Conditions that are Integral Elements of the Class of Actions in Appendix B; and 10 CFR 1021.410(b)(2) under Application of Categorical Exclusions)***	**Yes**	**No**
Are there extraordinary circumstances that may affect the significance of the environmental effects of the proposed action? If yes, describe them.	○	◉
Is the proposed action connected to other actions with potentially significant impacts, or that could result in cumulatively significant impacts? If yes, describe them.	○	◉
Would the proposed action threaten a violation of applicable statutory, regulatory, or permit requirements related to the environment, safety, health, or similar requirements of DOE or Executive Orders?	○	◉
Would the proposed action require siting, construction, or major expansion of waste storage, disposal, recovery, or treatment facilities?	○	◉
Would the proposed action disturb hazardous substances, pollutants, contaminants, or natural gas products already in the environment such that there might be uncontrolled or unpermitted releases?	○	◉
Would the proposed action have the potential to cause significant impacts on environmentally sensitive resources? See examples in Appendix B(4) to Subpart D of 10 CFR 1021.	○	◉
Would the proposed action involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species, such that the action is not contained or confined in a manner designed, operated, and conducted in accordance with applicable requirements to prevent unauthorized release into the environment?	○	◉

If "No" to all questions above, complete Section VI, and provide NRSF and any attachments to DOE NCO for review.
If "Yes" to any of the questions above, contact DOE NCO for additional NEPA review.

VI. Responsible Organization's Signatures:

Initiator:

Jerry W. Cammann, HMIS, NEPA SME	JERRY CAMMANN (Affiliate) Digitally signed by JERRY CAMMANN (Affiliate) Date: 2022.08.01 06:40:06 -07'00'
Print First and Last Name	*Signature / Date*

Cognizant Program/Project Representative:

Paula K. Call, DOE-RL/SSD	Paula K. Call Digitally signed by Paula K. Call Date: 2022.08.04 15:38:31 -07'00'
Print First and Last Name	*Signature / Date*

VII. DOE NEPA Compliance Officer Approval/Determination:

Based on my review of information conveyed to me concerning the proposed action, the proposed action fits within the specified CX(s): ☒ Yes ☐ No

William (Bill) E. Ostrum, DOE-EM/NCO	William E. Ostrum Digitally signed by William E. Ostrum Date: 2022.08.08 08:37:02 -04'00'
Print First and Last Name	*Signature / Date*

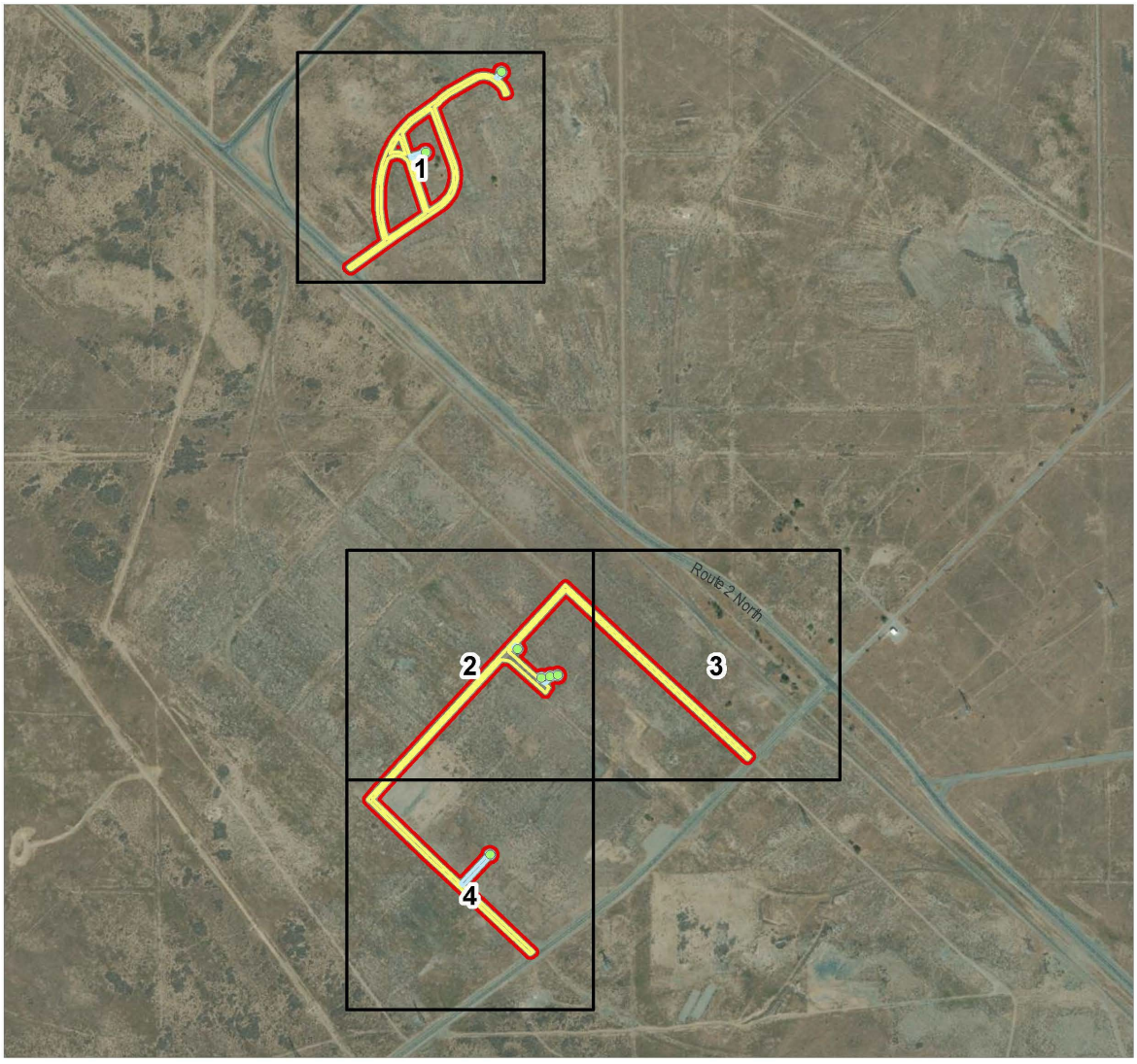
NCO Comments:

FIGURES

DOE/CX-00222

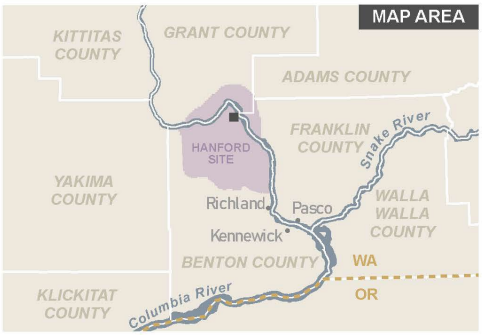
Activity Specific Categorical Exclusion for Decommissioning of Seven Underground Injection Control Wells near the 100-IU-2 Operable Unit in the 100 Area of the Hanford Site

Figure 1. Project Area of Potential Effects Overview



Area of Potential Effect (APE) OVERVIEW
HCRC#2022-600-006
Hanford Site, Benton County, Washington

- Area of Potential Effect (APE)
- UIC Wells
- UIC Well Locations
- Access Route



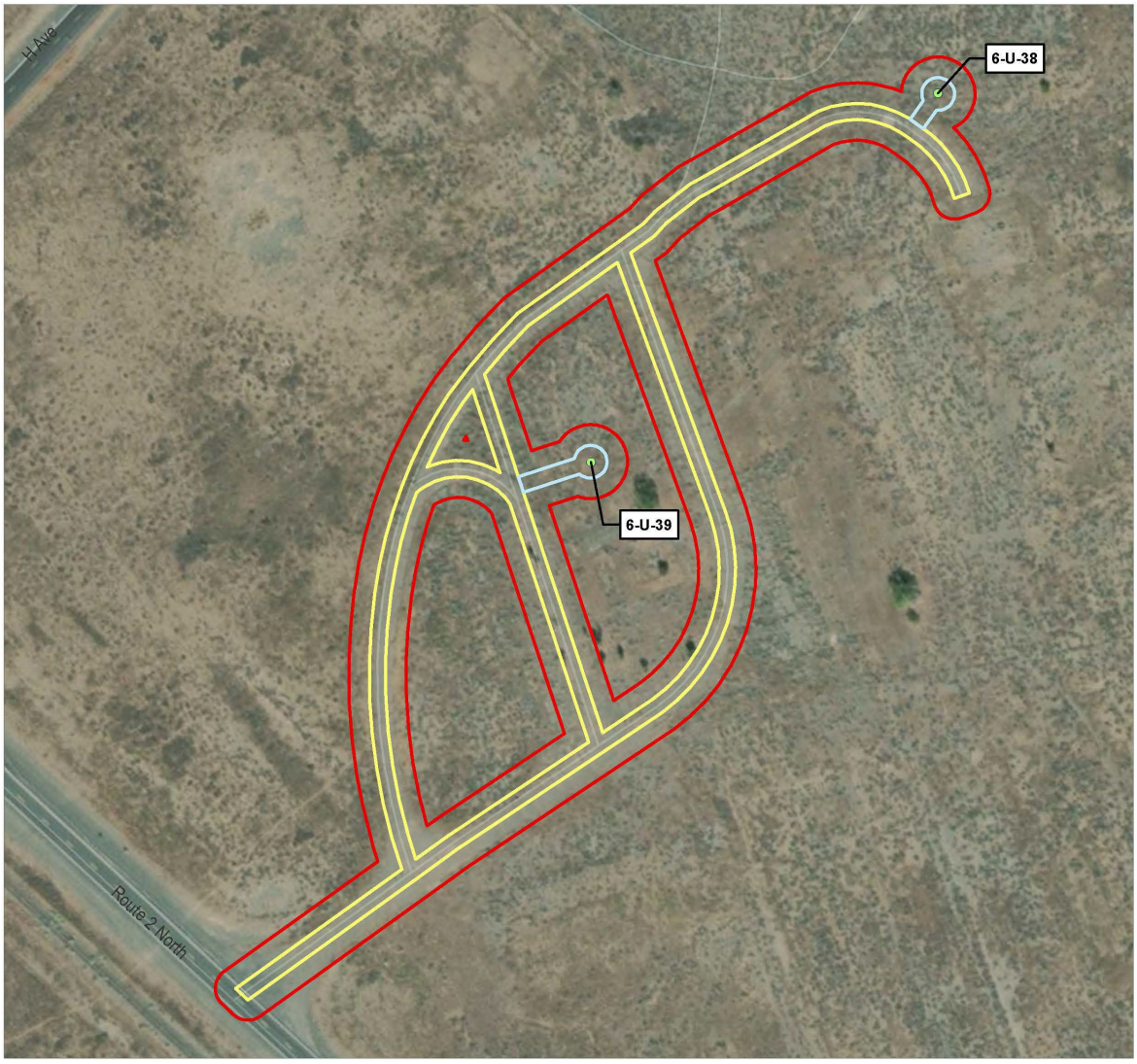
N

0 500 1,000 1,500 2,000 2,500 Feet

0 100 200 300 400 500 Meters

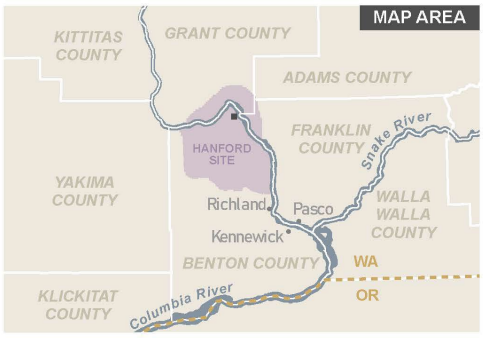
NOTE: Aerial Imagery, 2021, ESRI.

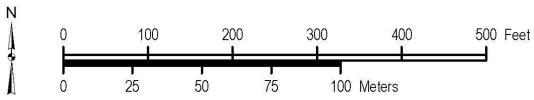
Figure 2. Project Area of Potential Effects Map 1 of 4 – UIC Wells 6-U-38 and 6-U-39



Area of Potential Effect (APE) (Map 1 of 4)
HCRC#2022-600-006
Hanford Site, Benton County, Washington

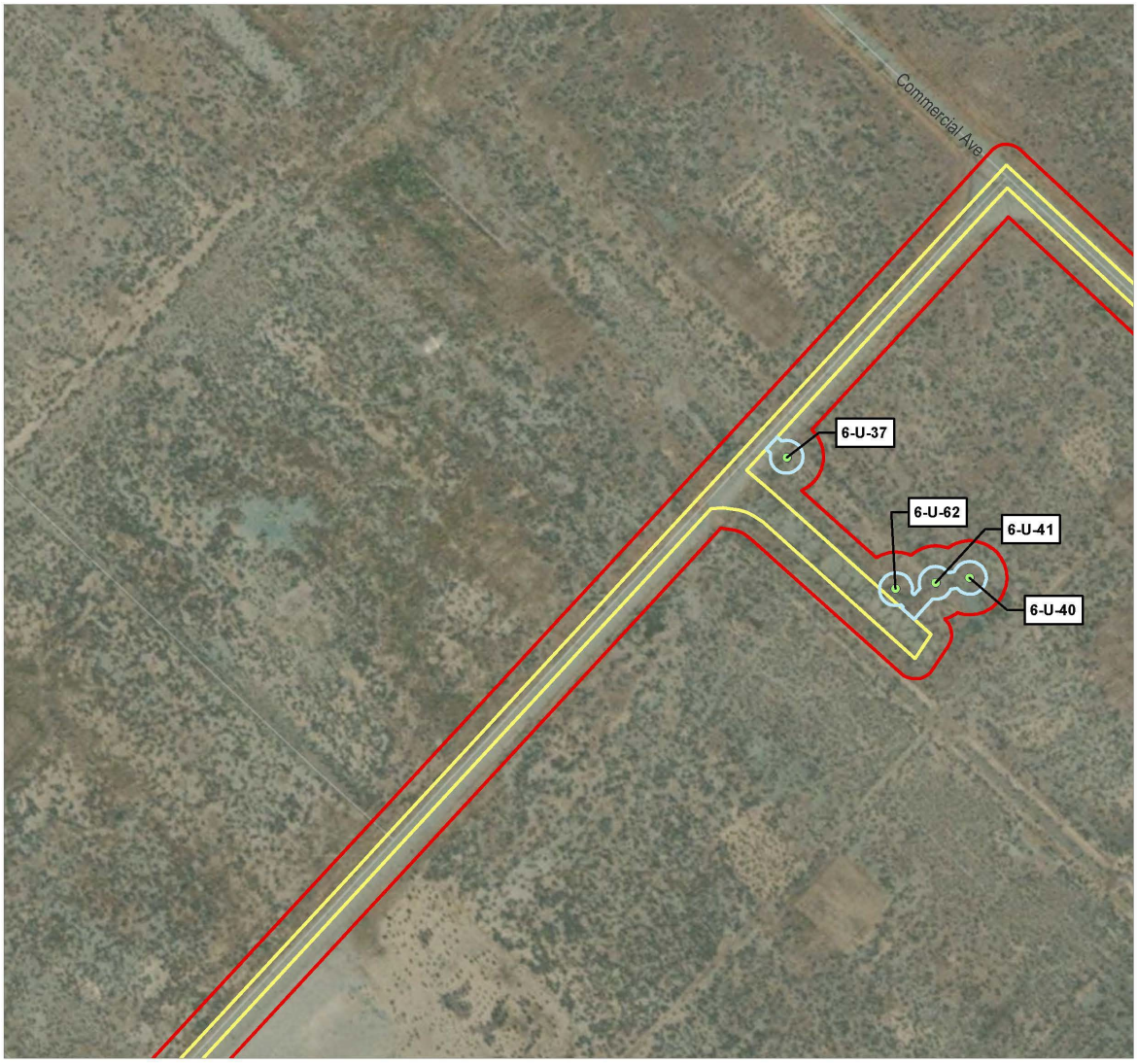
- Area of Potential Effect (APE)
- UIC Wells
- UIC Well Locations
- Access Route





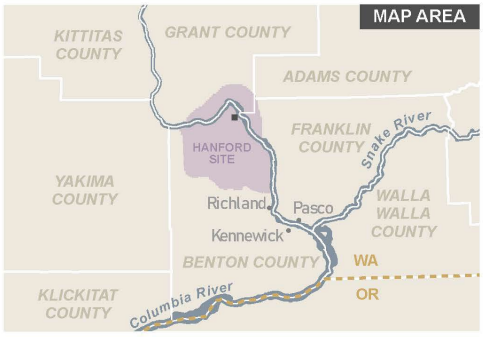
NOTE: Aerial Imagery, 2021, ESRI.

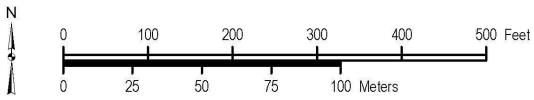
Figure 3. Project Area of Potential Effects Map 2 of 4 – UIC Wells 6-U-37, 6-U-40, 6-U-41, and 6-U-62



Area of Potential Effect (APE) (Map 2 of 4)
HCRC#2022-600-006
Hanford Site, Benton County, Washington

- Area of Potential Effect (APE)
- UIC Wells
- UIC Well Locations
- Access Route



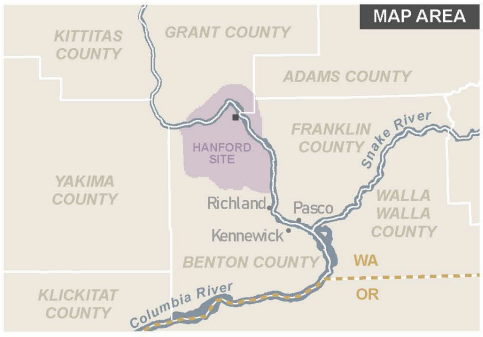


NOTE: Aerial Imagery, 2021, ESRI.

Figure 4. Project Area of Potential Effects Map 3 of 4 – Commercial Avenue Access Route

Area of Potential Effect (APE) (Map 3 of 4)
HCRC#2022-600-006
Hanford Site, Benton County, Washington

- Area of Potential Effect (APE)
- UIC Wells
- UIC Well Locations
- Access Route



N

0 100 200 300 400 500 Feet

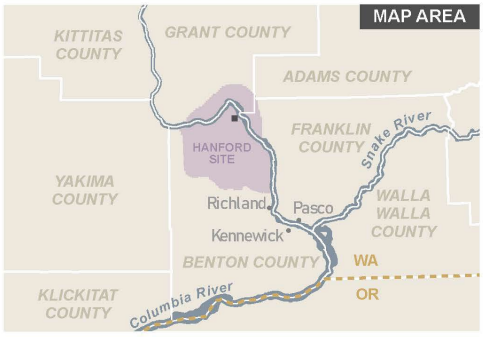
0 25 50 75 100 Meters

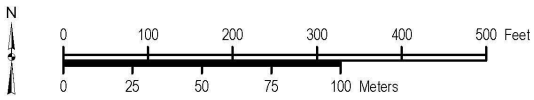
NOTE: Aerial Imagery, 2021, ESRI.

Figure 5. Project Area of Potential Effects Map 4 of 4 – UIC Well 6-U-36

Area of Potential Effect (APE) (Map 4 of 4)
HCRC#2022-600-006
Hanford Site, Benton County, Washington

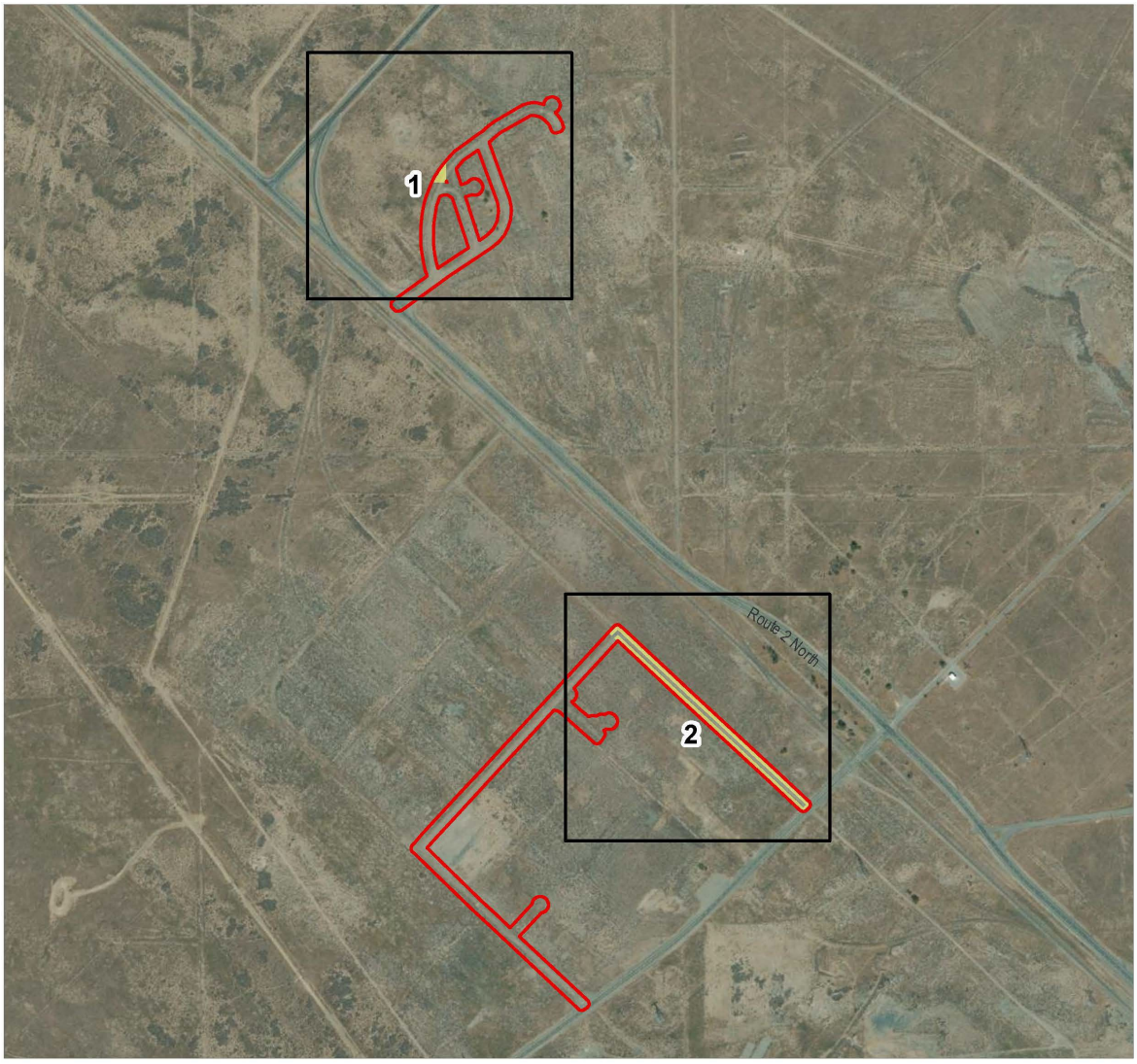
- Area of Potential Effect (APE)
- UIC Wells
- UIC Well Locations
- Access Route





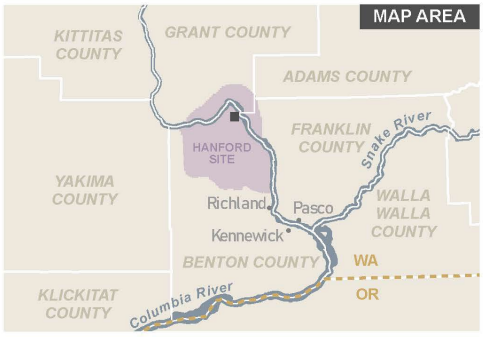
NOTE: Aerial Imagery, 2021, ESRI.

Figure 6. Project Area of Potential Effects and Work Control Areas Overview



APE & Work Control Areas OVERVIEW
HCRC#2022-600-006
Hanford Site, Benton County, Washington

Area of Potential Effect (APE)
Work Control Areas



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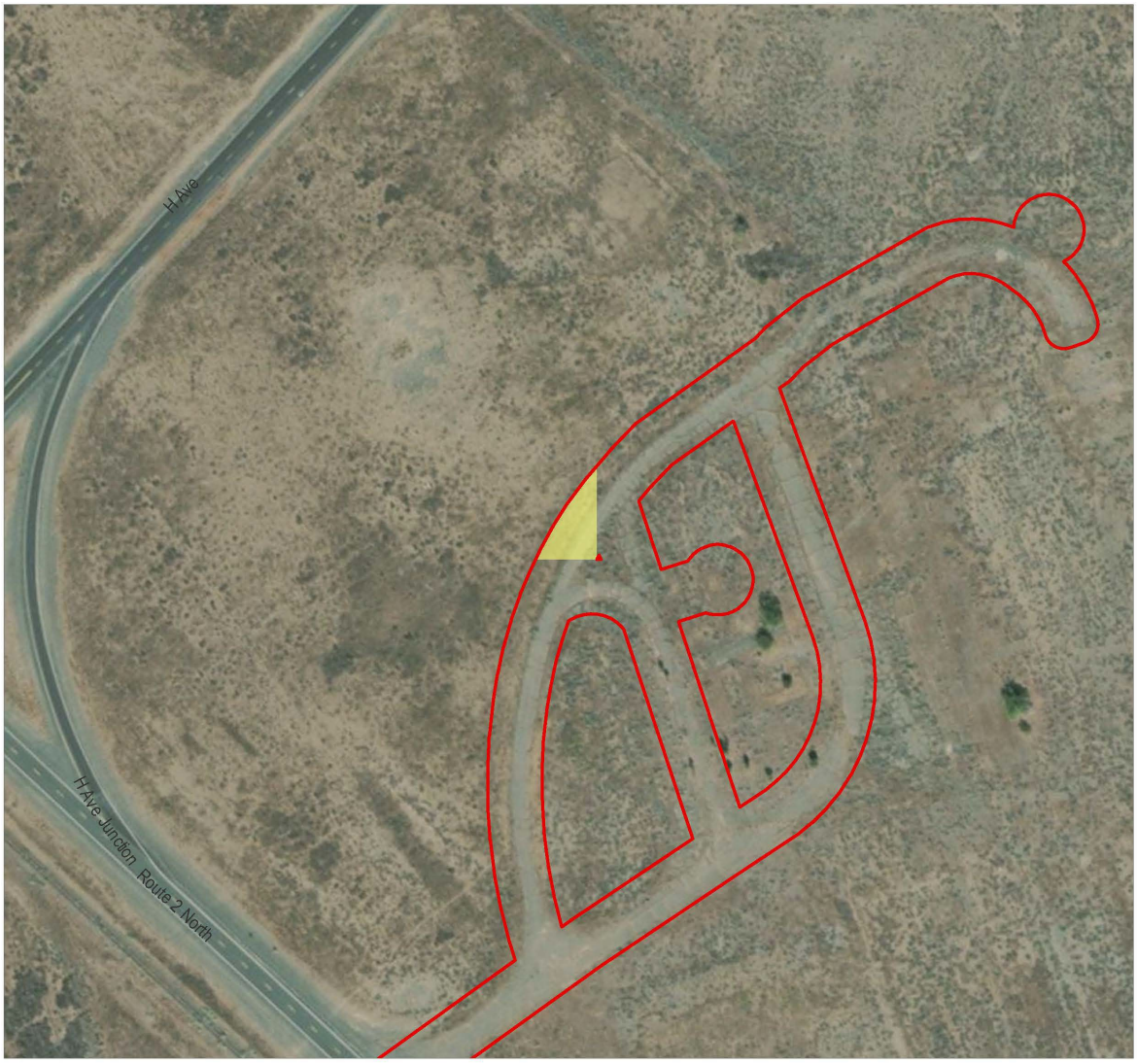
0 250 500 750 1,000 Feet
0 100 200 300 400 500 Meters

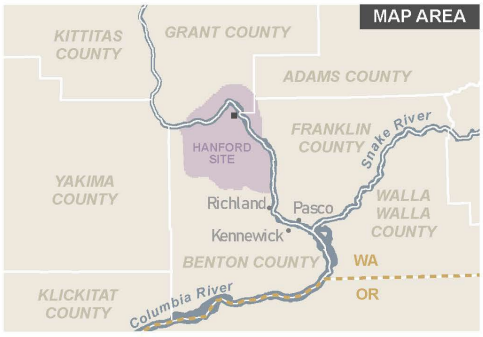
NOTE: Aerial Imagery, 2021, ESRI.

Figure 7. Project Area of Potential Effects and Work Control Areas Map 1 of 2



APE & Work Control Areas (Map 1 of 2)
HCRC#2022-600-006
Hanford Site, Benton County, Washington

Area of Potential Effect (APE)
Work Control Areas



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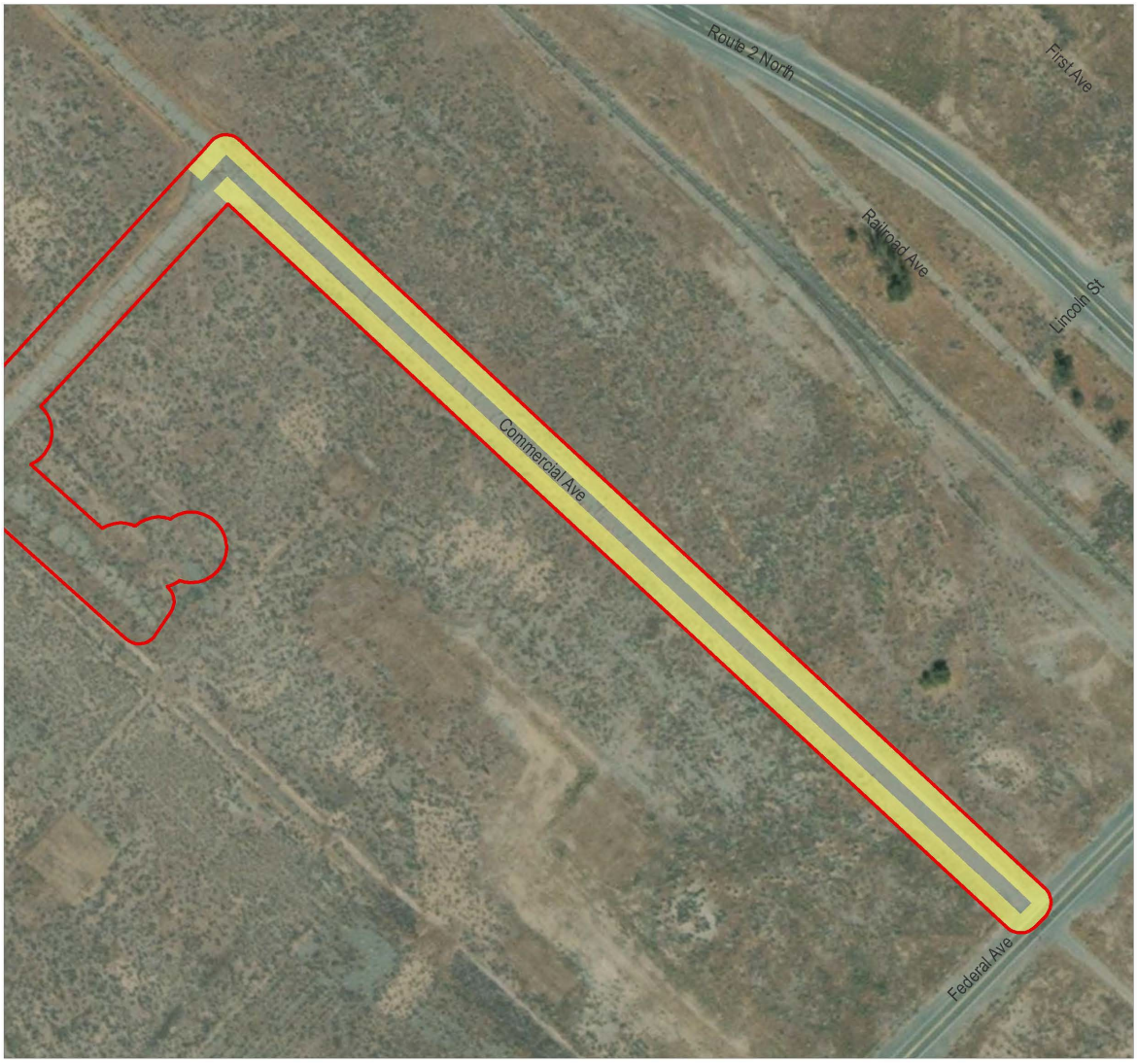
0 100 200 300 400 500 Feet
0 25 50 75 100 Meters

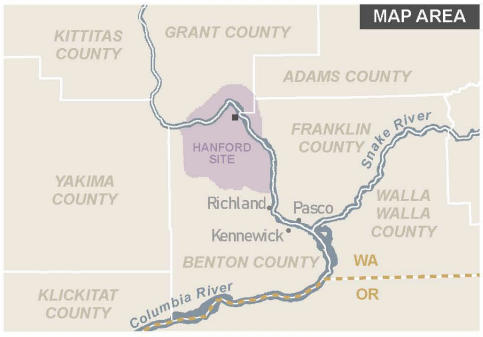
NOTE: Aerial Imagery, 2021, ESRI.

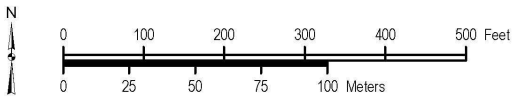
Figure 8. Project Area of Potential Effects and Work Control Areas Map 2 of 2



APE & Work Control Areas (Map 2 of 2)
HCRC#2022-600-006
Hanford Site, Benton County, Washington

Area of Potential Effect (APE)
Work Control Areas





NOTE: Aerial Imagery, 2021, ESRI.