

NEPA REVIEW SCREENING FORM (NRSF) 3
Categorically Excluded Actions

Document ID #:
DOE/CX-00226

I. Project Title:

Activity Specific Categorical Exclusion for Waste Treatment and Immobilization Plant High-Level Waste Facility Access Road and Construction Support Areas

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.

BACKGROUND

On June 08, 2022, Bechtel National, Inc. (BNI) submitted their letter CCN-327742 and its attached BNI National Environmental Policy Act (NEPA) Screening Checklist 24590-WTP-NSCL-ENV-22-0001 to the U.S. Department of Energy (DOE) Office of River Protection (ORP) Manager. BNI's letter was in regard to their NEPA screening for proposed additional land to support their ongoing construction of the DOE Hanford Site 200 East Area High-Level Waste (HLW) Facility associated with their ongoing construction of the Waste Treatment and Immobilization Plant (WTP). Referencing BNI's aforementioned letter, the following second paragraph is quoted: "To prepare for this potential land use, and in accordance with Procedure 24590-WTP-GPP-RAEV-EV-0023, National Environmental Policy Act (NEPA) Screening Criteria, BNI screened for use of additional land outside the WTP Site fence line to support resumption of HLW Facility construction (Attachment). NEPA coverage of the WTP is currently provided by the Final Tank Closure and Waste Management Environmental Impact Statement for the Hanford Site, Richland, Washington, and its Record of Decision (TC&WM EIS, DOE/EIS-0391). Based on its screening, BNI determined that the proposed land use warrants further review by ORP to confirm existing NEPA coverage."

Subsequently, the DOE Hanford NEPA Compliance Officer (NCO) conducted a November 08, 2022, meeting with DOE-ORP, the DOE Richland Operations Office (DOE-RL), BNI, and Hanford Mission Integration Solutions, Inc. (HMIS) Environmental (i.e., the DOE Hanford NEPA integrating support contractor). The purpose of the meeting was to discuss and reach a common understanding that once a proposed action is identified by a DOE Hanford program/project proponent (e.g., a detailed project description) and provided to DOE, the DOE Hanford NCO works with HMIS Environmental to use, prepare, and fill out the appropriate NEPA Review Screening Form (NRSF) to document the DOE Hanford NCO's NEPA determination (i.e., covered by CX, covered by existing NEPA or CERCLA decision document, or requires preparation of an EA or EIS). Also, ecological and cultural resources reviews are completed by HMIS Environmental on behalf of DOE-RL Site Stewardship Division (SSD) beforehand to inform the NRSF process and final NEPA determination by the DOE Hanford NCO. During the November 08, 2022, meeting, the DOE Hanford NCO reminded participants that a NEPA determination is a DOE "inherently governmental" function and responsibility, and not of a DOE contractor. On November 15, 2023, BNI personnel conducted a field visit of the proposed HLW Facility construction support and access road land areas with the DOE Hanford NCO, DOE-RL/SSD, and HMIS Environmental.

PROPOSED ACTION

DOE-ORP and BNI propose development of new land areas for infrastructure supporting construction of the HLW Facility. The HLW Facility would vitrify radioactive and hazardous tank farm waste into a stable glass form per the regulatory requirements stipulated by the Hanford Federal Facility Agreement and Consent Order (HFFACO or Tri-Party Agreement) between the DOE, the U.S. Environmental Protection Agency, and the State of Washington Department of Ecology.

Proposed infrastructure would include a new access road; equipment and material laydown, storage, and staging areas; large tent and fabrication areas; staff trailers; equipment wash down area; energy efficient perimeter lighting; and associated electrical, water, sewer, and communication utilities (see Figure 1). Due to imminent transition of Direct Feed Low Activity Waste (DFLAW) to operations, construction of the HLW Facility is a high priority. By utilizing the proposed project areas for the access road and construction support areas, minimal impacts to present site conditions at the WTP, DFLAW, and Tank Farm Operations Contractor (TOC) facilities would be experienced.

Development of the proposed project areas would be consistent with the "Final Hanford Comprehensive Land Use Plan (CLUP) Environmental Impact Statement" (HCP EIS, DOE/EIS-0222-F) and "Record of Decision" (ROD) designating this area for industrial-exclusive land use (see Figure 2).

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Use of the proposed project areas would also be consistent with the Final TC&WM EIS and ROD, which identifies areas south of the WTP to Hanford Route 4S for future development and construction of supplemental treatment facilities and new double-shell tanks (see Figure 3).

The proposed road would provide access to support HLW Facility construction as well as potential use by the TOC as an additional means of ingress/egress to nearby tank farm facilities. The proposed route for the access road would utilize previously disturbed land between the existing WTP fence line and the stabilized/inactive 216-A-37-2 Crib (see Figure 4). The proposed access road would run in a northwesterly direction from the existing WTP Loop Road along the existing WTP fence line approximately 1657-feet. The access road would be approximately 36-foot wide and would be constructed using a compacted 12-inch surface base course of 1.25-inch minus crushed rock with a 12-inch sub-grade. Excavation for installation of the road may reach a depth of approximately 4.5-feet. Concrete jersey barriers would be placed between the proposed access road and the 216-A-37-2 Crib at a distance of approximately 60-feet from the existing WTP fence line to protect the waste site from vehicles. A concrete apron would be added at the east end of the proposed access road to tie-in with the existing WTP Loop Road. Existing unimproved roads in the area may be used and modified, as needed.

Two construction support areas (north and south areas) would be located near the intersection of Canton Avenue and WTP Loop Road. The north area would be located north of WTP Loop Road along the north and east sides of an existing material/equipment laydown yard. The south area would be located directly east of the 212 and 213 WTP Storage Buildings and mobile office trailers T93WTP and T65WTP. The south area has been previously disturbed and developed by an underground pipeline that diagonally bisects the area and provides potable water to the WTP. Both construction support areas would have access to existing roads, electrical, water, sewer, and communication infrastructure. These construction support areas would be cleared, grubbed, and bladed, up to a depth of approximately 12-inches and would be covered with either gravel, asphalt, or concrete. Project work would include installation of above and below ground utilities, which would require trenching to a maximum depth of approximately 8-feet, and would be extended from existing nearby utilities. Perimeter lighting would be installed around the construction support areas.

The total project area that would be impacted is approximately 30-acres. All access to the project areas would be through existing roads and previously disturbed areas. Construction equipment and material staging and stockpiling areas would be located on existing roads or within previously disturbed and developed areas.

ECOLOGICAL RESOURCES REVIEW (ECR-2023-210)

On June 07, 2022, DOE-RL/SSD approved BNI's Hanford Site Evaluation Requests (#200E-2022-0029 and #200E-2022-0031) for the proposed project with a condition that an ecological compliance review (ECR) be performed by DOE-RL/SSD Ecological Compliance prior to project initiation, as portions of the proposed project area are located within a high-quality native shrub-steppe habitat. Compensatory mitigation to avoid or minimize potential impacts would be identified through the ECR process prior to project implementation.

In addition to the originally requested project site, DOE-RL/SSD Ecological Compliance performed a geographic information system (GIS) analysis and identified alternative project sites for consideration to avoid or minimize ecological impacts and associated compensatory mitigation costs. BNI determined that the alternative project sites were not acceptable and submitted a request to DOE-RL/SSD Ecological Compliance for an ECR for the original project site.

The DOE-RL/SSD Ecological Compliance ECR methodology relies on field data specific to the site where the project is proposed. Accurate evaluation of ecological resource impacts are based on field data obtained during the biologically appropriate time of year when plant and wildlife species of concern would be expected to be present and identifiable. Due to the need to avoid impacts to mission critical construction of the HLW Facility, BNI requested an expedited ECR process.

The DOE-RL/SSD Ecological Compliance expedited ECR process utilized Hanford's Ecological Monitoring and Compliance (EMC) Database, past ECRs, and other environmental evaluations. In addition, GIS analyses and preliminary field surveys were performed. Due to the need for an expedited ECR process, assumptions regarding the presence of special status plant and wildlife species were made based on existing information if the data indicated that the presence of these

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species is likely or would be reasonably expected. As a result of these assumptions, the ecological resource levels used to estimate compensatory mitigation requirements may be elevated in portions of the project area. If ground disturbing activities are conducted within the project area to allow for seasonally appropriate field surveys (i.e., mid-April to mid-May), then BNI would contact DOE-RL/SSD Ecological Compliance to schedule a survey. Results of this survey would be reflected in the project-specific compensatory mitigation plan and would likely reduce mitigation requirements.

On October 19, 2022, DOE-RL/SSD Ecological Compliance performed a field survey of the project area. The field survey verified that the project area for the access road is dominated by non-native invasive plant species, primarily cheatgrass (see Figure 5), which is considered a Level 1 habitat in accordance with the "Hanford Biological Resources Management Plan" (BRMP; DOE/RL-96-32 Revision 2). The primary management goal for BRMP Level 0 and Level 1 habitats is mission support. These areas are managed to best support the ongoing waste management, environmental restoration, and technology development missions of the Hanford Site and do not require compensatory mitigation; only compliance with applicable regulatory requirements (i.e., Migratory Bird Treaty Act, noxious weed control, onsite rectification).

In general, the shrub-steppe plant community in the project area has a shrub overstory (big sagebrush, spiny hopsage, and rabbitbrush) with a perennial bunchgrass understory (Sandberg's bluegrass, Indian ricegrass, bottle brush squirreltail, and needle-and-thread grass). Native perennial forbs observed include bastard toadflax, Carey's balsamroot, hoary aster, turpentine spring parsley, pale eveningprimrose, longleaf phlox, yarrow, mariposa lily, and slender hawksbeard. Native annual forbs observed include matted cryptantha, bur ragweed, western tansymustard, and threadleaf scorpion weed. Nonnative plant species observed include cheatgrass, Russian thistle, prickly lettuce, and the noxious weed rush skeletonweed.

The vegetation community in the south construction support area contains a stand of relatively undisturbed native shrub-steppe habitat including a revegetated pipeline corridor that bisects the area (see Figure 6). It is a Hanford Site priority to protect shrub-steppe habitat, when possible, and to perform compensatory mitigation in accordance with the BRMP when impacts are unavoidable. The north construction support area contains a previously disturbed gravel covered area and a patch of disturbed native shrub-steppe vegetation with a successional vegetation community dominated by rabbitbrush (see Figure 7).

BNI's proposed HLW Facility access road area is dominated by non-native invasive plant species. Highly disturbed graveled areas devoid of vegetation, which include established access areas, laydown yards, and well pads are present throughout the project area.

The Washington State Class B noxious weed rush skeletonweed was observed in the project area. To prevent the spread of weed seeds, project vehicles and equipment used off-road in areas containing the noxious weed would be field washed with cold, low-pressure water over grass covered ground or bare dirt prior to leaving the area. Soaps, detergents, or cleaners would not be used, and compressed air may be used in lieu of water.

Wildlife observed during the survey include California quail, dark-eyed Junco, and side-blotched lizard. Wildlife signs observed include elk, deer, and coyote tracks and scat, pocket gopher mounds, cottontail scat, and mammal burrows. Harvester ant mounds were also present in the project area.

Habitat features noted during the survey include sandy blowouts with minimal invasive plant species. Some areas have well developed soil crusts and cryptogamic soils. Stabilized sand dune features were also observed. The plant community provides habitat for shrub-steppe obligate species and removal would reduce overall habitat quality. Removal of the shrub-steppe plant community south of the WTP was analyzed in the Final TC&WM EIS and ROD. This area is planned for eventual disturbance and development of supplemental treatment facilities and new double-shell tank farms, and would be subject to additional NEPA review and BRMP compensatory mitigation requirements, as applicable.

No plant or animal species protected under the Endangered Species Act, candidates for such protection, or species listed by the State of Washington as threatened or endangered were observed during field surveys or are expected to occur in the vicinity of the proposed project area. Several Washington State-listed sensitive plant species have been documented or are likely to

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occur in the project area. Rare plants previously documented in the vicinity of the project area include Thompson's sandwort; however, rare plant species suspected or likely to occur within the project area include Great Basin gilia, spreading pygmyleaf, rosy pussypaws, and Suksdorf's monkeyflower.

Wildlife species that have been documented or are likely to occur in the project area that, while not listed as threatened or endangered, have a federal or state conservation status include Black-tailed jackrabbits and loggerhead shrike.

The Final HCP EIS and ROD establish the Hanford Site CLUP by identifying a land use map, designations, policies, and procedures. The CLUP is implemented by resource and area management plans. In particular, the BRMP is a resource management plan and is the primary implementation plan for managing and protecting site ecological resources. The BRMP ranks wildlife species and habitats based on the level of concern for each resource (Levels 0-5). BRMP Level 0 and 1 habitats have little ecological value and require no compensatory mitigation other than compliance with applicable environmental regulations, as previously discussed. For BRMP Level 2, 3, and 4 habitats, compensatory mitigation is required if the total project impact after avoidance and minimization is greater than 1.2-acres. Replacement ratios for BRMP Level 2, 3, and 4 habitats are 1:1, 3:1, and 5:1, respectively. BRMP Level 5 resources are considered irreplaceable resources as there is no practical way to replace or restore a Level 5 habitat if lost. Therefore, compensatory mitigation is determined on a case-by-case basis. No BRMP Level 2, 3, or 5 habitat would be disturbed by the proposed project.

Of the roughly 30-acre project area that would be disturbed, approximately 26-acres are BRMP Level 4 habitat with a required replacement ratio of 5:1. Therefore, approximately 130-acres of compensatory mitigation would be required to replace the BRMP Level 4 habitat lost to proposed HLW Facility construction support area activities. The remaining 4 acres associated with the HLW Facility access road and small portions of the construction support areas are either BRMP Level 1 or Level 0 habitats with no required compensatory mitigation (see Figure 8).

Per the ECR and the BRMP, a required project-specific compensatory ecological resources mitigation plan, which would incorporate best management practices (i.e., existing policies, practices, procedures, plans, and other measures) as an integral part of the Proposed Action, should be completed in fiscal year 2024. However, it is not within the scope of BRMP to define specific schedule commitments applicable to any project-specific compensatory mitigation plan. Each project is unique in the types and amounts of resources that would need to be mitigated as well as physical and other constraints. Therefore, the project-specific compensatory mitigation plan would need to state the particular ecological resources mitigation commitments that DOE would make regarding that project. The budgeting, funding, work scope, and implementation schedule for the compensatory mitigation plan would be determined contractually between DOE-ORP and BNI. Since the project area serves as habitat for sagebrush obligate species, sitewide and regional ecological resource considerations must be included in selection of the compensatory mitigation location. DOE-ORP and BNI would contact and work with DOE-RL/SSD Ecological Compliance for assistance with compensatory mitigation planning and implementation. Upon completion, compensatory mitigation actions would be included in the Hanford Site EMC Database.

There is always the potential for birds to nest within the project area on the ground, on buildings, or on equipment. The nesting season is typically from mid-March to mid-July. BNI would instruct workers to watch for nesting birds. If any nesting birds are encountered or suspected, or bird defensive behaviors are observed within the project area, then BNI would contact DOE-RL/SSD Ecological Compliance to evaluate the situation. A nesting bird survey is required if the project begins ground-disturbing activities during the nesting season. BNI would contact DOE-RL/SSD Ecological Compliance to schedule a nesting bird survey of the project area at least one week prior to initiation of ground disturbing activities.

All land areas disturbed by the project that are not needed for continued project use, access, or safety considerations would be replanted using locally derived, native plant species. The "Hanford Site Revegetation Manual" (DOE-RL-2011-116, Rev. 02) provides guidance regarding species mix, planting rates, and methods. Revegetation must occur in the first planting window (typically November - January) after project completion and revegetation planning must occur between January and March of the prior year (7-9 months before the planting window) in order to procure plant materials. DOE-RL/SSD Ecological Compliance would provide assistance with revegetation planning and implementation.

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The DOE-RL/SSD Ecological Compliance ECR review is valid for one year from the issuance date of the ECR clearance letter and must be renewed if the project has not been completed. Implementation of compensatory ecological resources mitigation, as documented in the ECR clearance letter and summarized in this NEPA determination, would mitigate adverse impacts to ecological resources anticipated from proposed project activities as an integral part of the Proposed Action.

CULTURAL RESOURCES REVIEW (HCRC#2022-200-012)

On November 01, 2022, the DOE-RL/SSD Cultural and Historic Resources Program (CHRP) sent an "Area of Potential Effects" (APE) notification to the Washington State Historic Preservation Officer (SHPO) and regional Native American Tribes. On November 17, 2022, the DOE-RL/SSD CHRP performed a cultural resources review (CRR) field survey of the project areas. No cultural resources were previously identified within the project areas and the CRR field survey did not identify any new cultural resources. On January 26, 2023, DOE-RL/SSD CHRP transmitted a CRR, with a finding of "No Historic Properties Affected," to the SHPO and regional Native American Tribes for a 30-day comment period. On January 26, 2023, the SHPO concurred with the findings of the CRR. On March 06, 2023, the DOE-RL/SSD CHRP provided a notice of compliance with 54 U.S.C. §306108 (formerly known as Section 106) of the "National Historic Preservation Act" for this project.

DOE-RL/SSD CHRP anticipates no impacts to cultural resources from proposed project activities. Notwithstanding, BNI would direct all workers to watch for cultural materials (e.g., bones, stone tools, mussel shell, arrowheads, burned rocks/charcoal, cans, and bottles, etc.) during work activities. If any cultural materials are encountered, work in the vicinity of the discovery would stop until a DOE-RL/SSD CHRP Cultural Resources Specialist has been contacted, the significance of the find assessed, appropriate consulting parties notified, and if necessary, arrangements made for mitigation of the find.

CONCLUSIONS

The Proposed Action to construct the HLW Facility access road and construction support areas meets the requirements (10 CFR 1021.410) and conditions that are integral elements (10 CFR 1021, Subpart D, Appendix B) 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 CX the Proposed Action if the agency determines that there are circumstances (i.e., compensatory mitigation) that lessen the impacts or other conditions sufficient to avoid significant effects [40 CFR 1501.4(b)(1)]. As previously stated, compensatory ecological resources mitigation required by the BRMP would represent best management practices and be an integral part of the Proposed Action.

Although approximately 26 acres of BRMP Level 4 habitat would be impacted by the proposed project, implementation of compensatory ecological resources mitigation, as documented in the ECR clearance letter and summarized in this NEPA determination, would mitigate adverse impacts to ecological resources anticipated from proposed project activities. As previously discussed, the area south of the WTP to Hanford Route 4S was analyzed in the Final TC&WM EIS and ROD, and is planned for use to construct supplemental treatment facilities and new double-shell tank farms in support of the Hanford Site mission and would be subject to additional NEPA review and BRMP compensatory mitigation requirements, as applicable. In addition, compensatory ecological resources mitigation required to develop the proposed HLW Facility construction support areas, as discussed herein, would occur at a 5:1 replacement ratio for impacts to BRMP Level 4 habitat resulting in the revegetation of approximately 130-acres in an established area on the Hanford Site selected by DOE-RL/SSD Ecological Compliance for its ecological value and quality (i.e., lack of habitat fragmentation, enhance ecosystem connectivity, abundant species biodiversity, etc.).

In conclusion, the following 10 CFR 1021, Subpart D, Appendix B, CXs would apply to the Proposed Action to construct the HLW Facility access road and construction support areas:

B1.3, "Routine Maintenance," among other things, subpart (j) provides for road and parking area resurfacing, including construction of temporary access to facilitate resurfacing, and scraping and grading of unpaved surfaces.

B1.13, "Pathways, Short Access Roads, and Rail Lines," among other things, provides for the construction, acquisition, and relocation of short access roads consistent with applicable right-

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of-way conditions and approved land use or transportation improvement plans.

B1.15, "Support Buildings," among other things, provides for the siting, construction or modification, and operation of support buildings and support structures (including, but not limited to, trailers and prefabricated and modular buildings) within or contiguous to an already developed area (where active utilities and currently used roads are readily accessible). Covered support buildings and structures include, but are not limited to, those for office purposes, parking, routine maintenance activities, storage of supplies and equipment, and small-scale fabrication, assembly, and testing of equipment or components.

B1.32, "Traffic Flow Adjustments," among other things, provides for traffic flow adjustments to existing roads and road adjustments to widen or realign within an existing right-of-way and consistent with approved land use or transportation improvement plans.

B5.1, "Actions to Conserve Energy or Water," among other things, provides for actions to conserve energy or water, demonstrate potential energy or water conservation, and promote energy efficiency that would not have the potential to cause significant changes in the indoor or outdoor concentrations of potentially harmful substances. Covered actions include, but are not limited to, the installation of energy efficient lighting.

In accordance with 10 CFR 1021.410(d), categorical exclusions are a class of actions that include activities foreseeably necessary to implement proposals encompassed within the class of actions such as award of implementing grants and contracts, site preparation, purchase and installation of equipment, and associated transportation activities.

Any changes to the Proposed Action described in this NRSF may require additional NEPA review and approval by the DOE Hanford NCO; potentially including, but not limited to, additional cultural and ecological resource reviews if the area of potential effects is expanded.

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

Maps:

- Figure 1 - APE for HLW Facility Access Road and Construction Support Areas (North and South Areas)
- Figure 2 - Generalized Land Use at the Hanford Site
- Figure 3 - TC&WM EIS Project Area for WTP - 200 East Area
- Figure 4 - Site Map for Proposed HLW Facility Construction Access Road
- Figure 5 - Proposed HLW Facility Construction Access Road (Looking Northwest from WTP Loop Road)
- Figure 6 - Overview of South Construction Support Area
- Figure 7 - Overview of North Construction Support Area
- Figure 8 - Biological Resources Management Plan (BRMP) Habitats in the Project Area

Other Attachments:

N/A

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

B1.3, "Routine Maintenance"; B1.13, "Pathways, Short Access Roads, and Rail Lines"; B1.15, "Support Buildings"; B1.32, "Traffic Flow Adjustments"; and B5.1, "Actions to Conserve Energy or Water."

Figures for DOE/CX-00226

**Activity Specific Categorical Exclusion for Waste Treatment and Immobilization Plant
High-Level Waste Facility Access Road and Construction Support Areas**

(9 Pages Including This Page)

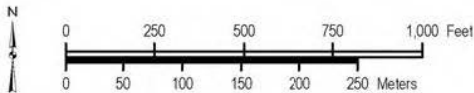
Figure 1 – APE for HLW Facility Access Road and Construction Support Areas (North and South Areas)



Area of Potential Effect (APE)

HCRC#2022-200-012
Hanford Site, Benton County, Washington

- Area of Potential Effect (APE)
- Light Poles
- Electrical Infrastructure
- Large Tents and Fabrication Areas
- Staff Trailers
- Wash Down Area



NOTE: Aerial Imagery, 2021, ESRI.

Figure 2 - Generalized Land Use at the Hanford Site

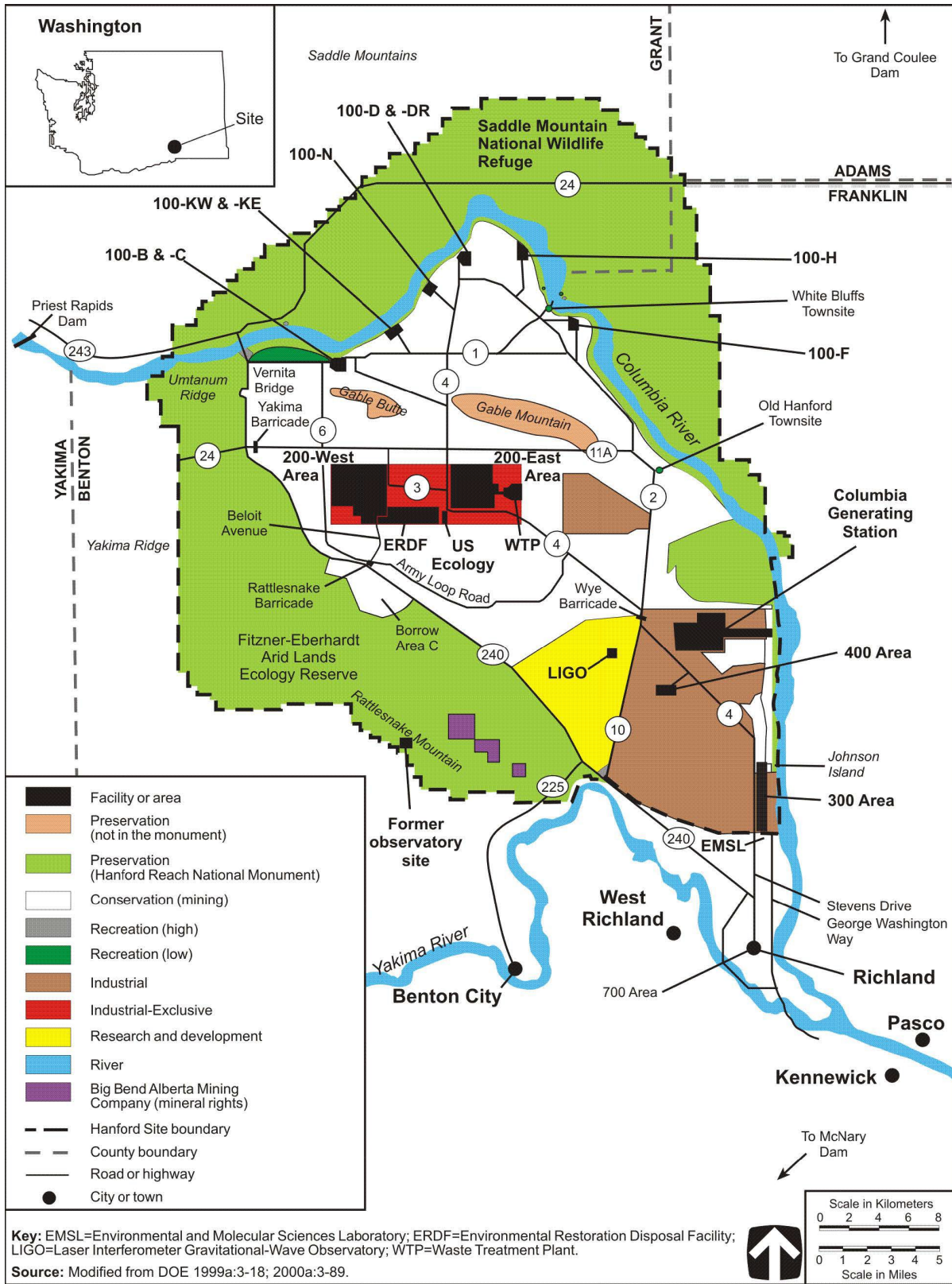


Figure 3 - TC&WM EIS Project Area for WTP – 200 East Area

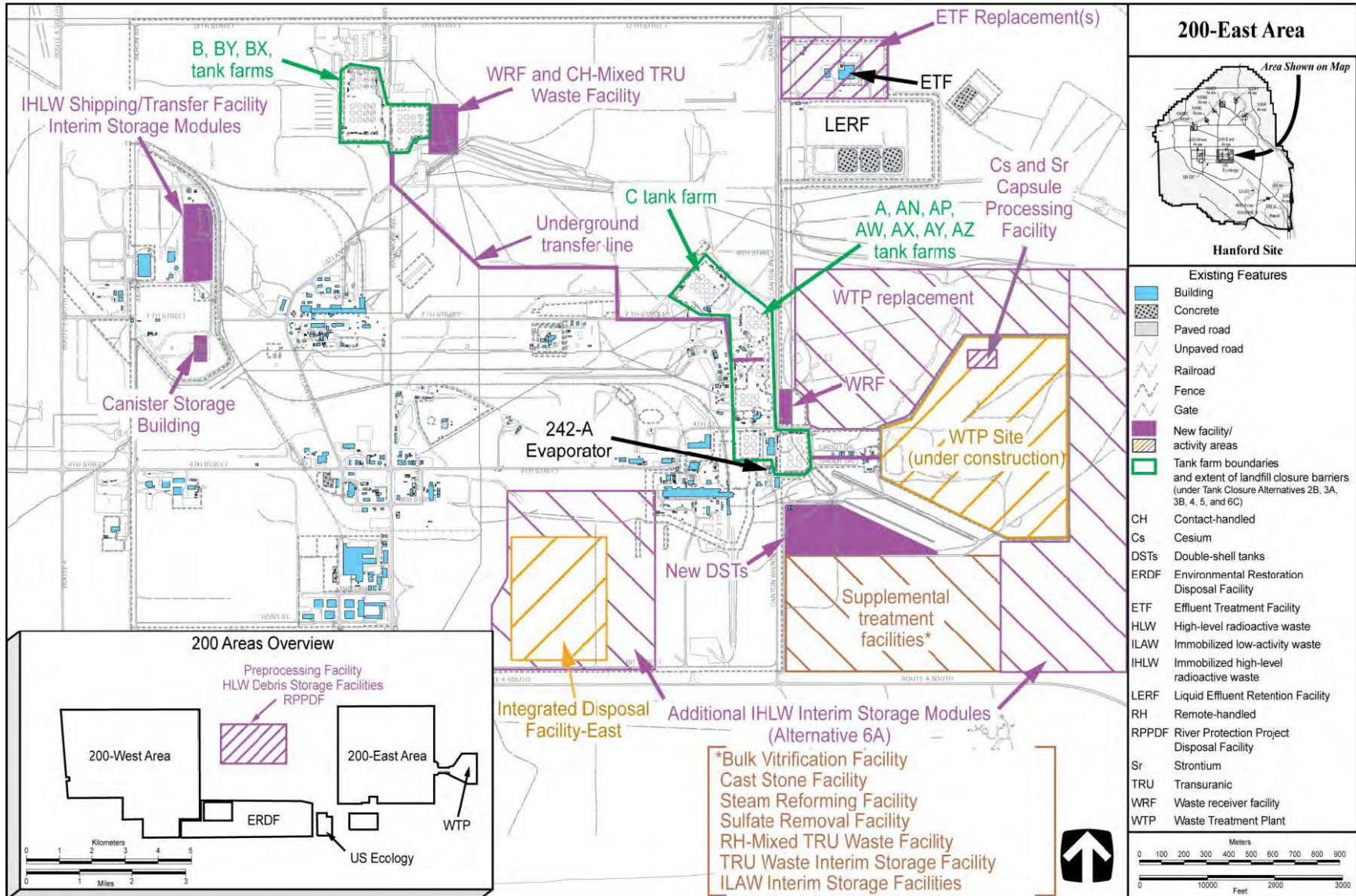


Figure 4 – Site Map for Proposed HLW Facility Construction Access Road

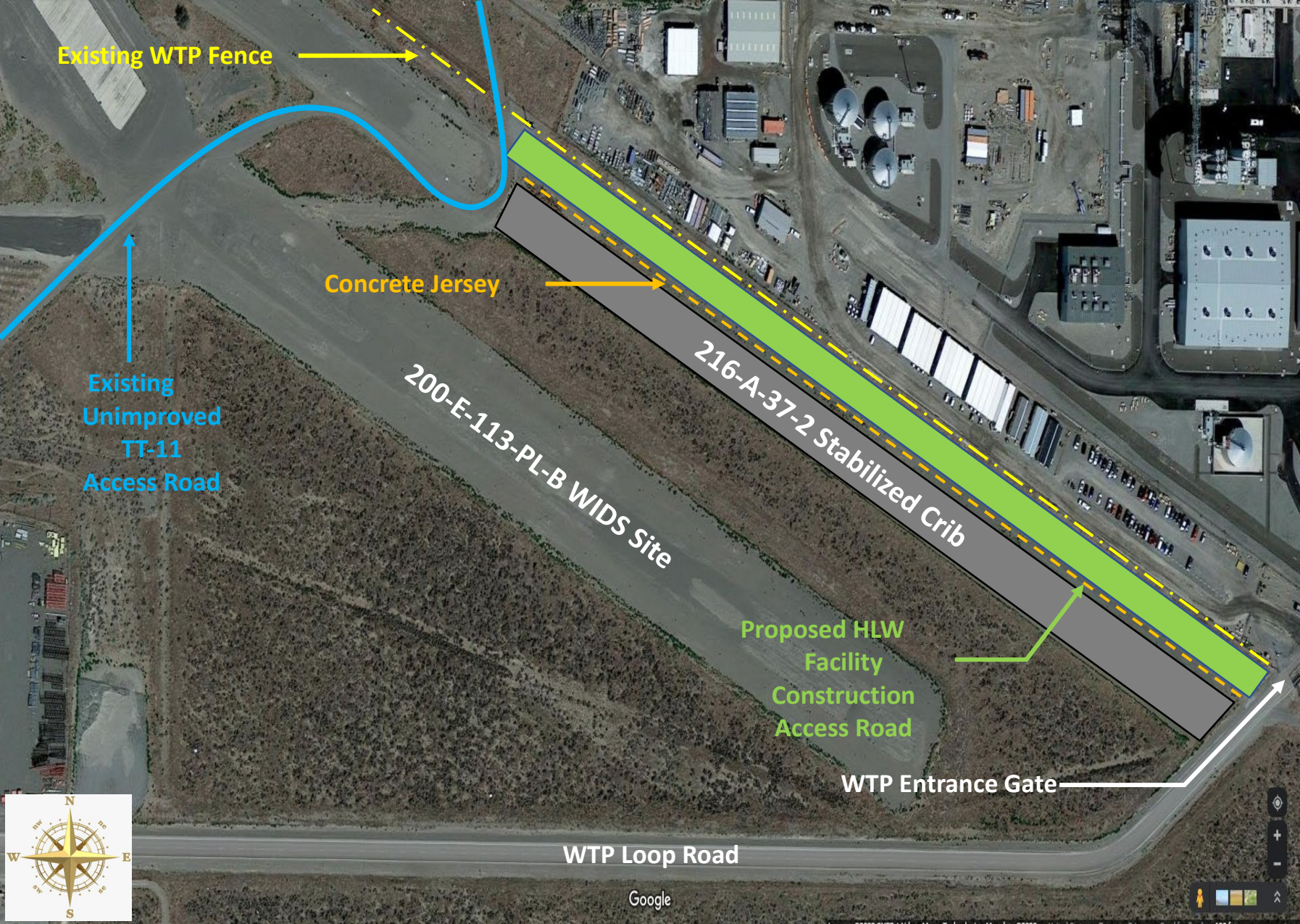


Figure 5 – Proposed HLW Facility Construction Access Road (Looking Northwest from WTP Loop Road)



Figure 6 – Overview of South Construction Support Area









Figure 7 – Overview of North Construction Support Area

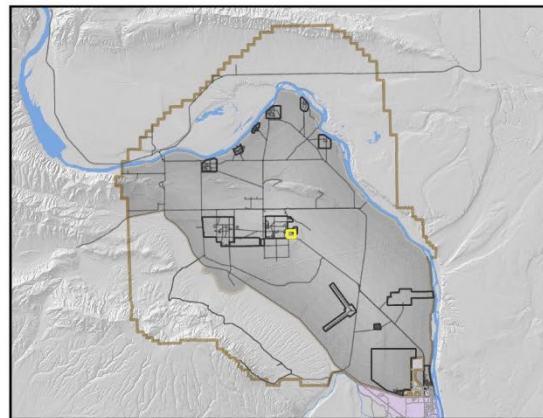


Figure 8 – Biological Resources Management Plan (BRMP) Habitats in the Project Area



LEGEND

-  Roads (paved)
-  Project Area
-  Revegetated Area (BRMP Level 4 Resource)
-  BRMP Level 4 Habitat
-  BRMP Level 1 Habitat
-  BRMP Level 0 Habitat



Project Area

ECR-2023-210 | WTP Additional Land
Hanford Site, Benton County, WA