

NEPA REVIEW SCREENING FORM (NRSF) 3
Categorically Excluded Actions

Document ID #:
DOE/CX-00224

I. Project Title:

Activity Specific Categorical Exclusion for Repair of Sinkholes and Subsidence Areas in the Soil Caps Covering the Former H-06-L, H-12-L, and H-83-L Nike Missile Launch Sites

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 U.S. Department of Energy (DOE), Richland Operations Office (RL), Site Stewardship Division (SSD) proposes to investigate and repair sinkholes and subsidence areas in soil caps covering three former Nike Missile Launch Sites (H-06-L, H-12-L, and H-83-L) under Project Z-375, "Nike Missile Launch Site Stabilizations." The sinkholes and subsidence areas were discovered on May 3, 2022, and create potential safety hazards (see Figures 1 through 3). The sites are identified in the Hanford Waste Information Data System (WIDS) as WIDS 600-6 (Battery B Nike Missile Launch Site H-12-L), WIDS 600-9 (Battery A Nike Missile Launch Site H-06-L), and WIDS 600-13 (Battery C Nike Missile Launch Site H-83-L). The WIDS sites are located on the Hanford Reach National Monument (HRNM) within the Wahluke and Saddle Mountain Units, north of the Columbia River (see Figure 4). The Wahluke and Saddle Mountain Units are managed by the U.S. Fish and Wildlife Service (USFWS) under a permit issued by DOE-RL. The Nike Missile Launch Sites are managed by DOE-RL/SSD. The proposed action would have beneficial safety effects and would be consistent with the provisions of Presidential Proclamation 7319 establishing the HRNM, which do not affect DOE's authority and responsibility under environmental and other laws to control public access and take measures for the purposes of environmental remediation, restoration, monitoring, security, safety, or emergency preparedness.

WIDS sites 600-6 and 600-9 are on land open to the public. WIDS site 600-13 is within a gated portion of the HRNM that is not open to the public. Based on potential safety hazards associated with the sinkholes and subsidence areas, and with direction from DOE-RL/SSD, warning signs and temporary barriers were placed around the areas of concern and at the road entrances leading to WIDS sites 600-6 and 600-9. DOE-RL/SSD and contractor staff inspect the areas periodically to ensure warning signs and barriers remain intact until proposed repairs can be completed.

The three WIDS sites were included in the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) 100-IU-3 Operable Unit. The CERCLA Record of Decision (ROD) was signed in February 1996 by the DOE, U.S. Environmental Protection Agency (EPA Region 10), and State of Washington Department of Ecology (Ecology). These agencies determined that expedited response actions (CERCLA removal actions as described in 40 CFR 300.415) performed previously at the WIDS sites by the Atomic Energy Commission (AEC) and later the DOE in the 1970s and early 1990s removed all contaminants of concern below WAC 173-340, "Washington State Model Toxics Control Act" (MTCA) residential standards and no further CERCLA removal actions were required. In May 2003, the status of the three WIDS sites was reclassified to "rejected" under the "Hanford Federal Facility Agreement and Consent Order" (commonly known as the Tri-Party Agreement) and the provisions of TPA-MP-14, "Maintenance of the Waste Information Data System." This reclassification of status indicates that no further remediation is required under the authority of Resource Conservation and Recovery Act (RCRA) Corrective Action, CERCLA Response Action (removal or remedial), or other applicable cleanup standards. DOE-RL/SSD is responsible for the long-term stewardship of the three WIDS sites including surveillance and maintenance of the soil caps.

Engineering evaluations performed in support of similar repair of sinkholes and subsidence areas at Nike Missile Launch Sites in fiscal year (FY) 2021 determined that materials originally used to backfill underground structures may have settled, and metal escape hatches and stairway covers may have corroded and deteriorated over time causing the sinkholes and subsidence areas in the soil caps. Approaches to investigation and repair of the sinkholes and subsidence areas were evaluated to provide a permanent solution and minimize the risk of future recurrence (HNF-65538, "Technical Report: H-12-L Nike Missile Launch Site Subsidence Preliminary Repair Plan"). These approaches may be implemented as determined appropriate by project personnel.

The three WIDS sites are similar in configuration and include two underground missile/magazine storage bunkers and associated control rooms (see Figures 5 through 10). The underground structures are approximately 65 feet by 80 feet each. The aboveground structures (barracks,

NEPA REVIEW SCREENING FORM 3
Categorically Excluded Actions (Continued)

Document ID #:
DOE/CX-00224

storage tanks, generator buildings, sheds) have been demolished and removed. All underground structures (missile/magazine storage bunkers, control rooms, water wells, septic systems, valve pits) were backfilled with soil, building demolition debris, and cement slurry. A soil cap was placed over the backfilled underground structures. Geophysical surveys using ground-penetrating radar (GPR) were performed in the past to locate underground storage tanks and solid waste landfills that existed based on historical records; however, none were found suggesting prior removal.

The affected area for the project is approximately 28 acres and all activities would occur within this area. Project activities would include the following:

- Removal of physical road barriers and placement of temporary fencing as needed to delineate work areas and prevent public access.
- Removal of vegetation within access roads and surrounding work areas with ground disturbance up to approximately 9 inches deep.
- Removal of vegetation through mowing at an existing asphalt pad at WIDS 600-9. Once vegetation is removed the asphalt pad would be used for staging of materials and equipment.
- Subsurface investigations using ground-penetrating radar or other acceptable geophysical methods to identify underground utilities, structures, and other obstructions; and additional void areas with the potential for subsidence or collapse.
- Excavation of sinkholes, subsidence, or other detected void areas; removal of subsurface structure access plates and covers; and backfilling and compaction of these areas with soil or other suitable fill materials. Excavations may reach up to 16 feet in depth.
- Revegetation of backfilled and compacted areas to stabilize soil from wind and water erosion, and minimize water infiltration through evaporation and plant transpiration (evapotranspiration).

Excavated areas in the soil caps covering the WIDS sites would be backfilled with removed soil and contoured to blend into the surrounding terrain. If additional backfill soil is needed, it would be obtained from an existing active borrow pit analyzed in DOE/EA-1934, "Environmental Assessment for Expansion of Borrow Areas on the Hanford Site" or other approved onsite or offsite sources.

Access to the project areas would be through existing paved and unpaved roads. Material and equipment staging and laydown areas would be established in previously disturbed areas, which may require mowing to remove vegetation. The soil caps covering the repaired sinkholes and subsidence areas would be revegetated as discussed under "Ecological Resources Mitigation Requirements" in the "Ecological Resources Review" section below.

After the sinkholes and subsidence areas are repaired and the soil caps are restored, and with the concurrence of DOE-RL/SSD and USFWS, the temporary fencing, warning signs around the areas of concern, and barriers on the roadways leading to the former Nike Missile Launch Sites would be removed. The WIDS and Stewardship Information System (SIS) databases would be updated with information regarding repair of the sinkholes and subsidence areas.

ECOLOGICAL RESOURCES REVIEW (ECR-2023-611)

DOE-RL Ecological Compliance staff performed a field survey of the project area on August 23, 2022. The "Hanford Site Biological Resources Management Plan" (BRMP, DOE/RL-96-32, Rev. 2), which is the primary implementation document for managing and protecting biological resources on the Hanford Site, ranks wildlife species and habitats based on the level of concern for each resource (BRMP Levels 0-5). BRMP Level 0 and Level 1 habitats are low quality industrial or previously disturbed areas (non-vegetated dirt, gravel, or paved surfaces; or cheatgrass covered areas) that have little ecological value and no compensatory mitigation requirements other than compliance with other applicable regulations such as the "Migratory Bird Treaty Act." For BRMP Level 2, 3, and 4 habitats compensatory mitigation is required if the total project impact after avoidance, minimization, and onsite rectification 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 habitats contain rare and irreplaceable resources such as "element occurrences" with compensatory mitigation determined on a case-by-case basis.

NEPA REVIEW SCREENING FORM 3
Categorically Excluded Actions (Continued)

Document ID #:
DOE/CX-00224

The project locations are characterized as previously disturbed areas with various levels of successional vegetation including upland stands with a sparse climax or successional shrub overstory and a non-native understory (BRMP Level 2 habitats) or areas dominated by non-native species (BRMP Level 1 habitats). Observations, ecological controls, and mitigation requirements for each of the project locations are summarized below.

WIDS 600-13

Ground surfaces at the WIDS 600-13 site are primarily asphalt with soil mounds in the central portion where previous excavations have occurred. Vegetation within the cracks of the asphalt and on the soil mounds is dominated by Big Sagebrush shrubs with an understory dominated by Cheatgrass and Sandberg's Bluegrass. Other plant species within the project area include Gray Rabbitbrush, Indian Ricegrass, Hoary Aster, Russian Thistle, Jim Hill's Tumblemustard, Prickly Lettuce, and Crested Wheatgrass. Wildlife or wildlife signs observed in the project area include Horned Lark, Side-Blotched Lizard, and Coyote scat and tracks.

DOE-RL Ecological Compliance staff would direct project staff to minimize impacts to Big Sagebrush shrubs to the extent practical. Project impacts would be diverted to lower-quality habitats within the project area when feasible. Areas of subsidence at this location contain potential snake hibernacula habitat with suitable entrances combined with the likelihood of voids within the demolished underground structures. DOE-RL Ecological Compliance staff conducted weekly observations throughout the fall of 2022 and no signs of snakes were observed.

WIDS 600-9

Ground surfaces at the WIDS 600-9 site are primarily compacted soil and vegetation is dominated by Cheatgrass. Other vegetation at the site include Gray Rabbitbrush, Russian Thistle, Jim Hill's Tumblemustard, Prickly Lettuce, Sandberg's Bluegrass, and Diffuse Knapweed. A large portion of the public road used to access this site also contain patches of Diffuse Knapweed. Wildlife observed during the survey include Horned Lark.

Diffuse Knapweed is listed as a Washington State Class B noxious weed. To prevent the spread of weed seeds, project vehicles and equipment that are used in areas containing the noxious weed would be washed in the field over grass covered or bare dirt surfaces using cold, low-pressure water prior to leaving the area. Soap, detergents, or cleaners would not be used and compressed air may be used in lieu of water.

WIDS 600-6

Ground surfaces at the WIDS 600-6 site are primarily asphalt with soil mounds in the central portion where previous excavations have occurred. Vegetation within the cracks of the asphalt and on the soil mounds is dominated by Gray Rabbitbrush shrubs with an understory dominated by Cheatgrass. Other plant species prevalent at this site include Green Rabbitbrush, Sandberg's Bluegrass, Jim Hill's Tumblemustard, Russian Thistle, and Prickly Lettuce. Scattered individual occurrences or small patches of Bitterbrush, Needle-and-Thread Grass, Yarrow, Bottlebrush Squirreltail, Indian Ricegrass, and Crested Wheatgrass were also observed. Small patches of Rush Skeletonweed were observed in the central portion of the site and on the barricaded portion of the access road adjacent to the site. Wildlife observed during the survey include Western Meadowlark.

Rush Skeletonweed is listed as a Washington State Class B noxious weed. To prevent the spread of weed seeds, project vehicles and equipment that are used in the areas containing the noxious weed would be washed in the field over grass covered or bare dirt surfaces using cold, low-pressure water prior to leaving the area. Soap, detergents, or cleaners would not be used and compressed air may be used in lieu of water.

ECOLOGICAL RESOURCES REGULATORY COMPLIANCE

The active nests of migratory birds are protected by the "Migratory Bird Treaty Act." Birds can nest within the project areas on the ground, on buildings, or on equipment. The nesting season is typically from mid-March to mid-July. DOE-RL Ecological Compliance staff would instruct project personnel to watch for nesting birds. If any nesting birds are encountered or suspected, or bird defensive behaviors are observed within the project areas, then project personnel would contact

NEPA REVIEW SCREENING FORM 3
Categorically Excluded Actions (Continued)

Document ID #:
DOE/CX-00224

DOE-RL Ecological Compliance staff to evaluate the situation. DOE-RL Ecological Compliance staff would conduct a nesting bird survey prior to initiation of ground disturbing activities during the nesting season. Project personnel would contact DOE-RL Ecological Compliance staff to schedule a nesting bird survey of the project areas at least one week prior to initiation of any ground disturbing activities.

ECOLOGICAL RESOURCES MITIGATION REQUIREMENTS

Land areas disturbed by project activities that are not needed for continued project use, access, or safety considerations would be revegetated using locally derived, native plant species. The "Hanford Site Revegetation Manual" (DOE-RL-2011-116, Revision 2) provides guidance regarding species mix, planting rates, and methods (hydroseeding may be used). Revegetation would occur in the first planting window (November - January) after project completion and revegetation planning would occur between January and March of the prior year (7-9 months before the planting window) in order to procure plant materials. DOE-RL Ecological Compliance staff would provide assistance for revegetation planning and implementation.

No adverse effects to ecological resources are anticipated based on project areas being previously disturbed as a result of prior site remediation activities, and similar work performed at Nike Missile Launch Site H-12-L in FY 2021 to repair sinkholes and subsidence areas in the soil cap (DOE/CX-00212). The ecological resources review is valid for one year from the date the ecological clearance letter is issued and would be renewed, as needed, due to the seasonal and migratory nature of plants and animals.

CULTURAL RESOURCES REVIEW (HCRC#2022-600-011)

DOE-RL Cultural and Historic Resources Program (CHRP) staff transmitted the Area of Potential Effects (APE) notification for the project to the State Historic Preservation Officer (SHPO) and regional Native American Tribes on September 6, 2022. The SHPO concurred with the APE on September 6, 2022. CHRP staff performed a cultural resources survey of the APE on September 22, 2022, and transmitted a Cultural Resources Review (CRR) with a finding of "No Historic Properties Affected" to the SHPO and regional Native American Tribes for a 30-day comment period on December 1, 2022. The SHPO concurred with the findings of the CRR on December 1, 2022. CHRP staff provided a notice of compliance with 54 USC §306108 (formerly known as Section 106) of the National Historic Preservation Act for this project on January 12, 2023.

The APE overlaps five previously documented archaeological sites associated with the Nike Missile Launch Sites. These archaeological sites were previously determined not eligible for the National Register of Historic Places (NRHP) because they are extensively disturbed and lack integrity. Research and fieldwork conducted for this project did not result in the identification of any new information or previously undocumented cultural features or materials associated with the Nike Missile Launch Sites. Based on the previous determination, a reevaluation of these archaeological sites under the NRHP was determined not necessary.

Workers would be directed by project management to watch for cultural materials (bones, stone tools, projectile points, mussel shells, cans, bottles, burned rock, charcoal) during work activities in the project areas. If any cultural materials are encountered, work in the vicinity of the discovery would stop until an archaeological monitor or 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 related subsections of the "Hanford Cultural Resources Management Plan" (DOE/RL-98-10, current revision). CHRP staff anticipates no impacts to cultural resources or historic properties as a result of project activities.

HEALTH AND SAFETY

Asbestos-containing materials (ACM) may be encountered when excavating the sinkholes and subsidence areas at the former Nike Missile Launch Sites. Project management would incorporate best management practices for ACM removal, handling, and disposal. Project activities would be performed in accordance with 40 CFR 61, "National Emissions Standards for Hazardous Air Pollutants" (NESHAPS), Subpart M, "National Emission Standard for Asbestos"; 40 CFR 763, "Asbestos"; WAC 173-400, "General Regulations for Air Pollution Sources"; and other applicable ACM protocols, policies, and procedures.

NEPA REVIEW SCREENING FORM 3
Categorically Excluded Actions (Continued)

Document ID #:
DOE/CX-00224

Hexavalent chromium may be encountered since painted surfaces could contain lead chromates. Project management would incorporate best management practices for hexavalent chromium when cutting, burning, welding, or polishing metal or painted surfaces. Project activities would be performed in accordance with WAC 296-62-08003, "Hexavalent Chromium"; 29 CFR 1915.1026, "Chromium (VI)"; and other applicable hexavalent chromium protocols, policies, and procedures. Surfaces may have been treated with other lead-based paints. Project management would incorporate best management practices for lead-based paint containment, removal, and disposal such as 40 CFR 745, "Lead-Based Paint Poisoning Prevention in Certain Residential Structures," or other applicable protocols, policies, and procedures.

Respirable silica may be encountered during concrete cutting activities. Concrete cutting would be performed in accordance with 29 CFR 1926.1153, "Respirable Crystalline Silica," as incorporated by reference in HMIS-PRO-WP-61800, "Respirable Crystalline Silica Exposure Control."

CONCLUSION

The proposed project would have NEPA coverage under 10 CFR 1021, Subpart D, Appendix B, Categorical Exclusion B6.1, "Cleanup Actions." Among other things, this CX addresses small-scale, short-term cleanup actions under RCRA, Atomic Energy, or other authorities to reduce risk to human health or the environment. In particular, subpart (h) covers the stabilization, but not expansion, of berms, dikes, impoundments, or caps if needed to maintain integrity of the structures. Any changes to the proposed action as described herein would require review and approval by the DOE Hanford NEPA Compliance Officer.

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

Maps:




- Figure 1. Sinkholes and Subsidence Areas at Nike Missile Launch Site H-12-L (WIDS 600-6)
- Figure 2. Sinkholes and Subsidence Areas at Nike Missile Launch Site H-06-L (WIDS 600-9)
- Figure 3. Sinkholes and Subsidence Areas at Nike Missile Launch Site H-83-L (WIDS 600-13)
- Figure 4. Location of Nike Missile Launch Sites in Wahluke and Saddle Mountain Units of Hanford Reach National Monument
- Figure 5. WIDS 600-6 Nike Missile Launch Site Cultural Resources Area of Potential Effects
- Figure 6. WIDS 600-6 Nike Missile Launch Site Ecological Resources Survey Area
- Figure 7. WIDS 600-9 Nike Missile Launch Site Cultural Resources Area of Potential Effects
- Figure 8. WIDS 600-9 Nike Missile Launch Site Ecological Resources Survey Area
- Figure 9. WIDS 600-13 Nike Missile Launch Site Cultural Resources Area of Potential Effects
- Figure 10. WIDS 600-13 Nike Missile Launch Site Ecological Resources Survey Area

Other Attachments:

N/A

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

B6.1, "Cleanup Actions"

NEPA REVIEW SCREENING FORM 3 Categorically Excluded Actions (Continued)	Document ID #: DOE/CX-00224	
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.	<input type="radio"/>	<input checked="" type="radio"/>
Is the proposed action connected to other actions with potentially significant impacts, or that could result in cumulatively significant impacts? If yes, describe them.	<input type="radio"/>	<input checked="" type="radio"/>
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?	<input type="radio"/>	<input checked="" type="radio"/>
Would the proposed action require siting, construction, or major expansion of waste storage, disposal, recovery, or treatment facilities?	<input type="radio"/>	<input checked="" type="radio"/>
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?	<input type="radio"/>	<input checked="" type="radio"/>
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.	<input type="radio"/>	<input checked="" type="radio"/>
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?	<input type="radio"/>	<input checked="" type="radio"/>
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:		
<u>Jerry W. Cammann, HMIS NEPA SME</u> <i>Print First and Last Name</i>	<u>JERRY CAMMANN</u> <i>(Affiliate)</i>	 <i>Digitally signed by JERRY CAMMANN (Affiliate)</i> <i>Date: 2023.01.19 08:52:00 -08'00'</i>
Cognizant Program/Project Representative:		
<u>Paula K. Call, DOE-RL/SSD</u> <i>Print First and Last Name</i>	<u>PAULA CALL</u>	 <i>Digitally signed by PAULA CALL</i> <i>Date: 2023.01.24 15:44:45 -08'00'</i>
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): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
<u>Douglas H. Chapin, DOE Hanford NCO</u> <i>Print First and Last Name</i>	<u>Douglas H. Chapin</u>  <i>Digitally signed by Douglas H. Chapin</i> <i>Date: 2023.01.25 12:29:53 -08'00'</i>	
NCO Comments:		

FIGURES FOR DOE/CX-00224

ACTIVITY SPECIFIC CATEGORICAL EXCLUSION FOR REPAIR OF SINKHOLES AND SUBSIDENCE AREAS IN THE SOIL CAPS COVERING THE FORMER H-06-L, H-12-L, AND H-83-L NIKE MISSILE LAUNCH SITES

(11 pages including this page)

Figure 1. Sinkholes and Subsidence Areas at Nike Missile Launch Site H-12-L (WIDS 600-6)



Figure 2. Sinkholes and Subsidence Areas at Nike Missile Launch Site H-06-L (WIDS 600-9)



Figure 3. Sinkholes and Subsidence Areas at Nike Missile Launch Site H-83-L (WIDS 600-13)

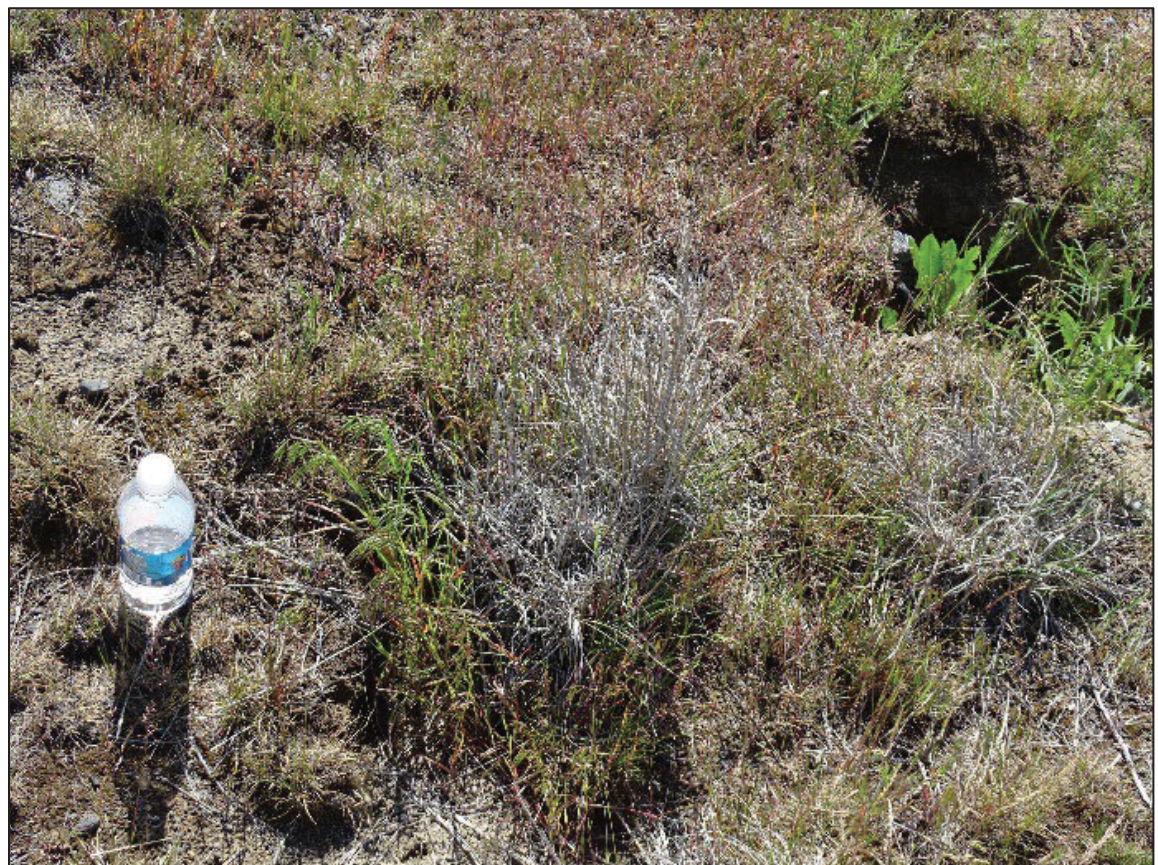
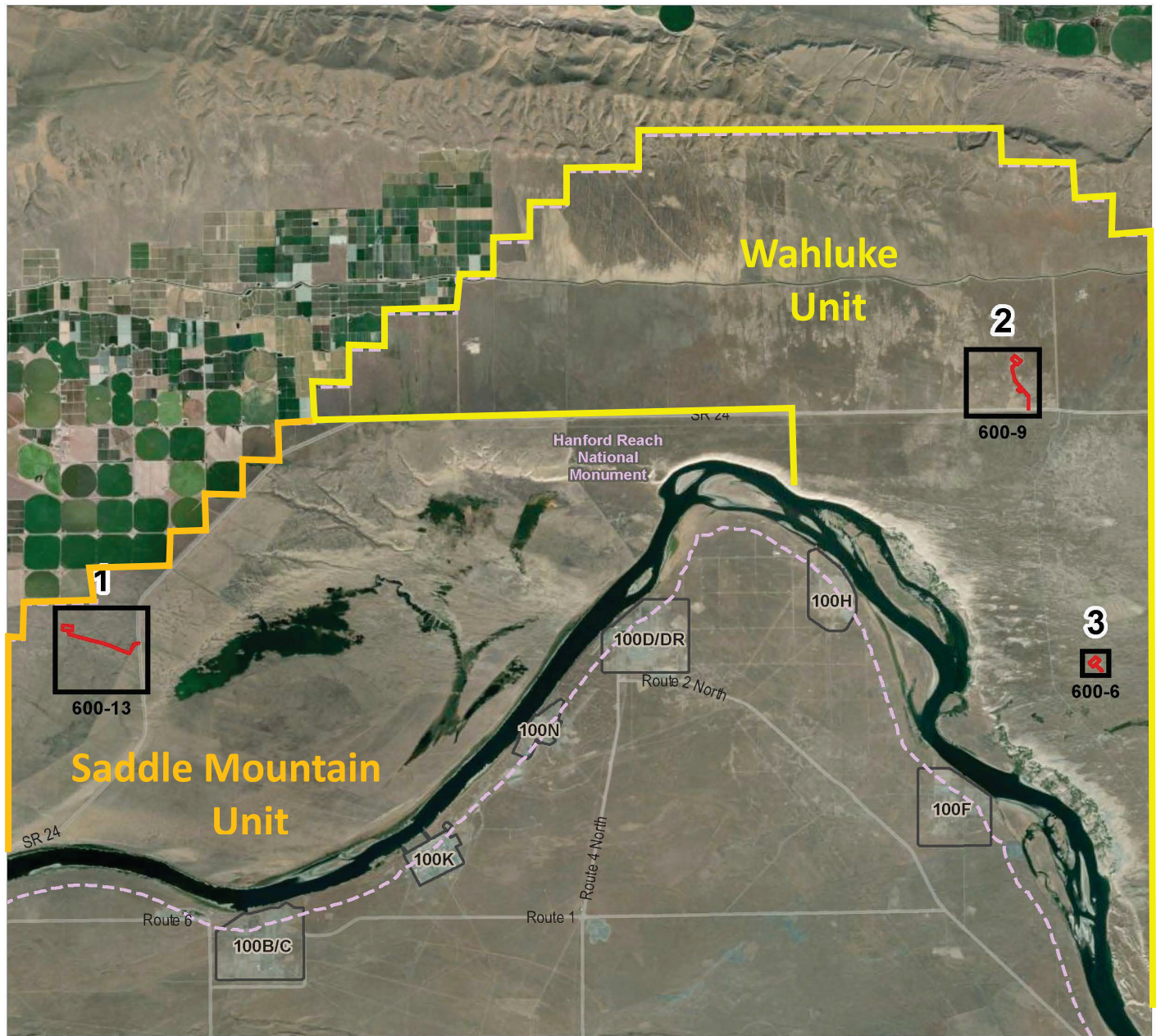


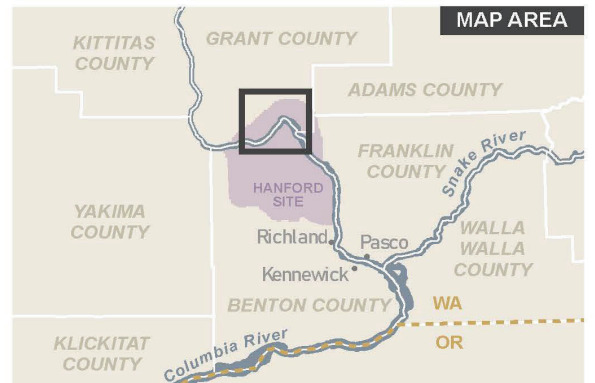
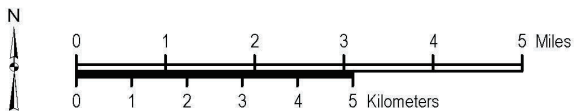
Figure 4. Location of Nike Missile Launch Sites in Wahluke and Saddle Mountain Units of Hanford Reach National Monument



Area of Potential Effect (APE) OVERVIEW

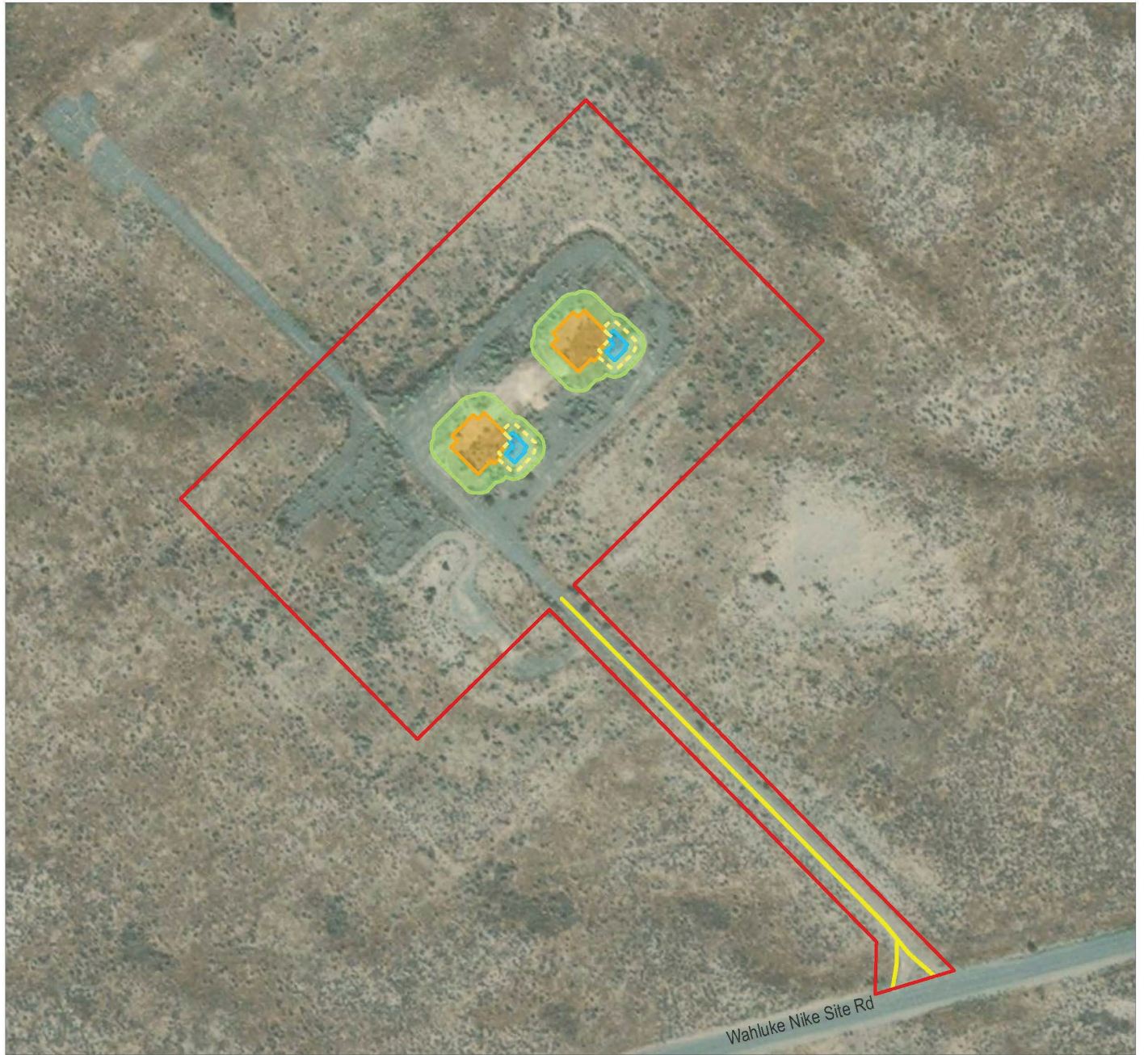
HCRC#2022-600-011
Hanford Site, Benton County, Washington

- Area of Potential Effect (APE)
- Hanford Reach National Monument
- Hanford Site Areas



NOTE: Aerial Imagery, 2020 & 2021, ESRI.

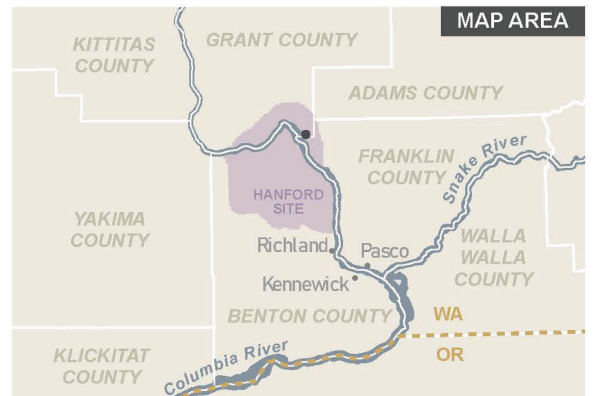
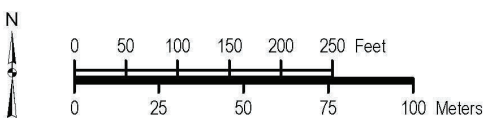
Figure 5. WIDS 600-6 Nike Missile Launch Site Cultural Resources Area of Potential Effects



Area of Potential Effect (APE) - 600-6

HCRC#2022-600-011
Hanford Site, Benton County, Washington

- Area of Potential Effect (APE)
- Control Room
- Excavation Layback
- Geophysical Survey / Clear and Grub
- Magazine Storage
- Access Road








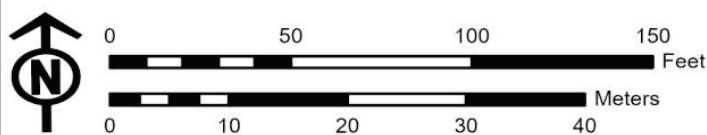
NOTE: Aerial Imagery, 2020 & 2021, ESRI.

Figure 6. WIDS 600-6 Nike Missile Launch Site Ecological Resources Survey Area



LEGEND

-  Asphalt/Concrete - Use for access and staging of overburden materials / equipment
-  Geophysical Survey / Clear and Grub (0.25 acres)
-  Control Room / Stairwell (435 sq ft) - Excavate, break up remaining roof, downsize debris
-  Excavation Layback (Minimum 10 ft) - Required to access control room / stairwell section
-  Magazine Storage (249 ft perimeter) - Trench inside perimeter, break up remaining roof



Ecological Survey Area (600-6)

ECR-2023-611 | Z-375; Nike Missile Site Stabilization
Hanford Site, Benton County, WA

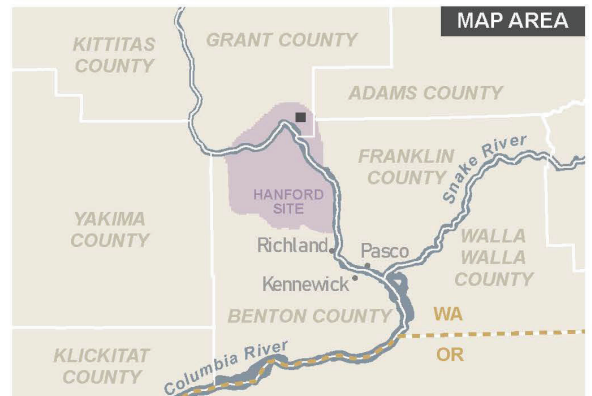
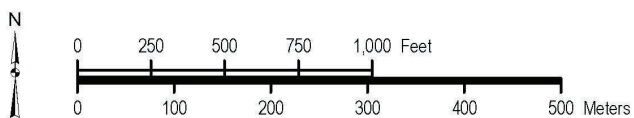
Figure 7. WIDS 600-9 Nike Missile Launch Site Cultural Resources Area of Potential Effects



Area of Potential Effect (APE) - 600-9

HCRC#2022-600-011
Hanford Site, Benton County, Washington

- Area of Potential Effect (APE)
- Control Room
- Excavation Layback
- Geophysical Survey / Clear and Grub
- Magazine Storage
- Existing Asphalt Area for Staging
- Access Road








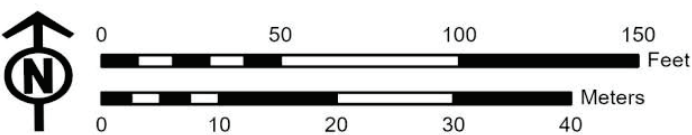
NOTE: Aerial Imagery, 2020 & 2021, ESRI.

Figure 8. WIDS 600-9 Nike Missile Launch Site Ecological Resources Survey Area



LEGEND

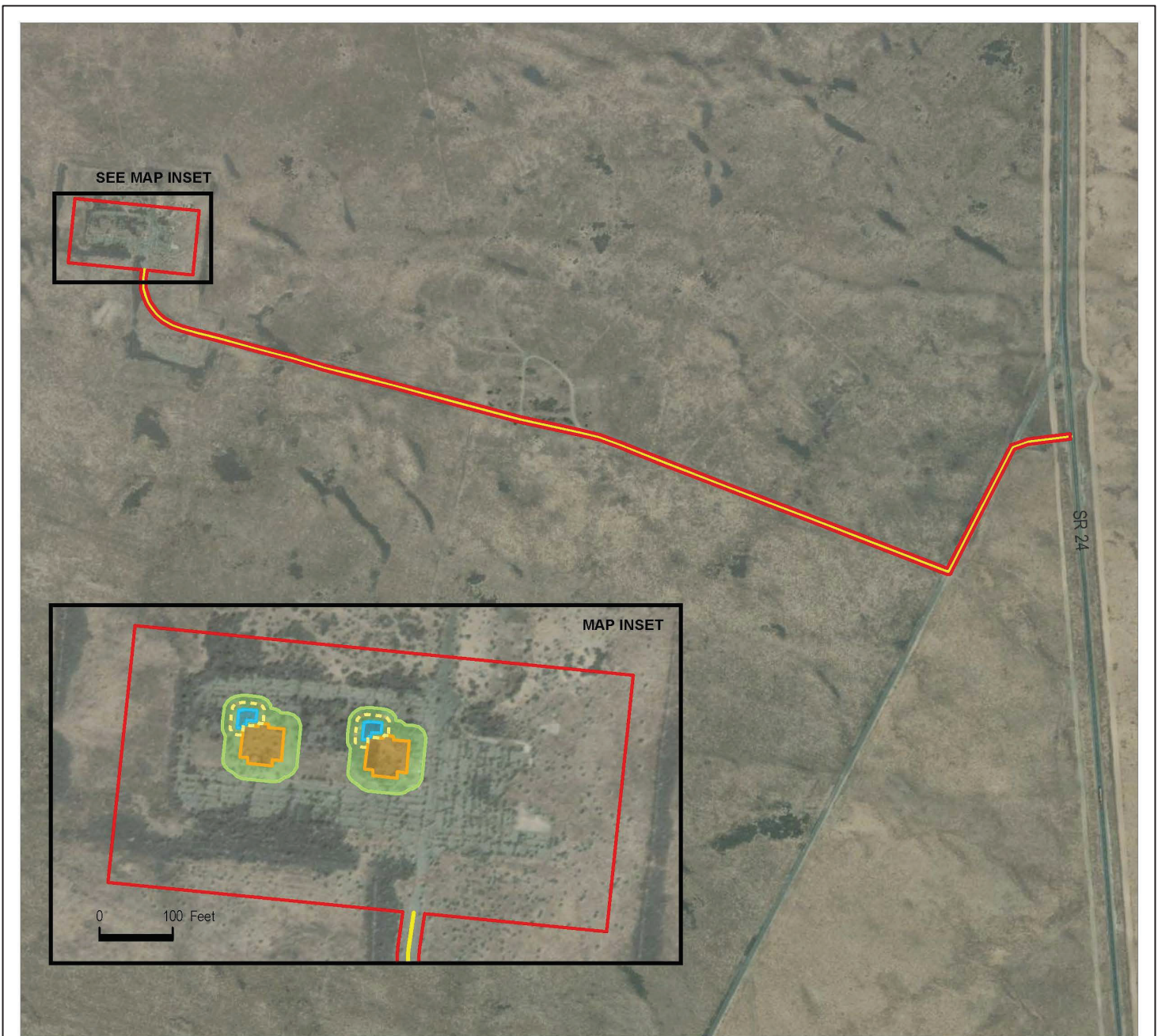
-  Asphalt/Concrete - Use for access and staging of overburden materials / equipment
-  Geophysical Survey / Clear and Grub (0.25 acres)
-  Control Room / Stairwell (435 sq ft) - Excavate, break up remaining roof, downsize debris
-  Excavation Layback (Minimum 10 ft) - Required to access control room / stairwell section
-  Magazine Storage (249 ft perimeter) - Trench inside perimeter, break up remaining roof



Ecological Survey Area (600-9)

ECR-2023-611 | Z-375; Nike Missile Site Stabilization
Hanford Site, Benton County, WA

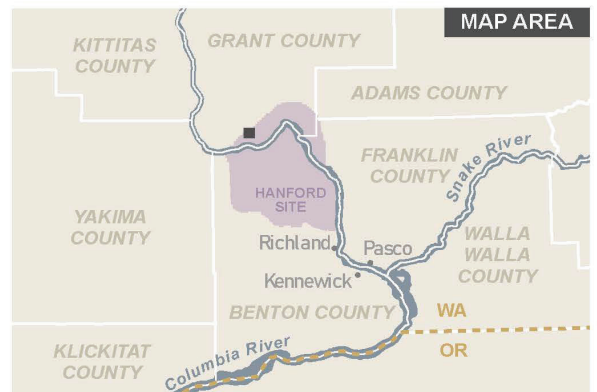
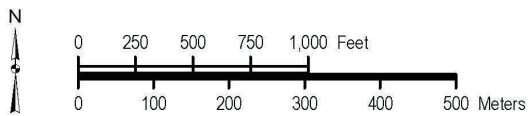
Figure 9. WIDS 600-13 Nike Missile Launch Site Cultural Resources Area of Potential Effects



Area of Potential Effect (APE) - 600-13

HCRC#2022-600-011
Hanford Site, Benton County, Washington

- Area of Potential Effect (APE)
- Control Room
- Excavation Layback
- Geophysical Survey / Clear and Grub
- Magazine Storage
- Access Road








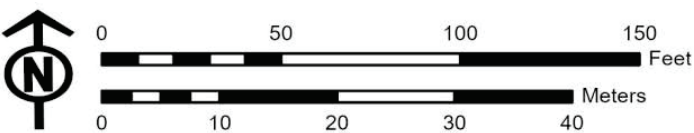
NOTE: Aerial Imagery, 2020 & 2021, ESRI.

Figure 10. WIDS 600-13 Nike Missile Launch Site Ecological Resources Survey Area



LEGEND

-  Asphalt/Concrete - Use for access and staging of overburden materials / equipment
-  Geophysical Survey / Clear and Grub (0.25 acres)
-  Control Room / Stairwell (435 sq ft) - Excavate, break up remaining roof, downsize debris
-  Excavation Layback (Minimum 10 ft) - Required to access control room / stairwell section
-  Magazine Storage (249 ft perimeter) - Trench inside perimeter, break up remaining roof



Ecological Survey Area (600-13)

ECR-2023-611 | Z-375; Nike Missile Site Stabilization
Hanford Site, Benton County, WA