

**NEPA REVIEW SCREENING FORM (NRSF) 3A**  
**Categorically Excluded Actions**

**Document ID #:**  
DOE/CX-00212

**I. Project Title:**

Activity-Specific Categorical Exclusion for H-12-L Battery B Nike Missile Launch Site Corrective Actions

**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 United States Department of Energy (DOE), Richland Operations Office (RL), Site Stewardship Division (SSD) proposes emergency corrective actions to repair sinkholes and subsidence areas discovered at the decommissioned H-12-L Battery B Nike Missile Launch Site (referred to hereafter as the Nike Site). DOE-RL SSD authorized the Mission Support Contractor Land Stewardship organization to perform site walk downs, ground penetrating radar (GPR) surveys, and engineering evaluations of corrective actions.

The Nike Site is located within the Wahluke Unit of the Hanford Reach National Monument, across the river from the 100F Reactor Area. While the Wahluke Unit is managed by the United States Fish and Wildlife Service (USFWS) under a permit issued by DOE-RL, the Nike Site is a Waste Information Data System (WIDS) site (600-6) managed by DOE-RL SSD. The Nike Site and surrounding land is accessible to the public using State Highway 24. DOE-RL SSD notified USFWS of their intention to perform emergency corrective actions at the Nike Site and would continue to coordinate their efforts with the USFWS, as appropriate. The project lead for the USFWS is Trevor Fox. Figure 1 shows the location of the WIDS 600-6 site.

The WIDS 600-6 site structures were either removed (e.g., underground oil tank) or abandoned in place and filled with a concrete slurry around 1990. The engineering evaluation determined that fill material may have settled, and metal escape hatches and stairway covers may have corroded and deteriorated over time, causing the sinkholes and subsidence areas. Figure 2 shows the project area overlaid with geophysics results and the locations of 12 observed sinkholes and subsidence areas, where corrective actions would be taken. Photographs of the sinkholes and subsidence areas (locations 1 through 12) are also provided.

Approaches to investigation and repair of the sinkholes and subsidence areas were considered to provide a permanent solution and minimize the risk of future recurrence. These approaches and the selected repairs are discussed in HNF-65538, "Technical Report: H-12-L Nike Missile Launch Site Subsidence Preliminary Repair Plan."

The Preliminary Repair Plan includes the following: Each of the subsidence areas would be investigated using ground-penetrating radar and excavated to determine the cause of the soil depression. Soil would be excavated to expose the walls of the structure and the opening. Where necessary, a steel plate would be placed over the opening, supported by the walls. The steel plate would be covered with an 8-inch thick steel-reinforced concrete slab to secure the steel plate in place. Excavated areas would be backfilled with removed soil and brought to grade. If additional backfill soil is needed, it would be obtained from existing active borrow pits analyzed in DOE/EA-1934, "Environmental Assessment for Expansion of Borrow Areas on the Hanford Site" or commercial sources.

Figure 3 shows the conceptual design for covering openings in structures using a steel plate and steel-reinforced concrete slab. The design is conceptual because the actual length and width of steel plates and steel-reinforced concrete slabs may vary depending on the size of openings, as discussed in HNF-65538.

Based on potential hazards associated with the sinkholes and subsidence areas, and with direction from DOE-RL SSD, temporary barriers and signage were placed around the area of concern and at the road entrance leading to the Nike Site to prevent public access. After the sinkholes and subsidence areas are repaired, and with the concurrence of DOE-RL SSD and USFWS, the signage around the area of concern and barriers on the roadway leading to the Nike Site would be removed. Information regarding the repair of the sinkholes and subsidence areas would be provided to update the WIDS and Stewardship Information System (SIS).

**Health and Safety.** Asbestos-containing materials (ACM) may be encountered during the performance of the work. Project management would incorporate best management practices for ACM removal,

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handling, and disposal. Applicable regulations would be complied with including 40 CFR 61, "National Emissions Standards for Hazardous Air Pollutants" (NESHAPS), Subpart M, "National Emission Standard for Asbestos"; 40 CFR 763, "Asbestos"; and WAC 173-400, "General Regulations for Air Pollution Sources."

Hexavalent chromium may be encountered since painted surfaces typically contain lead chromates. Project management would incorporate best management practices for hexavalent chromium when cutting, burning, welding, or polishing metal or painted surfaces. Applicable regulations would be complied with including WAC 296-62-08003, "Hexavalent Chromium" and 29 CFR 1915.1026, "Chromium (VI)."

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 MSC-PRO-WP-61800, "Respirable Crystalline Silica Exposure Control."

Any changes to the proposed project would require review and approval by the DOE NEPA Compliance Officer.

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

Ecological Review Report No. and Title:

Cultural Review Report No. and Title:

**Maps:**

**Figure 1** - WIDS 600-6 Nike Site Location in Relation to Public Access Route off State Highway 24

**Figure 2** - H-12-L Battery B Nike Missile Site Sinkhole and Subsidence Area Map

**Location 1** - Sinkhole at the Emergency Access Hatch to the H-12-L Battery B Nike Underground Missile Storage Structure

**Location 2** - Sinkholes Adjacent to Filled Stairwell Entrance to the H-12-L Battery B Nike Underground Missile Storage Structure

**Location 3** - Subsidence Area near Emergency Access Hatch of Second H-12-L Battery B Nike Underground Missile Storage Structure

**Location 4** - Subsidence Area near Access to Stairwell to the H-12-L Battery B Nike Underground Missile Storage Structure

**Location 5** - Subsidence Area near an Opening to the H-12-L Battery B Nike Underground Missile Storage Structure

**Location 6** - Subsidence Area near Opening to the H-12-L Battery B Nike Underground Missile Storage Structure

**Location 7** - Sinkhole on the H-12-L Battery B Nike Missile Launch Pad

**Location 8** - Sinkhole on the H-12-L Battery B Nike Missile Launch Pad

**Location 9** - Subsidence Area near Opening to the H-12-L Battery B Nike Underground Missile Storage Structure

**Location 10** - Sinkhole near Opening to the H-12-L Battery B Nike Underground Missile Storage Structure

**Location 11** - Sinkhole near Opening to the H-12-L Battery B Nike Underground Missile Storage Structure

**Location 12** - Subsidence Area near Opening to the H-12-L Battery B Nike Underground Missile Storage Structure

**Figure 3** - Typical Conceptual Design to Repair Sinkholes and Subsidence Areas

Other Attachments:



Figure 1. WIDS 600-6 Nike Site Location in Relation to Public Access Route off State Highway 24

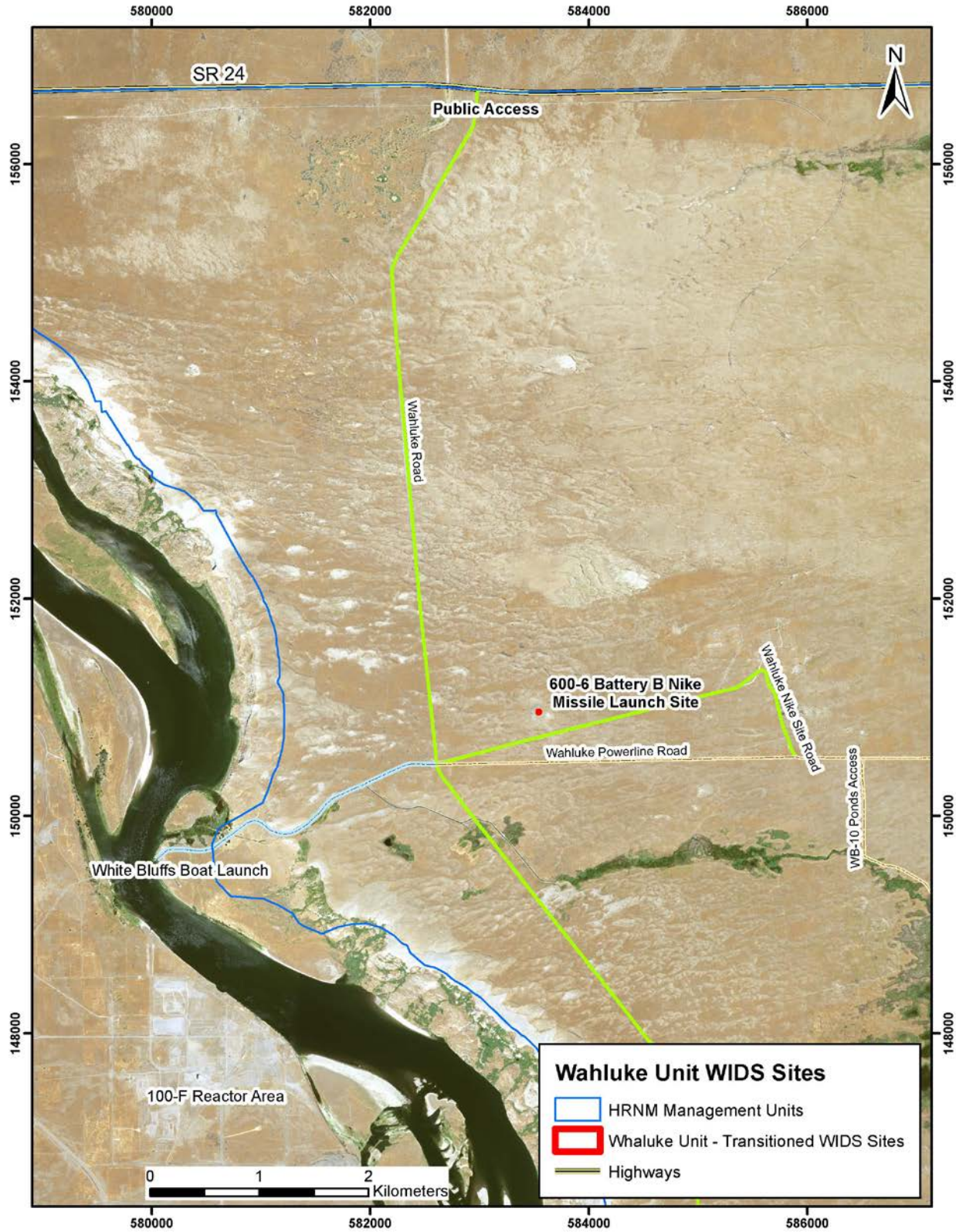
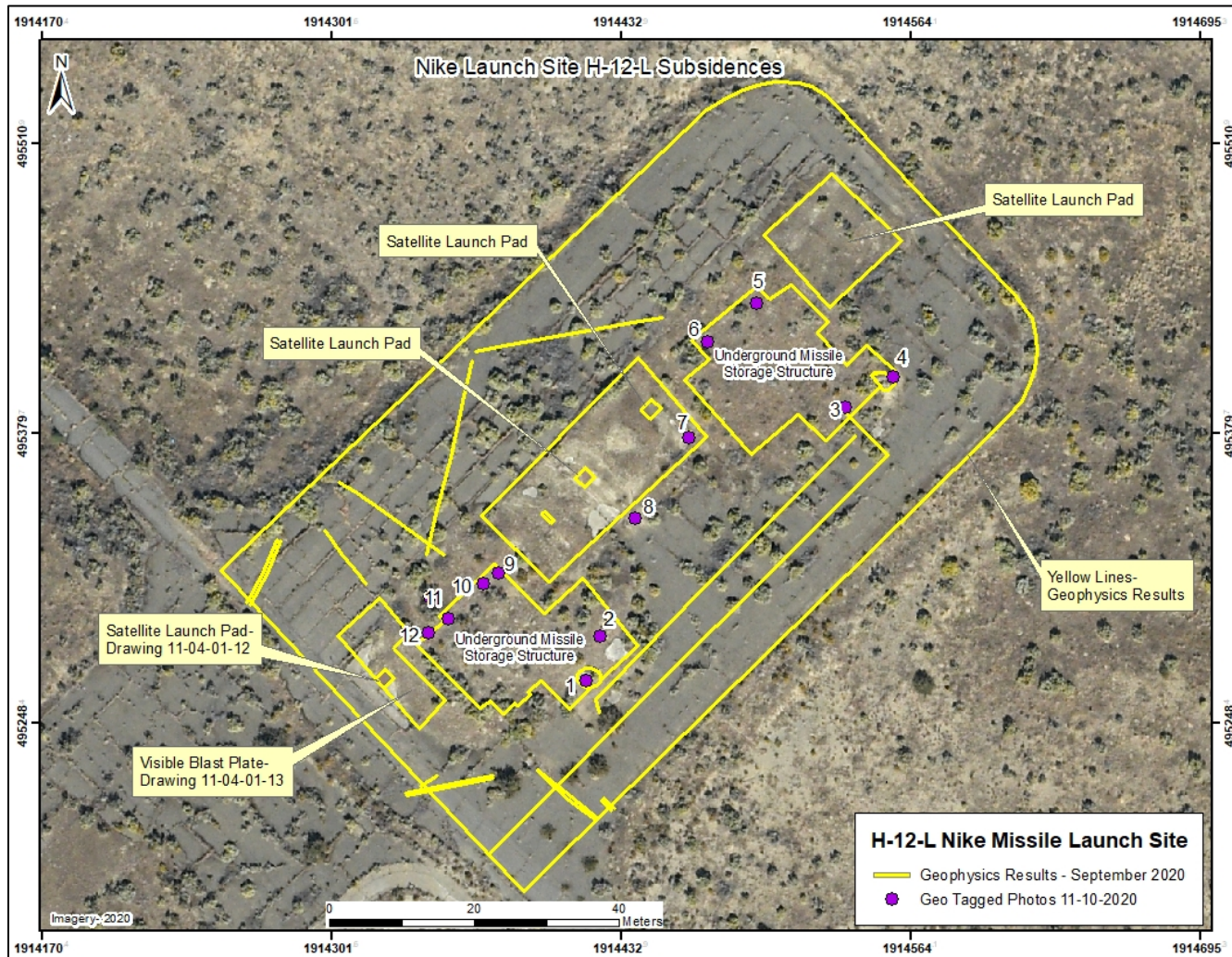


Figure 2. H-12-L Battery B Nike Missile Site Sinkhole and Subsidence Area Map



NOTE: Map of the H-12-L Battery B Nike Missile Launch Site with September 2020 aerial imagery, overlay of the geophysics survey conducted in September 2020, and the geo-tagged photo locations of areas proposed for corrective actions (locations 1 through 12).

Location 1 - Sinkhole at the Emergency Access Hatch to the H-12-L Battery B Nike Underground Missile Storage Structure



Location 2 - Sinkholes Adjacent to Filled Stairwell Entrance to the H-12-L Battery B Nike Underground Missile Storage Structure



Location 3 - Subsidence Area near Emergency Access Hatch of Second H-12-L Battery B Nike Underground Missile Storage Structure





Location 4 - Subsidence Area near Access to Stairwell to the H-12-L Battery B Nike Underground Missile Storage Structure



Location 5 - Subsidence Area near an Opening to the H-12-L Battery B Nike Underground Missile Storage Structure



Location 6 - Subsidence Area near Opening to the H-12-L Battery B Nike Underground Missile Storage Structure



Location 7 - Sinkhole on the H-12-L Battery B Nike Missile Launch Pad



Location 8 - Sinkhole on the H-12-L Battery B Nike Missile Launch Pad



Location 9 - Subsidence Area near Opening to the H-12-L Battery B Nike Underground Missile Storage Structure



Location 10 - Sinkhole near Opening to the H-12-L Battery B Nike Underground Missile Storage Structure



Location 11 - Sinkhole near Opening to the H-12-L Battery B Nike Underground Missile Storage Structure





Location 12 - Subsidence Area near Opening to the H-12-L Battery B Nike Underground Missile Storage Structure

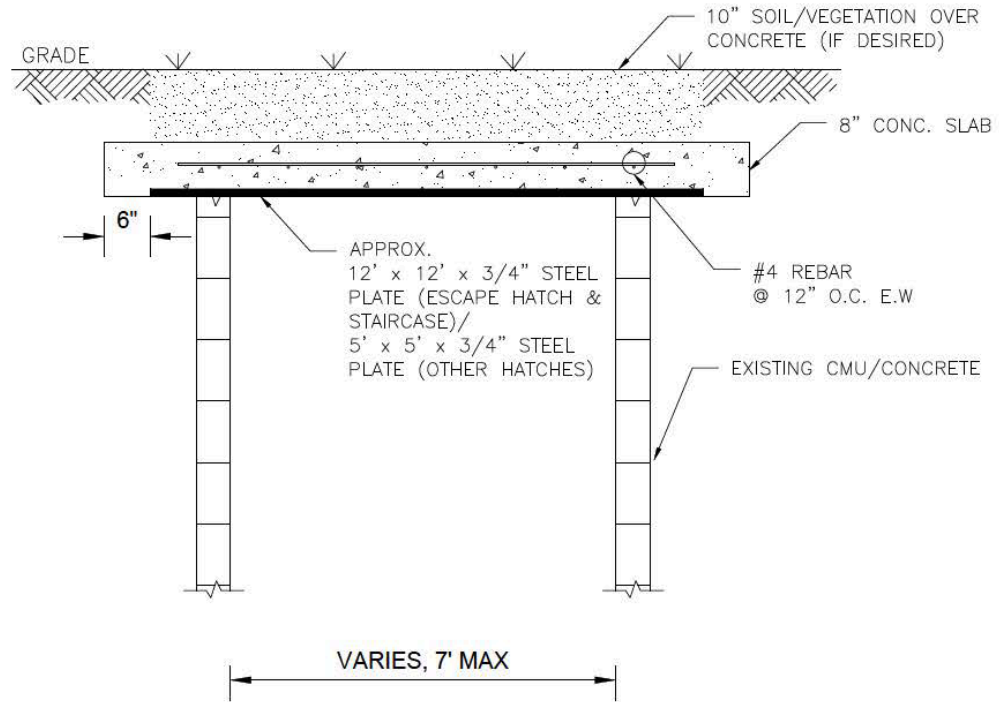


**Figure 3. Typical Conceptual Design to Repair Sinkholes and Subsidence Areas**  
 (actual dimensions may vary depending on the size of openings found after removing surface soil)

DETAIL 1 – NIKE MISSILE LAUNCH SITE SUBSIDENCE CONCEPTUAL REPAIR PLAN

DATE: 9/29/2020

SKETCH NUMBER: DWG-01



**TYPICAL CONCEPTUAL REPAIR SECTION AT SUBSIDENCE AREAS**

(SCALE: NTS)

CONSTRUCTION NOTES:

1. COMPRESSIVE STRENGTH OF CONCRETE SHALL BE 4000 PSI.
2. ALL REINFORCEMENT STEEL SHALL BE GRADE 60 DEFORMED BARS COMPLYING WITH ASTM SECTION A615.
3. STEEL PLATE SHALL BE GRADE A36.
4. PROVIDE 10" OF SOIL AND/OR VEGETATION TO COVER CONCRETE, IF DESIRED.