SUPERFUND

SITE UPDATE

Nuclear Metals, Inc. Superfund Site
Concord, MA

U.S. EPA | HAZARDOUS WASTE PROGRAM AT EPA NEW ENGLAND

THE SUPERFUND PROGRAM protects human health and the environment by investigating and cleaning up often-abandoned hazardous waste sites and engaging communities throughout the process. Many of these sites are complex and need long-term cleanup actions. Those responsible for contamination are held liable for cleanup costs. EPA strives to return previously contaminated land and groundwater to productive use.

REMEDIAL ACTION UPDATE #2:

The Remedial Action is underway for Phase 1 Site-Wide Sediments and Soils, specifically the Courtyard and Building E areas. In addition, construction of the Knox Trail groundwater treatment system expansion Remedial Action is complete and the system is operating as designed.

The on-site soil excavation work underway is part of the Phase 1 site-wide soil and sediment work. Phase 1 includes the Courtyard, Building E, Landfill, Sphagnum Bog, and Cooling Pond areas. The areas to be excavated are shown on Figure 1. The Courtyard soil excavation began in April 2024 and Building E is scheduled to begin later in Spring 2024. Soils will be excavated according to the Phase 1 Remedial Design, which was approved by EPA in September 2023. Soil samples will be collected following the excavation to confirm that no unacceptable risk to human health or the environment remains. The Cooling Pond, Sphagnum Bog, and Landfill areas are expected to be excavated in 2026 to 2028, following the Holding Basin Remedial Action work.

The Knox Trail groundwater treatment system expansion construction was completed in December 2023. The system is currently operating in the "shakedown" period where extraction well flow rates and the treatment system is adjusted to meet treatment goals.

NEXT STEPS:

The Remedial Design for the In-Situ Sequestration of Depleted Uranium Groundwater Within the Holding Basin is underway and should be finalized in 2024. Interim site restoration will be performed for the excavated Courtyard and Building E area. Final site restoration will be performed following Phase 2 Site-Wide Sediment and Soil Remedial Action.

WHAT TO EXPECT:

Courtyard and Building E soil excavations started in April 2024 and will continue for about 30 weeks (approximately from April to November 2024). Soil will be transported off-site in lined and covered trucks to the off-site disposal facility. As cleanup work begins, residents should ex-

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KEY CONTACTS

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pect to see personnel and heavy equipment working on or about the Site. Normal working hours will be between 7:00 AM to 5:00 PM, Monday to Friday. During the entire 30 weeks, air monitoring and dust control and suppression will be performed (as needed) for worker protection and public health. Load-out of waste material will occur from April through mid-December and will be approximately 9 to 12 trucks a day. Regular truck traffic (deliveries, backfill material, etc.) will be, on average 4 to 5 trucks per day. All wastes will be transported via truck and rail and will be disposed of at an EPA approved facility. The Site contractors are coordinating with the Town in selecting the safest traffic truck routes that also help to alleviate a potential increase in traffic.

SITE DESCRIPTION:

The Nuclear Metals, Inc. site – also known as the Starmet Corporation site – is located on a 46-acre parcel in Concord, Massachusetts. Nuclear Metals was originally a specialty metal research and development facility that was licensed to possess low-level radioactive substances including depleted uranium (DU). The Site was added to the National Priorities List in 2001 and following short-term actions to protect human health and the environment, the site's long-term cleanup is ongoing.

The remedy for the site, as outlined in the 2015 Record of Decision, includes the following:

- Excavation and off-site disposal of contaminated soils and sediments in various areas of the Site, approximately 85,000 cubic yards of material;
- Treatment of of DU contaminated soils in the Holding Basin via injection using a stabilization agent to prevent leaching of contaminants to groundwater;
- Containment of Holding Basin stabilized soils with a low-permeability vertical wall and horizontal cover to isolate the stabilized soils and further limit mobility of contaminants by removing the flow of groundwater;
- Extraction and ex-situ treatment of VOCs and 1,4-dioxane in overburden and bedrock aquifers, and in-situ treat-ment of DU in overburden aquifer and natural uranium in bedrock aquifer;
- Long-term monitoring for effectiveness of in- and ex-situ treatment; and Institutional Controls.

Three Remedial Design Reports are complete and approved by EPA. The Remedial Design for Soils in Areas of Interest [AOI] 8 and 9 and the Remedial Design for Off-Site Ex-Situ Groundwater were approved by EPA by September 2022. The Phase 1 Sitewide Sediment and Soils Remedial Design was approved by EPA in September 2023. Remedial Design Reports can be reviewed on the NMI site webpage. Remedial Designs for other areas of the site are underway and are expected to be completed in 2024 to 2026.

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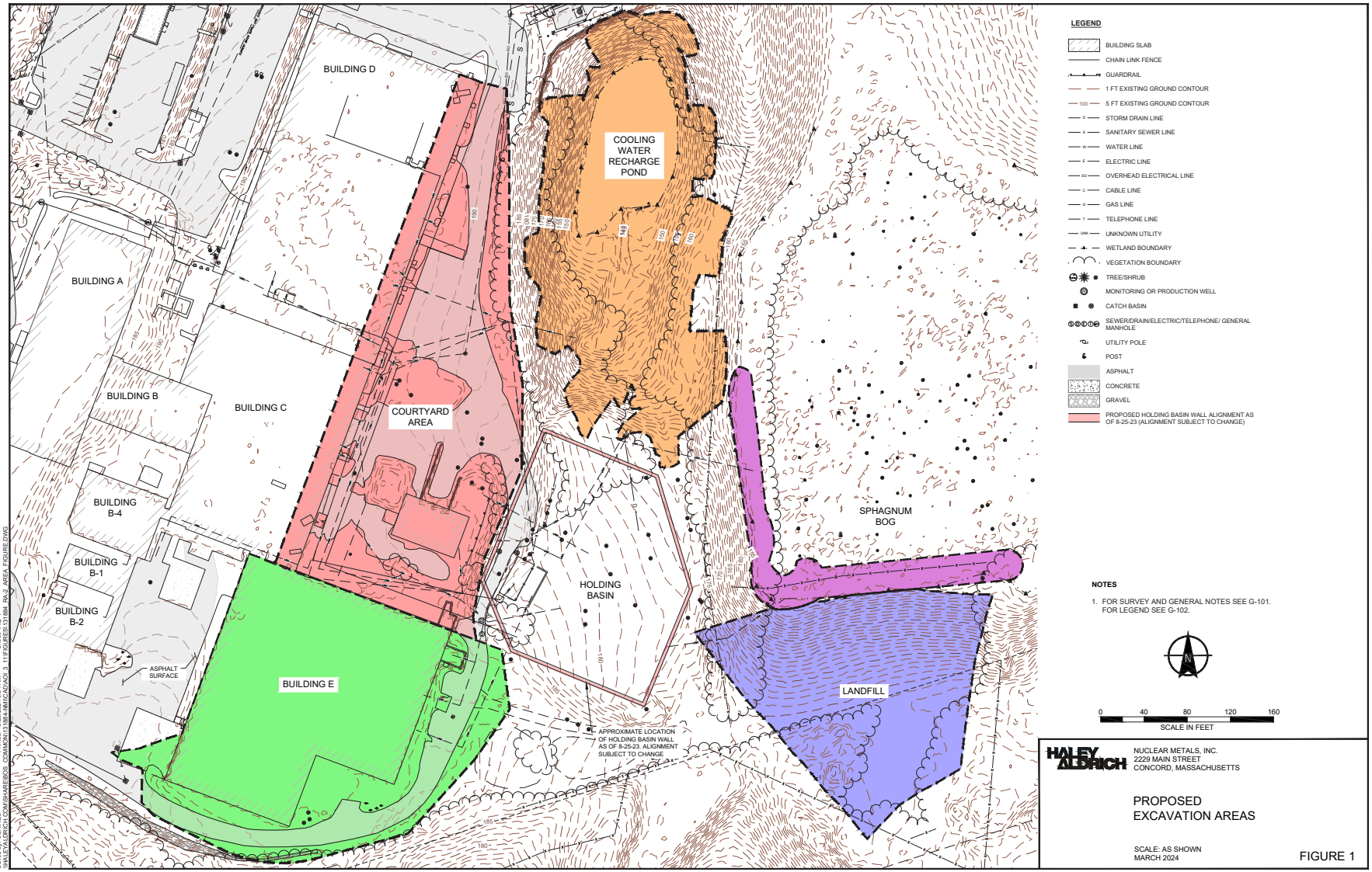
BUILDING D
BUILDING A
BUILDING B
BUILDING C
BUILDING B-4
BUILDING B-1
BUILDING B-2
ASPHALT SURFACE
BUILDING E
COOLING WATER RECHARGE POND
COURTYARD AREA
HOLDING BASIN
SPHAGNUM BOG
LANDFILL
APPROXIMATE LOCATION OF HOLDING BASIN WALL AS OF 8-25-23. ALIGNMENT SUBJECT TO CHANGE
LEGEND
BUILDING SLAB
CHAIN LINK FENCE
GUARDRAIL
1 FT EXISTING GROUND CONTOUR
5 FT EXISTING GROUND CONTOUR
STORM DRAIN LINE
SANITARY SEWER LINE
WATER LINE
ELECTRIC LINE
OVERHEAD ELECTRICAL LINE
CABLE LINE
GAS LINE
TELEPHONE LINE
UNKNOWN UTILITY
WETLAND BOUNDARY
VEGETATION BOUNDARY
TREE/SHRUB
MONITORING OR PRODUCTION WELL
CATCH BASIN
SEWER/DRAIN/ELECTRIC/TELEPHONE/ GENERAL MANHOLE
UTILITY POLE
POST
ASPHALT
CONCRETE
GRAVEL
PROPOSED HOLDING BASIN WALL ALIGNMENT AS OF 8-25-23 (ALIGNMENT SUBJECT TO CHANGE)
NOTES
1. FOR SURVEY AND GENERAL NOTES SEE G-101. FOR LEGEND SEE G-102.
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SCALE IN FEET
HALEY ALDRICH
NUCLEAR METALS, INC.
2229 MAIN STREET
CONCORD, MASSACHUSETTS
PROPOSED EXCAVATION AREAS
SCALE: AS SHOWN
MARCH 2024
FIGURE 1