



Review Draft

NUCLEAR METALS, INC. SITE Reuse Suitability Analysis

June 2019

*Prepared for EPA Region 1 and
the Town of Concord, Massachusetts*



Superfund Redevelopment Initiative (SRI)

At Superfund sites, EPA's responsibility is to ensure the protection of human health and environment.

EPA considers current and future land use during the cleanup decision process to preserve options for the anticipated land use to the extent feasible. EPA's Record of Decision (ROD) for the NMI Site requires cleanup to "residential" standards.

SRI support helps:

- Bring stakeholders to the table
- Understand community land use goals
- Clarify cleanup goals, process and constraints
- Integrate land use goals into the cleanup process as feasible
- Identify long-term stewardship options

Nuclear Metals, Inc. (NMI) Reuse Support

SRI Reuse support could include:

- Coordinate with stakeholders to gather preliminary reuse goals.
- Develop a preliminary reuse suitability analysis.
- Facilitate stakeholder and community discussions to gather ideas and refine potential reuse options for this site.
- Summarize recommendations in a reuse assessment report.



2229 Main Street / Nuclear Metals, Inc. site from the west
(source: *de maximis, inc.*, August 2016)



Superfund Context

The Nuclear Metals, Inc. site was listed on the National Priorities List (NPL) in 2001.

Under EPA's oversight, a group of Potentially Responsible Parties (PRPs) have completed investigation and two removal actions:

- Building demolition is complete.
- Groundwater ex-situ treatment is ongoing.

EPA issued a ROD in September 2015 and has worked with PRPs and federal agencies to establish agreements for remedial design and remedial action work that will address the following:

- Site-wide soil and sediment remediation
- Holding Basin area containment
- Groundwater ex-situ remediation
- Groundwater in-situ remediation

Overview

Site

- Location
- Site Features and Access
- Natural Features
- Remedial Considerations

Context

- Zoning
- Public Land Ownership
- Parks and Trails
- Natural Resources

Reuse Zones

Key Reuse Considerations

- Suitability
- Property Ownership

Next Steps

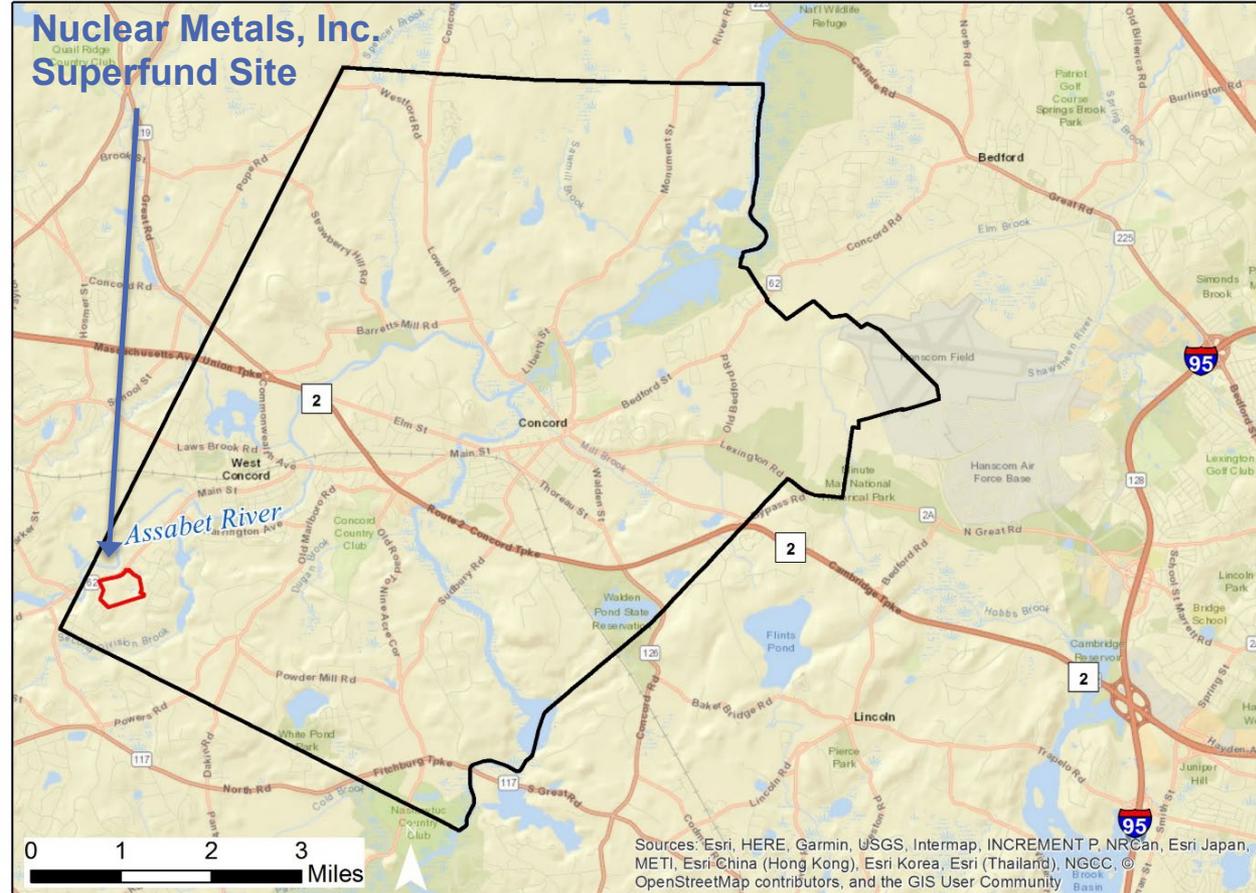
Site Location – Regional Context

Located in Concord, MA, the site is in the northwestern Boston metro area.

Assabet River lies to the north of the Site.

Proximate to:

- Boston (25 miles)
- I-95 (10.8 miles)
- Route 2 (2.8 miles)



Context Map - Site Location

- Site Boundary
- ▭ Town of Concord

Site Features & Access

Current site access is limited to a single entrance on Main Street and an unofficial road that surrounds the former facility.

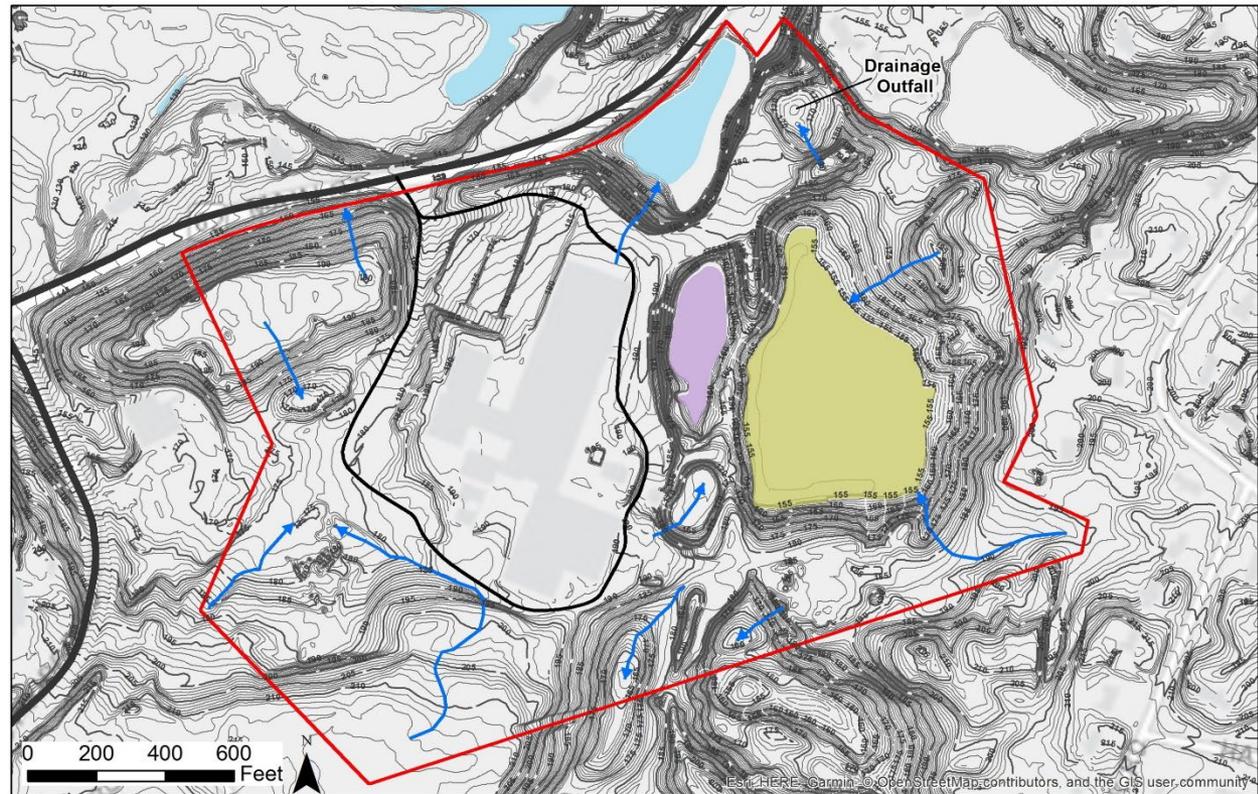
Structures have been removed from the former building area, and slabs and impacted sub-slab soil will be removed as part of the remedy.



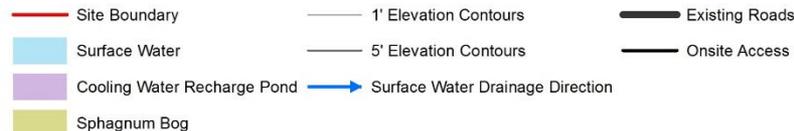
Natural Features

Steep slopes, bog and drainage features establish development limitations.

Several surface water features on the NMI site property are classified as wetlands.



Physical Features



Remedial Considerations – Process

Components

Former building slab demolition

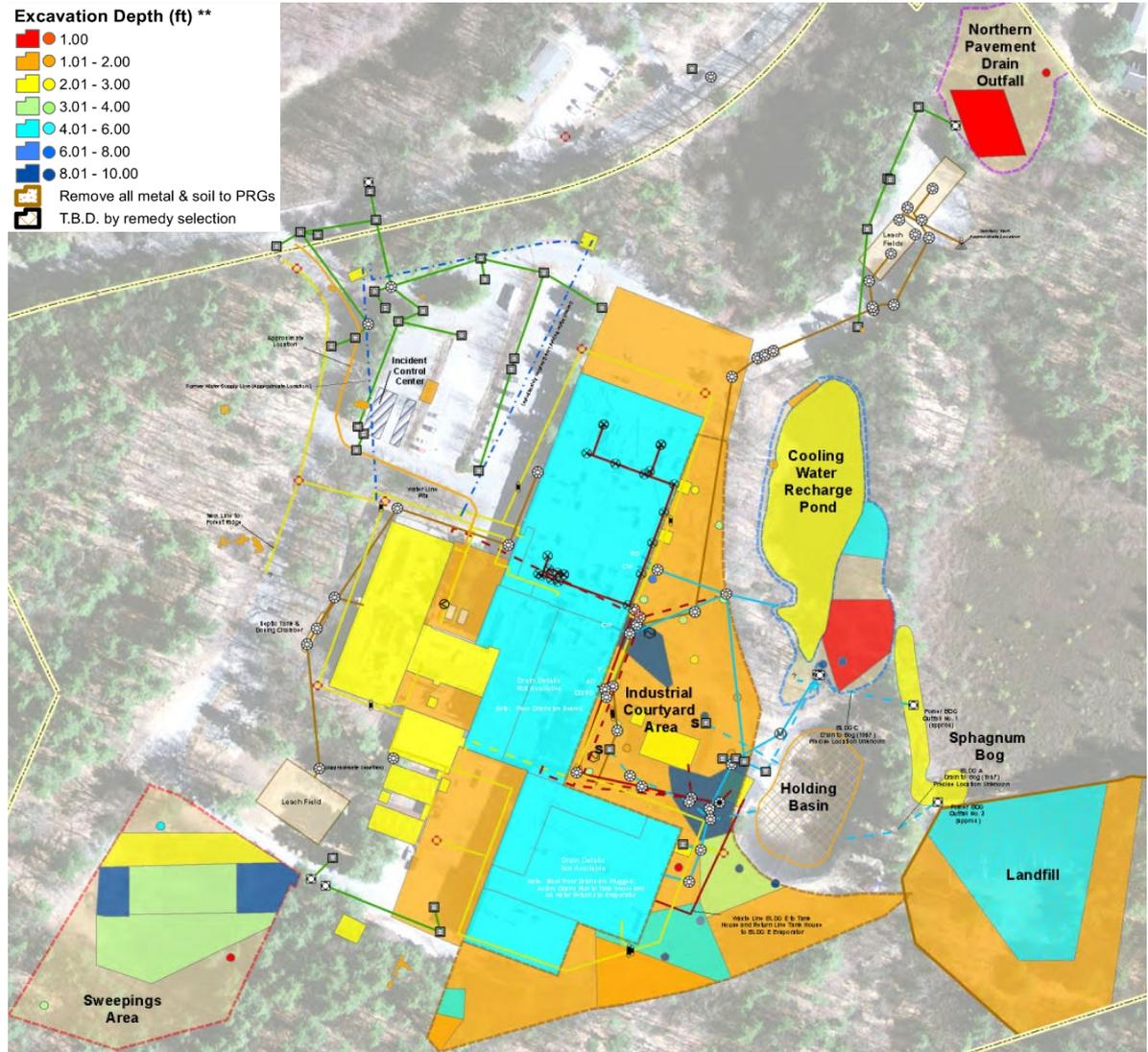
Soil/sediment excavation and offsite disposal

Holding Basin Consolidation

Groundwater (in-situ)

Design Considerations for Reuse

- Stormwater drain surfaces
- Backfill, regrading and surface cover in excavated areas
- Cooling water recharge pond, bog edge regrading and stabilization



Remedial Considerations – Post Cleanup

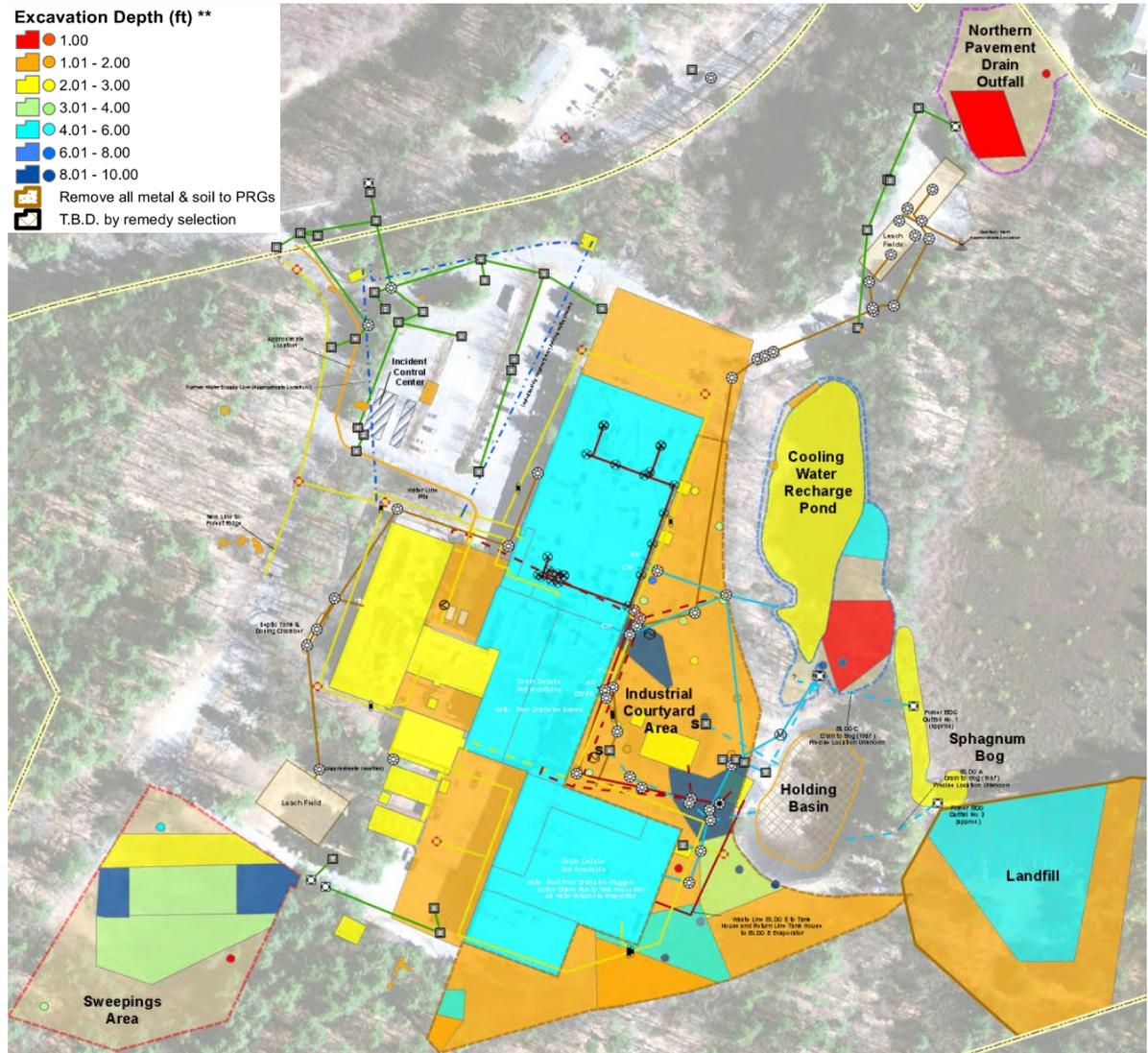
Cleanup to residential standards and to address ecological risks in wetland areas.

Targeted restrictions to protect capped Holding Basin area.

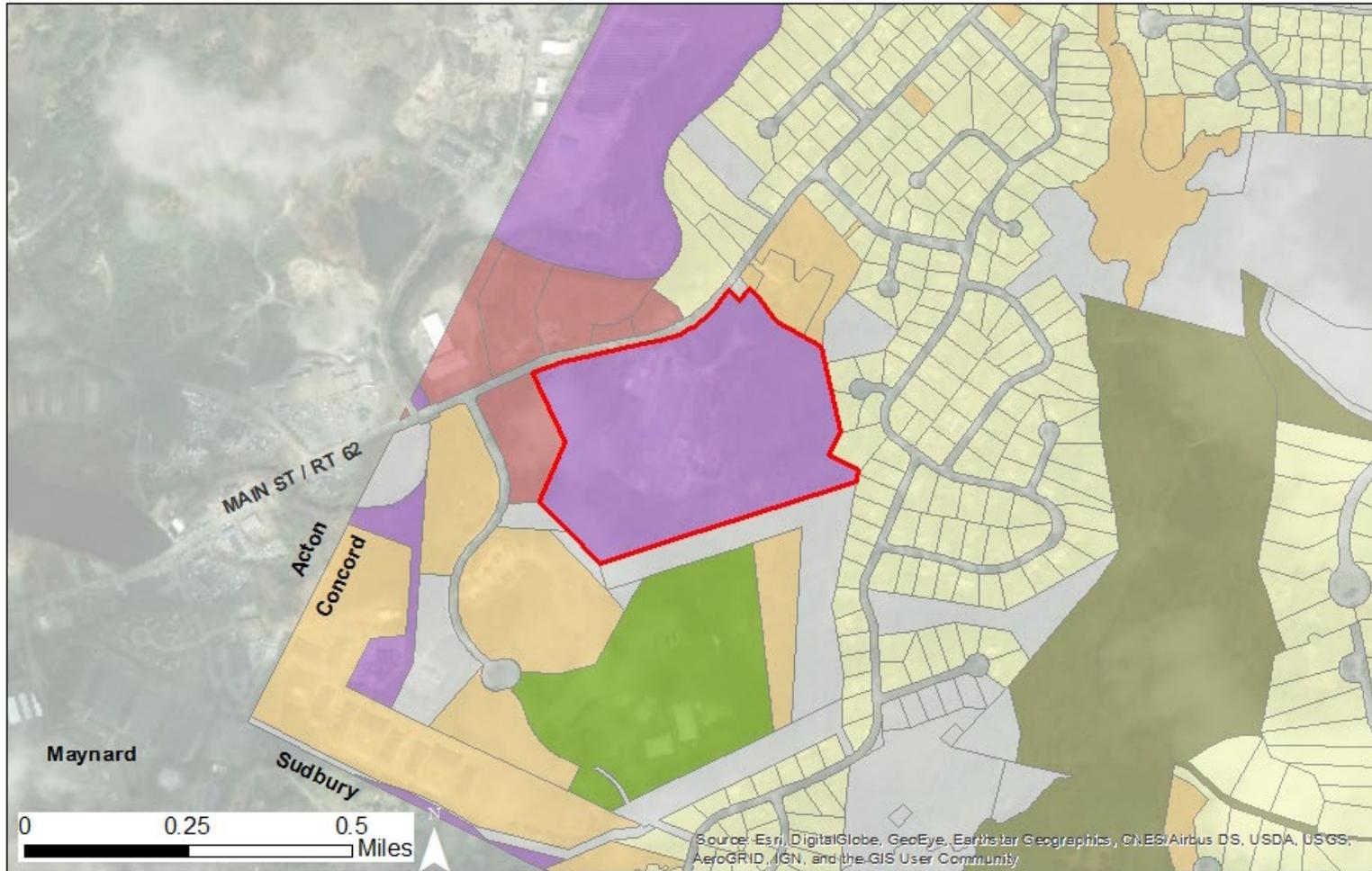
Building slabs demolished and removed.

Soils and sediments removed for offsite disposal; excavated areas backfilled.

No significant topographic changes anticipated.



Context – Land Use



Surrounding Land Uses

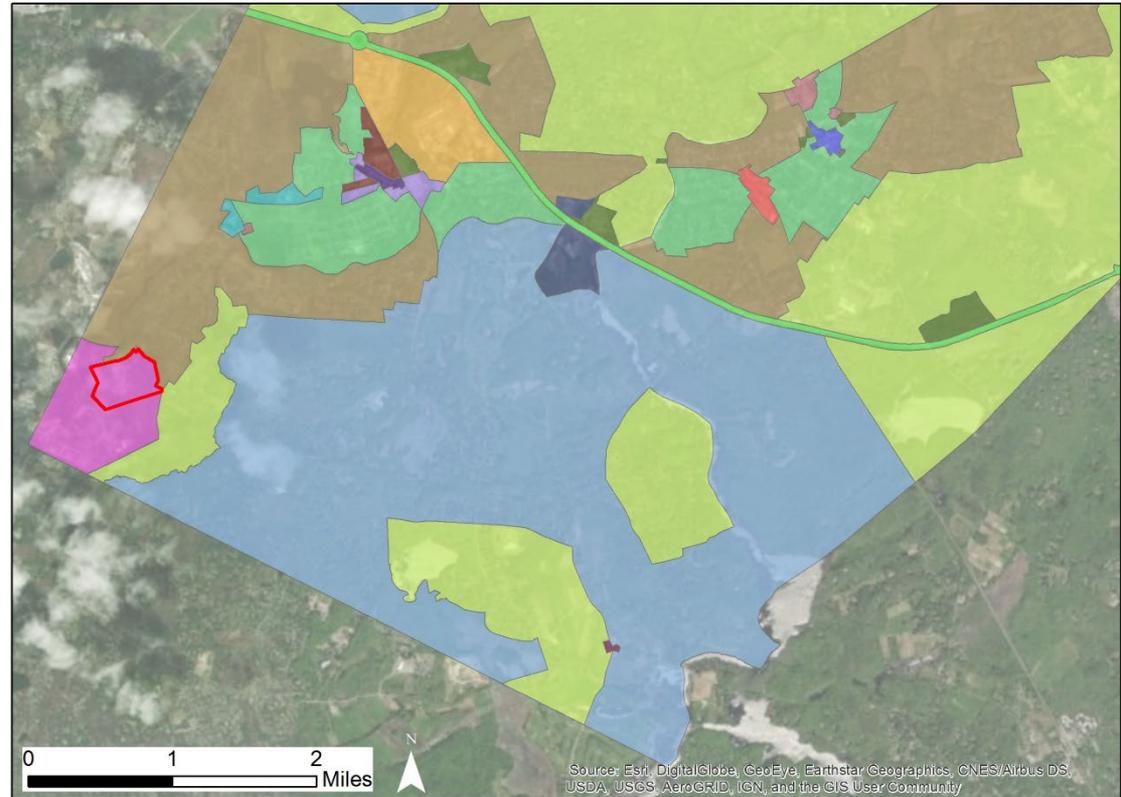


Context – Zoning

Site is zoned
Limited Industrial
Park 1.

Zoning districts
surrounding the
site:

- Limited Industrial Park 2 (west)
- Residence B (north)
- Residence A (east)



Context Map - Zoning

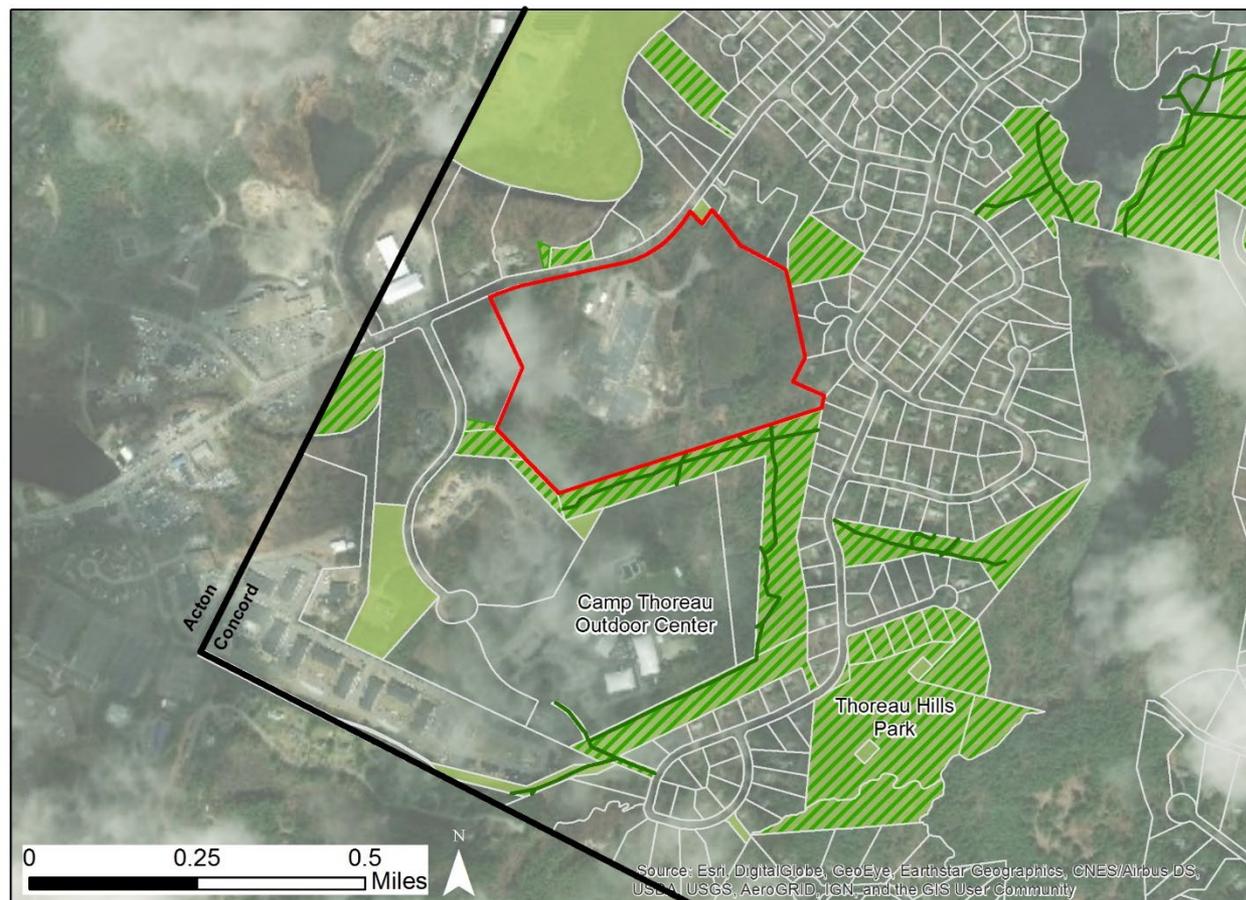


Context – Parks and Trails

While established trails do not legally connect with the site, a hiking/walking trail is located immediately south.

The sphagnum bog habitat is highly valued by the community.

Nearby parks include Thoreau Hills, the Old Rifle Range, Harrington Park and Cousins Park.



Context Map - Parks and Trails

- Site Boundary
- Trails
- ▨ Department of Natural Resources Land
- Town Owned Land

Context – Property Ownership

Three town owned parcels abut the site to the south and northeast, which may help alleviate issues related to site access and connectivity.

The Town owns approximately 13% of Concord's total land area.



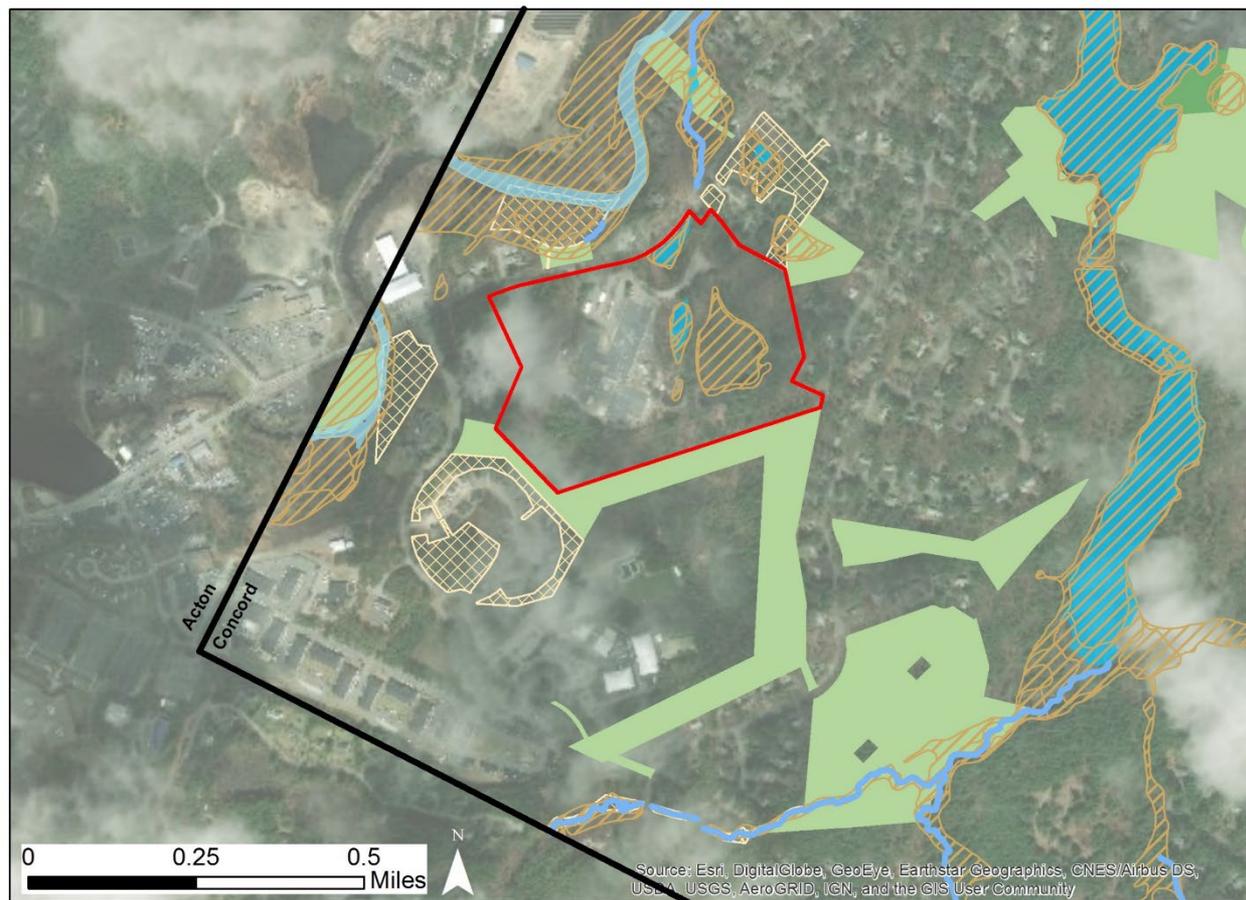
Context Map - Ownership

- Site Boundary
- Other Parcels
- Town Owned Parcels

Context – Habitat

Wetlands areas surround the site on all sides.

Surrounding the Assabet River to the northwest and the Old Rifle Range area to the east are core habitat and critical natural landscape areas.



Context Map - Habitat



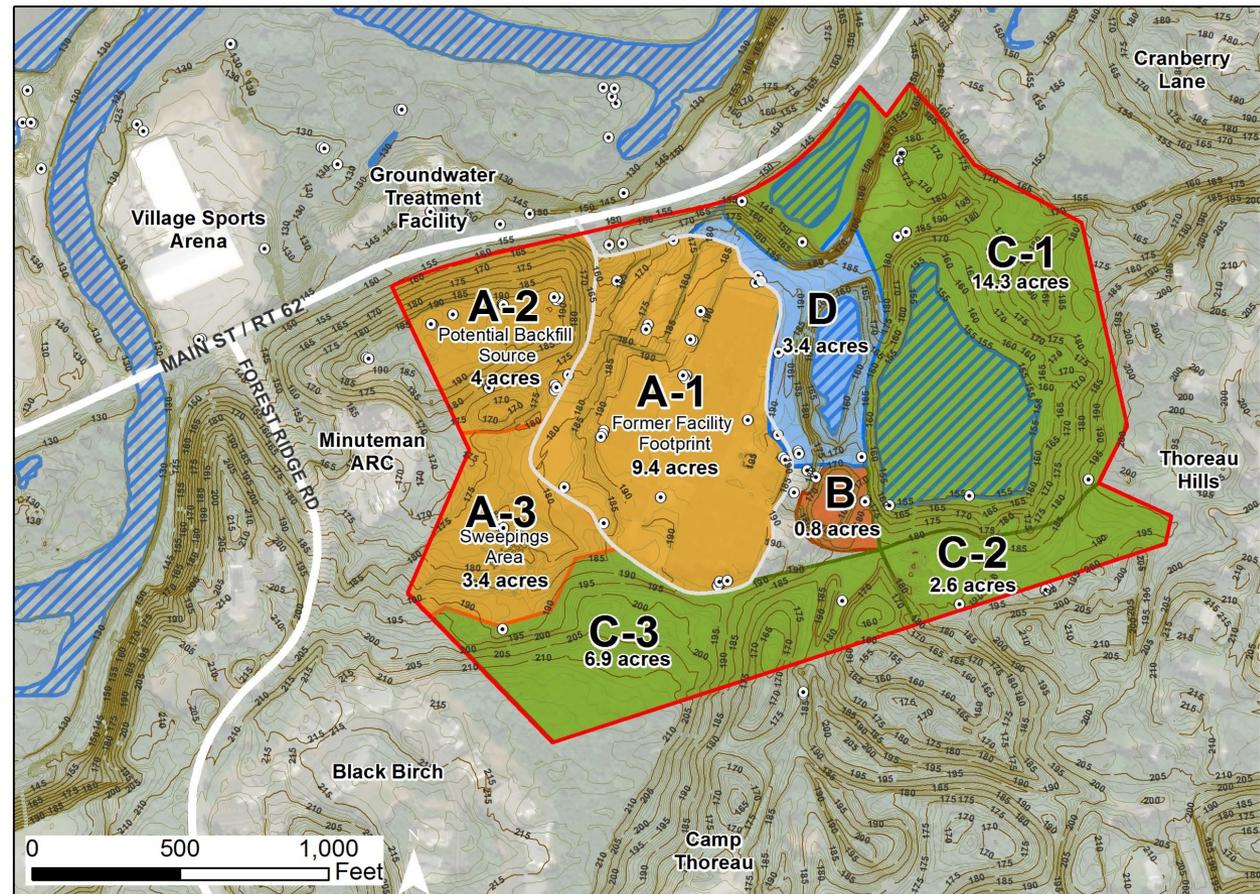
Reuse Zones

Zone A – Level areas with access options and few remedial limitations.

Zone B – Capped holding basin with development restrictions cap disturbance.

Zone C – Wetland habitat and steep slopes.

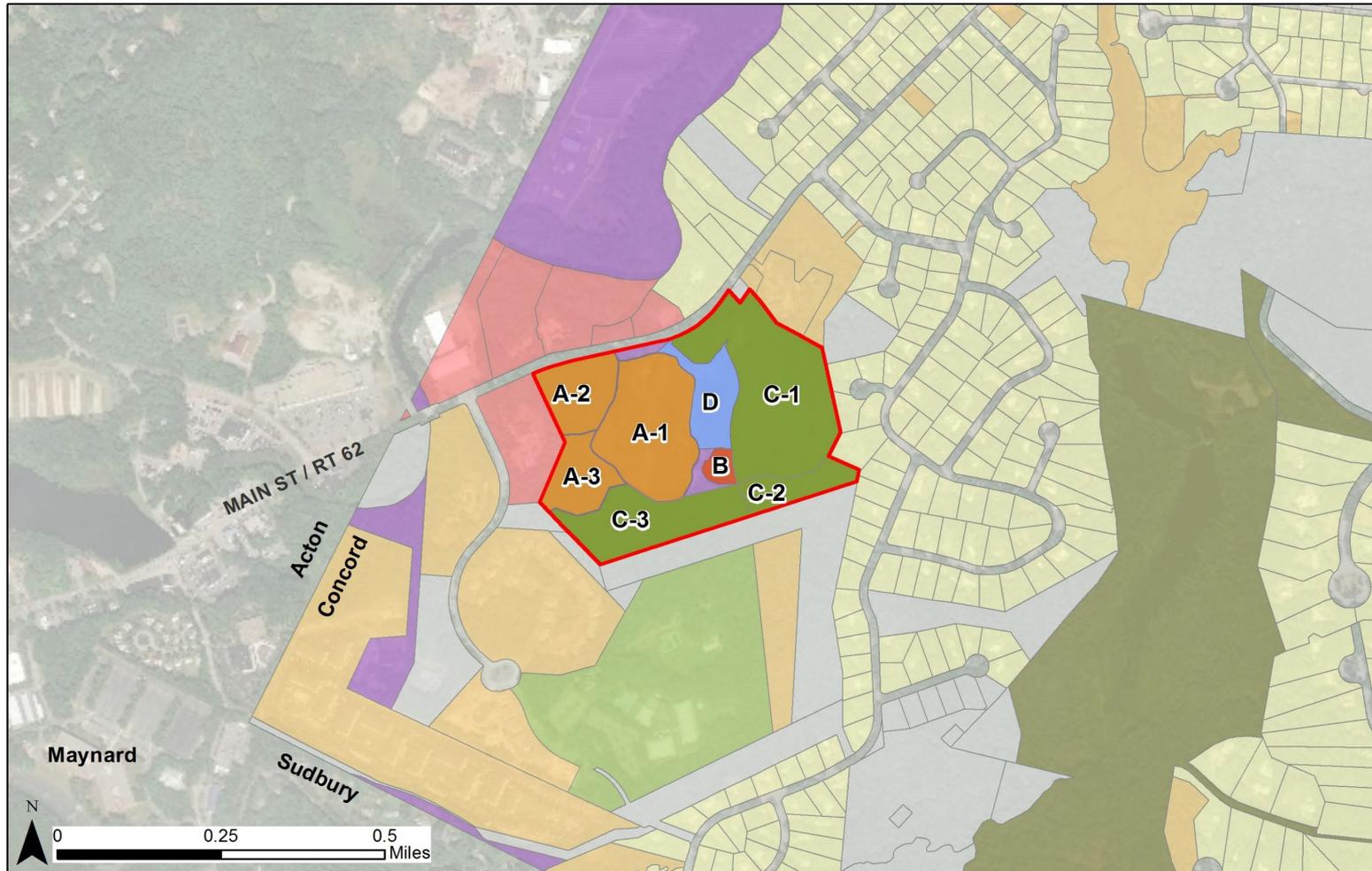
Zone D – Drainage features with potential for future stormwater management.



Potential Reuse Zones Map



Reuse Zones and Surrounding Land Uses



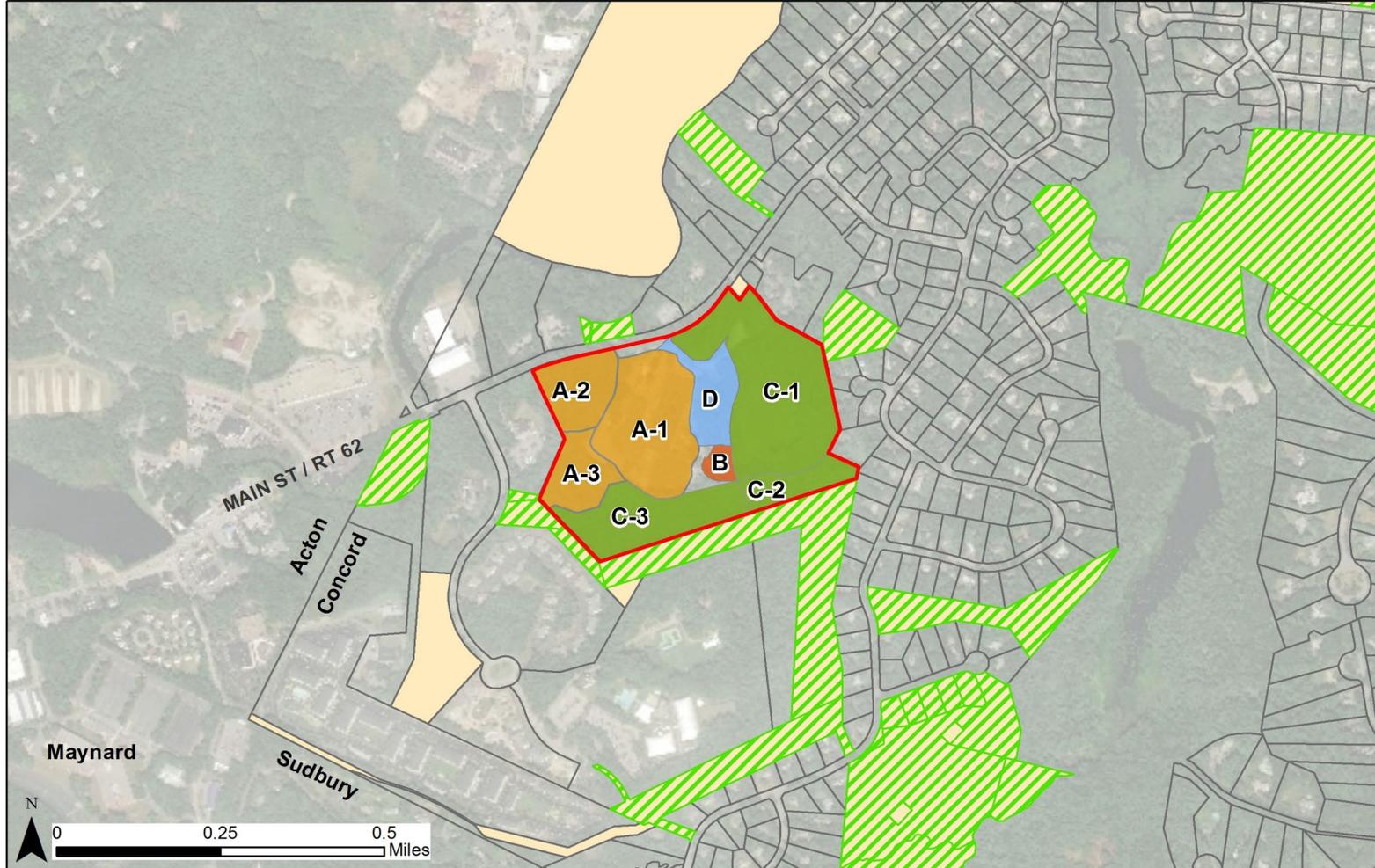
Potential Reuse Zones

- Zone A. Potential Development Areas
- Zone B. Holding Basin Consolidation
- Zone C. Open Space - Habitat/Buffer
- Zone D. Open Space - Drainage/Infrastructure

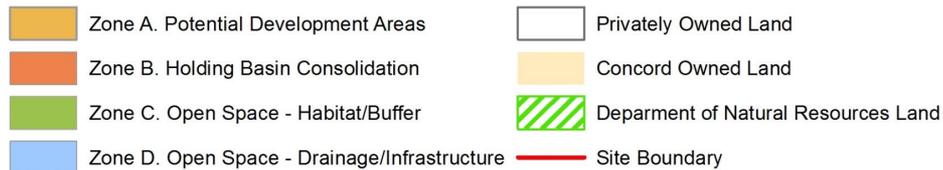
Surrounding Land Uses

- Single Family Residential
- Multi Family or Other Residential; 995
- Commercial
- Forest Land
- Agricultural/Horticultural
- Recreational Land
- Industrial
- Community Services/Vacant
- Site Boundary

Reuse Zones and Ownership



Potential Reuse Zones



Reuse Considerations for Discussion

Reuse Zone	Remedial Considerations	Reuse Considerations
Zone A: Potential Development Areas (16.8 acres)	<ul style="list-style-type: none"> A-1/A-3: Building slabs to be removed, soil will be excavated to achieve residential standards, backfilled and graded. A-2: Small hill in northeast corner is a potential source of backfill material needed onsite; soil testing and EPA approval are needed; if viable, may offer level area with separate access. Groundwater monitoring wells to remain in place with potential for coordination with reuse features. 	<ul style="list-style-type: none"> Three potential development zones provide about 15 acres suitable for a wide range of uses (residential, commercial, industrial), flexibility for building configurations, and few limitations. Reuse plans may inform internal road locations and surface cover in soil remediation areas. Town water lines are available on Main Street; new onsite water connections needed; Municipal sewer service <i>not</i> available at the Site; onsite wastewater management options will likely need to be considered in development plans.
Zone B: (0.8 acres) Holding Basin Consolidation Area	<ul style="list-style-type: none"> Capped consolidation area will have excavation and development limitations. 	<ul style="list-style-type: none"> Development limitations likely will prevent cap disturbance and new structures. Potentially suitable for paved parking or open space.
Zone C: (23.8 acres) Open Space - Habitat/Buffer	<ul style="list-style-type: none"> Some areas currently wooded and fenced. Cleanup in some areas requires clearing and soil excavation. 	<ul style="list-style-type: none"> Suitable for open space and trails and wildlife viewing. Certain areas may have potential for development compatible with adjacent trails and uses. Slopes currently limit access in some areas. Reuse may inform final surface cover in soil remediation areas (cleared area vs re-vegetation).
Zone D: (3.4 acres) Open Space - Drainage	<ul style="list-style-type: none"> Significant soil/sediment excavations in cooling water recharge pond, and western edge of bog. Pavement drain area could be regraded and either vegetated or paved after remediation. 	<ul style="list-style-type: none"> Remedial Design coordination needed to evaluate access options between Zones A and C. Suitable for stormwater and surface water drainage features.

Key Reuse Considerations

- Site could potentially provide 15-acres of developable land in three development footprints.
- Development areas could be suitable for a range of residential, commercial, light-industrial or mixed-use development types.
- An additional 25+ acres of open space at the Site may accommodate limited additional development potential and offers flexibility to accommodate trails or site access, forest, wetland and wildlife habitat. These areas offer potential to provide future stormwater drainage features and to help meet open space and wetland buffer requirements.
- Stakeholder remedial design input may influence site backfill, regrading and surface cover for future development areas, drainage features and open space access.



Key Reuse Considerations Continued

Property is tax-delinquent and generally considered to have been abandoned by owner of record Starmet.

Due to previous response actions, outstanding mortgage debt and unpaid taxes, significant financial encumbrances need to be resolved prior transfer and redevelopment (See the following Lien Status Table).

Federal enforcement liens to be considered in a future settlement agreement. Additional title encumbrances would need to be resolved as part of any future ownership transfer and will likely involve potentially responsible parties, government agencies, Town of Concord and future owners.

The Town's role in Site property transfer and future ownership may vary depending on the property's future use scenarios and municipal priorities.

Next Steps

Revise analysis and presentation

- Share with Town staff for review; incorporate feedback and confirm materials for committee working session.

*Committee Working Session in June 2019**

- Present reuse suitability analysis to establish common understanding of opportunities and limitations.
- Gather committee reuse goals.
- Identify several preliminary reuse scenarios.

Hold Community Workshop

- Coordinate with committee to convene workshop and solicit input from general public.
- Identify and refine potential community reuse ideas.
- Confirm potential reuse scenarios.

Summarize process to date and develop recommendations

- Remedial design.
- Future site planning.



Q&A