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Northborough Conservation Commission
Northborough Town Hall
63 Main Street
Northborough, MA 01532

RE: Wildlife Habitat Evaluation

0 Hudson Street, Northborough, MA (Assessors Map 53; Lots 19, 20, 21)

1. Introduction

Norse Environmental Services, Inc is pleased to submit this Wildlife Habitat Evaluation (WHE) for the Notice of Intent (NOI) application filed on behalf of the applicant, Circle Assets LLC. The WHE has been prepared in accordance with the “Massachusetts Wildlife Habitat Protection Guidelines for Inland Wetlands” manual produced by the Mass Department of Environmental Protection (DEP), aka the “DEP manual.” The plans reviewed for the WHE are entitled “Plan of 0 Hudson Street in, Northborough, MA (3 sheets), Connorstone Engineering, 12/24/2020.

The proposed resource area impacts for this project include: BVW (520 SF), BLSF (22,390 SF) and Riverfront (22,218 SF). These resource areas overlap, therefore the overall footprint of the alteration is 26,021 SF. **Figure 1** illustrates the resource area impact areas.

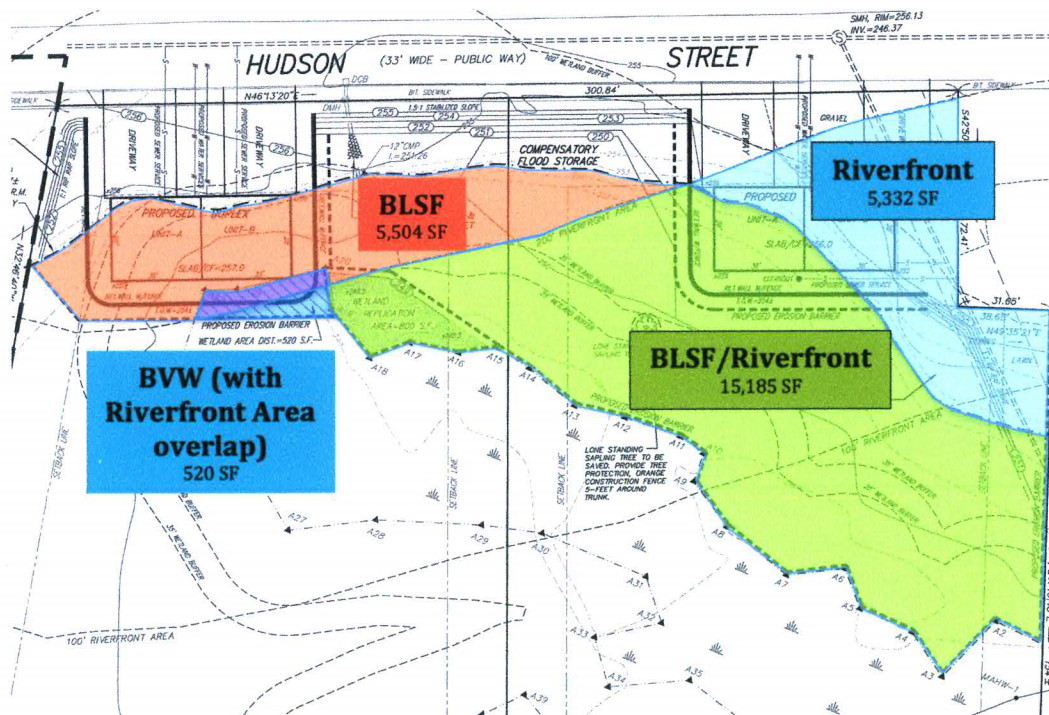


Figure 1: Project Impacts (Temp. and Permanent)

The alterations are proposed primarily to restore riverfront and BLSF that is current degraded with invasive species. Additional alterations are required for the construction of two duplexes and associated grading, retaining walls and driveways. The alterations trigger an Appendix B: Detailed Wildlife Habitat Assessment.

Steve Eriksen conducted the WHE with a site inspection that took place on February 27, 2019. Mr. Eriksen has decades of experience conducting wildlife habitat evaluations in Massachusetts. He therefore meets the criteria for conducting wildlife habitat evaluations listed in the WPA Regulations (310 CMR 10.60 (1)(b)).

This WHE will provide evidence that the project does not have a significant adverse effect on the “wildlife habitat” wetlands interest and value protected by the Act, and that the proposed mitigation will provide an improvement in wildlife habitat over the existing conditions by increasing the quality of native riverfront and BLSF that will provide valuable foraging and sheltering habitat to the local wildlife.

2. Existing Conditions of Impacted Resource Areas

Sheet 1 of the plans shows the existing conditions. **Figure 2** illustrates the large proportion of the site that is infested with Japanese knotweed (tan hatched area):

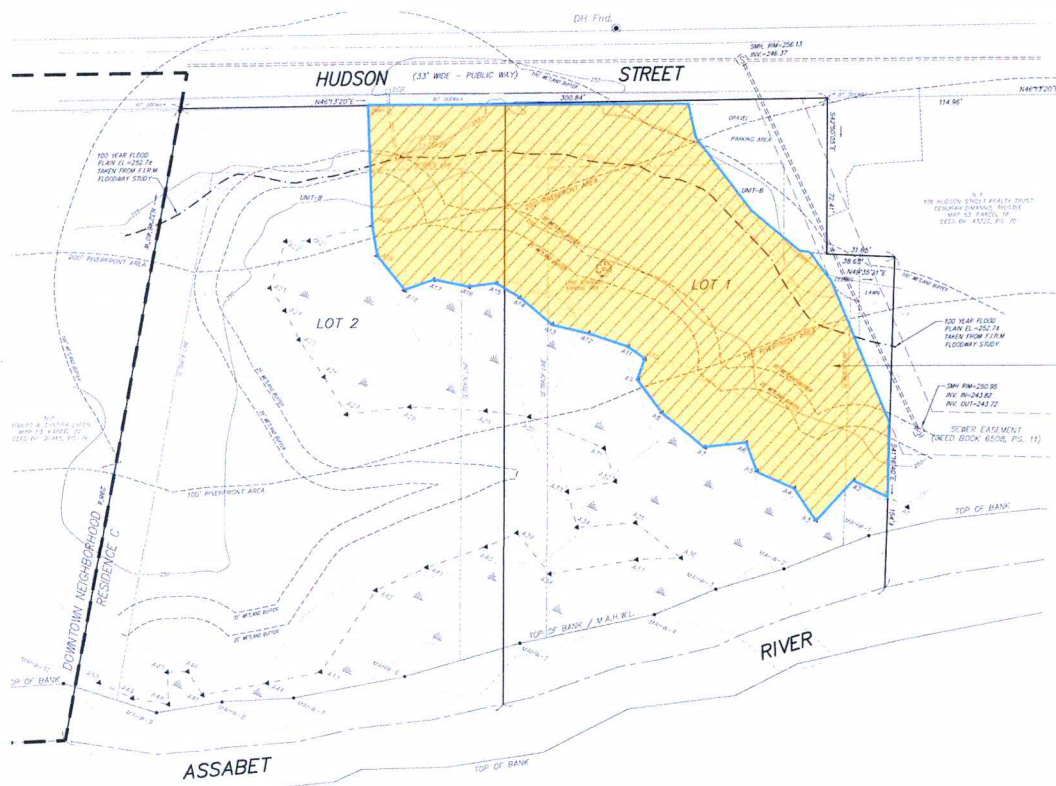


Figure 2: The tan shaded area of the site plan is entirely infested with Japanese knotweed.

This knotweed area is 18,260 SF in extent and is found in both BLSF and Riverfront Area resource areas. It comprises the majority of the 22,471 SF area to be altered. The remaining 4,211 SF of the resource area alteration will be to create habitat that is much more natural in

character (Photos 5-6), with the exception of some invasive honeysuckle shrubs.

2.1 Resource Areas within Lot 1 (eastern half of site)

Photos 1-3 show the existing conditions and highlight the Japanese knotweed infestation within BLSF/Riverfront within Lot 1.



Photo 1 – Center of Lot 1, looking east along wetland line



Photo 2 – Center of Lot 1, looking north along wetland line.



Photo 3 – Center of Lot 1, looking west along wetland line.

The southeast corner of Lot 1 has some natural vegetation which includes pockets of dense herbaceous cover consisting of sensitive fern, plus silky dogwood and blackberry shrubs (**Photo 4**). A single, large, speckled alder shrub and single black walnut tree (**Photo 5**) are also present within this area. Outside of this area, the rest of the upland area on lot 1 is nearly 100% Japanese Knotweed.



Photo 4 – South end of Lot 1, blackberry shrub.



Photo 5 – Center of Lot 1, black walnut tree.

2.2 Resource Areas within Lot 2 (western half of site).

The northeast corner of Lot 2 is nearly 100% Japanese Knotweed. West of wetland flag #A20 there is a greater variety of plants, but among them is invasive honeysuckle (**Photo 6**). The north-center and northwest corner of Lot 2 is a sparse area of honeysuckle, silky dogwood and sensitive fern (**Photo 7**). Trees in the area consists of red maple, American elm and ash. Some areas contain small dense clumps of sensitive fern. The small portion of BVW to be altered in Lot 2 includes dense sensitive ferns and native shrubs.



Photo 6 – Center of Lot 2 near WF #A18, looking south into wetland.



Photo 7 – North-center of Lot 2 at WF #22, looking northwest towards Hudson Street.

3. Project Description

Lot 1

The applicant is proposing a duplex unit on Lot 1 within an already degraded gravel parking lot area and on the outer part of the Riverfront Area. This degraded area has Japanese Knotweed growing from the edge of the gravel area to the edge of the wetland. The proposed permanent alteration is 4,735 SF while restoring 16,560 SF of riverfront area to natural riverfront by removing Japanese knotweed through an invasive species management plan (see attached). The proposed grading will provide compensatory storage for all BLSF alteration (see site plans for cut/fill calculations)

Lot 2

The applicant is proposing a duplex unit on Lot 2 that has all development nearly all out of Riverfront Area with the exception of a small section of a retaining wall and the wetland replication area. Although the proposal does result in wetland impacts, the net impact to resource areas is greatly reduced by the proposed location. The wetlands impacted is 520 SF, while a replication area of 800 SF is proposed. The proposed permanent alteration to Riverfront Area is 110 SF while restoring 1,700 SF of riverfront area to natural riverfront by removing Japanese knotweed through an invasive species management plan (see attached). The proposed grading will provide compensatory storage for all BLSF alteration (see site plans for cut/fill calculations). The applicant also proposes to install proper rip-rap below the stormwater pipe that discharges on to the lot to stop erosion of soil which is currently occurring during storms.

4. Evaluation of Impacts to Wildlife Habitat

BVW

The BVW alteration area does not contain any significant wildlife habitat features such as food-bearing shrubs, woody debris, dead snags or dense vegetation coverage. It does not likely hold standing water for significant periods of time to provide habitat for amphibians or turtles.

Riverfront

The project will not impact any significant wildlife habitat features such as dead snags, mammal dens, or dense natural vegetation. The area of riverfront impacted is nearly all Japanese Knotweed.

BLSF

The project will not impact any significant wildlife habitat features such as dead snags, mammal dens, or dense natural vegetation. The area of BLSF impacted is nearly all Japanese Knotweed.

5. Proposed Mitigation Details

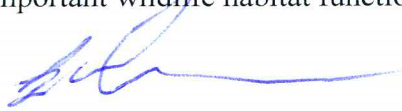
The proposed *Wetland Replication, Compensatory Storage, and Invasive Species Management Plans* provide details on how work will be conducted. These documents were included with the NOI submittal. The mitigation includes the removal of nearly 18,260 SF (Lot 1 - 16,560 SF, Lot 2 – 1,700 SF) of Japanese Knotweed and the restoration of natural meadow habitat. The invasive species removal, BLSF compensation, and BVW replication equate to 21,288 SF of mitigation for the site. A lone, standing nut-bearing tree above wetland flag A12 will be protected. Lastly,

the ISMP also includes native shrub plantings to provide for shrub thickets within the restored meadow area.

6. Conclusions

- No unique or uncommon wildlife habitat features will be eliminated for construction of the project.
- None of the trees to be removed contain any obvious nesting cavities, and there will be many trees that remain outside of the work area throughout the site.
- There are important habitat features present outside of the project area (dense herbaceous cover, nut-and-berry-producing plants, rotting logs/woody debris, etc.) within the site's undeveloped wetland and upland resource areas.
- Enhancement by removing 18,260 SF of invasive BLSF and Riverfront to 21,103 SF of natural meadow with shrub thickets.
 - This will provide increase capacity for the resource areas to function naturally
 - This will increase the area of natural wildlife habitat.
- Preservation of native shrubs from the proposed disturbed areas to be saved in place or transplanted back into place will add to the diversity of the restored habitat.
- Wetlands will be replicated at a 1.5:1 ratio with native shrubs, ferns and trees, which will more than compensate for the small amount of BVW fill.
- Removal and monitoring of invasive species (18,260 SF) will provide native habitat of over 21,103 SF.
- The onsite BVW will continue to function as it has prior to proposed development and will be protected by removal of invasive species.
- A large area (6,338 SF) of the inner riparian zone, which is currently degraded by the abundance of invasive species, will be greatly enhanced upon the completion of the project.

Based on the above, we conclude that the proposed alteration of the BVW, BLSF and Riverfront will not result in an impairment of the capacity of any of these resource areas to provide any important wildlife habitat functions.



Steve Eriksen
Norse Environmental Services, Inc