

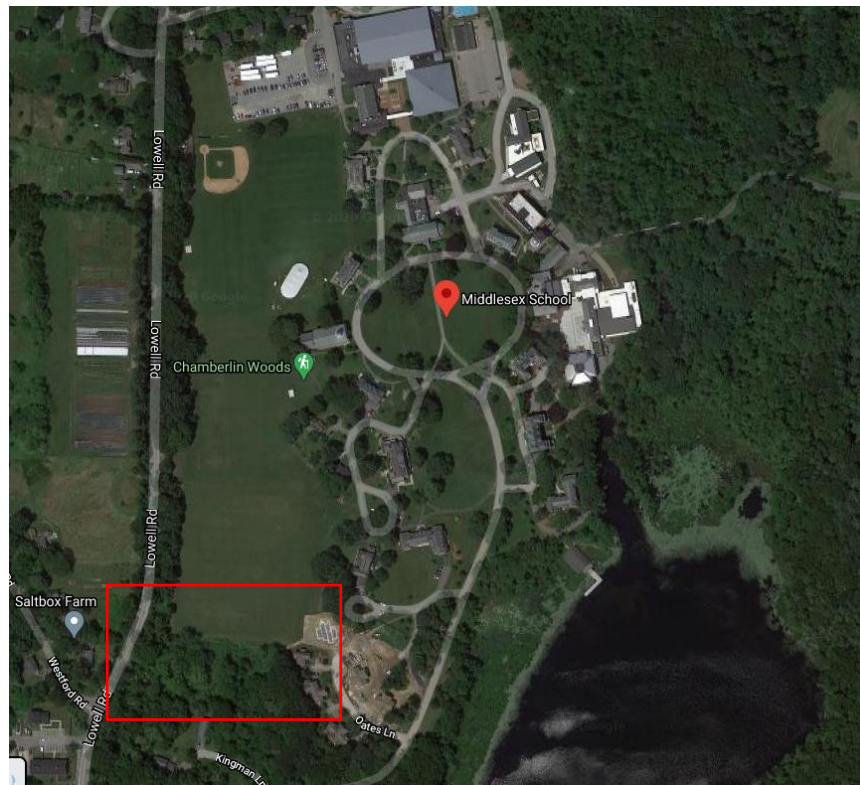
Middlesex School: Athletic Field Invasive Species Review

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RE: Invasive Mitigation Review

On January 12th, 2020 the Bartlett Tree Experts evaluated invasive species throughout the woodland buffer on the south side of the athletic fields. Our notes and observations are below.



Limit of inspection

Observations

- The buffer is primarily inhabited by mature honeysuckle. Some clumps are +-10-12' tall and are the dominant invasive species.
- Secondary invasive woody plants consist of: bittersweet, multi-flora rose, privet and small pockets of barberry.

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Observations cont.

- Japanese knotweed was not identified but the site should be revisited in the growing season to confirm.
- Select native woody plants including silky dogwood, alder, red maple and ash are mixed throughout the site but are in poor condition due to the high level of competition.

Recommendations:

- Due to the density of the invasive species (primarily honeysuckle) removal of all invasive species should be completed via mechanical means (cutting/brush hog) and disposed of appropriately.
- Resulting woody stems should be treated with a low-volume aquatic approved herbicide to avoid re-sprouting.
- Work should be completed in the dormant season, prior to budbreak if possible.
- Invasive species are most aggressive and prevalent on woodland edges where they cannot be outcompeted by overstory trees (i.e. shade).
- It is our recommendation the following planting approach should be considered.
 - Following clearing of the invasive species and treatments of the stems, a large of native - suckering shrubs should be planted.
 - Species for consideration include:
 - *Sassafras albidum*- Common Sassafras (please see below photos)
 - *Aesculus parviflora*- Bottlebrush Buckeye
 - *Clethra alnifolia*- Sweet pepperbush
 - *Lindera benzoin*- spice bush
 - To establish a competitive, native border, plants should be planted in high quantities, closely grouped.
 - To minimize soil disturbance (which likely has a high percentage of invasive seed), plantings should be bareroot or be no larger than 1-gallon containers.
 - Prior to planting, the area should be top-dressed with +-4" of coarse woodchips. New planting should be planted directly through the layer of woodchips.
 - Management of the area should include watering of newly planted native plants and also further invasive species mitigation if needed.
 - The limit of work should be +-12' from the lawn edge into the woodland.
- It should also be noted many of the existing ash trees are dead or in severe decline. Death/decline can be attributed to Emerald Ash Borer. A non-native, fast moving invasive pest that targets woody plants in Fraxinus family.
- Infected ash degrades quickly and can pose an increase risk to targets (people/cars).
- Ash trees within the immediate range of targets (people/cars) should be removed in conjunction with the invasive mitigation.

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Invasive border on the south side of athletic field

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Mature honeysuckle on border of lawn

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Standing dead ash by goal posts

A site visit can be scheduled at any point to review limits of work and proposed mitigation. Please email or call at any point.

Thank you,

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