

Invasive Species Management Plan
For
The Woods At Farm Road
Bolton Tax Map 3.C, Parcel 72

July 16, 2020

Prepared By: Ducharme & Dillis Civil Design Group
1092 Main Street
P.O. Box 428
Bolton, Massachusetts

Prepared For: The Woods at Farm Road, LLC
56 Central Avenue #1
Newton, Massachusetts

SITE DESCRIPTION

The subject site is located on the corner of Berlin Road and Farm Road in Bolton, Massachusetts. The parcel is mapped as Bolton Tax Map 3.C, Parcel 72 and contains approximately 2.47 +/- acres of land. The site is zoned Residential and currently contains two outbuildings in the western portion of the property. The property is maintained as a field with a wooded area paralleling Berlin Road. A portion of the property contains a bordering vegetated wetland subject to an Order of Resource Area Delineation under DEP 112-0679.

INVASIVE SPECIES MANAGEMENT

Invasive species control is to be incorporated in the development and restoration of the site. A wetland scientist from Ducharme & Dillis Civil Design Group will visit the subject lot prior to any construction to identify & tag the species to be targeted. The following invasive species have been observed on the site: multiflora rose, European buckthorn, and honeysuckle. The tagged specimens shall be removed by hand during the first growing season. There is a concentration of these species in the northwestern corner of the site but mitigation efforts will not be limited to this area as the edge of the field must be monitored as well. The following invasive species control plan include species and site-specific control options and treatment schedules.

Rosa multiflora (Multiflora rose)

Description:

Rosa multiflora is a densely spreading perennial shrub that grows up to 15 feet tall. Most *Rosa multiflora* plants have thorns. Its leaves are alternate and compound, having 5-11 serrated, elliptic leaflets. The plant flowers in May and June, producing many white, five petal flowers. The red fruits develop in mid to late summer. Seeds contained within the fruit are dispersed by birds, providing a primary reproductive/dispersal mechanism.



Threat:

Rosa multiflora can tolerate a wide range of environmental and soil conditions. It quickly out competes surrounding vegetation to form dense, impenetrable thickets. *Rosa multiflora*'s canes send up shoots when in contact with soil. The plant can produce as many as 500,000 seeds.

Control Options:

1. Grubbing – Pulling, grubbing or removing individual plants is effective when the plants are small and all roots can be removed. Plants that develop subsequently from severed roots should also be removed.
2. Cutting – Repeated cutting is effective in controlling the spread of *Rosa multiflora*, but will not eradicate the plant.
3. Herbicides – *Rosa multiflora* is susceptible to both glyphosate (Roundup) and Triclopyr (Brush-B-Gon). To avoid damage to non-target species, cut-stump treatment should be used.

Treatment Schedule:

May – June: Locate existing infestations and survey property for additional/new infestations of *Rosa multiflora*. Pull or dig and destroy small individual plants.
July - September: Cut stems and paint stump (using sponge type applicator) with Roundup (glyphosate (41%)) diluted with equal part water (1:1), or Brush-B-Gone (triclopyr (8%)) undiluted. Cut *Rosa multiflora* canes should be removed and destroyed. Application of herbicides by foliar spray is not appropriate at this site and is not to be used.

***Rhamnus cathartica* (Common Buckthorn)**

Description:

Rhamnus cathartica is a small deciduous tree or coarse shrub growing to 20 feet in height. Leaves are distinctly egg-shaped, smooth, glossy, finely toothed, pointed at the tip, and have 3- 5 curved leaf veins that extend from the leaf stem to the tip. Leaves stay green late into the fall after most other trees have shed their leaf canopy, making buckthorn easy to identify at this time of the year. Main stem can be up to 10 inches in diameter with brown bark and has elongate silvery corky projections. Cut stems have orange heartwood (center/non-living) and yellow sapwood (outer/living part of stem). *Rhamnus cathartica* blooms after leaf expansion, continuing through September. Blossoms may be produced on the current season's growth. Fruits are initially red, ripening to black in July and August. Seeds contained within the fruit are dispersed by birds.



Threat:

Rhamnus cathartica readily invades natural plant communities where it can form dense stands that crowd or shade out native shrubs and herbs. The plant's long period of fruit production allows seed dispersal throughout the summer and fall. After cutting *Frangula alnus* will readily re-sprout.

Control Options:

1. Grubbing – Pulling, grubbing or removing seedlings is effective when the plant density is low and for new infestations. Larger plants however, may require the use of heavy equipment for removal.
2. Cutting – Repeat cutting, at least twice a season can reduce plant size and stem density. Since *Frangula alnus* will re-sprout, cutting treatments must be repeated over successive years.
3. Herbicides - *Frangula alnus* is susceptible to both glyphosate (Roundup) and Triclopyr (Brush-B-Gon). To avoid damage to non-target species, cut-stump treatment should be used.

Treatment Schedule:

May – June: Locate existing infestations and survey property for additional/new infestations. Pull or dig and destroy small individual plants.

June: Cut stems and paint stump (using sponge type applicator) with Roundup (glyphosate (41%)) diluted with equal part water (1:1), or Brush-B-Gone (triclopyr (8%)) undiluted. Cut *Rhamnus cathartica* stems should be removed and destroyed.

Application of herbicides by foliar spray is not appropriate at this site and is not to be used.

August – October: Repeat cut and paint treatment on any re-sprouted *Rhamnus cathartica* stems. Survey property for new infestations. Pull and destroy any *Rhamnus cathartica* seedlings found. Bag and remove all plant parts to prevent re-infestation

Bush Honeysuckle (Lonicera spp.)

Description:

Bush honeysuckles are shrubs that can grow up to 12 feet tall. They include Amur Honeysuckle, Morrow's Honeysuckle, Tatarian Honeysuckle, and Bell's Honeysuckle. Their leaf shape and flower color are variable. Exotic shrub honeysuckles are upright, multistemmed, oppositely branched, deciduous shrubs. The exotic honeysuckles have hollow center branches when mature (native honeysuckles do not). Introduced as ornamental landscape plants, these plants can become abundant in both fields and wooded areas.



Threat:

Honeysuckle can tolerate a wide range of environmental and soil conditions. They produce leaves earlier in the growing season than most native species allowing honeysuckle to out compete surrounding vegetation. Reproduction is almost entirely by seed. Seeds are readily dispersed by birds.

Control Options:

4. Grubbing – Pulling, grubbing or removing individual plants is effective when the plants are small and all roots can be removed. Plants that develop subsequently from severed roots should also be removed. Pulling or grubbing should be conducted a minimum of twice per year.
5. Cutting – Repeated cutting or mowing is effective in controlling the spread of most honeysuckles.
6. Herbicides –Systemic herbicide can be effective if applied to cut stumps. Honeysuckle is susceptible to both glyphosate (Roundup, Rodeo) and Triclopyr (Brush-B-Gon, Garlon, Pathfinder). To avoid damage to non-target species, cut-stump treatment should be used.

Treatment Schedule:

May – June: Locate existing infestations and survey property for additional/new infestations of honeysuckle. Pull or dig and destroy small individual plants.

August - October: Cut stems and paint stump (using sponge type applicator) with Roundup (glyphosate (41%)) diluted with equal part water (1:1), or Brush-B-Gone (triclopyr (8%)) undiluted. Cut honeysuckle should be removed and destroyed.

Application of herbicides by foliar spray is not appropriate at this site and is not to be used.