STATE OF MAINE
DEPARTMENT OF AGRICULTURE, CONSERVATION AND FORESTRY
BOARD OF PESTICIDES CONTROL
28 STATE HOUSE STATION
AUGUSTA, MAINE 04333

JANET T. MILLS
GOVERNOR

AMANDA E. BEAL
COMMISSIONER

May 15, 2025

Wilkinson Ecological Design, Inc.
Dylan Brown
28 Lots Hollow Rd.
Orleans, MA 02653

RE: Variance permit for CMR 01-026 Chapter 29, Wilkinson Ecological Design, Inc., 73 Lester B Orcutt Blvd, Biddeford

Greetings,

The Board of Pesticides Control considered your application for a variance from Chapter 29. The variance is approved, provided that all products to be used are currently registered in the State of Maine or were registered at the time of purchase and that any application is made above the high-water line.

The Board authorizes the issuance of two-year permits for Chapter 29, therefore this permit is valid until December 31, 2026, as long as applications are consistent with the information provided on the variance request. Please notify the Board in advance of changes, particularly if you plan to use a different product from those listed.

Please bear in mind that your permit is based upon your company adhering to the precautions listed in Section X of your Chapter 29 variance request.

I will alert the Board at its next meeting that the variance permit has been issued. If you have any questions concerning this matter, please feel free to contact me at 287-2731.

Sincerely,

Alexander Peacock

Alexander Peacock
Director

ALEXANDER PEACOCK, DIRECTOR
90 BLOSSOM LANE, DEERING BUILDING

PHONE: (207) 287-2731
THINKFIRSTSPRAYLAST.ORG

BOARD OF PESTICIDES CONTROL
APPLICATION FOR VARIANCE PERMIT
(Pursuant to Chapter 29, Section 6 of the Board's Regulations)

I.

Dylan Brown			(508) 246-7087
Name			Telephone Number
Wilkinson Ecological SCF-2735			
Company Name			
28 Lots Hollow Road	Orleans	MA	02653
Address	City	State	Zip

II.

Dylan Brown		CMA-6433	
Master Applicator (if applicable)		License Number	
28 Lots Hollow Road	Orleans	MA	02653
Address	City	State	Zip

III. **As part of your application, please send a revegetation plan and digital photos showing the target site and/or plants and the surrounding area, particularly showing proximity to wetlands and water bodies, to pesticides@maine.gov**

IV. Area(s) where pesticide will be applied:

73 Lester B Orcutt Boulevard
Biddeford, ME 04005

Referring to the attached PDF plan of the target site, herbicide will be applied to all areas highlighted in orange where invasive plants are present. Herbicides will be used selectively only on invasive plants.

V. Pesticide(s) to be applied:(Including EPA Registration Number)

RoundUp Custom (EPA 524-343)
Garlon 3A (EPA 62719-037)
Cide-Kick II (adjuvant)

VI. Purpose of pesticide application:

To control the invasive plant species found in treatment areas outlined in Section IV above.

VII. Approximate dates of spray application:

June 2025 - October 2026

VIII. Application Equipment:

Hand-powered backpack sprayer, drip bottle, dauber

IX. Standard(s) to be varied from:

Hand-powered backpack sprayer, drip bottle, dauber

X. Method to ensure equivalent protection:

For environment - Backpack sprayers will only be used on days with winds less than 10 miles per hour and no threat of rain in the forecast. Spray applications will be made using low pressure and large droplet size while specifically targeting invasive vegetation. Vegetation to be sprayed near water has been previously mowed down to reduce potential for drift. When applicable, herbicides will be applied directly to the stems of invasive plants with use of drip bottles and daubers.
For applicators - Proper PPE will be used according to herbicide labels.
For public - Trails throughout the Audubon and surrounding properties will be closed.

XI. Revegetation Plan (attach separately if necessary)

See Parterre Ecological Land Management Plan (also attached) for neighboring East Point Audubon Sanctuary property with similar site conditions. Given vast quantity and variety of native vegetation already in place, as seen on page 14 titled "Existing Conditions: Native Species Inventory", native plants will re-naturalize the areas treated with herbicides.

Signed: _____ Date: 5/12/25

Return completed form to: **Board of Pesticides Control, 28 State House Station, Augusta, ME 04333-0028**
OR E-mail to: pesticides@maine.gov

Rev. 8/2013

LAND MANAGEMENT PLAN

A NARRATIVE FOR INVASIVE MANAGEMENT & NATIVE PLANT RESTORATION

View of the Pitch Pine Forest along the coast.

EAST POINT AUDUBON SANCTUARY • BIDDEFORD POOL, MAINE

PARTERRE
ECOLOGICAL

PROJECT INTRODUCTION

This plan addresses a proposed invasive management and restoration planting at the East Point Audubon Sanctuary located at the end of Lester B. Orcutt Blvd. in Biddeford Pool, ME. There are about 22 acres of natural space at this property. It is situated along the coast and is a neighboring property of the Abenakee Golf Club.

Overall this property is densely vegetated with woody trees and shrubs. There is significant invasive plant pressure in the wild space, mostly along the edges. The interior of the property is minimally effected by invasive species. Action to remedy the densely invaded edges now could spare the rest of the property and retain its native plant habitat.

The invasive population on site is mature and self-perpetuating. These species will inevitability displace the remnant native population unless decisive action is taken. These invasives include common culprits such as privet, bittersweet, honeysuckle, barberry, buckthorn and Norway maple.

The purpose of this plan is to identify the invasives plants we propose to remove, provide a description of each, and detail best management practices for control and management. The plan also includes a narrative for proposed native restoration, specifies plant species and delineates planting methods.

Finally, it provides a detailed maintenance calender for all aspects of proposed management and ecological restoration over an extended timeline.

CONTENTS

EAST POINT SANCTUARY GEOGRAPHY & GOALS

The East Point Audubon Sanctuary is situated at the end of the Biddeford Pool peninsula. The property borders Saco Bay and the Gulf of Maine, The Abenakee Club, and several residential properties. There is a short trail open to the public that hugs the coastline through uplands, sandy coastlines, shrublands, and meadows. There is a mix of native and invasive plant vegetation. The invasive plants are mostly concentrated on the edges of the wild spaces and are starting to dominate the native ecosystems that are present. The goal of this Land Management Plan is to present an inventory of the native and invasive species, identify the level of invasive plant pressure, share our Invasive Plant Management strategies, and propose native species to replace the removed invasives if necessary.

Property Boundary of East Point Audubon Sanctuary

Wild Spaces Where Invasive Plant Management Will Occur

0' 100' 200' 300'

EXISTING CONDITIONS: INVASIVE PLANT IMAGES

Privet has escaped from ornamental residential gardens is shown here along the trail. (Trail to Property Line Area)

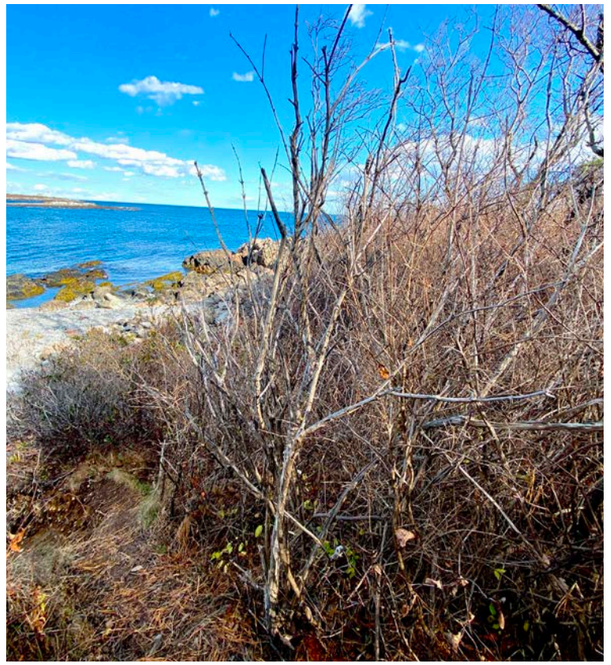
Bittersweet shown here choking out trees.(Pitch Pine Forest)

Bittersweet vines produce red berries in the fall that are eaten by birds and spread throughout natural areas. (Early Succeesional)

EXISTING CONDITIONS: INVASIVE PLANT IMAGES

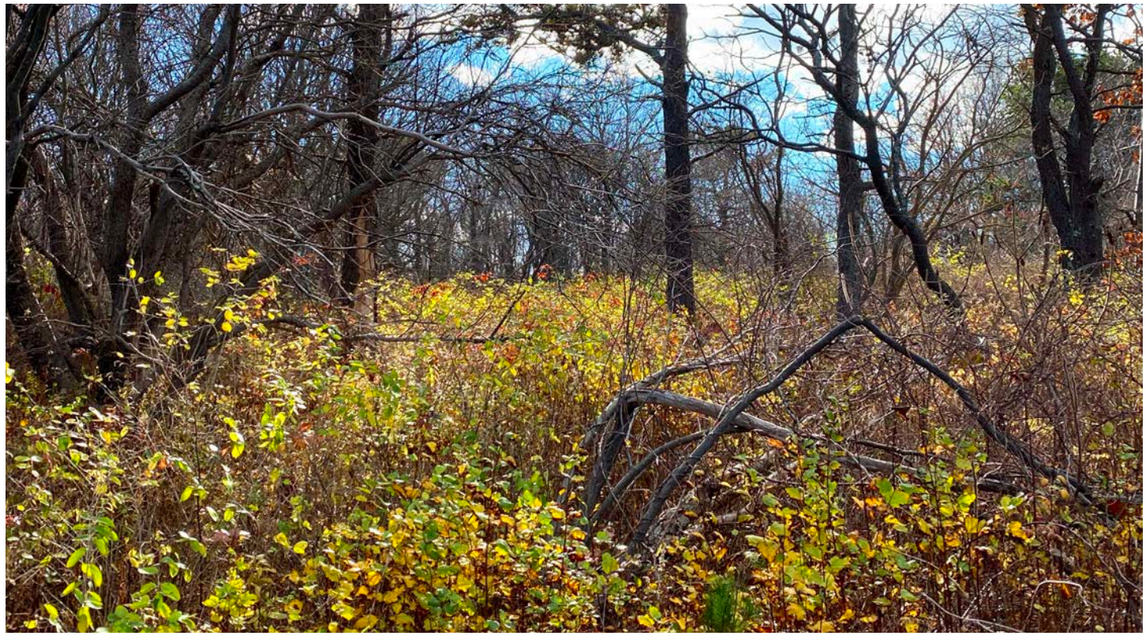
The light green leaves of honeysuckle are easy to spot in the fall. (Clearing Area)

Small sprigs of burning bush are starting to pop up. (Clearing Area)



Honeysuckle shown here taking over the coastal areas. (Pitch Pine Forest)

EXISTING CONDITIONS: INVASIVE PLANT IMAGES



Buckthorn thicket forming in the understory of the ‘Pitch Pine Forest.’

Patches of honesuckle are sprinkled in the understory of the ‘Early Successional Area.‘

EXISTING CONDITIONS: INVASIVE SPECIES INVENTORY

Early Successional Area

Invasive Pressure: Medium
Edges worse than interior

INVASIVES/UNDESIRABLE NON-NATIVES:

TREES/SHRUBS/WOODY VINES

Ligustrum sp. (Privet)
Rosa multiflora (Multiflora Rosa)
Celastrus orbiculatus (Asiatic Bittersweet)
Lonicera sp. (Bush Honeysuckle)
Berberis vulgaris (Barberry)
Acer platanoides (Norway Maple)

HERBACEOUS PLANTS

Solanum dulcamara (Bittersweet Nightshade)
Rubus phoenicolasius (Wineberry)

Clearing Area

Invasive Pressure: Low - Medium
Edges worse than interior

INVASIVES/UNDESIRABLE NON-NATIVES:

TREES/SHRUBS/WOODY VINES

Euonymus alatus (Burning Bush)
Celastrus orbiculatus (Asiatic Bittersweet)
Lonicera sp. (Bush Honeysuckle)
Berberis vulgaris (Barberry)
Ligustrum sp. (Privet)

HERBACEOUS PLANTS

Rubus phoenicolasius (Wineberry)

Pitch Pine Forest

Invasive Pressure: Low- Medium
Edges worse than interior

INVASIVES/UNDESIRABLE NON-NATIVES:

TREES/SHRUBS/WOODY VINES

Ligustrum sp. (Privet)
Rosa multiflora (Multiflora Rosa)
Celastrus orbiculatus (Asiatic Bittersweet)
Lonicera sp. (Bush Honeysuckle)
Berberis vulgaris (Barberry)
Acer platanoides (Norway Maple)
Frangula alnus (Glossy Buckthorn)

HERBACEOUS PLANTS

Solanum dulcamara (Bittersweet Nightshade)
Rubus phoenicolasius (Wineberry)

Trail To Property Line

Invasive Pressure: Low- Medium
Edges worse than interior

INVASIVES/UNDESIRABLE NON-NATIVES:

TREES/SHRUBS/WOODY VINES

Ligustrum sp. (Privet)
Rosa multiflora (Multiflora Rosa)
Celastrus orbiculatus (Asiatic Bittersweet)
Lonicera sp. (Bush Honeysuckle)
Berberis vulgaris (Barberry)
Acer platanoides (Norway Maple)

HERBACEOUS PLANTS

Rubus phoenicolasius (Wineberry)

PROPOSED GENERAL INVASIVE MANAGEMENT TECHNIQUES

MANUAL HAND REMOVAL METHODS:

Manual methods of invasive plant management - including hand pulling and cutting - will be prioritized whenever possible. For tenacious woody plants, use of a weed-wrench is recommended. To minimize soil disturbance (which can activate invasive seed banks), only shallow-rooted invasive plants less than 1" in caliper should be hand pulled from the soil. Invasive plant species greater than 1" caliper are best cut and treated. Invasive plant material will be disposed of off site, chipped and spread, or piled discreetly in the woods as habitat piles.

Hand pulling invasives will be prioritized.

MECHANICAL MANAGEMENT:

Mechanical methods of invasive control include mowing, string-trimming, and sawing down of single large specimens or extensive stands of a particular plant. In a few cases repeated mowing or cutting is all that is needed to weaken a plant's resources to the point of die-off. With most aggressive invasives however, mowing and cutting are only the first step in a more intensive program plan that involves selective herbicidal treatments.

Mechanical mowing of a dense stand of phragmites.

PROPOSED GENERAL INVASIVE MANAGEMENT TECHNIQUES

IMPORTANT NOTE ON HERBICIDE APPLICATIONS IN ALONG THE COAST

Because some of the areas we will treat with herbicide are along the coast, every effort will be made to perform these applications as safely and as cautiously as possible. We will prioritize manual and mechanical removal where possible. We will use foam and cut and dab herbicide applications when working in sensitive areas. We will only work with herbicide during dry stretches of weather and on calm days to minimize drift. We use will wetland safe herbicides only (Garlon 3A and Roundup Custom).

CUT AND DAB TREATMENT:

All invasive plant species that have a base greater than 1" in caliper will be addressed with herbicide application. Invasive plants of this size usually have extensive fibrous root systems which provide beneficial soil stabilization and are best left in situ. Unfortunately, they also maintain the ability to resprout, which is why we propose a cut and dab method with Garlon 3A™ (a triclopyr-based herbicide) on individual cut stumps. Licensed Herbicide Applicators will complete all treatments.

Licensed applicators with required Personal Protective Equipment paint the stems of invasive species after cutting.

FOAM APPLICATION:

Some invasives, particularly persistent herbaceous plants like Japanese Knotweed, or resprouting woodies, are best managed with a foliar foam application. This technique allows the technician to systematically target the new green growth of a plant, where herbicide is absorbed most effectively. The foam adheres to the foliage and the herbicide is trans-located through the vascular system of the plant. Foliar foam wipes are best performed in late summer to fall when the plant is actively reserving energy in the rootstock.

Highly targeted foliar foam applications adhere to leaf surface.

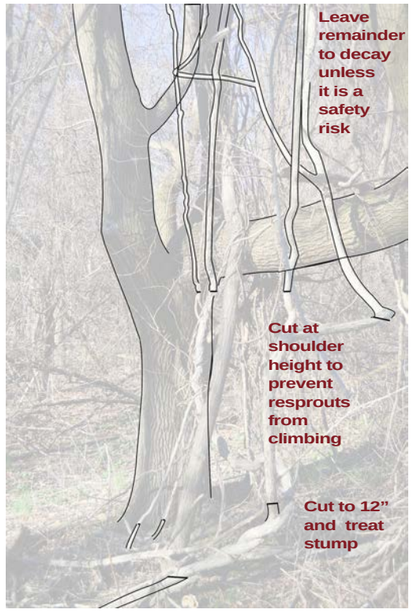
SPRAY APPLICATION:

Herbicide can be applied to invasive shrubs, woody vines, and herbaceous plants through a targeted, low volume spray. This method of herbicide application should only be used when there is no wind and when the targeted species are less than waist height to prevent herbicide drift onto non-target species. Herbicide spray can be a very effective method for treating dense patches of invasives.

RIGHT: Licensed applicators with necessary Personal Protective Equipment will target individual species with herbicide spray.

SPECIALIZED INVASIVE PLANT MANAGEMENT TECHNIQUES
INVASIVE BITTERSWEET (CELASTRUS ORBICULATUS)

Invasive Bittersweet (Celastrus orbiculatus) has the capacity to girdle, weaken, and even kill mature canopy trees. Without consistent management, vines will eventually open large holes in the canopy while suppressing saplings from filling the gaps. They readily resprout after being cut and can damage the aesthetic and ecological value of meadows and forests alike.

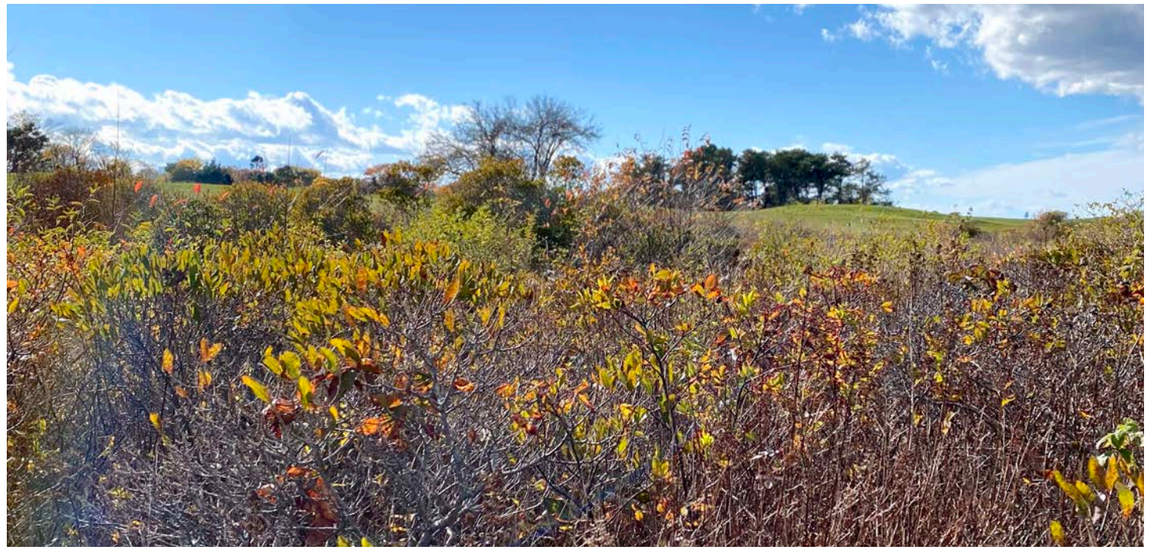


Removing the entire vines from trees is often dangerous and unnecessary (unless it poses safety risk). Best management practice involves making cuts at shoulder height followed by a cut at 12" and immediate herbicide treatment. Bittersweet aggressively suckers after cutting so it is important to cut and treat during or after its flowering period (late June to December).

Established vines produce thousands of bright red berries that mature in late fall and are spread by birds.

View of the boundary between the 'Early Successional Area and the Clearing Area'

EXISTING CONDITIONS: NATIVE PLANT IMAGES

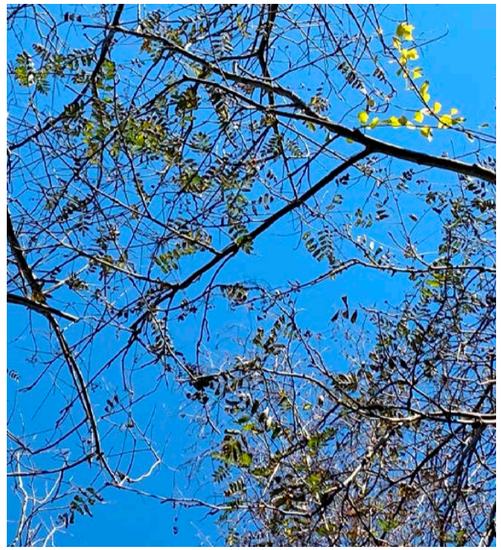


Bayberry colonies have a good hold on the interior of the ‘Clearing Area.’

Above: Mature Serviceberry trees.(Early Succesional)
Below: Ninebark shrubs along the coast. (Pitch Pine Forest)

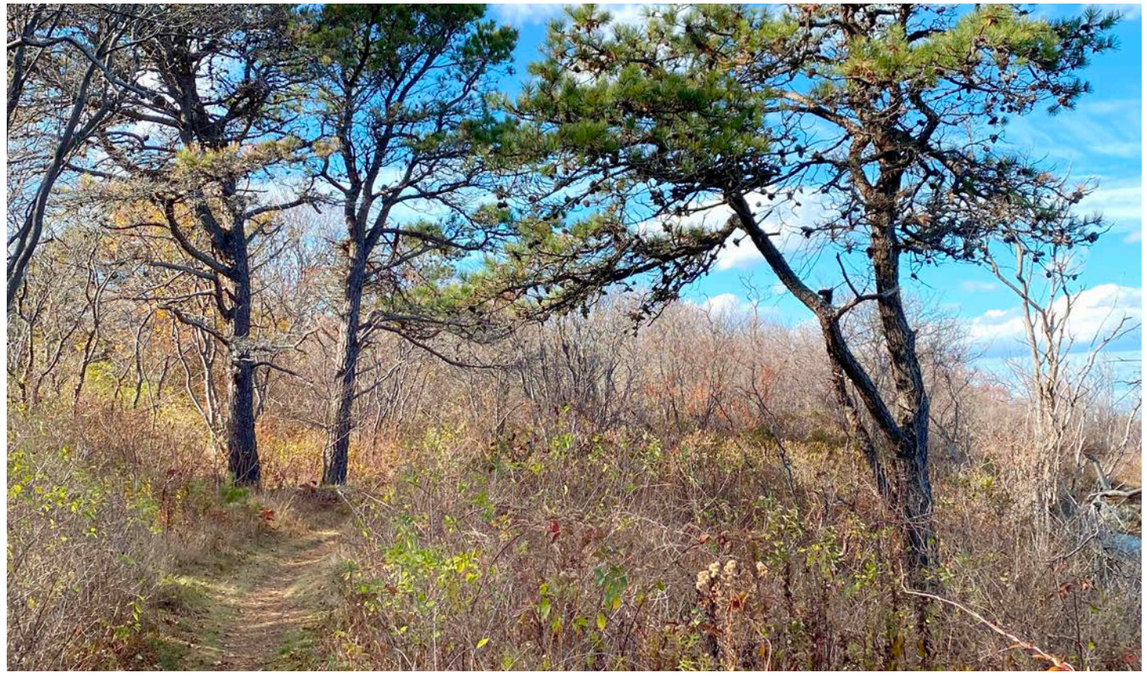
Many mature red oaks make up the overstory. (Trail to Property Line)

EXISTING CONDITIONS: NATIVE PLANT IMAGES



Small mountain ash in the overstory.
(Trail to Property Line)

Gorgeous female winterberry showing off in the fall. (Clearing Area)



Pitch Pines line the public trail along the coast. (Pitch Pine Forest)

EXISTING CONDITIONS: NATIVE SPECIES INVENTORY

See map on page 7 for location of zones

Early Successional Area

Invasive Pressure: Medium
Edges worse than interior

NATIVES:

TREES/SHRUBS/WOODY VINES

Prunus sp. (Cherry)
Pinus strobus (White Pine)
Crataegus sp. (Hawthorn)
Rhus typhina (Staghorn Sumac)
Amelanchier sp. (Serviceberry)
Spiraea alba (Meadowsweet)
Rubus sp. (Raspberry, Blackberry, etc.)
Myrica pensylvanica (Bayberry)
Rosa sp. (Native Roses)
Juniperus communis (Common Juniper)
Acer rubrum (Red Maple)

HERBACEOUS PLANTS

Solidago sp. (Goldenrods)
Euthamia sp. (Grass-leaved Goldenrod)
Symphyotrichum sp. (Asters)
Achillea millefolium (Yarrow)
Schizachyrium scoparium (Little Bluestem)
Asclepias sp. (Milkweed)

Clearing Area

Invasive Pressure: Low - Medium
Edges worse than interior

NATIVES:

TREES/SHRUBS/WOODY VINES

Myrica pensylvanica (Bayberry)
Prunus pumila (Sand Cherry)
Prunus sp. (Cherry)
Spiraea alba (Meadowsweet)
Cornus racemosa (Gray Dogwood)
Pinus rigida (Pitch Pine)
Rosa sp. (Native Roses)
Ilex verticillata (Winterberry)
Spiraea alba (Meadowsweet)
Juniperus communis (Common Juniper)
Viburnum dentatum (Arrowood Viburnum)
Acer rubrum (Red Maple)
Rubus sp. (Blackberry)

HERBACEOUS PLANTS

Solidago sp. (Goldenrods)
Euthamia sp. (Grass-leaved Goldenrods)
Achillea millefolium (Yarrow)

Pitch Pine Forest

Invasive Pressure: Low - Medium
Edges worse than interior

NATIVES:

TREES/SHRUBS/WOODY VINES

Picea sp. (Spruce)
Pinus rigida (Pitch Pine)
Acer rubrum (Red Maple)
Quercus rubra (Red Oak)
Quercus alba (White Oak)
Poplus sp. (Poplar)
Aronia arbutifolia (Red Chokeberry)
Pinus strobus (White Pine)
Vaccinium sp. (Blueberry)
Physocarpus opulifolius (Common Ninebark)
Viburnum trilobum (Highbush Cranberry)
Rhus typhina (Staghorn Sumac)
Malus sp. (Crab Apple)

HERBACEOUS PLANTS

Rubus sp. (Raspberry, Blackberry, etc.)
Euthamia sp. (Grass-leaved Goldenrod)
Solidago sp. (Goldenrods)

Trail to Property Line

Invasive Pressure: Low - Medium
Edges worse than interior

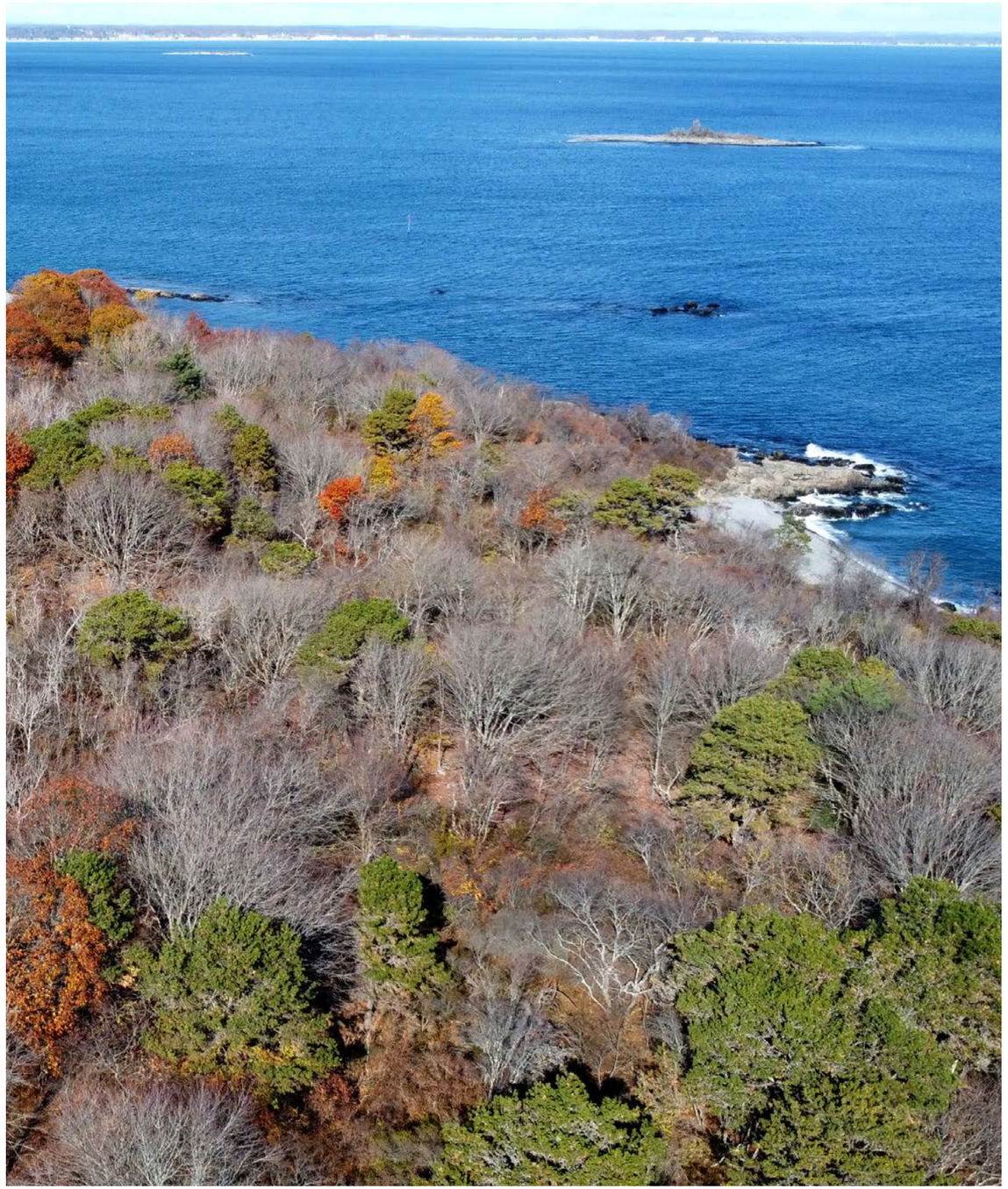
NATIVES:

TREES/SHRUBS/WOODY VINES

Ilex verticillata (Winterberry)
Pinus strobus (White Pine)
Acer rubrum (Red Maple)
Quercus rubra (Red Oak)
Rhus typhina (Staghorn Sumac)
Sorbus americana (Mountain Ash)
Spiraea alba (Meadowsweet)
Malus sp. (Crab Apple)
Pinus rigida (Pitch Pine)
Pinus strobus (White Pine)
Salix nigra (Black Willow)
Rubus sp. (Blackberry)

HERBACEOUS PLANTS

Dennstaedtia punctilobula (Hay-scented Fern)
Solidago sp. (Goldenrods)



View of 'Trail to Property Line Area'

RESTORATION PLANTING RECOMMENDATIONS

Restoration planting will happen once a substantial amount of the Invasive Plant Management has occurred. In the areas where the invasive plant pressure is low, we recommend letting the existing native plants creep in and take over. Where the invasive plant pressure is moderate or high, we recommend replanting with native trees, shrubs, or perennials based on the soil type and sun exposure. We recommend planting small restoration grade trees and shrubs in large open areas (post invasive removal). Sowing seed would be recommended over planting plugs or perennial pots to maximize species diversity and provide more coverage.

See following page for examples of native trees, shrubs and perennials that we would recommend being planted in the wild areas of the East Point Sanctuary.

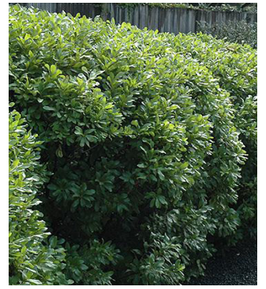
A Cedar Waxwing bird feasts on the berries of a Serviceberry tree.

SHRUBS

Rosa virginiana
Virginia Rose

Aronia arbutifolia
Red Chokeberry

Prunus maritima
Beach Plum



Myrica pensyvanica
Northern Bayberry

SMALL TREES

Amelanchier canadensis
Serviceberry

Betula papyrifera
Paper Birch

Prunus pensylvanica
Fire Cherry

Craetegus mollis
Downy Hawthorn

PERENNIALS

Asclepias syriaca
Common Milkweed

Solidago sempervirens
Seaside Goldenrod

Pycnanthemum tenuifolium
Mountain Mint

*Lathyrus japonicus*Iron
Beach Pea

SEED

NEW ENGLAND COASTAL SALT TOLERANT GRASS MIX

SOURCE: NEW ENGLAND WETLAND PLANTS

Species:

Elymus canadensis (Canada Wild Rye), *Festuca rubra* (Red Fescue), *Panicum amarum* (Atlantic Coastal Panic Grass), *Andropogon gerardii* (Big Bluestem), *Sorghastrum nutans* (Indian Grass), *Panicum virgatum* (Switch Grass), *Juncus tenuis* (Path Rush)

NATIVE RESTORATION TECHNIQUES: PLUGS AND POTS

Many native herbaceous perennials and grasses are best installed as plugs, quarts, or even 1-gallon specimens for the more immediate coverage, impact, and stabilization they provide. They can be used to establish an herbaceous layer entire or overlaid in a matrix on a newly-seeded area. Container plants also allow for the creation of drifts and masses of plants in a way that simple seeding cannot. Planted correctly, their roots will quickly expand, stabilizing soils and creating an understory of healthy native vegetation.

PLANTING PLUGS

- Plugs and container plants are small, with compact root systems, and must be kept moist at all times. Water thoroughly two to three hours before planting. This also facilitates laying out as the roots will not be as liable to dessicate.
- Determine the spacing of the plugs. Dependent on species and container size, this could range anywhere from 8” to 3’ on center, in a grid formation. If massing species together, take care to put taller varieties towards the “back” of the meadow or plot; shorter plants in “front”.
- Planting holes will be dug with a variety of tools - trowels, picks, soil knives, shovels, even augers, mechanical or otherwise (especially useful in highly compacted soil). The plug’s or plant’s crown should sit at soil level and be gently tamped down around its base. Water immediately, and continue to water on a regular basis the first year of establishment.
- Mulch helps conserve soil moisture and reduces weed pressure. We recommend 2” of shredded leaf much immediately after planting.
- Whole plants will fill in more quickly than seeded areas, but weed pressure may still be high. Be vigilant in maintenance.

Plugs and container plants will have dense root systems that must be kept moist.

NATIVE RESTORATION TECHNIQUES: SEEDING DISTURBED SOILS

RESTORATION SEEDING

- The first step in seeding is a thorough site evaluation. Environmental factors such as sun exposure, soil type, topography, grade, and existing vegetation must all be considered. These attributes determine the native plant community best suited for the area.
- The second very crucial task is management of existing invasive species. This can be done though manual and mechanical means, or through the targeted and elective use of herbicides.
- Prepare the site for sowing and planting. Clear off leaves and debris, pick up twigs and sticks, and scarify the soil surface in preparation for sowing.
- Hand-broadcasting seed is the preferred method in delicate wetland soils. Plugs and container plants can be installed at the same time or can be planted once the seedlings have emerged.
- Finally, mulch the area after sowing. Mainely Mulch® protects germinating seeds while providing room for them to emerge. Thick wood chips, sawdust, or other bulky mulches will not be used.
- A three-year maintenance plan is recommended to ensure greatest success. If a newly seeded installation is managed intensively and responsibly during its establishment, it will become self-regulating and require very little to no maintenance in the future.

Clear the space of debris

Seed mixes can be hand broadcast if the space is small enough to permit it.

Newly seeded meadow with straw mulch.

MANAGEMENT CALENDER FOR TREATMENT AND PLANTING

TASK	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Hand removal woody seedlings < 1” caliper												
Hand pulling herbaceous species												
Mechanical management of woody												
Cut and dab herbicide on woody invasives												
Japanese Knotweed Cutback												
Japanese Knotweed Chemical Treatment												
Restoration: Seeding												
Restoration: Planting												
Restoration: Live staking												

Optimal timing and efficiency

Not optimal but mostly effective

Possible, but not ideal

The timing of various containment and restoration strategies is critical to their success. Fortunately, the calender provides ample opportunity for action at any time of the year. Tasks should be performed by trained ecological technicians and licensed herbicide applicators. These recommendations for restoration take into consideration the long term health of the East Point Audubon Sanctuary. Once invasive plants have been managed in a particular area, the restoration of native species should begin.

PROPOSED MANAGEMENT, RESTORATION & MAINTENANCE SCHEDULE

WINTER/EARLY SPRING 2025

» Systematically remove woody invasive plants according to priority (determined by Audubon and Selected Contractor).

» Apply herbicide to freshly cut stumps (if seasonally applicable).

SPRING 2025

» Continue to remove invasive woody plants from wild areas.

EARLY TO MID SUMMER 2025

» Repeat cut and dab herbicide application to any resprouting invasive tree, shrub, and vine species.

» Hand pull any invasive seedlings less than 1” in diameter; stem treat invasive perennials and remove seed heads.

MID SUMMER TO FALL 2025

» Monitor plant response and continue hand pulling and herbicide application methods on resprouting invasive plant species.

» Apply spray or foam herbicide application to herbaceous invasive plants two times during growing season.

» Plant native shrubs in the fall in the areas where invasive plant removal was heaviest. (mostly the edges)

» Plant plugs/sow seed in the areas where invasive plant removal was heaviest. (mostly edges)

ONGOING MAINTENANCE AND MONITORING:

» After the treatments up until this point, the management plan should be evaluated. If treatments have been successful, only monitoring and minimal hand removal need be continued to keep invasive plant species at bay. Native trees, shrubs, and herbaceous forbs should dominate the minimally invaded areas.

» Continue to plant native plants to restore the areas most damaged by invasive plants. Revegetation/Restoration should be started in late fall 2025 and finished by the fall of 2026.

APPENDIX A: INVASIVE PLANT PAGES

NORWAY MAPLE
ACER PLATANOIDES

DESCRIPTION:

Acer platanoides, Norway Maple is a tree occurring in all regions of the state in upland and wetland habitats. It is especially common in urban areas. It grows in full sun to shade. It out-competes native vegetation, including sugar maple, Acer saccharum which it is frequently confused with. Norway autumn color is yellow, while Sugar is orange/red. Norway has white sap, while Sugar has clear sap in the petiole (stems). Norway maple leaf points reduce to a fine “hair”, while the tips of the points on Sugar leaves are rounded.

HABITAT:

Norway maple is well adapted to various soils, grows in dry conditions, and can tolerate areas of soil pollution. Norway maples were widely planted in the United States as street trees and have escaped to natural habitats. Trees produce large numbers of seeds that are wind dispersed and invade natural areas, displacing native trees. Quickly establishing, they create a canopy of dense shade that prevents regeneration of native seedlings. May be alleopathic (capable of inhibiting neighboring plants’ growth). Norway Maple produces copious amounts of seeds, and multitudes of seedlings can be found even one mature tree,

MANAGEMENT:

Manual methods of hand-pulling seedlings is recommended. For larger saplings, a ‘Weed Wrench’ is effective. Girdling the tree by cutting through the bark (cambium) layer all around the trunk is also an option as is basal bark treatment with a Triclopyr-based herbicide. Girdling is most effective in spring and should include reducing the canopy for safety, but consider leaving trunks for habitat value.

JAPANESE BARBERRY
BERBERIS THUNBBERGII

DESCRIPTION:

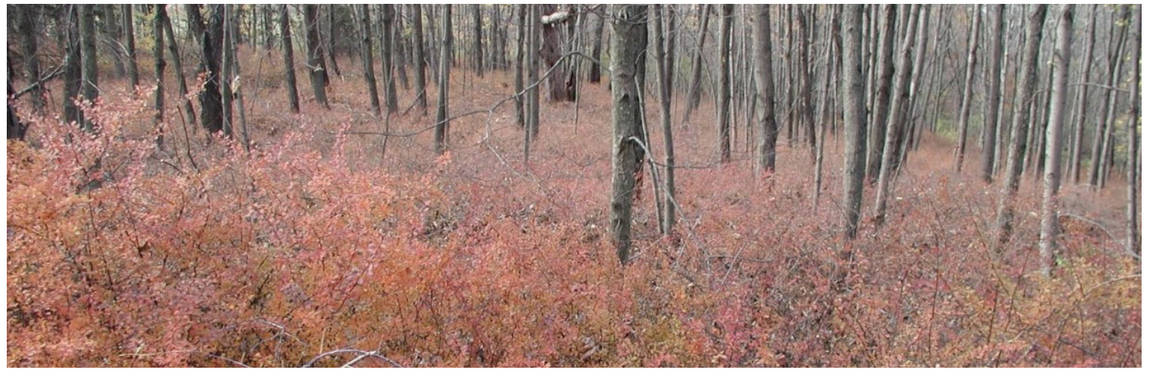
Japanese Barberry, or Berberis thunbergii, makes a dense, deciduous shrub understory that grows to 8 feet. Branches are brown, deeply grooved, zigzag in form and bear a single sharp spine at each node. The leaves are small (½ to 1 ½ inches long), oval shaped, green, bluish-green, or dark reddish purple. Flowering occurs from mid-April to May in the northeast. Pale yellow flowers about ¼ in. Across hang in umbrella-shaped clusters of 2-4 flowers along the length of the stem. The fruits are bright red berries about 1/3” long that are borne on narrow stalks. They mature during late summer and fall and persist through the winter.

HABITAT:

Japanese Barberry is shade tolerant, drought resistant, and adaptable to a variety of open and forested habitats, and disturbed areas. It prefers to grow in full sun, but will flower and fruit even in heavy shade. There is also strong research to support the surprise benefit of controlling Japanese Barberry in the reduction of black legged (or deer) tick populations.

MANAGEMENT:

Japanese Barberry is produces seed prolifically, and with a high germination rate, so removal of fruiting branches is high priority. However, barberry also spreads by rhizome, so underground root fragments should be removed. Manual methods of hand pulling sprouts works well in small populations, but large populations may require chemical applications by applying a solution of glyphosate to foliage, or a triclopyr-based solution to cut stumps.



ORIENTAL BITTERSWEET
CELASTRUS ORBICULATUS

DESCRIPTION:

Celastrus orbiculatus, Asiatic Bittersweet is a deciduous climbing vine common in areas of disturbance in our New England forests. It has glossy, rounded leaves that are alternate with finely toothed margins. The leaves turn yellow in the fall. The fruiting plants produce small greenish flower clusters from leaf axils that mature in fall to produce high numbers of fruiting seed. The seed are noticeably yellow, globular capsules that split open at maturity to reveal red-orange fruiting seeds. Roots are also distinctly orange.

HABITAT:

Bittersweet spreads easily into forest edges, woodlands, unmanaged meadows and old fields. Most disturbed sites that are not being actively managed that receive full sun are susceptible. The vine can tolerate shade but is often found in more open, sunny areas.

MANAGEMENT:

Small seedlings can be hand pulled, but bittersweet resprouts prolifically from root fragments, so more aggressive measures need be taken on all specimens but the very smallest. For established plants, vines should be cut to ground to reduce mass, but repeat cuttings will promote resprouting roots and should be avoided in most cases. Rake any seeds present, bagging in plastic bags, tying, and disposing of correctly.

MORROW'S HONEYSUCKLE
LONICERA MORROWII

DESCRIPTION:

Lonicera morrowii, Morrow's honeysuckles are upright, deciduous shrubs that typically have a multi-stem mounding appearance. Oval leaves are opposite along the stem with smooth edges (no teeth or lobes) and hairy on the underside. Mature stems are often hollow on the interior and peeling on the outer bark. In the spring pairs of fragrant, tubular flowers less than an inch long are borne along the stem in the leaf axils. The fruits are red to orange, and fleshy.

HABITAT:

Honeysuckles are relatively shade-intolerant and usually colonize forest edges, abandoned fields, and other open, upland habitats. Grazed meadows and disturbed woodlands are especially vulnerable. Woodlands and open meadows, especially those that have been grazed or otherwise disturbed and are left unmanaged are also highly susceptible. Morrow's Honeysuckle are highly adaptable and can grow in even challenging environments such as roadsides and wetland edges.

MANAGEMENT:

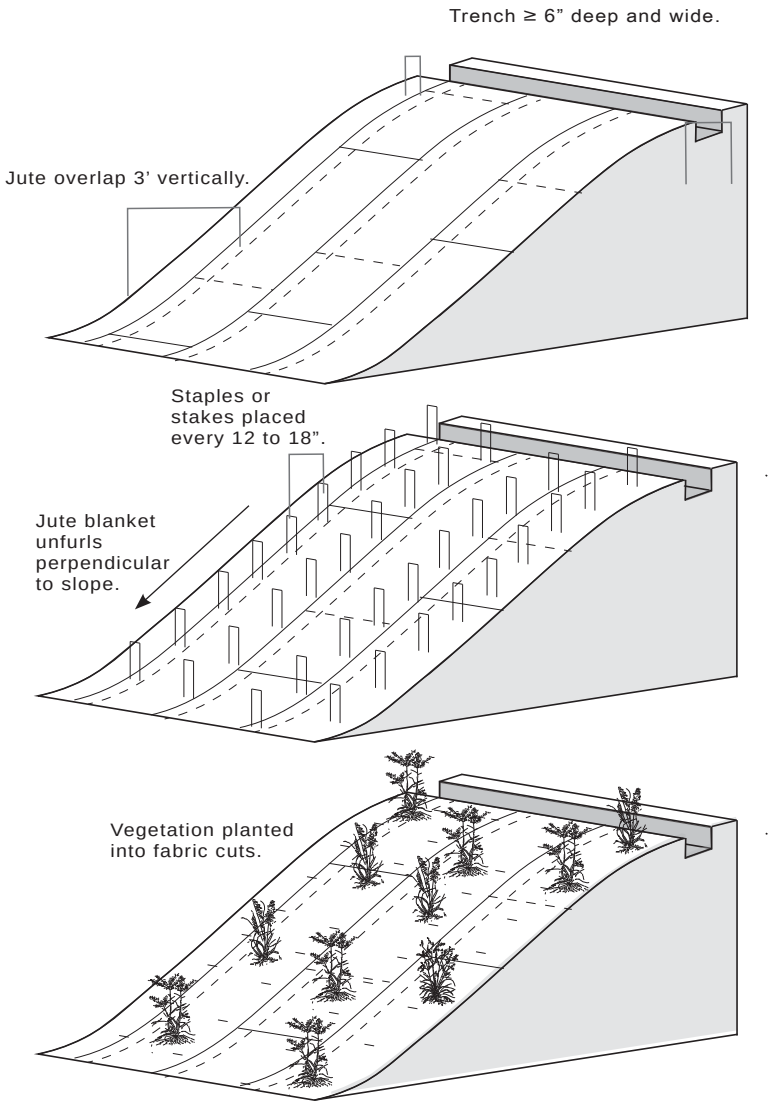
Honeysuckle management can combine mechanical mowing and manual hand pulling with cut and dab herbicide treatments. Small specimens may be removed manually as honeysuckle root systems are fairly shallow. Root resprouting can persist for a few years and several seasons of management may be required to fully control the population.

APPENDIX B: EROSION CONTROL PLANS (PLANTING ON SLOPES)

COIR / JUTE EROSION CONTROL

- After invasive species have been cut and treated, and debris cleared from the surface, we will seed the area with a seed mix, plant plugs or small shrubs. When planting seeds, light compaction enhances soil to seed contact and reduces opportunities for erosion.
- Once the slope is seeded, we dig a trench 6” deep and 6” wide along its ridge. The ends of the fabric are buried in the trench and the coir blanket unrolls perpendicular to the slope.
- The flat coir blanket must have full contact with the soil. It will be spliced to go evenly around and places where rocks or vegetation prevent soil contact.
- Wooden stakes or staples are installed every 12” - 18.”
- The coir blanket overlay horizontally by approximately 6” and 3’ vertically.
- Indicated vegetation is planted by cutting through the coir.
- The blanket biodegrades over time as plantings grow up from within it.

JUTE PLANTING DETAIL



Application for Variance Permit

Maine Board of Pesticide Control, Wilkinson Ecological Design

73 Lester B. Orcutt Blvd, Biddeford, ME 04005

Site Photos – 73 Lester B. Orcutt Blvd

Areas where invasive plant resprouts are to be treated. Corresponding to 1 & 2 on previous aerial.

Site Photos – 73 Lester B. Orcutt Blvd

Areas where invasive plant resprouts are to be treated. Corresponding to 3 & 4 on previous aerial.

Site Photos – 73 Lester B. Orcutt Blvd

Areas where invasive plant resprouts are to be treated. Corresponding to 5 & 6 on previous aerial.