

September 3, 2026

Vegetation Management Plan

55 Whitton Avenue, Hingham

Prepared By:
ENVIRONMENTAL CONSULTING & RESTORATION, LLC
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Introduction

Environmental Consulting & Restoration, LLC (ECR) is pleased to provide this Vegetation Management Plan to accompany the Notice of Intent application prepared by Merrill Engineers & Land Surveyors, Inc. for the proposed project located at 55 Whitton Avenue in Hingham (the site). The goal of the Vegetation Management Plan is to restore and enhance the Coastal Bank at the site with a native plant community to improve stability and wildlife habitat. The plan has been designed to remove non-native invasive plant species, install new native plantings, and manage the area to improve the overall capacity of the resource areas that protect the interest of the MA Wetland Protection Act (MA WPA) and the Town of Hingham Wetland Bylaw (the Town Bylaw).

Vegetation Management Activities

Vegetation management is proposed on the Coastal Bank and buffer zone at the site. The site is located along the shores of Hingham Harbor, just west of Crow Point. The Coastal Bank is located to the rear of the existing home along the northern property limit. The bottom half of the bank is armored by a stone revetment that extends approximately halfway up the bank. The upper half of the bank is vegetated – dominated by non-native invasive plant species. Most abundant are the dense thickets of Porcelain Berry (*Amur peppervine*) that is smothering almost all of the other vegetation. Currently, there is an old, partially dilapidated stairway that provides access from the rear yard to the harbor. Management activities are focused on the Coastal Bank and buffer zone to include the hand removal and selective herbicide treatment of non-native invasive plant species. Following removal, areas will be restored with native species and followed-up with monitoring/maintenance of the site.

The Coastal Bank and buffer zone at the site consists almost exclusively of non-native invasive plants that include Porcelain Berry (*Ampelopsis brevipedunculata*), Autumn Olive (*Elaeagnus umbellata*), Morrow's Honeysuckle (*Lonicera morrowii*), and Multiflora Rose (*Rosa multiflora*). Please note, the Massachusetts Invasive Plant Advisory Group (MIPAG) lists Porcelain Berry as "likely invasive", nevertheless as clearing observed at the site the Porcelain Berry is having significant negative effects on the native species at the site. The limited amount of native vegetation within the management area includes Black Cherry (*Prunus serotina*), River Birch (*Betula nigra*), Virginia Creeper (*Parthenocissus quinquefolia*), Goldenrod, (*Solidago spp.*), and others. The Porcelain Berry vine is far and away the most prevalent and destructive plant at the site. These invasive plants have significantly degraded the wetland resource areas at the site. The Massachusetts Invasive Plant Advisory Group defines invasive plants as "non-native species that have spread into native or minimally managed plant systems in Massachusetts, causing economic or environmental harm by developing self-sustaining populations and becoming dominant and/or disruptive to those systems".

The invasives are proposed to be treated and removed from the site utilizing the "cut & paint" method. Prior to the start of vegetation management activities, existing native trees and shrubs to be retained, including but not limited to staghorn sumac, river birch, sugar maple, and other desirable native vegetation, shall be identified and marked with high-visibility flagging and/or appropriate labeling to clearly designate them for preservation and protection during work. Targeted invasive plants will be identified in the field by the overseeing wetland specialist, flush cut at the base of the stem, and then removed from the site. Regarding the larger non-native invasive plants, only plants with a stem less than 3" in diameter will be treated and removed to avoid potential disturbance caused by the removal of large, mature trees. Due to the slope of the Bank, ECR does not recommend the hand removal of root balls to avoid any adverse impacts to the stability of the Bank. Upon cutting, the stems will be painted with herbicide to prevent stump sprouting and ultimately kill off the remaining root mass. The herbicide product proposed for use will be chosen by the licensed herbicide applicator to include coordination of the product details with the Conservation Agent prior to application. ECR anticipates an herbicide product such as Triclopyr would be used for the proposed treatment, but this will be

confirmed by the licensed herbicide applicator. Though labor intensive, the cut & paint technique prevents herbicide exposure to non-target plants.

Following the treatment and removal of the non-native invasive species within the management area, the restoration area should be enhanced with new native plantings. Please note, the project also includes the relocation of the existing stairway for a new pier. The existing stairs are proposed to be removed in their entirety – the footprint of the existing stairs will be included in the restoration planting efforts at the site. Once the stairs and the invasives have been removed, the management area shall be inspected by the overseeing wetland specialist to determine the quantity of native plants that will be required to fully revegetate the Bank. The new plant stock will consist of only native plant species appropriate for the coastal environment. Within the Coastal Bank, emphasis shall be placed on the dense installation of native grasses, herbaceous perennials, and shrubs to help quickly stabilize the Bank and reduce the potential for recolonization by invasive vegetation. No trees will be planted within the Coastal Bank; any proposed tree plantings will be limited to the Buffer Zone. Any exposed soils within the management area will be hand seeded with a native seed mix appropriate for the site (see the seed mix profile). If substantial areas of exposed soil remain following invasive vegetation removal and permanent restoration planting is not completed within seven (7) days, biodegradable erosion-control blanket secured with stakes, or other appropriate erosion-control measures, shall be installed as necessary to stabilize the exposed soils until revegetation is completed. Please note, the root balls of plants on the Coastal Bank will remain in place, which will limit exposed soils. The plant lists provided below include native species appropriate for specific locations at the site.

Native Species for Coastal Bank:

<u>Common Name</u>	<u>Scientific Name</u>	<u>Size</u>
Bayberry	<i>Morella pensylvanica</i>	Shrub (1.5-2 feet)
Beach Plum	<i>Morella caroliniensis</i>	Shrub (1.5-2 feet)
Black Chokeberry	<i>Aronia melanocarpa</i>	Shrub (1.5-2 feet)
Common Juniper	<i>Juniperus communis</i>	Shrub (1.5-2 feet)
Sweet Pepperbush	<i>Clethra alnifolia</i>	Shrub (1.5-2 feet)
Witch Hazel	<i>Hamamelis virginiana</i>	Shrub (1.5-2 feet)
Shadbush	<i>Amelanchier canadensis</i>	Shrub (1.5-2 feet)
Bearberry	<i>Arctostaphylos uva-ursi</i>	Groundcover (1 gal. min.)
Virginia Creeper	<i>Parthenocissus quinquefolia</i>	Groundcover/Vine (1 gal. min.)
Seaside Goldenrod	<i>Solidago odora</i>	Perennial (2" plug min.)
Eastern Showy Aster	<i>Eurybia spectabilis</i>	Perennial (2" plug min.)
Sweet Goldenrod	<i>Solidago odora</i>	Perennial (2" plug min.)
Coastal Joe-Pye Weed	<i>Eutrochium dubium</i>	Perennial (2" plug min.)
Blue Vervain	<i>Verbena hastata</i>	Perennial (1 gal. min.)
Little Bluestem	<i>Schizachyrium scoparium</i>	Grass (2" plug min.)
Switchgrass	<i>Panicum virgatum</i>	Grass (2" plug min.)
Big Bluestem	<i>Andropogon gerardii</i>	Grass (2" plug min.)
Pennsylvania Sedge	<i>Carex pensylvanica</i>	Grass (2" plug min.)
Pink Tickseed	<i>Coreopsis rosea</i>	Grass (1 gal. min.)
Purple Lovegrass	<i>Eragrostis spectabilis</i>	Grass (1 gal. min.)
Wavy Hairgrass	<i>Deschampsia flexuosa</i>	Grass (2" plug min.)

Native Species for Buffer Zone:

<u>Common Name</u>	<u>Scientific Name</u>	<u>Size</u>
Bayberry	<i>Morella pensylvanica</i>	Shrub (1.5-2 feet)
Beach Plum	<i>Morella caroliniensis</i>	Shrub (1.5-2 feet)
Black Chokeberry	<i>Aronia melanocarpa</i>	Shrub (1.5-2 feet)
Common Juniper	<i>Juniperus communis</i>	Shrub (1.5-2 feet)
Sweet Pepperbush	<i>Clethra alnifolia</i>	Shrub (1.5-2 feet)
Witch Hazel	<i>Hamamelis virginiana</i>	Shrub (1.5-2 feet)
Shadbush	<i>Amelanchier canadensis</i>	Shrub (1.5-2 feet)
Eastern Red Cedar	<i>Juniperus virginiana</i>	Sapling (4-5 feet)
Black Cherry	<i>Prunus serotina</i>	Sapling (4-5 feet)
White Oak	<i>Quercus alba</i>	Sapling (4-5 feet)
Red Oak	<i>Quercus rubra</i>	Sapling (4-5 feet)
American Holly	<i>Ilex opaca</i>	Sapling (4-5 feet)
Sassafras	<i>Sassafras albidum</i>	Sapling (4-5 feet)
Seaside Goldenrod	<i>Solidago odora</i>	Perennial (1 gal. min.)
Eastern Showy Aster	<i>Eurybia spectabilis</i>	Perennial (1 gal. min.)
Little Bluestem	<i>Schizachyrium scoparium</i>	Grass (1 gal. min.)
Switchgrass	<i>Panicum virgatum</i>	Grass (1 gal. min.)

Any substitutions shall be approved by the Hingham Conservation Agent.

The proposed vegetation management plan has been designed to be implemented over time. A practical approach to managing invasives will likely be a phased approach that implements the management protocols within smaller specified areas over time. The tasks below have been laid out for a three-year period to be completed in the specified treatment areas. Successful treatment will be based on achieving approximately 80% control after year one, 95% control after year two, and 99% control after year three.

Year One

- Overseeing scientists should flag all non-native invasive plants to be treated and removed.
- Mechanically cut the flagged woody invasive species. Hand cutting should be utilized where necessary to avoid impacts to the wetland resource areas.
- Treat cut woody invasive species as proposed.
- Remove cut material and dispose of at an appropriate offsite facility.
- In the Fall, complete native plantings at the discretion of the overseeing specialist.
- Submit annual report.

Year Two

- Monitoring and additional treatment, as necessary.
- Perform an additional round of non-native invasive plant removals following the approved methodology.
- In the Fall, complete native plantings at the discretion of the overseeing specialist.
- Submit annual report.

Year Three

- Monitoring and additional treatment, as necessary.
- In the Fall, replace dead plant stock, if necessary.
- Submit annual report.

Mitigation Planting Area

In addition to the vegetation management activities proposed on the Coastal Bank and with the buffer zone, the applicant is also proposing an addition 765 square feet of mitigation plantings. The intent of the mitigation plantings is to restore an area of existing lawn back to a natively vegetated buffer along the top of the Coastal Bank. The proposed migration will be completed as follows:

- 1.) Prior to mitigation work, sediment controls will be established along the edge of the mitigation area to protect the nearby wetland resource areas.
- 2.) Prior to planting, the existing lawn will be removed to expose the native topsoil. If necessary, the mitigation area will be supplemented with a light layer (1 to 2 inches) of clean loam.
- 3.) The mitigation area will then be hand planted with a mix of native woody shrubs and saplings suitable for the coastal environment. Spacing of the plants shall comply with D.E.P. guidance of 8-10 feet on center for shrubs and 12-15 feet on center for saplings. A total of 9 shrubs and 4 saplings are proposed to vegetate the 765 square foot mitigation area. For more information, see the plant list included on the attached plan.
- 4.) Once planted, the root zone of each plant will be mulched with natural, unprocessed mulch/wood chips.
- 5.) All exposed soil will be hand seeded with a native seed mix to stabilize the area and restore the herbaceous layer (see the seed mix profile attached).
- 6.) A temporary irrigation schedule will be established by the applicant/contractor through the first growing season.
- 7.) Plantings will be completed during the early spring planting season (April 15th to May 31st) or the fall planting season (September 15th to November 15th).
- 8.) At the completion of work, a report with photographs will be submitted to the Hingham conservation commission to document the completed mitigation.

Summary

The proposed vegetation management plan has been designed to provide an overall improvement to the site and the associated wetland resource areas. As the site exists today, the Coastal Bank and buffer zone have been degraded by non-native invasive species. If left unmanaged, non-native invasive plants can cause tremendous harm to the native environment. Successful non-native invasive plant management requires a long-term commitment and will need to be ongoing to protect the investment in the management program. The site will need to be watched carefully by scouting for new patches and individual plants even after the three years of treatment. Options for managing these pests after the initial three years usually consist of hand pulling new growth, spot herbicide wiping, and/or cutting. Monitoring and reporting on the success of this management plan will be at the direction of the Conservation Commission.

Upon review of this Vegetation Management Proposal, please contact me at (617) 529 – 3792 or brad@ecrwetlands.com with any questions or requests for additional information.

Attachments:

- 1.) Site Photographs
- 2.) Proposed Vegetation Management Plan, dated 9/3/26

Attachment 1 - Photograph Pages



Photograph #1 – View northwest along the top of the Coastal Bank.



Photograph #2 – View up close of the Porcelain Berry – a non-native invasive vine found at the site.

Attachment 1 - Photograph Pages



Photograph #3 – View of the extensive impact of Porcelain Berry at the site.



Photograph #4 – View of an Autumn Olive shrub growing about halfway down the bank near the top of the revetment.

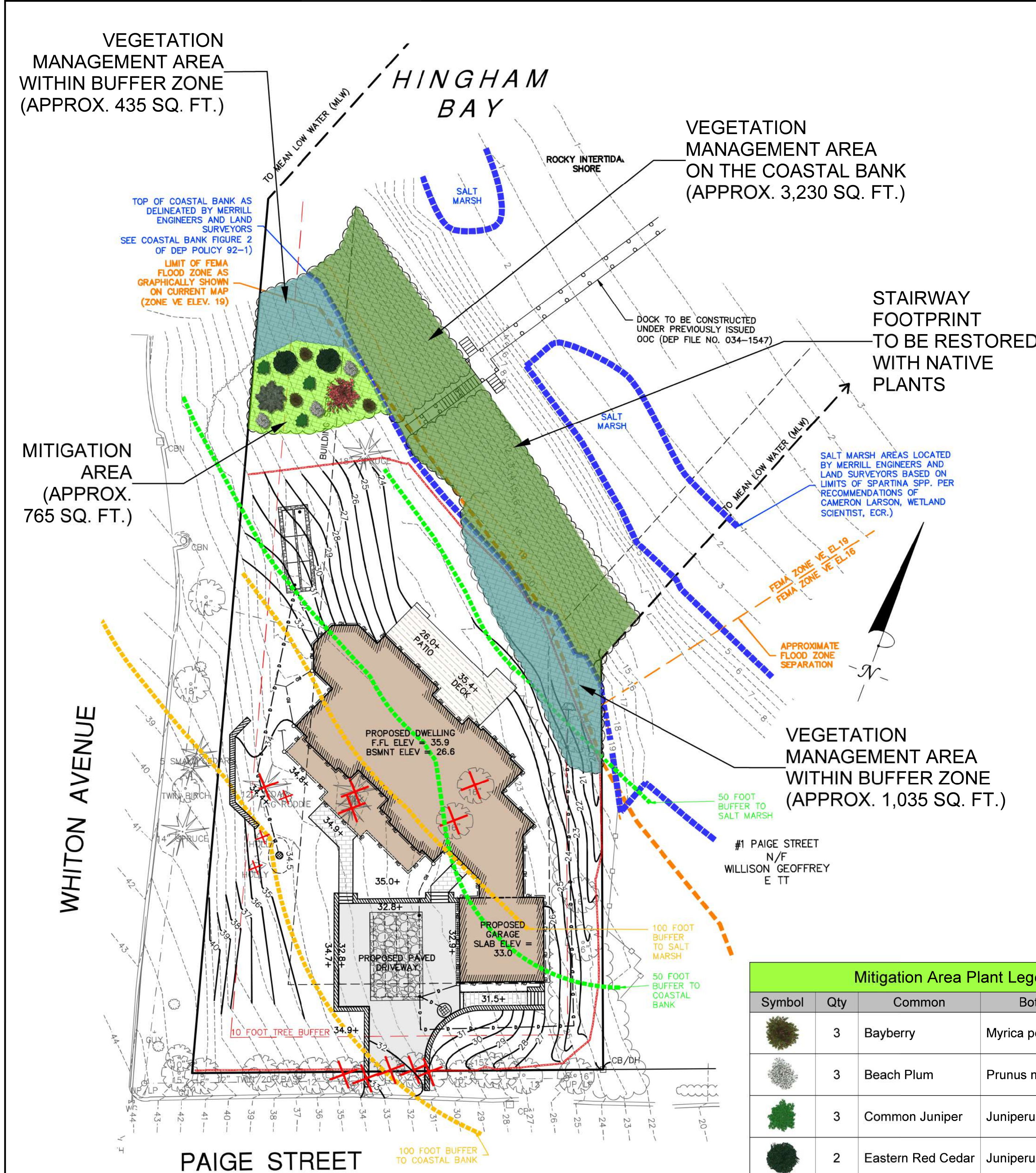
Attachment 1 - Photograph Pages



Photograph #5 – View looking up the bank near the top of the revetment.



Photograph #6 – View of the existing stairway.



Mitigation Notes:

- 1.) The proposed mitigation plan has been designed to restore an area of existing maintained lawn to a natively vegetated buffer along the top of the coastal bank.
- 2.) Prior to mitigation work, sediment controls will be established along the edge of the mitigation area to protect the nearby wetland resource areas.
- 3.) Prior to planting, the existing lawn will be removed to expose the native topsoil. If necessary, the mitigation area will be supplemented with a light layer (1 to 2 inches) of clean loam.
- 4.) The mitigation area will then be hand planted with a mix of native woody shrubs and saplings suitable for the coastal environment. Spacing of the plants shall comply with D.E.P. guidance of 8-10 feet on center for shrubs and 12-15 feet on center for saplings. A total of 9 shrubs and 4 saplings are proposed to vegetate the 765 square foot mitigation area.
- 5.) Once planted, the root zone of each plant will be mulched with natural, unprocessed mulch/wood chips.
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Invasive Plant Management:

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Seed Mix for Exposed Soils:

Native Upland Wildlife Forage & Cover Meadow Mix

Mix Composition

- 34.9% *Andropogon gerardii*, 'Niagara' (Big Bluestem, 'Niagara')
- 27.0% *Panicum virgatum*, 'Cave-In-Rock' (Switchgrass, 'Cave-In-Rock')
- 21.0% *Elymus virginicus*, PA Ecotype (Virginia Wildrye, PA Ecotype)
- 9.0% *Sorghastrum nutans*, NY4 Ecotype (Indiangrass, NY4 Ecotype)
- 3.0% *Rudbeckia hirta*, Coastal Plain NC Ecotype (Blackeyed Susan, Coastal Plain NC Ecotype)
- 2.0% *Chamaecrista fasciculata*, PA Ecotype (Partridge Pea, PA Ecotype)
- 1.5% *Heliopsis helianthoides*, PA Ecotype (Oxeye Sunflower, PA Ecotype)
- 1.0% *Coreopsis tinctoria* (Plains Coreopsis)
- 0.4% *Desmodium canadense*, PA Ecotype (Showy Ticktrefoil, PA Ecotype)
- 0.1% *Monarda fistulosa*, Fort Indiantown Gap-PA Ecotype (Wild Bergamot, Fort Indiantown Gap-PA Ecotype)

Mitigation Area Plant Legend				
Symbol	Qty	Common	Botanical	Size
	3	Bayberry	<i>Myrica pensylvanica</i>	1.5-2 ft.
	3	Beach Plum	<i>Prunus maritima</i>	1.5-2 ft.
	3	Common Juniper	<i>Juniperus communis</i>	1.5-2 ft.
	2	Eastern Red Cedar	<i>Juniperus virginiana</i>	4-5 feet
	1	White Oak	<i>Quercus Alba</i>	5-6 feet
	1	Black Cherry	<i>Prunus serotina</i>	5-6 ft.

Native Species for Buffer Zone:		
Common Name	Scientific Name	Size
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Black Cherry	<i>Prunus serotina</i>	Sapling (4-5 feet)
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Red Oak	<i>Quercus rubra</i>	Sapling (4-5 feet)
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Sassafras	<i>Sassafras albidum</i>	Sapling (4-5 feet)
Seaside Goldenrod	<i>Solidago odora</i>	Perennial (1 gal. min.)
Eastern Showy Aster	<i>Eurybia spectabilis</i>	Perennial (1 gal. min.)
Little Bluestem	<i>Schizachyrium scoparium</i>	Grass (1 gal. min.)
Switchgrass	<i>Panicum virgatum</i>	Grass (1 gal. min.)

Native Species for Coastal Bank:		
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Wavy Hairgrass	<i>Deschampsia flexuosa</i>	Grass (2" plug min.)

Saplings to be spaced 12-15 feet on center;
Shrubs to be spaced 8-10 feet on center; and
Perennials/Grasses 1 gallon pot to be spaced 2-3 feet on center or
Plugs to be spaced 12 inches on center.

Note: Planting details overlaid by ECR, LLC onto the site plan prepared by Merrill Engineers & Land Surveyors.