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 6, 2025

Parterre Ecological
Shana Hostetter
14 Braintree St.
Portland, ME 04103

**RE: Variance permit for CMR 01-026 Chapter 29, Parterre Ecological/Parterre Garden Services**

Greetings,

The Board of Pesticides Control considered your application for a variance from Chapter 29 for 690 Seashore Avenue on Peaks Island. 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

DEPARTMENT OF Agriculture Conservation & Forestry

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.

| Shana Hostetter | | ( 717 ) 587-5355 | |
|---|---|---|---|
| Name | | Telephone Number | |
| Parterre Ecological | | | |
| Company Name | | | |
| 690 Seashore Ave | Peaks Island | ME | 04108 |
| Address | City | State | Zip |

II.

| Shana Hostetter | | CMA-6371 | |
|---|---|---|---|
| Master Applicator (if applicable) | | License Number | |
| 14 Braintree Street | Portland | ME | 04103 |
| 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:

See attached Land Management Plan for more details. The invasive plant pressure is high in intensity. Mostly Knotweeed, with some woody invasive pressure as well.

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

Round Up Custom, 524-343

Garlon 3A, 62719-37

VI. Purpose of pesticide application:

To control invasive plant species and replant with native vegetation.

VII. Approximate dates of spray application:

September 2025- December 2027

VIII. Application Equipment:

Cut Stump Application (Buckthorn blaster), backpack sprayer, hand held foamer

IX. Standard(s) to be varied from:

Chapter 29, Section 6, Section A

X. Method to ensure equivalent protection:

When using the backpack sprayer we will be using large droplet sizes to minimize drift. We will only apply herbicide when the wind is less than 15mph. Spray only when the ground is dry and not saturated with water. Avoid spraying when forecasts show a threat of heavy rains. Do not spray on rainy days and cease spray operations if rain is in the immediate forecast.

XI. Revegetation Plan (attach separately if necessary)

See attached Land Management Plan

Signed: Shana Hostetter Date: 1/31/25

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

**LANDSMAN PROPERTY • PEAKS ISLAND, PORTLAND, MAINE**

PARTERRE
ECOLOGICAL

*A view of the Landsman residence and the vegetation behind the home. The orange vegetation shows a Knotweed monoculture that extends beyond the property boundary.*



# CONTENTS

# PROJECT INTRODUCTION

This plan addresses proposed invasive management and contains a native restoration narrative at the Landsman property on Peaks Island, Portland, Maine. The oceanfront property sits on the East side of the Island spanning just over 0.5 acres in a residential area. The property abuts large natural areas to the West and Wharf Cove in the Atlantic Ocean to the East. As a monoculture of mature Knotweed from the western natural areas encroach on the Landsman property, little more than invasive and a few nonnative ornamental plants comprise the property's vegetation.  With approval from the Department of Environmental Protection (DEP), removing invasive species will allow Matthew Cunningham Landscape Design (MCLD) team, specializing in native plant garden design, to manage the restoration planting.


*Map the of residential parcels on Peaks Island including the Landsman property boundary and the large natural area parcels to the West.*

The invasive population on-site and on the entirety of Peaks Island is mature and self-perpetuating. These invasive species outcompete native trees, shrubs, and wildflowers in Peaks Island's natural habitats, create monoculture stands devoid of biodiversity, create habitat for ticks, and reduce habitat for native wildlife. These species will inevitably displace the remnant native population of the Island and are considered a highly invasive threat to entire ecosystems unless decisive action is taken. The invasive on the Landsman property are classified as "widespread" and "severely invasive" by the Maine Natural Areas Program (MNAP), which is within the Maine Department of Agriculture, Conservation, and Forestry.

Significant invasive plant pressure exists on the site of highly invasive and mature Knotweed, Asiatic Bittersweet, Shrub Honeysuckle, and Multiflora Rose. Additionally, the deep, matted root system of Knotweed poses a threat to the septic system on-site and has prompted the interest of the property owner to work collaboratively with abutters to help abate Knotweed growth. Action to remedy the densely invaded property boundary on the western part of the site now could spare the rest of the property from invasion and allow MCLD to restore the property to a healthy and biodiverse ecosystem.

This plan identifies the invasive plants we propose to remove, describes each, and details best management practices for control and management. The plan also includes a narrative for proposed native restoration and specifying plant species. Finally, it provides a detailed maintenance calendar for all aspects of proposed management and ecological restoration over an extended timeline.



## PROJECT GOALS

The Landsman property is on the Eastern side of Peaks Island, Maine. The property abuts Wharf Cove in the Atlantic Ocean to the East, large natural areas to the West, and several residential properties to the North and South. Little more than invasive plant varieties and a few nonnative ornamental plants comprise the property's vegetation as the invasive species dominate the native ecosystems that are present. This Land Management Plan aims to present an inventory of the invasive species, share our Invasive Plant Management strategies, and propose native species to replace the removed invasive plants.

Native plant restoration will be managed by Matthew Cunningham Landscape Design (MCLD), a team specializing in native plant garden design.


*An aerial view of the Landsman property shows the bright orange vegetation of a mature Knotweed monoculture encroaching from the West. The area of Knotweed that this plan proposes for invasive management and removal is highlighted in blue.*

# EXISTING CONDITIONS: INVASIVE PLANT SPECIES

## INVASIVE SPECIES PLANT KEY

| BOTANICAL NAME | COMMON NAME |
|---|---|
| Celastrus orbiculatus | Bittersweet |
| Lonicera morrowii | Shrub Honeysuckle |
| Ligustrum vulgare | Privet |
| Fallopia japonica | Knotweed |
| Rosa multiflora | Multiflora Rose |

*(Above) A bramble of Celastrus orbiculatus,* Bittersweet, at the front of the property.

*(Below) Mature Lonicera morrowii Shrub Honeysuckle, along the foundation of the home.*

*(Above) Fallopia japonica, Knotweed, is encroaching on the property from the West.*

*(Below) Rosa multiflora,* Multiflora Rose & Lonicera japonica, Shrub Honeysuckle are intertwined.



*An aerial view of the Landsman residence. The orange vegetation shows a Knotweed monoculture that extends beyond the property boundary. The area that this plan proposes for invasive management and removal is highlighted in blue and includes Knotweed, Shrub Honeysuckle, and Bittersweet.*

# INVASIVE PLANT MANAGEMENT TECHNIQUES

## IMPORTANT NOTE ON HERBICIDE APPLICATIONS BY COASTLINE AREA

Because some of the areas we will treat with herbicide are adjacent to the coastline, every effort will be made to perform these applications safely. We will prioritize manual removal where possible. We will use 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 will use wetland safe herbicides only (Garlon 3A and Roundup Custom).

### FOLIAR SPRAY:

Directed foliar sprays are herbicide/water mixes targeting invasive plant foliage. A certified herbicide technician will apply using a backpack sprayer—with low pressure and away from the coastline, drift inhibitors, and a spray shield—to enhance precision and cover all leaves to the point of runoff. Ideally, a water-soluble dye should be incorporated into the solution to track application and alert the technician to any unwanted spray drift.

### 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.

*Foliar herbicide application by licensed technician*

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



### FOLIAR FOAM:

Cutting alone is not an effective tool for managing Knotweed. However, cutting can be integral to managing this plant, particularly when combined with follow-up herbicide application. An adequately timed cutting will eliminate the tall canopy and simplify follow-up operations. For more extensive mature stands of Knotweed, stands should be cut in May, and foliar or stem herbicide should be applied in late summer. The cutting in May causes the Knotweed to regrow to a more manageable height in late summer. At this point, the leaves can be easily painted with a 6.0% Aquaneat (glyphosate) solution before the plant pulls its nutrients back into the roots in preparation for winter. Cutting later than June reduces your operational window to chemically treat knotweed, and waiting too late in the season can result in almost no regrowth.

After the Knotweed has been cut in early June, the plant will respond by utilizing stored carbohydrates, further reducing the plant's vigor. The herbicides used for a foliar application move through the plant. To control the rhizomes, the application needs to be made later in the season, when the movement of carbohydrates is back to the rhizomes for growth and storage.

*Foliar herbicide application by licensed technician*

### CUT AND FILL:

When foliar application is not an option (Knotweed in sensitive areas and/or mixed with desired plants) or for smaller patches of Knotweed stem application is an option. For large populations, the large stems are cut at 18 inches. The remaining stems are then treated between the first and second nodes with a 50% solution of glyphosate that is put into the hollow tube of the stem and its walls. This should be done for consecutive 2-5 seasons.

*Herbicide application by licensed technician*



*Foliar herbicide application by licensed technician*

# PROPOSED MANAGEMENT PER INVASIVE SPECIES

## 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 prolificate to form root fragments, so more aggressive measures must be taken on all specimens. For established plants, vines should be cut to the ground to reduce mass and treated with the cut-and-dab method. Bittersweet aggressively suckers after cutting, so it is essential to cut and treat during or after its flowering period (late June to December).



## SHRUB 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:

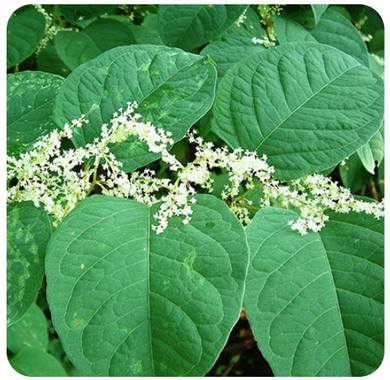
Honeysuckle management can combine mechanical mowing and manual hand pulling with cut and dab herbicide treatments. Small specimens may be removed manually as honeysuckle root systems are fairly shallow. Root resprouting can persist for a few years and several seasons of management may be required to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

# JAPANESE KNOTWEED

*Fallopia japonica*

## HABITAT:

that forms dense monocultures on various site conditions, from roadsides to stream banks. Knotweed is a relative of buckwheat, smartweed, and the Noxious Weed mile-a-minute vine. Japanese knotweed was introduced to the U.S. as ornamentals during the late 1800s. However, it has become an invasive plant in our natural areas due to its imposing height, dense growth habit, aggressive spread, and seeming indifference to control methods.



## DESCRIPTION:

Knotweed, Fallopia japonica, is a tall-growing, hollow-stemmed, perennial plant that can grow to over 10 feet in height. Stems of Japanese knotweed are smooth, stout and swollen at joints where the leaf meets the stem. Although leaf size may vary, they are normally about 6 inches long by 3 to 4 inches wide on a mature plant, broadly oval to somewhat triangular and pointed at the tip. The greenish-white flowers occur as branched sprays in summer and are followed soon after by small winged fruits. Seeds are triangular, shiny, and very small, about 1/10 inch long.

## MANAGEMENT:

Knotweed management can combine foliar spray and cut-and-fill herbicide treatments. Precisely timed cuttings of Knotweed increase the operational window to chemically treat. Either of these treatments should be done for consecutive 2-5 seasons.



# MULTIFLORA ROSE

*Rosa multiflora*

## DESCRIPTION:

Rosa multiflora, Multiflora Rose is a shrub with arching canes and a mounding shape in the landscape. The leaves are divided into five to eleven sharply toothed leaflets. The base of each leaf stalk has a pair of fringed bracts, which is a key identifier of the plant from other wild roses. Beginning in early summer, clusters of showy white flowers appear. The flowers are followed by developing red fruit, or hips, during the summer that remain on the plant through the winter.

## HABITAT:

Multiflora Rose thrives in early successional habitat. The rose has a wide tolerance for various soil, moisture, and light conditions. It occurs in dense woods, along river banks and roadsides and in open unmanaged fields. It can form a dense understory that suppresses growth of native plant species. The seed is readily dispersed by birds, and the extended productivity of the fruit into winter months allows widespread distribution of the plant.

## MANAGEMENT:

Manual methods of hand-pulling seedlings is effective. For more established shrubs, a combination of pruning to reduce mass followed by cut & dab treatments with a triclopyr-based herbicide is recommended. Persistent root infestations may require repeat cutting over several seasons. Rake any seeds present, bagging and disposing of correctly.

# MANAGEMENT CALENDAR FOR TREATMENT & 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 invasive | | | | | | | | | | | | |
| Cut and dab herbicide on woody invasive | | | | | | | | | | | | |
| Japanese Knotweed Cutback | | | | | | | | | | | | |
| Japanese Knotweed Chemical Treatment | | | | | | | | | | | | |

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 AND MAINTENANCE SCHEDULE

## LATE SPRING/ EARLY SUMMER 2025 (WITH DEP APPROVAL)

» Systematically remove woody invasive plants according to priority.

» Cut and remove all Japanese Knotweed

## LATE SUMMER/FALL 2025

» Treat Japanese Knotweed reprouts with herbicide (foliar treatment of spray or foam)

» Treat woody plant reprouts with herbicide (foliar treatment of spray or foam)

» If the invasive plant management schedule holds, it is possible to plant larger trees and shrubs into the disturbed areas in the late fall of 2025. However, due to the intense nature of the Knotweed monoculture, we would recommend waiting until the following year to plant.

## 2026

» Continue the same pattern as the 2025 season.

## 2027

» Assess the effectiveness of the management in the past 2 years.

Landsman Residence
Preliminary Planting Proposal

690 Seashore Ave, Peaks Island, Portland, ME

The proposed planting plan for the site will focus on enhancing local biodiversity by implementing primarily native trees, shrubs, and perennials that are well-adapted to the region's climate and soil conditions. These plants will provide various ecosystem services and promote soil health, structure, and water retention. By prioritizing native species, the proposed planting plan aims to create a sustainable and resilient landscape that requires less maintenance and reduces the need for irrigation and fertilization. Overall, this approach will contribute to the long-term ecological health of the site and promote positive environmental and aesthetic outcomes. Please refer to the subsequent list for specific information regarding suggested plant species and cultivars.

| **Trees** | |
|---|---|
| Acer rubrum 'Red Sunset' | Red Sunset Red Maple |
| Amelanchier canadensis | Shadblow Serviceberry |
| Ilex opaca | American Holly |
| Juniperus virginana | Eastern Red Cedar |
| Picea abies | Norway Spruce |
| Thuja plicata 'Green Giant' | Green Giant Arborvitae |
| **Shrubs** | |
| Aronia arbutifolia 'Brilliantissima' | Red Chokeberry |
| Cephalanthus occidentalis | Buttonbush |
| Clethra alnifolia | Summersweet |
| Clethra alnifolia 'Hummingbird' | Hummingbird Summersweet |
| Comptonia peregrina | Sweettern |
| Fothergilla gardenii | Dwart Fothergilla |
| Hamamelis virginiana | Common Witchhazel |
| Hydrangea paniculata 'Tardiva' | Tardiva PeeGee Hydrangea |
| Hydrangea quercifolia 'Pee Wee' | Pee Wee Oakleat Hydrangea |
| Ilex glabra 'Shamrock' | Dwart Inkberry |
| Ilex verticillata 'Red Sprite' | Red Sprite Winterberry |
| Ilex verticillata 'Southern Gentleman' | Southern Gentleman Winterberry |
| Juniperus communis | Common Juniper |
| Myrica gale | Sweetgale |
| Myrica pensylvanica | Northern Bayberry |
| Prunus maritima | Beach Plum |
| Rhododendron arborescens | Sweet Azalea |
| Rhus aromatica 'Gro-Lo' | Fragrant Sumac |
| Rosa virginiana | Virginia Rose |
| Viburnum dentatum | Arrowwood Viburnum |
| **Perennials** | |
| Alchemilla mollis | Lady's Mantle |
| Amsonia hubrichtii | Bluestar |
| Anemone canadensis | Canada Anemone |
| Anemone x hybrida 'Honorine Jobert' | Honorine Jobert Japanese Anemone |
| Arctostaphylos uva-ursi | Bearberry |
| Astilbe 'Bridal Veil' | Bidal Veil Astilbe |
| Athyrium filix-femina | Lady Fern |
| Carex pensylvanica | Oak Sedge |
| Dennstaedia punctiloba | Hay-Scented Fern |
| Echinacea purpurea 'Magnus' | Magnus Purple Conetlower |
| Eragrostis spectabilis | Purple Love Grass |
| Eupatorium dubium 'Baby Joe' | Baby Joe Pye Weed |
| Geranium 'Rozanne' | Rozanne Cranesbill |
| Nepeta x faassenii 'Walker's Low' | Walker's Low Catmint |
| Pennisetum alopecuroides 'Hameln' | Dwart Fountain Grass |
| Rudbeckia fulgida 'Goldsturm' | Goldsturm Black-Eyed-Susan |
| Salvia 'May Night' | May Night Sage |
| Schizachyrium scoparium 'Carousel' | Carousel Little Bluestem |
| Sporobolus heterolepsis | Prairie Dropseed |
| Symphyotrichum novi-belgii 'Wood's Light Blue' | Wood's Light Blue New York Aster |