Restoring Native Landscapes: Managing Invasive Plants at Goodrich Park

A York Conservation Commission and York Parks & Recreation Department Partnership

Funding provided by the York River Stewardship Committee and the National Park Service Wild and Scenic Rivers Program

TOWN OF YORK PARKS & RECREATION

YORK RIVER WILD & SCENIC

Outline

- Explain what invasive plant species are
- Describe ecological, recreational, and economic impacts
- Summarize project goals for Goodrich Park
- Show mechanical controls (forestry mulching) and follow-up herbicide use
- Provide local (southern Maine & seacoast NH) examples and recommendations
- Long-term outcomes, recommendations and next steps
- Encourage community involvement and monitoring

What are invasive plants?

- Non-native species that spread rapidly and harm native ecosystems
- Outcompete native plants, alter habitats, reduce biodiversity
- Examples found at Goodrich Park: Japanese knotweed, Asiatic bittersweet, common and glossy buckthorn, honeysuckle sp., European privet, Japanese barberry, burning bush, multiflora rose, black locust, Norway maple, Autumn olive

Why removal matters

Ecological: protect native habitat, wildlife food/shelter, and soil health

Safety & access: dense thickets impede trails and visibility

Economic: reduce long-term management costs & protect property values

Regulatory/public expectation: maintain park and municipal assets

Glossy Buckthorn

Wildlife That Benefit from Native Habitats

- New England Cottontail — needs dense native shrubland (conservation priority)
- Monarch butterflies — rely on native milkweed for reproduction
- Eastern bluebirds and many songbirds — feed on insects supported by native oaks and shrubs
- Aquatic species (beaver, mink, ducks) benefit from native shoreland buffers

Integrated Management Strategy

1. Site survey & mapping (identify target species and sensitive areas)
2. Mechanical and manual clearing (forestry mulching and hand cutting/pulling) in priority zones
3. Immediate cleanup & erosion control (mulch, seed disturbed areas where needed)
4. Targeted follow-up herbicide treatments on resprouts (certified applicators) (years 1–3+)
5. Replanting with natives + ongoing monitoring (5+ years)

Phase One

- Knotweed was treated last fall
- Forestry Mulching was completed this winter.
- Volunteer days have been scheduled for removal of buckthorn and other woody shrubs
- Invasives planted as ornamentals along the buildings will be removed as well
- Herbicide application has been scheduled for this summer after regrowth of invasives
- Repeat treatment of remaining knotweed is scheduled for fall.
- Ongoing monitoring for emergence of desire native vegetation

Forestry mulching examples

- BEFORE: dense invasive thicket (e.g., bittersweet, honeysuckle, multiflora rose)
- AFTER: invasive plants mulched, larger trees remain, open ground ready for follow-up and native planting
- Mulching was done this winter as demonstrated here

Targeted Herbicide Best Practices

- Time treatments for species lifecycle (e.g., late summer for knotweed foliar, cut-stem + basal bark for woody species)
- Minimize non-target exposure: spot-spray, wick applicators, cut-stem treatments
- Permits, label compliance, and public notification are essential

Habitat restoration goals for Goodrich Park

- Restore healthy ecosystem
- Enhance the beauty of the park and positive connection with nature
- Use the park as a demonstration site to promote awareness and tools for managing invasive plants in their own yards

Phase Two

- Invasive plants are less concentrated on this parcel, but the parcel is considerably larger
- Forestry mulching will take place this fall/winter
- Small amounts of knotweed will be tx this fall and next
- Small wetland occurs here and requires special considerations
- Herbicide treatments planned for summer of 2027


0066-0002
Phase 2
York Parks and
Recreation
Offices
0066-0001
FERRY LANE SOUTH
Phase 2
0067-0005
Goodrich Park
0067-0005
Phase 1
US Route 1
Goodrich Park

How can YRSC help ?

Help to encourage the community to recognize the damage invasive plants are doing to the watershed

- Harming habitat for native insect pollinators
- Contributing to erosion of stream/river banks
- Harming habitat for native plants which support our ecosystem

Continue to support community efforts toward sustainable land use on private properties including responsible use of pesticide and fertilizer to mitigate harm to the watershed

Thanks for your support!

Regional Coordination and Planning

- Working with the State Invasive folks
  - Maine Invasive Species Network
  - York Stiltgrass remediation
  - Met with Board Of Pesticide Control re: use of volunteers being trained in use of herbicides on municipal properties

- Working with other groups
  - Kennebunk Rogers Park invasive mediation
  - Marginal Way Swallowwort pull
- Southern Maine Invasive Plant Coalition
  - Multiple Towns and Land trusts

Concerns for the Watershed

- Japanese knotweed is present at the headwaters of the York River (culverts)
  - Undermines the riverbanks (see Mad River, VT)
  - Forms monocultures excluding native plants by secreting toxic chemicals
  - Little if any benefit to wildlife
  - Spreads by rhizomes and each node can create new plant. Sections moved during flooding create new infestations
  - Is highly salt tolerant and has been found in salt marshes on Long Island

Invasive knotweeds are highly tolerant to salt stress

Soraya Rouifed [1], Coline Byczek, Daniel Laffray, Florence Piola

Plasticity in salt tolerance traits allows for invasion of novel habitat by Japanese knotweed s. l. (Fallopia japonica and F.×bohemica, Polygonaceae)

Show affiliations

Richards, Christina L. ; Walls, Ramona L. ; Bailey, John P. ; Parameswaran, Radha ; George, Tara ; Pigliucci, Massimo

How to Manage Invasive Species across a Watershed (Workshop)

September 22, 2025 @ 4:00 pm - 6:30 pm

Knotweed at the Headwaters

Brixham Road

This is how erosion and spread occur