

How to Prioritize and Set Goals for Invasive Plant Management

Nancy Olmstead, Invasive Plant Biologist, DACF – Maine Natural Areas Program Aleta McKeage, Technical Director, Waldo County Soil and Water Conservation District Jeffrey Williams, Forester, Maine Forest Management

Amanda E. Beal Commissioner

Robert G. Marvinney Director

18 Elkins Lane Augusta, ME 04333

(207) 287-3200 www.maine.gov/dacf

Ways to prioritize invasive plant work

Plant species basis:

- New to property or new to area
- Unacceptable impacts

Site basis:

- Outliers first
- Protect priority habitats
- Start upstream
- Areas soon to be harvested

Prevention and Early Detection

Best practices for prevention Watch List

"Nip it in the bud"

Goal = eradicate from site



Species not yet widespread in ME

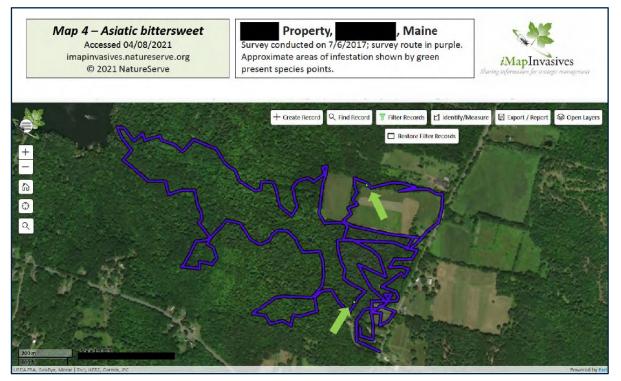
Table 2. Target invasive plants that are localized (present in fewer than eight counties) or not yet detected in Maine. <u>Stiltgrass</u> and mile-a-minute weed are Early Detection, Rapid Response species – please alert the Maine Natural Areas Program immediately if you suspect a <u>stiltgrass</u> or Mile-a-minute infestation.

Program Manual Appendix 2c

Common Name	Scientific Name	Status in Maine	Habit/Life Cycle	Habitat
Hardy kiwi	Actinidia arguta	Localized	Woody vine	Uplands
Tree of heaven^	Ailanthus <u>altissima</u>	Localized	Tree	Uplands
Porcelainberry	Ampelopsis glandulosa	Localized	Woody shrub	Uplands
Pale swallowwort*	Cynanchum rossicum	Localized	Perennial herbaceous vine	Uplands
Giant knotweed	Fallopia sachalinensis	Localized	Perennial tough herb	Uplands
Giant hogweed	Heracleum mantegazzianum	Localized	Perennial tough herb (monocarpic)	Uplands or wetlands
Japanese honeysuckle	Lonicera japonica	Localized	Woody vine	Uplands
Japanese stilt grass	Microstegium vimineum	Localized/EDRR	Annual grass	Uplands
Wall lettuce	Mycelis muralis	Localized	Annual herb	Uplands or wetlands
Mile-a-minute weed	Persicaria perfoliata	Not Yet Detected/EDRR	Annual herbaceous vine	Uplands

Higher priority to treat to prevent further spread!

Isolated or low abundance on site



Higher priority to treat; goal = eradicate from site

Beginning With Habitat BwH Website

Map Viewers

Riparian habitats

Conserved

Undeveloped

I and and

habitat



Map 1- Riparian Habitats

Beginning with Habitat Map 1 depicts major surface water features and drainage areas, associated shoreline habitats and riparian zones, and aquifers and wells that supply public drinking water.

Open Viewer



Map 3- Conserved Land and Undeveloped Habitat

Beginning with Habitat Map 3 depicts the State of Maine's conserved lands database including lands in federal, state, and nonprofit ownership.



Map 2- Plant and Animal Habitats

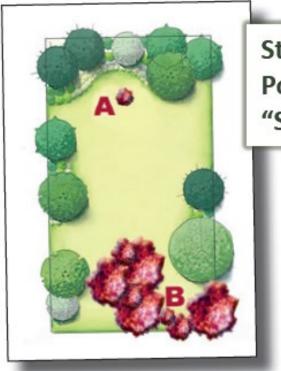
Beginning with Habitat Map 2 depicts known rare, threatened, or endangered plant and animal occurrences, as well as "Significant Wildlife Habitat," "Essential Wildlife Habitat," and other important wildlife habitats.



Special Plant and Animal habitats

High quality habitat &/or important to landowner

Containment and suppression



Strategy: Start with Small Populations, or Deal With "Spot Fires" / Outliers

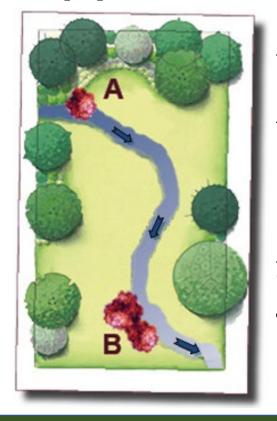
Starting with small populations is more likely to result in early success.

Could use multipronged approach: eradicate outliers, suppress "source population"

Containment and suppression

Strategy: start upstream, work downstream





Set specific goals

- **Eradicate**: get rid of for good, with low chance of re-infestation *eradication is not the only good goal*
- Contain: keep in existing footprint; do not allow to expand
- **Exclude**: keep out of uninfested areas
- **Suppress**: restrict ability to grow and produce seeds

Examples:

- Reduce extent
- Decrease density
- Prevent seed production
- Allow crop trees to grow normally
- Maintain access to infrastructure



Timber harvesting & Invasive plants

- Assess site, identify plants and average densities.
- Plan harvest layout, I.e. landing, trails, crossings.
- Consider pre-harvest treatment strategies.
- Consider harvest timing.
- Plan follow up field visits and assess need for follow up treatments.



Preventative Measures



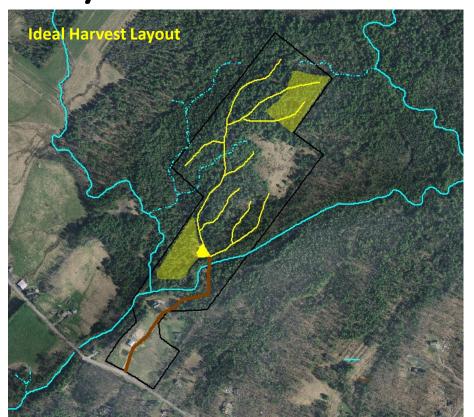
- Ask contractors to clean bunchers and skidders before delivering them to the woodlot. Pressure washing is best, but using compressed air is more readily available.
- Ask contractors to shovel out buncher tracks to prevent seeds from being deposited.
- Write this into timber harvesting contracts if it is not known where the equipment was used last.
- Know where your fill or gravel comes from!



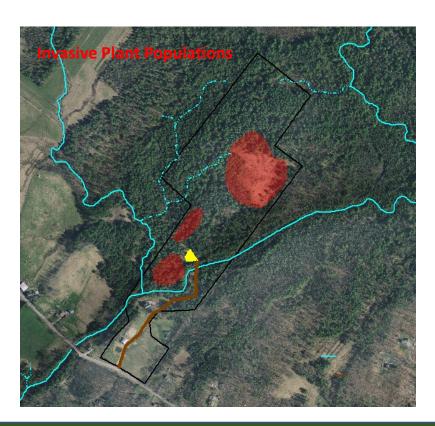
Harvest Planning and Layout

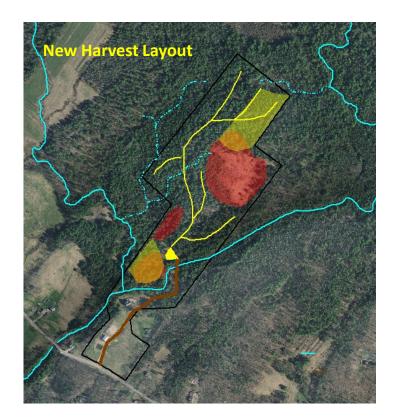
- **Trouble spots:** Field edges, riparian areas, low density canopies, areas of past disturbance.

- **Limiting factors:** Truck road, landing area, topography, stream crossings, established trails, stone walls, special sites.



Harvest Planning and Layout





Harvest Planning and Layout

- Know the plants you are working with







Thank You!

Nancy.Olmstead@maine.gov; 207-287-8046

aleta.waldosoilandwater@gmail.com; 855-884-2284

maineforestmanagement@gmail.com; 207-590-6317







