INVASIVE PLANT MANAGEMENT ON ROADSIDES

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UNIVERSITY OF WISCONSIN-MADISON

4CONTROL

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WISCONSIN FIRST DETECTOR NETWORK

IPAW
INVASIVE PLANTS ASSOCIATION OF WISCONSIN

TODAY'S OBJECTIVES

1. Identify common roadside invasive plants
2. Tools to map invasive plant locations
3. Management methods on roadsides (mowing, herbicides, removal)
   - Effectiveness, costs, benefits, and risks
4. Develop an invasive plant management program and integrate it into existing vegetation management plan

RESOURCES AND EXPERTS AVAILABLE

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WHAT IS AN INVASIVE SPECIES?

Two main points

1. **Not native to the area**

2. **Capable of causing harm**
   - *Environmental*
   - *Economic*
   - *Harm to human health*

EXAMPLES OF IMPACTS ON ROADSIDES

- **Harm to human health**
- **Impact infrastructure**
- **Prevent establishment of desired vegetation**
  - Pollinators
  - If not established erosion increased

ROADSIDES ARE HIGHLY SUSCEPTIBLE TO INVASION

- Frequently disturbed
- Propagules spread along roads
- Intersect many properties

OFTEN MANAGEMENT IS EASY, BUT……

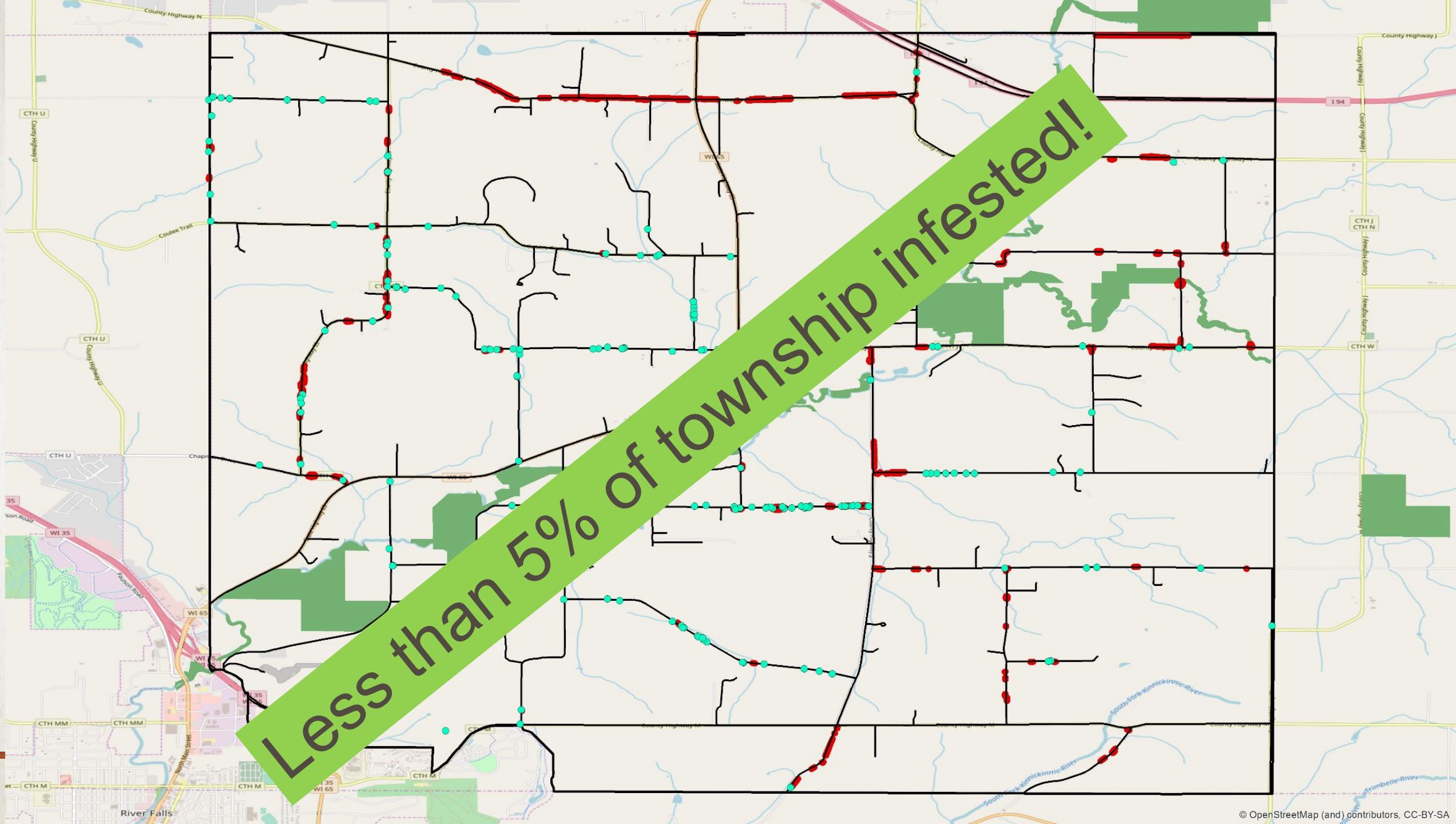
- Mowing for 3-4 consecutive years can eliminate
  - **BUT** mowing must be done in a 2-4 week period
- One herbicide application can provide two years of control
  - **BUT** cost extra $$$$, may injure other plants/crops, community may not support

If nearby populations are not managed, effort will be required indefinitely

INFESTATIONS ARE TYPICALLY LOCALIZED TO SPECIFIC ROADS

APPROACHES TO MANAGEMENT

Wild parsnip invading roadsides, volunteers mapped all roadsides in town


Less than 5% of township infested!
River Falls
CTH U
CTH MM
CTH M
CTH W
CTH J
CTH N
WI 35
WI 65
I 94
Coulee Trail
North Main Street
Poulson Road
South Fork Kinnickinnic River
Trimbelle River
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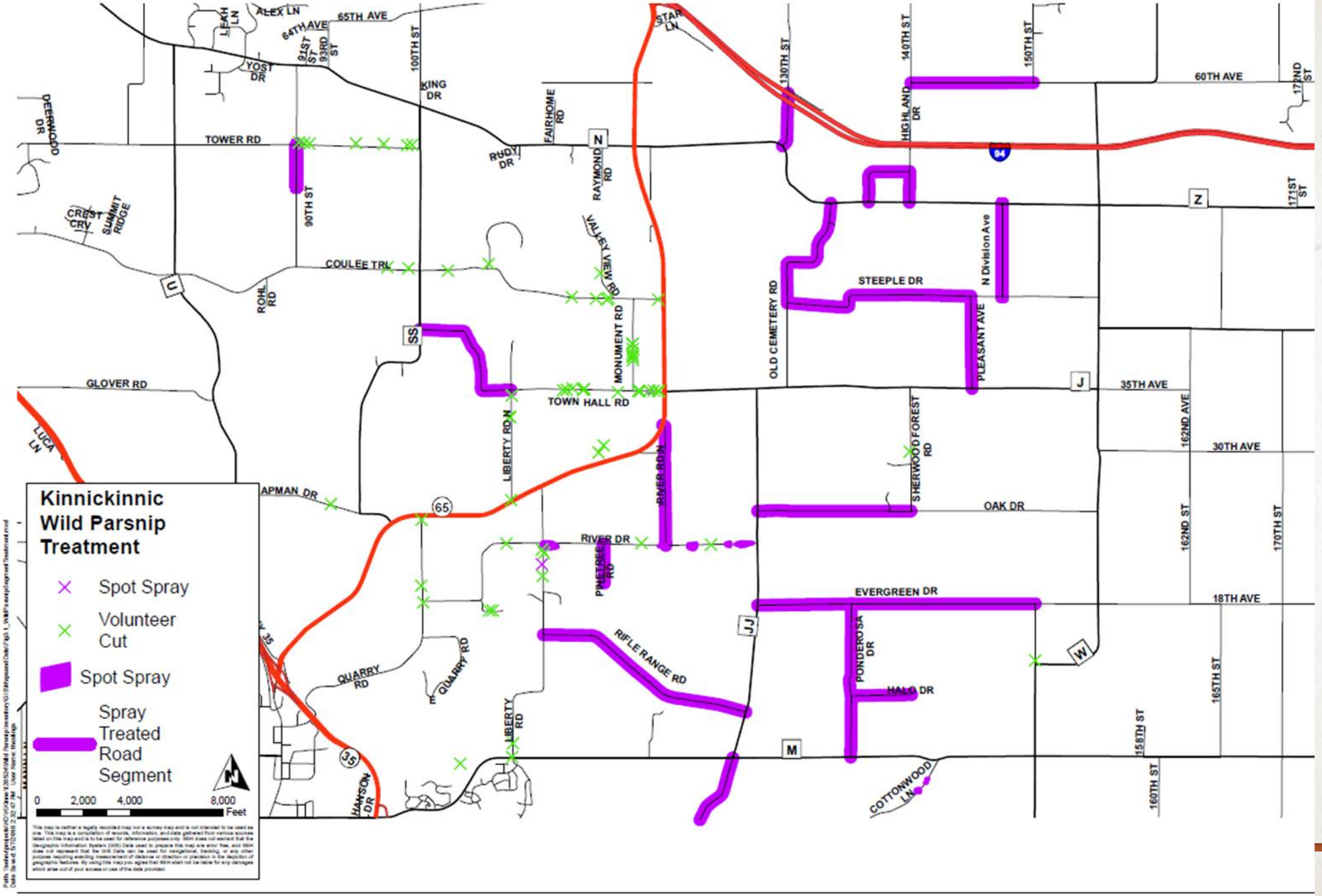

WILD PARSNIP PLAN

IT TAKES A COMMUNITY-WIDE RESPONSE TO REDUCE INVASIVE PLANTS ON ROADSIDES

Keys to developing a successful management plan

1. Determine which species to manage
2. Map locations
3. Prioritize management and conduct control
4. Manage populations not on roadsides

Conduct for multiple years (3-4 minimum)

TODAY WE WILL……

- Identification of common roadside invasive plants
- Discuss tools for management and how to apply
  - largescale demonstrations
  - smallscale demonstrations
- Overview challenges and discuss options to overcome
- Discuss mapping options for roadsides
- Overview how to develop an integrated management plan

WILL FOCUS ON EASY TO CONTROL SPECIES

RESOURCES TO ASSIST IN CONTROL

University of Wisconsin Extension

- https://renzweedscience.cals.wisc.edu/
  - 49 invasive plant identification factsheets
  - Research summaries
- https://fyi.extension.wisc.edu/wifdn/
  - WISTIP viewer (invasive plant maps)
  - Phenology calendar
  - Other educational resources

MANAGEMENT OF

INVASIVE PLANTS IN WISCONSIN

Brandon Panke and Mark Renz

Invasive plants can thrive and aggressively spread beyond their natural range, disrupting ecosystems. The *Management of Invasive Plants in Wisconsin* series explains how to identify invasive plants and provides common management options. Management methods recommend specific timings for treatment, as well as expected effectiveness. For more information, go to: fyi.uwex.edu/weedsci/category/invasive-plants-of-wisconsin.

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Japanese knotweed

(Polygonum cuspidatum)

Japanese knotweed is an herbaceous perennial, growing up to 10' tall. Hollow, reddish, arching, bamboo-like stems are smooth and stout, and they can persist after plant dies back each year. The base of the stem above each joint is swollen and surrounded by a membranous sheath (ocrea).

Legal classification in Wisconsin: Restricted

Leaves: Alternate, egg-shaped to almost triangular, 4–6" long, 3–4" wide. Dark green on upper surface and pale green on lower surface.

Flowers: Blooms in late summer. Flowers are numerous, highly branched, tiny, creamy white or greenish and found where the leaf attaches to the stem (axils), near the tips of stems.

Fruits and seeds: Small, winged, triangular fruits carry very small, shiny seeds.

Roots: Plants arising from seed have a taproot up to 6' deep. Stout rhizomes can reach 65' or more from parent plants and give rise to new stalks. Plants arising from seed and rhizome also have fibrous roots.

Similar species: Giant knotweed (*P. sachalinense*) is also invasive, but grows up to 13' tall with larger leaves. The two species are known to hybridize.

Biological threat:

- Invades upland and lowland sites that are disturbed and undisturbed.
- Poses a significant threat to riparian areas, where it can rapidly spread.
- It tolerates shade, high temperatures, high salinity, and drought.
- It can be transported to new sites as a contaminant in fill dirt or on equipment. During floods, it spreads downstream by shoot fragments, rhizomes, or occasionally by seeds. Escapees from neglected gardens and discarded cuttings are common routes of dispersal from urban areas.
- Although reported to not produce viable seed, several studies have shown that populations of knotweed in the United States can produce viable seed that readily germinate and survive in field conditions.

UW Extension Cooperative Extension

NPM

QUESTIONS?