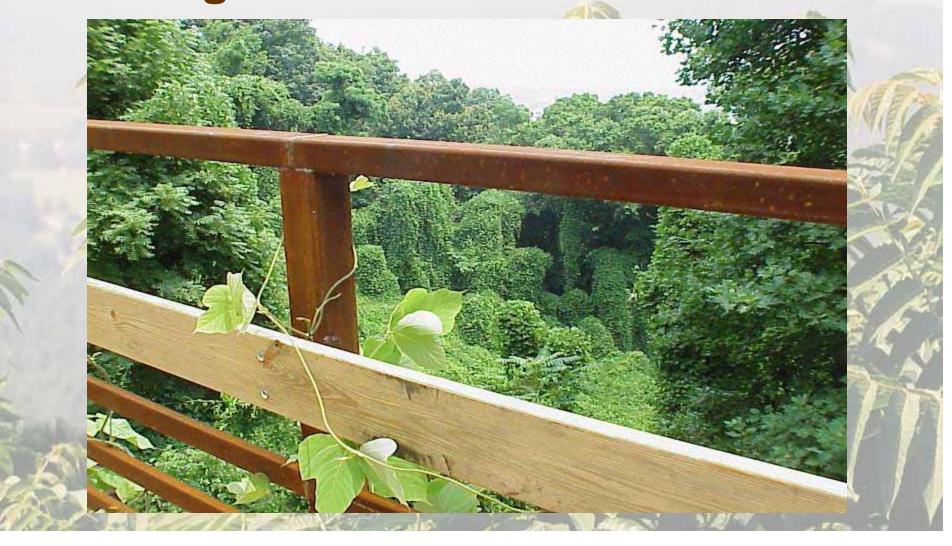


Developing Bid Specifications for Invasive Plant Control **Programs**

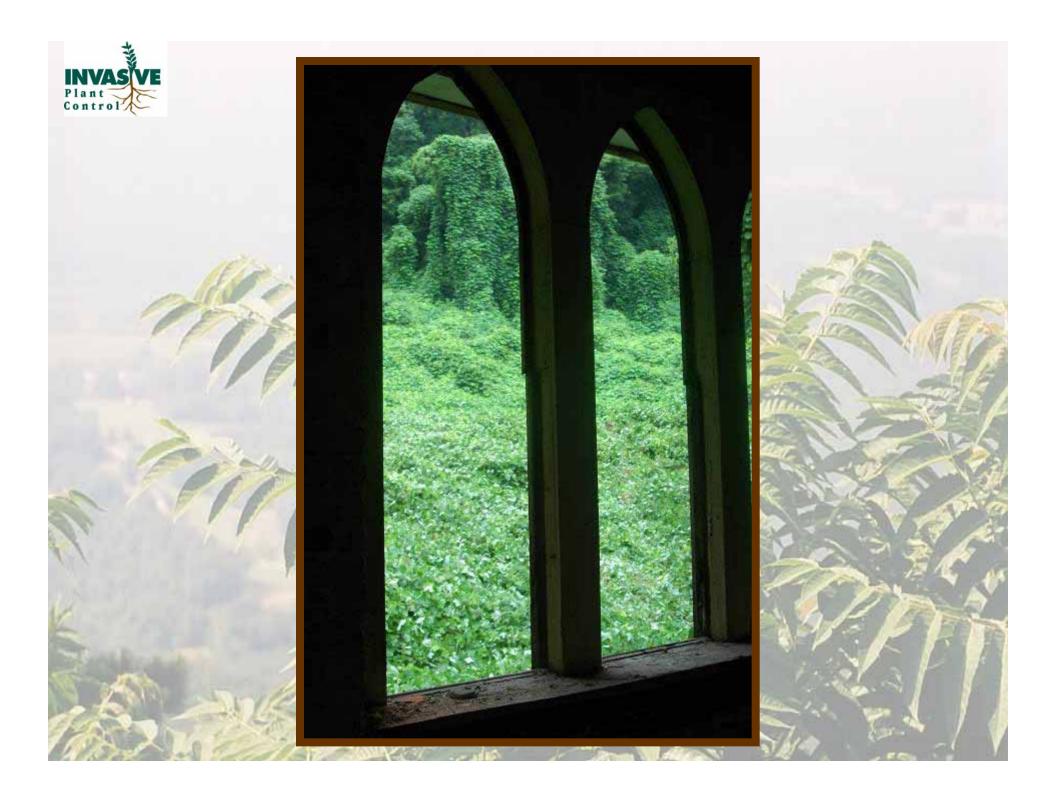




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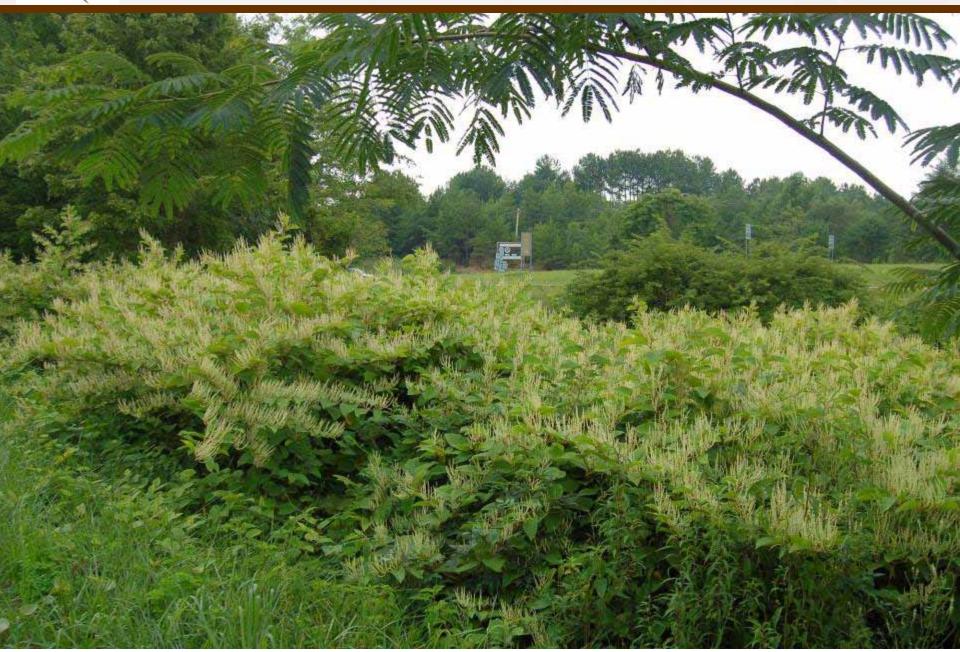










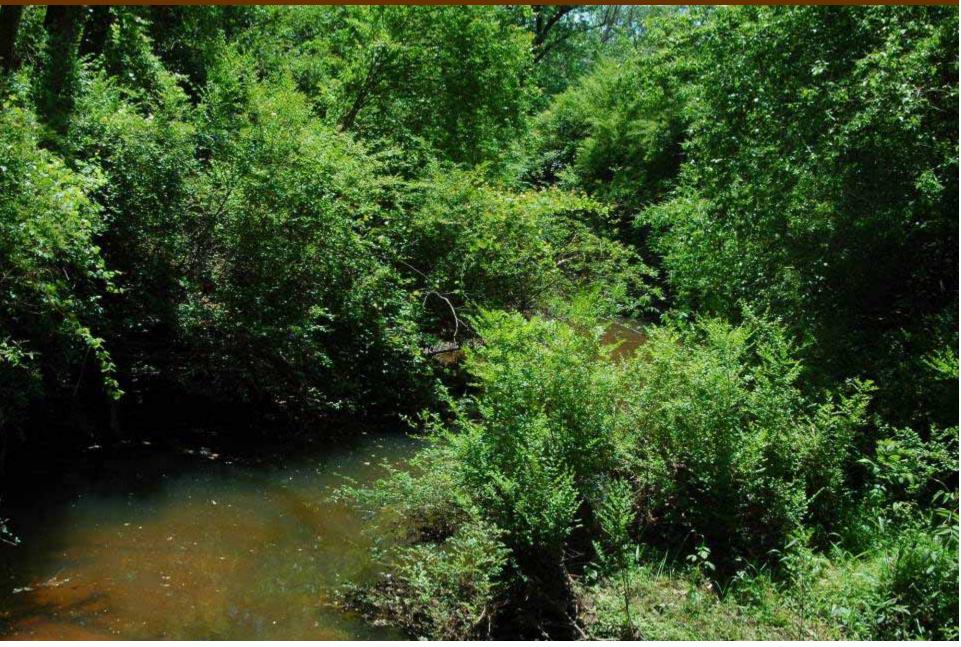






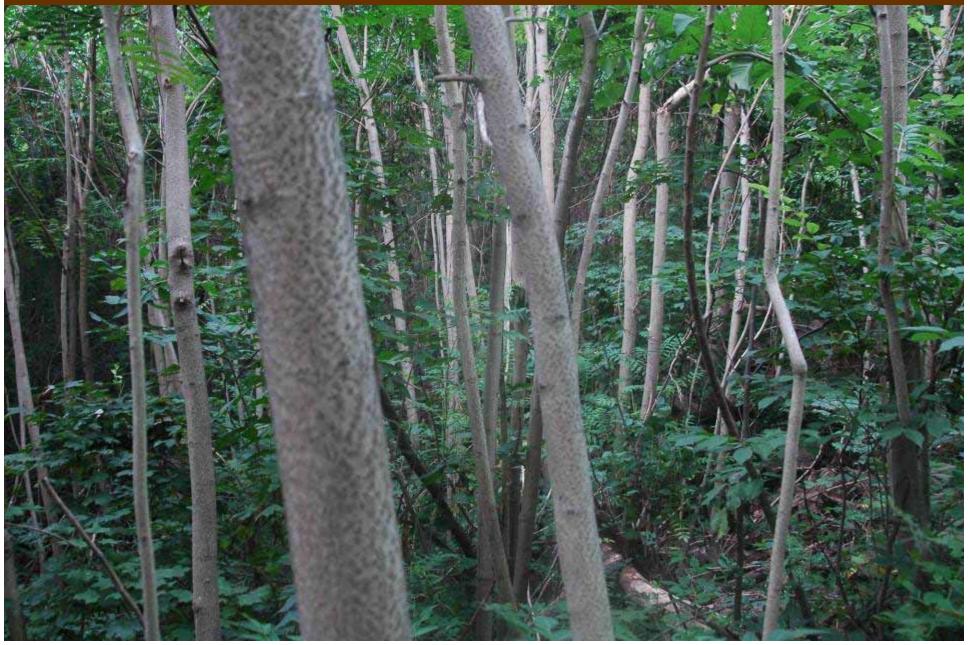


Fart Yargo State Park, GA Does your staff have the time and equipment to control this site?



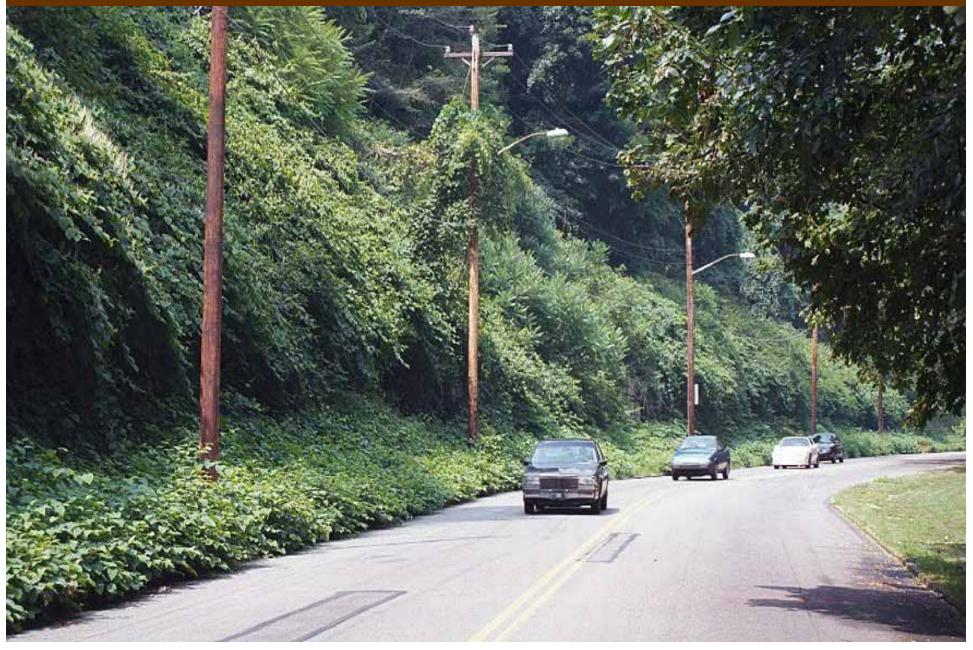


Tree of Heaven Ailanthus altissima





Japanese Knotweed *Polygonum cuspidatum*





Type of Labor Available

Labor Types

- Volunteers Labor
- In House Labor
- Contract Labor

Infestation Levels

1-2

1-2-3

1-2-3-4-5



Bid Specs Guide



Qualify Contractors Experience

- Call several references
- Ask for educational background of personnel that will be ON SITE
- Define your insurance requirements and request a certificate of insurance with the bid
- Ask for a 1-2 page description of how company is qualified to do this work



Identify and Illustrate the Long Term Plan for the Site



Tallulah Gorge State Park in Georgia

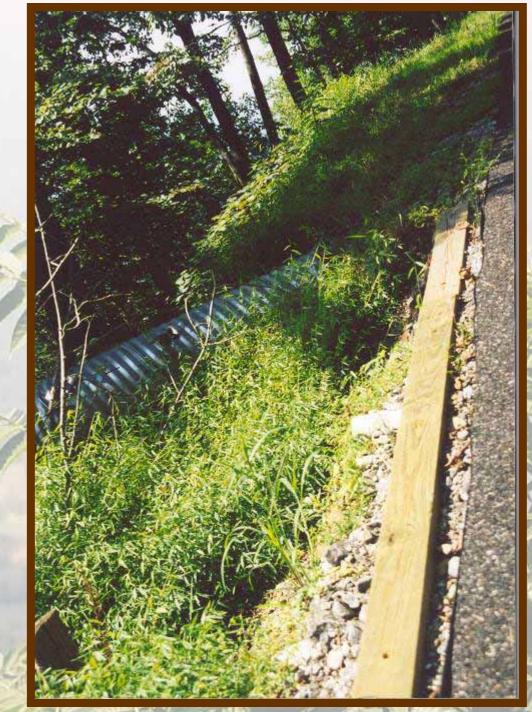




NC State University in Raleigh, NC







Amicalola Falls State Park in Georgia

Specifically outline all specifications









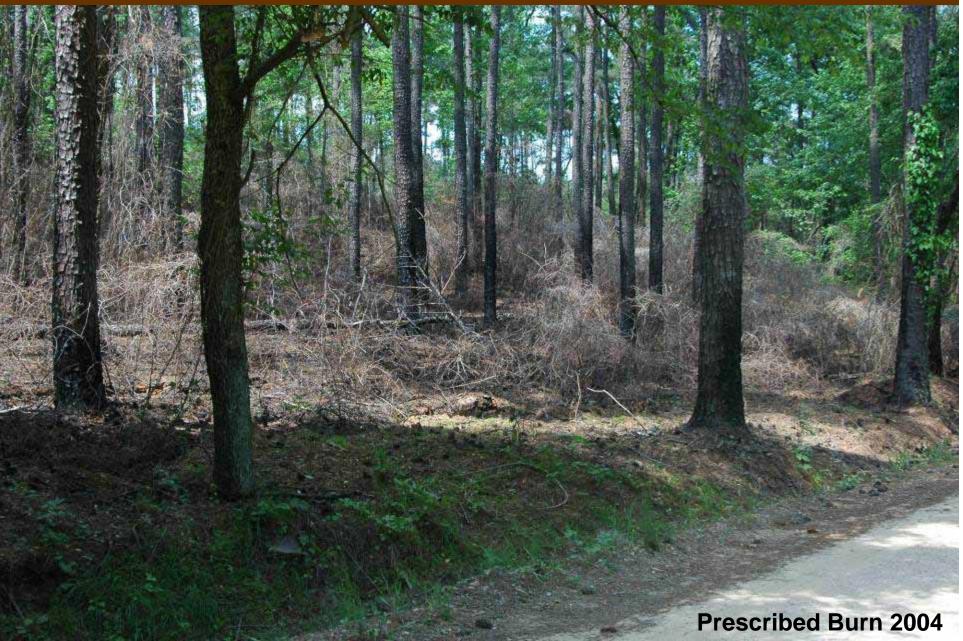
Prescribed Burning





Invasives Thrive off of Disruption

Fort Yargo State Park in Georgia





Invasives Become the First Movers

Fort Yargo State Park in Georgia



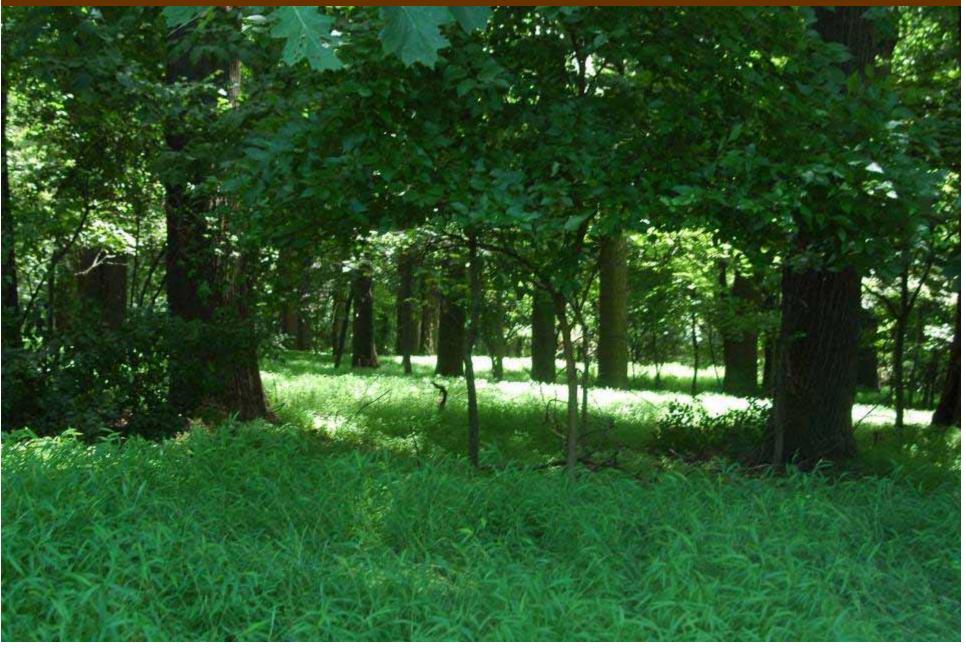


Invasives form Monocultures thus displacing Native Species





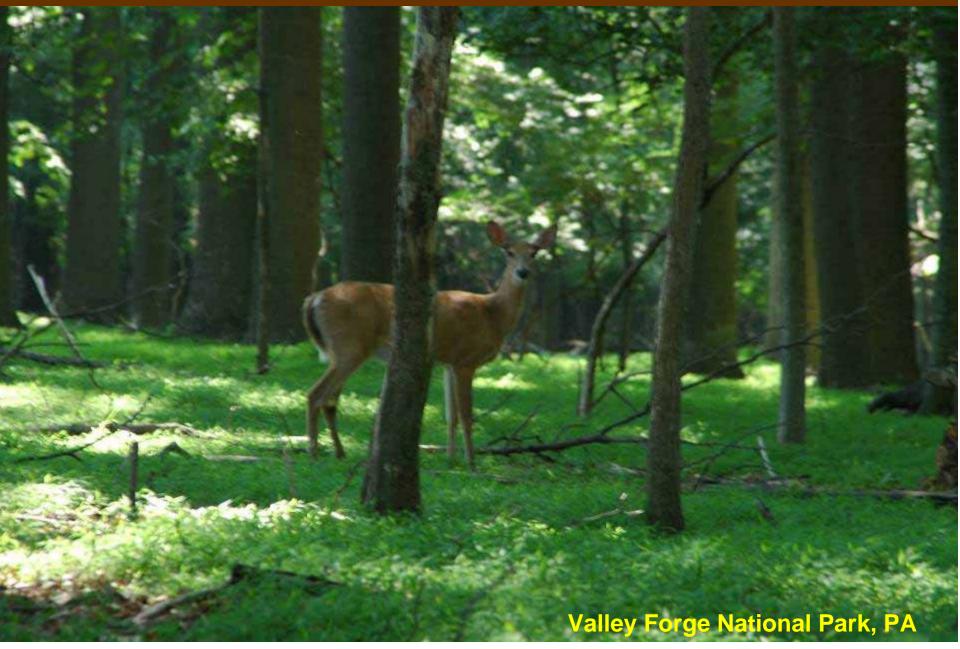
Japanese Stilt Grass *Microstegium vimineum*





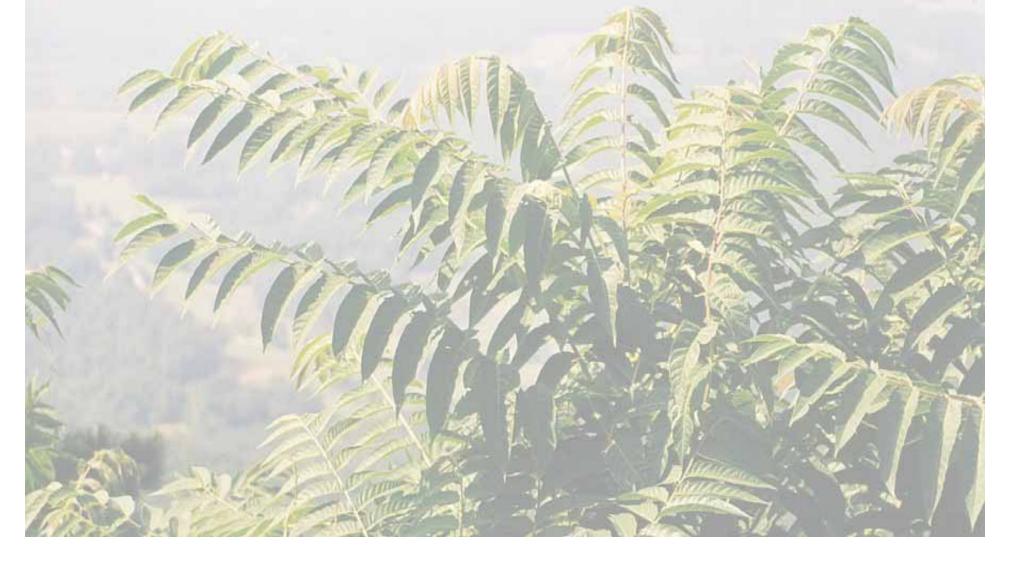
To Control Invasive Plants other species need to be kept in check

Japanese Stilt Grass *Microstegium vimineum*





Define the scope of the project





Offer a Detailed Description of the Work to be Performed

- Outline the desirable species
- Define infestation level
- Clearly identify the species for control
- Define Equipment
- Clearly define the required mortality rate and non target expectations
- Outline required methodology



Highlight the desirable species



Define the Level of Infestation to the Prospective Contractor

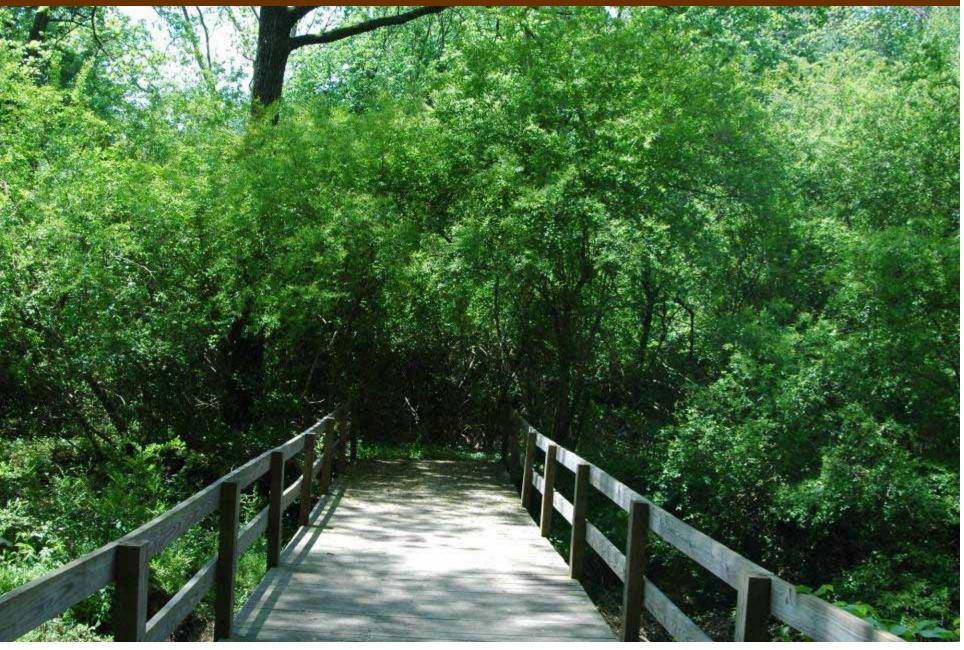
- Level One
- Level Two
 OR
- Level Three
- Level Four
- Level Five

- High Intensity
- Medium Intensity
- Low Intensity



Introduced from China

Privet *Ligustrum species*





Privet *Ligustrum species*















Clearly identify the species for control

- Utilize EPPC lists and require that all species on the list be controlled if found
 - If funds do not allow this, specify the one target species







Test in the Field

Porcelain Berry *Ampelopsis Brevipedunculata*



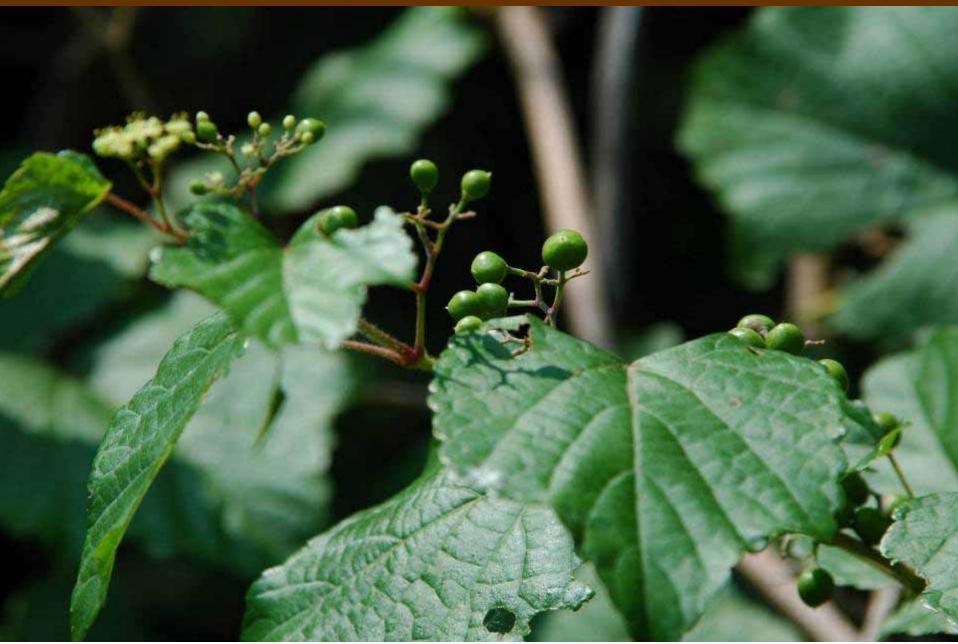


Porcelain Berry *Ampelopsis Brevipedunculata*





Grape Vine





Grape Vine





Porcelain Berry *Ampelopsis Brevipedunculata*





Outline Equipment Requirements













Clearly define the methodology



Hand Pulling







Lopping Shears

Cutting vines from the base of trees





















Cut and Treat with Chainsaws





Selective Foliar Spraying





ATV Sprayer with Hose and Boomless Nozzles





Highlight the Need for Selectivity

- Are there rare plants in proximity to the invasives?
 - Backpack sprayers for ivy around ferns

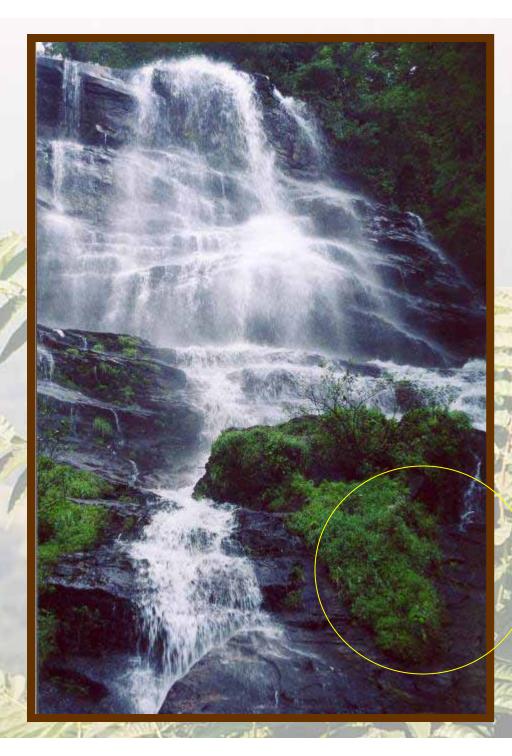


Consider Proximity to Desirable Species









Strictly outline herbicides or methodologies recommended and stress enforcement



Consider Proximity to Water

Japanese Knotweed **Polygonum cuspidatum**





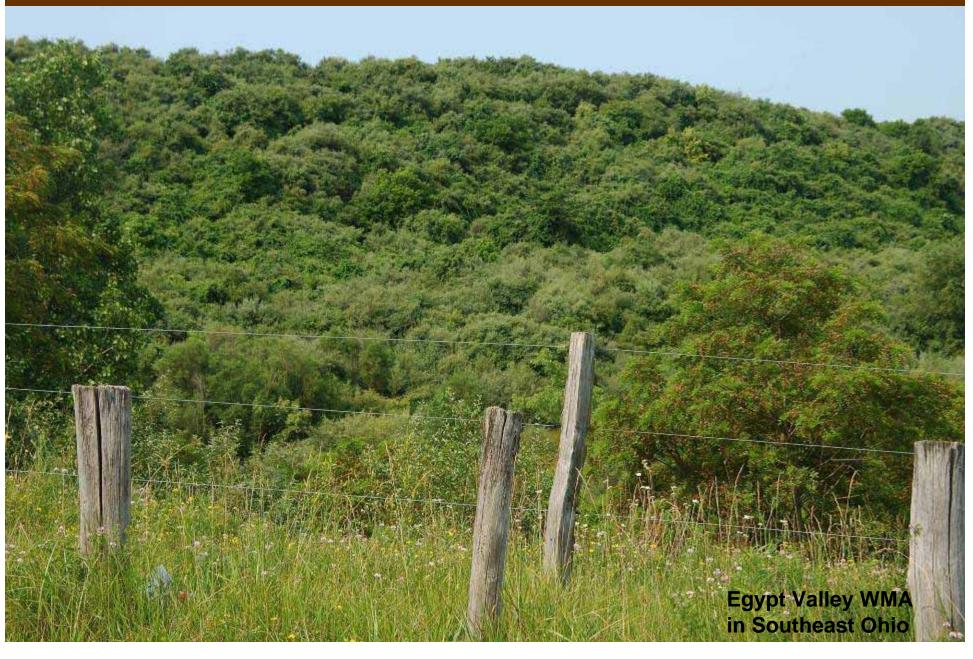


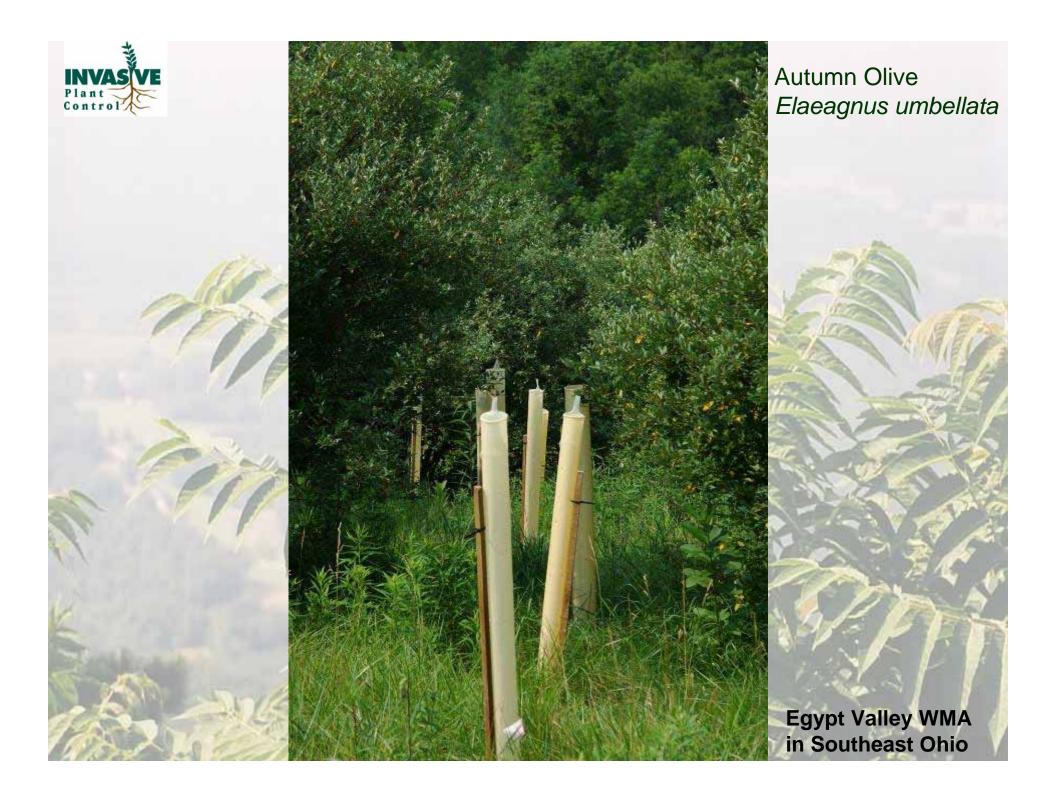






Autumn Olive Elaeagnus umbellata



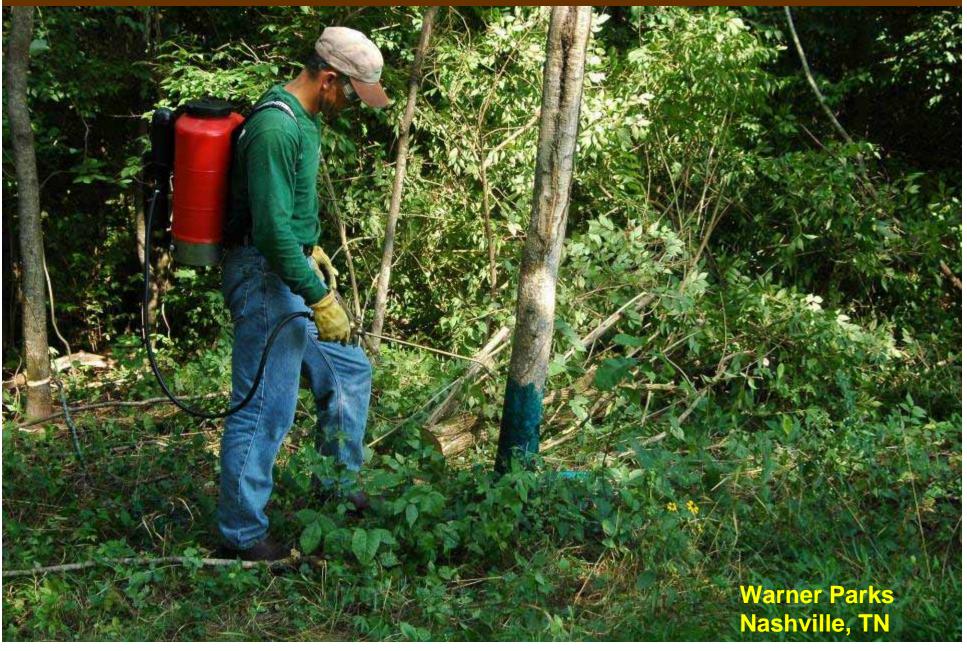






Use of Marking Dyes Can Increase Effectiveness of Treatments

Tree of Heaven *Ailanthus altissima*





Cut and Treat with Brush Cutters







Nonselective Control















Emphasize Required Season/Timing for the Project

- How does the timing effect the ability to use different methodologies?
- How does season effect mortality rate?



Late Summer







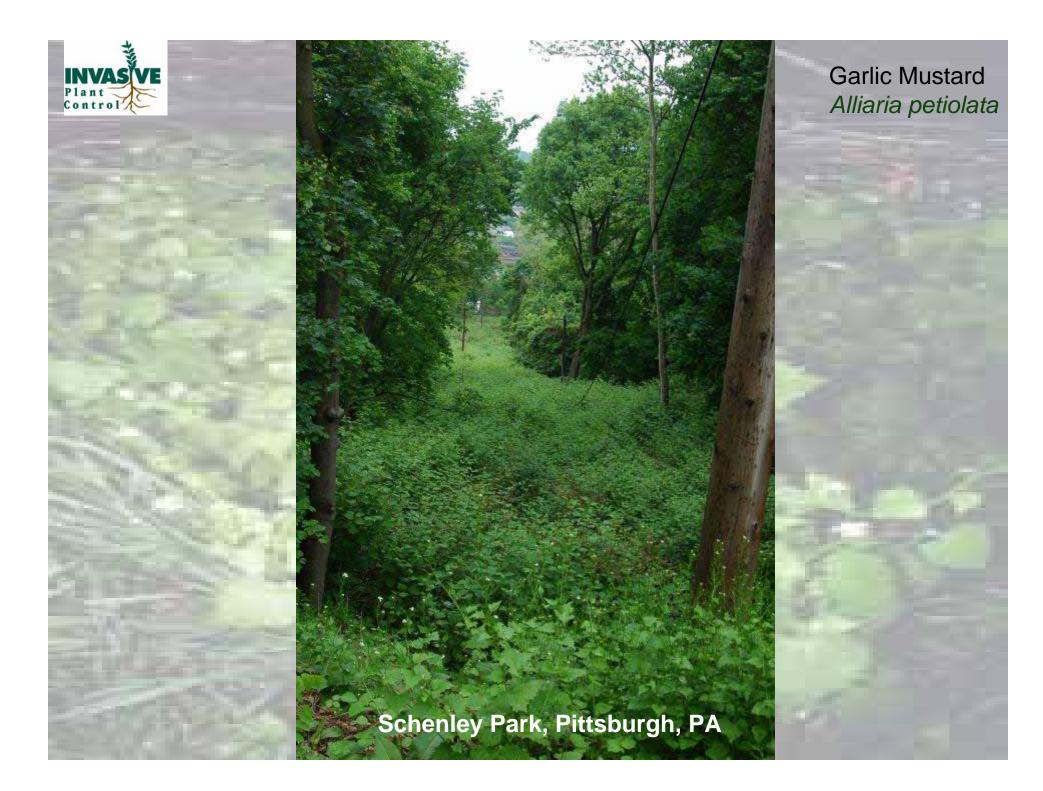
Garlic Mustard Alliaria petiolata

Introduced from Europe in 1868 as a medicinal herb



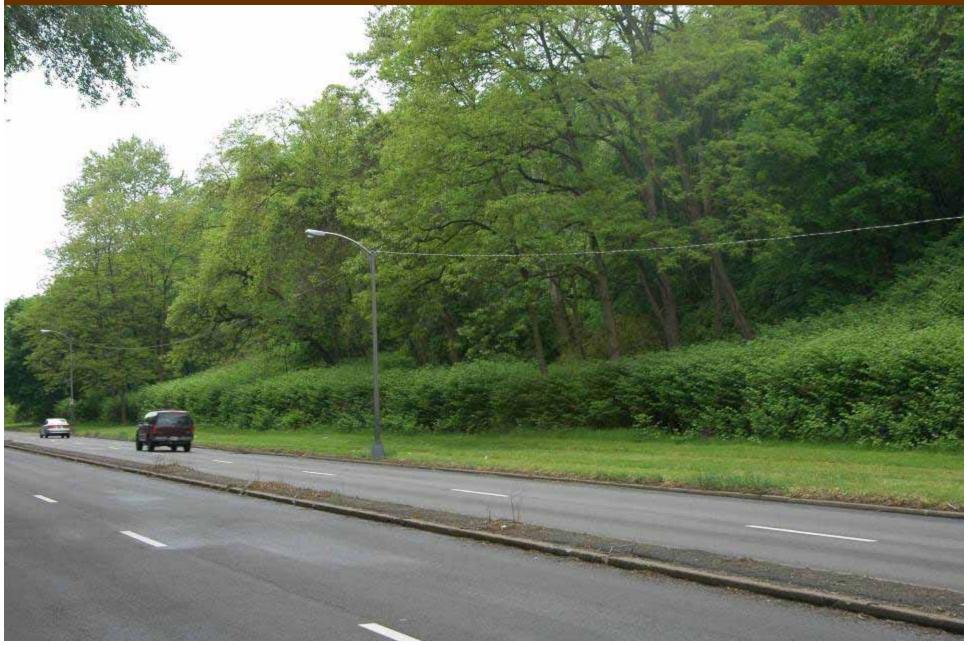








Japanese Knotweed *Polygonum cuspidatum*



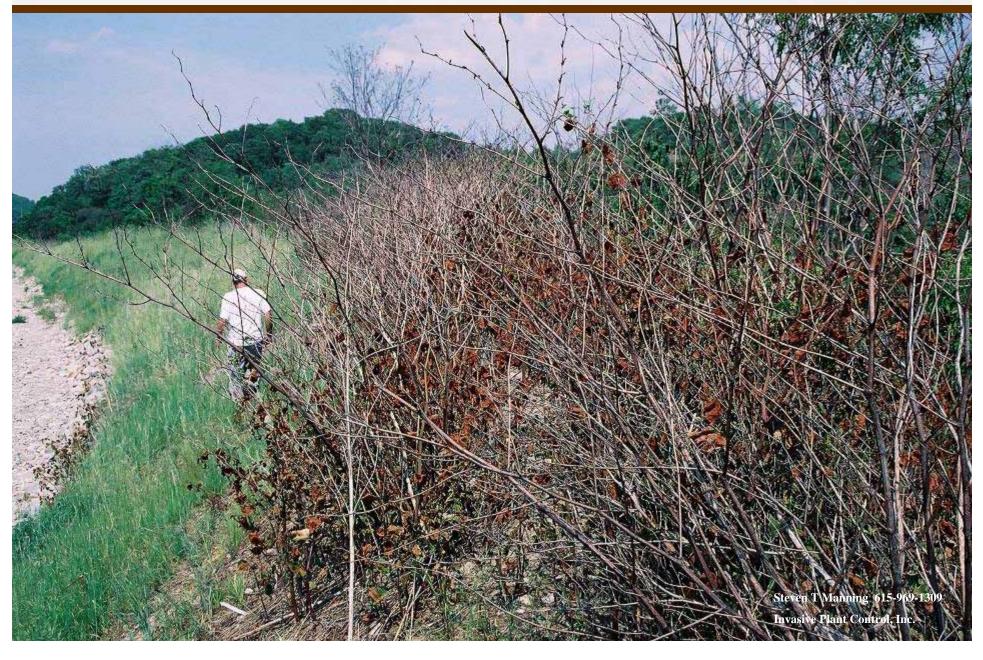


Japanese Knotweed *Polygonum cuspidatum*





Japanese Knotweed *Polygonum cuspidatum*





Introduced to the US by European immigrants

English Ivy *Hedera helix* L





Round Up Pro 7%

English Ivy *Hedera helix* L











Clearly define the required mortality rate and non target expectations

• Penalize for a % of non target Impact



Require a Performance Guarantee

• i.e 95% mortality rate for multistemmed treatments after initial control



A Few Key Points

Seven Factors for Control

- I. What is the *Long Term Plan* for the Site?
- **II.** What is the <u>Need for Selectivity</u>?
- **III.** How does <u>Seasonality</u> effect mortality?
- IV. How will you determine the <u>Cost of the</u> <u>Project?</u>
- V. What is the *Level of Infestation* ?
- VI. What <u>Type of Labor</u> is Suitable? VII. Choice of Methodology (IPM)



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