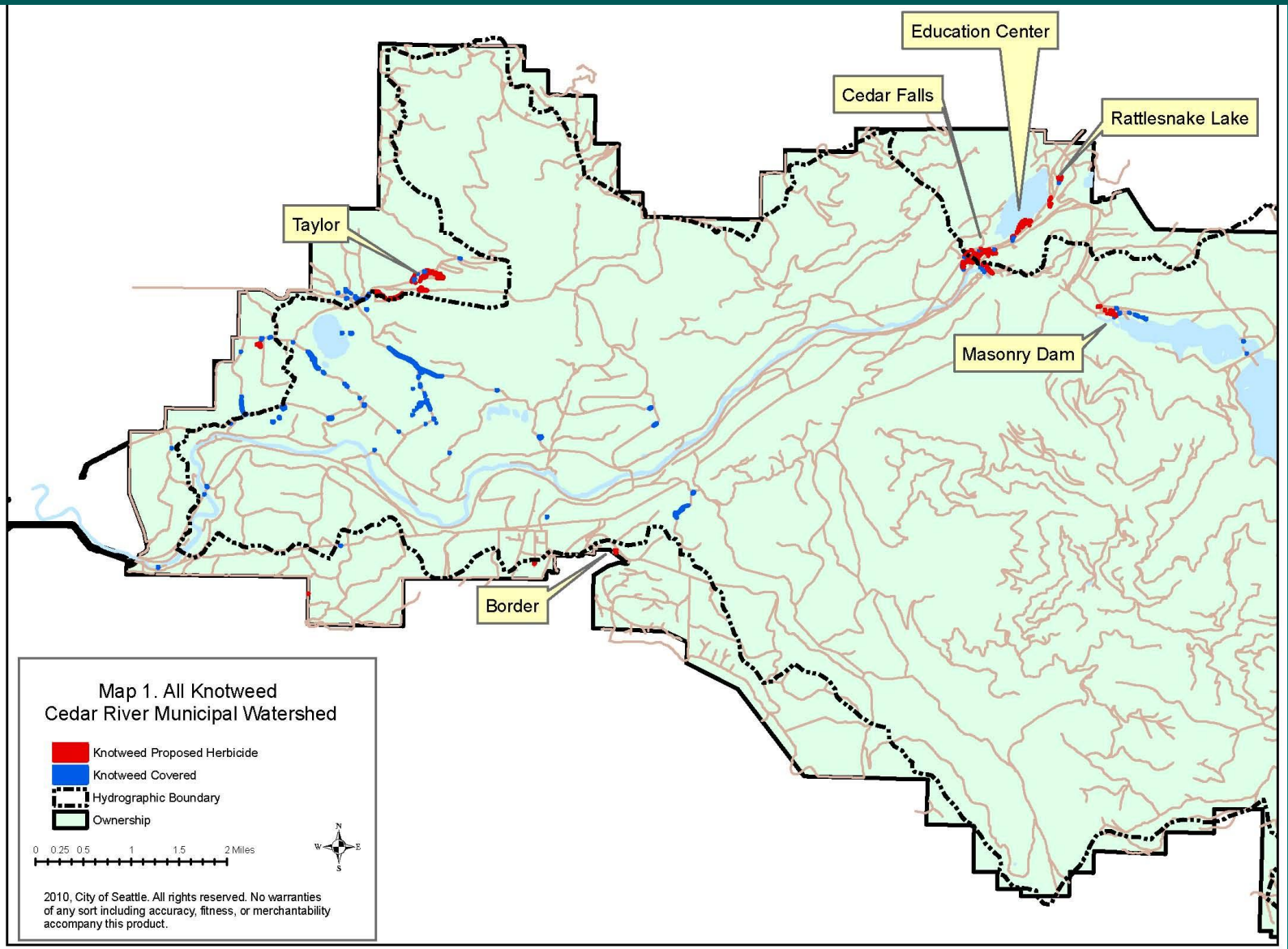
Amending Secondary Use Policies To Provide Limited Application of Herbicide To Treat Invasive Knotweed

History of Existing Ordinance

Why is Knotweed So Bad?

- Completely takes over—monoculture
- Disrupts food chain—no nutrients
- Degrades fish habitat—destabilizes streambanks

Knotweed Infestation in Watershed



Control Methods

Digging
Burying
Cutting
Goats

Biological
Covering
Herbicides

Stem Injection versus Foliar Spray

Stem Injection

- Glyphosate - more toxic than Imazapyr
- Uses much more chemical
- Useful in limited circumstances: adjacent to water, sensitive native plants

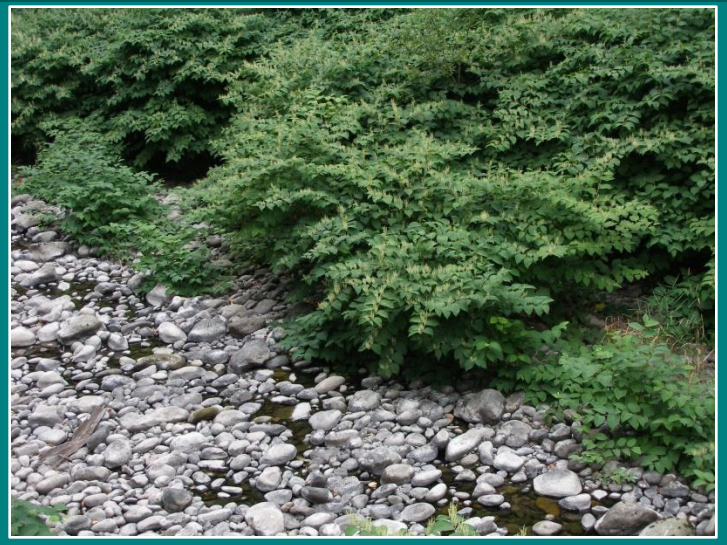
Backpack Foliar Spray

- Imazapyr – least toxic
- Minimizes amount of chemical used
- Adjacent plants rarely to never affected
- Application not near water or sensitive plants

Three Year Program

Risk Analysis

- Risk posed by knotweed
  - Habitat
  - Ecological functions
  - Water quality
- Risk posed by herbicide
  - Fish and wildlife
  - Water quality



Protecting Fish and Wildlife

- EPA rating: low or non-toxic to animals
- No adverse affects on mammals, birds, macro-invertebrates, fish
- No bio-accumulation

EPA, Re-registration Eligibility Decision for Imazapyr 2006. EPA 738-R-06-007

US Forest Service Summary of Herbicide Effects to Wildlife, 2005

Drinking Water Safety

- Will not be applied near Cedar River
- Imazapyr half-life in water 2 -5 days
- Many study results: Imazapyr not detected when applied in or near water
- Water sampling, testing after each application

Durkin, P. and M. Follenasbee. 2004. Imazapyr – Human Health and Ecological Risk Assessment Final Report to USDA, Forest Service.

Expert Review

Washington Department of Health:

- "Approvable"

Dr. Allan Felsot, Environmental Toxicologist, WSU

- "Nil effect"

No adverse effects

Questions?