Cedar River Stewardship in Action Partnership

- Identify project goals & challenges
- Identify partners & get community buy-in
- Install native plants
- Time control work for maximum effectiveness
- Herbicide: use lowest effective rate

at a glance:
2007: Landowner CONCERN about knotweed on the river
KNOTWEED: what is it & where did it come from?
2008 – 2009: Treatment Begins

Cedar River at Dorre Don Natural Area
Before treatment 2008

Cedar River at Dorre Don Natural Area
After treatment 2009
2010: Cedar River
Stewardship in Action (SiA)
partnership is formed

- CONTROL knotweed
- IMPROVE water quality
- RESTORE river habitat
Partners & Coordinating Entities
Project Areas

- **Forterra project:** Cedar Grove Road to Lake Washington
- **KCNWCP project:** Landsburg Bridge to Cedar Grove Road
2013: Regulation of Knotweed on the Cedar
Cedar River SiA: Knotweed Control

- Knotweed footprint reduced by **90%**
- **800+** landowners assisted with knotweed control yearly
- **1,500+** acres of floodplain surveyed yearly
CHEMICAL CONTROL: a retrospective

- HOLLOW STEM INJECTION
- BEND & FOLIAR SPRAY
- FOLIAR SPRAY
But why don’t you just dig it up?
INJECTION

- Targeted
- Effective
- Rainy Day Control
- Slow
- Expensive
- Max Label Rate

Maria injecting knotweed
BEND & SPRAY

- Use less mix
- No overhead work
- More time
- Less effective?
- Combo mix of glyphosate & imazapyr

Bending knotweed to prep for treatment
FOLIAR SPRAY

- Minimal herbicide
- Fast
- Effective
- Drift potential
- Weather restrictions
- Potential pollinator interaction

Erin getting ready to climb up riverbank to spray knotweed
Knotweed Treatment
In the Cedar River Municipal Watershed
2013 - 2015
Annual Report
Seattle Public Utilities and Neighborhoods Committee
Seattle City Council

Knotweed Treatment Update
- or -
“The Swimming Pool Studies”

Tim Miller
WSU NWREC

Lots of studies & information (much of it from here in WA)!
Forterra Style

- July – September
- 0.75% aquatic imazapyr
- 1% aquatic surfactant
KCNWCP Style

- August - October
- 1% aquatic imazapyr
- 1% aquatic surfactant (Agri-Dex preferred)
- Tried 4% glyphosate (didn’t like results)
KCNWCP: 2017 Season Glyphosate Treatment

4% Aqua Neat, 1% Agri-Dex

**WHY SWITCH?**
- Used imazapyr 6+ seasons
- Lingering, stunted plants
- Try a new mode of action
- Maybe imazapyr more effective 2018?

**WHAT HAPPENED in 2018?**
- Above ground biomass larger
- Knotweed flowering!
- Landowners freaking out
- Resumed spraying 1% imazapyr, 1% Agri-Dex

If using glyphosate should rate be 5%?
2018 TECH

- Quick Capture + Collector
- Easy
- Fast
- Almost Live
- Team tracks visible
- Multi-agency potential
- Less post-processing

Upload points & tracks from Quick Capture to Collector in field!
2018 Season Observations

- Deer & elk browsing
- Leaf chew
- Dormancy
- Smoke/ air quality
- Blackberry takeover

What is chewing this knotweed?
PLANTING

Boating people, tools and plugs to plant a hard-to-reach area

Bucket brigade to get plants across the side channel
PLANTING

2016

2018
PLANTING: Urban Areas
Cedar River SiA: Native Plant Installation

- 50+ landowners signed up to receive native plants
- 96,000+ native trees and shrubs planted
- 100% planting projects co-designed by landowners
NEW!

2018: ALL of the Cedar is in Restoration!!

- Knotweed treated in 2018
<table>
<thead>
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<th></th>
<th>Acres surveyed/controlled</th>
<th>Approx $</th>
<th>Cost per acre</th>
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<td>2015 Renton</td>
<td>116</td>
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<td>$ 197.40</td>
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<td>2016 Renton</td>
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<td>2017 Renton</td>
<td>196</td>
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There is still work to be done...
SiA seeks to educate, engage, and empower our community to take part in stewardship for long term health of riparian systems
Slide References & Helpful Links

- **King County Noxious Weed List:** [https://kingcounty.gov/services/environment/animals-and-plants/noxious-weeds/laws/list.aspx](https://kingcounty.gov/services/environment/animals-and-plants/noxious-weeds/laws/list.aspx)
- **Spray Adjuvants Registered for Use on Aquatic Sites in Washington:** list circulated by WSDA
- **“How do Herbicides Actually Kill Plants”** [http://www.clallam.net/weed/doc/MillerMOA.pdf](http://www.clallam.net/weed/doc/MillerMOA.pdf)