Puget Sound Knotweed Forum

Meeting Notes

12:30 AM to 3:30 November 4, 2014

Mercer Island Library, Large Meeting Room
4400 88th Ave SE, Mercer Island 98040

Frances Lucero welcomed group, reviewed agenda.

Round table introductions

- Attendees introduced selves, talked about agency affiliations, and current project areas
- *See attendee list for details*

Discussion of treatment options

Herbicides, imazapyr and glyphosate:

- Most in group using imazapyr as a foliar spray at 1%
- May add glyphostate to imazapyr spray at 1-2% for visual effect (can see treatment results sooner)
- City of Kent appeared to be only agency only using injection, 3mL glyphosate per cane (but not sure what method they will use for second year retreatment)
- Some use of glyphosate without imazapyr at 3-4% for foliar spray
- No one saw improved efficacy using a mix of imazapyr and glyphosate over imazapyr alone
- Several attendees shared anecdotal information about seeing imazapyr damage on surrounding vegetation
    - seems to happen most in quick (sandy) soils maybe either after drought stress, or a heavy rain
    - damage included epinastic growth and even full death of deciduous tree species up to several feet tall
    - mainly noticed in recent replanting sites
    - some suggested that spraying from underside of knotweed when possible might help as would reduce drift/volatization

Herbicides, others:

- KC Roads used a combination of Round Up, metsulfuron, Milestone, Oust, and Escort on some sites when spraying near adjacent target vegetation (i.e. other regulated noxious weeds that also needed to be treated)
    - saw good results
    - treating roadside, upland sites
- KC Roads also used triclopyr/milestone mix, saw ~80% efficacy, but treating early in season for visibility reasons
- Steve Burke noted that on KCNWCP projects, triclopyr looked great at first (weeks after treatment), but had very substantial regrowth next season

Surfactants:

- Most in group using either AgriDex (modified seed oil (MSO)) at .5 to 1% or Competitor (MSO) at 1 to 1.5/2%
- AgriDex rated as least toxic, reason SPU chose to use
- SPU looking to try AgriDex at .5% next year

- Applied Ecology's Justin Howell shared that he uses higher (1.5/2%) rates of Competitor for "damp mornings" when leaves still have significant dew; noticed crews used less mixed product because higher rate meant better product spread/stick
- Agencies that tracked Competitor vs. AgriDex use on sites did not see difference in treatment results between products
- Products have different handling characteristics (difficulty in cleaning equipment, scent)
- KC Roads uses Liberate (MSO) at .5% for all applications, terrestrial and otherwise; this product is registered for aquatic use, but slightly more toxic than AgriDex or Competitor
- DyneAmic (Organo-Silicone) also registered for aquatic use but also rated as slightly more toxic; use at .5%-1% but not in hot weather

Start times:

- Most in group try to start treating at "pre-flower" stage: when plants have formed buds, but before actual bud break
- Timing varies depending on elevation, season
- Agencies like road and parks departments may have other constraints (e.g. safety, visibility, public complaint) that require them to treat earlier than ideal
- If mowing or bending, might start in June for late season spraying, see notes below on mowing and bending
- Sally Nickelson with SPU noted that retreatment sites were sometimes very slow to emerge and treating too early meant missing canes that came up surprisingly late
- Agencies sometimes start earlier than ideal because of large body of work to complete before rain in September/October

Multiple Treatments Per Season:

- Some in group are able to revisit sites after plants are symptomatic, treat any non-symptomatic plants
- Some in group only visit sites once per season, assess efficacy next season
- No one intentionally treats same plants more than once per year
- Terry Flatley noted he had worked with a contractor who was treating every 1-2 weeks with glyphosate for someone else's project, resulted in carpet of small, wiry plants

Bending or cutting:

- Some agencies used bending or cutting to access all parts of large (many acres) sites for initial treatment
- Some agencies do no cutting or bending first
- Janet Stein with Island County Noxious Weed Control Program mentioned that in previous years they had cut in early June, then sprayed in fall; this year bent and went to spray in fall, but many bees were present because plants flowered , so possible benefit of cutting over bending- cut early June, follow up in fall
- Treating from inside patch underneath is an option to avoid bending or cutting; some concerned about worker safety or increased risk of exposure to herbicide
- SPU saw no efficacy difference between mowed/bent and not mowed/bent
- Applied Ecology noted that efficacy on mowed/bent sites was a bit lower than undisturbed sites if it was possible to treat the site intact
- Bending then treating takes about twice as long, so about double the cost
- Forterra liked bending for initial large sites
- If bend/mow each site regrows at different rate, so difficult to time follow up treatment

Staffing

- Most agencies use both in-house staff and contractors for treatment
- Next common is in-house staff only
- Least common is contractor only

Outreach approaches

- Especially for public agencies, lots of outreach happens through spray indicator signs/posting
    - Could consider adding QR code to direct public to info on knotweed and chemical info
    - Would be good to increase info on sign
- Many parties hand out brochures, either own designed in house, KCNWCP's, or knotweed doorhangers from the Washington State Weed Control Board
- Knocking on doors and opportunities for on-site, face to face contact extremely effective, though takes time
- Can lead to "Peer to peer" contact that connects program from one neighbor to the next (builds trust); KCD calls these points of contact "stellar cooperators"
- Forterra, PCD, and KCD especially mentioned including knotweed or any noxious weed control work as part of a larger discussion about conservation/land management; stress bigger picture, and sometimes difficult to find funding for just knotweed control alone
- KCNWCP uses low tech doorhangers that staff can write notes on
- Targeted mailings to landowners in a specific area can be successful; Snohomish SWM and KCD both developed mail postcards specifically about knotweed
- City of Redmond partnered with Friends of the Cedar River Watershed to be at local events and contact the general public (not sure how effective, not much feedback)
- Workshops targeted specifically at project area landowners can be effective; Forterra noted it's sometimes a way to connect with landowners who wouldn't be present at other venues
- Mailing lists and monthly newsletters that feature an "invasive weed of the month"; City of Kent does this through their Green Cities partnership
- Snoqualmie Tribe suggested that paying landowners to let conservation organizations work on their land would be more cost effective as less time spent convincing landowner to do something
- Conservation districts have some programs that are able to reimburse landowners for work they do on their own land; not the same as paying for access
- Tax incentives for land put in trust or conservation easements also exist
- As a final step, laws like Washington's Noxious Weed Law (RCW 17.10) can require holdout landowners to participate; regulation on the Cedar led to a legal enforcement process in 2014 because of this, feedback from surrounding landowners largely positive as seen as fair treatment and standard for everyone

Policy maker communication

- SPU reports out every year as part of ability to use herbicide; convincingness of safety of program aided by water sampling
- Practitioners on the ground see connection to fish and habitat; policy makers slower to buy in, may be changing
- Again, research helps support fish recovery/upland habitat connection, more research making these connections would be great!
- Difficult to sell "nothing", which is the result of weed control
- Funders often want to support big, one-time expense projects

- Good evidence about natural regeneration at treatment sites, but message still not communicated completely to funders who have intractable replanting policies instead of site by site considerations
- Technical advising groups vs. funders may have different understandings of scope/nature of problem
- Long term nature of projects makes for difficult funding requests
- PCD has noticed Nisqually Basin technical advisory committee very different from other advisory committees they work with, so experience can vary a lot, willingness to fund can be very different
- Having agency representative who can be politically influential and focuses on policy changes like 3 year work plan or start list discussions makes funding much easier to access, important to dedicate time and resources for this activity
- Communicating with stakeholders both locally and regionally are equally important, information may not flow cleanly through groups
- CWMA's may be most usefully in project planning, less sometimes in execution
- CWMA's may help with grant applications as they show partnerships working on the ground together

Crew training; Do you do it?

- Several crews come to KCNWCP trainings
- Kent offers training for staff and staff in partner agencies like Kent Parks, but sees low participation/interest which is frustrating
- Possible baseline training for WCC sups on horizon for 2015
- Important to plan in time for crew training if you hire crew you haven't worked with before
- Some crews work closely all season with sponsors and have opportunities to learn wide IPM practices and be familiar with plant ID
- Having returning crew leads makes a big difference in training time needed as crew lead can be more hands on

Hardware for data collection

- External GPS & receiver can be better at receiving signal than relying on built in options
- Newer Trimbles have better reception too (can access "Russian satellite network")
- Mercer Island Parks using iPads with ArcCollector (also has dedicated GIS staff they can access who have helped with setup)
- Island County uses iForm w/ iPhone through WSDA's protocols and cloud based collection system; contact Greg Haubrich for more information
- Some programs take a point for a "site", some draw the outline of the infestation; both of these are easiest with smaller or very discrete infestations where boundaries are easy to determine
- The real time updates available on some systems (cloud based) is handy because it eliminates the need to download separately in office
- Simple GPS units like Garmins may be quicker in field but lack data dictionary

Data usage

- Use for comparison/effectiveness monitoring, especially in following season
- Use for reporting
- Some agencies don't really use the data collected because no good systems in place to make it useful/meaningful
- Smaller staff makes for less "need" for detailed data collection; can use site notes year to year
- High level of returning staff makes it easier to rely on institutional knowledge as well
- Measuring regeneration response at sites = knowledge gap, no one collecting this info

Funding sources

- Entirely grant based for MTSGT
- Maintenance funding needs to be considered (will take years to control knotweed)
- Internal funding exists in some agencies (KC departments, SPU)
- KCD uses combo of internal and external
- Snohomish SWM uses some of per parcel tax (SW fee) for noxious weed/knotweed control, partners with weed board
- PCD looking at CWMA partners paying in to support program
- Partnerships, landscape scale, long term vision on a regional scale will be key moving forward on a funding disucssion

Round table closing comments (name one highlight, take-home point, or question from today's discussion)

- Communication is key!
- Want to work on data management and more detailed maps
- KC Parks looking at better data & iForm
- Seeing great results over just 3 years is encouraging, important to look back at the starting point to see how far you've come
- At least it doesn't seed much! Enjoyed hearing everyone's approaches
- Even though many different approaches to outreach still gratifying to hear consensus on face to face being so important
- Surprised at consistent treatment approaches
- Knotweed is different as an outreach approach from other plants!
- Good to hear anecdotal evidence about drift and collateral; more useful posting sign would be great
- Knotweed treatment has become a lot more "refined" through trial and error in the field
- Interesting to see so many people using imazapyr
- Glad to see group!
- Surprised such consensus around 1% imazapyr, didn't know everyone was so consistent, also good to hear about sandy soil maybe being more likely to see off target damage
- Interested in developing better posting signs; sad to hear about 8 years covering knotweed and still having it come back (experience shared by SPU); striking to hear about imazapyr drift
- Great to hear everyone's experiences, nice to have group to share with and understand where others are working; data collection tool potential
- Sad to have missed first half; feel powerless to treat non-Parks knotweed when housed in Parks "silo", but having materials available makes it seem more approachable and sellable to management as important
- Getting to form connections between agencies and hearing other experience helps as starting off point for new programs
- Long term knowledge is important, hearing others' experiences helps set more realistic expectations about control results
- Inspired at how far we've come in 10 years, want to make sure to focus on long term stewardship and resilient systems to have greatest impact
- Stewardship lives with landowners; working on knotweed is a great way to start conversation about conservation
- What can you recommend to a landowner for over the counter treatment? (discussion followed about usually recommending glyphosate products even though they are less effective—landowners can usually easily find them; some products with small amounts of imazapyr might be available, but might not be labeled for ornamental/home use)
- Great to have full circle from knotweed workshops in spring to fall meeting; thinking of ways to convince supervisors for more support for knotweed control

- Treatment technique thoughts; considering going back to imazapyr
- Appreciate the options available in 2014 and that we're not limited to only something like stem injection or curtailed by no spray zones
- Interested in collateral damage and supporting stories; other data collection options; send Morgan Ruff (Tulalip Tribes) info on projects as she's interested in collecting project areas
- Interest in outreach techniques or incentives; still want to pay landowners for access! Think about creative outreach approaches
- Great to have a "talk-shop" venue