

Throwing Shade:
Cooling off too-hot creeks, one tree at a time

Johnson Creek Science Symposium

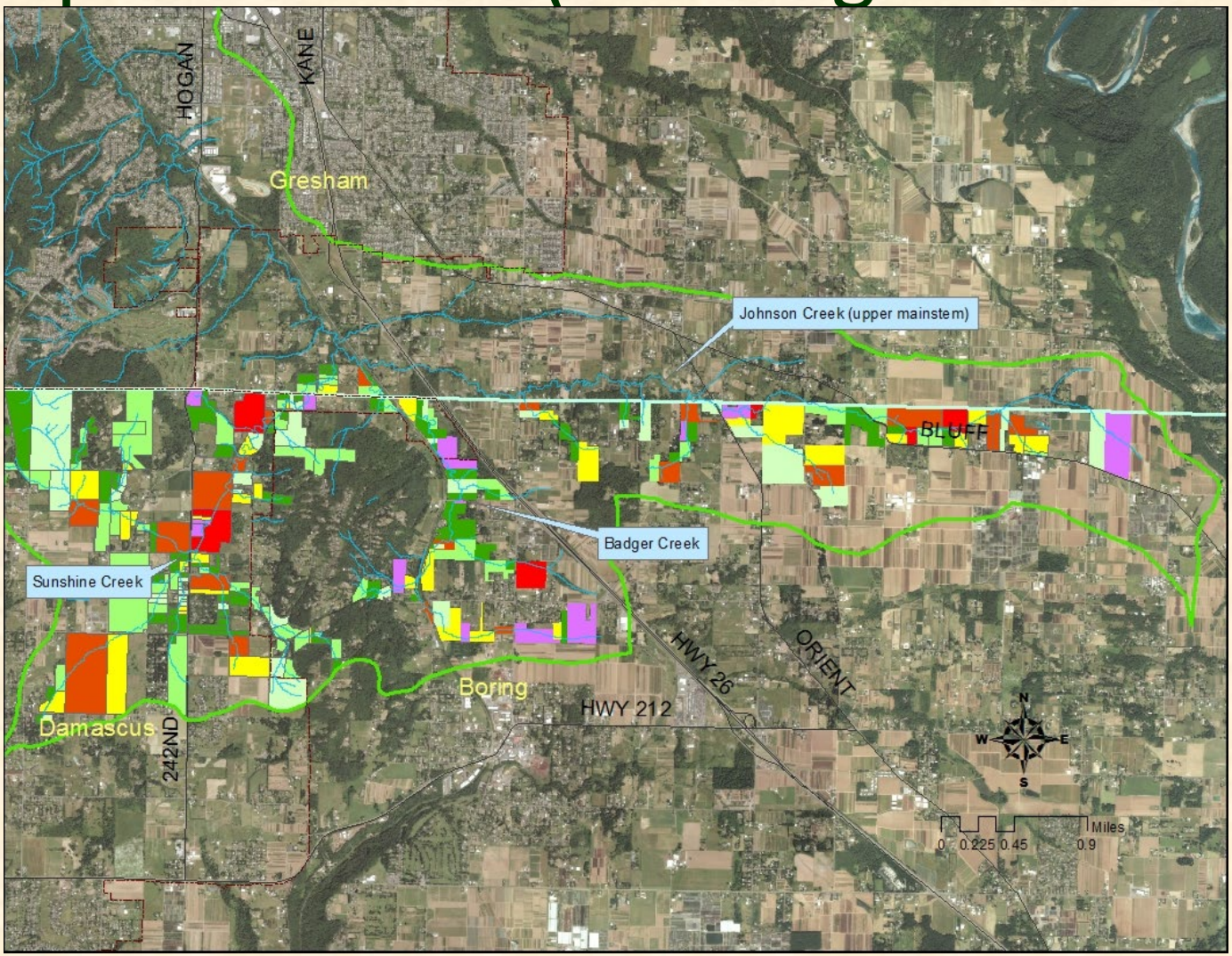
October 20, 2026

Problem: Fish in Hot Water



- Johnson Creek is “listed” for temperature—Total Max Daily Load (18° C = 64.4 ° F)
- Effective shade at 40% as of 2006
- DEQ recommended 80% effective shade
- Mainstem and most tributaries still exceeding standard

Riparian Reforestation Strategy Completed 2013 (Funding from OWEB)



Red = highest priority

Yellow = priority

Green = low priority

Purple = already enrolled properties

CreekCare Approach



Before blackberry cut Jul 25



After cut and first spray Jul 26

- Mailing, followed by door-to-door outreach
- Initial site visit
- Weed control (contract crew), planting plans
- Weed control during growing season; planting in winter
- Maintenance weed treatment 3-5 years

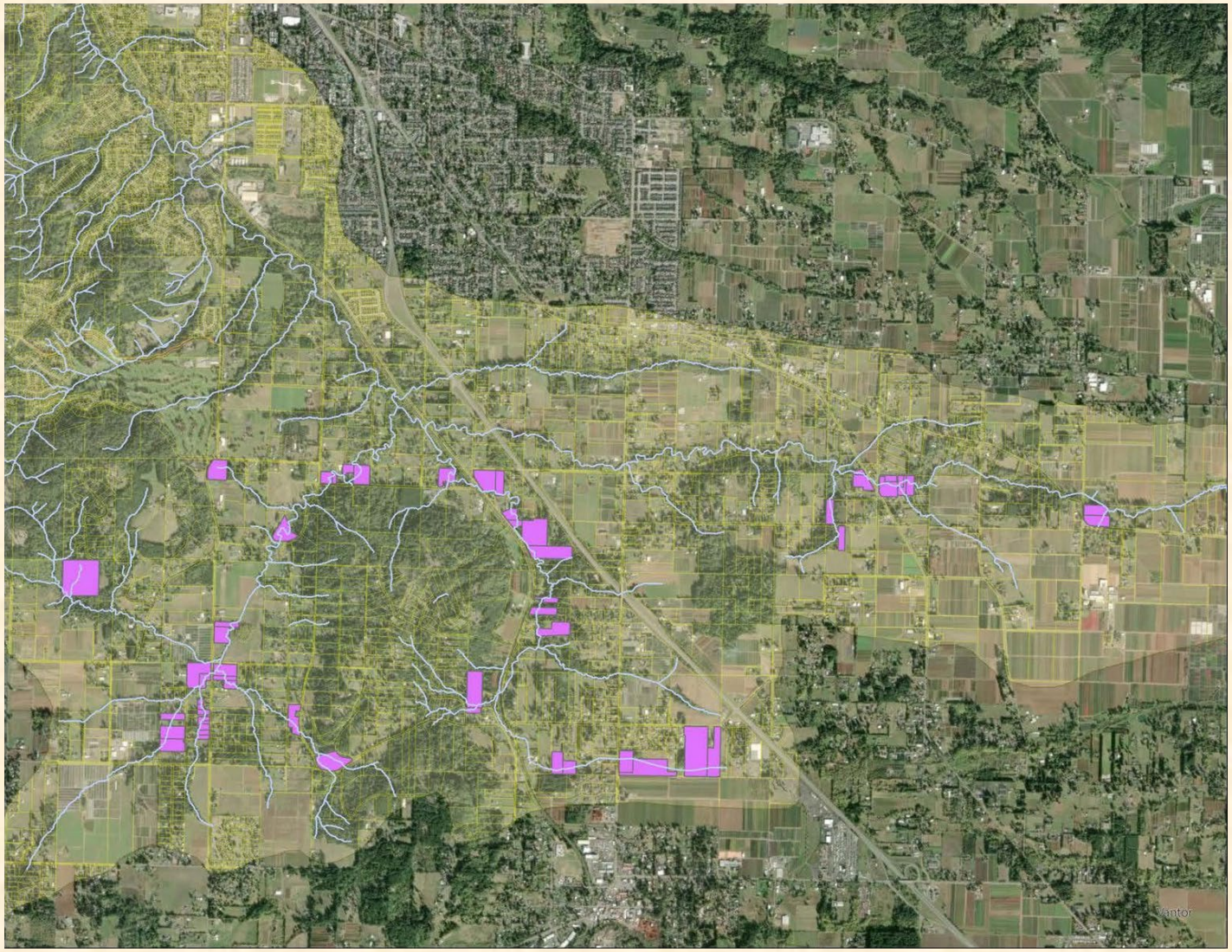
Roles

JCWC (Me): Apply for/administer grants, report to funders/partners; lead outreach, landowner communication; hire/coordinate contract crews; design planting plans, purchase plants

Native Ecosystems NW (Matt Stine): Invoicing for crew work, advice/assessment on projects

Clackamas SWCD: Primary funder (upper watershed), some project sourcing, technical assistance as needed

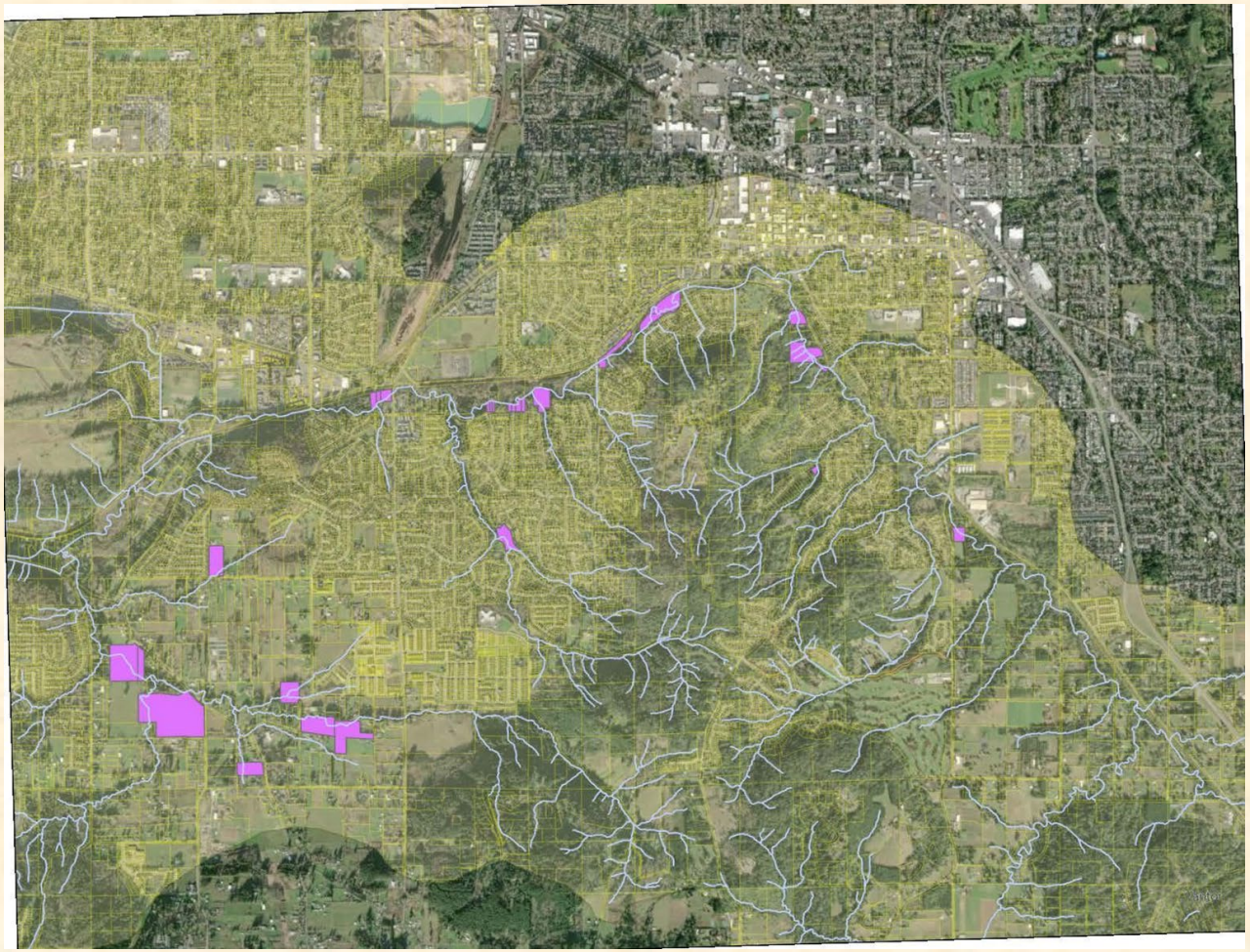
Accomplishments–upper watershed



Red = highest priority
Yellow = priority
Green = low priority

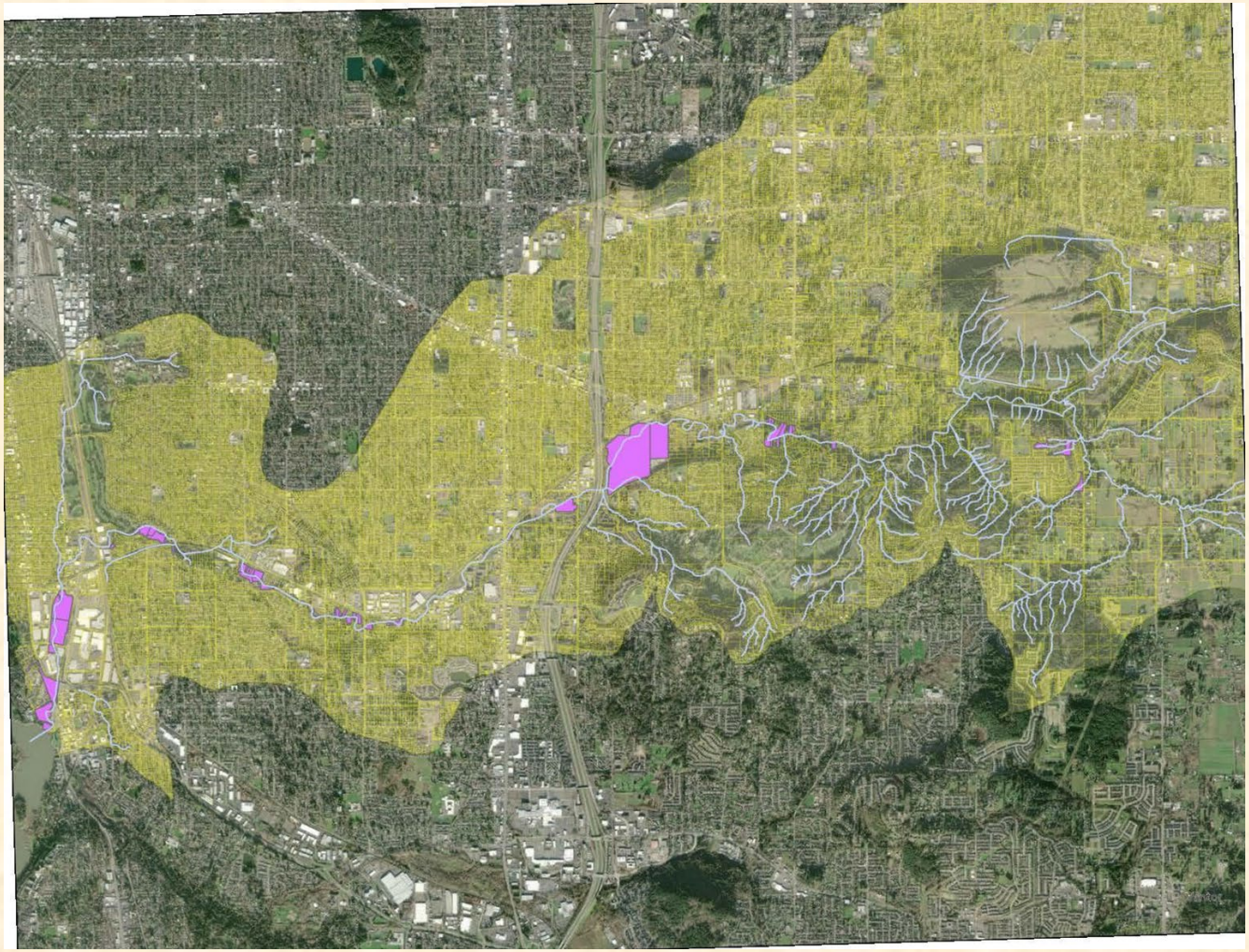
Purple = enrolled properties

Accomplishments–Gresham area



Purple = enrolled properties

Accomplishments–lower watershed



Purple = enrolled properties

Accomplishments by the numbers:





Johnson Creek at SE 307th Avenue, Boring

- 120+ properties enrolled; 53 in upper watershed, 27 in Gresham area, 42 in Portland/Milwaukie
- Installed over 150K native plants on 70+ acres (7.8 mi of stream)
- Treated weeds on an additional 4.6 acres (0.6 stream miles) for planting winter 2027

Lessons Learned



- Discuss planting plans with landowners
- Maintenance is a big deal; weed aren’t going away
- Neighbor-to-neighbor outreach is great
- You won’t get them all, but you’ll get some
- Stick around

Next Steps



Sunshinc Ck at 242nd



After initial blackberry cut

- Update maps/target priorities (PSU student)
  - Ash impacts
- Plant new project areas winter 2027
- Outreach to identified priority properties
- Maintenance weed work on recently-planted properties
- Inline ponds–low-tech
- Upland/urban heat island work(?)

Who Pays for All This?

Cities: Gresham, Milwaukie, Portland (BES)

Clackamas Water Environment Services

Soil and Water Conservation Districts: Clackamas, East Multnomah, West Multnomah (OSWB–garlic mustard)

Grant funding: Metro, PGE, DEQ (319, SEP), OWEB

Other thanks: AmeriCorps (Confluence and NCCC), Wisdom of the Elders, Matt Stine (Native Ecosystems NW), countless volunteers/interns