Success in the Sound: Local Examples of How Restoration Efforts Have Succeeded

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Success in the Sound: Local Examples of How Restoration Efforts Have Succeeded

Constance Sullivan¹, Katherine Boyd²

1. Puget Sound Institute (UW- Tacoma)
2. Puget Sound Partnership
Puget Sound Ecosystem

• Water quality
  – Low DO; eutrophication; organic pollutant contamination; temperature increase

• Habitat
  – Habitat loss and deterioration (forests, nearshore, riparian)

• Species populations
  – Threatened/ endangered: various salmon runs; SRKWs
  – Benthic species assemblages
Puget Sound Ecosystem Restoration

- Critical Area Ordinances
  - Development in critical/ sensitive areas is decreased
- Habitat restoration
  - Tree planting
  - Hedgerow planting
  - Reduction in shoreline armoring
- Water quality improvement
  - TMDLs
  - Stormwater runoff decreased
  - Point source reduction
Puget Sound Partnership

• Goal is to restore Puget Sound
  – “swimmable, fishable, diggable…”

• Strategic Initiatives
Puget Sound Partnership

- Goal is to restore Puget Sound
  - “swimmable, fishable, diggable…”
- Strategic Initiatives
Selected Projects

- Lots of successes around the Sound
  - Thea Foss waterway clean up
    - Restoration of a Superfund site
    - Ongoing maintenance
  - 1,000,000th tree planted in Whatcom County
    - Habitat restoration for salmon-bearing streams and rivers
    - Ongoing partnerships
Thea Foss Waterway Restoration

• Led by the City of Tacoma
• Target contaminants
  • Phthalates, petroleum-based products, PCBs, phenols, metals, pesticides

1983: Designated as a Superfund Site
1994: Planning for clean up begins
2002: Clean up begins
2006: Clean up complete
Ongoing maintenance
Thea Foss Waterway Restoration

• Clean up activities
  – Capping, dredging, backfill, natural recovery, slope rehabilitation, habitat enhancement

• Current status
  – Year 7 post restoration
  – Recontamination not occurring on a large-scale basis
  – Ecosystem showing recovery
  – Mitigation sites meeting standards
Thea Foss Waterway Restoration

- Ongoing maintenance
  - In-water monitoring
  - NPDES
  - Stormwater control
    - Source controls
    - Filtration systems
    - Rain gardens
    - Street sweeping
    - Basin-wide pipe system cleaning
    - Enforcement
Thea Foss Waterway Restoration

Pyrene levels at an outfall over time

Stormwater chemistry at an outfall over time
Thea Foss Waterway Restoration

Before

After
Whatcom County Tree Planting

• Background issues
  – Elevated stream temps
  – Erosion
  – Water quality

• Tree planting
  – Counteracts effects above
  – Provides habitat and travel corridors for wildlife
  – Privacy and protection for land owners

http://newswatch.nationalgeographic.com/2013/02/21/new-oceana-study-finds-33-of-seafood-mislabeled/
Whatcom County Tree Planting

- State-wide program through the Conservation Reserve Enhancement Program (CREP)
  - Run by the US Dept. of Agriculture
  - Voluntary program
    - Landowners plant native tree buffers on fish bearing streams and rivers
    - Landowners are paid by CREP; CREP coordinates process
    - Federal funds are used to prep and plant the site
    - Twice yearly maintenance: state funds
Whatcom County Tree Planting

• Whatcom County
  – Started in 2000
  – Run by the Whatcom County Conservation District
  – Efforts to restore/ conserve made easy for private landowners
  – 1,000,000th tree planted on 4/20/2013
  – Current stats:
    • 359 projects
    • 2,375 acres
    • 166.6 miles of buffer
    • 1,082,365 seedlings planted
    • 1,117,622 seedlings planned
Whatcom County Tree Planting

2007
Effective Actions

• Commonalities between these projects (and other successful restoration projects around Puget Sound)
  – Targeted
  – Straightforward
  – Site-specific actions
  – Appropriate scale
Thank you!

• Thea Foss Waterway
  – City of Tacoma
  – Local residents around the waterway
  – Mary Henley, Karen Bartlett (City of Tacoma)
  – For more info:  www.cityoftacoma.org/cms/one.aspx?objectId=7283

• Tree Planting Program
  – Landowners who participated in program
  – Emily Hirsch, George Boggs (Whatcom Conservation District)
  – For more info:  www.whatcomcd.org/crep

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