Puget Sound and Water Quality
An Agenda for a Clean, Healthy Ecosystem

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People For Puget Sound

Mission: to protect and restore Puget Sound and the Northwest Straits--our living waters, the land and our common future.
Stormwater Focus Group Results

• 80% of participants didn’t think they lived in a watershed

• They didn’t grasp the connection between water quality and land use
Focus Group results (more)

• But they do understand the connection between paved surface and pollution

• Mixed reactions to the role of government depending on how it was presented

Photo: Paige Heggie, People For Puget Sound
View of Region

• Pride in the region and quality of life healthy environment plays
• Want the region’s water sources protected
• Recognize the successes in cleaning up point source pollution
• Build and reinforce pride in success will help align them with supporting more work
Chesapeake Bay Struggles

- Lack of accountability
  - federal and state governments routinely missed deadlines and never faced consequences for it
- Annual reports too rosy (not telling the truth)
- Lack of focused spending
  - EPA money was not directed to most important needs
We are NOT normal
We CAN do it
Puget Sound Partnership’s Job

- Set ecosystem targets that result in clean water and restored Sound
- Build strong action agenda with the specific steps for recovery. Examples:
  - 1, 2, 3 to eliminate pollution from stormwater
  - 1, 2, 3 to eliminate pollution from sewage
- Build strong outreach program that helps educate and motivate the public
It’s a partnership

- Federal agencies
- Tribes
- State agencies
- Local agencies

- Consultants
- Businesses
- Industry
- Nonprofits
People For Puget Sound

- Restoring clean water
- Recovering species
- Linking people
Dog Poop Slide
10 Pathways: Pollutants to Puget Sound

- Surface Runoff
- Rivers/Streams
- Aerial Deposition
- Point Source Discharge
- Combined Sewer Overflow (CSO)
- Spills
- Groundwater
- Return of biota
- Pacific Ocean inflow
- Sediment/Dredge Disposal Site Flux
Sewage treatment plants = 135 billion gallons per year
Near-bottom dissolved oxygen levels (mg/L) for S. Sound in September
Dissolved Oxygen

 Hundreds of Dead Fish

 www.water-research.net/Watershed/dissolvedoxygen.htm
S Sound Dissolved Oxygen Study: Nitrogen Loads

**September 2007 Dissolved Inorganic Nitrogen Loads**

<table>
<thead>
<tr>
<th>Wastewater Treatment Plant Inputs (kg/d)</th>
<th>Tributary Inputs (kg/d)</th>
</tr>
</thead>
<tbody>
<tr>
<td>zero load/no data</td>
<td>zero load/no data</td>
</tr>
<tr>
<td>0.1 - 1.0</td>
<td>0.1 - 1.0</td>
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<td>1.1 - 10</td>
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- **West Point:** 8,847 kg/day
- **Renton:** 8,376 kg/day
- **LOTT:** 76 kg/day
- 4.6 kg/day
- 17.5 kg/day
- 507 kg/day
- 108 kg/day
- 203 kg/day
- 19 kg/day
- 380 kg/day
- 19 kg/day
- 2491 kg/day
- 208 kg/day
- 241 kg/day
- 358 kg/day
- 202 kg/day
- 578 kg/day
- 1704 kg/day

Miles scale: 0, 2.5, 5, 10, 15, 20

Map showing various locations and nitrogen loads.
Billions of dollars
Polluted Runoff

Photo Credit: Paul Joseph Brown/Seattle Post-Intelligencer
Municipal NPDES Stormwater Permit

Will determine how, when, and where developers should use low-impact development (LID) on individual building sites
What the permit needs

There are three legs to the LID stool

- Reduction of impervious surfaces
- Retention of vegetation
- Engineered techniques (rain gardens, green roofs, etc)

We need all three!

Cost effective

We think it is more cost effective to do LID than conventional solutions like detention ponds

• Pilot projects all around the Sound are proving successful

http://casestudies.cascadiagbc.org/landuse.cfm?ProjectID=464
Saving Puget Sound

• Accountability for results

• Sustained effort

• Political will

• Serious money
We aren’t normal. We can do it!
Thank you
Toxic Pollution--Historic and Ongoing

PCBs, PBDEs and other toxic chemicals move up the food chain