King County Water Quality Trouble Call Program

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Pictures NoW!

King County facts

- 39 incorporated cities
- 12th most populated county in the U.S.
- Population of 1.7 million
- 2,131 square miles of land
- 760 lakes and reservoirs
- 3,000 miles of streams
- 975 wetlands
- 4 major river systems (Snoqualmie/Cedar/Green/ White)
- 800,000 acres of forestlands
- 34.1 inches average annual precipitation

Source: King County DNRP Annual Report 2003



Trouble Call Mission

 Respond to, investigate, and cooperate with multiple agencies on surface water quality issues and environmental emergencies in King County.



King County Resources

Field staff

- Wastewater
- Solid waste
- Parks
- Roads

Vessels (5)

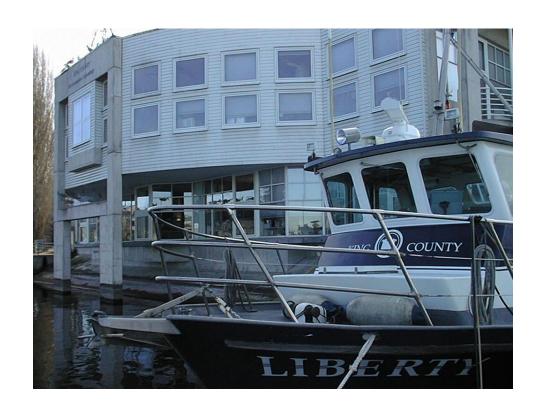
• From 14' whaler to 48' research vessel

Laboratory

- Wide-range of expertise
- Fast turn-around-times

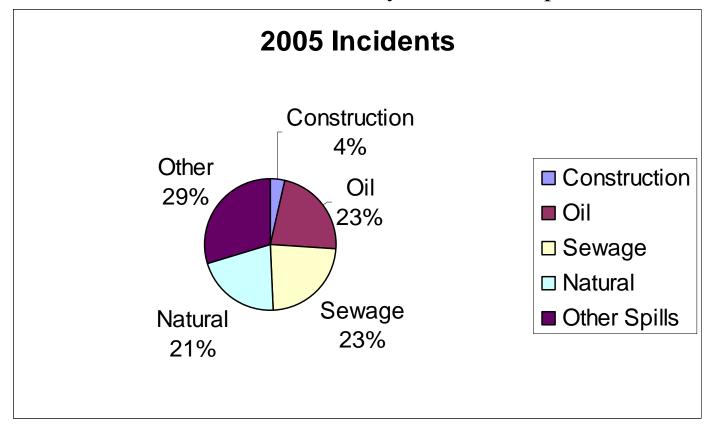
Response Vehicle

- Laptop w/ ArcGIS
- Sampling equipment
- Digital camera/GPS unit
- Booms/pads for spill containment



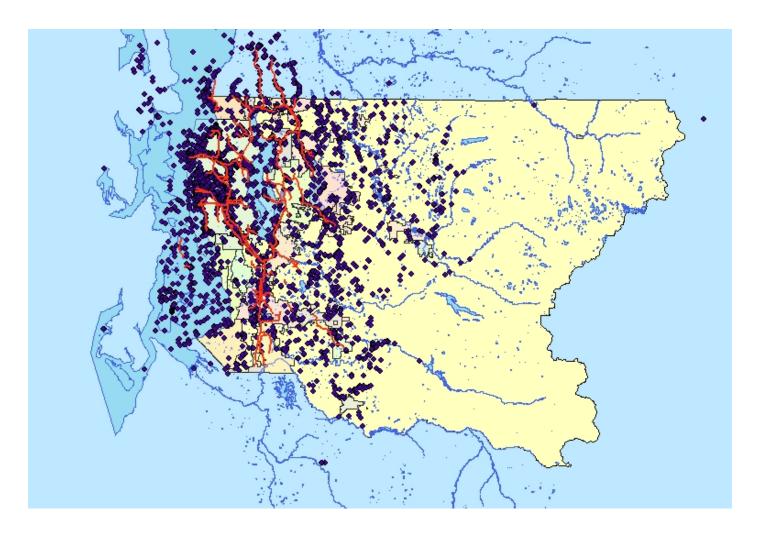
Trouble Call Data for 2005

- 117 Incidents
- Field investigated more than 79 incidents
- Collected 56 water quality samples
- KC Environmental Lab analyzed over 500 parameters



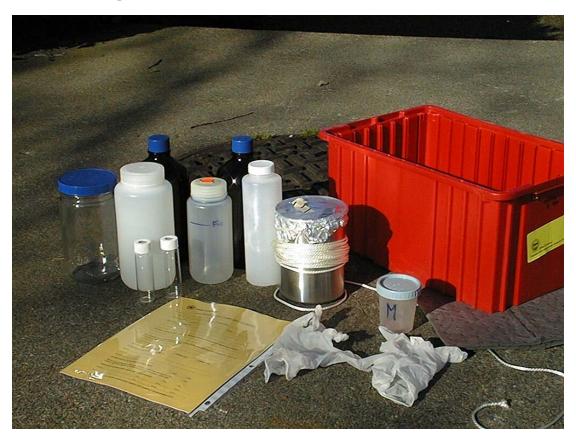
How we assist other agencies

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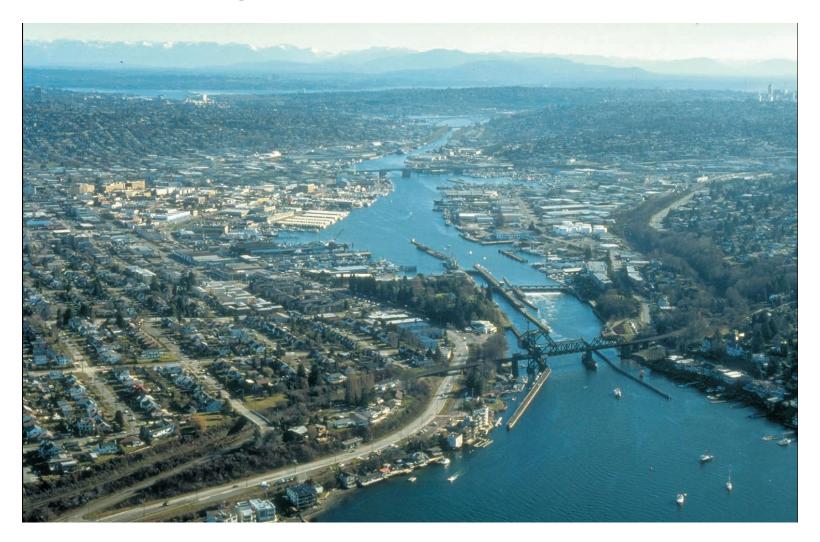
• We monitor many areas of King County

How we assist other agencies:



- We provide public agencies with Trouble Call sample kits
 - Agencies get training
 - Collect a quick, one time water quality sample
 - No cost for analysis

How we assist other agencies:



- Mutual-aid responder when notified of spills
 - Washington State Department of Ecology

Collaborating Agencies

- King County:
 - Public Health-Seattle/King County
 - DDES
 - Roads
- State of Washington:
 - Agriculture
 - Ecology
 - Fish and Wildlife
 - DNR
 - DOT
- Water and Sewer Districts
- EPA
- NOAA
- United States Coast Guard
- University of Washington

- Cities:
 - Seattle
 - Bothell
 - Black Diamond
 - Kenmore
 - Shoreline
 - Lake Forest Park
 - Federal Way
 - Bellevue
 - Kent
 - Kirkland
 - Woodinville
 - Renton
 - Tukwila
 - Des Moines

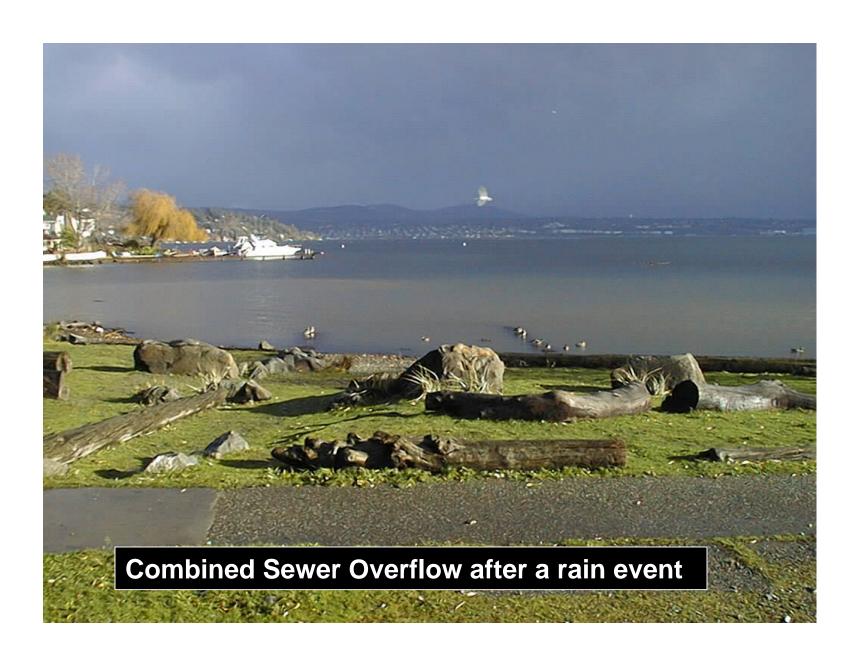
Trouble Call Responds to

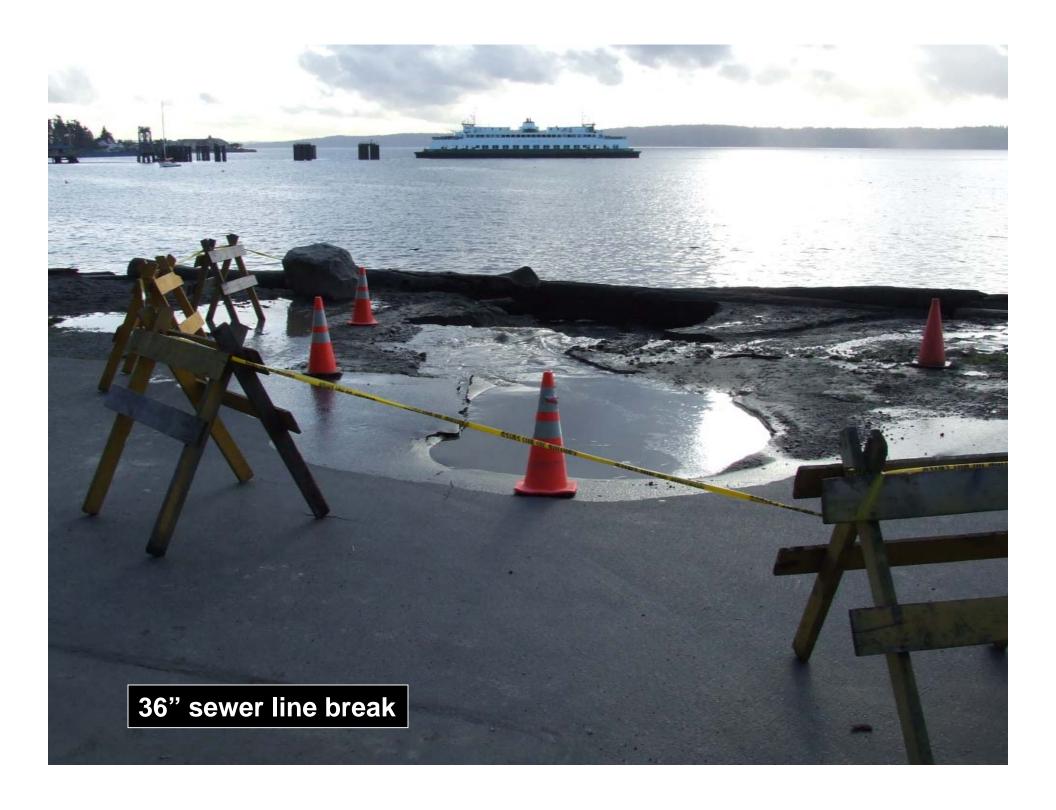
- Wastewater incidents
- Natural events
- Illegal dumping
- Unusual emergencies
- Oil Spills

Wastewater Incidents



- Respond to:
 - Spills along the King County conveyance system
- Collect/analyze water samples
 - bacteria and nutrients
- Appropriate contacts:
 - Public Health
 - Local Jurisdictions
- Post signs
- Provide ongoing water quality monitoring of surface waters





Natural Phenomena



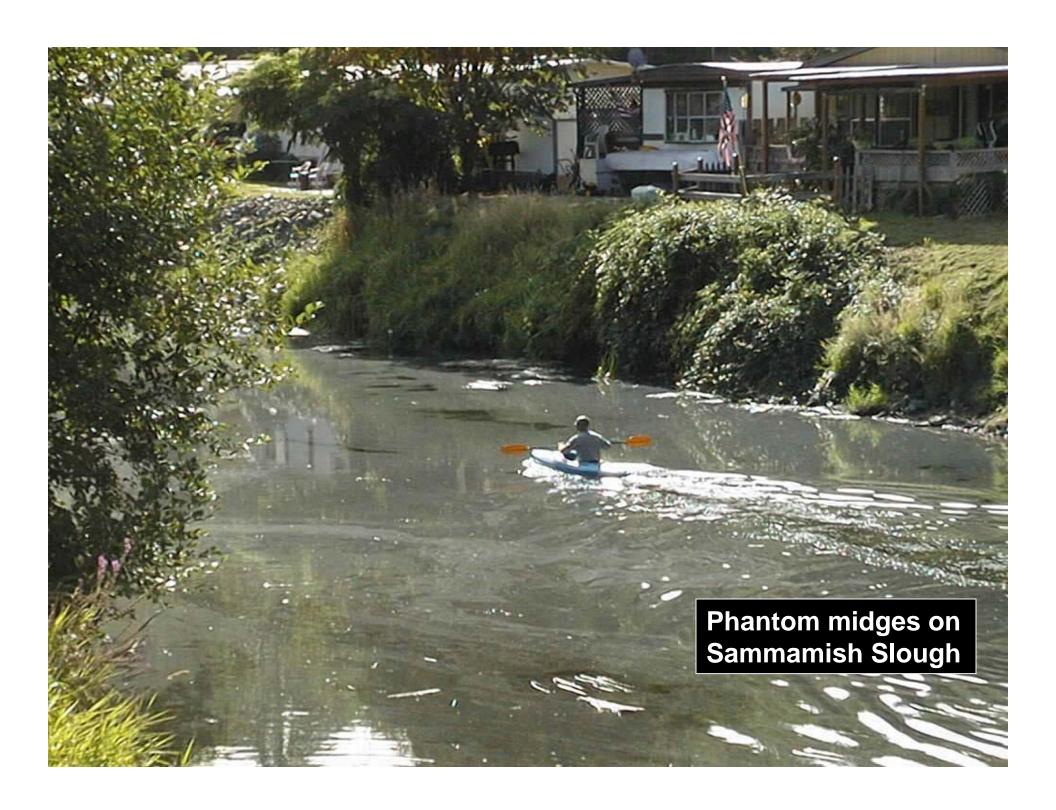
- Orange plankton in West Seattle
 - Noctiluca
- Fishkill-Lake Washington
 - Three-spine Sticklebacks
- Foam on Lake Washington
 - Phytoplankton decomposition and the release of <u>algin</u>
- Odor complaints along Alki Beach
 - Ulva (sea lettuce) seaweed















Illegal Dumping

- Attempt to identify the Responsible Party
 - Immediate cleanup
- Photo documentation
- Collect water quality samples
 - Identify unknowns
 - Quantitative analysis
 - Toxicity testing
- Enforcement action
 - Local jurisdiction







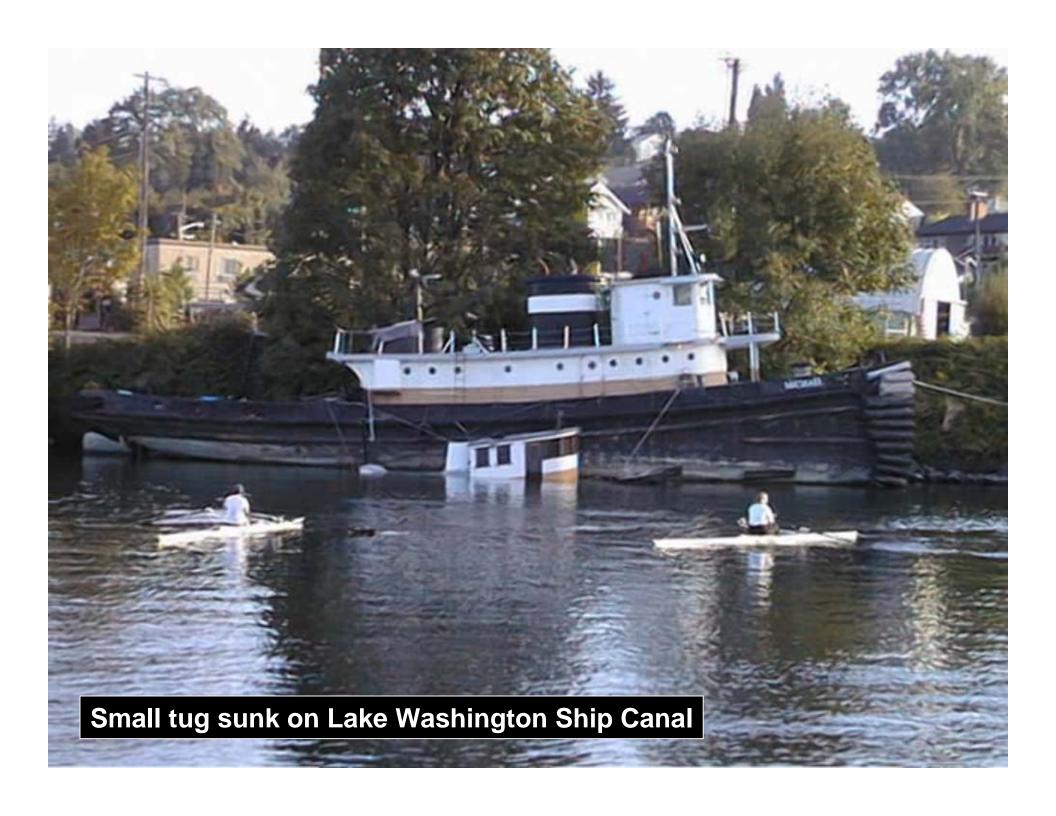
Shadow Lake —sinking of boat resulting in oil spill

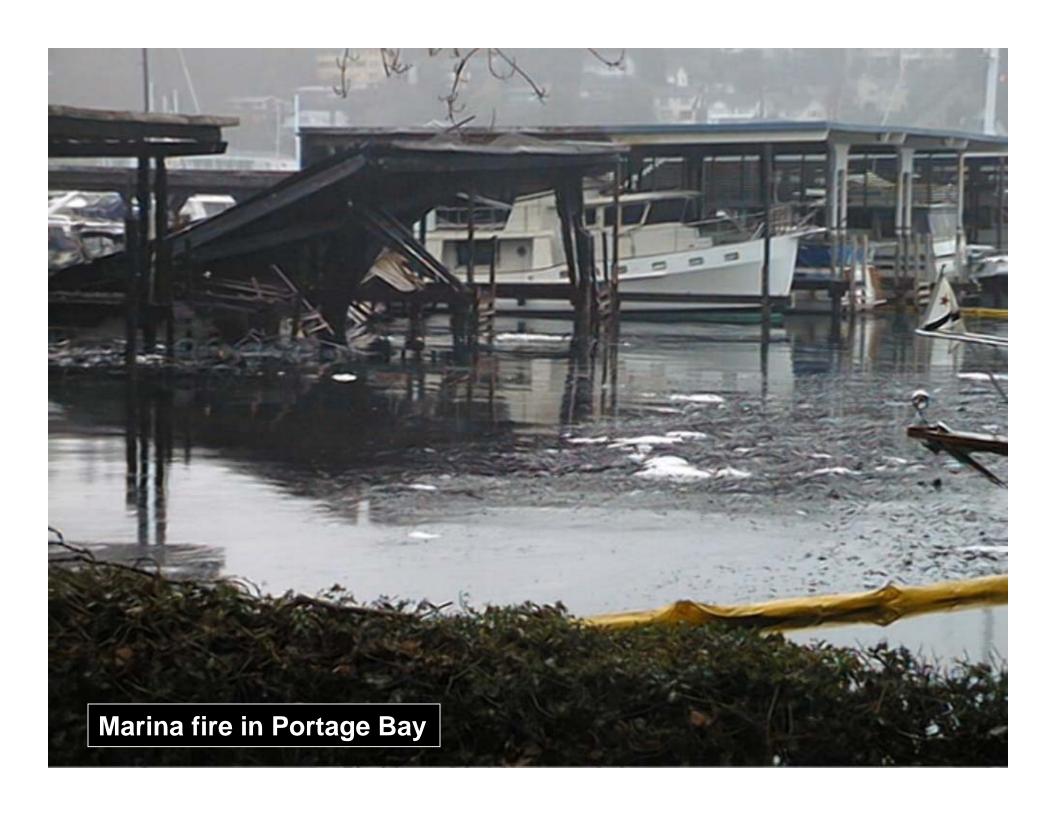
Unusual Emergencies



- Herbicide application
- Fish kills
- Construction activities
 - de-watering
 - erosion/sediment control
- Odor complaints
- Toxic algal blooms
- Fire responses near surface waters
- Frogs in lake
- WNV-crows



















Jimi Lott @ The Seattle Times

A fireball explodes this morning during a spectacular blaze at a chemical distribution center in Kent.

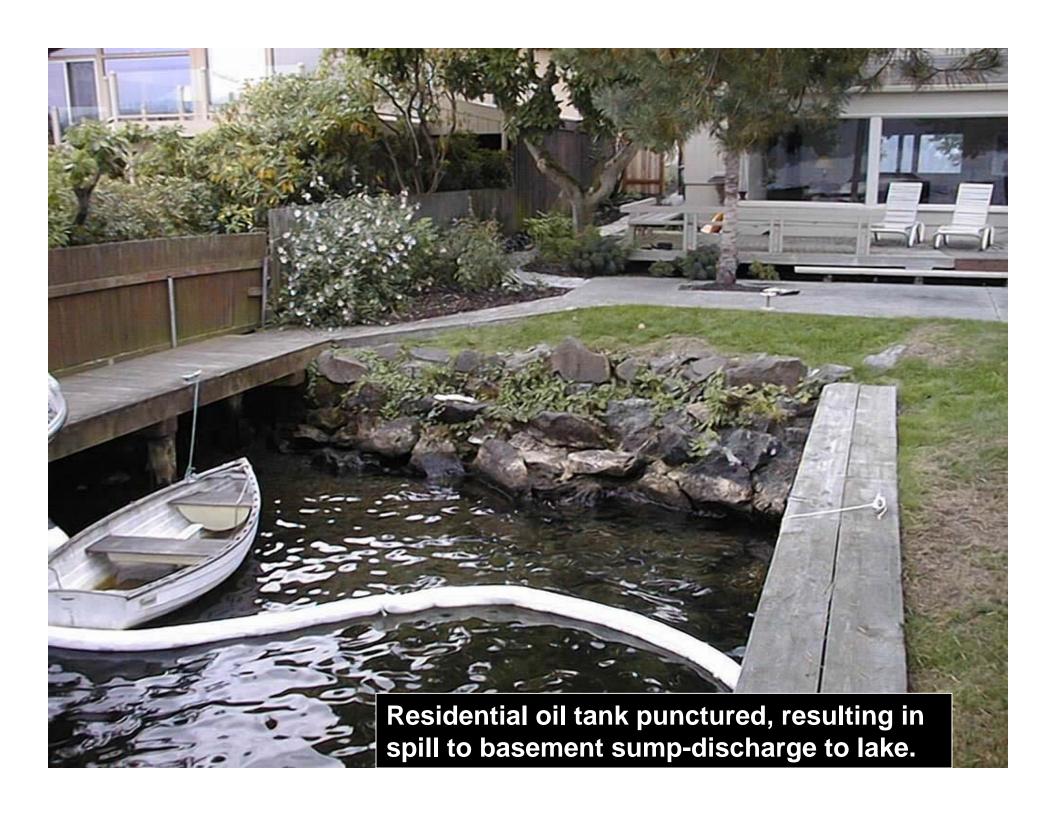


Chemical warehouse fire: runoff of chemicals and fire-fighting foam to Springbrook Creek

Oil Spills



- Assist lead jurisdiction during incident response
- Monitor surface waters
 - Boats
 - Staff
 - Lab services
- Monitor wastewater system
- Utilize our supply of booms and pads









7,000 gallon diesel spill from flood control facility





Future Challenges

- Gov. Gregoire established the "Puget Sound Partnership"
 - preserve Puget Sound by 2020 with critical spill response resources
- Streamline notifications for spills
- Continue to improve relationships with local agencies
 - Jurisdictional boundaries
 - Communications
 - Resource sharing
 - Welcome locals within the ICS

