



Vetted Statements from Recent Findings August 13, 2009

Statement 1

~~On an average day, it's estimated that 140,000 pounds of toxic chemicals—including petroleum, copper, lead, zinc, and polychlorinated biphenyls (PCBs)—enter Puget Sound.~~

~~Or as an alternative:~~

~~The Washington Department of Ecology conservatively estimates that on an average day, more than 100,000 pounds of toxic chemicals—including petroleum, copper, lead, zinc, and polychlorinated biphenyls (PCBs)—enter Puget Sound via stormwater runoff that flows off our yards, driveways, roads, and parking lots.~~

"Control of Toxic Chemicals in Puget Sound," Washington State Department of Ecology, Phase 2: Development of Simple Numerical Models, 2008;
www.ecy.wa.gov/Programs/wq/pstoxics/index.html

Statement 2

About 75 percent of the toxic chemicals getting to the Sound are carried by stormwater that runs off paved roads and driveways, rooftops, yards and other developed land.

"Control of Toxic Chemicals in Puget Sound," Washington State Department of Ecology (Ecology), Phase 2: Development of Simple Numerical Models, 2008;
www.ecy.wa.gov/Programs/wq/pstoxics/index.html

Statement 3

549 streams, rivers and lakes across the Puget Sound region are impaired by poor water quality.

"Washington State's Water Quality Assessment [303(d)]," Washington State Department of Ecology, 2008; www.ecy.wa.gov/programs/wq/303d/

Statement 4

Transient and southern resident [orcas] are indeed considered to be "among the most PCB contaminated mammals on the planet."

P. Ross person communications, 2009; Ross P.S., G. M. Ellis, M. G. Ikonou, L. G. Barrett-Lennard and R.F. Addison, 2000, "High PCB Concentrations in Free-Ranging Pacific Killer Whales, Orcinus orca: Effects of Age, Sex and Dietary Preference," Marine Pollution Bulletin, Vol 40, 6: 504-515

Statement 5

Harbor seals in Puget Sound are seven times more contaminated with the persistent toxic chemicals known as PCBs than those living in Canada's Strait of Georgia, which adjoins the Sound.

*Cullon, D. L., S. J. Jefferies, P. Ross, 2005, "Persistent organic pollutants in the diet of harbor seals (*Phoca vitulina*) inhabiting Puget Sound, Washington (USA), and the Strait of Georgia, British Columbia (Canada): a food basket approach," *Environmental Toxicology and Chemistry* 24 (10); pp. 2562–2572*

Statement 6

The tourism industry in the Puget Sound region is valued at \$9.5 billion a year, with hundreds of thousands of people drawn to the sound for its natural beauty and recreational opportunities.

"Focus on Puget Sound: Economic Facts," Washington State Department of Ecology, October, 2008; www.ecy.wa.gov/pubs/0601006.pdf

Statement 7

The Puget Sound's fishing and shellfish industry, dependent on clean waters, is conservatively valued at \$147 million a year. This includes all recreational, treaty, non-treaty, commercial, and aquatic farm production activities.

"Focus on Puget Sound: Economic Facts," Washington State Department of Ecology, October, 2008; www.ecy.wa.gov/pubs/0601006.pdf

Statement 8

Many people choose to live in the Puget Sound region because of the area's quality of life. There are 2.2 million private sector jobs in the Puget Sound region, which account for an annual payroll of \$102 billion.

"Focus on Puget Sound: Economic Facts," Washington State Department of Ecology, October, 2008; www.ecy.wa.gov/pubs/0601006.pdf

Statement 9

In 1960, 1.8 million people lived in the 12 counties that make up the Puget Sound region. By 2008, nearly 4.4 million called the area home. The Washington State Office of Financial Management anticipates that by 2020, 5.1 million will live and work here – a net increase of about 700,000 people over the next 11 years.

"Historical and Project Population for Growth Management and Other Purposes, Medium Series: History 1960 to 2000 and Projections from 2010 to 2030," Washington Office of Financial Management, 2007 projections; www.ofm.wa.gov/pop/gma/default.asp

Puget Sound 
Starts Here
Problematic Statements
August 14, 2009

A. Problematic Comparison

Every two years, the oil collected by stormwater run-off adds up to the equivalent of an Exxon Valdez oil spill.

And

The oil-related waste collected by stormwater run-off from roads, sidewalks, and driveways flows into Puget Sound, adds up to the equivalent of an Exxon Valdez oil spill every two years.

Issue:

The measurement used to calculate petroleum is based on 1) Total Petroleum Hydrocarbons (TPH) which is different that from the pollution released in a crude oil spill, and 2) Department of Ecology's TPH numbers which are at this point problematic due to issues related to the data sets used to calculate loading rates.

Sources:

Curt Hart, Communications Director, Washington State Department of Ecology, 2009. Personal communications.

Stormwater Outreach for Regional Municipalities (STORM). 2009. "BMP Justification Papes; Car Care: Motor Oil Leaks." Available by contacting Peter Holte @ pholte@redmond.gov; 425-556-2822.

B. Problematic Fact

Eight million gallons of oil flows into Puget Sound each year via stormwater runoff.

Issue:

Washington State Department of Ecology's TPH estimates are problematic due to issues related to the data sets used to calculate loading rates.

Source:

Curt Hart, Communications Director, Washington State Department of Ecology, 2009. Personal communications.

C. Misquote

Orca whales are the most contaminated animals on the planet.

Issue: Peter Ross, an orca biologist, is misquoted. This should read "Transient and southern resident [orcas] are indeed considered to be among the most PCB contaminated mammals on the planet."

Source:

Peter Ross, Institute of Ocean Sciences, Sydney BC. 2009. Personal communications.

D. Problematic Statement

Puget Sound Orca whales are so contaminated with PCB's that their carcasses have to be taken to hazardous waste facility for proper disposal.

Issues:

We found no confirmation of an orca carcass taken to a hazardous waste facility. There are, however, two compelling cases that may be the source of this rumor.

Officials in Canada discussed whether an orca carcass beached at Tsawwassen B.C. in 2000 should be taken to a hazardous waste site. Ultimately, they did not do so.

A transient orca stranded on Dungeness Spit in 2002 had some of the highest contaminant concentrations to be reported in tissues of marine mammals worldwide, including DDT and PCB. After the necropsy the carcass was buried and some of the blubber was disposed back into the Sound. In retrospect, the scientists expressed concern over the disposal method, given the toxin levels.

Sources:

Joe Gaydos, SeaDoc Society. 2009. Personal communications.

Peter Ross, Institute of Ocean Sciences, Sydney BC. 2009. Personal communications.

E. Incorrect Fact

More than 1,000 rivers and lakes across the Puget Sound region are impaired.

Issue:

According to the Washington State 303'd list 549 streams, rivers and lakes across the Puget Sound region are impaired by poor water quality.

Source:

Curt Hart, Communications Director, Washington State Department of Ecology, 2009. Personal communications.

*"Washington State's Water Quality Assessment [303(d)]," WSDOE,
<http://www.ecy.wa.gov/programs/wq/303d/>*

F. Problematic Statement

70 percent of the estuary lands where our streams and rivers flow into Puget Sound have been lost to development.

Issue:

We have more specifically lost 70 percent of Puget Sound near-shore estuary habitat due to residential, commercial and industrial development since people of (mainly) European descent settled here (since about 1850). To say we've lost entire rivers probably would not be that credible.

Source:

Dave Ward, Snohomish County. 2009. Personal Communications.

G. Problematic Statement

Many Puget Sound bays and other water bodies have "hypoxia" – the low oxygen condition that kills marine life.

There are "dead zones" - where no marine life can be found - in Hood Canal and South Puget Sound.

Issue:

Hypoxia in Puget Sound is primarily limited to Hood Canal, and seems to be a temporary, seasonal condition. Also, even in the so-called "dead zones" anaerobic bacteria can thrive. There is no known place where "no marine life can be found." We are contacting the University of Washington Sea Grant program to find a better characterization of this issue.

Source:

King, T. 2004. Low Oxygen Levels in Hood Canal. University of Washington SeaGrant Program, University of Washington: publication number: wsg-as04-01.

H. Problematic Characterization

30,000 acres of shellfish beds – downgraded since 1980 – remain closed.

Issue:

Before 1980, the shellfish beds were not regulated to the degree they are now. As a result the number moves up and down due to the internal workings of the monitoring program and its unique history. This may not be incorrect per say, but the reality is much more complex than this factoid suggests.

Source:

Bob Woolrich, Manager of Growing Area Section, Office of Shellfish and Water Protection Washington State Department of Health, Personal Communications, 2009.