US FISH AND WILDLIFE SERVICE
Western Washington Fish and Wildlife Office

ENVIRONMENTAL ASSESSMENT & RESTORATION DIVISION
Environmental Contaminants Program

Background

The U.S. Fish and Wildlife Service (FWS) has been involved with studying contaminant effects to fish and wildlife and the habitats on which they rely since the early 1950s. In 1962, a former Fish and Wildlife Service employee, Rachel Carson captured national attention with her landmark book *Silent Spring*, outlining the widespread harmful effects of pesticides on the environment.

Cleaning and restoring an estuarine marsh area, Commencement Bay (USFWS, Judy Lantor)

Who We Are

We are an integrated team of fish and wildlife biologists, contaminant specialists and toxicologists who are experts on oil and chemical spills, pesticides, water quality, emerging contaminant issues and other aspects of pollution biology. Our team of specialists focuses on identifying and preventing harmful contaminant effects to fish and wildlife while restoring resources degraded by contamination.

Who We Serve

- The Public
- FWS hatcheries and refuges
- Federal, State and local agencies
- Tribes
- Non-governmental Organizations

What We Do

The FWS conducts Natural Resource Damage Assessments and Restoration (NRDAR) under the authorities of the Comprehensive Environmental Response, Compensation and Liability Act (Superfund), the Clean Water Act and the Oil Pollution Act. NRDAR's goal is to compensate the public and the environment for injuries to natural resources and services resulting from a release of oil or chemicals into the environment.

We collaborate with our federal, state, and tribal co-trustees in many complex and dynamic NRDAR cases, including several in industrialized marine estuaries such as Tacoma's Commencement Bay and Elliott Bay/Duwamish River in Seattle.

In 2006, along with USGS scientists, we began monitoring reproductive performance, forage locations and prey (fish) species preference of osprey nesting on the Lower Duwamish Waterway in Seattle.

Scientists are also collecting osprey eggs and plasma samples from nestlings to assess if

contamination associated with the Superfund site is having an adverse effect on the raptors.

We work on damage assessment and restoration projects resulting from coastal oil spills and inland oil transfer incidents such as the Olympic Pipe Line rupture and fire in Bellingham's Whatcom Creek and the Foss Pt. Wells and Dalco Passage oil spills into Puget Sound.

The Catala emerging from the beach at Damon Point (USFWS, Jeff Krausmann)

Spill Response

We respond to many spill events throughout Puget Sound and Coastal Washington each year. These include vehicle accidents, maritime incidents, train derailments, pipeline ruptures and other incidents where a release or the potential for release of oil or chemicals to the environment has occurred.

In close partnership with the state authorities and other federal agencies, we engage in extensive spill planning and preparation activities, including geographic response and contingency planning, reviewing response technologies, and maintaining wildlife rehabilitation readiness.

Trumpeter Swan die-off

We are working closely with the Canadian Wildlife Service and other partners to investigate the deaths of at least 2300 trumpeter swans from lead shot ingestion in northwestern Washington and Sumas Prairie of British Columbia, Canada since 1999. This is the largest known trumpeter swan die-off in the U.S. Data collected from radio-collared swans and other sources has significantly narrowed the area of concern, helping define potential sources of the shot.

Pesticide Impacts

Since 2002, we have been investigating the sublethal effects of the insecticide carbaryl, used to control burrowing shrimp in some of Washington's coastal estuaries. For more information, please see: http://www.intres.com/abstracts/meps/v329/feature/

Helicopter spraying pesticides (USFWS photo))

Pre-Spawn Mortality (PSM) of Coho Salmon

Coho salmon returning to spawn in Puget Sound-area lowland urban streams are dying at a rate of 63-89%. Although the precise cause of PSM is unknown, evidence suggests that coho entering these streams following storms are sensitive to pollutants in stormwater runoff. Research as to the cause of PSM is part of an ongoing collaborative effort between the WWFWO, NOAA Fisheries, local governments and non-governmental organizations.

This female coho salmon died before she could deposit her eggs along Longfellow Creek, Seattle. (USFWS,Jay Davis)

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