



2019 Cooperative Summer Field Training Program

● **Project Title:** Coastal Habitats in Puget Sound

● **Project Scientists:** Kathleen Conn

● **USGS Center:** Washington Water Science Center

● **Location:** Puget Sound, western WA State

Project Description:

Background Information:

The USGS Coastal Habitats in Puget Sound (CHIPS) project aims to advance fundamental understanding about the interactions between nearshore physical, chemical, and ecological systems through interdisciplinary data collection, mapping, and predictive modeling. Despite chemical bans and decades of source control activities, many persistent, bioaccumulative and toxic contaminants remain in Puget Sound at levels that likely contribute to adverse impacts on iconic species like salmon and orca. These contaminants are often associated with fine sediment that can be transported from watersheds, resuspended from the seabed during high wind and wave events, and deposited in low-energy environments such as embayments and complex habitats such as eelgrass beds that are used for rearing and foraging by juvenile fish and invertebrates.

Objectives:

This research aims to elucidate pathways of contaminant delivery to nearshore habitats and biota; to track sediment-bound contaminant sources and fate using field studies and sediment transport models; and to characterize adverse impacts to biota from the complex mixtures of legacy and modern contaminants using state-of-the-art effect-based tools. The information will allow managers to predict and prioritize activities, geographic areas, and/or habitats for abatement, remediation, or restoration to further Puget Sound ecosystem recovery.

Intern Tasks:

- collecting samples of Puget Sound nearshore water and sediment for chemical analysis
- deploying and retrieving environmental passive samplers
- calibrating and using multi-parameter water-quality sondes
- driving government vehicles and working long hours in the field

Expected Outcomes:

The skills and experience gained is around water-quality sample collection and processing per USGS protocols/field methods. The intern will learn to follow detailed protocols to avoid sample contamination.

Details for Matching:

Type of Project: Field Work, Office Work

Project Discipline: Ecology, Wildlife Biology, Surface Water, sediment quality, ecosystem recovery

Project Start Date: Tue May 15 2018 00:00:00 GMT-0400 (EDT)

Project Duration: 3 to 4 months

Level of Physical Demand: Level 8-2: The work requires some physical exertion such as long periods of standing, walking over rough, uneven, or rocky surfaces; recurring bending, crouching, stooping, stretching, reaching, or similar activities; or recurring lifting of moderately heavy items. The work may require specific, but common, physical characteristics and abilities such as above-average agility and dexterity.

GIS Training: ESA

Special Skills and Interests: Basic field skills, ability to drive field vehicles, and ability/willingness to work in possible adverse field conditions. Attention to detail and strong organizational skills. Works well with a team of technicians and scientists. Ability to lift heavy sampling gear (typical field work).

