



## Divers Support Nutrient and Bacteria Loading Study for Oakland Bay/Hammersley Inlet, WA, 2005-2006

**What**: The EPA Region 10 Dive Team assisted the Washington State Department of Ecology in deployment, recovery, and maintenance of current meters, including one acoustic doppler current meter (ADCM) being used to develop water quality limits, or total maximum daily loads (TMDLs) for the area. Washington is delegated responsibility for implementation of the Clean Water Act.

**Why**: Diver objectives were ADCM deployment, recovery, and checking of other current meters. Information on currents will be used to develop and calibrate a hydrodynamic model for the inlet. The model is being used to determine the maximum amount of bacteria and nutrients that can be discharged to the waterbody and still meet environmental and human health standards. This and other bacteria can lead to problems for shellfish and recreation in the Bay. Diver deployment of the meters ensures their proper placement for data collection and that anchoring is in place to ensure instrument/data recovery. See the Ecology website below for more details.

When: Dives were conducted in April and October 2005, December 2005, and February 2006.

**How:** Divers were deployed using tethered SCUBA off the Ecology vessel Skookum. Deployment: Diver descended the winch cable to the inlet bottom, then anchor the instrument in with stakes hammered into the bottom; a dgps location is simultaneously noted. Recovery: After locating instruments via sonar and GPS deployment coordinates, one diver deploys with winch hooks to attach to the instrument, removes anchor stakes, then returns to the surface.

**Results:** Current meters were successfully deployed/recovered/checked.

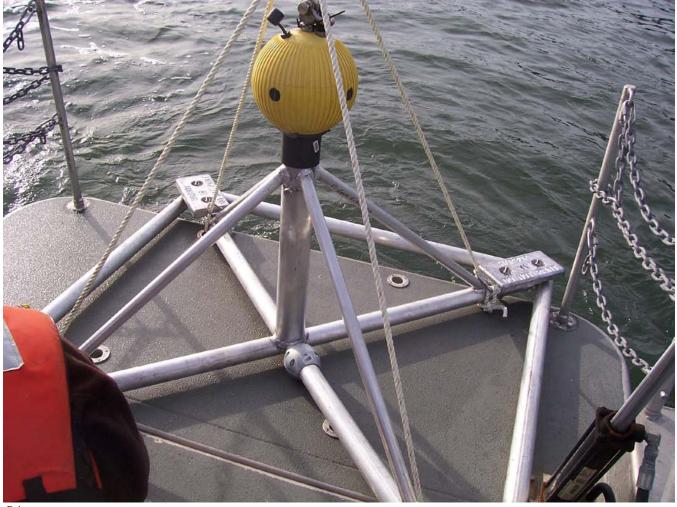
Where: Oakland Bay/Hammersley Inlet, WA.

More Details: <u>Human waste partly to blame for Oakland Bay problem</u>, Seattle Post-Intelligencer, January 9, 2007. **EXIT Disclaimer** 

Washington Department of Ecology TMDL Plan for Oakland Bay and Hammersly Inlet :http://www.ecy.wa.gov/biblio/1110039.html

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## Photos:



S4 current meter



Acoustic Doppler Current Meter (ADCM)

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