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#### **EPA Region 10 Dive Unit**

Support for Northwest Straights Marine Conservation Initiative & Natural Resource Consultants (NRC)
Survey of Derelict Fishing Gear in Puget Sound, 2010-2014

What: Decades of commercial and recreational fishing in Puget Sound have left behind tons of abandoned fishing gear that kills marine life and degrades habitat. The Northwest Straights Commission, Marine Conservation Initiative (Northwest Straights), was authorized by the United States Congress to assess the ecological health of Northwest inland marine waters, and to recommend steps to improve the region's sustainability. Northwest Straights coordinates these efforts, and works to survey and remove derelict fishing gear in Puget Sound.

Northwest Straights previously received \$4.6M in American Recovery and Reinvestment Act Funding from NOAA with the goal of removing 90 percent of the derelict nets in Puget Sound by December 2010. Although this deadline has since passed and AARA funding depleted, the work of surveying and removing derelict gear continues through a variety of other funding sources. The day-to-day logistics and operations of this work is conducted by their contractor, Natural Resource Consultants (NRC), who operate several vessels in Puget Sound.

To leverage grant funding, the **EPA Region 10 Dive Unit** has been assisting the Northwest Straights and NRC in mapping derelict net locations in Puget Sound. Several weeks of dive operations have been devoted to this project from 2010 through 2014. By assisting NRC in survey derelict net locations, they are able to focus more of their efforts on gear removal rather than conducting visual dive surveys.

**Why**: The focus of these dive surveys are location identification of abandoned nets and assessment of impact. Derelict nets are given higher priority as compared to other type of abandoned fish gear such as crab pots because nets kill more marine life and birds, and degrade benthic habitat to a greater degree.

Where: Central/North Puget Sound and the San Juan Islands.

When: 2010-2014.

**How:** The **EPA Region 10 Dive Unit** receives three types of information from NRC related to potential derelict net locations: 1) side-scan sonar imagery and GPS coordinates were bottom topography and bathymetry show a high potential to snag abandoned nets; 2) reports from fishermen and other reputable sources that have direct knowledge of net locations; and, 3) shoreline reaches with high potential for hosting derelict gear. Divers are deployed in pairs at each potential located to perform a visual bottom survey to determine if derelict nets are present.



The results of these visual surveys are summarized, and provided to NRC in tabulated form. Locations with abandoned nets present are targeted for removal.

**Results:** Dive buddy teams descend on each target location and perform a visual search for derelict nets while noting other significant features such as bottom type and topography. Derelict gear was identified at more than half of the survey locations. This gear varies from thin, monofilament drift nets partly buried in the bottom sand, to thick, heavy cotton nets that are piled up on the bottom. Lead lines are often associated with abandoned nets as well, which can leach out causing toxic pollution in Puget Sound. At each dive location, a tabulated descriptive report is provided to NRC including latitude/longitude GPS coordinate, depth, bottom type, and descriptions about what type of gear was observed, if any.

### For more information about the Northwest Straights Commission:

http://www.nwstraits.org/Commission/Regional-Projects/Derelict-Fishing-Gear.aspx

#### For more information about Natural Resource Consultants:

http://www.nrccorp.com/services/derelict.htm

#### For more information about Coastal America Partnership:

http://www.coastalamerica.gov/index.php?option=com\_content&view=frontpage&Itemid=71

#### In the media:

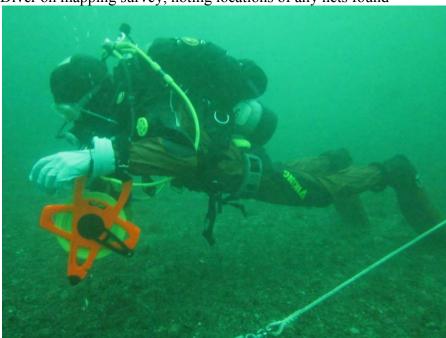
Finding ghost nets saves money - King 5 News - February 8, 2012

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## **Photos:**

Diver on mapping survey, noting locations of any nets found

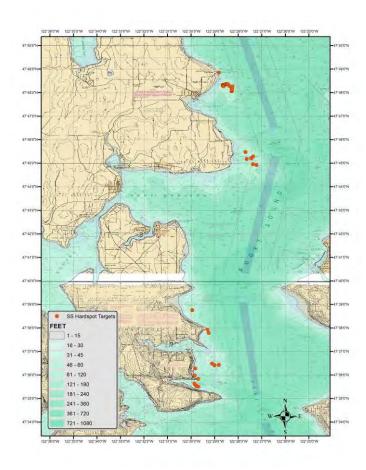


Possible Piece of Bottom Trawl at Location 12336/cf285





# Central Puget Sound survey targets for the June 2010 dive operation.





EPA Divemaster Lisa Macchio accompanying NRC and surface supply diver Rick Myers on a net recovery mission.





Example of monofilament gill net and associated lead-line being recovered by NRC



Diver Adam Baron conducting a transect search





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