

Marine Environmental Update

VOLUME FY04 NUMBER 4
FALL 2004



NBPL WQ-Based NPDES Storm Water Toxicity Specification Study Update

On September 11, 2002, the Regional Water Quality Control Board San Diego Region (SDRWQCB) adopted an NPDES permit covering Naval Base Point Loma (primarily Naval Submarine Base San Diego) that included language that “undiluted storm water runoff associated with industrial activity shall not produce less than 90% survival, 50% of the time, and not less than 70 percent survival 10% of the time, using standard test species and protocols” within two years of the permit’s adoption.



Aerial view of Naval Submarine Base San Diego. (U.S. Navy photograph)

The same conditions were also adopted in the Naval Base San Diego and Naval Base Coronado NPDES permits, thus imposing these conditions on all major Navy facilities on San Diego Bay. Failure to meet these standards would result in the requirement that the Navy capture and treat the first ¼-inch of rainfall at a capital cost estimated at \$100 million. The Navy was able to convince the SDRWQCB to allow the Navy to evaluate its storm water discharges and provide a scientific basis for proposing an alternative toxicity standard that would potentially be less stringent but still protective of the receiving environment. (see *Marine Environmental Update*, [Vol. FY02, No. 4](#)).

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The Space & Naval Warfare Systems Center, San Diego, was funded by Navy Region Southwest to conduct a series of studies to satisfy the permit conditions. The approach was to evaluate toxicity and chemistry of storm water samples collected at the end of pipe during the first hour of flow and compare with samples composited throughout the storm as well as with samples taken immediately outside the discharge pipe in San Diego bay waters. A range of contaminants and toxicity endpoints were measured to characterize potential impacts to the bay. The study also included a toxicity identification evaluation to determine the causative toxic agent(s).

The sampling methodology consisted of a combination of onshore sampling, offshore sampling and laboratory analysis. Onshore measurements were made using an American Sigma™ automated water sampler upgraded with a rain gauge, conductivity and turbidity sensor, and an area-velocity flow meter. Offshore measurements were made using the Navy's [Marine Environmental Survey Capability](#) (MESOC). MESOC surveys were performed before, during and after storm events to map storm water plumes and quantify spatial and temporal impacts to the receiving water body. Discrete water samples were collected at the location where the outfalls discharged into the receiving water before, during, and after the storm event to serve as a comparison with samples collected directly from the outfall pipe.

Results to date have revealed the following:

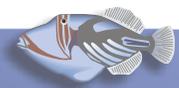
- Storm water plumes from SUBASE San Diego are short lived and were confined to the inner pier area;
- While the proposed 90% toxicity requirement in storm water was usually exceeded, there was no toxicity observed in any receiving water sample;
- Copper and zinc were elevated in the storm water discharge but water quality criteria were never exceeded in the receiving water;
- Copper and zinc were the contaminants causing toxicity in all samples; and
- Measures of receiving water chemistry and toxicity suggest that the bay can assimilate storm water from SUBASE San Diego without impacts to beneficial uses.

Future efforts include a field-deployed toxicity laboratory study at Naval Base San Diego (full-storm characterization of receiving water toxicity at point of discharge using flow-through bioassays) and a toxicity field study at Naval Base Coronado in 2004-2005. The results of these studies will be presented to the SDRWQCB prior to the 2006 permit review date.



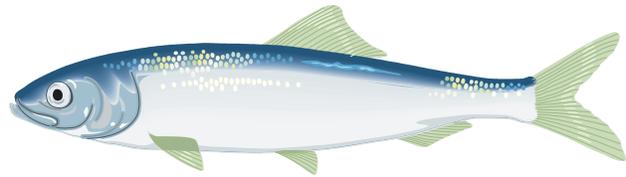
NOAA Initiates Status Review of Pacific Herring in Puget Sound Pursuant to ESA Listing

On January 22, 2004, the National Marine Fisheries Service received a petition to list the Cherry Point (Puget Sound, Washington) stock of Pacific herring (*Clupea pallasii*) as a threatened or endangered species under the Endangered Species Act. The NMFS originally found that the petition failed to present substantial scientific and commercial information indicating that the petitioned action may be warranted.





On May 14, 2004, the same petitioners submitted additional scientific information, including information regarding the stock structure of the Cherry Point and other Pacific Northwest herring stocks. The petitioners' supplemental submission, in conjunction with the original submission, was considered as a distinct petition by the agency, and found that the supplemental May 14, 2004, petition does indeed present substantial scientific and commercial information indicating that the petitioned action may be warranted. Accordingly, The NMFS initiated a status review of the species.



The National Marine Fisheries Service is soliciting information regarding: the population structure and viability of nearshore stocks of Pacific herring in Puget Sound, Washington, and the Strait of Georgia (Washington and British Columbia); efforts being made to protect the species; and potential peer reviewers.

Information and comments on the subject action must be received by October 12, 2004. For further information contact: Garth Griffin, NMFS, Northwest Region, (503) 231-2005, or Marta Nammack, NMFS, Office of Protected Resources, (301) 713-1401.

Federal Register, Volume 69, Number 153, Tuesday, August 10, 2004, pp. 48455-48460.

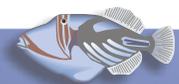


EPA Releases New Requirements for Cooling Water Intake Structures

On July 9, 2004, the Environmental Protection Agency released its final rule for cooling water intake structures at Phase II facilities. This is the first time that the EPA has established a systematic way to address the physical consequences of cooling water intake operation on aquatic organisms. The final rule establishes performance standards that are projected to reduce impingement mortality by 80 to 95 percent and, if applicable, entrainment by 60 to 90 percent. With the implementation of this final rule, the EPA intends to reduce the number of aquatic organisms lost as a result of water withdrawals associated with these structures.

The rule implements Section 316(b) of the Clean Water Act for certain existing power producing facilities that employ a cooling water intake structure and are designed to withdraw 50 million gallons per day (MGD) or more of water from rivers, streams, lakes, reservoirs, estuaries, oceans, or other waters of the United States for cooling purposes. The national requirements will be implemented through National Pollutant Discharge Elimination System permits.

This regulation is effective September 7, 2004. For further information contact: Martha Segall at (202) 566-1041 or Debra Hart at (202) 566-6379.





Federal Register, Volume 69, Number 131, Friday, July 9, 2004, pp. 41575-41693.



FWS Releases Draft Recovery Plan for the Coastal-Puget Sound Bull Trout

On July 1, 2004, the Fish & Wildlife Service announced the availability of its “Draft Recovery Plan for the Coastal-Puget Sound Distinct Population Segment of Bull Trout (*Salvelinus confluentus*)” for public review and comment. Two separate volumes comprise the draft recovery plan for bull trout in this distinct population segment (DPS): the Puget Sound Management Unit is addressed in [Volume I](#), and the Olympic Peninsula Management Unit is the focus of [Volume II](#).

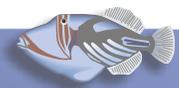
Bull trout are protected as a threatened species under the Endangered Species Act throughout their U.S. range, which includes parts of Oregon, Washington, Idaho, Montana and Nevada. There are five distinct population segments of bull trout in the lower 48 states. In Puget Sound and the Olympic Peninsula, the DPS is unique for several reasons. Besides containing the only anadromous forms of bull trout in the coterminous United States, there is an overlap in distribution with Dolly Varden, another species extremely similar in appearance to the bull trout, but distinct genetically.

The Coastal-Puget Sound DPS of bull trout encompasses all Pacific Coast drainages within the State of Washington, including Puget Sound. The Coastal-Puget Sound DPS is separated from other populations of bull trout by the Columbia River basin to the south and the crest of the Cascade Mountain Range to the east. This population segment is highly significant to the species as a whole, since all types of bull trout can live in the Puget Sound area, including the only known anadromous forms of bull trout in the coterminous United States.

The draft recovery plan contains recommendations for recovering bull trout in the Olympic Peninsula and Puget Sound areas. The overall recovery strategy for the Coastal-Puget Sound bull trout is to integrate with ongoing Tribal, State, local and Federal management efforts already underway at the watershed and regional scales, such as the Shared Strategy for Puget Sound (<http://www.sharedsalmonstrategy.org/>). This coordination will maximize the opportunity for complementary actions, eliminate redundancy, and make the best use of available resources for bull trout and salmon recovery.

Maps, fact sheets, photographs and other materials relating to the announcement may be found on the FWS Pacific Region’s Bull Trout website at <http://species.fws.gov/bulltrout>. Comments on the draft recovery plan must be received on or before October 29, 2004. For further information contact: Jeffrey Chan, Fish and Wildlife Biologist, U.S. Fish & Wildlife Service, Western Washington Fish and Wildlife Office, 510 Desmond Drive SE, Suite 102, Lacey, Washington; telephone: (360) 753-9440. For Volume II, the Olympic Peninsula Management Unit, contact: Shelley Spalding, Fish & Wildlife Biologist, U.S. Fish & Wildlife Service, Western Washington Fish & Wildlife Office, 510 Desmond Drive SE, Suite 102, Lacey, Washington; telephone: (360) 753-9440.

Federal Register, Volume 69, Number 126, Thursday, July 1, 2004, pp. 39950-39951.





EPA Releases Draft National Guidance on BMPs for Preparing Vessels Intended to Create Artificial Reefs

On August 2, 2004, the Environmental Protection Agency announced the availability of a guidance document containing information on national best management practices for preparation of vessels to be sunk with the intention of creating artificial reefs. The guidance satisfies the mandate of Section 3516 of the National Defense Authorization Act for Fiscal Year 2004. The guidance was also developed in response to the Maritime Administration's (MARAD) request for the EPA to assist in identifying potential management options for their decommissioned vessel fleet. The document is available for download at: <http://www.epa.gov/owow/oceans/habitat/artificialreefs/guidance.html>.

Federal Register, Volume 69, Number 147, Monday, August 2, 2004, pp. 46141-46144

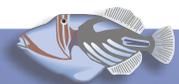


National Estuaries Restoration Inventory Released

The National Estuaries Restoration Inventory (NERI) is now available to track progress made toward the goals of the Estuary Restoration Act of 2000. The National Oceanic & Atmospheric Administration developed NERI as an on-line tool to monitor Estuary Restoration Act projects and other estuary restoration projects implemented around the country. NERI serves as a restoration information clearinghouse, providing details on techniques and monitoring results. Projects can be submitted to the inventory from Federal, State, local, and private sources provided the project goal is to restore ecosystem benefits to estuaries and associated habitats. Project managers can use the inventory to produce on-demand reports, find new partnership opportunities, and locate regional restoration efforts that may assist in future restoration planning and design.

For further information contact Greg Colianni at (202) 566-1249 or Jennifer Linn at (202) 566-1258 or visit the NERI website at <https://neri.noaa.gov/>.

EPA, WaterNews, July 13, 2004.





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