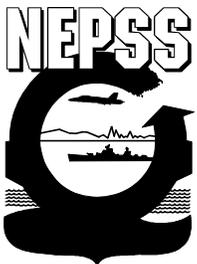




# Marine Environmental Update



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## NMFS Publishes Final Essential Fish Habitat Regulations

On January 17, 2002, the National Marine Fisheries Service published final regulations implementing the essential fish habitat (EFH) provisions of the Magnuson-Stevens Fishery Conservation and Management Act. The regulations provide guidelines for fishery management councils to identify and conserve necessary habitats for fish as part of federal fishery management plans.

The regulations also establish coordination and consultation procedures to be used by NOAA Fisheries and other federal agencies to protect habitats identified as EFH (see "Understanding Essential Fish Habitat" on page 2 for an in-depth look at EFH). The final rule replaces an interim final rule that has been in effect since January 1998. The revised regulations provide clearer standards for the councils to use in identifying EFH, additional guidance to help councils evaluate whether fishing activities may adversely affect EFH, and clearer procedures for federal agency consultations with NOAA Fisheries on actions that may impact EFH.

Congress added the EFH provisions to the Magnuson-Stevens Act in 1996. The eight regional fishery management councils and NOAA Fisheries subsequently identified EFH using the best scientific information available for each of the species managed under 41

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fishery management plans across the nation. The councils and NOAA Fisheries will use the final rule to revise and refine the EFH designations as additional information becomes available regarding the habitat requirements of federally managed fish species. The final rule will also guide the designation of EFH for species managed through any new fishery management plans.

The National Marine Fisheries Service and regional Fishery Management Councils are preparing new environmental impact statements (EISs) for the EFH components of many fishery management plans. In response to a court order, NMFS will prepare EISs to evaluate the designation of EFH, the identification of Habitat Areas of Particular Concern (HAPCs), and the minimization of the adverse effects of fishing on EFH. Each new EIS will evaluate a range of alternatives to designate EFH and HAPCs and to minimize adverse effects on EFH from fishing, using the best available scientific information. Some of these analyses will be combined with evaluations of other issues associated with the particular fisheries.

The court order stemmed from a lawsuit filed by seven environmental groups and two fishing associations. The suit covered fishery management plan amendments developed by the New England, Gulf of Mexico, Caribbean, Pacific, and North Pacific Councils. NMFS and the Mid-Atlantic Council will also be preparing EISs for the EFH provisions of four Mid-Atlantic Council fishery management plans, as the Council develops new amendments to bring those plans into compliance with the Magnuson-Stevens Act.

*Federal Register, Volume 67, Number 12, Thursday, January 17, 2002, pp. 2343-2383 (172 KB [text only](#) or 209 KB [Adobe™ Acrobat™ file](#)).*

*Federal Register, Volume 66, Number 22, Thursday, February 1, 2001, p. 8568 (4.48 KB [text only](#) 39.8 KB [Adobe™ Acrobat™ file](#)).*

*Federal Register, Volume 66, Number 43, Monday, March 5, 2001, p. 13281 (3.02 KB [text only](#) or 30.0 KB [Adobe™ Acrobat™ file](#)).*

*Federal Register, Volume 66, Number 53, Monday, March 19, 2001, pp. 15404-15405 (8.38 KB [text only](#) or 37.5 KB [Adobe™ Acrobat™ file](#)).*

*Federal Register, Volume 66, Number 53, Monday, March 19, 2001, pp. 15405-15406 (8.38 KB [text only](#) or 37.6 KB [Adobe™ Acrobat™ file](#)).*

*Federal Register, Volume 66, Number 175, Monday, September 10, 2001, p. 46979 (4.85 KB [text only](#) or 28.2 KB [Adobe™ Acrobat™ file](#)).*



## Understanding Essential Fish Habitat

### Background

In 1976, the Magnuson Fishery Conservation and Management Act (FCMA) established a management system to more effectively utilize the marine fishery resources of the United States. It established eight





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Regional Fishery Management Councils (see <http://www.nmfs.noaa.gov/councils>), consisting of representatives with expertise in marine or anadromous fisheries from the constituent states. In order to develop fishery management plans (FMPs) for the conservation and management of fishery resources, the Councils use input from the Secretary of Commerce, the public, and panel of experts. After approval by the Secretary, NOAA Fisheries (formerly the National Marine Fisheries Service) implements and enforces the management measures in the FMP. As amended in 1986, the FMCA required the Councils to evaluate the effects of habitat loss or degradation on their fishery stocks and take actions to mitigate such damage. In 1996, this responsibility was expanded to ensure additional habitat protection.

On October 11, 1996, the Sustainable Fisheries Act (Public Law 104-297) became law that, among other things, amended the habitat provisions of the FMCA. The re-named Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) calls for direct action to stop or reverse the continued loss of fish habitats. Toward this end, Congress mandated the identification of habitats essential to managed species and measures to conserve and enhance this habitat. The Magnuson-Stevens Act requires cooperation among NOAA Fisheries, the Councils, fishing participants, Federal and state agencies, and others in achieving the essential fish habitat (EFH) goals of habitat protection, conservation, and enhancement.

## Definition

Essential fish habitat means those waters and substrate necessary for spawning, breeding, feeding, or growth to maturity. For the purpose of interpreting the definition of essential fish habitat: “waters” includes aquatic areas and their associated physical, chemical, and biological properties that are used by fish, and may include areas historically used by fish where appropriate; “substrate” includes sediment, hard bottom, structures underlying the waters, and associated biological communities; “necessary” means the habitat required to support a sustainable fishery and a healthy ecosystem; and “spawning, breeding, feeding, or growth to maturity” covers a species’ full life cycle.



As defined in Section 3(10) of the Magnuson-Stevens Act, EFH is those waters and substrate “necessary to fish for spawning, breeding, feeding, or growth to maturity.” EFH designations occur only in aquatic areas necessary to support federally managed marine and anadromous fish. Unlike Critical Habitat designations under the Endangered Species Act, upland areas cannot be designated as EFH. Examples of “waters” that may be considered EFH include open waters and wetlands, estuarine and riverine habitats, wetlands hydrologically connected to productive water bodies. Water quality is interpreted to be a component of this definition. EFH should consider water to provide the appropriate parameters of quality





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such as physical, chemical, and biological properties. This may address nutrient levels, oxygen concentrations, and turbidity levels, among others.

The interpretation of “substrate” includes artificial reefs and shipwrecks if those areas provide EFH. Substrate may also include entirely or partially submerged structures, such as jetties. “Biological communities” could include mangroves, tidal marshes, mussel beds, cobble with attached fauna, mud and clay burrows, coral reefs, and submerged aquatic vegetation. Migratory routes such as rivers and passes serving as passageways to and from anadromous fish spawning grounds should be considered EFH. The definition of EFH may include habitat for an individual species or an assemblage of species, whichever is appropriate within each FMP.



Essential Fish Habitat designations and descriptions by Fishery Management Council jurisdiction may be found at [http://www.nmfs.noaa.gov/habitat/habitatprotection/efh\\_designations.htm](http://www.nmfs.noaa.gov/habitat/habitatprotection/efh_designations.htm).

### **Consultation Requirements**

The consultation requirements of Section 305(b) of the Magnuson-Stevens Act (16 U.S.C. 1855(b)) provide that:

- Federal agencies must consult with the Secretary on all actions, or proposed actions, authorized, funded, or undertaken by the agency, that may adversely affect EFH;
- The Secretary shall provide recommendations (which may include measures to avoid, minimize, mitigate, or otherwise offset adverse effects on EFH) to conserve EFH to Federal or state agencies for activities that would adversely affect EHF; and
- The Federal action agency must provide a detailed response in writing to NOAA Fisheries and the appropriate Council within 30 days after receiving an EFH conservation recommendation (or at least 10 days prior to final approval of the action, if a decision by the Federal agency is required in less than 30 days).

Regulations for implementing the EFH coordination and consultation provisions of the Magnuson-Stevens Act are at 50 CFR 600.905-930. These regulations provide definitions, procedures for using existing consultation processes, procedures for conducting individual EFH consultation when an existing process is not available, and alternatives to individual EFH consultation.

The EFH consultation requirement is triggered by a Federal action agency’s determination that an action or proposed action, funded, authorized or undertaken by that agency may adversely affect EFH. If a





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Federal action agency determines that an action will not adversely affect EFH, no consultation is required. The Federal action agency is not required to contact the NMFS about their determination. A “no effect on EFH” letter **is not required** (nor even addressed by either the statute or the EFH regulations). If an agency does send a “no effect on EFH” letter, NOAA Fisheries may elect to respond in writing at its discretion, however, a letter of concurrence from NOAA Fisheries is not required.

If a federal agency notifies NOAA Fisheries of an action that may adversely affect EFH, and provides NOAA Fisheries with an EFH Assessment of the action, NOAA Fisheries will provide the federal agency with EFH Conservation Recommendations to avoid, minimize, mitigate, or otherwise offset adverse effects on EFH. Federal agencies must then provide a detailed response in writing to NOAA Fisheries that includes proposed measures for avoiding, mitigating, or offsetting the impact of the proposed activity on EFH. If the federal agency chooses not to adopt NOAA Fisheries’ EFH Conservation Recommendations, it must provide an explanation.

EFH consultation and coordination should be consolidated, where appropriate, with interagency consultation, coordination, and environmental review procedures required by other statutes (such as the National Environmental Policy Act, the Fish and Wildlife Coordination Act, the Clean Water Act, and the Federal Power Act). Activities that may warrant EFH consultation include, but are not limited to, offshore oil-drilling, dredging and disposing of dredge spoil, and the construction of bridges, docks, and bulkheads.

NOAA Fisheries has defined five approaches to meet the EFH consultation requirements: use of existing procedures, general concurrences, programmatic consultations, abbreviated consultation, and expanded consultations.

### ***Use of Existing Procedures***

Consultation and coordination under the Magnuson-Stevens Act should be consolidated with interagency coordination procedures required by other statutes, such as the National Environmental Policy Act, Fish and Wildlife Coordination Act, Endangered Species Act, and Federal Power Act, to reduce duplication and improve efficiency. The use of existing environmental coordination and/or review procedures to meet the EFH consultation requirements is the preferred approach for EFH consultations (NMFS, January 2001). For NOAA Fisheries and a Federal action agency to use an existing process for EFH consultation, NOAA Fisheries must make a finding that the existing process fulfills the requirements of the Magnuson-Stevens Act and EFH regulations.

### ***General Concurrence***

A general concurrence identifies specific types of Federal actions that may adversely affect EFH, but for which no further consultation will generally be required.

In order to issue a general concurrence, NOAA Fisheries must determine, after coordinating with the appropriate Fishery Management Council(s) and reviewing public comment, that the actions are:

1. Similar in nature and similar in their impact on EFH;





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2. Do not cause greater than minimal adverse effects on EFH when implemented individually; and
3. Do not cause greater than minimal cumulative adverse effects on EFH.

General concurrences may be national or regional in scope.

A Federal agency may request a General Concurrence for a category of its actions by providing NOAA Fisheries with a written description of the nature and approximate number (annually or by some other appropriate time frame) of the proposed actions, an analysis of the effects of the actions on EFH and associated species and their life history stages, including cumulative effects, and the Federal agency's conclusions regarding the magnitude of such effects. NOAA Fisheries may also initiate development of a General Concurrence. If NMFS, after coordinating with the appropriate Fishery Management Council(s), determines that a General Concurrence is appropriate, it will provide the Federal agency with a written statement that further consultation is not required for activities specified in the General Concurrence.

### ***Programmatic Consultations***

A programmatic consultation allows NOAA Fisheries and a Federal action agency to consult on, and NOAA Fisheries to provide EFH conservation recommendations for, a potentially large number of individual actions that may adversely affect EFH. Programmatic consultation will generally be the most appropriate option to address funding programs, large-scale planning efforts, and other instances when a Federal agency or NOAA Fisheries want to evaluate the effects on EFH of an entire program or parts of a program. Programmatic consultation should be used to develop programmatic EFH conservation recommendations. A programmatic consultation may also be used as a screening process to determine which program actions qualify for a General Concurrence, which actions do not require any EFH consultation, which actions can be addressed with programmatic EFH conservation recommendations and, for those actions that do require individual EFH consultation, what process should be used to most efficiently accomplish EFH consultation.

A Federal agency may request programmatic consultation by providing NOAA Fisheries with a written description of the program, including the nature and approximate number (annually or by some other appropriate time frame) of the actions, an analysis of the effects of the actions on EFH and associated species and their life history stages, including cumulative effects, and the Federal agency's conclusions regarding the magnitude of such effects. NOAA Fisheries may also initiate a programmatic consultation by requesting such information from the agency. It is important that NOAA Fisheries work with the Federal action agency in determining the extent of the activities covered by a programmatic consultation. In many cases it may be beneficial for NOAA Fisheries to involve the Federal agency in developing the programmatic EFH conservation recommendations.

Because effects on EFH will often depend on exact location or design information, programmatic consultation may not obviate the need for individual consultation on actions in the program. However, programmatic EFH conservation recommendations can give an agency early and consistent guidance on NOAA Fisheries' concerns and proposed solutions. The appropriate level for programmatic consultation will depend on the level at which the program is developed, which may be at either headquarters or the regions.





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### **Abbreviated Consultation**

Abbreviated consultation is only completed if no General Concurrence, programmatic consultation, or existing environmental review process is available or appropriate for the federal action. Abbreviated consultation is performed for those projects that may have an adverse effect on EFH, but that effect will not be substantial.

### **Expanded Consultation**

Expanded consultation should be completed when no General Concurrence, programmatic consultation, or existing environmental review process is available or appropriate for the federal action, and that action may result in substantial adverse effects on EFH. Procedures for expanded consultation allow for more detailed analysis of effects and more time for NOAA Fisheries to coordinate with the action agency and develop EFH Conservation Recommendations.

### **Habitat Areas of Particular Concern**

Habitat Areas of Particular Concern (HAPCs) are discrete areas within essential fish habitat that either play especially important ecological roles in the life cycles of federally managed fish species or are especially vulnerable to degradation from fishing or other human activities. The designation of HAPCs acknowledges cases where detailed information exists on ecological function and/or habitat vulnerability to highlight certain habitats as priority areas for conservation and management. The EFH regulations encourage the fishery management councils to identify HAPCs based on one or more of the following considerations:

1. Importance of ecological function provided by the habitat;
2. Extent to which the habitat is sensitive to human-induced environmental degradation;
3. Whether and to what extent development activities are, or will be, stressing the habitat type; and
4. Rarity of the habitat.

The fishery management councils approached HAPC designation in different ways; some designating discrete geographic areas as HAPCs, while others designated all areas of a specific habitat type (NMFS, May 2001).

The breadth of the mosaic of EFH designations for all federally managed species has been questioned, and it has been suggested that the focus should solely be on HAPCs (*i.e.*, that HAPCs are the areas that should be truly considered EFH). NOAA Fisheries holds that, while HAPCs are identifiable, uniquely important areas necessary to support healthy stocks of fish throughout all of their life stages, healthy populations of fish require not only the relatively small habitats identified as HAPCs, but also other suitable areas that provide habitat functions that are necessary to support large numbers of fish, promoting sustainable fisheries and a healthy ecosystem. Currently, HAPCs comprise only a fraction of 1 percent of the areas identified as EFH.





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## References

*National Marine Fisheries Service, Guidance for Integrating Magnuson-Stevens Fishery Conservation and Management Act EFH Consultations with Endangered Species Act Section 7 Consultations, January 2001 (25.8 KB [Adobe™ Acrobat™ file](#)).*

*National Marine Fisheries Service, Regional Council Approaches to the Identification and Protection of Habitat Areas of Particular Concern, May 2001 (44.4 KB [Adobe™ Acrobat™ file](#)).*

*NOAA Fisheries, Office of Habitat Conservation Fact Sheet, Essential Fish Habitat – EFH Consultations, January 2002.*

*NOAA Fisheries, Office of Habitat Conservation Fact Sheet, Essential Fish Habitat – EFH Designations, January 2002.*

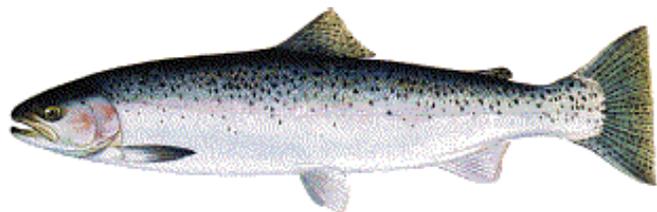
*NOAA Fisheries, Office of Habitat Conservation Fact Sheet, Essential Fish Habitat – FAQs, January 2002.*

*NOAA Fisheries, Office of Habitat Conservation Fact Sheet, Essential Fish Habitat – Habitat Areas of Particular Concern, January 2002.*



## NMFS Issues Final Rule Governing Take of Four Threatened West Coast Salmonid ESUs

On January 9, 2002, the National Marine Fisheries Services issued its final rule on the take of four threatened evolutionary significant units (ESUs) of west coast salmonids (see also *Marine Environmental Update*, [Vol. FY01, No. 4](#)). The final rule applies the take prohibitions enumerated in Section 9(a)(1) of the ESA in most circumstances to three salmonid ESUs in California: California Central Valley Chinook,



*The steelhead, *Oncorhynchus mykiss*.*

California Coastal Chinook, and Northern California steelhead. For these three ESUs, NMFS did not find it necessary and advisable to apply the take prohibitions described in the ESA to certain specified categories of activities that contribute to conserving these ESUs or are governed by a program that adequately limits impacts on these ESUs. Therefore, the final rule also includes 10 such limits on the application of the Section 9(a)(1) take prohibitions for these three ESUs.

The final rule also modifies an existing ESA Section 4(d) rule, which applies the take prohibitions to the threatened Central California Coast Coho ESU, by incorporating the same 10 limits on the application of the take prohibitions as described for the chinook and steelhead ESUs. Ten categories of activities or programs for which it is not necessary and advisable to impose take prohibitions when they contribute to





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the conservation of these four ESUs, or are governed by a program that adequately limits impacts on these ESUs are:

1. Activities conducted in accordance with an existing ESA incidental take authorization;
2. Ongoing scientific research activities, for a period of 6 months;
3. Emergency actions related to injured, stranded, or dead salmonids;
4. Fishery management activities;
5. Hatchery and genetic management programs;
6. Scientific research activities permitted or conducted by the State of California;
7. State, local, and private habitat restoration activities that are part of approved watershed conservation plans;
8. Properly screened water diversion devices (*i.e.*, screening devices pursuant to NMFS' guidelines or equivalent configurations);
9. Routine road maintenance activities; and
10. Municipal, residential, commercial, and industrial (MRCI) development activities.

The rule is effective March 11, 2002. For further information contact Craig Wingert at (562) 980-4021, Miles Croom at (707) 575-6068, Diane Windham at (916) 930-3601, or Chris Mobley at (301) 713-1401.

*Federal Register*, Volume 67, Number 6, Wednesday, January 9, 2002, pp. 1116-1133 (128 KB [text only](#) or 112 KB [Adobe™ Acrobat™ file](#)).



## EPA, FWS, NMFS Sign MOA for Enhanced CWA/ESA Coordination in Pacific NW Region

On October 24, 2001, the Environmental Protection Agency, Fish & Wildlife Service and National Marine Fisheries Service signed a Memorandum of Agreement that defines how the agencies will coordinate efforts to implement Clean Water Act requirements with consideration to endangered species issues. This agreement is intended to clarify and supplement the January 2001 *National Memorandum of Agreement Between the Environmental Protection Agency (EPA), Fish and Wildlife Service (FWS) and National Marine Fisheries Service (NMFS) Regarding Enhanced Coordination under the Clean Water Act and Endangered Species Act* (see *Marine Environmental Update*, [Vol. FY01, No.2](#)). Section V.A.4 of the National MOA encourages development of sub-agreements to step down national direction and carry out regional implementation.

The regional agreement builds on and augments the national MOA by: (1) defining interagency regional teams with specific roles and responsibilities; (2) initiating the development of regional guidance to improve the ESA Section 7(a)(2) consultation process for EPA actions; (3) providing strategic direction for consultations and coordination in the areas of water quality standards and NPDES permits; (4) adding provisions to address enhanced coordination regarding Total Daily Maximum Loads (TMDLs) under





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Section 303(d) of the CWA; (5) adding provisions to address enhanced coordination regarding the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and the Resource Conservation and Recovery Act (RCRA) and the ESA; and (6) establishing a budget initiative to fund this work and the establishment of annual implementation plans. This agreement applies to coordination between the EPA, FWS, and NMFS in the states of Oregon, Washington, and Idaho.

The two laws are being integrated in order to: (1) maximize aquatic habitat conservation and watershed recovery by combining the authorities of both acts; (2) create “one-stop shopping” to the greatest extent possible for land owners and the regulated community to meet CWA and ESA requirements; and (3) make the most efficient use of agency resources through effective partnerships. There are five types of teams that will implement interagency coordination in the Northwest.

The roles and responsibilities of each team are described, and are consistent with the Team concept in the National MOA. This agreement outlines five distinct teams: (1) Project Teams (program and technical staff); (2) State-Based Management Teams (Field Supervisor/EPA State Operations Office Directors); (3) Regional Coordinating Team (senior policy staff); (4) Senior Management Team (Assistant Regional Executives/EPA Office Directors); and (5) Regional Executive Team. The Regional Coordinating team will track membership for each of the teams annually and revise appropriately.

*Pacific Northwest Regional Agreement Between the Environmental Protection Agency, National Marine Fisheries Service, and Fish and Wildlife Service Regarding Enhanced Coordination under Environmental Protection Statutes Administered by the EPA and the Endangered Species Act, Final Draft, October 24, 2001 (88.2 KB [Adobe™ Acrobat™ file](#)).*



## NMFS to Study Northern Right Whale Critical Habitat in the North Pacific

On June 3, 1994, the National Marine Fisheries Service designated critical habitat for northern right whales (59 FR 28793; codified at 50 CFR 226.203). NMFS designated three areas in the North Atlantic Ocean off the eastern United States: two feeding and nursery areas in waters off the northeastern United States, and a winter calving and nursery area in waters off the southeastern United States. Insufficient information was available at the time of the 1994 designation to consider critical habitat designation for any other stock of northern right whale, including that in the North Pacific. The western North Atlantic population was considered the population that stood to benefit most from recovery



*The right whale, Eubalaena glacialis.*





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actions. On October 13, 2000, NMFS received a petition requesting that it revise the present critical habitat designation for the northern right whale under the Endangered Species Act (ESA) by designating a new area within the eastern Bering Sea as critical habitat for right whales in the North Pacific.

The petition for revision largely based its recommendations for critical habitat revision on the following points: (1) the Right Whale Recovery Plan calls for the protection of habitat essential to the survival and recovery of this stock; (2) revision would benefit the stock, as it would provide an added layer of protection against harm; and (3) the revision is prudent and determinable as defined under 50 CFR 424.12. Further, in the Executive Summary, the petitioners stated that “the [right whale] recovery team recommended that once areas essential to the conservation of Pacific right whales were identified, those areas should be designated as critical habitat and protected to the full extent of the law.”

The National Marine Fisheries Service disagreed that the revision is determinable at this time. NMFS has determined that the petition is not warranted at this time, and although NMFS recognizes that the revision of critical habitat may be prudent, it finds that the extent of critical habitat cannot be determined at this time because the essential biological requirements of the population in the North Pacific Ocean are not sufficiently understood.

The National Marine Fisheries Service will continue with planned research activities during 2002 and evaluate any new information to better define the boundaries of an area that may be considered critical. In addition, NMFS will, through the ESA Section 7 consultation process, continue to evaluate whether the area may require special management considerations. To further define an area that might be essential to this population, NMFS intends to:

- Conduct an extensive vessel-based survey in the eastern Bering Sea during July-August 2002 using experienced observers trained in the use of “Big Eye” (5X) binoculars. Additionally, passive acoustic techniques (moored-buoys) will be used to detect whales. If right whales continue to be sighted in the relatively limited area identified by prior sightings then the boundaries of what might be considered essential will be revisited. It is probable that the summer foraging season will be the only season for which NMFS can obtain further information on this population during the next 12 month period.
- If feasible, attempt to satellite-tag North Pacific right whales to determine movement patterns and distribution, at least during late summer and fall. NMFS anticipates that the whales are not going to remain in one spot as the foraging season ends and fall-winter movements occur. However, whether the population remains in the petitioned area or moves south off the shelf is not known.
- Re-examine all genetic information to determine whether the eastern Bering Sea stock and Sea of Okhotsk stock of North Pacific right whales can be differentiated genetically. However, it should be re-emphasized that these stocks are currently considered one species under the ESA and treated as such. There are so few samples available for such an analysis that it is doubtful that NMFS will be able to determine any further similarities or dissimilarities between the two stocks even if they exist.





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- Conduct an economic analysis (as required by the ESA) on any critical habitat area that may be proposed by NMFS.
- Continue to examine historical and newly acquired data to determine whether any area, not just the petitioned area, should be proposed as critical habitat for North Pacific right whales.

For further information, contact: Bradley Smith, Alaska Regional Office, NMFS, Anchorage, AK, (907) 271-5006; Michael Payne, Alaska Regional Office, NMFS, Juneau, AK, (907) 586-7236; or Caroline Good, Marine Mammal Division, Office of Protected Resources, NMFS, Silver Spring, MD, (301) 713-2322.

*Federal Register, Volume 67, Number 34, Wednesday, February 20, 2002, pp. 7660- 7665 (40.7 KB [text only](#) or 55.4 KB [Adobe™ Acrobat™ file](#)).*



## Navy Abalone Restoration Project Underway

**[EDITOR'S NOTE: A more detailed description of this project was presented at PACON 2001 and is [available from MESO \(255 KB Adobe™ Acrobat™ file\)](#)]**

In another example of the Navy's commitment to environmental stewardship, abalone, now depleted in the low tidal and subtidal areas off Point Loma, California, may be restored through an effort by the Marine Environmental Quality Branch and the Marine Environmental Support Office at the Space & Naval Warfare Systems Center, San Diego (SSC SD). The Marine Environmental Quality Branch is growing green and pink abalone with plans to plant breeding stock in their native environment. Recent surveys by the State of California indicate that abalone populations in all California coastal areas are very low. Planting larger, spawnable abalone could stabilize declining populations.

The concept of this abalone restoration project began almost 10 years ago at the Marine Environmental Quality Branch's Bioassay facility. The snail-like abalone are used to conduct an assortment of bioassays for toxicity testing. Project director, Dr. David Lapota, said, "After our toxicity tests we questioned what to do with the animals. We began spawning and growing the abalone seed and now have 1,800 green and pink abalone that are three to four inches in size."

The Marine Environmental Quality Branch's Bioassay facility has indoor and outdoor tanks with a small cooling system, a filtered seawater line, and basic laboratory instrumentation. There



*Dr. Dave Lapota displays green abalone (Haliotis fulgens) slated to be planted into waters off San Diego. Most of the abalone are approximately three-to-four inches in size and are reproductively mature.*





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are special tanks with abalone larval rearing systems. The larger abalone cluster together within their abalone condominiums (office letter holders) instead of their natural habitat's rocky crevices. They eat the brown kelp collected on the beach in front of the facility.

All abalone species are edible, but the reds, pinks, and greens are the commercial varieties. Abalone are now becoming difficult to find and it is illegal to take them commercially or for sport from San Diego to San Francisco. White abalone just recently became listed on the endangered species list (see *Marine Environmental Update*, [Vol. FY01, No. 3](#)).

The green, pink, red, and black species have been so depleted that these fisheries are almost non-existent in California. Black abalone are particularly rare in the intertidal and low intertidal zone because of intense fishing pressure. Statewide, the decline in landings have been attributed to intense harvesting by commercial and sport divers, environmental degradation of habitat, predation by sea otters, and in some cases, competition for space and food with sea urchins.

Project director Dr. Lapota stated, "We now have a lot of animals to put back into the coastal waters. In the past, outplanting met with utter failure because the smaller animals have thin shells and fall prey to crabs, lobster, octopus, and fish. The babies are not good at getting out of areas exposed to siltation caused by coastal rain run-off. It was our idea to grow the abalone three to four inches so they are reproductively mature and they can fend for themselves."

The U.S. Department of the Interior, the City of San Diego, Scripps Institution of Oceanography (SIO), and SSC San Diego personnel will conduct preliminary surveys to determine existing populations prior to any planting. The California Department of Fish & Game must complete their final inspection for the non-native sabellid worm before planting certification. This species infected a significant portion of abalones cultured in the state's commercial hatcheries several years ago. It is an almost-eradicated parasite that inhabits the



*Close-up view of green abalone within one of the plastic condominiums. The smaller hand-held abalone are red abalone seed (*Haliotis rufescens*). The darker pigmentation observed toward the end of the shell is growth these seed have experienced in just one month of culture at SSC SD.*



*Mature four-inch red abalone being examined for reproductive ability prior to initiating breeding (spawning) in the laboratory. Male and female abalone can be readily distinguished by lifting the foot.*





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live abalone's shell. It stunts the abalone's growth and deforms the shell as the animal attempts to wall off the worm.

An overwhelming number of divers from the City of San Diego, SIO, and SSC San Diego have volunteered to dive off Point Loma carrying the small condominiums full of abalone. They will attach the letter holders to the rocks where the abalone can crawl out. Monthly surveys by SSC SD and SIO will check for empty shells indicating mortality and see that the abalone are taking hold. Every six months SSC SD, SIO, City of San Diego, and U.S. Department of the Interior personnel will measure and check the growth of the animals, settlement of new larvae, and survival of brood stock for long-term recruitment.

California State Senator, Dede Alpert; California Coastal Commissioner, Patricia McCoy; Commander, Navy Region Southwest; and former Commander, Submarine Base San Diego, have visited the facility and given their support. Navy Region Southwest has supported this project from its inception; and a grant from Natural Resources, Engineering Field Division Southwest, has enabled an enlargement of the tank system and continuation of the project. Present and past project members include personnel from SSC SD; the City of San Diego Metropolitan Wastewater Department; the National Park Service; the California Department of Fish & Game; and the Scripps Institution of Oceanography.

This project is being performed under sponsorship of Engineering Field Division Southwest (M. Perdue), Navy Region Southwest (R. Friedman, M. Fayan), and the State of California Coastal Resources Grant Program. This project is complimentary to other environmental restoration projects undertaken by the U.S. Navy and furthers the commitment that the Navy is pursuing as a good steward of the operating environment.

For further information, contact Dr. Lapota at [abalone@spawar.navy.mil](mailto:abalone@spawar.navy.mil).

*SSC SD Outlook, Volume 25, Number 1, 4 January 2002.*



## EPA Releases New Ecoregional Nutrient Criteria Documents

On February 28, 2002, the Environmental Protection Agency announced the publication and availability of nine additional CWA Section 304(a) nutrient criteria documents for lakes and reservoirs, and rivers and streams within specific geographic regions (ecoregions) of the United States. These nine documents supplement the seventeen ecoregional nutrient criteria documents for lakes and reservoirs, rivers and streams and wetlands announced by the EPA on January 9, 2001 (see *Marine Environmental Update*, [Vol. FY01, No. 2](#)).

While the nine new documents contain the EPA's scientific recommendations regarding ecoregional nutrient criteria, the information and recommendations are not regulations and do not impose legally binding requirements on the EPA, States, authorized Tribes, or the public. States and authorized Tribes





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retain the discretion to adopt water quality criteria that differ from these recommendations based on other scientifically defensible approaches to developing regional or local nutrient criteria.

The new ecoregional nutrient criteria documents for lakes and reservoirs are:

- Ecoregion III - Xeric West (EPA 822-B-01-008)
- Ecoregion IV - Great Plains Grass and Shrublands (EPA 822-B-01-009)
- Ecoregion V - South Central Cultivated Great Plains (EPA 822-B-01-010)
- Ecoregion XIV - Eastern Coastal Plain (EPA 822-B-01-011)

The new ecoregional nutrient criteria documents for rivers and streams are:

- Ecoregion I - Willamette and Central Valleys (EPA 822-B-01-012)
- Ecoregion IV - Great Plains Grass and Shrublands (EPA 822-B-01-013)
- Ecoregion V - South Central Cultivated Great Plains (EPA 822-B-01-014)
- Ecoregion VIII - Nutrient-Poor, Largely Glaciated Upper Midwest and Northeast (EPA 822-B-01-015)
- Ecoregion X - Texas-Louisiana Coastal and Mississippi Alluvial Plains (EPA 822-B-01-016)

For further information, see <http://www.epa.gov/waterscience/standards/nutrient.html> or contact: Robert Cantilli, U.S. EPA, Health and Ecological Criteria Division (4304), Office of Science and Technology, Ariel Rios Building, 1200 Pennsylvania Ave., NW, Washington, DC 20460; telephone (202) 566-1091; e-mail: [cantilli.robert@epa.gov](mailto:cantilli.robert@epa.gov).

*Federal Register, Volume 67, Number 40, Thursday, February 28, 2002, pp. 9269-9270 (8.83 KB [text only](#) or 37.6 KB [Adobe™ Acrobat™ file](#)).*



## Army Corps of Engineers Re-Issues Nationwide Permits

On January 15, 2002, the U.S. Army Corps of Engineers (ACOE) re-issued its package of 43 nationwide permits (NWP) regulating development activities affecting wetlands and other U.S. waters. The Clean Water Act requires the ACOE to reissue the nationwide permits every five years. In most cases, permits issued by the ACOE require mitigation to offset the impacts authorized. Mitigation offsets the impacts authorized by the ACOE permits by restoring former aquatic areas, enhancing existing aquatic areas, establishing new aquatic areas where none existed before, or preserving high value aquatic areas.

A National Research Council/National Academy of Sciences (NRC/NAS) report released in June, 2001, faulted the ACOE's mitigation in several ways, including failure of mitigation projects, lack of planned mitigation projects being built, the ACOE not taking a watershed approach to mitigation, and too much reliance on onsite mitigation, which often fails because of altered hydrology on the site where draining and filling aquatic areas occurs. To address the concerns outlined in the report, the ACOE issued





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Regulatory Guidance Letter 01-1 on October 31, 2001 in order to improve mitigation conditions required on ACOE permits and to provide a sound basis for improved compliance enforcement of permit conditions.

The new package retains the half-acre limits contained in the activity-based permits issued in 2000 to replace NWP 26 (see *Marine Environmental Bulletin*, [Vol. FY00, No. 2](#)), but makes other “minor” changes. The new permits are designed to take a “watershed approach” to wetlands protection. To facilitate this, when the corps district office are considering permit applications for particular projects, they may decide that it does not make sense to require one acre of mitigation for every acre of wetland loss.

Among the proposed changes would have been a waiver from the 300-linear-foot limit on stream beds that was established in NWP 39, which authorizes residential, commercial, and institutional developments; NWP 42 for recreation activities; and NWP 43 for storm water management. The proposal would have lifted the prohibition of impacts exceeding the current permitted threshold of 300 linear feet of stream bed. The final reissued nationwide permits instead only allow the waiver for intermittent streams, which are dry part of the year.

The re-issued permits will take effect on March 18, 2002 and will expire on March 18, 2007. More information may be found at <http://www.usace.army.mil/inet/functions/cw/cecwo/reg>. ACOE Regulatory Guidance Letter 01-1 is [available from MESO](#) (1.37 MB Adobe™ Acrobat™ file).

*Federal Register*, Volume 67, Number 10, Thursday, January 15, 2002, pp. 2019-2094 (558 KB [text only](#) or 415 KB [Adobe™ Acrobat™ file](#)).



## EPA Releases Draft National Sediment Quality Survey: Second Edition

On January 8, 2002, The Environmental Protection Agency released for review a draft version of *The Incidence and Severity of Sediment Contamination in Surface Waters of the United States, National Sediment Quality Survey: Second Edition* (EPA 823-R-01-01). This report to Congress identifies areas in the United States where data suggests that the sediment is contaminated at potentially harmful levels. The report also assesses changes in sediment contamination over time for areas in the United States where sufficient data exists.

For further information see <http://www.epa.gov/waterscience/cs/draft/survey.html>, or contact: Scott Ireland, Standards and Health Protection Division, Office of Science and Technology, Mail Code 4305, U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, N.W., Washington, D.C. 20460; email: [Ireland.Scott@epa.gov](mailto:Ireland.Scott@epa.gov).





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## EPA Releases Sediment Collection, Storage, & Manipulation Technical Manual

On January 30, 2002, the Environmental Protection Agency released *Methods for Collection, Storage and Manipulation of Sediments for Chemical and Toxicological Analyses: Technical Manual* (EPA-823-B-01-002). The document addresses several needs identified in EPA's 1998 Contaminated Sediment Strategy including:

- An organized discussion of activities involved in sediment sampling and sample processing;
- Important issues that need to be considered within each activity;
- Recommendations on how to best address issues such as sampling design, proper sampling procedures; and
- Sample manipulations.

Information is provided concerning appropriate sampling design, field and laboratory facilities needed, safety, sampling equipment, sample storage and transport procedures, and sample manipulation issues common to chemical or toxicological analyses. Information in this manual reflects the knowledge and experience of organizations that have developed internationally recognized procedures and protocols including:

- American Society for Testing and Materials,
- Puget Sound Estuary Program,
- Washington State Department of Ecology,
- US Environmental Protection Agency,
- US Army Corps of Engineers,
- US National Oceanic and Atmospheric Administration, and
- Environment Canada.

This manual presents a set of recommendations on field sampling techniques and sediment/interstitial water sample processing using extensive information in the current peer-reviewed literature. It is available at <http://www.epa.gov/OST/cs>.

*U.S. EPA Office of Water, Methods For The Collection, Storage, And Manipulation Of Sediments For Toxicological Analyses: Technical Manual, EPA 823-F-01-023, October 2001.*

*Federal Register, Volume 67, Number 20, Wednesday, January 30, 2002, p. 4429 (5.13 KB [text only](#) or 34.3 KB [Adobe™ Acrobat™ file](#)).*



## GAO Releases Analysis of Variability of State Approaches to Identify Most Polluted Waters

In January, 2002, the Government Accounting Office released a report that analyzed written methodologies that all 50 states and the District of Columbia submitted to the EPA with their lists of impaired waters (*i.e.*, CWA Section 303(d) list). The GAO also completed a telephone survey of water quality officials from 15 randomly selected states to obtain more detailed information about states' processes for identifying impaired waters, identify the methods they use to ensure the quality of data collected, and determine how accurately they believe their state's water quality is reflected in information that EPA provides to the public on the Internet. The GAO also analyzed the EPA database containing states' data on impaired waters and TMDLs.

The approaches used to identify impaired waters vary considerably among states. Variation among the states stems from a combination of factors, including differences in the (1) water quality standards (including designated or beneficial uses and criteria) for determining which waters are impaired; (2) types of monitoring practices used to ascertain whether these standards are exceeded; (3) procedures used to assess water quality data to make listing decisions; and (4) guidance EPA regions give on grounds for removing waters from state lists of impaired waters. This variation leads not only to inconsistencies in the listing of impaired waters but also to difficulties in identifying the total number of impaired waters nationwide and the total number of TMDLs that states say will be needed to bring such waters up to standards.

Of particular note, there have been numerous cases in which neighboring states share a common body of water that is listed as impaired by one state but not by the other. Under the Clean Water Act and its regulations, the EPA has provided some flexibility to states to develop listing approaches that are appropriate to their ecological and other conditions. However, some of the variations in approaches have no appropriate scientific basis. The EPA has published one set of guidance that it believes will address some of these inconsistencies. It is also planning to issue a second set of guidance to improve consistency among state approaches and in state methodologies.

States apply a range of quality assurance procedures to ensure that data used to make impairment decisions are of sufficient quality. In general, the procedures vary in their rigor. While states have long used quality assurance procedures for the data they collect directly, they have become increasingly vigilant about applying such procedures to the data they use from other sources. Owing, in part, to the inconsistencies in states' approaches to identifying impaired waters, the information in the EPA's database of impaired waters is of questionable reliability.

The EPA has undertaken significant efforts to integrate states' data and present it to the public over the Internet, but the information it presents can be only as good as the information the agency enters into the underlying database. Inconsistencies in the data that states submit are compounded by the different ways that the states submit data to the EPA for inclusion in the system, and the EPA cannot reliably tally the number of TMDLs that must be completed nationwide. In addition, the EPA's database distorts the size of some of the states' impaired waters when they are mapped on the EPA's Web site. Less than one-third





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of the state water quality officials that were interviewed by the GAO said that their state's water quality is reflected "very" or "somewhat" accurately on the EPA Web site.

To provide greater consistency in the way states list their impaired waters, the GAO recommended that the EPA Administrator:

- Provide additional guidance to the states on carrying out the key functions (including standard-setting, water quality monitoring, and data assessment) that influence how states identify the waters for their Section 303(d) lists;
- Work with the agency's regional offices to ensure a more consistent interpretation of the agency's policies on the criteria that states must meet to remove waters from their Section 303(d) lists;
- Provide clear guidance to the states on the information they should use to describe their methodologies for developing their Section 303(d) lists; and
- Work with the states to help resolve discrepancies that arise in the listing of interstate waters. In pursuing such a role, the agency could benefit from the activities of the nation's river basin commissions, which are already attempting to assist their states in making interstate listing decisions.

In addition, until the EPA's Office of Water resolves problems relating to inaccurate and/or misleading data contained in its WATERS database, the GAO recommended that the Administrator direct the Office of Water to explain clearly and visibly to users of its impaired waters Web site the potential misinterpretations that may arise from its current presentation of these data.

The GAO report is [available from MESO](http://www.gao.gov/cgi-bin/getrpt?GAO-02-186) (14.5 MB Adobe™ Acrobat™ file), or at: <http://www.gao.gov/cgi-bin/getrpt?GAO-02-186>.

*Government Accounting Office, Water Quality: Inconsistent State Approaches Complicate Nation's Efforts to Identify Its Most Polluted Waters, GAO-02-186, January 11, 2002.*



## Shipfouling and Biological Invasion Conference Set for July, 2002

The 11th International Congress on Marine Corrosion & Biofouling will be held at The University of San Diego from July 21-26, 2002, and is being organized by the Naval Surface Warfare Center, Carderock Division; the National Oceanic & Atmospheric Administration, National Sea Grant Program Office; and the U.S. Coast Guard, Office of Marine Safety and Environmental Protection, Environmental Standards Division. Ships and other mobile marine structures can transport assemblages of fouling organisms. While ballast water has been recognized as an important mode of transport, fouling has received less attention.





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The Navy, NOAA, and the Coast Guard will co-sponsor the workshop to gain an updated understanding of the role ship fouling plays in the dispersal and introduction of nonindigenous species, the effects of ship operation, maintenance, and design on fouling assemblage composition and patterns of transport, and the effectiveness of technology in preventing the development or transport of fouling communities.

The workshop format will combine invited presentations on the biology of fouling organisms and the factors that affect their ability to utilize ships as transport vectors, contributed original research papers, and a moderated discussion session to develop consensus on the state of understanding and prioritized research needs. Several other sessions of the Conference will cover various aspects of the biology of micro- and macro-fouling organisms.

For further information about the session on Shipfouling and Biological Invasions, please contact either of the session co-chairs: Eric Holm, U.S. Navy, Naval Surface Warfare Center, Carderock Division, e-mail: [HolmER@nswccd.navy.mil](mailto:HolmER@nswccd.navy.mil); or Rich Everett, U.S. Coast Guard, Office of Marine Safety and Environmental Protection, Environmental Standards Division, e-mail: [reverett@comdt.uscg.mil](mailto:reverett@comdt.uscg.mil).

For registration and other information about the conference, see <http://www.marine2002.org>.



## Navy's Guam Public Works Center Settles Case with EPA

On January 9, 2002, the Environmental Protection Agency announced the U.S. Navy Public Works Center in Guam has agreed to pay \$42,000 and perform two environmental projects worth \$380,000 for alleged violations of hazardous waste regulations. The PWC responded quickly to concerns from the EPA inspectors that these materials were a potential hazard by processing the materials and complying with the hazardous waste generator requirements. The materials that were hazardous wastes included paints, adhesives, paint thinners, insecticides, solvents, batteries, rust removers, coatings, sealants, disinfectant and cleaner wastes.

The Navy's PWC facility in Apra Harbor, Guam was cited for four violations of Guam's hazardous waste regulations. The EPA cited the PWC for failing to comply with the hazardous waste generator requirements, failing to store hazardous waste under a covered structure, failing to make hazardous waste determinations, and failing to amend training and contingency plans.

The EPA's Pacific Southwest director for waste management programs reported that the Navy's Guam Public Works Center fully cooperated and responded quickly to EPA's facility inspection.

Under the settlement, the Navy will spend \$136,000 to purchase a rescue truck and an incident command response vehicle. The rescue truck will be outfitted with equipment to support hazardous material spill response team personnel. Both vehicles will be used by Navy forces to conduct emergency response activities both on and off-base.





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Also part of the settlement, \$244,000 will be set aside for an improved hazardous waste minimization system and include training, software and equipment. The money will pay for a computerized hazardous substance management system, new laboratory equipment, a graphite furnace unit with associated support equipment, and two storage lockers.

U.S. EPA REGION 9, Press Release, January 9, 2002 (5.12 KB [text file](#)).



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