

s a steward of our nation's coastal and marine environments, NOAA addresses immediate and long-term environmental threats through its Office of Response and Restoration (OR&R). Scientists are on call around-the-clock to provide the U.S. Coast Guard and other emergency responders with critical information to help minimize environmental damage caused by oil and hazardous chemical spills. Environmental experts assess ecosystems compromised by historic or ongoing contamination and work with other organizations to conduct remediation, restoration, and monitoring of critical natural resources.

# Protecting and Restoring New Hampshire's Coastal and Marine Areas

NOAA trust species in New Hampshire include a wide variety of fish and shellfish, such as the Atlantic salmon, striped bass, American lobster, and Atlantic razor clam. However, these resources are threatened by toxic chemicals associated with activities at many military installations, as well as oil spills from shipping activities in its ports. NOAA is working to protect and restore natural resources throughout New Hampshire. The state map on the reverse page shows key response and restoration activities in the past year.

### **Emergency Response**

On July 1, 1996 during off-loading operations at a dock on the Piscataqua River, the tank vessel *Provence* broke free of its mooring. Hoses severed by the accident released approximately 880 gallons of heavy oil into the river. NOAA provided weather briefings and oil trajectory predictions to facilitate emergency response. The spilled oil was heavier than water, so it sank and formed small droplets that adhered to lobster pots and other submerged structures. NOAA developed a method for assessing sunken oil movement over time. NOAA also provided scientific expertise in addressing lobster contamination and assisted in communicating spill issues to the public.



Souhegan River at Milford (photo courtesy of New Hampshire Department of Environmental Services)

#### **Assessment and Restoration**

Fletcher's Paint Works in Milford manufactured and sold paints and stains from 1949 until 1991. Leaking storage drums contaminated the site and the Souhegan River with benzene, toluene, and heavy metals. The Souhegan River, a tributary of the Merrimack River, is of special concern to NOAA because it has been designated as a priority Atlantic salmon nursery habitat. NOAA has conducted preliminary natural resource surveys, reviewed sediment and biota sampling, and conducted toxicity studies for ecological risk assessment.

#### **Marine Debris**

NOAA and the University of New Hampshire conduct collaborative research on marine pollution. In oil spill situations, marine debris such as floats, fishing gear, and plastics, are signals for shoreline impact assessors to look for oil. One joint project produced an integrated protocol for assessing and monitoring pollution from marine debris, provided data for decision-making, and increased the effectiveness of future remediation and mitigation techniques through the use of an integrated Personal Digital Assistant-Global Positioning System.

#### Research

NOAA collaborates with other federal, state, and local programs to develop innovative approaches to protecting marine and estuarine environments through research and synthesis of information. The Coastal Response Research Center (CRRC) brings together the resources of a researchoriented university and the field expertise of OR&R to conduct and oversee basic and applied research, conduct outreach, and encourage strategic partnerships in spill response, assessment, and restoration.



## NOAA's Office of Response and Restoration—Protecting our Coastal Environment

For further information about NOAA's Office of Response and Restoration, please call (301) 713-2989 or visit our Web site at response.restoration.noaa.gov

