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New study examines effects of ship waste

Scientific team conducts first-of-its-kind survey for aquatic contaminants

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Environmental scientists have begun a groundbreaking study on the effects of cruise ship waste and other contaminants in Southeast waters this month.

A scientific team assembled by the state Department of Environmental Conservation is traveling by trawler and testing the water on its wandering 600-mile route through the Inside Passage's fjords and straits, from Dixon Entrance to Icy Bay.

It's the first comprehensive aquatic contaminants survey of its kind for Southeast, said Sue Saupe, a chemical oceanographer who is leading the team on its 35-day trip.

The data may become useful if the state builds a road from Juneau to Skagway, with potential environmental impacts from that development stretching up the coastline, said Doug Dasher, a section manager for water quality monitoring at the department of environmental conservation.

On its journey, the team is collecting sediment, groundfish, invertebrates and water that later will be analyzed in federal laboratories for the presence of metals, organic chemicals and other pollutants.

"We've run into a lot of challenges," Saupe said during a recent stop in a Juneau harbor.

For example, most of the testing locations were generated randomly by a computer, and frequently the team arrives to find that its sample site is on the side of a fjord, Saupe said.

The \$450,000 project is part of a nationwide effort to determine the environmental health of coastal waters. Similar efforts are under way from the Gulf of Mexico to Maine, all with funding through the federal Environmental Monitoring and Assessment Program.

The program was begun by the U.S. Environmental Protection Agency about 10 years ago and hundreds of scientific projects have ensued. Alaska is just at the beginning of its work, Saupe said.

In 2002, the regulators sampled Southcentral Alaska waters and they are just beginning to analyze those data, Saupe said.

Scott Sloane, an environmental specialist with DEC, said the survey is not targeting potential hot spots for pollution because the scientists are more interested in getting baseline data on the general health of Southeast waters.

But there is one notable exception. The agency is targeting at least 13 locations that are affected by cruise ship traffic. Those include sites such as downtown Juneau, Auke Bay, Haines, Skagway and Tracy Arm, said Denise Koch, a water division official with the agency.

The agency has never gathered bacteriological or nutrient samples from the water at those sites. It has previously collected only "end of pipe" samples from the cruise ships' treated wastewater effluent, Koch said.

"This is a really good opportunity for us to get on board literally with the EMAP project and collect some samples from significant locations," she said.

Eventually, all the results of testing should be presented to the public, said Dasher, who is in charge of the Alaska EMAP projects. He said a preliminary report on Southeast could be completed by early fall 2005.

Other parts of Alaska that still need testing are the Aleutians, the Bering Sea and the Arctic coast.

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