Ocean Acidification Threat Sets Stage For Novel Water Regs

By Sean McLernon

Law360, New York (April 02, 2014, 8:13 PM ET) -- A U.S. government report on ocean acidification lays out a plan for tackling the growing concern of chemical shifts in the world's largest bodies of water, and experts say the findings are building momentum for unprecedented regulations that could cover any industry contributing to urban and agricultural land runoffs.

The federal Interagency Working Group on Ocean Acidification is calling for additional research and monitoring to better understand the issue. Although the report shies away from any drastic policy proposals, it shines a spotlight on the issue and could spur federal and state officials to take action sooner rather than later.

Congress called on the group to examine ocean acidification in 2009, concerned about changes in ocean chemistry caused largely by pollutants from the atmosphere, including carbon dioxide.

While the U.S. is addressing greenhouse gas emissions under the Clean Air Act, there are additional local impacts that may contribute to ocean acidification and haven't received widespread regulatory attention. The report finds that local nutrient input from runoffs can change the chemistry of waters, giving officials another regulatory route for mitigating the change.

The report fails to provide absolute clarity regarding the best long-term solutions, but Stanford law school professor Deborah Sivas said the findings show that land-based runoff could help lead to government action.

"It creates more urgency around the kind of regulation that would affect land runoff," Sivas said.

That could mean additional restrictions on the nutrients and other chemical substances in large bodies of water like the Great Lakes. Environmental groups already are pushing the U.S. Environmental Protection Agency to establish numeric nutrient criteria under the Clean Water Act, and the ocean acidification findings could help that cause.

Additional modeling is still needed to back up scientific findings on land runoff and ocean acidification, but University of California Irvine earth science professor Steven J. Davis said the report should help push the process along and get the attention of scientists and government officials.

"It gives a cue to the scientific community that the policymakers are listening and it raises the salience of the issue for policymakers too," Davis said.

It helps that a number of high-profile agencies were involved in the report, Sivas said. The U.S. Navy, the U.S. Department of State, the EPA and the U.S. Fish and Wildlife Service in addition to the National Oceanic and Atmospheric Administration contributed to the report.

"Like climate change in general, the U.S. should be trying to lead on these issues," Sivas said. "This document could help with that leadership."

The state of Washington already has worked to respond to ocean acidification after oyster

hatcheries along the coasts suffered sky-high death rates. Then-Gov. Christine Gregoire created a blue-ribbon panel on ocean acidification, and then followed their recommendations with an executive order in 2012 that reduces emissions levels and called for additional technical analysis.

Washington is still "the only state that has taken a serious stab at this," Davis said, but others may not be too far behind.

A key incentive for other states and localities to follow Washington's lead could come from better data sharing and federal guidance, according to Center for Biological Diversity staff attorney Emily Jeffers. Many regulators lack the information they need to tackle ocean acidification, Jeffers said, and this report could help press the government to get it to them.

"It's important to have large-scale modeling and impacts across the country," Jeffers said. "We have to make sure that the data we are getting is provided to state and local water quality managers. They can make a decision about what is impaired under the Clean Water Act."

The report could lead to the federal government creating a repository and making the data available to any officials that want to use the science to improve water quality under their jurisdiction.

"Local agencies don't necessarily know how to address the problem and they need guidance from the federal government," Jeffers said. "The federal government plays a strong role in disseminating information and providing resources."

The government also could be doing much more than that, Jeffers said. The current level of ocean acidification is higher than it has been in the past 300 million years, Jeffers said, and federal agencies have existing laws at their disposal.

"I think the administration is not using the Clean Water Act to the extent that it could be used to address ocean acidification," Jeffers said. "It's our strongest law to protect water quality, and clearly waters are being affected right now."

The Center for Biological Diversity filed a federal suit against the EPA in October to force the agency to address ocean acidification under the CWA, arguing that it is killing oysters in the Pacific Northwest and threatening a range of other wildlife. The suit is still pending.

The EPA agreed in 2010 to start considering how to address ocean acidification under the CWA, but the group has argued that the agency can't wait any longer.

Although the EPA may not have stepped up as quickly as groups like the CBD would like, the interagency report does call for implementing a comprehensive global and regional ocean acidification observing system, which will include monitoring for physical, chemical and biological impacts.

The data generated through the strategic plan also could be used to help states address ocean acidification effects on marine and Great Lakes coastal waters under existing Clean Water Act regulations, according to the report.

"It's a really important step in guiding our understanding of how ocean acidification is affecting our waters," Jeffers said.

More data is needed before any comprehensive regulation, but the report is laying the groundwork for federal and state officials to move in that direction.

“There is a basis for more targeted funding and research to go on, and that’s generally the idea behind this document,” Sivas said. “They are looking more seriously at this problem.”

--Editing by John Quinn and Richard McVay.