



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

**MAY 17 2013**

OFFICE OF WATER

Miyoko Sakashita  
Senior Attorney  
Oceans Director  
Center for Biological Diversity  
351 California Street, Suite 600  
San Francisco, California 94104

Dear Ms. Sakashita:

Thank you for your petition submitted April 17, 2013, requesting that the Environmental Protection Agency (EPA) promulgate additional water quality criteria to measure ocean acidification as well as publish guidance on ocean acidification pursuant to Section 304 of the Clean Water Act., 33 U.S.C. § 1314(a)(2). Specifically, the petition requests "that EPA initiate a rulemaking and promulgate water quality criteria for ocean acidification, including but not limited to the following:

- 1) Aragonite saturation state ( $\Omega_{ar}$ ) shall not fall below 1.0, or for marine waters with tropical corals aragonite saturation state shall not fall below 3.3; and
- 2) Calcification rates for target calcifiers should not measurably decline."

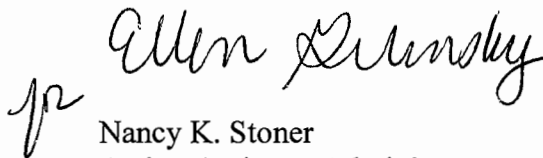
The EPA agrees with the Center for Biological Diversity (CBD) and other experts in the field that recent scientific research indicates that other ocean chemistry indicators and biological parameters, beyond pH, may be relevant for ocean acidification. Such research indicates that data on carbonate system parameters (e.g., pCO<sub>2</sub>, dissolved inorganic carbon, total alkalinity) and biological metrics of effects may be needed to evaluate ocean acidification. Additionally, the EPA agrees that calcium carbonate (e.g., aragonite and calcite) saturation state is an important parameter related to shell-building of calcareous marine organisms.

The EPA is involved in multiple efforts across the agency and federal government to address both the causes and effects of ocean acidification. For example, actions are being taken under the Clean Air Act to reduce carbon dioxide and other greenhouse gas emissions to the atmosphere. The EPA is continuing discussions on ocean acidification with other pertinent federal agencies, including participating in a recent information exchange meeting with the National Oceanic and Atmospheric Administration. The EPA plans to further these efforts by convening a technical workgroup to evaluate data and research regarding water quality parameters most relevant for understanding and addressing ocean acidification and its causes. The task of this workgroup will be to identify water quality parameters related to ocean acidification to contribute to a better understanding of the scale of potential impacts on aquatic

life, relative contribution of drivers and sources, and the most meaningful metrics for assessing potential trends. The EPA expects the workgroup will be formed and will have initiated discussions within the next 6 months.

The EPA plans to consider the information submitted in your petition in the upcoming workgroup discussions. The EPA thanks you for your interest in protecting ocean ecosystems from ocean acidification through water quality criteria.

Sincerely,

  
Nancy K. Stoner  
Acting Assistant Administrator