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Sent via certified and electronic mail

June 11, 2008

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Re: Request to include ocean waters of California in the 2008 Water Quality Limited Segments List under section 303(d) of the Federal Clean Water Act

On February 27, 2007, the Center for Biological Diversity (the "Center") formally requested the San Diego Regional Water Quality Control board to include all ocean segments under Region Nine's jurisdiction in the state List of Impaired Waters ("303(d) List") under section 303(d) of the Clean Water Act Section as impaired for pH due to absorption of anthropogenic carbon dioxide pollution. To date, we have not received a response to our requests, nor has Region Nine made its draft list available for public comment.

Please take notice of the increasing scientific evidence that strengthens the case. Recently, a cruise conducted by researchers investigating ocean acidification along the California coast confirmed that ocean uptake of anthropogenic carbon dioxide has exceeded scientific predictions, resulting in levels of ocean acidification not expected for decades (R.A. Freely, et al., *Science*, 22 May 2008 (10.1126/science.1155676)). Accordingly, the State Board should take the following action requested in the Center's petition:

- 1. Include all ocean waters under Region Nine's jurisdiction on the State's 303(d) List as current measures are not sufficient to prevent ocean acidification and achieve the required water quality standards.
  - The Clean Water Act requires that California protect the water quality for designated uses of its waters, and the designated uses of ocean waters, as defined in California's Ocean Plan, are threatened by ocean acidification.
  - The Clean Water Act and California's antidegradation policy prohibits any degradation of water bodies that are currently meeting water quality standards. All California ocean water must be included on the 303(d) list because they are experiencing degradation in the form of increased acidification.

Enclosed for your convenience are several recent scientific articles supporting this petition that should be considered by the Board in preparing its draft and final lists including:

- Antarctic Climate & Ecosystems Cooperative Research Centre (2008) Position Analysis:
  CO2 emissions and climate change: Ocean impacts and adaptation issues.
- Bibby, Ruth, Polly Cleall-Harding, Simon Rundle, Steve Widdicombe, and John Spicer.
  (2007) Ocean acidification disrupts induced defences in the intertidal gastropod Littorina littorea. *Biol. Lett.* 3: 699–701.
- Caldiera, Ken et al. (2007). Comment on "Modern-age buildup of CO2 and its effects on seawater acidity and salinity" by Hugo Loaiciga. Geophysical Research Letters 34: L18608.
- Cooper, Timothy F. et al (2008). Declining coral calcification in massive Porites in two nearshore regions of the northern Great Barrier Reef. *Global Change Biology* 14: 529– 538.
- Cribb, J. (2008) Acid Oceans. ECOS 142: 18.
- Fabry, V. J., Seibel, B. A., Feely, R. A., and Orr, J. C. (2008). Impacts of ocean acidification on marine fauna and ecosystem processes. *ICES Journal of Marine Science*, 65: 414–432.
- Feely, R.A., Sabine, C.L., Hernandez-Ayon, J.M., Ianson, D., Hales, B. (2008) Evidence for Upwelling of Corrosive "Acidified" Water onto the Continental Shelf. *Science Express Reports*. Published online 22 May 2008.
- Guinotte, J.M., Fabry, V.J. (2008). Ocean acidification and its potential effects on marine ecosystems. *Ann. N.Y. Acad. Sci.* 1134: 320–342.
- Hall-Spencer, Jason M. et al (2008). Volcanic carbon dioxide vents show ecosystem effects of ocean acidification. *Nature* advance online publication 8 June 2008.
- Hoegh-Guldberg, O. et al. (2007). Coral Reefs under Rapid Climate Change and Ocean Acidification. Science 318: 1737-1742.
- Kuffner, I.B., Andersson, A.J., Jokiel, P.L., Rodgers, K.S., Mackenzie, F.T. (2008)
  Decreased abundance of crustose coralline algae due to ocean acidification. *Nature Geoscience* 1:114.

Thank you for your consideration. Please keep me apprised of any developments with regard to our request. Please note that the Center's contact information has changed, and future correspondence should be sent to:

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**Emily** Veffers

enclosure: CD with electronic articles