

WATER QUALITY CRITERIA FOR NUTRIENTS

¹Danielle Tillman and Dave Pfeifer

States throughout the country have repeatedly cited nutrients as a major cause of waterbody impairment, and the Federal Clean Water Act requires States and Tribes to adopt water quality criteria for pollutants that may adversely affect a waterbody's designated uses. To assist States and Tribes in meeting their obligations under the Clean Water Act, the US Environmental Protection Agency (USEPA) is preparing technical guidance to assist States and Tribes in developing nutrient criteria. Criteria guidance documents are being written for each major waterbody type and reflect the input of a team of national experts. USEPA also will analyze available data and publish recommended criteria values to serve as guidelines for States and Tribes. States and Tribes are expected to adopt nutrient criteria into their standards within three years of USEPA's publication of nutrient criteria recommendations. The criteria recommendations will vary by waterbody type and by ecoregion, and they will be derived using a reference condition approach (similar to how biocriteria are derived). Criteria will include both causal variables (e.g., total nitrogen, total phosphorus) and response variables (e.g., algal biomass, turbidity). Regional nutrient teams, led by USEPA staff, consist of interested parties from government, academia, agriculture, industry, and environmental groups. These teams are compiling and reviewing data from their respective regions. In addition, they will review national criteria recommendations and facilitate State and Tribal adoption of criteria. By adopting numeric nutrient criteria, States and Tribes will be better able to identify waters where nutrients are a problem, implement control measures, and evaluate the success of nutrient management efforts.

¹~~Life Scientists, US Environmental Protection Agency,~~
Region 5 Water Division, 77 West Jackson Boulevard
Chicago, Illinois 60604