

water temperature. It is difficult to understand how a single standard for chlorophyll or Secchi depth could be set over this geographic distance.

(3) The recommended criteria are lower than concentrations that may be needed to support fisheries and may result in a reduction of fish biomass.

EPA Response: EPA is using an ecoregion approach as an initial attempt to assess nutrient conditions in a broad geographic context. The Agency encourages RTAGs, including member States and authorized Tribes, to refine and further subdivide the initial ecoregions. If time and resources permit, States and authorized Tribes should also consider adopting nutrient criteria that are tailored to specific sites. EPA believes that recommending nutrient criteria on an ecoregion basis, with the use of ecoregional reference conditions, is a reasonable alternative to recommending a single nation-wide criterion that may fail to account for regional variability or to recommending criteria on an individual water body basis, which would be very resource-intensive. The EPA SAB has endorsed this region and water body-type specificity for biological criteria, and nutrient criteria share a similar ecological orientation.

One of the concerns expressed to EPA was that if the recommended nutrient criteria were met, there would not be sufficient nutrients to support fisheries. Generally, however, cultural eutrophication has been identified by States' section 303 (d) reports as one of the top national water quality problems. Where enrichment is documented as beneficial by regional specialists, EPA recommends that nutrient criteria be developed to promote the removal of that amount of ambient total nitrogen and phosphorus in excess of optimal fish production as determined by consultation of the RTAG with State and Federal fisheries biologists and water resource managers.

Total Nitrogen Criteria

Total Nitrogen criteria are not necessary and should not be required unless EPA can show site-specific reasoning for applying nitrogen criteria to all water bodies.

EPA Response: As a threshold matter, it should be noted that EPA's choice of parameters and criteria values are recommendations. The documents announced today impose no requirements. States and authorized Tribes have considerable flexibility in adopting nutrient criteria, provided that the criteria meet the requirements of the CWA and EPA's regulations (that is, they are based on sound scientific

rationale and contain sufficient parameters to protect the designated uses).

With respect to EPA's recommendation that States and authorized Tribes adopt nutrient criteria for nitrogen, EPA notes that while phosphorus is often considered the limiting nutrient determining the extent of vegetative growth in fresh waters, nitrogen is often considered to be the limiting nutrient in the lower reaches of estuaries and in coastal marine waters. However, there are cases where phosphorus limits algal growth in estuaries and nitrogen performs a similar role in some freshwater systems. While nitrogen itself will not usually cause water quality impairments in the near-field in phosphorus-limited systems, if phosphorus supplies are reduced to attenuate symptoms of eutrophication within freshwater segments of a given river system, corresponding reductions in freshwater algal blooms will allow the highly soluble dissolved forms of nitrogen to be transported downstream. This downstream nitrogen transportation to estuaries or coastal waters may support larger algal blooms resulting in water quality impairments. The practice of setting criteria for only nitrogen or phosphorus in a given region could displace the responsibility for nutrient abatement from the area of the source to a downstream jurisdiction. This places an undue burden on the recipient of this imported material and increases the abatement costs because source control is lost as a management option. EPA suggests, therefore, that where downstream effects take place, States and Tribes describe technologies or best management practices in their plans to begin nitrogen control.

Grouping of Reservoirs and Lakes

The final document should clarify whether Reservoir means impounded stream or river. If impoundments were sampled with natural lakes, the 75th percentile number may be too high as a standard for historic conditions in natural lakes.

EPA Response: EPA agrees that, if possible, reservoirs should not be grouped with lakes and recommends in the Technical Guidance Manual that, wherever feasible, criteria for reservoirs and lakes should be developed separately. Using the National Nutrient Database, one can separate data by lake or reservoir and determine reference conditions for each.

How Can I Get Copies of These Documents?

You can get copies of the set of three new criteria documents or any nutrient criteria document from the U.S. National Service Center for Environmental Publications (NSCEP), 11029 Kenwood Road, Cincinnati, OH 45242; (513) 489-8190 or toll free (800) 490-9198. The documents are also available electronically at <http://www.epa.gov/waterscience/standards/nutrient.html>. The waterbody-specific technical guidance manuals are also available from EPA's nutrient Web site. EPA's Office of Water, Office of Science and Technology prepared this document. Mention of trade names or commercial products does not constitute endorsement or recommendation for use.

Can the Public Continue To Provide Input After the Documents Are Finalized?

EPA encourages the public to provide additional scientific information that could help States and or authorized Tribes refine these recommended nutrient water quality criteria. EPA identified specific sections within each document where the public could greatly assist States and authorized Tribes in the task of augmenting the database for deriving ecoregional nutrient water quality criteria. For example, the public can provide information about the historical conditions and trends of the water resources within an ecoregion related to eutrophication resulting from human activities. EPA will forward all comments received on a particular ecoregional criterion or set of criteria to the appropriate State or authorized Tribe to help foster water quality criteria refinement.

SUPPLEMENTARY INFORMATION:

What Are Water Quality Criteria?

Section 304(a) of the Clean Water Act (CWA) requires the EPA to develop and publish and, from time to time, revise criteria for water quality accurately reflecting the latest scientific knowledge. Water quality criteria recommendations developed under section 304(a) are based solely on data and scientific judgments. They do not consider economic impacts or the technological feasibility of meeting the criteria in ambient water.

What Is the Purpose of These Documents?

These documents give State and Tribal decision makers and others information to support the development