

**From:** <Smith.DavidW@epamail.epa.gov>  
**To:** <wilscj@dwq.swrcb.ca.gov>  
**Date:** 8/29/02 10:45AM  
**Subject:** Coverage of Pollutant Indicators By 303(d) Listing Decisions

Dear Craig:

You asked me whether EPA requires or expects the listing of waters impaired due to exceedences of water quality standards for indicators that may not fit our traditional idea of "pollutant". Specifically, you mentioned that some parties did not believe listings were appropriate for dissolved oxygen (DO) and pH. To that list I would add toxicity and temperature. We would consider some of these indicators to be on the border between pollutants themselves and pollutant characteristics.

The answer is that EPA's longstanding interpretation of the Clean Water Act is that 303(d) lists are required to include waters impaired due to these pollutants and pollutant characteristics. I have discussed this conclusion with staff in EPA Headquarters, Region 8, and Region 9. I will explain the basis for that conclusion.

First, several of these indicators are defined as pollutants in the Act or our regulations. The indicator "pH" is specifically defined as a "conventional" pollutant in CWA Section 304(a)(4), along with BOD, suspended solids, fecal coliform, and oil and grease. Therefore pH is itself a pollutant. In addition, "heat" is included in the definition of pollutant at 40 CFR 122.2, and temperature is obviously the measure of heat. Finally, the definition of TMDL at 40 CFR 130.2(i) specifically mentions that TMDLs may be expressed in terms of "toxicity". Obviously, waters exceeding toxicity standards are appropriate for listing under 303(d) if it is appropriate to express TMDLs in the same terms. Exceedences of pH, temperature, and toxicity standards are clearly a basis for listing waters under 303(d) without reference to other information or analysis.

Second, federal regulations at 40 CFR 130.7(b)(1) requires listing of all waters that do not meet any applicable water quality standards (taking into consideration the effectiveness of existing technology based controls). Note that 40 CFR 130.7(b)(3) defines applicable water quality standards to include "numeric criteria, narrative criteria, waterbody uses, and antidegradation requirements." Therefore, if a water exceeds any water quality standard adopted and approved pursuant to Section 303, and the technology based control provision is inapplicable, the presumption is normally that the water is to be listed. The only remaining caveat concerns the issue of whether the standards violation is caused in whole or in part by the presence of one or more pollutants. When EPA amended and clarified the existing regulation in 1992, we restated the regulatory requirement of 40CFR 130.7(b)(4) and explained that:

"To identify water quality-limited waters that still require TMDLs, the particular pollutant causing the problem will usually be known. However, pollutants include both individual chemicals and characteristics such as nutrients, BOD, or toxicity. Moreover, many waters do not meet standards due to non-chemical problems such as siltation." (57 FR 33045 (July 24, 1992)). If the State knows or

pH

use as response

suspects that the impairment is caused by a pollutant, the water must be listed on the 303(d) list. This conclusion is supported by the federal regulatory provisions which state that "the list...shall identify the pollutants causing or expected to cause violations of the applicable water quality standards." (40 CFR 130.7(b)(4).

Third, EPA has consistently interpreted the Clean Water Act and its implementing regulations as requiring listing of waters impaired by pollutants or characteristics of pollutants. For example, in 1978 EPA stated that "the determination of TMDLs for parameters which indicate the presence of pollutants... can be useful in certain situations and should not be excluded from consideration." (43 FR 60662, December 28, 1978). When EPA established the currently applicable regulations that govern 303(d) listing, EPA stated that "... a single TMDL covers only one specific pollutant or one property of pollution, for example, acidity, biochemical oxygen demand, radioactivity, or toxicity." (50 FR 1776 (January 11, 1985), emphasis added).

Fourth, dissolved oxygen, turbidity, and temperature are direct water column measures of water quality characteristics addressed by water quality standards and which in excessive or insufficient amounts, cause direct impairment of aquatic life, drinking water, and recreational/aesthetic beneficial uses. We believe violations of these types of standards provide a sound basis for listing on the 303(d) list.

I would note that the Integrated Report guidance to which you referred is not legally binding and does not supercede existing requirements of the CWA or its regulations. The "2002 Integrated Water Quality Monitoring and Assessment Report Guidance (November 19, 2001) states that:

"This guidance updates previous guidance and, to the extent it is different, supercedes previous guidance. The statutory provisions in Sections 303(d) and 305(b) and EPA regulations described in this document contain legally binding requirements. This document does not substitute for those statutory provisions or regulations, nor is it a regulation itself. Thus, it does not impose legally binding requirements on EPA, states, or territories and may not apply to a particular situation based upon the circumstances. EPA, state, and territorial decision makers have the discretion to adopt approaches on a case-by-case basis that differ from this guidance where appropriate... This guidance does not, and cannot, change existing rules for listing and delisting."

The guidance contemplates the situation where there is evidence of impairment but some question about whether a pollutant is causing or contributing to the impairment. The guidance explains that "If a state or territory determines that an AU does not meet a use based on biological information, and the impairment is caused or is suspected to be caused by a pollutant(s), the AU should be listed in Category 5. If the state or territory believes that the impairment is not caused by a pollutant(s), the AU should be listed in Category 4c."

The State has some flexibility to apply its judgement in considering other information about the waters for which exceedences of WQS for

these pollutant characteristic indicators were observed. For example, if available information about surrounding land uses indicates that there are no potential dischargers of pollutants that could cause or contribute to a DO violation, the State may have a basis for concluding that the DO violation is likely to be associated with non-pollutant causes. We would expect the State to provide a robust rationale for any decision not to list a water that exceeds standards for the indicators you asked about because we think these indicators, by their nature, provide strong presumptive evidence that pollutants cause or contribute to observed exceedences.

EPA does not believe this guidance is different from previous guidance on this issue, and therefore, it does not supercede previous guidance and policy on these points.

I hope this helps.

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