



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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OCT 17 2005

Dianne R. Nielson, Ph.D.
Executive Director
Department of Environmental Quality
288 North 1460 West
Salt Lake City, Utah 84114-4870

Subject: EPA Action on Revisions to Utah's Water Quality Standards

Dear Dr. Nielson:

The U.S. Environmental Protection Agency (EPA) has completed its review of the revisions to "Standards of Quality for Waters of the State," R317.2, Utah Administrative Code. The revisions were adopted by the Utah Water Quality Board (Board) on April 6, 2005 and submitted to EPA for review with a letter dated August 9, 2005. A letter from the Office of the Attorney General, certifying that the revisions were adopted pursuant to State law, was enclosed with the submittal letter. Receipt of the revisions on August 15, 2005 initiated EPA's review pursuant to Section 303(c) of the Clean Water Act (CWA or the Act) and the water quality standards regulation. EPA has completed its review, and this letter is to notify you of our action.

We commend the Department of Environmental Quality (Department) and the Board for the significant improvements to Utah's water quality standards. The revisions included the designation of the Class 2B recreation use for waters in National Wildlife Refuges and State Waterfowl Management Areas. The State's action resolves an outstanding EPA disapproval issue, and we appreciate the Board's decision to upgrade the level of protection for these waters. We also note that, with today's approval of the revisions, there are no longer any unresolved EPA disapproval actions concerning Utah's water quality standards. Also adopted were a variety of new/revised water quality criteria, including updated bacteriological criteria for the protection of recreation and water supply uses (using the indicator organism *Escherichia coli*). Collectively, these revisions represent significant improvements to the State's water quality standards. Considerable progress was made as a result of this rulemaking action and we want to thank the Department and the Division of Water Quality (Division) for their efforts to develop the new and revised water quality standards.



AGENCY REVIEW

CWA § 303(c)(2) requires States and authorized Indian Tribes to submit new or revised water quality standards to EPA for review. EPA is to review and approve or disapprove the submitted standards. Pursuant to CWA § 303(c)(3), if the Administrator determines that any standard is not consistent with the applicable requirements of this Act, he shall not later than the ninetieth day after the date of submission of such standard notify the State or authorized Tribe and specify the changes to meet such requirements. If such changes are not adopted by the State or authorized Tribe within ninety days after the date of notification, the Administrator shall promptly propose such standard pursuant to CWA § 303(c)(4). The Region's goal has been, and will continue to be, to work closely with States and authorized Tribes throughout the State or Tribal standards revision process as a means to avoid the need for such disapproval and rulemaking actions.

TODAY'S ACTION

I am pleased to inform you that EPA is approving the revisions to Utah's water quality standards that were adopted April 6, 2005.

The water quality standard approvals in today's letter apply only to water bodies in the State of Utah, and do not apply to waters that are within Indian Country, as defined in 18 U.S.C. Section 1151. Today's letter is not intended as an action to approve or disapprove water quality standards applying to waters within Indian Country. EPA, or eligible Indian Tribes, as appropriate, will retain responsibilities for water quality standards for waters within Indian Country.

ENDANGERED SPECIES ACT REQUIREMENTS

It is important to note that EPA's approval of the State's water quality standards is considered a federal action which may be subject to the Section 7(a)(2) consultation requirements of the Endangered Species Act (ESA)¹. Section 7(a)(2) of the ESA states that "each federal agency...shall...insure that any action authorized, funded or carried out by such agency is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined to be critical..."

On February 13, 1997, EPA initiated informal consultation with the U.S. Fish and Wildlife Service concerning EPA's review of the State's water quality standards. Our evaluation will include identification of any potential effects to listed or proposed endangered or threatened species which might result from the new or revised water quality standards. EPA's approval of the water quality standards revisions, therefore, is subject to the results of consultation under Section 7(a)(2) of the ESA, and completion of the consultation process is a high priority for the Region. Nevertheless, EPA also has a Clean Water Act obligation, as a separate matter, to

¹ Where EPA concludes that an approval action will have no effect on endangered or threatened species, or is otherwise not subject to ESA consultation, EPA can issue an unconditional approval.

complete its water quality standards approval action. Therefore, in approving the water quality standards revisions today, EPA is completing its CWA Section 303(c) responsibilities.

Today's action includes a finding that approval of certain elements of the revised water quality standards is not subject to ESA consultation. As explained above, however, EPA does have ESA responsibilities for the remaining revisions. As a result, the discussion below covers two categories of revisions: (1) revisions approved for purposes of CWA § 303(c), and (2) revisions that are approved, subject to ESA consultation.

APPROVED REVISIONS

EPA has concluded that approval of certain revisions is not subject to ESA consultation with the U.S. Fish and Wildlife Service. In addition, EPA has concluded that these revisions are consistent with the requirements of the Clean Water Act and EPA's implementing regulations. Accordingly, revisions that are approved for purposes of CWA Section 303(c) include the following:

- All revisions to numeric criteria for the protection of human health.
- All revisions to recreation uses.
- All revisions to numeric criteria for the protection of recreation uses.
- All revisions to the description of the Class 5 use designation.
- All revisions to eliminate redundant waterbody segments.
- All revisions to the footnote for certain Jordan River/Surplus Canal segments.
- Certain revisions to numeric criteria for the protection of aquatic wildlife uses.

APPROVED REVISIONS, SUBJECT TO CONSULTATION

With the exception of the revisions approved, above, the remaining revisions are approved, subject to the results of consultation under Section 7(a)(2) of the ESA. Should the consultation process with the U.S. Fish and Wildlife Service identify information that supports a conclusion that one or more of the revisions in this category are likely to jeopardize the continued existence of any listed endangered or threatened species, or result in the destruction or adverse modification of designated critical habitat of such species, EPA will revisit and revise, as necessary, its approval decision for the identified water quality standards. Revisions that are approved, subject to consultation, include the following:

- Certain revisions to numeric criteria for the protection of aquatic wildlife uses.
- All site-specific water quality criteria for total dissolved solids.

CONCLUSION

EPA Region 8 congratulates the Department on the very significant revisions to the Utah water quality standards. The Region looks forward to working with the Division of Water Quality to make additional improvements to the State's water quality standards.

If you have questions concerning this letter, please call me or Max Dodson, Assistant Regional Administrator, Office of Ecosystems Protection and Remediation at 303-312-6598, or have your staff contact David Moon at 303-312-6833 or Bill Wuerthele, Regional Water Quality Standards Coordinator, at 303-312-6943.

Sincerely,

A handwritten signature in black ink, appearing to read "R. Roberts", written over the word "Sincerely,".

Robert E. Roberts
Regional Administrator

Enclosure

cc: Dr. William O. Moellmer, Division of Water Quality

ENCLOSURE 1
RATIONALE FOR EPA'S ACTION ON
THE APRIL 6, 2005 REVISIONS TO UTAH WATER QUALITY STANDARDS

This enclosure provides the rationale for today's EPA action on the revisions to Utah's water quality standards adopted by the Water Quality Board on April 6, 2005. The discussion below addresses major revisions in two categories: (1) revisions that are approved for purposes of CWA § 303(c), and (2) revisions that are approved, subject to ESA consultation.

APPROVED REVISIONS

EPA has concluded that approval of certain revisions either will have no effect on listed or proposed endangered or threatened species, or is otherwise not subject to ESA consultation. In addition, as discussed in more detail below, EPA has concluded that these revisions are consistent with the requirements of the Clean Water Act and EPA's implementing regulations. Major revisions in this category are discussed below.

Numeric Criteria for the Protection of Human Health

The revisions included updates to the water quality criteria for the protection of human health contained in R317-2-14. Revisions in this category include all revisions to the Domestic Source Class 1C numeric criteria in Table 2.14.1 and all revisions to Table 2.14.6. Parameters for which new/revised human health-based criteria were adopted include: *Escherichia coli*, beryllium, lead, bromate, chlorite, gross beta, uranium, 2,4-D, methoxychlor, nickel, thallium, cyanide, alachlor, atrazine, carbofuran, chlorobenzene, dalapon, di (2ethylhexyl) adipate, dibromochloropropane, 1,1-dichloroethylene, cis 1,2-dichloroethylene, dinoseb, diquat, 1,3-dichloropropene, endothall, ethylbenzene, ethylene dibromide, glyphosate, haloacetic acids, ocamyl (vidate), picloram, simazine, styrene, toluene, 1,2-trans-dichloroethylene, 1,1,1-trichloroethane, vinyl chloride, xylenes, 1,2-dichlorobenzene, 1,4-dichlorobenzene, hexachlorocyclopentadiene, 1,2,4-trichlorobenzene, gamma-BHC (lindane), and endrin.

The new/revised criteria generally are based on Clean Water Act (CWA) § 304(a) criteria recommendations developed by EPA, although for the Class 1C drinking water use, a number of new criteria were adopted based on Maximum Contaminant Levels (MCLs) promulgated by EPA under the Safe Drinking Water Act (SDWA). EPA's longstanding policy is that States have the option of basing ambient water quality criteria for the protection of drinking water uses on SDWA MCLs (see EPA Water Quality Standards Handbook, p. 3-12).

EPA approves all revisions to Utah's water quality criteria for the protection of human health, consistent with federal requirements at 40 CFR 131.11, based on a determination that the new or revised criteria describe a level of water quality that is protective of designated uses.

Recreation Designated Uses

The adopted revisions included the addition of a Class 2B recreation use designation to waters in National Wildlife Refuges and State Waterfowl Management Areas. See R317-2-13.11. Previously, no recreation use was assigned to these waters. Because the numeric criteria associated with the Class 2B recreation use are protective of primary contact recreation activities, EPA considers the revised standards for these waters to be consistent with the CWA § 101(a)(2) goal (see EPA's Water Quality Standards Handbook at page 2-2). Accordingly, use attainability analyses are not required for these waters (see 40 CFR 131.10(j)).

As a result of the revisions and today's EPA approval, we now consider to be resolved the outstanding disapproval issue first identified in EPA's November 29, 1990 action letter, and subsequently identified (or discussed) in EPA action letters dated November 29, 1995, May 30, 2000 and May 28, 2004. We also note that, with today's approval of the revisions, there are no longer any unresolved EPA disapproval actions concerning Utah's water quality standards.

The adopted revisions to recreation uses are consistent with federal requirements addressing designation of uses at 40 CFR 131.10. Accordingly, EPA approves all revisions to recreation use designations.

Numeric Criteria for the Protection of Recreation Uses

The revisions included adoption of new bacteriological criteria for the protection of recreation uses (using *Escherichia coli* as the indicator organism) and deletion of the old criteria (which used fecal coliforms and total coliforms). The new criteria include both (30-day) geometric mean as well as maximum values. For the Class 2A use designation, the new geometric mean and maximum criteria are 126 per 100 ml and 576 per 100 ml, respectively. These criteria are based on an illness rate of 8 per 1,000. For the Class 2B use designation, the new geometric mean and maximum criteria are 206 per 100 ml and 940 per 100 ml, respectively. These criteria are based on an illness rate of 10 per 1,000.

The revisions included changes to footnote (7) to specify that "where the criteria are exceeded and there is a reasonable basis for concluding that the indicator bacteria are primarily from natural sources (wildlife), e.g., in National Wildlife Refuges and State Waterfowl Management Areas, the criteria may be considered attained." The Region believes the wording of this footnote provides the State with flexibility to address natural sources of indicator bacteria in an appropriate manner. For example, where indicator bacteria are primarily from natural sources (and the portion of the total density attributable to anthropogenic sources is less than required by the criteria) the State may make a determination of attainment.

The adopted revisions are consistent with a longstanding EPA recommendation to use *Escherichia coli* (or enterococcus) as the indicator organism for protecting fresh water recreation uses. Selection of slightly different illness rates for 2A and 2B waters is consistent with EPA guidance. The revisions to footnote (7) are likewise consistent with the flexibility available to States in implementing the CWA water quality standards program. Accordingly, EPA has

determined that the revisions are consistent with the federal requirements addressing adoption of water quality criteria at 40 CFR 131.11, and we are pleased to approve all revisions to the numeric criteria for the protection of recreation uses.

Description of the Class 5 Use Designation

Minor revisions were adopted to the description of the Class 5 use designation in R317-2-6.5. Specifically, the phrase “aquatic wildlife” was replaced with “waterfowl, shore birds and other water-oriented wildlife including the necessary aquatic organisms in their food chain.” However, no changes were adopted to the universe of Class 5 waters, and the level of protection (in terms of the applicable criteria) also was not modified. Because States have latitude under the Clean Water Act to establish appropriate descriptions for their designated use categories, and because the revised description provides a more specific characterization of the types of aquatic wildlife to be protected, the Region finds the revision to meet the requirements of the water quality standards regulation (see 40 CFR 131.10). Accordingly, the revisions are approved.

Revisions to Eliminate Redundant Waterbody Segments

Minor revisions were adopted to correct a redundant listing for “Willard Creek, from Willard Bay Reservoir to headwaters” which previously was listed in both the Bear River Drainage and the Weber River Drainage. The incorrect listing in the Bear River Drainage was deleted. However, the revisions did not change the level of protection for the segment, as the same use designations and criteria were associated with both listings. The Region considers this change to be merely the correction of a typographical error. Accordingly, the revision is approved.

Revisions to the Footnote for Certain Jordan River/Surplus Canal Segments

A revision was made to the footnote applicable to two segments of the Jordan River and one segment of the Surplus Canal. The footnote that was modified referenced site-specific criteria for total ammonia and dissolved oxygen. The reference to site-specific criteria for total ammonia was deleted, clarifying that only dissolved oxygen site-specific criteria are currently in effect for these three segments. This update is consistent with the fact that the total ammonia site-specific criteria were deleted from R317-2-14 in a previous rulemaking action. The Region notes that updating the footnote did not alter the level of protection for the three segments, in that the referenced site-specific total ammonia criteria are no longer in effect. Accordingly, the revision is approved.

Revisions to Numeric Criteria for the Protection of Aquatic Wildlife Uses

Minor revisions were adopted to several numeric criteria for the protection of aquatic wildlife uses. The revisions included in this category are as described below:

- For hydrogen sulfide, footnote (13) to the criterion in Table 2.14.2 includes an equation for the conversion of sulfide ion concentrations to hydrogen sulfide concentrations. In this

rulemaking, the Board adopted a corrected conversion equation. The Region does not see this revision as an adjustment to the level of protection afforded by the criterion, but rather as a correction of the information contained in the footnote. Accordingly, the Region approves this revision.

- The application of the total phosphorus “pollution indicator” (0.05 mg/L) was modified so that it applies to Class 3A waters instead of Class 3C waters. The Region finds this revision, which corrects a typographical error that was made following a previous rulemaking action, to be appropriate. Accordingly, the revision is approved, while also noting that: (1) adoption of “pollution indicators” is not required by the CWA, (2) the Region does not consider “pollution indicators” to be water quality criteria as that term is used in the Clean Water Act and EPA’s implementing regulations, and (3) Utah is in the process of developing defensible numeric water quality criteria for nutrients to protect designated uses.
- Revisions were adopted to the numeric value representing the hardness-based chronic criteria for nickel (for a hardness of 100 mg/L) displayed in Table 2.14.2. The previous value (468 ug/L) was deleted and replaced by a value with two significant figures (470 ug/L). The Region considers this to be merely a rounding change to the informational value displayed in Table 2.14.2, and notes that the hardness-based equation describing the chronic criterion for nickel (contained in Table 2.14.3a) was not modified as a result of this rulemaking. Utah’s chronic criterion for nickel is consistent with current EPA criteria guidance. Accordingly, the Region approves the revision.

APPROVED REVISIONS, SUBJECT TO ESA CONSULTATION

With the exception of the revisions approved, above, the remaining revisions are approved for purposes of CWA Section 303(c), subject to the results of consultation under Section 7(a)(2) of the ESA. In some cases the Region is deferring to the national consultation² that has been initiated by EPA Headquarters and the Services on EPA’s published water quality criteria for the protection of aquatic organisms. The national consultation provides Endangered Species Act Section 7(a)(2) consultation coverage for any aquatic life criteria included in State water quality standards, approved by EPA, that are identical to or more stringent than EPA’s recommended Section 304(a) criteria. Should the consultation process with the U.S. Fish and Wildlife Service identify information that supports a conclusion that one or more of the revisions in this category are likely to jeopardize the continued existence of any listed endangered or threatened species, or result in the destruction or adverse modification of designated critical habitat of such species, EPA will revisit and revise, as necessary, its approval decision for the identified water quality standards. The discussion below identifies major revisions in this category and the basis for EPA’s approval action.

² See the *Memorandum of Agreement Between the Environmental Protection Agency, Fish and Wildlife Service and National Marine Fisheries Service Regarding Enhanced Coordination Under the Clean Water Act and Endangered Species Act* (66 Federal Register 11202, February 22, 2001).

Numeric Criteria for the Protection of Aquatic Wildlife Uses

The adopted revisions included several changes to the criteria for the protection of aquatic wildlife uses (Section R317-2-14). Revisions in this category are discussed below:

- For total residual chlorine, acute and chronic criteria were applied to waters with a Class 3D use designation. This revision expands the universe of Utah waters subject to the acute/chronic chlorine criteria. Previously, the chlorine criteria were applicable only to waters with a Class 3A, Class 3B, or Class 3C use designation. The adopted total residual chlorine criteria for Class 3D waters are consistent with current CWA § 304(a) criteria guidance.
- Revisions were adopted to correct typographical errors in the equation describing the fish early life stages absent total ammonia chronic criterion. The changes bring the State's equation into conformance with current CWA § 304(a) criteria guidance.
- For chromium III, a minor change was made to correct a typographical error in the equation describing the hardness-based chronic criterion in Table 2.14.3a. The change brings the State's equation into conformance with current CWA § 304(a) criteria guidance.

The revisions described above are consistent with the current EPA criteria recommendations published under the authority of CWA § 304(a), and the resulting State water quality criteria are protective for the reasons discussed in the § 304(a) criteria documents. The Region has determined that the revisions are consistent with the requirements of 40 CFR 131.11. The revisions are approved, subject to ESA consultation. The Region defers to the national consultation for each of the revisions in this category.

Site-Specific Water Quality Criteria for Total Dissolved Solids

For a number of specific water bodies, site-specific water quality criteria for total dissolved solids were adopted. The criteria are supported by information specific to the stream segments to which they apply. Based on review of the available information, the Department and the Board determined that the previous total dissolved solids criteria were not attainable, and that the adopted criteria describe the best attainable water quality condition.

EPA's water quality standards regulation (40 CFR 131) authorizes removal of a designated use where "naturally occurring pollutant concentrations prevent the attainment of the use." See Section 131.10(g)(1). Further, the feasibility of remedying man-induced pollution is specifically addressed in section 131.10(g)(3), which authorizes removal of a designated use where "human caused conditions or sources of pollution prevent the attainment of the use and cannot be remedied..." Accordingly, where: (1) "naturally occurring pollutant concentrations" or "human caused conditions" may be a basis for removing the designated use under 40 CFR 131.10(g), and/or (2) there is credible evidence that these same factors are limiting the attainable water quality condition for individual pollutants/parameters, the Region believes that maintaining the designated use while also establishing site-specific criteria (describing the best

attainable water quality condition) is an authorized and appropriate approach to water quality standards development.

The site-specific total dissolved solids criteria are approved, subject to ESA consultation, based on the supporting evidence, the attainability factors identified at 40 CFR 131.10(g), and the Region's conclusion that the revised criteria describe the best attainable water quality condition for the segments to which they apply. The Region likewise believes that the criteria are protective of the attainable uses, while also noting that Utah chose not to modify designated uses for the affected segments. The Region recommends that the Department revisit the rationale for these criteria in future triennial reviews. If new information is identified that might alter the conclusion regarding the attainable water quality condition, that information should be considered in determining whether modifications to the site-specific criteria would be appropriate.