



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 8**

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Ref: 8EPR-EP

**JUL - 8 2014**

Dr. Andrew Todd, Chair  
Water Quality Control Commission  
4300 Cherry Creek Drive South  
Denver, CO 80222-1530

Re: Sand Creek WQS Revisions

Dear Dr. Todd:

The U.S. Environmental Protection Agency (EPA) Region 8 has completed its review of the water quality standards revisions adopted by Colorado's Water Quality Control Commission (WQCC or the Commission) for lower Sand Creek (Upper South Platte River segment 16i, Regulation No. 38). The revisions were adopted May 13, 2013 and submitted to the EPA Region 8 for review with a letter dated May 29, 2013. The submission letter included an Opinion of the Attorney General certifying that the standards were duly adopted pursuant to State law. Receipt of the revised standards on May 31, 2013 initiated the EPA's review pursuant to Clean Water Act (CWA) § 303(c). The EPA has completed its review of the revisions, and this letter is to notify you of our action.

**CLEAN WATER ACT REVIEW REQUIREMENTS**

The CWA § 303(c)(2) requires States and authorized Indian Tribes to submit new and revised water quality standards to the EPA for review. The EPA is required to review and approve or disapprove the revised standards pursuant to CWA § 303(c)(3). The Region's goal has been, and will continue to be, to work closely and collaboratively with States and authorized Tribes throughout the standards revision process so that submitted revisions can be approved by the EPA.

**TODAY'S ACTION**

We are pleased to inform you that today the Region is approving, without condition, the water quality standards revisions for lower Sand Creek (Upper South Platte River segment 16i). The adopted revisions and basis for the EPA's action are summarized below.



## Adopted Revisions

The WQS revisions for lower Sand Creek include site-specific standards for selenium and a new temporary modification to the mercury standard. A new segment was created (Upper South Platte River segment 16i) and is described as “mainstem of Sand Creek from the confluence with Toll Gate Creek to the confluence with the South Platte River.” The acute and chronic (ambient-based) selenium standards apply at two specific instream monitoring locations and are intended to maintain and protect the spatially variable water quality conditions. The mercury temporary modification requires that the current condition be maintained and protected, and expires June 30, 2017.

## Basis for the EPA’s Action

### *Selenium*

Ambient-based selenium standards were applied to lower Sand Creek (Upper South Platte River segment 16i) pursuant to Section 31.7(1)(b)(ii) of the *Basic Standards and Methodologies for Surface Waters*. Table 1. Generally, 31.7(1)(b)(ii) authorizes adoption of ambient-based numeric standards based on water quality conditions that are wholly the result of natural or irreversible anthropogenic causes.

<b>Assessment Location</b>	<b>Acute</b>	<b>Chronic</b>
Upper (Peoria Street Crossing)	45.1	38.2
Lower (Union Pacific Railroad Crossing)	TVS	9.0

For lower Sand Creek, evidence was submitted that selenium concentrations in the Toll Gate Creek drainage are elevated due to natural or irreversible human-induced sources, and that the influence of these sources extends downstream to Sand Creek, below its confluence with Toll Gate Creek. Selenium concentrations diminish in Sand Creek with distance from Toll Gate Creek. Accordingly, acute (95<sup>th</sup> percentile) and chronic (85<sup>th</sup> percentile) ambient-based selenium standards were adopted at two specific Sand Creek monitoring locations within Segment 16i (the Peoria Street crossing and the Union Pacific Railroad crossing). The Statement of Basis and Purpose explains that “it is the Commission’s intent to maintain this natural or human-induced irreversible pattern of water quality, and not to inadvertently create assimilative capacity.”

The EPA’s water quality standards regulation authorizes removal of a designated use where “naturally occurring pollutant concentrations prevent the attainment of the use.” See 40 Code of

Federal Regulations (CFR) § 131.10(g)(1). Further, the feasibility of remedying human-induced pollution is specifically addressed in 40 CFR § 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 or would cause more environmental damage to correct than to leave in place.” The Region approved Section 31.7(1)(b)(ii) of the Basic Standards regulation because in situations where natural and/or irreversible human caused conditions provide 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, retaining the designated use while also establishing ambient-based standards protects the highest attainable water quality condition and the highest attainable aquatic life use.

The Region has concluded that the site-specific selenium standards are appropriate for protection of the Aquatic Life Warm 2 use classification (40 CFR § 131.11) and consistent with Section 31.7(1)(b)(ii) of the *Basic Standards and Methodologies for Surface Waters*. Accordingly, the revisions are approved.

### *Mercury*

A new temporary modification to the mercury standard was applied to lower Sand Creek, pursuant to Section 31.7(3) of the Basic Standards and Methodologies for Surface Waters.<sup>1</sup> Evidence was presented that the site-specific rate of bioaccumulation is both variable and uncertain, and that there is significant uncertainty regarding the water column standard that is appropriate to assure fish tissue concentrations below the (tissue based) human health criterion of 0.3 mg/kg. Suncor is to complete a study to resolve the uncertainty regarding the appropriate site-specific numeric standard. The Statement of Basis and Purpose explains that the decision “...anticipates that Suncor will report progress to the Commission in the December 2015 annual Temporary Modification hearing, and that the uncertainty will be resolved during the December 2016 annual hearing.”

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<sup>1</sup> Section 31.7(3) authorizes temporary modifications if an existing permitted discharge has a demonstrated or predicted water quality-based effluent limit compliance problem, and one of two situations is shown to exist: (1) significant uncertainty regarding the water quality standard necessary to protect current and/or future uses, or (2) significant uncertainty regarding the extent to which existing quality is the result of natural or irreversible human-induced conditions. Section 31.7(3) requires that adequate supporting information must be submitted, including a justification for the interim narrative or numeric value, any data describing effluent and ambient quality, a plan for eliminating the need for the temporary modification, and a justification for the proposed expiration date. Temporary modification expiration dates are determined by the Commission based on relevant factors, including how soon resolving the issues that necessitated adoption of the temporary modification is deemed feasible. Pursuant to 31.7(3)(e), the Commission must hold an annual rulemaking hearing to review temporary modifications that will expire within approximately two years. Pursuant to such hearings, the Commission may delete, modify, or make no changes to each temporary modification. Compliance schedules requiring actions intended to eliminate the uncertainty regarding the appropriate underlying standard may be included in the permit pursuant to 31.14(15)(b).

The Sand Creek temporary modification for mercury was adopted pursuant to Colorado's general policy (Regulation #31, Section 31.7(3)). The EPA's regulation at 40 CFR Section 131.13 recognizes that such water quality standards general policies may be adopted at State discretion, while also specifying that they are subject to the EPA review and approval. Colorado's policy has been approved by the EPA on multiple occasions, and most recently on August 4, 2011. The Region has reviewed the segment-specific rationale for this temporary modification and finds it to be consistent with Colorado's approved general policy. Accordingly, the revision is approved.

#### **ESA CONSULTATION**

Today's action includes a finding that the EPA's approval of the water quality standards revisions will have no effect on listed or proposed endangered or threatened species, or is otherwise not subject to ESA consultation. As a result, for the revisions addressed today, no consultation with the U.S. Fish and Wildlife Service is required. The basis for the EPA's finding is that candidate, threatened, or endangered species or critical habitat for listed species do not occur in the segment where revised water quality standards were adopted.

#### **CONCLUSION**

The Sand Creek WQS revisions are approved. The EPA Region 8 thanks the Commission and the Division for their efforts to review and revise Colorado water quality standards. Questions regarding this letter may be directed to David Moon, the Region's water quality standards coordinator, at 303-312-6833.

Sincerely,



Martin Hestmark  
Assistant Regional Administrator  
Office of Ecosystems Protection  
and Remediation