



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8**

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COPY

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JUL 16 2013

Peter Butler, Chair
Water Quality Control Commission
4300 Cherry Creek Drive South
Denver, CO 80222-1530

Re: EPA Action on Wildhorse Creek WQS

Dear Mr. Butler:

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 (Commission) for a portion of Wildhorse Creek (Lower Arkansas segment 2c, Regulation No. 32). The revisions were adopted November 14, 2011 and submitted to the EPA Region 8 for approval with a letter dated November 30, 2011. 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 December 2, 2011 initiated the EPA's review pursuant to Clean Water Act § 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 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 8 is approving, without condition, the water quality standards revisions for a portion of Wildhorse Creek (Lower Arkansas segment 2c). The adopted revisions, supporting analyses, and basis for the EPA's action are summarized below.

Adopted Revisions

The revisions included creation of a new Lower Arkansas segment 2c. The segment is described as “the mainstem of Wildhorse Creek, including all tributaries, from a point immediately below US Highway 287 in Kit Carson to the confluence with Big Sandy Creek.” Previously, this portion of Wildhorse Creek was in Lower Arkansas segment 2a. The segment 2c WQS are identical to those for segment 2a, with the exception of the numeric standards for cadmium and selenium.¹ The cadmium standard was changed from 10 µg/L to 50 µg/L, and the selenium standard was changed from 20 µg/L to 50 µg/L.

Supporting Analyses

Changes to Agriculture-Based Standards

The previous numeric standards for cadmium and selenium were based on protection of irrigation uses, while the revised numeric standards are based on protection of livestock watering uses. These revisions to the agriculture-based numeric standards are supported by the information submitted by the Water Quality Control Division (WQCD or Division) and the Town of Kit Carson. Specifically, evidence was submitted that Wildhorse Creek is an ephemeral stream, and there are no water diversions or irrigation uses (i.e., crops, hay meadows, or other forage are not irrigated with water from Wildhorse Creek). Evidence was also presented that a 50 µg/L numeric standard for cadmium and selenium is appropriate for protection of livestock watering uses.²

No Changes to Aquatic Life-Based Standards

Based on evidence submitted by the WQCD and Colorado Parks and Wildlife (CPW) the Commission did not make changes to the aquatic life-based standards for Lower Arkansas segment 2c (Aquatic Life Warm 2 use classification, narrative standards, and a limited set of numeric standards).³ Key points in support of this decision include the following:

- Surface flow in Wildhorse Creek is ephemeral in the short portion of the creek (< 1 stream mile) to be included in segment 2c. Surface flow is likely to be observed only in response to rare, very intense storms.

¹ Cadmium and selenium are CWA § 307(a)(1) priority pollutants.

² Cadmium and selenium water quality criteria of 50 µg/L are recommended for livestock watering uses in *Water Quality Criteria 1972* (the Blue Book), U.S. EPA, EPA•R3•033•March 1973.

³ The aquatic life-based standards for Wildhorse Creek are similar to those which have been applied to a number of Class 2 segments with very low flows and “rudimentary” aquatic life. For example, the same aquatic life-based standards have been applied to all of the streams included in Lower Arkansas segments 2a, 2b, and 2c.

- Wildhorse Creek has a poorly defined channel, and the presence of abundant terrestrial vegetation indicates that water rarely flows in the stream.
- Annual average precipitation in Kit Carson is low (e.g., 16.4 inches at National Weather Service station 054603).
- During a September 15, 2011 site visit by CPW staff following 0.74 inches of precipitation, there was no flowing water observed in Wildhorse Creek.⁴
- Conditions in Wildhorse Creek do not typically provide habitat for plains fishes (i.e., during periods between substantial precipitation events); the dry conditions are also unsuitable for aquatic macroinvertebrates.
- The new Kit Carson wastewater treatment facility discharge to Wildhorse Creek (design flow = 0.031 MGD) is expected to rapidly percolate within a short distance of the outfall.
- The nearby (larger) Cheyenne Wells wastewater facility discharge to Willow Creek (design flow = 0.14 MGD) also rapidly percolates such that standing water persists for only a few feet downstream.

The WQCD concluded that “based on the current conditions in Wildhorse Creek, the rapid percolation rate observed in the local area, and the conditions observed at the larger Cheyenne Wells facility, it is reasonable to assume that no habitat suitable for aquatic life will be created by Kit Carson’s new WWTF.” To support review of the WQS in the future, the Commission included language in the Statement of Basis and Purpose as follows:

The Commission expects that, consistent with the Division’s practice for reviewing site-specific standards during basinwide reviews, the Division will re-evaluate the conditions of Wildhorse Creek once the Kit Carson wastewater treatment facility is operational. If the discharge does change the nature of the aquatic habitat and change the expectation for the aquatic life expected to occur in Wildhorse Creek, it may be necessary to revisit the classifications and standards for this segment.

Basis for EPA’s Action

The Clean Water Act § 303(c)(2)(B) requires States to adopt numeric criteria for § 307(a)(1) priority pollutants as necessary for the protection of designated uses.⁵ EPA’s implementing guidance discusses 3 options for addressing the requirement.⁶ Option 2 results in adoption of numeric criteria only as necessary for the protection of designated uses (i.e., a demonstrated need

⁴ A 90th percentile rainfall event, compared to 2006-2011

⁵ CWA § 303(c)(2)(B) requires that States “shall adopt criteria for all toxic pollutants listed pursuant to section 307(a)(1) of this Act for which criteria have been published under section 304(a), the discharge or presence of which in the affected waters could reasonably be expected to interfere with those designated uses. Such criteria shall be specific numerical criteria for such toxic pollutants.”

⁶ The *Water Quality Standards Handbook: Second Edition* (Section 3.4, EPA-823-B-12-002; March 2012).

to control problem pollutants). In this rulemaking, the Commission determined that changes to aquatic life-based standards were not needed, and that the designated uses of Lower Arkansas segment 2c can be protected by revising only the agriculture-based numeric standards.

Given the evidence that there are no irrigation uses in this ephemeral stream, and that flow conditions are ephemeral, the Region agrees that livestock watering numeric standards are appropriate for protection of agriculture uses. In addition, because the new Kit Carson WWTF discharge is not expected to fundamentally change the physical habitat and flow conditions in Wildhorse Creek, the Commission's decision to make no change to the aquatic life-based standards is consistent with Option 2 for complying with CWA § 303(c)(2)(B). Accordingly, the Region approves the revisions to water quality standards for Lower Arkansas segment 2c.

ESA CONSULTATION

It is important to note that the EPA approval of State standards is considered a federal action which may be subject to the Section 7 consultation requirements of the Endangered Species Act (ESA). For ESA Section 7(a)(2) to apply, the EPA must be taking an action in which it has sufficient discretionary federal involvement or control to protect listed species. The EPA's discretion to act on the revisions described above is limited to determining whether the agriculture-based numeric standards ensure protection of the agriculture designated use. Because Colorado made no changes to aquatic life-based standards, the EPA concludes that the Agency's discretion is limited to determining whether the revisions ensure protection of agriculture uses. Accordingly, the EPA concludes that its action is not subject to ESA Section 7(a)(2) consultation requirements.

CONCLUSION

The WQS revisions for Lower Arkansas segment 2a 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

