UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
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DEC 28 2011

Ref: 8EPR-EP

John V. Corra, Director
Wyoming Department of Environmental Quality
Herschler Building
122 West 25th Street
Cheyenne, WY 82002

Re: EPA's action on the reclassifications for 15 waterbodies in the North Platte and Upper Belle Fourche basins, Wyoming.

Dear ~~Mr. Corra~~ John:

The purpose of this letter is to notify you of the status of the U.S. Environmental Protection Agency Region 8 (EPA) review of the revisions to the water quality standards for 15 waterbodies in the North Platte and Upper Belle Fourche basins, Wyoming. Revisions to the waterbodies in the North Platte Basin were submitted by the Wyoming Department of Environmental Quality (WDEQ) in a letter dated August 29, 2011. Revisions to Gillette Fishing Lake in the Upper Bell Forche Basin were submitted by WDEQ in a letter dated October 14, 2011. The submission letters included an Opinion of the Attorney General certifying that the standards were duly adopted pursuant to state law. Receipt of the revised standards on September 7, 2011 and October 19, 2011, respectively, initiated the EPA's review pursuant to Section 303(c) of the Clean Water Act and the implementing federal water quality standards regulation (40 CFR Part 131). The agency has completed its review of the state's submittal and this letter is to notify you of our action.

CLEAN WATER ACT REVIEW REQUIREMENTS

CWA § 303(c)(2) requires states and authorized Indian tribes to submit new and revised water quality standards to the agency 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

I am pleased to inform you that today the EPA is approving all of the revised use classifications. The rationale for the EPA's action is briefly outlined below and discussed in detail in the enclosure. The

EPA's review took into consideration the information and data presented in the Use Attainability Analyses (UAA), public comments, and WDEQ response to comments. We thank WDEQ for providing additional information in its response to comments that addressed many of our initial concerns with the proposed reclassifications.

With respect to the recreation use designation revisions (i.e., primary contact recreation to secondary contact recreation), the EPA concurs with the state that secondary contact recreation appropriately defines the existing and expected future recreational use of these waterbodies. This expectation is due to the natural physical features of the waterbodies (limited water and flow; 40 CFR § 131.10(g)(2)) and lack of known existing primary contact recreational use, in addition to the remoteness and inaccessibility that would prevent future use of the waterbodies for primary contact recreation.

With respect to the aquatic life use revisions and drinking water use removal, the EPA has determined that the data and rationale presented in the UAAs support the revised classifications. Six of the seven aquatic life use changes (2AB to 2C and 2AB to 2ABww) will result in less stringent criteria for some water quality parameters; however, the 3B to 2C reclassification for Cottonwood Creek upgrades the aquatic life use designation. We commend WDEQ for changing the designated use for Cottonwood Creek to provide better protection for the existing aquatic life use.

ENDANGERED SPECIES ACT REQUIREMENTS

The EPA has determined that today's action will have no effect on listed or proposed endangered or threatened species or designated critical habitat and 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.

CONCLUSION

We encourage WDEQ to continue to evaluate and improve existing water quality standards to better protect Wyoming's surface waters. If you have any questions concerning this letter, contact Lareina Guenzel (303) 312-6610 or Tonya Fish (303) 312-6832 on my staff.

Sincerely,

Carol L. Campbell

Carol L. Campbell
Assistant Regional Administrator
Office of Ecosystems Protection
and Remediation

Enclosure

RATIONALE FOR THE U.S. EPA REGION 8 ACTION

Today's action letter addresses the revisions to the designated uses that apply to the 15 waterbodies in the North Platte (Goshen County) and Upper Belle Fourche (Campbell County) basins, Wyoming, listed in Table 1. This enclosure provides a summary of the reclassifications and rationale for the approval action taken by the EPA.

Table 1: Summary of Approved Designated Use Changes

Waterbody	Use Change(s)
North Platte Basin	
Bear Creek	Primary to secondary contact recreation
Cherry Creek	Primary to secondary contact recreation; 2AB to 2C (coldwater game fishery to warmwater non-game fishery and removal of drinking water use)
Cherry Creek Drain	2AB to 2C (coldwater game fishery to warmwater non-game fishery and removal of drinking water use)
Cottonwood Creek	Primary to secondary contact recreation; 3B to 2C (add non-game fisheries and fish consumption uses)
Dater Creek	Primary to secondary contact recreation; 2AB to 2C (coldwater game fishery to warmwater non-game fishery and removal of drinking water use)
Deer Creek	2AB to 2C (coldwater game fishery to warmwater non-game fishery and removal of drinking water use)
Fox Creek	Primary to secondary contact recreation
Horse Creek (Downstream of Stinking Water Creek)	2AB to 2ABww (coldwater game fishery to warmwater game fishery)
Jay Em Creek	Primary to secondary contact recreation
Little Cottonwood Creek	Primary to secondary contact recreation
Muskrat Creek	Primary to secondary contact recreation
Negro Baby Creek	Primary to secondary contact recreation
Red Cloud Slough	Primary to secondary contact recreation
Sage Creek	Primary to secondary contact recreation
Upper Belle Fourche Basin	
Gillette Fishing Lake	2AB to 2ABww (coldwater game fishery to warmwater game fishery)

Federal Regulatory Requirements

Section 101(a)(2) of the Clean Water Act (CWA or the Act) states that "it is the national goal that wherever attainable, an interim goal of water quality which provides for the protection and propagation of fish shellfish, and wildlife and provides for recreation in an on the water." CWA § 303(c)(2)(A) requires water quality standards to "protect the public health and welfare, enhance the quality of water and serve the purpose of the Chapter." The EPA's regulation at 40 CFR Part 131 interpret and

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implement these provisions through a requirement that water quality standards protect CWA § 101(a)(2) uses unless those uses have been shown to be unattainable, effectively creating a rebuttable presumption of attainability (40 CFR § 131.10(j)). Unless the state or tribe rebuts this presumption, the EPA's regulation requires that CWA§ 101(a)(2) uses must be designated. Where a state or tribe believes that a CWA § 101(a)(2) use is not attainable and wishes to remove or adopt a subcategory of a use which requires less stringent criteria, the state or tribe must show that the use change will not result in removing an existing use and complete a use attainability analysis (40 CFR § 131.10(h)(1), (j)(2)).

The federal regulations at 40 CFR § 131.3(g) define a Use Attainability Analysis (UAA) as a "structured, scientific assessment of the factors affecting the attainment of the use which may include physical, chemical, biological and economic factors as described in 40 CFR § 131.10(g)." A UAA must be used to determine the use that is feasible to attain in the waterbody. The EPA requires that a UAA provide sufficient information to support the designation of any use that does not provide protection for a CWA § 101(a)(2) use (40 CFR § 131.6(f)), citing one or more of the six factors described in 40 CFR § 131.10(g).

I. Recreational use designation approved pursuant to CWA § 303(c)

Wyoming revised the recreational use designation from primary contact recreation to secondary contact recreation for 11 waterbodies (Table 1). These reclassifications result in less-stringent criteria for *E. coli* bacteria. Consistent with the federal requirements, Wyoming's water quality standards require a UAA to add or remove a designated use from Class 2, 3 or 4 waters (Water Quality Rules and Regulations, Chapter 1, Section 33(b) and (c)). Wyoming's UAA Implementation Policy (UAA Policy) states a UAA is required when changing from primary to secondary contract recreation (Section II(C)). Section V of Wyoming's UAA Policy requires that each UAA contain information and or data that are specific to the petition being made and to the associated Section 33(b) factor where relevant. The adopted reclassifications are all based on factors (b)(ii) and (v).

> *"(b)(ii) Natural ephemeral, intermittent or low flow conditions or water levels prevent the attainment of the use, unless these conditions may be compensated for by the discharge of sufficient volume of effluent without violating State water conservation requirements to enable uses to be met;"*
>
> *"(b)(v) Physical conditions related to the natural features of the water body, such as the lack of a proper substrate, cover, depth, pools, riffles, and the like, unrelated to water quality, preclude attainment of the classification or use;"*

Section VII of the UAA Policy describes the procedures for recreation designations and provides a Recreational Use Designations UAA Worksheet. For each of the 11 waterbodies, this worksheet was completed by the Goshen County Conservation District (the District).

To determine whether primary contact recreation is an attainable use, the EPA suggests that the state looks at a suite of factors, such as actual use, existing water quality, water quality potential, access, recreational facilities, location, safety considerations, and physical conditions (63 Fed. Reg. 36742, 36756 (July 7, 1998) and the EPA Region 8's 1992 Guidance *Recreation Standards and the CWA*

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Section 101(a)(2) "Swimmable" Goal).[1] With Wyoming's submission, Wyoming Division of Environmental Quality (WDEQ) provided the EPA copies of the UAAs, land owner testimony, public comments and WDEQ response to comments upon which WDEQ relied to revise the recreational uses. The EPA reviewed the information provided in these documents to ensure that the existing and expected future recreational use of the waterbodies, or lack thereof, was consistent with Wyoming's definition of secondary contact recreation, the EPA's suggested approach, and federal requirements.[2] The EPA relied on the following key information when making our determination to approve the recreation use revisions.

- Multiple photographs documenting limited flow, small channel, remoteness, and water resources that are typically not suitable for primary contact recreation.
- The lack of known existing primary contact recreation activities such as swimming, bathing, and child's play.[3]
- The lack of physical characteristics that would invite primary contact recreational use (e.g., beaches and boat docks).
- Isolation from parks, recreation areas, municipalities, high density housing areas, schools, or other area frequented by children.
- Land surrounding the waterbodies is predominantly private, with just a few instances of water flowing near or through state trust land.

The EPA notes that a commenter opposed adoption of secondary contact recreation for a number of the waterbodies during the public comment period due to the potential for people to engage in full body contact and the potential for child's play. The EPA does not believe that the information provided by the commenter was specific enough for the EPA to disapprove secondary contact recreation. Nevertheless, the EPA recommends that WDEQ consider these comments when reviewing the designated uses for these waterbodies pursuant to 40 CFR § 131.20(a).[4] If new information indicates that primary contact recreation is an existing or attainable use, Wyoming must revise its standards accordingly.

Overall, the EPA concurs with Wyoming's decision that secondary contract recreation more appropriately defines the recreational use for the 11 waterbodies due to the natural physical features of the waterbodies (limited water and flow; 40 CFR § 131.10(g)(2)) and lack of known existing primary contact recreational use. Aditionally, the remoteness and inaccessibility would be expected to prevent future use of the waterbodies for primary contact recreation. Accordingly, the EPA approves the secondary contract recreation use designations for the 11 waterbodies listed in Table 1.

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[1] Available at http://www.epa.gov/region8/water/wqs/wqsdocs.html.

[2] Secondary contact recreation means any recreational or other surface water use in which contact with water is either incidental or accidental and that would not be expected to result in ingestion of the water or immersion.

[3] Supported by completion of Wyoming's UAA worksheet for all waterbodies and landowner testimony for Bear, Dater, Fox, and Muskrat creeks.

[4] 40 CFR § 131.20(a) requires states to re-examine the designation of uses that do not include the uses specified in CWA § 101(a)(2) every three years to determine if new information has become available indicating that CWA § 101(a)(2) uses for those water are not attainable.

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II. AQUATIC LIFE AND DRINKING WATER USE DESIGNATIONS APPROVED PURSUANT TO CWA § 303(C)

Classification change from 3B to 2C

The EPA is approving the classification upgrade for Cottonwood Creek from Class 3B to Class 2C. The revision results in the addition of the non-game fishery and fish consumption uses. The UAA completed by the District included habitat sampling and limited data (due to lack of flow) for two sites, one was sampled in August 2006 and the other in July 2007. The habitat data were supplemented by historic aquatic life sampling efforts and a letter from the Wyoming Game and Fish Department (WGFD) supporting the reclassification. The reclassification notice stated that warmwater non-game fish, including creek chub, longnose dace, and fathead minnows, were collected in 2006. The EPA concludes this change is consistent with the requirements of CWA § 303(c) and the EPA's implementing regulation at 40 CFR § 131.10 given the existing fish community. Accordingly, these revisions are approved without condition. The EPA commends DEQ for upgrading the use classification to provide better protection for the existing aquatic life use in Cottonwood Creek.

Classification changes from 2AB to 2C

The EPA is approving the 2AB to 2C use designation revisions for Cherry Creek, Cherry Creek Drain, Dater Creek, and Deer Creek. This reclassification results in a change from coldwater game fishery to warmwater non-game fishery and removal of the drinking water use.

With respect to the drinking use removal, 40 CFR § 131.10(g) allows for the removal of a designated use "which is not an existing use" only if the State can demonstrate that the use is not attainable under one of the six criteria outlined in that section. Wyoming's WQS require a UAA to add or remove a designated use (Section 33). Section V of the Policy states that for (b)(ii), "In relation to drinking water, the UAA needs to demonstrate that water availability is not sufficient to support community or non-community drinking water supplies as defined under the federal Safe Drinking Water Act." Although the UAA's prepared by the District do not address the drinking water use removal, WDEQ addressed this requirement in its response to public comments. WDEQ reviewed all the source waters from which state drinking water supplies originate and determined that these waterbodies (i.e., Cherry Creek, Cherry Creek Drain, Dater Creek, and Deer Creek) are not used as drinking water sources by any facility in the state.

With respect to the aquatic life use revisions, the waterbody specific information that the EPA took into consideration when determining our approval of the reclassifications is summarized below.

Cherry Creek and Cherry Creek Drain

The UAA completed by the District documents that the upper section of Cherry Creek is intermittent and flows 15 miles before sinking to subsurface flow. The Creek reemerges and continues to flow as a perennial stream for an additional 19 miles. This lower, perennial section of the creek receives water from the Laramie Canal and is also known as the Cherry Creek Drain. The UAA included habitat sampling and data for seven sites, four on the upper section and three on the Cherry Creek Drain. The upper section was sampled in June 2005 and the Cherry Creek Drain in August 2005. The habitat data were supplemented by historic aquatic life sampling efforts and a letter from WGFD supporting the

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reclassification. The aquatic life use change was based on a Section 33(b)(v) demonstration that a coldwater fishery is not supported largely due to lack of physical habitat (narrow width, shallow depth, limited flow and velocity, homogeneous sand/silt substrate, high temperatures). Fish sampling by the WGFD in the upper section in 2006 did not find any fish species. Fish sampling in the Cherry Creek Drain in 1995 and 2006 did not detect either coldwater or warmwater game fish, but did find warmwater non-game fish including fathead minnow, plains killifish, sand shiner, creek chub, and longnose dace.

Dater Creek

The UAA completed by the District provided data from one sampling event in August 2005 at expected low flow, supplemented by historic sampling efforts and a letter from WGFD supporting the proposed reclassification. The UAA presented a Section 33(b)(v) demonstration that a coldwater fishery is not supported largely due to lack of physical habitat (narrow width, limited flow and velocity, and homogeneous sand/silt substrate). WGFD fish sampling in 1995 and 2006 did not detect either coldwater or warmwater game species, but did find warmwater non-game fish including creek chub, longnose dace, and white suckers.

Deer Creek

The UAA completed by the District included habitat sampling and data for two sites on two days in August 2006 at expected low flow. The habitat data are supplemented by historic aquatic life sampling efforts and a letter from WGFD supporting the reclassification. The aquatic life use change is based on a Section 33(b)(v) demonstration that a coldwater fishery is not supported largely due to lack of physical habitat (narrow width, limited flow and velocity, homogeneous sand/silt substrate, high temperatures). Fish sampling by the WGFD in 2005 and 2006 did not detect either coldwater or warmwater game fish, but did find warmwater non-game fish including fathead minnow, brassy minnow, central stoneroller, common carp, white sucker and creek chub.

Overall, the data and information presented in the UAAs and WDEQ response to comments supports the 2AB to 2C revisions. The EPA concludes the reclassifications are consistent with the requirements of CWA § 303(c) and the EPA's implementing regulation at 40 CFR § 131.10. Accordingly, these revisions are approved without condition.

<u>Classification change from 2AB to 2ABww</u>

WDEQ added the "ww" notation, which identifies the waterbody as a warmwater game fishery, to the 2AB classification for the segment of Horse Creek from its confluence with Stinking Water Creek downstream to the Nebraska border and Gillette Fishing Lake located on Donkey Creek.

Horse Creek

The Horse Creek UAA completed by the District is based on a Section 33(b)(v) demonstration that the warmwater habitat is a result of natural conditions. The UAA included stream habitat data for seven sites during two days in August 2005. The habitat data were supplemented by historic data indicating that Horse Creek transitions from coldwater to warmwater fish assemblages due to increased temperatures resulting from lower elevation, changes in stream substrate to silt/sand, and a natural loss

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of fish cover. The WGFD submitted a letter supporting the reclassification. There are no WGFD records of coldwater fish in this segment, whereas several entities have collected warmwater fish species including brassy minnow, bigmouth shiner, central stoneroller, common carp, common shiner, creek chub, fathead minnow, green sunfish, gizzard shad, johnny darter, longnose dace, longnose sucker, plains killifish, plains topminnow, red shiner, sand shiner, suckermouth minnow, stonecat, white crappie, and white sucker. The EPA concludes the use classification change is consistent with the requirements of CWA § 303(c) and the EPA's implementing regulation at 40 CFR § 131.10. Accordingly, these revisions are approved without condition.

Gillette Fishing Lake

Multiple lines of evidence were presented in the Gillette Fishing Lake UAA and WDEQ cover letter for the UAA to support the adopted use change including:

- an analysis of the thermal requirements for rainbow trout and how these requirements compare to lake temperatures that includes one date where temperatures are near lethal temperatures for trout;
- the current, potential, and designed reservoir depth is not conducive to providing preferred habitat for cold water fish;
- the up and down stream waterbody (Donkey Creek) is not known to support any fish populations, let alone cold water fish, due to flow and habitat limitations; and
- the general relationship between reservoir elevation and mean temperature during summer months indicates that the temperatures in Gillette Fishing Lake would be expected to exceed thermal requirements to support a cold water fishery.

The EPA concludes this change is consistent with the requirements of CWA § 303(c) and the EPA's implementing regulation at 40 CFR § 131.10. Accordingly, these revisions are approved without condition.

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