Enclosure

I. Provisions of the Draft Bad River Water Quality Standards That May be Subject to Interpretation in a Manner that is Inconsistent With the Clean Water Act and Federal Regulations

Section C, Applicability, administration and amendment. 4.ii.

This provision states that modification of the Tribe's WQS, "shall be subject to public participation, consistent with the requirements of 40 CFR Part 25." The Federal regulations at 40 CFR Part 131.20 describe the Federal requirements for review and revision of water quality standards and include additional requirements governing public participation at 40 CFR 131.20(b). Because the Tribe's proposed water quality standards do not reference the requirements of 40 CFR 131.20, the Tribe's intent with respect to these requirements is unclear, creating an opportunity for interpretation of the Tribe's water quality standards in a manner that conflicts with the Federal regulations. This could be addressed by adding a reference to 40 CFR Part 131.20(b) in C.4.ii. of the Tribe's water quality standards, as well as the public participation requirements of 40 CFR Part 25. It also would be appropriate to reference other provisions of the Tribe's water quality standards that authorize revisions or site-specific modifications, specifically E.2.v. (changes to antidegradation classifications of waterbodies), E.7.v. (modification of criteria), and H (the portion of the first paragraph dealing with new or revised criteria) to ensure that these modifications and revisions are adopted in a manner consistent with the procedural requirements of C.4.ii.

Section H, Numeric water quality criteria.

In section H, the Tribe's water quality standards state: "Except where more protective criteria are specified in these Tribal water quality standards, the Bad River Tribe adopts by reference all of the numeric criteria and methodologies from the Great Lakes Guidance, 40 CFR 132.6, and Great Lakes Guidance shall be used to calculate all criteria. If these criteria are deemed not appropriate, Clean Water Act 304(a) criteria may be used. For all other pollutants where the Great Lakes Guidance methodology is not applicable, or where more stringent criteria is determined to be necessary for protection of Tribal surface waters, the applicable criteria will be the more protective value of either the provisions of these Tribal water quality standards or the most recent EPA published criteria recommendations as required by the Clean Water Act 304(a) or criteria developed applying methodologies and procedures acceptable under 40 CFR 131. For all other pollutants where the Great Lakes Guidance methodology is not applicable, or where more stringent criteria is determined to be necessary for protection of Tribal surface waters, the applicable criteria will be the more protective value of either the provisions of these Tribal water quality standards or the most recent U.S. EPA published criteria recommendations as required by the Clean Water Act 304(a) or criteria developed applying methodologies and procedures acceptable under 40 CFR 131."

While EPA understands the desire of the Tribe to ensure that its water quality standards are sufficiently stringent to protect the Tribe's waters and members, without additional context clarifying how the Tribe intends for this provision to be implemented, this provision could generate a conflict with the CWA or Federal regulations because it does not describe the process that will be followed to revise the criteria specified in the tables in Section H. It is also not clear with whom the authority resides to deem a criterion inappropriate or how the public will be informed of new or revised criteria. This could lead to a conflict with section 303(c)(2) of the CWA and the Federal regulations at 40 CFR Part 131.20. If the process in Section C.4. requiring public participation, adoption and submittal to EPA (consistent with the comments provided on

that section above) is referenced as the mechanism to be used to revise criteria, then there will be no such conflict.

II. Provisions of the Draft Bad River Water Quality Standards That Are Unclear

Section C. Applicability, administration, and amendment.

C.6. This provision states: "All numeric chronic criteria contained in this section apply at all in-stream flow rates greater than or equal to the flow rate calculated as the minimum 7-consecutive day average flow with a recurrence frequency of once in ten years (7Q10); narrative criteria apply regardless of flow. Numeric acute criteria shall apply regardless of flow." This provision appears to authorize mixing zones in the calculation of permit limits to comply with chronic water quality criteria, although the standards do not include an explicit mixing zone policy. Is it the Tribe's intent to authorize consideration of mixing in the calculation of permit limits to implement numeric chronic water quality criteria in the Tribe's water quality standards? If it is the Tribe's intent to allow for consideration of mixing, EPA urges the Tribe to include a policy in the water quality standards describing when, where, and to what extent, dilution may be considered in deriving limits to implement the standards.

Section D. Definitions

As a general comment, it may be beneficial for the Tribe to adopt the definitions for terms contained in the CWA and Federal regulations by reference and only include definitions for terms that are unique to the Tribe's water quality standards and that are not defined in the CWA or Federal regulations. This would simplify the definition section and ensure consistency of definitions of terms between the Tribe and the Federal program. As noted below, there are terms defined in the Tribe's water quality standards that differ from the corresponding Federal definition of the same term. Where there are differences, we would like to confirm that the differences are intentional rather than inadvertent.

Terms used in the Tribe's water quality standards that could be defined:

Cold Water Fishery, Cool Water Fishery. These terms are used in Section F. To the extent that the Tribe understands particular species or characteristics to be indicators of these communities, these could be included in the definition section. This would help ensure that future water resources staff apply the standards in a consistent manner.

Supportive communities. This term is used in E.6.ii.f., "… results in changes to naturally occurring biological communities and corresponding supportive communities shall be prohibited." What is meant by this term?

Comments on specific definitions contained in Section D:

Adverse effect. The Tribe's definition of this term does not include the underlined section of the definition for "adverse effect" included in 40 CFR 132.2. The federal definition at 132.2 states: "Adverse effect is any detrimental effect to organisms due to exposure to a substance. This includes effects which are or may become harmful or toxic to the normal functions of an organism, <u>but does not include non-harmful effects such a tissue discoloration alone or the induction of enzymes involved in the metabolism of the substance</u>." Is the omission of the underlined section intentional and, if it is, does it indicate that the Tribe considers effects of this type to be harmful? Criteria derived by EPA do not protect against this type of effect.

Human cancer value. The definition of the term "human cancer value" in the Federal regulations at 40 CFR 132.2 is: "the maximum ambient water concentration of a substance at which a lifetime of exposure from either: drinking the water, consuming fish from the water, and water-related recreation activities, <u>or consuming fish from the water, and water-related recreational activities,</u> will represent a plausible upper-bound risk of contracting cancer of one in 100,000 using the exposure assumptions specified in the Methodologies for the Development of Human Health Criteria and Values in appendix C of 40 CFR 132." The Tribe's definition of the term at D.21. omits the underlined phrase. It appears that this may have been a transcription error because the definition of human noncancer value at D.23. includes the underlined phrase and matches exactly the definition in the Federal regulations at 40 CFR 132.2. Regardless, as written, the definition does not complete the "either" clause, making the definition unclear.

Point source. The definition of the term "point source" in the Federal regulations is: "any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. <u>This term does not include agricultural stormwater discharges and return flows from irrigated agriculture.</u>" The definition of the term in the Tribe's water quality standards lacks the underlined sentence. Did the Tribe intend to omit that portion of the definition? To the extent that the omission is intentional, the Tribe should be aware that EPA does not have the authority under the CWA to regulate agricultural stormwater discharges and return flows from irrigated agriculture as point sources.

Pollutant. Federal regulations at 40 CFR Part 122.2 define "pollutant" as: "dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water." The term "Pollution" is defined at 40 CFR Part 130.2 as: "the man-made or man-induced alteration of the chemical, physical, biological, and radiological integrity of water." In D.30. the Tribe defines "pollutant" using the definition of "pollution" set by the CWA. Is this intentional?

Section E. General Considerations

Antidegradation Policy, Provision E.2.ii. This provision states: "Existing ambient water quality on Outstanding Resource Waters may not be lowered." Later, the provision states: "Where the quality of the water exceeds that necessary to support the designated use, that quality shall be maintained and protected, or improved, unless the Tribe finds, after full satisfaction of inter-governmental coordination and public participation provisions of the Tribe's continuing planning process that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located." The Tribe's intent with these two statements is unclear to EPA. Is it that new or increased discharges are permissible but only if the resulting water quality does not change from background?

Antidegradation Policy, Provision E.2.v. The Tribe's water quality standards indicate that a Use Attainability Analysis (UAA) will be performed prior to moving a water body from a more protective antidegradation classification to a less protective antidegradation classification. EPA's regulations do not treat assignment of a water to an antidegradation tier as a designated use subject to a UAA, nor would we expect a UAA if waters are moved from a higher antidegradation tier to a lower antidegradation tier. The Tribe may, at its discretion, choose to use EPA's UAA tool for purposes of making such decisions, however the Tribe is not required by the Federal regulations or the CWA to do so. If the Tribe chooses to require UAAs for this purpose, the water quality standards should include a citation to EPA's UAA regulations (40 CFR 131.10).

Antidegradation Implementation, Provisions E.3.ii.a through E.3.ii.c. The Tribe's water quality standards define a lowering of water quality as: "the projected or observed diminished chemical or biological integrity of Reservation surface waters, including changes to water flow or water level; or, new or increased loading of any pollutant from any regulated existing or new facility, either point source or nonpoint source, for which there is a control document or reviewable action." This definition does not include consideration of physical integrity, which might be affected by activities such as dredge and fill.

Antidegradation Implementation, Provisions E.3.ii.b. and E.3.ii.c. These provisions state that only Tribal actions to undertake the identified management activities are allowed. Would non-Tribal entities be allowed to restore resource habitat or respond to an emergency, or would this section preclude such activities?

Antidegradation Demonstration, Provision E.4.i. The Tribe notes that antidegradation demonstration materials should be submitted to the Water Resources Program but does not specify to whom materials should be addressed. To avoid confusion, EPA recommends that the Tribe identify to whom within the Water Resources Program materials should be submitted and by whom a decision will be made.

Antidegradation Demonstration, Provision E.4.ii.b. The Tribe's antidegradation implementation procedures require that an antidegradation demonstration for an ERW "identify alternative or enhanced treatment techniques that are available to the entity that would eliminate the lowering of water quality and their costs relative to the cost of treatment necessary to achieve applicable effluent limitations." Would the Tribe also like demonstrations to include options that would reduce or substantially reduce the lowering of water quality?

Narrative Criteria, Provision E.6.ii.b. The Tribe's water quality standards state that "concentrations of radioactive materials shall not exceed concentrations caused by naturally occurring materials." Does the Tribe mean "levels of radioactivity shall not exceed those found in Tribal waters under natural background conditions," or "...levels of radioactivity shall not exceed levels expected in Tribal waters under natural background conditions?"

Narrative Criteria, Provision, E.6.ii.e. The Tribe's water quality standards state: "Pollutants or human-induced changes to waters, the sediments of waters, or area hydrology that alter natural ambient conditions in waters such as, without limitation, flow, level, stage, dissolved oxygen, pH, and temperature shall be prohibited." This statement appears to forbid any human impact to Tribal waters that alters "natural ambient conditions." Is it the Tribe's intent to limit this prohibition to changes in flow, level stage, dissolved oxygen, pH, and temperature? Many common discharges, such as effluent from municipal wastewater treatment plants, have some small, localized impact on dissolved oxygen, pH, and temperature.

General Narrative Criteria, E.6.ii.h. The Tribe's water quality standards state: "No increase or decrease in temperature shall be allowed from other than natural causes." As stated in the previous comment, many common discharges, such as effluent from municipal wastewater treatment plants and stormwater from parking lots during the summer, have some small, localized impacts on temperature. Is it the Tribe's intent to prohibit such discharges?

Specific Numeric Criteria, E.7.v. The Tribe's water quality standards state: "...modifications to water quality criteria shall assure that all designated and existing uses are protected and that water quality standards continue to be attained." EPA defines water quality standards as designated uses, criteria, and antidegradation. EPA believes that the term "water quality standards" in this provision of the Tribe's water quality standards means that the designated uses, the modified

criteria, and the antidegradation policy continue to be attained. Is this consistent with the Tribe's intent?

Section H, Numeric Water Quality Criteria

H.4. The Tribe's water quality standards state: "The human health cancer criteria for nondrinking water (HCV-nondrinking), and human health noncancer criteria for nondrinking water (HNV-nondrinking) from Tables 6 and 7 shall apply to all waters with a Cultural (C1) and/or Recreational (R) designated use." Does the Tribe mean "the human health cancer criteria for nondrinking water (HCV-nondrinking), and human health noncancer criteria for nondrinking water (HNV-nondrinking) from Tables 6 and 7 shall apply to all waters *without* a Cultural (C1) and/or Recreational (R) designated use?"

H.4. The Tribe's water quality standards state: "the criteria in Tables 6 and 7 are roughly based on EPA's recommended subsistence fish consumption rate of 142.4 g/day." Providing the actual fish consumption level used in these calculations is preferable to describing the criteria as roughly based on a fish consumption rate of 142.4 g/day.

III. Provisions of the Draft Bad River Water Quality Standards That Require Minor Changes

Section H, Numeric Water Quality Criteria

In footnote "d" to Table 2, "CDM" should be "CMC".

In footnote "c" to Table 3, the equation should read "CMCt=exp mA{[pH]+bA}".

In Table 4, the CCC value for chromium (VI) should be subject to footnotes "a" and "b".

In footnote "b" to Table 4, the statement "the CCCd shall be rounded to two significant digits" should be included.

Footnote "d" to Table 4 should read "CCC=CCCt".

In the notes to Table 4, the sentence "CCC^t s the CCC expressed as a total concentration" should read "CCC^t is the CCC expressed ...."

In Table 5, cadmium, chromium (III), copper, nickel, and zinc should be denoted as subject to footnotes "a" and "b". Pentachlorophenol should be subject to footnote "c".

In footnote "a" to Table 5, the equation should be modified to read "CCCtr=exp{mc[ln (hardness)]+bc}".

In footnote "c" to Table 5, the equation should be modified to read "CMCt=exp{mA[pH]+bA}." In addition, the next sentence should read "the CMCt shall be rounded to two significant digits."

In Table 8, please note that the mercury criterion includes methylmercury.