Bad River Band of Lake Superior Tribe of Chippewa Indians
Responsiveness Summary: Proposed Water Quality Standards
July 6, 2011

This responsiveness summary addresses comments received concerning the proposed Water Quality Standards (WQS) of the Bad River Band of Lake Superior Tribe of Chippewa Indians (Bad River Tribe or Tribe). On February 7, 2011, the Bad River Tribe started soliciting public comments on all aspects of the proposed WQS. Notice of a public hearing was posted on February 7, 2011, in The Daily Press, published in Ashland, Wisconsin (Appendix A). A Public Notice and Request for Comments factsheet was developed and distributed (Appendix B). Hard copies of both the Bad River Tribe's proposed WQS (Appendix C) and the Public Notice and Request for Comments factsheets were available in the Bad River Tribe's Natural Resources Department. Electronic copies of the proposed standards and the public notice factsheets were also distributed via email upon request.

The Bad River Tribe's proposed WQS and the Public Notice and Request for Comments factsheets along with cover letters dated February 9, 2011, were distributed via certified mail to the following: Fond du Lac Band of Lake Superior Chippewa, Grand Portage Band of Lake Superior Chippewa, Illinois Environmental Protection Agency, Indiana Department of Environmental Management, Michigan Department of Environmental Quality, Minnesota Pollution Control Agency, New York State Department of Environmental Conservation, Ohio Environmental Protection Agency, Pennsylvania Department of Environmental Protection, Sokaogon Chippewa Community, and Wisconsin Department of Natural Resources. All certified mail return receipts were received.

The Bad River Tribe's proposed WQS and the Public Notice and Request for Comments factsheets along with cover letters dated February 10, 2010, were mailed to additional regional tribes and tribal organizations, including: Bay Mills Indian Community, Bois Forte Band, Forest County Potawatomi Community, Grand Traverse Band of Ottawa and Chippewa Indians, Great Lakes Indian Fish and Wildlife Commission, Hannahville Indian Community, Ho-Chunk Nation of Wisconsin, Keweenaw Bay Indian Community, Lac Courte Oreilles Band of Lake Superior Chippewa, Lac du Flambeau Band of Lake Superior Chippewa Indians, Lac Vieux Desert Band of Lake Superior Chippewa Indians, Leech Lake Band of Ojibwe, Little River Band of Ottawa Indians, Little Traverse Bay Band of Odawa Indians, Lower Sioux Indian Community, Match-E-Be-Nash-She-Wish Band of Pottawatomi Indians, Menominee Indian Tribe of Wisconsin, Mille Lacs Band of Ojibwe, Nottawaseppi Huron Band of Potawatomi Indians, Oneida Tribe of Indians of Wisconsin, Pokagon Band of Potawatomi Indians, Prairie Island Indian Community, Red Cliff Band of Lake Superior Chippewa Indians, Red Lake Band of Chippewa Indians, St. Croix Chippewa Indians of Wisconsin, Saginaw Chippewa Indian Tribe, Sault Ste. Marie Band of Chippewa Indians, Shakopee Mdewakanton Sioux Community of Minnesota, Stockbridge Munsee Community, Upper Sioux Community, and White Earth Band.

Information about the Bad River Tribe's proposed WQS, including details of the public comment period and public hearing, was also provided on the Bad River Tribe's website (www.badriver-nsn.gov), posted on March 11, 2011, in the Bad River Tribe's Natural Resources Department's newsletter (spring 2011

edition), which was distributed on March 11, 2011, and at the Bad River Tribe's Natural Resources Department's Environmental Open House, which was held on March 15, 2011. Hard copies of the proposed WQS and the public notice factsheet were available at the Bad River Tribe's Natural Resources Department's Environmental Open House. Public Notice and Request for Comments factsheets were also distributed at the Wisconsin Lake Superior Basin Partner Team meeting held on March 15, 2011. As previously mentioned, electronic copies of the WQS and the public notice factsheet were also distributed via email upon request.

The public hearing was held at the Bad River Lodge and Casino Convention Center on March 28, 2011, commencing at 5:00 p.m. The public hearing was audio recorded (on file at the Bad River Tribe's Natural Resources Department).

This responsiveness summary addresses both written comments and oral comments received concerning the Bad River Tribe's proposed WQS. The comment received, which are summarized below, sought clarification of various aspects of the proposed WQS. The public comment period was beneficial to the Bad River Tribe and resulted in multiple revisions of the standards, which are described in detail below.

This document is organized into three sections. The first section responds to the comments received from the United States Environmental Protection Agency (U.S. EPA); the second section responds to comments received from the Wisconsin Department of Natural Resources (DNR); and the third section responds to comments from other persons or organizations.

Section 1: Comments submitted by the U.S. EPA

In the letter from Linda Holst, Water Quality Branch Chief, dated March 28, 2011, EPA provided the results of their preliminary review of Bad River Tribe's proposed WQS. The enclosure to the letter categorized comments into three tiers: (Tier I) Provisions of the Draft Bad River WQS that May be Subject to Interpretation in a Manner that is Inconsistent with the Clean Water Act (CWA) and Federal regulations; (Tier II) Provisions of the Draft Bad River WQS that are Unclear; and (Tier III) Provisions of the Draft Bad River WQS that Require Minor Changes. Indicators of the applicable tiers are included in front of the summarized comments provided by the EPA.

1. {Tier I} EPA noted in provision C.4.ii. of the Tribe's proposed WQS that modification of the Tribe's WQS "shall be subject to public participation, consistent with the requirements of 40 CFR Part 25." The EPA commented that:

   "Because the Tribe's proposed water quality standards do not reference the requirements in 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 Federal regulations."

   The EPA stated referring to 40 CFR Part 131.20(b) along with the public participation requirements of 40 CFR Part 25 could clarify provision C.4.ii. of the Tribe's proposed WQS. The EPA also

commented that adding reference in provision C.4.ii. to other provisions in the Tribe's WQS that authorize revisions or site-specific modifications would be appropriate, such as provisions E.2.v., E.7.v., and the portion of H dealing with new or revised criteria. The incorporation of these references into C.4.ii. will "ensure that these modifications and revisions are adopted in a manner consistent with procedural requirements of C.4.ii."

Response: It is the Tribe's intent that the review and revisions of the Tribe's WQS, including the public participation requirements, will be conducted in a manner that is consistent with the CWA and Federal regulations. Hence, the Tribe modified the language in C.4.ii. to reflect that the public participation requirements associated with the review and revisions of the Tribe's WQS will be consistent with both 40 CFR 131.20(b) and 40 CFR 25.

In addition, the Tribe incorporated language into provisions associated with the review and revisions of the Tribe's WQS, including provisions E.2.v., E.7.v., and H., indiating that modifications will be adopted in a manner consistent with the procedural requirements of C.4.ii.

2. {Tier I} EPA noted the content of the opening statement in the Numeric Water Quality Criteria section (provision H.) of the Tribe's proposed WQS. The EPA commented:

   "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 submitted 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."

   Response: The Tribe inserted language into the opening statements of Section H to indicate the mechanism used to revise the numeric criteria included in this section will be consistent with the procedural process described in provision C.4.

3. {Tier II} The EPA commented that provision C.6. "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." The EPA questioned the Tribe's intent to authorize mixing zones in relation to chronic water quality criteria. The EPA further noted that the Tribe should include a policy in its standards "describing when, where, and to what extent, dilution may be considered in deriving limits to implement standards" if it is indeed the Tribe's intent to authorize mixing zones in these calculations.

Response: As noted in the WQS, it is the Tribe's intent that these standards provide protection to the Tribe's waters and the Tribe's economy, culture, and health, all of which are inextricably intertwined with the Tribe's ability to access and use clean, pure water. It is also the Tribe's intent that its WQS will also serve the purposes of the CWA. Hence, the Tribe's intention is to only allow mixing zones to be utilized when deriving effluent limits for CWA Section 402 permits on a limited basis. It is the Tribe's intent that mixing zones will be applied cautiously and carefully to ensure the Tribe's water resources are adequately protected. To clarify the Tribe's intent, the following provision was inserted into the Applicability, Administration, and Amendment section (provision C.):

> "The incorporation of mixing zones into the issuance of permits under CWA Section 402 may be allowable on a case by case basis. Provision I describes additional details of the Tribe's mixing zone policy."

As indicated in the language above, the Tribe also inserted a section into its WQS describing additional details of mixing zones, including when, where, and to what extent, mixing zones may be allowable.

4. {Tier II} The EPA provided a general comment on the Definitions section (provison D.) of the Tribe's WQS and noted:

> "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 WQS."

The EPA also commented that there are terms defined in the Tribe's WQS that differ from the corresponding Federal definition (as described in comments #5 through #10 of this document) and clarification of these differences is needed.

Response: The Tribe appreciates this comment regarding the Definition section of its WQS. The Tribe agrees that clarification of the definitions in its WQS that differ from corresponding definitions contained in the CWA and Federal regulations is needed. Refer to comments #5 through #10 of this document for additional details on revisions and/or clarification of these definitions.

5. {Tier II} The EPA noted that the terms "Cold Water Fishery" and "Cool Water Fishery", which are used in Section F, could be included in the Definition section to help ensure the standards are applied in a consistent manner.

Response: The Tribe appreciates this comment. Descriptions of "Cold Water Fishery" and "Cool Water Fishery" are provided in the Designated Uses section (provisions F.5. and F.6.). The Specific Classifications section (provision G.) provides the designated use classifications of the specific water bodies. The Tribe intends its WQS will be applied in a consistent manner and will utilize its continuing planning process to assure adequate implementation.

6. {Tier II} The EPA commented the term "supportive communities" used in provision E.6.ii.f. could be defined in the Tribe's water quality standards.

Response: The Tribe revised provision E.6.ii.f. to enhance the clarity in relation to the term "supportive communities." Since the Tribe's intent was to encompass the habitat component, this term was replaced with "wildlife habitat," which was defined in the Tribe's proposed WQS (provision D.43.). Additionally, the Tribe tweaked the phrase "naturally occurring biological communities" to improve the consistency of terms used in the Tribe's WQS. The first sentence of this provision now reads:

> "Pollutants or human-induced changes to waters, the sediments of waters, or area hydrology that results in changes to the natural biological communities and wildlife habitat shall be prohibited."

7. {Tier II} The EPA commented the definition of "adverse effect" does not include the following phrase that is included in the definition in 40 CFR § 132.2.: "but does not include non-harmful effects such as tissue discoloration alone or the induction of enzymes involved in the metabolism of the substance." EPA posed the following question: "Is this omission of the [phrase] intentional and, if it is, does it indicate that the Tribe considers effects of this type to be harmful?" EPA noted that criteria derived by EPA does not protect against this type of effect.

   Response: The Tribe intends for its WQS to protect public health and welfare along with protecting the Tribe's political integrity and economic security as the fate of these attributes are interwoven with and dependent upon the quality of the water resources. Due to the Tribe's unique dependence upon the water resources, which includes depending on the water for cultural and subsistence fishing purposes, the Tribe considers any effect that is or may become harmful to the normal functions of an organism as an adverse effect. The Tribe's WQS include a combination of numeric and narrative criteria developed to protect the various designated uses and prevent adverse effects from occurring. Note that the definition of "adverse effect" was modified in response to comment #69 of this document.

8. {Tier II} The EPA commented that the definition of the term "human cancer value" does not complete the "either" clause as the definition does not contain the following phrase that is included in 40 CFR § 132.2: "or consuming fish from the water, and water-related recreational activities." The EPA noted that this omission may have been a transcription error as the definition of "human noncancer value" includes this phrase.

   Response: The Tribe revised the definition of the term "human cancer value" to reflect the entire definition in the Federal regulations at 40 CFR § 132.2, including the missing phrase as omitting this phrase was not intentional.

9. {Tier II} The EPA commented that the definition of "point source" does not include the following sentence that is included in the Federal regulations: "This term does not include agricultural stormwater discharges and return flows from irrigated agriculture." The EPA asked if this omission was intentional. The EPA noted that if this omission was 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.

Response: It is the Tribe's intent that the definition of the term "point source" in its WQS is consistent with the definition of this term included in the Federal regulations. Thus, the Tribe revised the definition of "point source" to include the sentence that was omitted in its proposed WQS.

10. {Tier II} The EPA noted the definitions of "pollutant" in the Federal regulations at 40 CFR § 122.2 and of "pollution" in the Federal regulations at 40 CFR § 130.2. The EPA commented that the Tribe defines "pollutant" using the definition of "pollution" set by the CWA. The EPA asked if this was intentional.

Response: It is the intent of the Tribe to define the term "pollution" in its WQS consistent with the definition stated in the CWA. The Tribe modified this definition (provision D.30.) to now read:

> "'Pollution' means a man-made or man-induced alteration of the chemical, physical, biological and radiological integrity of water."

11. {Tier II} The EPA noted the Tribe's antidegradation policy (provision E.2.ii.) includes the following statement: "Existing ambient water quality on Outstanding Resource Waters may not be lowered." EPA noted this provision later states:

> "Where the quality of 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 intergovernmental coordination and public participation provisions of the Tribe's continuing planning process that allowing the lower quality in necessary to accommodate important economic or social development in the area in which the waters are located."

The EPA commented that the Tribe's intent with these two statements in unclear. The EPA posed the following question: "Is it that new or increased discharges are permissible but only if the resulting water quality does not change from background?"

Response: The Tribe revised provision E.2.ii. to enhance the clarity of its antidegradation policy for Outstanding Resource Waters. It is the Tribe's intention to allow new or increased discharges in Outstanding Resource Waters as long as these discharges do not result in a change in background conditions and the resulting quality of water is adequate to support the designated uses and existing uses of the specific water body. However, as stated in provision E.2.ii., it is the Tribe's intention that no new or increased discharges of bioaccumulative chemicals of concern (BCCs) are allowed in Outstanding Resource Waters. To improve the clarity, the Tribe deleted the following sentence from provision E.2.ii.:

> "Existing ambient water quality on Outstanding Resource Waters may not be lowered."

12. {Tier II} The EPA noted the Tribe's WQS, via provision E.2.v., 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 one. The EPA further noted that Federal regulations do not treat assignment of a water body to an antidegradation tier as a designated use subject to a UAA. The EPA commented that the Tribe may choose to complete a UAA to move a water body into a different antidegradation tier, and if the Tribe chooses to do this, a citation to EPA's UAA regulations (40 CFR § 131.10) should be added.

Response: The Tribe revised provision E.2.v. of its WQS to exclude the requirement to conduct a UAA in order to move a water body from a more protective antidegradation tier to a less protective one. The Tribe intends that changes to the antidegradation classification of a water body will be implemented consistent with provision C.4.ii. of its WQS (refer to comment #1 of this document); thus, provision E.2.v. now reads:

> "Modifications of a water body's antidegradation classification will be adopted in a manner consistent with the procedural requirements of C.4.ii."

13. {Tier II} The EPA noted the definition of a "lowering of water quality" in the Antidegradation Implementation section (provision E.3.i.) does not include consideration of physical integrity, which might be affected by activities such as dredge and fill.

    Response: The Tribe revised the definition of a "lowering of water quality" in provision E.3.i. to incorporate physical integrity.

14. {Tier II} The EPA noted that provisions E.3.ii.b. and E.3.ii.c state only Tribal undertakings of identified management activities were allowed, and questioned if non Tribal entities would be allowed to undertake these activities in Outstanding Tribal Resource Waters.

    Response: It is the Tribe's intention to allow the following management activities to meet the eligibility requirements under the antidegradation policy and methods for implementation applicable to Outstanding Tribal Resource Waters, as long as there is coordination with the Tribe:

    - Non Tribal entities undertaking response actions alleviating a release into the environment which may pose an imminent and substantial danger to the public health or welfare.
    - Non Tribal entities undertaking projects to restore culturally important species and their habitats.

    Thus, the Tribe omitted the phrase "by the Tribe" from provisions E.3.ii.b. and E.3.ii.c.

15. {Tier II} The EPA recommended that the Tribe should identify to whom within the Water Resources Program that antidegradation demonstration materials should be submitted and by whom a decision will be made in regards to provision E.4.i.

    Response: To address the first portion of this comment from the EPA, the Tribe inserted provision v. into the Antidegradation Demonstration section (provision E.4.) to identify the position title and mailing address to which to submit the demonstration materials. This provision reads:

"Antidegradation demonstration materials must be submitted to the following address: Water Resources Specialist, Bad River Tribe's Natural Resources Department, P.O. Box 39, Odanah, WI 54861."

The decision process related to provision E.4.i. is described in the Antidegradation Decision section (provision E.5.). The Tribe reviewed this section and modified it to provide clarification of by whom a decision will be made. The Water Resources Program will be responsible for providing a recommendation to the Tribal Council, and the Tribal Council has the authority to make the final decision.

16. {Tier II} The EPA commented that the Tribe may also want to include "options that would reduce or substantially reduce the lowering of water quality" as part of the antidegradation demonstration requirements for Exceptional Resource Waters (provision E.4.ii.b.).

    Response: The Tribe revised provision E.4.ii.b. to expand the options that should be included in the Alternative and Enhanced Treatment Analysis, which is one of the antidegradation demonstration requirements for Exceptional Resource Waters. The Tribe also included these options in the Alternative and Enhanced Treatment Analysis for Outstanding Resource Waters (provision E.4.iii.b) and for Outstanding Tribal Resource Waters (provision E.4.iv.e.). These provisions now read:

    "Alternative or Enhanced Treatment Analysis. Identify alternative or enhanced treatment techniques that are available to the entity that would eliminate or substantially reduce the lowering of water quality and their costs relative to the cost of treatment necessary to achieve applicable effluent limitations."

17. {Tier II} The EPA noted the content of provision E.6.ii.b., which focuses on radioactive materials. The EPA inquired if the Tribe meant "levels of radioactivity shall not exceed levels expected in Tribal waters under natural background conditions?"

    Response: The Tribe revised the wording of the provision focusing on radioactive materials (E.6.ii.b.) to incorporate the EPA's suggestion in order to enhance the clarity of this narrative criterion. This provision now reads:

    "Levels of radioactivity shall not exceed levels expected in Tribal waters under natural background conditions."

18. {Tier II} The EPA quoted the language in provision E.6.ii.e. and noted that the provision "appear[ed] to forbid any human impact to Tribal waters that alters 'natural ambient conditions.'" The EPA asked the Tribe to clarify its intent along with the parameters, to which changes are prohibited as described in the current language of this provision, including: flow, level, stage, dissolved oxygen, pH, and temperature. The EPA further noted that "some, small localized impact on dissolved oxygen, pH, and temperature" is typical of many common discharges.

Response: It is not the Tribe's intent to prohibit common discharges, such as effluent from municipal wastewater treatment plants. However, due to the Tribe's unique reliance on the water resources for cultural, subsistence, health and economic well being, it is the Tribe's intent to derive stringent criteria which are protective of the designated uses. Upon review, the Tribe deleted the first sentence of provision E.6.ii.e. as it felt the original intent of this sentence was covered under other narrative and numeric criteria included in the Tribe's WQS, such as the criteria applicable to the specific parameters of flow, level, stage, dissolved oxygen, pH, and temperature. In addition, the Tribe incorporated the second sentence of provision E.6.ii.e. of its proposed WQS into the following provision.

19. {Tier II} The EPA stated the Tribe's narrative criterion for temperature (provision E.6.ii.h.) and continued to note that "many common discharges, such as effluents from municipal wastewater treatment plants and stormwater from parking lots during the summer, have some small, localized impacts on temperature." The EPA wondered if it was the Tribe's intent to prohibit such discharges.

    Response: It is not the Tribe's intent to prohibit discharges from municipal wastewater treatment plants, stormwater from parking lots, and other common discharges. However, it is the Tribe's intent to prohibit discharges that prevent a water body from meeting its designated uses. The Tribe modified its temperature criteria to enhance the clarity of this provision (in response to this comment and comment #26 of this document). This provision now reads:

    > "Temperature – No measurable change (increase or decrease) in temperature from other than natural causes shall be allowed that causes or contributes to an adverse effect to the natural biological community. For those waters designated as a Cold Water Fishery, there shall be no measurable increase in temperature from other than natural causes."

20. {Tier II} The EPA noted the language included in the second sentence of provision E.7.v. The EPA commented that the EPA would interpret the term "water quality standards" used in this sentence to encompass "the designated uses, the modified criteria, and the antidegradation policy." The EPA questioned if this interpretation was consistent with the Tribe's intent.

    Response: It is the Tribe's intent to ensure modification of criteria results in criteria that are derived necessary to protect the designated uses and existing uses. Although the Tribe agrees the EPA correctly interpreted the term "water quality standards" as referred to in the Tribe's proposed WQS, the Tribe decided to omit the phrase "and that water quality standards continue to be attained."

21. {Tier II} The EPA noted the content of the first sentence in provision H.4. The EPA inquired if the Tribe intended the nondrinking water criteria listed in Tables 6 and 7 to apply to waters with or without a Cultural (C1) and/or Recreational (R) designated use.

    Response: The Tribe corrected the error in provision H.4. by changing the word "with" to "without." The nondrinking water criteria listed in Tables 6 and 7 apply to waters without a Cultural and/or

Recreational designated use. Furthermore, the Tribe revised the column headers in Tables 6 and 7 to utilize the nomenclature found in provisions H.4. and H.5.

22. {Tier II} In regards to the second sentence in provision H.4., the EPA commented that providing the actual fish consumption rate utilized in the calculations associated with Tables 6 and 7 would be valuable.

    Response: The Bad River Tribe omitted the word "roughly" from this statement to clarify that the actual fish consumption rate used in these calculations is 142.4 g/day.

23. {Tier III} The EPA noted ten areas of the Numeric Water Quality Criteria section (provision H.) that require minor changes, which includes the following comments:
    - In footnote "d" to Table 2, "CDM" should be "CMC";
    - In footnote "c" to Table 3, the equation should read "CMC^t=exp m_A\{[pH]+b_A\}";
    - 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 CCC^d shall be rounded to two significant digits" should be included;
    - Footnote "d" to Table 4 should read "CCC=CCC^t";
    - In the notes to Table 4, the sentence "CCC^t s the CCC expressed as the 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 "CCC^{tr}=exp{m_c[ln(hardness)]+b_c};
    - In footnote "c" to Table 5, the equation should be modified to read "CMC^t=exp{m_A[pH]+b_A}." In addition, the next sentence should read "the CMC^t shall be rounded to two significant digits";
    - In Table 8, please note that the mercury criterion includes methylmercury.

    Response: The Tribe revised the proposed standards to incorporate all of the minor changes listed under EPA's Tier III comment as described above.

<u>Section 2: Comments submitted by the Wisconsin Department of Natural Resources (DNR)</u>

24. The Wisconsin DNR commented that the definition of "Reservation" would be clarified by reference to a legal land description or by referencing the external reservation boundary as established in the Treaty of 1854, which could help clarify issues of where the tribal versus the state water quality standards would apply.

    Response: The definition of Reservation in the Tribe's proposed WQS was based on the description of the Reservation from the Treaty of 1854 between the Lake Superior and Mississippi Chippewa Tribes and the United States government, which was signed on September 30, 1854. This

description of the Reservation from the Treaty of 1854 was also utilized to define the Reservation in the Bad River Tribe's application for Treatment as a State authority for purposes of Sections 303(c) and 401 of the Clean Water Act. To add clarity, the Tribe revised the definition of "Reservation" and incorporated the language "in the Treaty of 1854" into this definition, which now reads:

> "Reservation" is the Bad River Reservation, described in the Treaty of 1854 as follows: *Beginning on the south shore of Lake Superior, a few miles west of Montreal River, at the mouth of a creek called by the Indians Ke-Che-se-be-we-she, running thence south to a line drawn east and west through the centre of township forty-seven north, thence west to the west line of said township, thence south to the southeast corner of the township forty-six north, range thirty-two west, thence west the width of two townships, thence north the width of two townships, thence west one mile, thence north to the lake shore, and thence along the lake shore, crossing Shag-waw-me-quon Point, to the place of beginning. Also two hundred acres on the northern extremity of Madeline Island, for a fishing ground.* Ke-Che-se-be-we-she is presently known as Graveyard Creek and Shag-waw-me-quon is now commonly spelled Chequamegon Point.

25. The Wisconsin DNR stated: "It is not clear to us how the provisions addressing 'water flow or water level' would be administered through water quality standards."

Response: Water flow and water level are key to water quality and the protection of designated and existing uses. Without sufficient protection of water flow and water level, the Tribe's water resources could either dwindle or become overrun. The Clean Water Act contemplates regulation of water quantity. 26 U.S.C. §§ 1314(f)(2)(F), 1362(19). EPA regulations also note the key role water flow plays in determining, or preventing, the designated uses of waters, and the ability of states to regulate flow. See 40 CFR §§ 131.10(g)(2) & (5), 131.13. The Tribe seeks to regulate flow and water level to prevent a situation in which existing uses of waters are destroyed or otherwise impaired based on flow disturbance. Criteria focused on flow and water level were derived to protect the designated uses contained in the Tribe's WQS.

The Supreme Court has recognized that regulation of water quantities is a proper application of antidegradation regulations, that water quantity is closely related to water quality, and that changes to flow can constitute pollution. *PUD No. 1 of Jefferson Cty. v. Wash. Dept. of Ecology*, 511 U.S. 700, 718-719 (1994).

Policies and procedures for implementation of the Tribe's WQS will be created and implemented on an ongoing basis after the federal approval of the standards through the Tribe's continuing planning process. However, the Tribe envisions the administration of water flow and water level requirements as being implemented in much the same way as chemical pollutant-related standards.

26. The Wisconsin DNR suggested the Tribe revise the proposed language of the temperature narrative criterion (provision E.6.ii.h.) by inserting "measureable" in front of "increase in temperature."

Response: The Tribe agrees that the term "measurable" should be included when discussing a change in temperature. This temperature provision was also modified in response to comment #19 of this document.

27. The Wisconsin DNR reviewed the toxic criteria in the Tribe's proposed WQS and noted the criteria were consistent with EPA's Great Lakes Initiative. The Wisconsin DNR additionally commented the ammonia criteria contained in the Tribe's proposed WQS were consistent with the EPA's draft criteria, although these criteria differ from the State's.

    Response: The Tribe appreciates the time spent by the Wisconsin DNR to review the toxic criteria included in the proposed WQS and assess their consistency with the EPA's Great Lakes Initiative.

28. The Wisconsin DNR reviewed the criteria for BCCs contained in the Tribe's proposed WQS and noted their comparison to the criteria for BCCs included in Wisconsin Administrative Code Chapter NR 105. The Wisconsin DNR stated that the same EPA calculation procedures were used to derive the Tribe's criteria and the State's criteria. The Wisconsin DNR further noted that the criteria for BCCs in the Tribe's proposed WQS used a fish consumption rate of 142.2 g/day, which is based on an EPA recommendation for subsistence fishing.

    Response: The Tribe appreciates the Wisconsin DNR for taking the time to evaluate the criteria for BCCs contained in the Tribe's proposed WQS.

29. The Wisconsin DNR noted that Chapter NR 105 of the Wisconsin Administrative Code includes multiple BCCs that are not specifically listed in the Tribe's proposed WQS including: Alpha BHC, BHC tech. grade, Hexachlorobutadiene, Pentachlorobenzene and 1,2,4,5-Tetrachlorobenzene. The Wisconsin DNR further noted that the human health and human cancer criteria listed in Chapter NR 105 also have many non-BCC substances that are not included within the Tribe's proposed WQS.

    Response: The Tribe appreciates this comment from the Wisconsin DNR. The Tribe feels the current numeric and narrative criteria contained in its WQS are protective of the designated uses. In the future, the Tribe may assess the substances with numeric criteria in Chapter NR 105 of the Wisconsin Administrative Code that do not have numeric criteria established in the Tribe's WQS and derive numeric criteria as appropriate. The future review of the Tribe's WQS, along with any necessary modifications, will be conducted in accordance with the procedures described in the federal regulations and in the Tribe's WQS.

30. The Wisconsin DNR assessed the relationship between the water bodies classified as Cold Water and Cool Water Fisheries by the Tribe and the water bodies designated as Class 1, 2, and/or 3 trout waters by the State. The Wisconsin DNR noted the water bodies designated as Cold Water Fisheries by the Tribe were fairly correlated, but not perfectly aligned with the water bodies classified as trout waters by the State. The Wisconsin DNR further noted the White River is considered a Class 2 trout water by the State and a Cool Water Fishery by the Tribe.

Response: The Tribe appreciates the time spent by the Wisconsin DNR to assess the correlation of the State of Wisconsin's trout waters and the waters the Tribe designated as Cold Water and/or Cool Water Fisheries. The response to comment #46 of this document discusses a revision to the Tribe's Cold Water Fishery classification.

31. The Wisconsin DNR stated "that many of the technical comments we provided on the August 2010 draft were addressed in the February 9, 2011 draft."

    Response: The Tribe appreciates the technical feedback provided by the Wisconsin DNR throughout the development process of the Tribe's WQS.

Section 3: Comments submitted by Other Entities

32. The Voigt Intertribal Task Force (Task Force) of Great Lakes Indian Fish and Wildlife noted its support for the Tribe's proposed WQS. The Task Force further commented that:

    "The establishment of the Band's water quality standards will ensure that water pollution is limited in the area around, especially upstream of, the tribe's reservation. This is a benefit to the nine member tribes of the Voigt Intertribal Task Force because they have reserved hunting, fishing and gathering rights on lands including those that surround the Bad River Band's reservation. These treaty guaranteed activities support a tribal lifeway that depends on clean and healthy natural resources for cultural, subsistence and economic purposes. The Band's water quality standards will help ensure that those resources are protected from substances that could degrade water quality."

    Response: The Tribe appreciates this comment and the Task Force's support of the Tribe's WQS.

33. The Water Projects Coordinator for the Fond du Lac Band of Lake Superior Chippewa provided comments in support of the Tribe's proposed WQS. This commenter noted the use of Ojibwemowin in the proposed standards "provides a unique cultural context for conveying the significance" of the Bad River Tribe pursuing a federally-approved WQS approach for protecting its waters. This commenter also appreciated the definitions of "ambient conditions" and "background conditions" and the distinctions between these terms. This commenter further stated the General Narrative Criteria section (E.6.ii.) was "very strong." Particularly, the criteria this section focusing on sulfate levels in wild rice waters (provision E.6.ii.c.), "natural hydrologic conditions supportive of the natural biological community" (provision E.6.ii.d.), and "migration of fish and other aquatic biota normally present shall not be hindered" (provision E.6.ii.f.) are "all significant in their intention to protect reservation waters from known human impacts." This commenter concluded with a statement indicating the standards are "an important step in the Bad River Band's efforts to protect culturally significant aquatic resources of the reservation."

Response: The Tribe appreciates all the comments provided in support by this stakeholder and appreciates the Fond du Lac Band's Water Projects Coordinator for taking the time to review and provide feedback on the Tribe's proposed standards.

34. The Bad River Watershed Association (BRWA) noted their overall support of the Tribe's WQS as the standards "will help maintain and improve the integrity of the Bad River Watershed for future generations."

    Response: The Tribe appreciates the BRWA's support of the WQS. The Tribe looks forward to strengthening partnerships with the BRWA and other stakeholders in order to protect the integrity of the Bad River Watershed for future generations.

35. The BRWA requested clarification of the phrase "physical alteration of wetlands" included in the "natural background conditions" definition (provision D.24.).

    Response: The Tribe altered the definition of the term "natural background conditions" to clarify that the physical alteration of wetlands included in this definition refers to the physical alteration of wetlands due to human activity.

36. The BRWA commented the intent of the second sentence of provision E.2.ii., which describes the Tribe's antidegradation policy for Outstanding Resource Waters, was unclear.

    Response: The Tribe altered provision E.2.ii. in response to comment #11 of this document.

37. The BRWA noted the term "natural hydrological conditions" utilized in provision E.6.ii.d. was not included in the Definitions section (provision D.) of the Tribe's proposed WQS.

    Response: The definition of the term "natural hydrological condition" is dependent upon the characteristics of a specific water body. As part of its continuing planning process, the Tribe intends to develop policies and procedures to assure adequate implementation of its water quality standards.

38. The BRWA referred to provision E.6.ii.e. and suggested this word "natural" be defined as only the terms "natural background conditions" and "natural biological community" were defined in the Definitions section of the Tribe's proposed WQS.

    Response: The Tribe intends to establish implementation policies and procedures for its WQS through its continuing planning process. Furthermore, the Tribe modified provision E.6.ii.e. of its proposed WQS in response to comment #18 of this document.

39. The BRWA commented that the definition of "mineral quality" as utilized in provision E.6.ii.g. was not defined in the Tribe's proposed WQS.

Response: The term "mineral quality" is in reference to the geochemical characteristics of the water resources and is dependent upon characteristics including, but not limited to, the type of geologic materials present and the length of time that water is in contact with those materials. Through its continuing planning process, the Tribe intends to develop policies and procedures to assure adequate implementation of its WQS.

40. The BRWA noted that the phrase "early life stages of cold water fish" is utilized in the Tribe's numeric criteria for dissolved oxygen (provision E.7.i) and suggested that this phrase be defined.

    Response: In relation to the dissolved oxygen numeric criteria, the Tribe intends the phrase "early life stages of cold water fish" to include the following life stages: eggs, alevins or sac fry, and fry.

41. The BRWA inquired if the turbidity criteria (provision E.7.iii.) would be applicable to all flow conditions, including storm events and baseflow.

    Response: As stated in provision E.7.iii., it is the Tribe's intent that the implementation of the turbidity criteria will be assessed in relation to the natural background turbidity. It is the Tribe's intent that determination of natural background turbidity, which is dependent upon characteristics of a specific water body, considers the flow regime applicable to the water body in question. The Tribe intends, through its continuing planning process, to develop implementation policies and procedures to assure adequate implementation of its WQS.

42. In reference to provision E.7.iv, the BRWA commented that E. coli concentrations are typically reported as colony forming units (CFU) per 100 mL.

    Response: To help clarify the Tribe's intent that E. coli concentrations will be reported as Colony Forming Units (CFU) per 100 mL, the language in provision E.7.iv. was revised and now reads:

    > "Bacteriological Water Quality Criteria - The geometric mean of not less than 5 samples equally spaced over a 30-day period shall not exceed an *E. coli* count of 126 Colony Forming Units (CFU) per 100 milliliters (mL) for fresh waters. Any single sample shall not exceed an E. coli count of 235 CFU per 100 mL."

43. The BRWA requested clarification of the designated use that was considered the "most sensitive" in relation to the introductory paragraph of provision F.

    Response: The Tribe considers the most sensitive designated use to be the designated use with the most stringent criterion for the parameter(s) in question. The determination of the most sensitive designated use will be conducted on a paramter by parameter basis. Generally, the most sensitive designated use would be considered the Cultural designated use.

44. The BRWA inquired about the definition of the terms "cold water fishery" and "cool water fishery" as utilized in provisions F.5. and F.6., respectively.

Response: Refer to the response to comment #5 of this document.

45. The BRWA commented that the word "wetland" should be defined as provision F.10. only describes the uses of wetlands.

Response: The Tribe added a definition for the word "wetland" into Section D of its WQS. This definition reads:

> "'Wetland' means an area that is inundated or saturated at or near the surface caused by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of vegetation typically adapted for life in aquatic or saturated soil conditions, commonly known as hydrophytic vegetation."

46. In reference to Table 1 of Section G, the BRWA noted that the Marengo River is more of a cool water fishery than a cold water system.

Response: The Tribe refined the designated uses applicable to the Marengo River and omitted the Cold Water Fishery designated use for the Marengo River as listed in Table 1 of Section G. The Cool Water Fishery designated use remains applicable to the Marengo River.

47. The BRWA stated that there are two Billy Creeks that flow into the Marengo River and both creeks appear to flow within the exterior boundaries of the Reservation. The BRWA asked which Billy Creek was included in Table 1 in the Tribe's proposed WQS.

Response: The Tribe appreciates this comment and altered Table 1 of Section G to specify the Billy Creek included in the proposed WQS was the eastern one, which flows within Section 32 of Township 46 North, Range 2 West. The Tribe also inserted a row into Table 1 to indicate the designated uses applicable to the western Billy Creek, which flows within Section 35 of Township 46 North, Range 2 West. The applicable designated uses (as shown in the revised Table 1) include Cultural, Wildlife, Aquatic Life and Fish, and Recreational designated uses. The Commercial and Navigation designated uses also apply to both Billy Creeks as indicated by the footnote underneath Table 1.

48. The BRWA requested the Tribe to clarify the differences between the first and last sentences in the footnote underneath Table 1 of Section G. The BRWA also questioned if there was a need to have columns for the Cultural, Wildlife, Aquatic Life and Fish, and Recreational designated uses in Table 1.

Response: The first sentence in the footnote underneath Table 1 applies to all water bodies whereas the last sentence in the footnote applies only to those water bodies not specifically listed in Table 1. To eliminate redundancy between these two sentences, the Commercial (C2) and

Navigation (N) designated uses were deleted from the last sentence. The Tribe also changed "Recreation" to "Recreational" in the last sentence to ensure consistency.

The Tribe kept the columns for the Cultural (C1), Wildlife (W2), Aquatic Life and Fish (A), and Recreational (R) designated uses in Table 1 as the last sentence of the footnote applies only to those water bodies not specifically listed in Table 1; thus, there is a need to illustrate that these designated uses also apply to the water bodies specifically listed in Table 1.

49. A Bad River Tribal member noted the need for establishing WQS specific to the Bad River Reservation, and this commenter was in support of the Tribe's proposed WQS. This community member stated: "Water is Sacred and clean water is precious to the existence of human life." This Tribal member noted the location of the Reservation in relation to the Bad River Watershed and to Lake Superior. This community member inquired if the Tribe had the resources and collaborative relationships needed to ensure the WQS are met by others outside the exterior boundaries of the Reservation and to enforce the WQS.

Response: The Tribe appreciates this Tribal member's support of the proposed WQS. The EPA has previously determined the Tribe is authorized to administer a WQS program pursuant to the requirements listed in Federal regulations. 40 CFR § 131.8. As part of this determination, the Tribe is expected to be capable of carrying out the functions of an effective WQS program consistent with the CWA and applicable Federal regulations. 40 CFR § 131.8(a)(4).

Permits issued under the CWA must ensure compliance with downstream WQS. The Tribe looks forward to working with permitting entities to ensure its WQS are adequately implemented.

50. The Michigan Department of Environmental Quality – Water Resources Division commented:
    "We appreciate the opportunity to review the water quality standards being proposed by the Bad River Band of Lake Superior Tribe of Chippewa Indians. The Water Resources Division reviewed the Tribe's proposed water quality standards, and while there are some differences compared to Michigan's water quality standards, we believe they are reasonable and defensible, and that implementation will not negatively affect water quality in Michigan. Therefore, we will not be providing any specific comments. We applaud the Tribe's effort in developing water quality standards to protect resources we share such as Lake Superior, and wish you well in your rulemaking process."

Response: The Tribe appreciates this comment and the support of the Michigan Department of Environmental Quality.

51. A Bad River Tribal member noted part of the content of provision E.2.ii. of the Tribe's proposed antidegradation policy. This community member inquired about the process the Tribe would utilize to make a determination if the lowering of water quality of a specific water body was necessary to accommodate important economic or social development in that area.

Response: The entity proposing the lowering of water quality is responsible for providing information to the Tribe as described in the Antidegradation Demonstration section (provision E.4.). The decision process related to the Tribe's antidegradation policy is explained in provision E.5.i. for waters classified as Exceptional Resource Waters or Outstanding Resource Waters whereas provision E.5.ii. explains this process as it applies to Outstanding Tribal Resources Waters. Note that the Antidegradation Decision section (provisions E.5.i. and E.5.ii.) was modified in response to comment #15 of this document.

52. A Bad River Tribal member inquired about the Bad River Watershed Association.

Response: This comment is beyond the scope of the Tribe's WQS.

53. A Bad River Tribal member noted some of the language included in provisions E.4.i. and E.4.ii.a. of the Antidegradation Demonstration section. The commenter requested clarification on whether an entity proposing an activity as described in provision E.4.i. is required to identify techniques and alternatives to eliminate the impact on the surface waters.

Response: An entity proposing an activity as described in provision E.4.i. is required to demonstrate to the Tribe that the lowering of water quality as a result of implementing the proposed activity is necessary. The entity proposing the lowering of water quality is responsible for completing a variety of analyses and assessments, which is dependent upon the antidegradation classification of the water body(ies) that would be impacted. As part of the Antidegradation Demonstration process for those water bodies classified as Exceptional Resource Waters, the entity proposing the lowering of water quality is responsible for conducting a Pollution Prevention Alternatives Analysis as described in provision E.4.ii.a. and submitting this analysis to the Tribe, which will be used in the Tribe's review and determination as described in provision E.5.i.

54. A Bad River Tribal member noted the content of provision E.4.ii.b. and asked for clarification of the requirements of this provision.

Response: As described in provision E.4.ii.b., the Tribe is requiring that the entity proposing lowering of the quality of a water body classified as an Exceptional Resource Water to conduct an Alternative or Enhanced Treatment Analysis. The purpose of the analysis is to identify treatment technologies that could be utilized to eliminate the lowering of water quality. This provision was revised in response to comment #16 of this document to also allow treatment techniques that could be utilized to reduce (but not eliminate) the lowering of water quality to be considered as part of the Antidegradation Decision process as described in provision E.5.i.

55. A Bad River Tribal member asked for clarification on how the "Showing of Necessity" requirement for Outstanding Tribal Resources Waters (provision E.4.iv.c.) will be determined.

Response: As Outstanding Tribal Resource Waters are considered the highest quality waters, they warrant the highest level of protection. Hence, the lowering of water quality is not allowed in these waters with the exception of short term, temporary lowering of water quality. The entity proposing a short term, temporary lowering of water quality in an Outstanding Tribal Resource Water is required to demonstrate to the Tribe that the proposed activity is needed and that the associated temporary lowering of water quality (due to increased loading of applicable parameters) cannot be avoided under the "Showing of Necessity" requirement, which is described in provision E.4.iv.c.

56. A Bad River Tribal member noted some of the content of provision E.5.i. The community member questioned if this provision described the antidegradation decision making process and if the Tribal Council was aware of this process. The commenter also expressed the need for the public to be involved in this decision making process.

    Response: Provision E.5.i. does describe the antidegradation decision making process for Exceptional Resource Waters and Outstanding Resource Waters. The Tribal Council is aware of the process described in this provision. As indicated in the last sentence of this provision, this antidegradation decision making process will be subject to the public participation requirements described in 40 CFR § 25.

57. A Bad River Tribal member inquired if part of the antidegradation decision making process described in provision E.5.i. included consideration of if existing and designated uses would be maintained as a result of the proposed lowering of water quality. The commenter asked for clarification of existing and designated uses.

    Response: Under the Tribe's Antidegradation Policy, the Tribe may allow some lowering of water quality in water bodies classified as Exceptional Resource Waters or Outstanding Resource Waters. However, the quality of a water body cannot be lowered beyond the minimum requirements needed to support existing and designated uses associated with that water body. The terms "existing uses" and "designated uses" are defined in provisions D.19 and D.15, respectfully, of the Tribe's proposed WQS. The different designated uses, such as Cultural (C1), Wild Rice (W1), and Wildlife (W2), are described in provisions F.1. through F.10. The designated uses assigned to a specific water body are listed in the Special Classification section (provision G).

58. A Bad River Tribal member noted that 40 CFR § 25 is mentioned multiple times throughout the Tribe's WQS. The community member further noted that 40 CFR § 132 Appendix F, Procedure 1 is also referenced in the Tribe's WQS. This commenter suggested that a copy of these regulations should be included as an addendum to the standards.

    Response: The Tribe appreciates this comment. A copy of these federal regulations can be obtained through the EPA's webpage at the following link: http://www.epa.gov/lawsregs/regulations/index.html

59. A Bad River Tribal member commented on provision E.6., noting this commenter liked the way cultural aspects were incorporated into this section. This commenter requested concrete evidence that the narrative criteria are actually going to be looked at.

Response: The Tribe appreciates this comment in terms of the commenter's support of the incorporation of cultural aspects into the Narrative Criteria section. The Tribe felt the second portion of this comment was vague. In general, the Tribe's WQS, which includes the narrative criteria, will serve as a basis for all water management decisions as described in provision C.2., which includes utilizing the criteria in point-source permitting.

60. A Bad River Tribal member noted that the language in the last sentence of provision E.6.ii.a. This community member questioned why the U.S. EPA was mentioned in this provision in relation to 40 CFR § 132.

Response: EPA's authority in relation to review and approval of State's (or Tribe's) WQS is discussed in 40 CFR § 131.5. The EPA is mentioned in this provision as the EPA has the authority to promulgate Federal standards if the EPA determines the Tribe's WQS are not consistent with the review factors listed in provisions 40 CFR §§ 131.5(a)(1) through (a)(5) or when necessary to serve the purposes of the CWA. 40 CFR § 131.5(b).

61. A Bad River Tribal member commented that the definition of acute chronic ratio was difficult to understand.

Response: The Tribe's definition of "acute chronic ratio" is consistent with the definition of this term found in 40 CFR § 132.2.

62. A Bad River Tribal member suggested that an example of the term "chronic toxicity" be added to the Definition section.

Response: The Tribe's definition of "chronic toxicity" is consistent with the definition of this term provided in 40 CFR § 132.2.

63. A Bad River Tribal member commented that a better explanation of the different tiers and which waters are assigned to the different tiers was needed.

Response: Under the Tribe's antidegradation policy (provision E.2.), waters are classified as Outstanding Tribal Resource Waters, Outstanding Resource Waters, and Exceptional Resource Waters, which are roughly equivalent to EPA's regulatory definition of Tier 3, Tier 2.5, and Tier 2 waters, respectively. These tiers are described in the Definition section (provision D) and in the antidegradation policy section (provision E.2.). Waters that are classified as Tier 3 or Tier 2.5 waters are listed at the end of provisions E.2.iii. and E.2.ii., respectively. All other water resources not

specifically mentioned in these provisions are considered Tier 2 waters, as described in the first sentence of provision E.2.i.

64. A Bad River Tribal member noted some of the content in the Background section (provision A.). The commenter stated that if the intent of the WQS is as described in the Background section, then this community member is in support of the Tribe's WQS.

    Response: The Tribe appreciates this comment and the support of this community member.

65. A Bad River Tribal member requested the Tribe consider the affects of water quantity as it relates to water quality in its WQS.

    Response: The Tribe considered the affects of water quantity as it relates to flow and incorporated provisions specifically mentioning water quantity, including flow, level, and stage, into its WQS. Note that the comment #25 of this document discusses aspects of water quantity in more detail.

66. Gogebic Taconite, LLC, noted the language in the last phrase of the Territory Covered section (Provision B.). The commenter stated provision E.3.ii. appears to allow permits to be issued for activities occurring within the exterior boundaries of the Reservation. The commenter also noted language contained in the second sentence of provision E.7. in relation to enforceable violations. The commenter requested clarification of how the Tribe's WQS would apply to activities occurring outside the exterior boundaries of the Reservation in contrast to those activities in which the Tribe is the permitting authority. The commenter also noted that the standards do not contain any information about enforcement.

    Response: It is the Tribe's intention, as noted in the Tribe's proposed WQS, that these standards provide protection to the Tribe's waters and the Tribe's economy, culture, and health, all of which are inextricably intertwined with the Tribe's ability to access and use clean, pure water. In the same way that State regulations may affect activities in a neighboring State, there is the potential that off-Reservation activities may be indirectly affected by the Tribe's WQS. *See* 40 C.F.R. § 131.10 (States must ensure that their designated uses and derived criteria "provide for the attainment and maintenance of the water quality standards of downstream waters"). Under the EPA's CWA regulations, a state discharge permit may not be issued if: (i) that permit does not provide for compliance with all CWA provisions and regulations or if (ii) its conditions cannot ensure compliance with the applicable water quality requirements of "all affected States." 40 C.F.R. §§ 122.4(a),(d); *see also* 40 CFR § 122.2 (defining "State" as inclusive of Indian Tribes).

    Within the exterior boundaries of the Reservation, the U.S. EPA and the U.S. Army Corps of Engineers retain both permitting authority and enforcement authority under the Clean Water Act. As stated in the Territory Covered section (provision B.) of the WQS, it is the Tribe's intent that these Tribal WQS be applied to the fullest extent of the Tribe's jurisdictional control. Under the Tribe's

inherit authority as a sovereign government, the Tribe intends to develop regulations to enforce its WQS.

67. Gogebic Taconite, LLC, referenced 40 CFR § 131.10(a) and commented that the Tribe's proposed designated uses do not appear to consider the use and value of water for industrial purposes.

Response: The Tribe's designated uses consist of the existing uses of the Tribe's waters. 40 CFR Section § 131.6 describes the minimum requirements of water quality standards submission, which includes "use designations consistent with the provisions of sections 101(a)(2) and 303(c)(2) of the Act." CWA Section 303(c)(2) states "standards shall be established taking into consideration their use and value for public water supplies, propagation of fish and wildlife, recreational purposes, and agricultural, industrial, and other purposes, and also taking into consideration their use and value for navigation." The Tribe considered the suitability of the uses listed in CWA Section 303(c)(2) while developing its WQS and incorporated the uses most suitable to protect the quality of the Tribe's water resources into its standards. Although an industrial designated use is not included in the Tribe's standards, the criteria developed to protect the designated uses contained in the Tribe's WQS are likely to be at least as stringent as needed to protect water quality for industrial uses.

68. Gogebic Taconite, LLC, noted that the Tribe's designated uses must be attainable and referenced 40 CFR § 131.10(a) for the meaning of attainability. The commenter stated:

> "It does not appear that there is any demonstration that the uses are attainable in the materials that went out for public comment."

Response: See the response to comment #67of this document, noting the designated uses in the Tribe's WQS consists of the existing uses. At a minimum, the Tribe's designated uses must be protective of the public health and welfare, enhance the quality of the water, and serve the "fishable/swimmable" goals of the CWA. 26 U.S.C. § 1313(c)(2)(A). As noted in the Tribe's WQS, the Cultural designated use, which includes subsistence fishing, demands a high level of protection. Federal regulations prohibit the removal of existing uses from the Tribe's designated uses unless the Tribe simultaneously implements protection more stringent than that protection required to protect such existing use. 40 CFR § 131.10(h)(1). Contradictory to the commenter's understanding, the Tribe is not required to conduct use attainability analyses, as defined in 40 CFR § 131.3, in this circumstance.

69. Gogebic Taconite, LLC, stated that in provision E.3.i. the phrase "regulated existing or new facility" is utilized. This commenter noted that the term "regulated facility" is not defined in the proposed WQS.

Response: Pursuant to the context of and plain meaning of these terms, a regulated facility is a facility that is regulated under the Clean Water Act (CWA) and regulations promulgated thereunder.

70. Gogebic Taconite, LLC, requested the Tribe ensure that definitions of terms in the Tribe's WQS are consistent with the CWA. This entity specifically commented on the definitions of the following terms: "adverse effect" and "change in background." This commenter noted that the definition of "adverse effect" in the Tribe's proposed WQS used the term "detrimental" instead of "deleterious" and removed the phrase related to non-harmful effects. This commenter stated the definition of "change in background" refers to analytical methods to be utilized to assess a change. This entity further noted that the Tribe's proposed WQS do contain additional information on acceptable analytical methods.

Response: See response to comment #4 of this document.

The Tribe modified the definition of "adverse effect" to use the term "deleterious" and incorporate the term "debilitating" as used in the definition of "adverse effect" found in 40 CFR § 132.2. In addition, see response to comment #7 of this document, noting the Tribe's high level of protection of its waters is intended to protect the health, welfare, and economic well being of the Tribe by protecting the Tribe's cultural uses of the water and in light of the Tribe's members' high intake of and dependence on fish from its waters. This higher level of protection is consistent with the Tribe's unique dependence on its waters, as discussed in the Background section of the proposed WQS.

This more stringent protection is consistent with the CWA and EPA's corresponding regulations. *See* 26 U.S.C. §§ 1370, 1377(e) (States and Tribes with "treatment-as-a-state" status may not adopt less stringent requirements than federal regulations, but may adopt requirements that are more stringent); 40 CFR §§ 131.4, 131.3(j) (States and Tribes with "treatment-as-a-state" status "may develop water quality standards more stringent than required" by EPA regulations).

Analytical methods are discussed in provision E.8. of the Tribe's WQS.

71. Gogebic Taconite, LLC, stated the antidegradation policy contained in the Tribe's proposed WQS appears to apply to all pollutants whereas Appendix E of 40 CFR § 132 appears to apply to only BCCs. This commenter requested clarification of the consistency of the Tribe's antidegradation policy with EPA's regulations.

Response: The commenter is correct that Appendix E of 40 CFR Part § 132 does focus on BCCs. However, the Tribe's antidegradation policy and methods to implement this policy must ensure maintenance and protection of existing instream water uses and the level of water quality necessary to protect existing uses. 40 CFR § 131.12(a)(1). The Tribe's existing and designated uses are such that increasing BCCs or non-BCCs pollutants or changes could negatively affect such uses.

The Tribe's antidegradation policy and methods to implement this policy fulfills the minimum requirements set forth in 40 CFR Parts 131 and 132, ensuring the protection of existing and designated uses. See response to comment #70 of this document, noting the Tribe's ability to adopt more stringent regulations, which is consistent with the CWA and EPA's corresponding regulations.

72. Gogebic Taconite, LLC, commented that the Pollution Prevention Alternatives Analyses discussed under the Tribe's antidegradation demonstration requirements (provisions E.4.ii.a., E.4.iii.a., and E.4.iv.d.) appear to exclude cost-effectiveness as a factor, which the commenter noted is a factor under EPA's regulations. This entity requested the Tribe to clarify the consistency of these provisions with the CWA.

Response: The Tribe's antidegradation policy needs to be consistent with the provisions in both 40 CFR Parts 131 and 132. As previously noted, the antidegradation demonstration requirements listed in 40 CFR § 132 Appendix E are specific to BCCs. The Tribe developed an antidegradation policy and methods to implement this policy that fulfills the minimum requirements and is as stringent as those provisions in 40 CFR Parts 131 and 132. See response to comment #70 of this document, noting the Tribe's ability to adopt more stringent regulations, which is consistent with the CWA and EPA's corresponding regulations.

The Tribe believes its antidegradation policy and implementation methods will protect and maintain existing water uses and the level of water quality necessary to project those existing uses. 40 CFR § 131.12(a)(1).

73. Gogebic Taconite, LLC, noted the language contained in the first phrase of provision E.5.ii., which discusses the antidegradation decision for Outstanding Tribal Resource Waters. This commenter requested the Tribe to clarify how an automatic denial of a discharge is consistent with the CWA.

Response: As indicated in the first sentence of provision E.5.ii., an automatic denial for requests in Outstanding Tribal Resources Waters will occur when circumstances are not aligned with the Tribe's antidegradation policy, which is discussed in provision E.3.ii. As stated in its definition, Outstanding Tribal Resources Waters are those waters so designated in the Tribe's antidegradation policy that are considered largely pristine and constitute culturally and ecologically significant resources and are important for the cultivation of wild rice or the spawning of lake sturgeon, or have other special resource values. A more stringent level of protection is needed for these unique and most significant resources. Note the Tribe's ability to adopt more stringent regulations, which is consistent with the CWA and EPA's corresponding regulations, as discussed in the response to comment #70 of this document.

74. Gogebic Taconite, LLC, commented that some of the narrative criteria, including those listed in provision E.6.i., "appear to be impossible" to be attained by dischargers. This commenter requested the Tribe to explain how a narrative criterion that appears to be impossible to meet is consistent with the CWA. This commenter also noted that designated uses need to be attainable under the CWA.

Response: The Tribe felt this comment was vague as it does not specify how any particular criterion would be "impossible" to meet. The Tribe's WQS contain criteria sufficient to protect the

designated uses, which is aligned with 40 CFR § 131.6(c). Standards can consist of both numeric and narrative criteria. 40 CFR § 131.11.

75. Gogebic Taconite, LLC, commented that some of the proposed narrative criteria appear to regulate water quantity, such as provisions E.6.ii.c. and E.6.ii.e. This commenter stated that water quantity is not directly regulated under the CWA. Additionally, this entity expressed concern that the Tribe's proposed WQS do not clearly provide the linkage between water quantity and water quality.

    Response: See response to comment #25 of this document. Note that provision E.6.ii.e. of the Tribe's proposed WQS was modified in response to comment #18 of this document.

76. Gogebic Taconite, LLC, noted the content of provision 40 CFR § 25.4(b)(5), which refers to an agency developing a list of persons or organizations who have expressed interest in a certain activity. This commenter also noted the content of provision 40 CFR § 25.5(b), which refers to notice requirements of a public hearing. This commenter felt that the Tribe should have identified Gogebic Taconite, LLC, as an interested party and sent Gogebic Taconite, LLC, a direct written notice of the Tribe's proposed WQS. This commenter further noted that they only become aware of the Tribe's proposed WQS through the Wisconsin DNR's Bureau of Waste and Materials Management division.

    Response: Refer to the introductory section of this document, which discusses the Tribe's efforts to provide public notice of its proposed WQS and the public hearing associated with these standards. The Tribe added people and organizations that provided comments on its proposed WQS, including Gogebic Taconite, LLC, to its "interested parties list" related to its WQS program. The Tribe will continue to maintain this "interested parties list" and will distribute public notices related to the Tribe's WQS to this list as part of its public participation efforts.

77. Gogebic Taconite, LLC, referenced the following provisions of the Federal regulations: 40 CFR §§ 131.11(a)-(b) and 40 CFR § 131.5(a)(4). This entity commented that the Tribe's proposed WQS contain several new numeric criteria, including some listed in Tables 6 and 7. This commenter noted that some of these criteria seem more stringent than the EPA's criteria and further stated:

    > "We cannot evaluate the need for these standards or whether the scientific and technical data is appropriate without examining underlying technical data upon which they were based."

    Response: Note the Tribe's ability to adopt more stringent regulations, which is consistent with the CWA and EPA's corresponding regulations, as discussed in the response to comment #70 of this document. The numeric criteria listed in Tables 6 and 7, which are found in the Numeric Water Quality Criteria section (provision H.) of the Tribe's proposed WQS, were derived based on the Great Lakes water quality initiative methodologies as described in provisions H.6. and H.7. These criteria were based on a fish consumption rate of 142.4 g/day (as described in provision H.4. of the proposed WQS, which was clarified in response to comment #22 of this document). This fish consumption rate is appropriate for deriving the Tribe's criteria as it provides an additional level of protection, which is needed in light of the Tribe's cultural uses, including subsistence fishing. 40 CFR

§ 132 Appendix F, Procedure 1 (A)(4)(a). Furthermore, see comment #28 of this document in regards to criteria contained in Tables 6 and 7.

78. Gogebic Taconite, LLC, commented that although the Tribe does not have a public surface water supply use, the Tribe still based some of the criteria contained in the proposed WQS on drinking water standards. This commenter noted that drinking water standards apply to waters with a public water supply designated use, referencing 40 CFR §§ 132.4(c)(3)(i) and (ii). The commenter further noted that drinking water standards are only needed to protect a use involving the daily ingestion of water.

    Response: The commenter is correct that the Tribe does not have a Public Water Supply designated use contained in its proposed WQS. However, the Tribe's WQS contain two designated uses that involve primary and secondary contact with the water: (1) Cultural designated use, as described in provision F.1., and (2) Recreational designated use, as described in provision F.7. These designated uses are based on the existing uses of the water resources. The Cultural designated use includes, but is not limited to, ceremonial activities, which do involve the ingestion (or drinking) of the surface waters. The Recreational designated use description also includes ingestion (or drinking) of the surface waters. The Tribe's WQS need to include criteria that are sufficient to protect the designated uses. 40 CFR § 131.6(c). Thus, the human health criteria for drinking water, which are listed in Tables 6 and 7, are appropriate to protect the Cultural and Recreational designated uses.

79. Gogebic Taconite, LLC, commented that the term "natural background" is utilized in multiple criteria in the Tribe's proposed WQS. This commenter noted the proposed WQS did not contain information about natural background concentrations, including the process utilized to establish these concentrations.

    Response: The term "natural background conditions" is defined in the Tribe's proposed WQS (provision D.24.). This definition was modified in response to comment #35 of this document. Through its continuing planning process, the Tribe intends to develop policies and procedures to ensure adequate implementation of its WQS.

80. Gogebic Taconite, LLC, stated the Tribe did not submit for public comment the methods used and analyses conducted to support its WQS nor did the Tribe submit for public comment supplemental information about the implementation of its WQS.

    Response: The Tribe's proposed WQS does contain information about the methods used to support its WQS. For example, provisions H.4., H.6., and H.7. contain information on the methodology utilized to derive the human health criteria contained in Tables 6 and 7. The Tribe's proposed WQS also contains information about the implementation of its WQS, such as implementation of its antidegradation policy (provisions E.3. through E.5.). The Tribe does intend, through its continuing planning process, to develop additional policies and procedures to ensure adequate implementation of its WQS.

81. Gogebic Taconite, LLC, noted that the content of the third sentence in provision H.10. of the Tribe's WQS. This commenter suggested omitting the language indicating the proposed ammonia criteria shall apply to avoid confusion if the final criteria differ from the proposed criteria.

Response: The Tribe modified provision H.10. by moving the phrase "shall apply to all waters with an Aquatic Life and Fish designated use," which was originally located at the end of the last sentence, to follow the description that the final criteria will immediately take effect in the Tribe's WQS. This revision improves the clarity of this provision by indicating that the finalized criteria (and not necessarily the proposed if different from the finalized criteria) will be incorporated into the Tribe's WQS.

Appendix A
Notice of Public Hearing

Printers Affidavit of Publication

State of Wisconsin)
) ss.
County of Ashland)

Public Notice

The Bad River Band of Lake Superior Tribe of Chippewa will hold a formal public hearing regarding draft Water Quality Standards (WQS) on Monday, March 28, 2011, from 5 – 7 PM at the Bad River Lodge and Casino Convention Center, Madigan Room. Copies of the draft WQS are available at the Bad River Natural Resource Department in the Chief Blackbird Center, 72682 Maple St., Odanah, WI. Phone: 715-682-7123. If you cannot attend the public hearing, comments may be submitted to Naomi Tillison, Bad River Natural Resources Department, P.O. Box 39, Odanah, WI 54861, postmarked by March 28, 2011.

Feb. 7—1T Mon.
WNAXLP

Todd Keute, being duly sworn, on oath, says that he is the General Manager of the daily newspaper known as The Daily Press and published at Ashland, Ashland County and the State of Wisconsin, says that the annexed printed copy of:

Water Quality Standards Public Hearing Notice

Which forms part of this affidavit, was published in the said newspaper on the following dates:

February 7, 2011

And further, that the said printed notice so annexed was taken from the said The Daily Press, the newspaper in which the same was published.

By: [illegible]

Title: General Manager

Subscribed and sworn to before me on this 7
of February 2011 _____AD

[illegible]

Notary Public
My term expires on :

FEES:

Appendix B

Public Notice and Request for Comments Factsheet

Proposed Water Quality Standards
Bad River Band of Lake Superior Chippewa Indians
Public Notice and Request for Comments

Submitting Comments to the Tribe
Written comments can be sent via email or post office to:
Naomi Tillison
Bad River Natural Resources Department
P.O. Box 39
Odanah, WI 54861
wqs@badriver-nsn.gov
Comment deadline is March 28, 2011

Proposed Water Quality Standards can be found at:
Bad River Natural Resources Department
Chief Blackbird Center
72682 Maple St.
Odanah, WI 54861
(715) 682-7123

Description of Water Quality Standards
In June 2009, U.S. Environmental Protection Agency (EPA) authorized the Bad River Band of Lake Superior Chippewa Indians (Tribe) to administer a water quality standards program under section 303 of the Clean Water Act. The Tribe is proposing for public review and comment draft Water Quality Standards under the Clean Water Act. The goal of the Tribe in developing these standards is to protect the water resources of the Reservation for the benefit of current and future generations.

The Tribe seeks comments on its proposed Water Quality Standards. The Tribe will consider and respond to all comments received by the comment deadline, and will determine any changes which may be needed, before proceeding with final adoption of its Water Quality Standards. After this process and upon formal adoption of the Water Quality Standards by the Tribe, the Tribe will submit the Water Quality Standards to EPA for approval or disapproval as required by section 303 of the Clean Water Act.

Elements of the Proposed Water Quality Standards
Three key components, required by the Clean Water Act, are contained in the proposed Water Quality Standards:

Designated Uses: Designated uses describe the Tribe's management objectives for Reservation waters. The Tribe's proposed Water Quality Standards designate a set of uses for the water resources on the Reservation including: aquatic life and fish, recreation, cultural, wild rice, wildlife, cold water fishery, cool water fishery, commercial, navigation, and wetland.

Water Quality Criteria: Water quality criteria are limits on specific chemicals or conditions in a waterbody, which are necessary to protect particular designated uses. The proposed Water Quality Standards include both numeric criteria and narrative criteria.

Antidegradation Policy: An antidegradation policy protects existing uses and prevents clean waters from being unnecessarily degraded. Under the Tribe's proposed antidegradation policy, each waterbody is assigned to a tier that provides a basis for addressing activities that would lower the water quality of a body of water. The more pristine or significant the waterbody, the greater the level of protection.

Public Hearing
The Tribe will hold a public hearing on March 28, 2011, at the Bad River Lodge and Casino Convention Center in the Madigan Room at 5:00 p.m. Written and spoken comments regarding the proposed water quality standards will be accepted at the public hearing.

The Tribe posted and published notice of a 45-day public comment period on February 7, 2011.

Appendix C
Proposed Water Quality Standards

Bad River Band of the Lake Superior Tribe of Chippewa Indians
Water Quality Standards

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A. *Background.*

1. The history of the Bad River Band, as well as our future survival and growth, is inextricably intertwined with pure water. Anishinabe considers Nibi, Water, as the most sacred living part of our Mother, the Earth. Without water, there is no life. Water, is the life-blood of our Mother the Earth, and without healthy blood, illness prevails. Water is a finite resource, with its health being contingent on all sides of the environment that surrounds the water: above, below, and all around. Water is a primary component in the migration story of the Anishinabe people, and the migration story describes a search for a place where food grows on the water; that food is wild rice. The waters flowing throughout the entire Bad River Reservation provide a variety of sacred resources, such as Manomin (wild rice), Name (lake sturgeon), Ogaa (walleye), and other fish and game species, and serve as critical navigation routes that we rely upon for cultural, subsistence, health and economic well-being. Although water quality standards are set within certain borders; water knows no boundaries. It is a living, moving part of life that changes with its surrounding environment, and as it changes it carries the burdens and illnesses of past environments until it heals. Because the Tribe's cultural and spiritual identity, as well as the Tribe's health and welfare depend upon maintaining and advancing the pristine quality of Tribal waters, the promulgation and enforcement of these Tribal water quality standards are essential to us. The Tribe is promulgating these standards to protect our political integrity, economic security, and health and welfare.
2. It is the purpose for these Tribal water quality standards to prescribe minimum water quality requirements for the surface waters located within the exterior boundaries of the Bad River Reservation to ensure compliance with section 303(c) of the Clean Water Act (CWA).
3. The Bad River Tribe (Tribe) has a primary interest in the protection, control, conservation and utilization of the water resources of the Bad River Reservation, as exemplified in the original Treaty and the Bad River Constitution and ultimately recognized by the U.S. Environmental Protection Agency (EPA) on June 26, 2009, when it affirmed the Tribe's application for program authority. The program authority granted by EPA is in addition to the Tribe's historic hunting, fishing, gathering, and usufrucutuary rights, and is in addition to the Tribe's treaty rights. Accordingly, these Tribal water quality standards shall not be construed to abrogate independent Tribal rights to sufficient quantities and quality of water to support the flora, fauna, and cultural traditions of the Tribe.
4. It is the further purpose of these Tribal water quality standards to protect public health and welfare, enhance the quality of water, and serve the purposes of the CWA.

B. *Territory covered.* The provisions for these water quality standards shall apply to all surface waters within the exterior boundaries of the Bad River Reservation. The

Tribe notes that waters upstream of the Bad River Reservation can affect the waters of the Bad River Reservation. It is the Tribe's intent that these Tribal water quality standards be applied to the fullest extent of the Tribe's jurisdictional control and to protect the waters of the Bad River Reservation from any impacts regardless of the location of the source of those impacts.

C. *Applicability, administration and amendment.*

1. The water quality standards are applicable to the waters within the exterior boundaries of the Bad River Reservation as described in the Tribe's application for water quality standards program authorization as approved by EPA on June 26, 2009, and otherwise to the fullest extent of the Tribe's jurisdictional control.
2. These water quality standards shall provide the basis for all water management decisions affecting water quality within the Reservation boundaries, including, but not limited to, point-source permitting, non-point source controls and the physical alterations of water bodies including wetlands.
3. The Water Resources Program may recommend variances from water quality standards, on a case-by-case basis, that are consistent with the process contained in the Final Water Quality Guidance for the Great Lakes System, 40 CFR 132, Appendix F, Procedure 2. These recommended variances, however, are subject to final approval by the Bad River Tribal Council.
4. These water quality standards may be revised as the Tribe determines necessary consistent with the following:
   i. These water quality standards shall be reviewed every three years and may be subject to amendment or modification at such time or as the need arises. Any updates shall first be duly adopted by the Bad River Tribal Council (and so certified by the Tribe's Legal Counsel) and submitted to the Regional Administrator for review and approval.
   ii. Any potential modification of water quality standards shall be subject to public participation, consistent with the requirements of 40 CFR 25.
5. All other applicable provisions of 40 CFR 131 and 132 shall apply to the Tribe's water quality standards.
6. 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. The 7Q10 low flow shall be calculated using methods recommended by the U.S. Geological Survey.

D. *Definitions.* Any term not defined here will have meaning consistent with the definitions in 40 CFR 132.

1. "Acute-chronic ratio (ACR)" is a standard measure of the acute toxicity of a material divided by an appropriate measure of the chronic toxicity of the same

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material under comparable conditions.

2. "Acute toxicity" is concurrent and delayed adverse effect(s) that results from an acute exposure and occurs within any short observation period which begins when the exposure begins, may extend beyond the exposure period, and usually does not constitute a substantial portion of the life span of the organism.
3. "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.
4. "Ambient conditions" is the measurable biological, chemical, and physical characteristics of Tribal waters and associated dependent biotic communities.
5. "Background conditions" means the biological, chemical, and physical conditions of a water body, including flow, that existed prior to a point or non-point source discharge(s) or would exist in the absence of such discharge(s)
6. "Bioaccumulative chemical of concern (BCC)" is any chemical that has the potential to cause adverse effects which, upon entering the surface waters, by itself or as its toxic transformation product, accumulates in aquatic organisms by a human health bioaccumulation factor (BAF) greater than 1000, after considering metabolism and other physicochemical properties that might enhance or inhibit bioaccumulation, in accordance with the methodology in appendix B of 40 CFR 132. Chemicals with half-lives of less than eight weeks in the water column, sediment, and biota are not BCCs. The minimum BAF information needed to define an organic chemical as a BCC is either a field-measured BAF or a BAF derived using the Biota-Sediment Accumulation Factor (BSAF) methodology. The minimum BAF information needed to define an inorganic chemical, including an organometal, as a BCC is either a field-measured BAF or a laboratory-measured Bioconcentration Factor (BCF). BCCs include, but are not limited to, the pollutants identified as BCCs in section A of Table 6 of 40 CFR 132.
7. "Carcinogen" is a substance which causes an increased incidence of benign or malignant neoplasms, or substantially decreases the time to develop neoplasms, in animals or humans. The classification of carcinogens is discussed in section II.A of appendix C to 40 CFR 132.
8. "Ceremonial and Religious water use" is an activity involving traditional Native American spiritual practices which may involve, among other things, ingestion of water or primary (direct) contact with water.
9. A "change in background" shall mean a change which can be measured or calculated with reasonable scientific certainty using accepted analytical methods as outlined in these Tribal water quality standards.
10. "Chronic toxicity" is concurrent and delayed adverse effect(s) that occurs only as a result of a chronic exposure.
11. "Council" or "Tribal Council" means the governing body of the Bad River Band of the Lake Superior Tribe of Chippewa Indians.
12. "Criterion continuous concentration (CCC)" is an estimate of the highest

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concentration of a material in the water column to which an aquatic community can be exposed indefinitely without resulting in an adverse effect.

13. "Criterion maximum concentration (CMC)" is an estimate of the highest concentration of a material in the water column to which an aquatic community can be exposed briefly without resulting in an adverse effect.
14. "Cultural water use" means activities involving traditional Ojibwe (Chippewa) practices which includes ceremonies, harvesting, hunting and fishing, actual or historical.
15. "Designated uses" are those uses specified in water quality standards for each water body or segment whether or not they are being attained.
16. "Endangered or threatened species" are those species that are listed as endangered or threatened under section 4 of the Endangered Species Act.
17. "EPA" or "Agency" is the United States Environmental Protection Agency.
18. "Exceptional Resource Water" (Anishinaabosibiing or "good watering place") is a classification for waters considered to be of high quality and culturally important for the ecosystems they support. The purpose of this classification is to implement the Tribe's antidegradation policy. This classification is roughly equivalent to EPA's regulatory definition of a Tier 2 water under the Agency's antidegradation policy, though this classification may be more protective than the Agency's policy. Any surface water not specifically classified as Outstanding Tribal Resource Water or Outstanding Resource Water is classified as Exceptional Resource Water (Anishinaabosibiing).
19. "Existing uses" are those uses actually attained in the water body on or after November 28, 1975, whether or not they are included in the water quality standards.
20. "Human cancer criterion (HCC)" is a Human Cancer Value (HCV) for a pollutant that meets the minimum data requirements for Tier I specified in appendix C of 40 CFR 132.
21. "Human cancer value (HCV)" 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, 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.
22. "Human noncancer criterion (HNC)" is a Human Noncancer Value (HNV) for a pollutant that meets the minimum data requirements for Tier I specified in appendix C of 40 CFR 132.
23. "Human noncancer value (HNV)" is the maximum ambient water concentration of a substance at which adverse noncancer effects are not likely to occur in the human population from lifetime exposure via either: drinking the water, consuming fish from the water, and water-related recreation activities; or consuming fish from the water, and water-related recreation activities using the Methodologies for the Development of Human Health

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Criteria and Values in appendix C of 40 CFR 132.

24. "Natural Background Conditions" are the expected conditions that exist in the absence of any impact from point or non-point source pollutants attributable to human activity or from physical alteration of wetlands.
25. "Natural Biological Community" means the characteristic/expected biological community for a water body absent human-induced impacts to water bodies including wetlands.
26. "Non-point Source" means any source of pollution or substance to water quality that is not a point source.
27. "Outstanding Resource Water" (Chi minosibii or "large good river") is a classification for those waters so designated in the antidegradation policy that are considered to be of high quality and culturally important for the fisheries and ecosystems they support. This classification is more stringent than EPA's Tier 2 classification and could be described as a Tier 2.5 water under the Agency's antidegradation policy.
28. "Outstanding Tribal Resource Water" (Chi minosingbii or "best waters") is a classification for those waters so designated in the antidegradation policy that are considered largely pristine and constitute a significantly important cultural and ecological resource. These waters are important for the cultivation of wild rice or the spawning of lake sturgeon, or have other special resource values. This classification is roughly equivalent to EPA's Tier 3 classification under its antidegradation policy, though this classification may be more protective than the Agency's policy.
29. "Point Source" means 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.
30. "Pollutant" means a man-made or man-induced alteration of the chemical, physical, biological and radiological integrity of water.
31. "pH" is the negative logarithm of the effective hydrogen ion concentration in gram equivalents per liter; a measure of the acidity or alkalinity of a solution, increasing with increasing alkalinity and decreasing with increasing acidity.
32. "Primary contact recreation" is an activity where a person would have direct contact with water to the point of complete submergence, including but not limited to skin diving, swimming, and water skiing.
33. "Regional Administrator" is the Administrator of EPA's Region V.
34. "Reservation" is the Bad River Reservation, described as follows: Beginning on the south shore of Lake Superior, a few miles west of Montreal River, at the mouth of a creek called by the Indians Ke-Che-se-be-we-she, running thence south to a line drawn east and west through the centre of township forty-seven north, thence west to the west line of said township, thence south to the southeast corner of the township forty-six north, range thirty-two west, thence west the width of two townships, thence north the width of two

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townships, thence west one mile, thence north to the lake shore, and thence along the lake shore, crossing Shag-waw-me-quon Point, to the place of beginning. Also two hundred acres on the northern extremity of Madeline Island, for a fishing ground. Ke-Che-se-be-we-she is now known as Graveyard Creek and Shag-waw-me-quon is now commonly spelled Chequamegon Point.

35. "Ricing" means the traditional harvest of wild rice for consumption and cultural use.
36. "Secondary Contact Recreation" is an activity (such as wading or fishing) where a person's water contact would be limited to the extent that bacterial infections of eyes, ears, respiratory, or digestive systems or urogenital areas would normally not occur.
37. "Surface Water" means all water above the surface of the ground within the exterior boundaries of the Bad River Reservation including but not limited to lakes, ponds, reservoirs, artificial impoundments, streams, rivers, springs, seeps and wetlands.
38. "Temperature" means water temperature expressed in Centigrade degrees (^{o}C).
39. "Toxicity" or "toxic" is the potential of a material, or a combination of that material and any other substance, to adversely affect organisms.
40. "Tribe" means the Bad River Band of the Lake Superior Tribe of Chippewa Indians.
41. "Turbidity" is the clarity of water expressed as nephelometric turbidity units (NTU) and measured with a calibrated turbidimeter.
42. "Water Resources Program" includes staff members comprising the Water Resources Program of the Tribe's Natural Resources Department.
43. "Wildlife Habitat" means the waters and surrounding land areas of the Reservation used by fish, other aquatic life and other wildlife at any stage of their life history or activity.

E. *General considerations.* The following general guidelines shall apply to the water quality standards and classifications set forth in the use designation sections.

1. *Classification boundaries.* At the boundary between waters of different classifications, the water quality standards for the most sensitive classification shall prevail.
2. *Antidegradation Policy.* This antidegradation policy shall be applicable to all surface waters of the Reservation. The extent of the Tribe's dependence upon and interdependence with its natural resources, and especially its water resources, is unique. The water resources of the Tribe are integral to its members' health, welfare and economic security, as well as the economic and political integrity of the Tribe itself. The Tribe has depended on the ability of the natural resources, particularly the water resources, to provide cultural preservation and resources for consumption, subsistence, sustainable economic development. This Antidegradation Policy provides for the

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maintenance and protection of water quality to ensure that all designated and existing uses are met and maintained.

i. For the purposes of implementing the provisions of this subsection, any surface waters not specifically classified as Outstanding Tribal Resource Waters (Chi minosingbii) or Outstanding Resource Waters (Chi minosibii) are classified as Exceptional Resource Waters (Anishinaabosibiing) and are roughly equivalent to EPA's regulatory definition of Tier 2 waters under the Agency's antidegradation policy. Exceptional Resource Waters are of high quality and culturally important for the ecosystems they support. Existing in-stream water uses and the level of water quality fully protective of the existing uses shall be maintained and protected, or improved in the case of a degraded stream. Where designated uses of the water body are impaired, there shall be no lowering of the water quality with respect to the pollutant or pollutants that are causing the impairment. 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. In allowing such degradation or lower water quality, the Tribe shall assure water quality adequate to protect existing uses fully.

ii. Surface waters of the Reservation that are identified as high quality and culturally important to the Tribe for the fisheries and ecosystems they support are Outstanding Resource Waters (Chi minosibii) and could be described as roughly equivalent to EPA's regulatory definition of Tier 2.5 waters under the Agency's antidegradation policy. Existing ambient water quality on Outstanding Resource Waters may not be lowered. New or increased discharges may be permitted provided that the new or increased discharge does not result in a change in background conditions or negatively impact designated uses or existing uses; however, no new or increased discharges of BCCs will be permitted. 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. In allowing such degradation or lower water quality, the Tribe shall assure water quality adequate to protect existing uses fully. Waters designated as Outstanding Resource Waters (Chi minosibii)

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include: a portion of Bad River, from downstream the confluence with the White River to Lake Superior, White River, Marengo River, Graveyard Creek, Bear Trap Creek, Wood Creek, Brunsweiler River, Tyler Forks, Bell Creek, and Vaughn Creek.

iii. Surface waters of the Reservation that are identified as high quality and constitute a significantly important cultural and ecological resource are designated as Outstanding Tribal Resource Waters (Chi minosingbii) and are roughly equivalent to EPA's regulatory definition of Tier 3 waters under the Agency's antidegradation policy. These waters are recognized as being largely pristine and important for the cultivation of wild rice or the spawning of lake sturgeon, or have other special resource values, and, therefore, that water quality shall be maintained and protected in all cases without degradation. New or increased discharges will not be permitted. Waters designated as Outstanding Tribal Resource Waters (Chi minosingbii) include: Kakagon Slough and the lower wetland reaches of its tributaries that support wild rice, Kakagon River, Bad River Slough, Honest John Lake, Bog Lake, a portion of Bad River, from where it enters the Reservation through the confluence with the White River, and Potato River.

iv. In those cases where the potential water quality impairment is associated with a thermal discharge is involved, this antidegradation policy and implementing method shall be consistent with these Tribal water quality standards and with section 316 of the Clean Water Act.

v. An antidegradation classification of a waterbody may be upgraded but not be downgraded without a Use Attainability Analysis.

3. *Antidegradation Implementation.*

i. Lowering of Water Quality: A lowering of water quality is defined 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, as a result of any activity including, but not limited to:

a. Construction of a new regulated facility or modification of an existing regulated facility such that a new or modified control document is required;

b. Modification of an existing regulated facility operating under a current control document such that the production capacity of the facility is increased;

c. Addition of a new source of untreated or pretreated effluent to an existing wastewater treatment works, whether public or private;

d. A request for an increased limit in an applicable control

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document; or

e. Other deliberate activities that, based on the information available, could be reasonably expected to result in an increased loading of any pollutant to any waters of the Bad River Reservation.

ii. Outstanding Tribal Resource Waters: No new or increased discharges or alterations of the background conditions are allowed to Outstanding Tribal Resource Waters; however, a short-term, temporary (no more than 6 months, and no more than necessary) lowering of water quality may be allowed provided that an entity seeking to engage in such discharge demonstrate that such discharge will arise entirely from one of the following and meets the Outstanding Tribal Resource Waters Antidegradation Demonstration and Outstanding Tribal Resource Waters Antidegradation Decision requirements below:

a. Maintenance/repair of existing roads, bridges, boat landings, culverts, septic systems, or other similar structures; construction of buildings, wells, roads, or other similar structures.

b. Response actions undertaken by the Tribe to alleviate a release into the environment of hazardous substances, pollutants, or contaminants which may pose an imminent and substantial danger to public health or welfare.

c. Actions undertaken by the Tribe to restore culturally important species and their habitats.

4. *Antidegradation Demonstration.*

i. An antidegradation demonstration must be submitted to the Water Resources Program by all of the following entities:

a. Any entity seeking to lower water quality in a high quality water, which includes an Exceptional Resource Water or an Outstanding Resource Water;

b. Any entity seeking to create a new or increased discharge of Lake Superior bioaccumulative substances of immediate concern in an Exceptional Resource Water;

c. Any entity seeking to lower water quality in an Outstanding Tribal Resource Water on a short-term, temporary basis.

ii. The antidegradation demonstration for Exceptional Resource Waters shall include the following:

a. Pollution Prevention Alternatives Analysis. Identify any pollution prevention alternatives and techniques that are available to the entity that would eliminate or significantly reduce the extent to which the increased loading results in a lowering of water quality.

b. Alternative or Enhanced Treatment Analysis. Identify alternative or enhanced treatment techniques that are available

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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.

c. Social or Economic Development Analysis. Identify the social or economic development and the benefits to the area in which the waters are located that will be diminished if the lowering of water quality is not allowed.

d. Water Quality Assessment. Demonstrate that the resulting water quality will be protective of existing uses.

e. Special Provision for Remedial Actions. Entities proposing remedial actions pursuant to the CERCLA, as amended, corrective actions pursuant to the Resource Conservation and Recovery Act, as amended, or similar actions pursuant to other Federal or State environmental statutes may submit information to the Water Resources Program that demonstrates that the action utilizes the most cost effective pollution prevention and treatment techniques available, and minimizes the lowering of water quality, in lieu of the information required in sections a. through e. above.

iii. The antidegradation demonstration for Outstanding Resource Waters shall include the following:

a. Pollution Prevention Alternatives Analysis. Identify any pollution prevention alternatives and techniques that are available to the entity that would eliminate or reduce the extent to which the increased loading results in a lowering of water quality. Must identify that no increased loads of BCCs shall be discharged. Demonstrate that there will be achieved the highest statutory and regulatory requirements for new and existing pollution sources.

b. Alternative or Enhanced Treatment Analysis. 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.

c. Social or Economic Development Analysis. Identify the social or economic development and the benefits to the area in which the waters are located that will be foregone if the lowering of water quality is not allowed.

d. Water Quality Assessment. Demonstrate that the resulting water quality will be protective of existing uses and that discharges will not exceed water quality criteria.

e. Special Provision for Remedial Actions. Entities proposing remedial actions pursuant to the CERCLA, as amended, corrective actions pursuant to the Resource Conservation and

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Recovery Act, as amended, or similar actions pursuant to other Federal or State environmental statutes may submit information to the Water Resources Program that demonstrates that the action utilizes the most cost effective pollution prevention and treatment techniques available, and minimizes the lowering of water quality, in lieu of the information required in sections a. through d. above.

iv. The antidegradation demonstration for Outstanding Tribal Resource Waters shall include the following:

a. Identification of Applicable Category. Demonstrate the discharge will arise entirely from one of the categories listed in (E)(3)(ii).

b. Short Term, Temporary Assessment. Demonstrate the discharge will not lower the water quality beyond the short term, temporary criteria (no more than 6 months, and no more than necessary).

c. Showing of Necessity. Identify the project need and demonstrate increased loading is a necessity.

d. Pollution Prevention Alternatives Analysis. Identify any pollution prevention alternatives and techniques that are available to the entity that would eliminate or reduce the extent to which the increased loading results in a lowering of water quality. Must identify that no increased loads of BCCs shall be discharged. Demonstrate that there will be achieved the highest statutory and regulatory requirements for new and existing pollution sources.

e. Alternative or Enhanced Treatment Analysis. 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.

5. *Antidegradation Decision.*

i. *Exceptional Resource Waters (Anishinaabosibiing) or Outstanding Resource Waters (Chi minosibii).* Once the Water Resources Program determines that the information provided by the entity proposing to increase loadings is administratively complete, the Water Resource Program shall use that information to determine whether the lowering of water quality is necessary, and, if necessary, whether the lowering of water quality will support important social and economic development in the area. If the proposed lowering of water quality is either not necessary or will not support important social and/or economic development goals, the Water Resources Program, with approval from the Bad River Tribal Council, shall deny the request to lower water quality. If the lowering of water quality is necessary, and

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will support important social and economic development goals, the Water Resources Program, with approval from the Bad River Tribal Council, may approve all or part of the proposed lowering of water quality to occur as necessary. In no event may the decision reached under this section allow water quality to be lowered below the minimum level required to fully support existing and designated uses. The decision of the Water Resources Program and the Bad River Tribal Council shall be subject to the public participation requirements of 40 CFR 25.

ii. *Outstanding Tribal Resource Waters (Chi minosingbii).* An automatic denial will be issued for any request to create any new or increased discharges or alterations of the background conditions to Outstanding Tribal Resource Waters, or where the request proposes to lower water quality in a manner that is not short-term or temporary (no more than 6 months), or where that lowering of water quality would continue for longer than necessary, or where that lowering of water quality would not arise entirely from the circumstances outlined in the Antidegradation Implementation requirements above. If the short term, temporary lowering of water quality is necessary, the Water Resources Program, with approval from the Bad River Tribal Council, may approve all or part of the proposed short term, temporary lowering of water quality to occur as necessary. In no event may the decision reached under this section allow water quality to be lowered below the minimum level required to fully support existing and designated uses. The decision of the Water Resources Program and the Bad River Tribal Council shall be subject to the public participation requirements of 40 CFR 25.

6. *Narrative Criteria.* In addition to the other requirements of these Tribal water quality standards, the below Narrative Criteria apply to all waters of the Bad River Reservation. Failure to meet the below criteria constitutes an enforceable violations of these Tribal water quality standards, and no discharge that has the potential to create or support a violation of these Narrative Criteria shall be approved.

   i. *Narrative criteria for aesthetic water quality.* All waters (including wetlands) within the Reservation shall be free from substances, attributable to wastewater discharges or pollutant sources resulting from other than natural background conditions, that:

      a. Settle to form objectionable deposits;
      b. Float as debris, scum, oil, or other matter forming nuisances;
      c. Produce objectionable color, odor, taste, or turbidity;
      d. Cause injury to, are toxic to, or produce adverse physiological responses in humans, animals, or plants;
      e. Produce undesirable or nuisance aquatic life;
      f. Produce nutrients or other substances that stimulate algal

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growth producing objectionable algal densities, nuisance aquatic vegetation, dominance of any nuisance species instream, or cause nuisance conditions in any other fashion; or

g. Adversely affect the natural biological community of the waterbody.

ii. *General narrative criteria.* These criteria apply to all waters of the Reservation (including wetlands) except as otherwise noted.

a. Pollutants shall not be present in concentrations that cause or may contribute to an adverse effect to human, plant, animal or aquatic life, or in quantities that may interfere with the normal propagation, growth and survival of indigenous aquatic biota. For toxic substances lacking published criteria, minimum criteria or values shall be calculated by the Tribe or U.S. EPA consistent with procedures specified at 40 CFR 132 Appendices A, B, C and D.

b. Concentrations of radioactive materials shall not exceed concentrations caused by naturally occurring materials.

c. Water quantity and quality that may limit the growth and propagation of, or otherwise cause or contribute to an adverse effect to wild rice, wildlife, and other flora and fauna of cultural importance to the Tribe shall be prohibited. This includes, but is not limited to, a requirement that sulfate levels shall not exceed concentrations causing or contributing to any adverse effects in waters, including those with a Wild Rice designated use.

d. Natural hydrological conditions supportive of the natural biological community, including all flora and fauna, and physical characteristics naturally present in the waterbody shall be protected to prevent any adverse effects.

e. 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. Natural daily and seasonal fluctuations of flow (including naturally occurring seiche), level, stage, dissolved oxygen, pH, and temperature shall be maintained.

f. Pollutants or human-induced changes to waters, the sediments of waters, or area hydrology that results in changes to naturally occurring biological communities and corresponding supportive communities shall be prohibited. The migration of fish and other aquatic biota normally present shall not be hindered.

g. Existing mineral quality shall not be altered by municipal, industrial and in-stream activities or other waste discharges so

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as to in any way impair the designated uses for a water body.

h. Temperature – No increase or decrease in temperature shall be allowed from other than natural causes.

i. The presence of pollutants in quantities that result in bioaccumulation in aquatic organisms that may cause or contribute to an adverse effect to consumers of aquatic organisms shall be prohibited.

7. *Specific numeric criteria.* In addition to the other requirements of these Tribal water quality standards, the below Numeric Criteria apply to all waters of the Bad River Reservation. Failure to meet the below criteria constitutes an enforceable violations of these Tribal water quality standards, and no discharge that has the potential to create or support a violation of these Numeric Criteria shall be approved. These criteria apply to all waters (including wetlands), except as otherwise noted:

   i. Dissolved oxygen – Unless otherwise demonstrated through a use attainability analysis or site-specific criterion that aquatic life cannot be supported, a water body capable of supporting aquatic life shall have a daily minimum dissolved oxygen standard of 5 mg/L in all cases except waters designated as a Cold Water Fishery. For those waters designated as a Cold Water Fishery, the dissolved oxygen shall have a daily minimum of 6 mg/L at any time and 8 mg/L when and where early life stages of cold water fish occur. These criteria will not apply to the Kakagon Sloughs, Bad River Sloughs, and wetlands due to their natural conditions.

   ii. pH – No change is permitted greater than 0.5 units over a period of 24 hours for other than natural causes. The change, upward or downward, shall not result in an adverse affect on aquatic biota, fish or wildlife.

   iii. Turbidity – Shall not exceed 5 NTU over natural background turbidity when the background turbidity is 50 NTU or less, or turbidity shall not increase more than 10 percent when the background turbidity is more than 50 NTU.

   iv. Bacteriological Water Quality Criteria - The geometric mean of not less than 5 samples equally spaced over a 30-day period shall not exceed 126 *E. coli* per 100 milliliters (mL) for fresh waters. Any single sample shall not exceed 235 *E. coli* per 100 mL.

   v. Modification of Criteria - The Tribe may revise criteria on a site-specific basis as necessary to reflect new scientific data or conditions specific to a given site or water body. Such modifications to water quality criteria shall assure that all designated and existing uses are protected and that water quality standards continue to be attained. Revisions of site-specific criteria shall be consistent with those procedures found in EPA's "Water Quality Standards Handbook: Second Edition (EPA-823-B-94-005; August 1994 with some new information [June 2007] at Chapter 3), and 40 CFR 132, "Water

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Quality Guidance for the Great Lakes System." All modified criteria must be submitted to the Regional Administrator for approval. The Tribe shall adopt more stringent site-specific criteria where necessary to protect federal-listed threatened or endangered species consistent with 40 CFR 132 Appendix F, procedure 1. The Tribe may adopt more stringent site-specific criteria where necessary to protect state-listed threatened or endangered species consistent with 40 CFR 132 Appendix F, procedure 1. Such revisions shall be adopted using the procedure specified in 40 CFR 132 section 4.

8. *Analytical methods.* The analytical testing methods used to measure or otherwise evaluate compliance with water quality standards shall to the extent practicable, be in accordance with the most recent editions of the following:
   i. "Guidelines Establishing Test Procedures for the Analysis of Pollutants" (40 CFR 136);
   ii. "Standard Methods for the Examination of Water and Wastewater" (published by the American Public Health Association, American Water Works Association, and the Water Pollution Control Federation);
   iii. Other or superseding methods published and/or approved by EPA.

F. *Designated uses.* The Tribe does not designate a public water supply use because the surface waters of the Reservation are currently not utilized as a drinking water supply. Where there are several designated uses for a waterbody, the applicable standard applied will be the criterion necessary to protect the most sensitive use. At the boundary between surface waters of different designated uses, the water quality criteria necessary to protect the more sensitive use or uses shall apply. The following designated uses shall apply to the various classes of surface waters within the exterior boundaries of the Bad River Reservation:

1. *Cultural (C1).* Water-based activities essential to maintaining the Tribe's cultural heritage, including but not limited to ceremony, subsistence fishing, hunting and harvesting. This use includes primary and secondary contact and ingestion.
2. *Wild Rice (W1).* Supports or has the potential to support wild rice habitat for sustainable growth and safe consumption.
3. *Wildlife (W2).* Supports the proper habitat for propagation of wildlife, which will allow the safe ingestion of any wildlife resources that provide a dietary food source for Tribal subsistence.
4. *Aquatic Life and Fish (A).* Supports conditions for a balanced aquatic community.
5. *Cold Water Fishery (F1).* Supports or has the potential to support the existence of cold water fishery communities and/or spawning areas. No thermal discharge to such waters will be allowed.
6. *Cool Water Fishery (F2).* Supports or has the potential to support the existence of cool water fishery communities and/or spawning areas for at least

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a portion of the year.

7. *Recreational (R).* Supports primary contact recreation and secondary contact recreation. This includes Tribal activities including water contact such as boating, hunting, fishing and harvesting. This use includes primary and secondary contact and ingestion.
8. *Commercial (C2).* Supports the use of water in propagation of fish fry for the Tribal Hatchery and/or irrigation of community agricultural projects.
9. *Navigation (N).* The water quality is adequate for navigation in and on the water.
10. *Wetland (W3).* An area that will be protected and maintained for at least some of the following uses: maintaining biological diversity, preserving wildlife habitat, providing recreational activities, erosion control, groundwater recharge, low flow augmentation, storm water retention, prevention of stream sedimentation, and the propagation of wild rice.

G. *Specific Classifications.* Specific classifications for surface waters of the Bad River Reservation are in Table 1:

TABLE 1: Specific designated uses of the Tribe's water resources.

WATERBODY	DESIGNATED USES APPLIED TO WATER BODIES						
	C1	W2	W1	A	R	F1	F2
Kakagon Slough	X	X	X	X	X		X
Sand Cut Slough	X	X	X	X	X		X
Bad River Slough	X	X	X	X	X		X
Honest John Lake	X	X		X	X		X
Wood Creek Slough	X	X	X	X	X		X
Bad River	X	X	X	X	X		X
Kakagon River	X	X	X	X	X		X
Brunsweiler River	X	X		X	X		X
White River	X	X		X	X		X
Marengo River	X	X		X	X	X	X
Potato River	X	X		X	X	X	X

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	C1	W2	W1	A	R	F1	F2
Wood Creek	X	X	X	X	X		X
Bear Trap Creek	X	X	X	X	X		X
Graveyard Creek	X	X		X	X	X	
Bell Creek	X	X		X	X	X	
Morrison Creek	X	X		X	X		X
Newago Creek	X	X		X	X		X
Denomie Creek	X	X		X	X		X
West Branch Denomie Creek	X	X		X	X		X
Rins Creek	X	X		X	X		X
Silver Creek	X	X		X	X		X
Thornapple Creek	X	X		X	X		X
Meadow Creek	X	X		X	X		X
Elm Creek	X	X		X	X		X
Vaughn Creek	X	X		X	X	X	X
Upper Vaughn Creek	X	X		X	X		X
Winks Creek	X	X		X	X	X	
Cameron Creek	X	X		X	X		X
Sugarbush Creek	X	X		X	X		X
Billy Creek	X	X		X	X	X	
Trout Brook	X	X		X	X	X	X
Tyler Forks	X	X		X	X	X	
Hanson Swamp	X	X		X	X		
Sugarbush Pond	X	X		X	X		
Alex Pond	X	X		X	X		

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	C1	W2	W1	A	R	F1	F2
Wolf Pond	X	X		X	X		
Pictured Rock Lake	X	X		X	X		
Sugarbush Lake	X	X		X	X		
Lost Lake	X	X		X	X		
Moonshine Lake	X	X		X	X		
Bog Lake	X	X		X	X		

*The designated uses entitled Commercial (C2) and Navigation (N) apply to all waters. The designated use entitled Wetland (W3) applies to all wetlands. Waters not listed above will have the following designated uses: Cultural (C1), Wildlife (W2), Aquatic Life and Fish (A), Recreation (R), Commercial (C2), and Navigation (N).

H. *Numeric water quality criteria.* Because of the Tribe's cultural, spiritual, economic, and thus political dependence and interdependence with the waters of the Bad River Reservation, the highest protection of these Tribal waters is essential to the protection of the health and safety of Tribal members, and for the survival and growth of the Tribe. 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 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.

1. The acute water quality criteria for the protection of aquatic life in ambient water in Tables 2 and 3 shall apply to all waters with an Aquatic Life and Fish (A) designated use.

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TABLE 2: Acute Aquatic Life Criteria that are not water characteristic dependent.

Acute numeric criteria for the protection of aquatic life

Parameter	CMC (µg/L)	Conversion Factor (CF)
Arsenic (III)	339.8[a,b]	1
Chromium (VI)	16.02[a,b]	0.982
Cyanide	22[c]	n/a
Dieldrin	0.24[d]	n/a
Endrin	0.086[d]	n/a
Lindane	0.95[d]	n/a
Mercury (II)	1.694[a,b]	0.85
Parathion	0.065[d]	n/a
Selenium*	19.34[a,b]	0.922

[a]$CMC=CMC^{tr}$

[b]$CMC^{d}=(CMC^{tr})CF$ The CMC^{d} shall be rounded to two significant digits.

[c]CMC should be considered free cyanide as CN.

[d]$CDM=CMC^{t}$

NOTES:

The term n/a means not applicable.

CMC is Criterion Maximum Concentration

CMC^{tr} is the CMC expressed as a total recoverable.

CMC^{d} is the CMC expressed as a dissolved concentration.

CMC^{t} is the CMC expressed as a total concentration.

* EPA is re-evaluating the national selenium criteria and the proposed criterion is subject to revision before final adoption of this water quality standards document.

TABLE 3: Acute Aquatic Life Criteria that are water characteristic dependent.

Acute aquatic life criteria that are hardness or pH dependent

Parameter	m_a	b_a	CF
Cadmium[a,b]	1.1280	-3.6867	0.8500
Chromium (III)[a,b]	0.8190	3.7256	0.3160
Copper[a,b]	0.9422	-1.7000	0.9600
Nickel[a,b]	0.8460	2.2550	0.9980
Pentachlorophenol[c]	1.0050	-4.8690	n/a
Zinc[a,b]	0.8473	0.8840	0.9780

[a]$CMC^{tr}= \exp\{m_A[\ln(hardness)]+b_A\}$

[b]$CMC^{d}=(CMC^{tr})CF$. The CMC^{d} shall be rounded to two significant digits.

[c]$CMC^{t}= \exp\{m_A[pH]+b_A\}$ The CMC^{t} shall be rounded to two significant digits.

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NOTES:
The term "exp" represents the base e exponential function.
The term "n/a" means not applicable.
CMC is Criterion Maximum Concentration.
CMC^{tr} is the CMC expressed as total recoverable.
CMC^{d} is the CMC expressed as a dissolved concentration.
CMC^{t} is the CMC expressed as a total concentration.

2. The chronic water quality criteria for protection of aquatic life in ambient water in Tables 4 and 5 shall apply to all waters with an Aquatic Life and Fish (A) designated use.

TABLE 4: Chronic Aquatic Life Criteria that are not water characteristic dependent.

Chronic Water Criteria for Protection of Aquatic Life in Ambient Water

Parameter	CCC (µg/L)	CF
Arsenic (III)	147.9[a,b]	1.0000
Chromium (VI)	10.98	0.9620
Cyanide	5.2[c]	n/a
Dieldrin	0.056[d]	n/a
Endrin	0.036[d]	n/a
Mercury (II)	0.9081[a,b]	0.8500
Parathion	0.013[d]	n/a
Selenium*	5[a,b]	0.9220

[a]$CCC=CCC^{tr}$
[b]$CCC^{d}=(CCC)^{tr}CF$
[c]CCC should be considered free cyanide as CN.
[d]$CCC=CCC^{tr}$

NOTES:
The term "n/a" means not applicable.
CCC is Criterion Continuous Concentration.
CCC^{tr} is the CCC expressed as total recoverable.
CCC^{d} is the CCC expressed as a dissolved concentration.
CCC^{t} s the CCC expressed as a total concentration

* EPA is re-evaluating the national selenium criteria and the proposed criterion is subject to revision before final adoption of this water quality standards document.

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TABLE 5: Chronic Aquatic Life Criteria that are water characteristic dependent.

Chronic aquatic life criteria that are hardness or pH dependent

Parameter	m_c	b_c	CF
Cadmium	0.7852	-2.7150	0.8500
Chromium (III)	0.8190	0.6848	0.8600
Copper	0.8545	-1.7020	0.9600
Nickel	0.8460	0.0584	0.9970
Zinc	0.8473	0.8840	0.9860
Pentachlorophenol	1.0050	-5.1340	n/a

[a]$CCC^{tr}=\exp\{m_c[\ln(\text{hardness})]+b_c$.

[b]$CCC^{d}=(CCC^{tr})CF$. The CCC^{d} shall be rounded to two significant digits.

[c]$CCC=\exp\{m_A[pH]+b_A\}$. The CCC^{t} shall be rounded to two significant digits.

NOTES:

The term "exp" represents the base e exponential function.

The term "n/a" means not applicable.

CCC is Criterion Continuous Concentration

CCC^{tr} is the CCC expressed as total recoverable.

CCC^{d} is the CCC expressed as a dissolved concentration.

CCC^{t} is the CCC expressed as a total concentration.

3. The Great Lakes water quality initiative methodologies for development of aquatic life criteria and values in Appendix A of 40 CFR 132 apply to all waters.
4. 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. The criteria in Tables 6 and 7 are roughly based on EPA's recommended subsistence fish consumption rate of 142.4 g/day.

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TABLE 6: Human Health Criteria, cancer values (µg/L)

	Drinking Water Criteria	Nondrinking Water Criteria
Benzene	9.1E+00	3.7E+01
Chlordane	9.7E-05	9.7E-05
DDT	1.5E-05	1.5E-05
Dieldrin	6.8E-07	6.8E-07
Hexachlorobenzene	4.8E-05	4.8E-05
Hexachloroethane	6.9E-01	7.1E-01
Methylene chloride	4.3E+01	3.7E+02
PCBs (class)	2.7E-06	2.7E-06
2,3,7,8-TCDD	9.1E-10	9.1E-10
Toxaphene	7.1E-06	7.1E-06
Trichloroethylene	1.8E+01	4.1E+01

TABLE 7: Human Health Criteria, noncancer values (µg/L)

	Drinking Water Criteria	Nondrinking Water Criteria
Benzene	1.50E+01	6.08E+01
Chlordane	1.49E-04	1.49E-04
Chlorobenzene	5.33E+01	8.73E+01
Cyanides	1.41E+02	1.98E+03
DDT	2.10E-04	2.10E-04
Dieldrin	4.36E-05	4.36E-05
2,4-Dimethylphenol	3.19E+02	9.95E+02
2,4-Dinitrophenol	4.90E+01	3.80E+02
Hexachlorobenzene	4.88E-03	4.88E-03
Hexachloroethane	7.75E-01	7.97E-01
Lindane	5.23E-02	5.26E-02
Mercury	1.94E-04	1.94E-04
Methylene chloride	1.46E+03	1.26E+04
2,3,7,8-TCDD	7.10E-09	7.10E-09
Toluene	7.41E+02	1.40E+03

5. Since the Tribe does not have a public surface water supply use, but Tribal members may ingest untreated surface waters during tribal ceremonies, the human cancer criteria for drinking water (HCV-drinking), and human noncancer criteria for drinking water (HNV-drinking) from table 6 and 7 shall apply to the all waters with a Cultural (C1) and/or Recreational (R) designated use(s).
6. The Great Lakes water quality initiative methodologies for development of

human health nondrinking water criteria and values in Appendix B and C of 40 CFR 132 apply to all waters.

7. The Great Lakes water quality initiative methodologies for development of human health drinking water criteria and values in Appendix B and C of 40 CFR 132 shall apply to all waters with a Cultural (C1) and/or Recreational (R) designated use(s).
8. The criteria for the protection of wildlife in Table 8 shall apply to all waters with a Wildlife (W2) designated use.

TABLE 8: Criteria for the protection of wildlife

Parameter	Criteria (µg/L)
DDT and metabolites	0.000011
Mercury	0.0013
PCBs (class)	0.00012
2,3,7,8,-TCDD	3.1E-09

9. The Great Lakes water quality initiative methodologies for development of wildlife criteria and values in Appendix B and D of 40 CFR 132 apply to all waters.
10. Since 1999, when EPA published the last update to the national Ammonia criteria, additional science has emerged on species sensitivity to ammonia that has necessitated revision of the 1999 equations. The revised equations identified in the 2009 final draft EPA criteria for ammonia, published in the Federal Register (74 FR 69086, 12/30/09) are now in their ultimate final stages of development and approval. When the final criteria are published in the Federal Register, they will immediately take effect in this WQS. The acute and chronic criteria concentrations are expressed as functions of temperature and pH, such that values differ across sites, and differ over time within a site. Below are the proposed criteria (2009) that shall apply to all waters with an Aquatic Life and Fish (A) designated use:
    i. The one-hour average concentration of total ammonia nitrogen (in mg N/L) does not exceed, more than once every three years on the average, the CMC calculated using the following equations:
        a. Where freshwater mussels are present:

$$CMC = 0.811 * \left(\frac{0.0489}{1 + 10^{7.204 - pH}} + \frac{6.95}{1 + 10^{pH - 7.204}}\right) * MIN\left(12.09, 3.539 * 10^{0.036*(25-T)}\right)$$

        b. Or where freshwater mussels are absent:

$$CMC = 0.826 * \left(\frac{0.0489}{1 + 10^{7.204 - pH}} + \frac{6.95}{1 + 10^{pH - 7.204}}\right) * MIN\left(12.09, 6.018 * 10^{0.036*(25-T)}\right)$$

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ii. The thirty-day average concentration of total ammonia nitrogen (in mg N/L) does not exceed, more than once every three years on the average, the CCC calculated using the following equations:

a. Where freshwater mussels are present and fish early life stages are present or absent:

$$CCC = 0.744 * \left(\frac{0.0676}{1 + 10^{7.688 - pH}} + \frac{2.912}{1 + 10^{pH - 7.688}}\right) * \left(0.3443 * 10^{0.028 * (25 - MAX(T,7))}\right)$$

b. Or where freshwater mussels are absent and fish early life stages are absent:

$$CCC = 0.814 * \left(\frac{0.0676}{1 + 10^{7.688 - pH}} + \frac{2.912}{1 + 10^{pH - 7.688}}\right) * \left(2.260 * 10^{0.028 * (25 - MAX(T,7))}\right)$$

iii. The thirty-day average concentration of total ammonia nitrogen (in mg N/L) does not exceed, more than once every three years on the average, the CCC calculated using the following equation:

a. When freshwater mussels are absent and fish early life stages are present:

$$CCC = 0.814 * \left(\frac{0.0676}{1 + 10^{7.688 - pH}} + \frac{2.912}{1 + 10^{pH - 7.688}}\right) * MIN\left(2.852, 2.260 * 10^{0.028 * (25 - T)}\right)$$

iv. In addition, the highest four-day average within the 30-day period should not exceed 2.5 times the CCC.

I. *Severability.* If any provision or subprovision of these Tribal water quality standards or amendments thereto, or the application of any such provision to any person or circumstance is held to be invalid, the remainder of such provisions and subprovisions shall not be affected in any way by such finding.

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