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

Adopted by Resolution No. 7-6-11-441 of the Bad River Band of Lake Superior Tribe of Chippewa Indians.

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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 131.20(b) and 40 CFR 25.
5. All other applicable provisions of 40 CFR 131 and 132 shall apply to the Tribe's water quality standards.
6. 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.
7. All numeric chronic criteria contained in these standards 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 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 deleterious effect to organisms due to exposure to a substance. This includes effects which are or may become debilitating, 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 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; or consuming fish from the water, and water-related recreational 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 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 attributable to human activity.
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. This term does not include agricultural stormwater discharges and return flows from irrigated agriculture.
30. "Pollution" 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 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.

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

3. *Antidegradation Implementation.*

i. Lowering of Water Quality: A lowering of water quality is defined as: the projected or observed diminished chemical, biological, or physical 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 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 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 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 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.
    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 or substantially reduce 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 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 or substantially reduce the lowering of water quality and their costs relative to the cost of treatment necessary to achieve applicable effluent limitations.

v. 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.

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 shall recommend to deny the request to lower water quality. The Tribal Council shall review the recommendation and decide whether to deny the request. If the lowering of water quality is necessary, and will support important social and economic development goals, the Water Resources Program shall recommend to approve all or part of the proposed lowering of water quality to occur as necessary. The Tribal Council shall review the recommendation and decide whether to approve all or part of the proposed lowering of water quality. 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 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 shall recommend to approve all or part of the proposed short term, temporary lowering of water quality to occur as necessary. The Tribal Council shall review the recommendation and decide whether to approve all or part of the proposed short term, temporary lowering of water quality. 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 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 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. Levels of radioactivity shall not exceed levels expected in Tribal waters under natural background conditions.
    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 results in changes to the natural biological communities and wildlife habitat shall be prohibited. The migration of fish and other aquatic biota normally present shall not be hindered. Natural daily and seasonal fluctuations of flow (including naturally occurring seiche), level, stage, dissolved oxygen, pH, and temperature shall be maintained.
f. Existing mineral quality shall not be altered by municipal, industrial and in-stream activities or other waste discharges so as to in any way impair the designated uses for a water body.
g. 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.
h. 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 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.

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. 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 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. Modification of criteria will be adopted in a manner consistent with the procedural requirements of C.4.ii.

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 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.

WATER BODY	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
Potato River	X	X		X	X	X	X
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

WATER BODY	C1	W2	W1	A	R	F1	F2
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 (T46N, R3W, Section 32)	X	X		X	X	X	
Billy Creek (T46N, R3W, Section 35	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		
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), and Recreational (R).

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. Modification of criteria specified in the following tables will be adopted in a manner consistent with the procedural process described in Section C.4.

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.

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

[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.

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

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

[d]$CCC=CCC^{t}$

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} is 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.

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[a,b]	0.7852	-2.7150	0.8500
Chromium (III)[a,b]	0.8190	0.6848	0.8600
Copper[a,b]	0.8545	-1.7020	0.9600
Nickel[a,b]	0.8460	0.0584	0.9970
Zinc[a,b]	0.8473	0.8840	0.9860
Pentachlorophenol[c]	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]$CMC^{t}=\exp\{m_A[pH]+b_A\}$. The CMC^{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 without a Cultural (C1) and/or Recreational (R) designated use. The criteria in Tables 6 and 7 are based on EPA's recommended subsistence fish consumption rate of 142.4 g/day.

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

	HCV - Drinking	HCV - Nondrinking
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)

	HNV - Drinking	HNV - Nondrinking
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[a]	0.0013
PCBs (class)	0.00012
2,3,7,8,-TCDD	3.1E-09

[a]The mercury criterion includes methylmercury.

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 the WQS and shall apply to all waters with an Aquatic Life and Fish (A) designated use. 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):
    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:

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

    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. *Mixing Zones.* The incorporation of mixing zones into the issuance of permits under CWA Section 402 may be allowable as determined on a case by case basis. Mixing zones may be authorized on a case by case basis if demonstrated that a mixing zone is necessary and will not result in objectionable or damaging conditions. A mixing zone may be determined necessary where, after implementing all cost effective and feasible pollution controls and best management practices, it is still not possible to comply with the applicable numeric criteria without allowing for a limited area of dilution of the discharge in the receiving water.

1. A mixing zone shall not be authorized for:
   i. Discharges in Outstanding Tribal Resource Waters;
   ii. Thermal discharges in waters with a Cold Water Fishery designated use;
   iii. Discharges containing BCCs;
   iv. Discharges threatening endangered or threatened species and their habitats;
   v. Discharges threatening critical resource areas.
2. The following provisions must be met for an authorized mixing zone:
   i. The size of a mixing zone shall be limited to as small an area as practicable.
   ii. The size of a mixing zone shall conform to the time exposure responses of aquatic life.
   iii. Mixing zones for two or more sources shall not overlap.
   iv. A mixing zone shall ensure a zone of passage for mobile aquatic life is maintained.
   v. A mixing zone shall ensure spawning, nursery areas, and migratory routes are protected.
   vi. A mixing zone shall be free of the following in-zone conditions:
      a. Materials in concentrations that will cause acutely toxic conditions to aquatic life;

b. Materials in concentrations that settle to form objectionable deposits;
c. Floating debris, oil, scum, and other materials in concentrations that form nuisances;
d. Substances in concentrations that produce objectionable color, odor, taste, or turbidity; and
e. Substances in concentrations that produce undesirable aquatic life or result in a dominance of nuisance species.

vii. A mixing zone shall not interfere with the designated uses and existing uses of the receiving water or downstream surface waters.

viii. A mixing zone shall not result in significant human health risks.

ix. Water quality standards shall be met at every point outside of a mixing zone.

x. The methodology for determining the characteristics of a mixing zone shall be consistent with provision C.7. and with the procedures and guidelines in EPA's *Water Quality Standards Handbook* and the *Technical Support Document for Water Quality Based Toxics Control* and subsequent updates of the handbook and technical support documents.

J. *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.