

# WATER QUALITY STANDARDS FOR SURFACE WATERS ON THE SOUTHERN UTE INDIAN RESERVATION



4/24/2025

**SOUTHERN UTE INDIAN TRIBE  
ENVIRONMENTAL PROGRAMS DEPARTMENT**

These water quality standards establish water quality goals for water bodies on the Southern Ute Indian Reservation and provide the legal basis for regulatory pollution controls.

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# WATER QUALITY STANDARDS FOR SURFACE WATERS ON THE SOUTHERN UTE INDIAN RESERVATION

## SOUTHERN UTE INDIAN TRIBE ENVIRONMENTAL PROGRAMS DEPARTMENT

### 1 PURPOSE, AUTHORITY, AND APPLICABILITY

#### 1.1 PURPOSE

The Southern Ute Indian Tribe (“Tribe”) adopted these water quality standards to protect public health and welfare, enhance the quality of water, and serve the purposes of the Clean Water Act (CWA), 33 U.S.C. Section 1251, *et seq.*<sup>1</sup> These water quality standards are comprised of:

- designated uses for tribal waters;
- numeric and narrative water quality criteria designed to support each designated use;
- anti-degradation policies and procedures to ensure attainment and maintenance of those uses; and
- general policies to protect water quality

These water quality standards serve the primary functions of establishing water quality goals for water bodies on the Southern Ute Indian Reservation over which the Tribe has authority for purposes of setting water quality standards and providing the legal basis for regulatory pollution controls. Establishing criteria and designated uses that provide for protection of aquatic and wildlife species, recreational, potable water and agricultural uses is also an important objective of these standards. More specifically, these standards are intended to serve, and shall be implemented to achieve, the following purposes:

1. Assessment. Provide a point of reference for the assessment of surface water quality. These standards represent the water quality goals of the Tribe for surface waters and will be used in assessing potential impacts to that quality.
2. Regulatory Controls. Both point and nonpoint source regulatory pollution controls to be established by the Tribe or the United States will be developed to ensure a level of water quality that will satisfy these water quality standards. Regulatory pollution controls established for point source discharges shall also be consistent with applicable sections of the CWA. Tribal programs to control nonpoint sources, whether regulatory or voluntary, shall be designed to meet these water quality standards.

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<sup>1</sup> “Serve the purposes of the Clean Water Act” means that these water quality standards are intended, wherever attainable, to provide water quality for the protection and propagation of fish, shellfish and wildlife and for recreation in and on the water and take into consideration their use and value of public water supplies, propagation of fish, shellfish, and wildlife, recreation in and on the water, and agricultural, industrial, and other purposes including navigation.

3. Protection of Aquatic and Wildlife Species. It is the intention of the Tribe that the designated uses and criteria assigned to tribal waters will provide a level of water quality that will be fully protective of the aquatic and wildlife species that depend on it, including threatened or endangered species listed under the Endangered Species Act.

## 1.2 AUTHORITY

Authority is both inherent to the Tribe and legally vested in the Southern Ute Indian Tribal Council by the Constitution of the *Southern Ute Indian Tribe of the Southern Ute Indian Reservation*, Article VII, Section 1(n), to protect and preserve the property, wildlife, and natural resources of the Tribe and Article VII, Section 1(e), to protect the property, health, and general welfare of the members of the Southern Ute Indian Tribe. Under Resolution No. 2015-16, adopted on February 17, 2015, the Southern Ute Indian Tribal Council delegated authority to the Tribe's Environmental Programs Division (now known as Environmental Programs Department (EPD) to exercise the Tribe's Clean Water Act authority.

In 2018, the U.S. Environmental Protection Agency (EPA) approved the Tribe's application for Treatment as a State (TAS) to administer the Clean Water Act (Section 518, for purposes of the CWA Section 303(c) Water Quality Standards) for water bodies on tribal trust land on the Southern Ute Indian Reservation (Reservation). EPD developed Tribal Water Quality Standards (WQS) which were first adopted by the Southern Ute Indian Tribal Council on February 8, 2022, and approved by Environmental Protection Agency (EPA) on April 15, 2022. In 2023, EPD formed its Water Quality and Remediation Division (WQRD) to administer Tribal WQS as well as their triennial review.

**The purpose of these water quality standards is to protect public health and welfare, enhance the quality of water, and serve the purposes of the Clean Water Act.**

## 1.3 SEVERABILITY

If any word, phrase, clause, sentence, paragraph, section, or other part of these water quality standards is held invalid by any court of competent jurisdiction, such judgment shall affect only that portion held invalid.

## 1.4 APPLICABILITY

These water quality standards apply to all waters within the exterior boundary of the Southern Ute Indian Reservation over which the Tribe has authority for establishing water quality standards (i.e., "tribal waters"). Some of the water bodies within the exterior boundaries of the Southern Ute Indian Reservation are located upon fee land that is owned by non-Tribal members. The Tribe has included water quality standards for all water bodies located within the Reservation's exterior boundaries to avoid a gap or "checkerboard" in the standards adopted for the Reservation. The State of Colorado has claimed authority to set water quality standards for some water bodies located within the Reservation's exterior boundaries. This claim is disputed by the Tribe. The Tribe intends that the standards that it is adopting apply to the water bodies in question only to the extent that the Tribe has jurisdiction and is not attempting to resolve that jurisdictional issue here.

## 1.5 CLEAN WATER ACT PROGRAM IMPLEMENTATION IN COOPERATION WITH EPA

On March 28, 2018, the EPA determined the Tribe was eligible to be treated in the same manner as a state under CWA Section 518(e) and 40 C.F.R. Section 131.8 for purposes of the CWA's water quality standards and certification programs. The Tribe anticipates that EPA will continue to exercise authority under Section 402 to issue National Pollutant Discharge Elimination System ("NPDES") permits to facilities discharging to tribal waters with terms consistent with these water quality standards. Any applicants for federal permits or licenses potentially affecting tribal waters, including NPDES permits, will need to obtain a water quality certification from the Tribe pursuant to the Tribe's CWA Section 401 Certification Procedures. The Tribe may also seek to enter into a Direct Implementation Tribal Cooperative Agreement with EPA under which the Tribe will perform certain additional CWA activities (e.g., inspection of NPDES permit facilities) in cooperation with the EPA.

## 1.6 INQUIRIES, CORRESPONDENCE, AND NOTIFICATIONS TO THE TRIBE

All inquiries, correspondence, and notifications to the Tribe with regard to these water quality standards are to be directed to the Water Quality and Remediation Division Head, Environmental Programs Department ("Department"), Southern Ute Indian Tribe, P.O. Box 737 #81, 71 Mike Frost Way, Ignacio, Colorado 81137. Email: [wqs@southernute-nsn.gov](mailto:wqs@southernute-nsn.gov)

## 1.7 DEFINITIONS

In this document, the terms listed below have the meanings indicated. For any terms in this document for which a definition is not provided or for which the definition is deemed incomplete, any definitions found in the CWA and any federal implementing regulations, guidance, or policy shall apply to the extent not inconsistent with the intent and policies evident in this document.

Acute Toxicity is a stimulus severe enough to induce an adverse response within 96 hours of exposure or less. Acute toxicity is not always measured in terms of lethality but may include other toxic effects that occur within a short time period.

Antidegradation is a policy and procedure of the Tribe's water quality standards that protects existing uses and waters where the quality is better than necessary to support CWA Section 101 (a)(2) goal uses, as required by federal regulations at 40 C.F.R. Section 131.12.

Assemblage is an association of aquatic organisms of similar taxonomic classification living in the same area. Examples of assemblages include, but are not limited to fish, macroinvertebrates, algae, and vascular plants.

Aquatic Organism is any plant or animal which lives at least part of its life cycle in water.

Attainment of a goal or standard means that the water body is of sufficient quality chemically, biologically and physically, to support the uses for which it is designated and to otherwise achieve applicable water quality standards.

Best Management Practices ("BMPs") are methods that have been determined to be the most effective, practical means of preventing or reducing pollution from nonpoint sources.



Bioaccumulative Substances are ones that increase in concentration in living organisms and/or are found to be in higher concentrations within an organism as they move up the food chain.

Biological Condition is the taxonomic composition, richness, and functional organization of an assemblage of aquatic organisms at a site or within a water body.

Biological Criteria, also known as biocriteria, are narrative expressions or numeric values of the biological characteristics of aquatic communities based on appropriate reference conditions. Biological criteria are intended to serve as an index of aquatic community health.

Chronic Toxicity is a toxicity involving a stimulus that lingers or continues for a relatively long period relative to the life span of an organism. Chronic toxicity effects include, but are not limited to, lethality, growth impairment, behavioral modifications, disease and reduced reproduction.

Cold Water Biota are organisms that are generally adapted to cold water environments (i.e. max temperature of 20°C), including the expected associated diverse aquatic community, functions, and sensitive species.

Cool Water Biota are organisms that are generally adapted to transitional zones between cold and warm water segments (i.e., max temperature of 24°C) of a stream segment, including the expected associated diverse aquatic community, functions, and sensitive species.

Constructed Wetlands are those wetlands intentionally designed, constructed, and operated on upland, non-wetland sites for the primary purpose of wastewater, agricultural runoff, environmental enhancement, stormwater treatment, or environmental remediation. Constructed wetlands are not waters over which the Tribe has authority for setting water quality standards under the CWA.

Criterion Continuous Concentration ("CCC") is an estimate of the highest concentration of a pollutant in freshwater, to which an aquatic community can be exposed for long periods (chronic limit) without resulting in an unacceptable effect. The multi-day average concentration of a pollutant in ambient water should not exceed the CCC more than once every three years on the average.

Criterion Maximum Concentration ("CMC") is an estimate of the highest concentration of a pollutant in freshwater, to which an aquatic community can be exposed for short periods (acute limit) without resulting in an unacceptable effect. The one-hour average concentration in the ambient water should not exceed the CMC more than once every three years.

Critical Condition concept is that if an effluent is controlled such that it does not cause water quality criteria to be exceeded in the receiving water at the critical flow condition, then the effluent controls will likely be protective (i.e., ensuring that water quality criteria are attained at all flows).

Criteria are elements of water quality standards, expressed as a desired condition, constituent concentration, level, or narrative statement, representing a quality of water that supports a particular use.

CWA is an acronym for the Clean Water Act, 33 U.S.C. Section 1251, et seq., the common name for the Federal Water Pollution Control Act.



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Designated Use is a use that is specified in these water quality standards as a goal for the water body segment, whether or not it is currently being attained.

Dissolved refers to the fraction of a constituent of a water sample that passes through a 0.45 micrometer pore-size filter. The “dissolved” fraction is also termed “filterable residue.”

Effluent is wastewater, treated or untreated, that flows out of a treatment plant, sewer, or industrial outfall. Generally, effluent refers to wastes discharged into surface waters.

Environment is the sum of all external conditions affecting the life, development and survival of an organism.

Ephemeral Waters are water bodies that flow or contain water only in direct response to precipitation in the immediate watershed. The stream channel of such a water body is generally above the adjacent water table.

Eutrophication is when a body of water becomes overly enriched with minerals and nutrients which can induce excessive growth of algae. This process may result in oxygen depletion of the water body.

Existing Use is a use that is attained in the water body on or after November 28, 1975, whether or not it is designated in the water quality standards.

Groundwater means all subsurface waters (in a zone of saturation) that are or can be brought to the surface of the ground or to surface waters through wells, springs, seeps, or other discharge areas.

Impaired is a physical, biological or chemical condition in which a water body is not attaining the applicable water quality standards, including the uses for which it is designated.

Intermittent Waters are water bodies that do not typically have a perennial flow or contain water perennially and that flow or contain water in response to surface run-off and groundwater discharge.

Mixing Zones are areas surrounding or downstream of a point source discharge where the effluent plume is progressively diluted by the receiving water and certain numerical water quality criteria otherwise applicable to the water body segment may be exceeded.

NPDES is an acronym for National Pollutant Discharge Elimination System, the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing pretreatment requirements, under Sections 307, 402, and 405 of the CWA.

Nonpoint Source of pollution means any source of pollutants to surface waters that is not from a single attributable location. Nonpoint source pollution is typically associated with water moving over or through the ground and can originate from many types of diffuse sources (e.g. agricultural, ranch and forest lands, construction sites, development, urban runoff, atmospheric deposition, etc.).

Nutrients mean the chemical elements, primarily nitrogen and phosphorus, which are essential to the growth of aquatic plants.

Outstanding Tribal Resource Water (“OTRW”) means a segment that has been classified as an OTRW by the Tribe and is subject to more stringent antidegradation protection and review. OTRW segments may include, but are not limited to, waters that have outstanding water quality, unique aquatic ecology, or recreational, cultural, ceremonial, or aesthetic characteristics that qualify them for such classification by the Tribe.

Perennial Waters have flowing water year-round during a typical year.

Permit means a National Pollutant Discharge Elimination System permit or other tribal or federal water quality permit.

pH is a measure of hydrogen ion concentration, a measure of the acidity or alkalinity of a solution.

Point Source is any discernible, confined and discrete conveyance including, but not limited to, any pipe, ditch, channel, sewer, tunnel, conduit, well, discrete fissure, container, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged.

Pollutant includes, but is not limited to dredged soil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials (except those regulated under the Atomic Energy Act of 1954 as amended, 42 U.S.C. Section 2011, et seq.), heat, wrecked or discarded equipment, oil, mine tailings, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water.

Pollution includes such contamination, or other alteration of the physical, chemical, or biological properties of any waters of the tribe, including change in temperature, taste, color, turbidity, or odor of the waters, or such discharge of any liquid, gaseous, solid, radioactive, or other substance, or any exotic biota into any waters of the Tribe that will or is likely to create a nuisance to or impair any beneficial use of such waters.

Receiving Water is any water course or water body that receives a treated or untreated discharge of a pollutant or pollution from a point source or nonpoint source.

Regulated Activity is any activity that requires a permit or a water quality certification pursuant to CWA Section 401 or any other federal law (e.g., without limitation, Section 402 NPDES permits, Section 404 dredge and fill permits, and Federal Energy Regulatory Commission licenses) and any other activities where tribal law or regulation specifies that an antidegradation review is required.

Summer is the period from April 15<sup>th</sup> to October 14<sup>th</sup> as it relates to temperature classifications (Section 8.5).

Total Recoverable Metals is that portion of a water and suspended sediment sample measured by the total recoverable analytical procedure described in "Methods for Chemical Analysis of Water and Wastes," U.S. Environmental Protection Agency, March 1979, or its equivalent.

Toxics are those pollutants that have a harmful effect on living organisms. The CWA Section 307(a) priority toxic pollutants are a subset of this group of pollutants.

Toxicity is the degree to which a chemical substance or pollutant can be harmful or cause damage to an organism. Toxicity is typically expressed as either acute or chronic toxicity.

Tribal Waters are waters over which the Tribe has authority for establishing water quality standards.

Tribe refers to the Southern Ute Indian Tribe.

Use Attainability Analysis ("UAA") is a structured scientific assessment of the factors affecting the attainment of aquatic life uses or other designated uses, which may include physical, chemical, biological, and economic factors.

Warm Water Biota are organisms that are generally adapted to warm water environments (i.e. max temperature of 30°C), including the expected associated diverse aquatic community, functions, and sensitive species.

Water Quality Standards (“WQS” or “Standards”) consist of a designated use or uses, numeric and narrative criteria, an antidegradation policy, and other policies adopted to protect, maintain, and enhance water quality.

Wetlands are those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas.

Winter is the period from October 15<sup>th</sup> to April 14<sup>th</sup> as it relates to temperature classifications (Section 8.5).

## 2 IMPLEMENTATION OF STANDARDS

All discharges from point sources, all instream activities, and all activities that generate nonpoint source pollution are to be conducted so as to achieve these water quality standards. The Tribe anticipates that both regulatory and voluntary pollution control programs will be needed to protect and enhance water quality on the Reservation.

All activities which require a federal license or permit on the Reservation are subject to certification by the Tribe consistent with CWA Section 401 (see “Southern Ute Indian Tribe CWA Section 401 Certification Procedures”). All federal licenses and permits, such as permit for wastewater discharges issued under the NPDES, should be conditioned in such a manner as to authorize only activities that will not cause violations of these water quality standards. For new standards, revised standards that have become more stringent, or new interpretations of existing standards, the Tribe has the authority to allow schedules of compliance which may be included in such permits, where appropriate, considering guidance issued by EPA. Schedules of compliance may be authorized by the Tribe on a case-by-case basis.

Unless the Tribe receives eligibility to implement CWA Section 402, discharge permits for discharges to tribal waters will be issued by the EPA. All discharge permit applications will be reviewed by the Tribe pursuant to its Section 401 certification authority. In accordance with the Tribe’s antidegradation review procedures, the Tribe may deny certification of any discharge into tribal waters, if the Tribe determines that the proposed discharge would cause a violation of these water quality standards.

These water quality standards should serve as a basis for the Tribe’s (or EPA’s, as applicable) review of proposed discharges from upstream sources under the Clean Water Act Section 401 water quality certification process. This review will ensure that any proposed upstream discharge, regardless of its origin, is consistent with the Tribe’s established water quality goals and objectives as outlined in these standards.

The Tribe retains the authority to specify, within a water quality certification, particular methods for implementing water quality standards when establishing pollution control measures for both point and nonpoint sources. All controls shall be developed using technically defensible methods such as those described in EPA guidance documents.

These water quality standards should serve as the basis for any Section 303(d) total maximum daily loads (TMDLs) developed for tribal waters. These water quality standards apply to all Tribal waters affected by point sources of pollution. For nonpoint sources of pollution, the primary means for implementing the standards shall be through the application of all known and reasonable methods of prevention, control, and treatment, including BMPs, which shall be required in water quality certifications issued by the Tribe. At this time, the Tribe intends to rely on voluntary compliance for activities which result in nonpoint sources of pollution but are not regulated activities.

2.1 CRITICAL CONDITIONS

For purposes of determining water quality-based control requirements for point source discharges, critical conditions shall be determined consistent with the policy and procedure described below where a steady state modeling approach is used. Where seasonal controls are appropriate, critical conditions shall be determined based on seasonal characteristics of the receiving water and pollution source. Other exceptions may be granted where a technically sound reason to use an alternative method is developed and approved by the Tribe (e.g., where a dynamic or continuous simulation modeling method is used). Critical conditions shall be representative of conditions upstream from the point where the discharge exists.

The following critical flows may be assumed to dilute the effluent:

Stream Flows

Chronic Aquatic Life	4-day, 3-year flow (biologically based)
Acute Aquatic Life	1-day, 3-year flow (biologically based)
Human Health (carcinogens)	harmonic mean flow
Human Health (non- carcinogens)	4-day, 3-year flow (biologically based), or 1-day, 3-year flow (biologically based)

Effluent Flows

Chronic Aquatic Life	Mean daily flow
Acute Aquatic Life	Maximum daily flow
Human Health (all)	Mean daily flow

Assessment of attainment of designated uses and compliance with water quality criteria shall be in accordance with available guidance and procedures published by EPA.

2.2 WATER RIGHTS

Implementation of these water quality standards shall not interfere with the lawful diversion of water pursuant to decreed water rights. However, the Tribe encourages individuals and entities to manage and administer water diversions in a manner that supports the attainment and enhancement of designated uses whenever practicable.

3 TRIENNIAL REVIEW

The Tribe shall hold a hearing to review these water quality standards at least once every three years for the purpose of determining whether revisions are necessary or warranted to comply with applicable federal

regulations or to meet tribal water quality goals. For example, any water body segment with designated uses that do not include the goal uses specified in CWA Section 101(a)(2) shall be re-examined every three years to determine if any new information has become available. If such new information indicates the CWA goal uses are attainable, the Tribe shall revise its standards accordingly.

The procedures for a triennial review or any other revisions to these water quality standards shall meet the requirements of CWA Section 303(c) and tribal administrative procedures. Public hearings shall be held in accordance with tribal laws and EPA requirements. Any proposed water quality standards revisions and supporting analyses shall be made available to the public before the hearing. The Tribe shall submit the revised standards and any supporting analyses to the EPA Region 8 Regional Administrator for review and approval within 30 days following the final action to adopt revised standards. The Tribe's submission shall be consistent with EPA requirements found in 40 C.F.R. Section 131.6.

## 4 MIXING ZONES AND DILUTION POLICY

### 4.1 PURPOSE

Mixing zones are regions surrounding or downstream of a point source discharge in which the discharge is progressively diluted by the receiving water and some numerical water quality criteria may not apply. This policy establishes how mixing and dilution of point source discharges with receiving waters will be addressed in developing chemical-specific and whole effluent toxicity discharge limitations. Depending on site-specific mixing patterns and environmental concerns, some pollutants may be allowed a mixing zone for dilution and others may not. In all cases, mixing zone and dilution allowances shall be limited as necessary to protect designated uses and the integrity of the receiving water ecosystem as a whole. This policy shall be implemented consistent with the most recent EPA guidance and procedures.

### 4.2 IMPLEMENTATION

Where dilution is available at critical conditions and the discharge does not completely mix at a near instantaneous rate, on a case-by-case basis an appropriate mixing zone may be designated if:

1. meeting numeric criteria at the end-of-pipe is not practicable;
2. allowing a mixing zone will not pose unacceptable risks to designated uses in the receiving water as a whole, considering factors such as:
  - a. bioaccumulation in fish tissues or wildlife;
  - b. biologically important areas such as fish spawning or nursery areas;
  - c. presence of listed or proposed threatened or endangered species or of species of concern;
  - d. low acute to chronic ratio;
  - e. potential human exposure to pollutants via drinking water or recreational activities;
  - f. attraction of aquatic species to effluent plume;
  - g. toxicity or persistence of the substance discharged;
  - h. zone of passage for migrating fish or other species (including access to tributaries); and
  - i. cumulative effects of multiple discharges and mixing zones.
3. narrative criteria will be achieved within the mixing zone.

Effluent limits will be assigned consistent with mixing zone size limits determined by field study, an appropriate mixing model, or other defensible method. Mixing zone size shall generally be limited as follows,

provided that individual chronic mixing zones may be further limited or denied as needed to protect designated and existing uses based on the factors listed above:

1. No acute mixing zone shall be allowed;
2. The size of chronic mixing zones for streams and rivers shall not exceed one-half the cross-sectional area or a length 10 times the stream width at critical low flow, whichever is more limiting; and
3. Each mixing zone will be developed on a case-by-case basis to protect the most sensitive designated use, consistent with applicable EPA guidance.

Where the discharge is to a river or stream, dilution is available at critical conditions, and available information is sufficient to reasonably conclude that the discharge exhibits near instantaneous and complete mixing, an appropriate dilution allowance equal to or less than the critical low flows identified in Section 3 may be provided for purposes of establishing acute and chronic chemical-specific and whole effluent toxicity effluent limitations. Near instantaneous and complete mixing may be assumed where the mean daily flow of the discharge exceeds the critical low flow of the receiving water, or where an effluent diffuser has been installed. In all other cases where instantaneous and complete mixing is assumed, a defensible basis should be included in the statement of basis for the permit. For purposes of field mixing studies, near instantaneous and complete mixing is defined as no more than 10% difference in bank-to-bank concentrations within a longitudinal distance not greater than two stream widths. Where dilution flow is not available at critical conditions, the discharge limits will be based on achieving water quality criteria at the end-of-pipe. In addition, discharge limits for all point source discharges to a wetland will be based on achieving water quality criteria at the end-of-pipe.

All mixing zone-dilution assumptions are subject to review and revision as information on the nature and impacts of the discharge becomes available (e.g., chemical or biological monitoring in the mixing zone boundary). At a minimum, mixing zone and dilution decisions are subject to review and revision along with all other aspects of the discharge permit upon expiration of the permit. Where warranted, the discharger may be required to complete monitoring to verify that mixing zone restrictions are being achieved. For certain pollutants (e.g., ammonia, dissolved oxygen, metals, etc.) that may exhibit increased toxicity or other effects on water quality after dilution and complete mixing with receiving waters is achieved, permit terms should address such toxicity or other effects on water quality as necessary to fully protect designated uses (i.e., the point of compliance may be something other than the mixing zone boundary or the point where complete mixing is achieved).

## 5 DESIGNATED USES

40 C.F.R. Section 131.10 requires that the Tribe specify appropriate water uses to be achieved and protected. The designation of uses for tribal waters must take into consideration the use and value of water for public water supplies, protection and propagation of fish, shellfish and wildlife, recreation in and on the water, agricultural, industrial, and other purposes including navigation. In no case can waste transport or waste assimilation be adopted as a designated use. In designating uses and the appropriate criteria for those uses, the Tribe must take into consideration the water quality classifications and standards of downstream waters and ensure that as implemented through its policies, the water quality classifications and standards of downstream waters will be attained and maintained.

The Tribe has elected to consider the following designated uses for tribal waters.

## 5.1 DESIGNATED USE CODES

Table 1. Designated Use Codes

CODE	USE
COLD1	High Quality Cold Water Aquatic Life (Class 1)
COLD2	Low Quality Cold Water Aquatic Life (Class 2)
COOL1	High Quality Cool Water Aquatic Life (Class 1)
COOL2	Low Quality Cool Water Aquatic Life (Class 2)
WARM1	High Quality Warm Water Aquatic Life (Class 1)
WARM2	Low Quality Warm Water Aquatic Life (Class 2)
REC1	Primary Contact Recreation (Class 1)
REC2	Secondary Contact Recreation (Class 2)
PWS	Potable Water Supply
IND	Industrial Water Supply
AGR	Agricultural Water Supply

## 5.2 DESIGNATED USES DEFINITIONS

The following designated uses may be applied to tribal waters:

Potable Water Supply - Waters suitable or intended to become suitable, after appropriate pretreatment, for human consumption.

Primary Contact Recreation (Class 1) – Waters suitable for recreational activities where full body immersion and/or the ingestion of small quantities of water is likely to occur. Such activities include but are not limited to swimming, rafting, kayaking, tubing, windsurfing, water-skiing, and water play by children.

Secondary Contact Recreation (Class 2) – Water suitable for recreational activities where a person's water contact is likely to be limited (e.g., wading or fishing) such that exposure of the eyes, ears, respiratory, or digestive systems or urogenital areas would normally be avoided.

Aquatic Life (Class 1) – High quality waters that support or are intended to become supportive of a typical diversity and abundance of cold, cool, or warm water aquatic biota that are generally able to function at intermediate or transitional zones between temperatures representative of a stream segment, including the expected diverse aquatic community, functions, and sensitive species.

Aquatic Life (Class 2) – Low quality waters that are not capable of sustaining a typical diversity or abundance of cold, cool, or warm water aquatic biota, respectively, due to physical habitat, water flows or levels, or uncorrectable water quality conditions that result in substantially limited abundance or diversity of species.

Industrial Water Supply - Waters that are suitable for industrial processes and cooling water.

Agricultural Water Supply - Waters suitable or intended to become suitable for irrigating crops and for use as drinking water for livestock.



### 5.3 STREAM SEGMENTATION CRITERIA

For purposes of adopting designated uses and water quality criteria, streams and other surface water bodies were identified according to river basin or sub-basin and specific segments.

Segments may constitute a specific reach of a stream mainstem, a specific tributary, a specific lake or reservoir, or a generally defined grouping of waters within a basin (e.g., a specific mainstem segment and another segment consisting of all tributaries flowing into that mainstem segment).

Segments were delineated to create consistency in the designation of uses by determining segment boundaries according to where physical or water quality characteristics of a watercourse change significantly enough to require a change in use classifications or water quality criteria. In many cases, boundaries between segments were identified directly using water quality data. In other cases, data were only available upstream or downstream of a segment boundary and the delineation of segments was inferred using best professional judgment of where instream changes in uses, physical characteristics, or water quality occur.

The Tribe's adopted water quality standards define wetlands as "...those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." Section 5.8 of the Tribe's water quality standards state: "Intermittent and ephemeral waters shall support existing and designated uses when there is surface water present from any source, however minimal. The numeric and narrative criteria for connected perennial segments shall apply to intermittent and ephemeral water bodies when there is surface water present from any source, however minimal."

Water aggregates within and discharges from wetland areas as part of the hydrologic cycle on time scales that are perennial, intermittent, or ephemeral in nature. The waters that sustain wetlands connect (i.e., make physical contact with or contribute in quantity or quality) to other bodies of surface water that are relatively permanent, standing or continuously flowing - regardless of the degree to which that hydrologic or hydraulic connection is navigable.

The Tribe's water quality standards therefore define "wetlands sustained through hydrologic and hydraulic connections" as any areas that:

1. Are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence (i.e., 50% cover or greater, as estimated within 1 square meter (1 m<sup>2</sup>) of land area) of vegetation typically adapted for life in saturated soil conditions, and
2. Contain a prevalence of the aforementioned vegetation that encompasses 1/10 (.10%) of an acre or greater in area, regardless of its degree of physical proximity, adjacency, and surface connection (or lack thereof) to navigable or non-navigable waterways.

### 5.4 ASSIGNING DESIGNATED USES

Designated uses for tribal waters have been assigned by the Tribe in accordance with Sections 101(a)(2) and 303 of the CWA and the implementing federal regulation at 40 C.F.R. Section 131.10. All segments have been assigned the highest attainable uses that the Tribe reasonably believes the segment can support. The

designated uses may be revised for a segment as part of the triennial review process or if new information or data indicates that a revision is warranted, subject to the policies and limitations discussed below.

Section 101(a) (2) requires that waters be designated as “fishable and swimmable” (i.e., supporting protection and propagation of fish, shellfish, and wildlife, and providing for recreation in and on the water) unless a use attainability analysis (UAA) demonstrates that a less stringent use designation is appropriate. Accordingly, those waters that do not fully support, and it is believed cannot reasonably support, fishable and swimmable uses must be evaluated in a UAA to determine their potential and possible downgraded uses. On the other hand, some uses may be designated that are not currently attained, but for which there is a reasonable expectation that those uses can be attained using point and nonpoint source controls of pollutants.

The following specific policies and limitations apply to assigning and revising designated uses for tribal waters:

1. The Tribe will not remove a designated use specified in CWA Section 101(a)(2) (i.e., “fishable and swimmable” uses) or adopt subcategories of a Section 101(a)(2) use requiring less stringent criteria unless a UAA demonstrates that attaining the use is not feasible because of a factor listed in 40 C.F.R. Section 131.10(g).
2. An existing designated use for a segment will not be removed unless a use requiring more stringent criteria is designated.
3. Assigning designated uses will be guided by the objective of realizing the water quality goals set forth in the CWA.
4. Designated uses must be protective of water quality for all current and future uses consistent with the Tribe’s Antidegradation Policy.
5. Designated uses will be set for the highest water quality reasonably attainable. Attainability is to be judged through preparing a UAA and whether the use designation can be attained in a timeframe approximating twenty years by reasonable control techniques that are determined during public hearing. At a minimum, uses are deemed attainable if they can be achieved by the imposition of effluent limits required under the CWA for point sources and cost-effective and reasonable best management practices for nonpoint source control.
6. Designated uses set for upstream segments should not jeopardize attainable downstream designated uses.
7. Relevant physical, chemical, and biological characteristics are valid water quality concerns that may be taken into account in the use designation process.

## 5.5 USE ATTAINABILITY ANALYSES

A UAA is a structured scientific assessment completed to evaluate the factors affecting the attainability of a use. Whenever a UAA is prepared, it shall be subject to the requirements and limitations set forth in 40 C.F.R. Part 131, including subsections 131.3(g), 131.10(g), 131.10(h) and 131.10(i). The Tribe completed UAAs to support its initial use designations for certain segments. All UAAs, Aquatic Life UAAs and/or Recreation UAAs, shall be revised and supplemented as new information and data become available.

In addition to the Tribe, third parties may petition for and complete a UAA to support a proposed revision to the designated uses for one or more segments. The petitioner shall submit notice to the Tribe stating its intent to conduct a UAA for tribal waters. The petitioner shall develop a work plan to conduct the UAA and shall submit the work plan to the Tribe for review and comment. The work plan shall identify the scope of data

currently available and the scope of data to be gathered, the factors affecting use attainment that will be analyzed, and provisions for public notice and consultation with appropriate tribal and federal agencies. The Tribe may consult with EPA in its review of the work plan. Upon approval of the work plan by the Tribe, and subject to any required amendments thereto, the petitioner shall conduct the UAA in accordance with the approved work plan. All costs of such analysis shall be the responsibility of the petitioner. Upon completion of the UAA, the petitioner shall submit the data, findings, conclusions, and proposed use revision(s) to the Tribe. Proposed third party use revisions will be evaluated by the Tribe, and may be proposed to the public during the next water quality standards rulemaking opportunity. Revisions to designated uses are final only after adoption by the Tribe and CWA review and approval by EPA.

## 5.6 CHANGING USE DESIGNATIONS

The Tribe may assign a new designated use or change a currently designated use based upon the requirements in this document, public testimony, and any other information considered at a public hearing concerning the proposed change. Any interested person shall have the right to petition the Tribe to assign or change a use designation. Action on such petition shall be within the discretion of the Tribe subject to the following policies:

1. Adding Designations – The Tribe shall maintain those water quality use designations which are currently being attained. Where current designations specify fewer designated water uses than those which are presently being attained, the Tribe will add the designated use(s) to reflect the uses actually being attained or for which there is a reasonable expectation that those uses can be attained.
2. Removing or Reducing Designations – If the Tribe or a petitioning party can scientifically demonstrate that a designated use is not being attained; that the designated use cannot reasonably be attained due to a factor listed in 40 C.F.R. Section 131.10(g); and the use is not an existing use; then the designation may be downgraded (e.g., from “High Quality Class 1” to “Low Quality Class 2”) or removed by the Tribe. When a petitioner wishes to remove or downgrade an aquatic life or recreation classification or recommends adopting a less stringent criterion for a water body designated for these uses, the Tribe shall require the petitioner to conduct a UAA to justify the proposed change. Where changing circumstances, such as improvements in technology or management practices or the cessation of a discharge, may allow the reasonable attainment of the current uses within a reasonable time, the Tribe shall instead favor granting a variance as provided in Section 1.4 and maintaining the current uses as a goal.
3. Where the use designations of a water body segment include a use designation with less stringent criteria, or do not include an aquatic life and/or recreation class 1 designation, as part of the triennial review of the segment, the Tribe shall review any prior UAA or other basis for omission of one or more of the above designated uses. If the justification for the omission is determined not to be consistent with current data and information or accepted use attainability policies, the Tribe shall perform a supplemental analysis to provide a basis for a determination by the Tribe whether such uses are attainable.

## 5.7 SURFACE WATER USE DESIGNATIONS FOR TRIBAL WATERS

Use designations adopted for all surface water segments, tributaries and lakes that are tribal waters are listed in the following tables. In cases where the upper end of a stream segment is defined by a tributary, that

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tributary is included in that segment unless specified otherwise. Latitude and longitude coordinates (WGS 1984) are provided for segment boundaries.

All Segments on the Reservation are designated Seasonal COLD1 in the Winter: October 15- April 15. Temperature designations for Summer: April 16- October 14 are identified in the tables below.

*Table 2. Designated Uses for the Pine River, Wetlands sustained through Hydrologic and Hydraulic Connections and Associated Perennial Tributaries.*

Segment and Description	Designated Uses	Segment Boundaries	
Pine River Segment 1  (Reservation boundary to Pine Ditch Diversion and all perennial streams, small ponds and wetlands tributary to this segment)	COOL1 REC1 PWS AGR	Northern Boundary River Mile 19.5 N 37.214814 W -107.595264	Pine Ditch Diversion River Mile 17.5 N 37.190642 W -107.587775
Pine River Segment 2  (Pine Ditch Diversion to confluence with Dry Creek and all perennial streams, small ponds and wetlands tributary to this segment, excluding Dry Creek,)	COOL1 REC1 PWS AGR	Pine Ditch Diversion River Mile 17.5 N 37.190642 W -107.587775	Dry Creek Confluence River Mile 12 N 37.139717 W -107.620411
Pine River Segment 3  (Dry Creek to New Mexico state line, including Dry Creek, and all perennial streams, small ponds and wetlands tributary to this segment)	WARM1 REC1 PWS AGR	Dry Creek Confluence River Mile 12 N 37.139717 W -107.620411	Southern Boundary River Mile 0 N 36.999978 W -107.601111

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Table 3. Designated Uses for the Animas River, Wetlands sustained through Hydrologic and Hydraulic Connections and Associated Perennial Tributaries.

Segment and Description	Designated Uses	Segment Boundaries	
Animas River Segment1  (Reservation boundary to Basin Creek and all perennial streams, small ponds and wetlands tributary to this segment, excluding Basin Creek,)	COOL1 REC1 PWS AGR	Northern Boundary River Mile 19 N 37.214794 W -107.854722	Basin Creek River Mile 15 N 37.18606944 W --107.878889
Animas River Segment2  (Basin Creek to confluence with Florida River, excluding the Florida River including Basin Creek, and all perennial streams, small ponds and wetlands tributary to this segment, excluding the Florida River)	COOL1 REC1 PWS AGR	Basin Creek River Mile 15 N 37.18606944 W -107.878889	Florida River River Mile 3.8 N 37.048706 W -107.872933
Animas River Segment3  (Florida River to New Mexico state line and all perennial streams (excluding the Florida River), small ponds and wetlands tributary to this segment)	COOL1 REC1 PWS AGR	Florida River River Mile 3.8 W 107.872933 N 37.048706	Southern Boundary River Mile 0 N 36.999739 W -107.866181

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Table 4. Designated Uses for the Florida River, Wetlands sustained through Hydrologic and Hydraulic Connections and Associated Perennial Tributaries.

Segment and Description	Designated Uses	Segment Boundaries	
Florida River  (Reservation boundary to Animas River and all perennial streams, small ponds and wetlands tributary to this segment)	WARM1 REC1 PWS AGR	Northern Boundary River Mile 22.9 N 37.21497222 W -107.72916667	Confluence with Animas River Mile 0 N 37.048706 W -107.872933

Table 5. Designated Uses for the La Plata River, Wetlands sustained through Hydrologic and Hydraulic Connections and Associated Perennial Tributaries.

Segment and Description	Designated Uses	Segment Boundaries	
La Plata River Segment 1  (Northern Reservation boundary to the confluence of Cherry Creek and all perennial streams, small ponds and wetlands tributary to this segment, excluding Cherry Creek,)	COOL1 REC2 PWS AGR	Northern Boundary River Mile 21.4 N 37.214814 W -108.061594	Cherry Creek River Mile 9.7 N 37.11562778 W -108.198333
La Plata River Segment 2  (Cherry Creek to Long Hollow Creek and all perennial streams, small ponds and wetlands tributary to this segment, excluding	WARM1 REC2 PWS AGR	Cherry Creek River Mile 9.7 N 37.11562778 W -108.198333	Long Hollow Confluence River Mile 4.4 N 37.05325 W -108.182108

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Long Hollow and Cherry Creek)			
La Plata River Segment3  (Long Hollow Creek to southern end of the Reservation, including Long Hollow Creek, and all perennial streams, small ponds and wetlands tributary to this segment)	COOL1 REC2 PWS AGR	Long Hollow Confluence River Mile 4.4 N 37.05325 W -108.182108	Southern Boundary River Mile 0 N 36.999719 W -108.188558

Table 6. Designated Uses for Cherry Creek, Wetlands sustained through Hydrologic and Hydraulic Connections and Associated Perennial Tributaries.

Segment and Description	Designated Uses	Segment Boundaries	
Cherry Creek  (Northern Reservation boundary to the confluence of the La Plata River and all perennial streams, small ponds and wetlands tributary to this segment)	WARM1 REC2 PWS AGR	Northern Boundary River Mile 7.9 N 37.215056 W -108.223667	Confluence with the La Plata River River Mile 10.2 N 37.115661 W -108.198542



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Table 7. Designated Uses for the Piedra River, Wetlands sustained through Hydrologic and Hydraulic Connections and Associated Perennial Tributaries.

Segment Description	Designated Uses	Segment Boundaries	
Piedra River Segment 1  (Reservation boundary to confluence with Stollsteimer Creek and all perennial streams, small ponds and wetlands tributary to this segment, excluding Stollsteimer Creek)	COOL1 REC1 PWS AGR	Northern Boundary River Mile 15.8 N 37.214789 W -107.348381	Confluence with Stollsteimer Creek River Mile 5.3 N 37.1388361 W -107.355000
Piedra River Segment 2  (Confluence with Stollsteimer Creek to Navajo Reservoir and all perennial streams, small ponds and wetlands tributary to this segment, excluding Stollsteimer Creek)	WARM1  REC1 PWS AGR	Confluence with Stollsteimer Creek River Mile 5.3 N 37.1388361 W -107.355000	High Water Elevation of Navajo Reservoir River Mile 0 N 37.054994 W -107.410683

Table 8. Designated Uses for Sambrito Creek, Wetlands sustained through Hydrologic and Hydraulic Connections and Associated Perennial Tributaries.

Segment and Description	Designated Uses	Segment Boundaries	
Sambrito Creek  (Headwaters to confluence with Navajo Reservoir and all perennial streams, small ponds and wetlands tributary to this segment)	WARM1 REC1 PWS AGR	Headwaters River Mile 12 N 37.139181 W -107.464247	Confluence with Navajo Reservoir River Mile 0 N 37.006569 W -107.457364

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Table 9. Designated Uses for Stollsteimer Creek Wetlands sustained through Hydrologic and Hydraulic Connections and Associated Perennial Tributaries.

Segment and Description	Designated Uses	Segment Boundaries	
Stollsteimer Creek  (Reservation boundary to confluence with Piedra River and all perennial streams, small ponds and wetlands tributary to this segment)	WARM1 REC1 PWS AGR	Reservation Boundary River Mile 14.2 N 37.21484167 W -107.220278	Confluence with Piedra River River Mile 0 N 37.138947 W -107.355278

Table 10. Designated Uses for the San Juan River, Wetlands sustained through Hydrologic and Hydraulic Connections and Associated Perennial Tributaries.

Segment	Designated Uses	Segment Description and Location	
San Juan River Segment 1  (Northern Reservation boundary to Rio Blanco and all perennial streams, small ponds and wetlands tributary to this segment, excluding Rio Blanco)	WARM1 REC1 PWS AGR	Northern Boundary River Mile 36.1 N 37.218325 W -107.018056	Confluence with Rio Blanco River Mile 28.4 N 37.120727 W -107.043497
San Juan River Segment 2  Rio Blanco to confluence with Navajo River and all perennial streams, small ponds and wetlands tributary to this segment, excluding Rio Blanco and Navajo River)	WARM1 REC1 PWS AGR	Confluence with Rio Blanco River Mile 28.4 N 37.120727 W -107.043497	Confluence with Navajo River River Mile 15.1 N 37.024364 W -107.158656
San Juan River Segment 3  (Confluence with Navajo River to Navajo Reservoir and all perennial streams, small ponds and wetlands	WARM1 REC1 PWS AGR	Confluence with Navajo River River Mile 15.1 N 37.024364 W -107.158656	Navajo Reservoir River Mile 0 N 37.019003 W -107.344558

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tributary to this segment, excluding Navajo River)			
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Table 11. Designated Uses for the Navajo River, Wetlands sustained through Hydrologic and Hydraulic Connections and Associated Perennial Tributaries.

Segment	Designated Uses	Segment Description and Location	
Navajo River  (Southern Boundary to confluence with the San Juan River and all perennial streams, small ponds and wetlands tributary to this segment)	WARM1 REC1 PWS AGR	Reservation Boundary River Mile 4.7 N 37.000069 W -107.108752	Confluence with San Juan River River Mile 0 N 37.024364 W -107.158656

Table 12. Designated Uses for the Rio Blanco River, Wetlands sustained through Hydrologic and Hydraulic Connections.

Segment	Designated Uses	Segment Description and Location	
Rio Blanco River  (Southern Boundary to confluence with the San Juan River and all perennial streams, small ponds and wetlands tributary to this segment)	WARM1 REC1 PWS AGR	Reservation Boundary River Mile 3.2 N 37.135 W -107.001	Confluence with San Juan River River Mile 0.0 N 37.120727 W -107.043497

Table 13. Designated Uses for Capote Reservoir and Scotts Pond.

Water body	Designated Uses	Location
Capote Reservoir	WARM1 REC1	N 37.199403 W -107.257744
Scott's Pond	WARM1 REC1	N 37.135747 W -107.623406

Table 14. Designated Uses for Ephemeral Waters.

Segment	Designated Uses	Segment Description and Location
All Ephemeral Waters	WARM1 REC2 AGR PWS	Reservation wide

## 5.8 INTERMITTENT AND EPHEMERAL WATERS

Intermittent and ephemeral waters shall support existing and designated uses when there is surface water present from any source, however minimal. The numeric and narrative criteria for connected perennial segments shall apply to intermittent and ephemeral water bodies when there is surface water present from any source, however minimal.

## 5.9 TRIBAL WATERS SUBJECT TO USE ATTAINABILITY ANALYSES

CWA Section 101(a)(2) requires that waters be designated as “fishable and swimmable” (supporting protection and propagation of fish, shellfish, and wildlife, and providing for recreation in and on the water) unless a Use Attainment Analysis (UAA) demonstrates that a less stringent use designation and criteria are appropriate. The segments listed below have Secondary Contact Recreation (Rec 2 or Class 2) use designations. These waters are protected by Primary Contact Recreation (Rec 1 or Class 1) criteria (see section 8.4 below) so do not require supporting UAAs. A UAA will be prepared for each segment that does not fully support a Class 1 Aquatic Life or Class 1 Recreation use designation and is assigned criteria less stringent than Class 1.

- La Plata River Segments 1, 2 and 3, Recreation only
- Cherry Creek, Recreation only
- All Ephemeral Waters, Recreation only

## 6 NARRATIVE WATER QUALITY CRITERIA

All tribal waters are subject to the narrative water quality criteria below. The goal of the narrative water quality criteria is to be able to assess and protect water quality using parameters that humans and biota can directly perceive and in situations where numeric standards for individual pollutants or parameters may not be sufficient.

## 6.1 CRITERIA

Surface waters shall be free from substances attributable to human-caused point or nonpoint sources in amounts, concentrations, or combinations which may:

1. settle to form deposits beneath the water surface or upon adjoining shorelines that have a deleterious effect on biota or that significantly alter the physical or chemical properties of the water or the bottom sediments;
2. form objectionable floating debris, scum, film, grease, oil, or other surface materials, including “floatable material” as defined by the CWA;
3. produce color, turbidity, odor, or other conditions in such a degree as to impair photosynthesis, reduce water clarity, or create a nuisance;
4. cause eutrophication resulting in the objectionable growth of aquatic vegetation or algae or other impairments from excessive nutrients to the extent that it threatens public health or welfare or impairs present or future beneficial uses.
5. impart any undesirable taste to edible aquatic or terrestrial species or to the water;
6. cause injury to or are toxic to humans or aquatic or terrestrial animals or plants;
7. produce undesirable or nuisance aquatic or terrestrial animals or plants; or
8. impair the capability of a water body to support a designated use.

## 6.2 IMPLEMENTATION

The narrative water quality criteria shall be implemented taking into consideration appropriate EPA technical guidance concerning the development of water quality-based controls. To implement these criteria for substances that lack numeric criteria for public water supply use, drinking water standards or health advisories issued by EPA under the Safe Drinking Water Act will be considered. For point source discharges, criteria 6.1(5) and (6) should be implemented by including appropriate acute and chronic chemical-specific and Whole Effluent Toxicity effluent quality limitations in the NPDES permit, as specified in the latest EPA NPDES Whole Effluent Toxicity Program guidance. For substances that lack numeric water quality criteria or for which numeric criteria are not protective or representative of water quality goals, these narrative water quality criteria shall be implemented considering appropriate information, including any criteria guidance issued by EPA under CWA Section 304(a) or information in EPA or other toxicity databases, and the Tribe’s best professional judgement.

Although the Tribe does not envision that it will always be necessary to establish effluent limits for point source discharges based on narrative criteria, the Tribe intends that the narrative criteria are to be used as required by CWA Section 301(b)(1)(C) and 40 C.F.R. Section 122.44(d) in determining appropriate effluent limits for point source discharges. For example, where the narrative criteria are not attained, that information can be used by the permitting authority to reevaluate any NPDES permits for upstream discharges to determine if all appropriate chemical-specific and whole effluent toxicity limits are included in the permits. This may involve examining whether such permits contain limits for all substances present in the discharge and for any pollutants or parameters that are or may be discharged that cause, have the reasonable potential to cause, or contribute to any failure to attain the narrative water quality criteria.

The Tribe adopted narrative water quality criteria to provide additional benchmarks for protecting water quality and an additional assessment method for identifying impaired waters. The Tribe recognizes an inherent difference between narrative criteria and numeric, chemical-specific criteria. A major difference is the

manner in which the two types of criteria can be applied effectively in determining water quality-based effluent limits for point source discharges. Chemical-specific criteria typically are expressed as a concentration of a given parameter, with provisions that describe an averaging period and an allowable frequency of exceedance. Narrative criteria describe a desired physical, chemical, or biological condition, and are expressed and interpreted using information that is generally detectable by the senses and aquatic organisms. Narrative criteria, therefore, may require additional steps and interpretations when calculating effluent limits for point source discharges. Nevertheless, incorporating narrative criteria into assessments and permits is vital because there can be impacts to water bodies and designated uses that are unrelated to chemical constituents for which numeric criteria have been established.

## 7 NARRATIVE BIOLOGICAL CRITERIA

All tribal waters are subject to the narrative biological criteria below. The goal of the biological criteria is to ensure the maintenance and protection of the structure and function of aquatic communities.

### 7.1 CRITERIA

Surface waters shall be free from substances attributable to human-caused point or nonpoint sources in amounts, concentrations, or combinations which adversely impact the structure or function of all life stages of aquatic or terrestrial communities. This shall include protecting, in addition to aquatic life, all life stages of resident and migratory wildlife that use surface waters for feeding, drinking, habitat, or propagation.

### 7.2 IMPLEMENTATION

Assessment of biological conditions will include monitoring of the benthic macroinvertebrates, fish, and plant communities, as appropriate. Community metrics will be determined by the Tribe relative to reference sites. A reference condition may be assigned as a goal for the biological community if there is an insufficient number of reference sites or if those sites become impaired. Data for a reference condition will be treated in the same manner as if it were a reference site.

The intent of the Tribe in adopting a narrative biological criterion is to provide an additional assessment method for the identification of impaired waters based on impacts to the structure and function of communities and to provide protection for impacts that may not otherwise be addressed, such as from the bioaccumulation of toxins in aquatic or terrestrial food webs. Biological criteria describe a desired biological condition and are expressed and interpreted using information about organisms and communities of organisms. Although the Tribe does not envision that it will always be necessary to establish effluent limits for point source discharges based on biological criteria, the Tribe intends that the biological criteria are to be used as required by CWA Section 301(b)(1)(C) and 40 C.F.R. Section 122.44(d) in determining appropriate effluent limits for point source discharges. For example, where the biological criteria are not met, that information can be used by the permitting authority to reevaluate any NPDES permits for upstream discharges to determine if all appropriate chemical-specific and whole effluent toxicity limits are included in the permits. This may involve examining whether such permits contain limits for all substances present in the discharge and for whatever pollutants or parameters are or may be discharged that cause, have the reasonable potential to cause, or contribute to any failure to meet the narrative biological criteria.

## 8 NUMERIC CRITERIA

This section describes the numeric criteria applicable to tribal waters. Unless noted otherwise, the Tribe adopted the National Recommended Water Quality Criteria for priority and non-priority pollutants published by the EPA pursuant to CWA Section 304(a). They include water quality criteria for the protection of aquatic life and human health in surface waters for approximately 150 pollutants. The 304(a) aquatic life criteria are intended to be protective of the vast majority of the aquatic communities in the United States and Indian reservations located therein. Where the analytical detection limit of a particular substance is greater than the adopted numeric criterion, the applicability of the numeric criterion for regulatory purposes will be unaffected, but enforcement decisions such as the identification of compliance thresholds to be included in NPDES permits may be influenced.

### 8.1 ESTABLISHING NUMERIC CRITERIA

The Tribe establishes numeric criteria for tribal waters as follows:

1. Default numeric criteria presented in Table 20 are adopted for all segments that have been assigned an Aquatic Life use, regardless of sub-category, unless the Tribe, following a public hearing, adopts an alternative criterion on a site-specific basis consistent with one of the approaches described in this section. Both acute and chronic criteria apply. Hardness-dependent criteria for metals will be calculated as necessary using site-specific hardness information identified in Section 8.6.
2. Default numeric criteria presented in Table 21 are adopted for all segments that have been assigned the Potable Water Supply use, unless the Tribe, following a public hearing, adopts an alternative criterion on a site-specific basis consistent with one of the approaches described in this section.
3. For tribal waters where ambient water quality levels of one or more pollutants are higher than applicable numeric criteria but designated uses are nevertheless supported, the Tribe may adopt site-specific or seasonal ambient criteria. Ambient chronic criteria shall be set at the 90th percentile of the available representative data. Ambient acute criteria shall be based on the default values in this document. In no case may an ambient chronic criterion be less stringent than the acute criterion.
4. The Tribe may adopt site-specific numeric criteria applicable to all or part of a segment. A site-specific criterion is intended to come closer than the national criterion to provide the intended level of protection to the aquatic life at the site, usually by taking into account the biological or chemical conditions (i.e., the species composition or water quality characteristics) at the site. Accordingly, any site-specific criteria shall be developed based on relevant site-specific conditions such as:
  - a. actual species at a site are more or less sensitive than those used in the national criteria data set;
  - b. physical or chemical characteristics at a site such as pH, temperature or hardness alter the biological availability or toxicity of the pollutant;
  - c. physical, biological or chemical factors alter the bioaccumulation potential of a pollutant;
  - d. the concentration resulting from natural background exceeds numeric criteria for aquatic life or other uses; or
  - e. other factors or combination of factors that may warrant modification of the default criteria, subject to EPA review and approval.

Site-specific criteria must fully protect the designated use to which they apply. In the case of human health-organism only criteria, site-specific criteria must fully protect human health when organisms are



consumed from waters containing pollutants. In special cases where protection of designated uses requires criteria not provided by the normal water quality requirements above, site-specific criteria may be assigned after public notice and hearing. Examples where special protection may be necessary include but are not limited to wildlife preserves, water bodies endangered by eutrophication, and waters of special cultural significance to the Tribe.

Any party may petition the Tribe to adopt site-specific criteria by submitting a petition with the following information:

- a. identify the specific waters to which the site-specific criteria would apply;
- b. explain the rationale for proposing the site-specific criteria;
- c. describe the methods used to notify and solicit input from potential stakeholders and from the general public in the affected area, and present and respond to the public input received; and
- d. present and justify the derivation of the proposed criteria.

A derivation of site-specific criteria shall rely on a scientifically defensible method such as one of the following:

- a. the “Resident Species Procedure,” as described in the *Water Quality Standards Handbook: Second Edition* (EPA-823-B-94-005a; August 1994);
- b. the “Recalculation Procedure,” or the “Water-Effect Ratio Procedure,” as updated in the *Water Quality Standards Handbook: Third Edition* (EPA-823-B-17-001; 2017);
- c. the Biotic Ligand Model as described in *Aquatic Life Ambient Freshwater Quality Criteria – Copper 2007 Revision* (EPA-822-R-07-001; February 2007); and
- d. the *Methodology for Deriving Ambient Water Quality Criteria for the Protection of Human Health* (EPA-822-B-00-004; October 2000) and associated Technical Support Documents.

Proposed third party revisions for site-specific criteria will be evaluated by the Tribe and may be proposed to the public during the next water quality standards rulemaking opportunity. Site-specific criteria revisions are final and applicable for use only after adoption by the Tribe and CWA review and approval by EPA.

## 8.2 POTABLE AND INDUSTRIAL WATER SUPPLY

The numeric criteria for the protection of human health in surface water (Table 21) apply to all waters designated for Potable Water Supply use. The policy of the Tribe is that tribal waters designated for use as a potable water supply shall not contain substances in concentrations that create a lifetime cancer risk of more than one cancer occurrence per 1,000,000 exposed persons based on a fish consumption rate of 22 grams/day. Numeric criteria for such segments shall at minimum meet that cancer risk threshold. No unique numeric criteria apply to Industrial Water Supply (IND) uses at this time.

## 8.3 PRIMARY CONTACT RECREATION

The monthly maximum geometric mean of *E. coli* bacteria of 126 cfu/100 mL and statistical threshold value maximum of 410 cfu/100 mL and pH within the range of 6.5 to 9.0 apply to segments designated as Primary Contact Recreation (REC1).

The maximum Water + Organism measurement of Microcystins of 8 (µg/L) and maximum Water + Organism measurement of Cylindrospermopsin of 15 (µg/L) apply to primary contact recreation waters.

## 8.4 SECONDARY CONTACT RECREATION

The monthly maximum geometric mean of E. coli bacteria of 126 cfu/100 mL and statistical threshold value maximum of 410 cfu/100 mL apply to segments designated as Secondary Contact Recreation (REC2).

The maximum Water + Organism measurement of Microcystins of 8 (µg/L) and maximum Water + Organism measurement of Cylindrospermopsin of 15 (µg/L) apply to secondary contact recreation waters.

## 8.5 AQUATIC LIFE

In addition to the narrative water quality criteria and narrative biological criteria, the acute and chronic aquatic life criteria identified in Table 20 apply to all segments designated for Aquatic Life use. In addition, the specific criteria for aquatic life subcategories in the following paragraphs apply to waters classified under the respective designations.

Table 15. Aquatic Life Temperature Designations (Class 1 and 2)

Temperature Class	Dissolved Oxygen (Min Value)	Max Daily Temp	Maximum Weekly Average Temp	pH	Specific Conductance
Cold Water	6 mg/L (6.5)***	20°C (68°F)*	17°C (63°F)**	6.5 - 9.0	200--1,600 µS/cm
Cool Water	6 mg/L (6.0)***	24°C (75°F)*	21°C (70°F)**	6.5 - 9.0	200--1,600 µS/cm
Warm Water	5 mg/L (6.0)***	30°C (86°F)*	27°C (81°F)**	6.5 - 9.0	200--1,600 µS/cm

\* Acute Temperature - Duration: 2 hours. Frequency: not to exceed more than once in 3 years.

\*\* Chronic Temperature – Duration: 7-day mean of multiple, equally spaced, daily temperatures. Frequency: not to exceed more than once in 3 years.

\*\*\* (Min Value) are instantaneous concentrations to be achieved at all times. Values in parenthesis represents the 7-day mean value.

\*\*\* These values represent the intergravel dissolved oxygen concentrations for proper development of embryonic and larval stages for aquatic species. See table 20, Footnote “L” for further clarification.

In some circumstances, aquatic life uses may be supported even where, occasionally, these criteria are not met. An appropriate assessment procedure shall be used to identify when such excursions are or may be impairing aquatic life. The objective of the specific conductance criterion, provided as a range, is to prevent excessive increases in dissolved solids that could result in changes in community structure. The criterion applied to a particular water body will depend on its estimated natural background concentration and meeting that objective.

## 8.6 HARDNESS-DEPENDENT CRITERIA FOR METALS

Hardness-dependent acute and chronic criteria for selected metals apply to all segments designated for Aquatic Life use. The criteria, which are a function of dissolved hardness (as mg CaCO<sub>3</sub>/L) measured in the water body, are calculated using the equations specified in this section and the coefficient values listed in Table 18. Unless noted otherwise, they are equivalent to the National Recommended Water Quality Criteria published by EPA pursuant to CWA Section 304(a).

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1. Acute aquatic life criteria for metals in µg/L of dissolved metal:  

$$CMC = (\exp(m_A[\ln(\text{hardness})] + b_A))CF$$
2. Chronic aquatic life criteria for metals in µg/L of dissolved metal:  

$$CCC = (\exp(m_C[\ln(\text{hardness})] + b_C))CF$$

Where CMC refers to Acute Criteria and CCC refers to Chronic Criteria, CF is the conversion factor used for converting a metal criterion expressed as the total recoverable fraction in the water column to a criterion expressed as the dissolved fraction in the water column, and  $m_A$ ,  $b_A$ ,  $m_C$ , and  $b_C$  are metal-specific coefficients listed in Table 16. Table 17 provides examples of the criteria for each metal at various levels of hardness. The equations are valid only for dissolved hardness concentrations of 0-400 mg/L. For dissolved hardness concentrations above 400 mg/L, the criteria for 400 mg/L apply.

Table 16. Hardness Dependent Parameters for Calculating Freshwater Dissolved Metals Acute and Chronic Criteria

Metal	$m_A$	$b_A$	$m_C$	$b_C$	Conversion factor (CF) CMC	Conversion factor (CF) CCC
Cadmium (Cd)	0.9789	-3.866	0.7977	-3.909	$1.136672 - [(\ln \text{hardness}) * (0.041838)]$	$1.101672 - [(\ln \text{hardness}) * (0.041838)]$
Chromium (Cr) III	0.8190	3.7256	0.8190	0.6848	0.316	0.860
Lead (Pb)	1.273	-1.460	1.273	-4.705	$1.46203 - [(\ln \text{hardness}) * (0.145712)]$	$1.46203 - [(\ln \text{hardness}) * (0.145712)]$
Nickel (Ni)	0.8460	2.255	0.8460	0.0584	0.998	0.997
Silver (Ag)	1.72	-6.59	-	-	0.85	-
Zinc (Zn)	0.8473	0.884	0.8473	0.884	0.978	0.986

Table 17. Selected Values of Calculated Acute and Chronic Criteria (µg/L).

	Hardness (mg/L CaCO <sub>3</sub> )									
	25	50	75	100	150	200	250	300	350	400
<b>Cadmium</b>										
Acute	0.52	1.03	1.52	2.01	2.99	3.95	4.90	5.85	6.80	7.74
Chronic	0.09	0.15	0.20	0.25	0.33	0.40	0.46	0.53	0.59	0.64

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Chromium III											
Acute	183	323	450	570	794	1005	1207	1401	1590	1773	
Chronic	24	42	59	74	103	131	157	182	207	231	
Lead											
Acute	14	30	47	65	100	136	172	209	245	281	
Chronic	0.5	1.2	1.8	2.5	3.9	5.3	6.7	8.1	9.5	10.9	
Nickel											
Acute	145	260	367	468	660	842	1017	1186	1351	1513	
Chronic	16	29	41	52	73	93	113	132	150	168	
Silver											
Acute	0.30	0.98	1.96	3.22	6.46	10.60	15.56	21.28	27.75	34.91	
Zinc											
Acute	36	65	92	117	165	211	255	297	339	379	
Chronic	36	66	93	118	167	213	257	300	341	382	

## 8.7 AMMONIA NUMERICAL CRITERIA FOR ALL SEGMENTS DESIGNATED FOR AQUATIC USE

Table 18. Equation Used for Numerical Criteria of Total Ammonia Nitrogen ("TAN").

mg TAN/L	
Acute (CMC) equation (1 hour average)	$CMC = MIN \left( \left( \frac{0.275}{1 + 10^{7.204 - pH}} + \frac{39.0}{1 + 10^{pH - 7.204}} \right), \right. \\ \left. \left( 0.7249 \times \left( \frac{0.0114}{1 + 10^{7.204 - pH}} + \frac{1.6181}{1 + 10^{pH - 7.204}} \right) \times (23.12 \times 10^{0.036 \times (20 - T)}) \right) \right)$
Chronic (CCC) equation (30-day rolling average)*	$CCC = 0.8876 \times \left( \frac{0.0278}{1 + 10^{7.688 - pH}} + \frac{1.1994}{1 + 10^{pH - 7.688}} \right) \times (2.126 \times 10^{0.028 \times (20 - MAX(7, T))})$
<p>Note: Ammonia criteria are a function of pH and temperature. At the standard normalized pH of 7.0 and temperature of 20 °C, the acute criterion would be 17 mg TAN/L and the chronic criterion would be 1.9 mg TAN/L. Criteria duration: the acute criterion is a one-hour average and the chronic criterion is a thirty-day rolling average. Criteria frequency: Not to be exceeded more than once in 3 years.</p> <p>* Not to exceed 2.5 times the CCC as a 4-day average within the 30-days, <i>i.e.</i> 4.8 mg TAN/L at pH 7 and 20 °C more than once in 3 years on average.</p>	

Note to Ammonia Numerical Criteria: Acute (CMC) and chronic (CCC) freshwater ammonia criteria were developed using EPA's 2013 *Aquatic Life Ambient Water Quality Criteria for Ammonia - Freshwater* (EPA-822-R-13-001), which is hereby incorporated by reference. Illustrations, tables, and formulae used in the development of these equations can be found on pages 40-52 of the criteria document. Alternative equations for the presence or absence of *Oncorhynchus* sp. (rainbow trout) can be found on pages 41-42 of the document.

## 8.8 SELENIUM AQUATIC LIFE CRITERIA FOR FRESH WATERS

Table 19. Selenium Numerical Criteria.

Criterion Element	Magnitude	Duration	Frequency
Fish Tissue <sup>a</sup> (Egg-Ovary) <sup>b</sup>	15.1 mg/kg dw	Instantaneous measurement <sup>c</sup>	Not to be exceeded
Fish Tissue <sup>a</sup> (Whole Body or Muscle) <sup>d</sup>	8.5 mg/kg dw or 11.3 mg/kg dw muscle (skinless, boneless filet)	Instantaneous measurement <sup>c</sup>	Not to be exceeded
Water Column <sup>e</sup> (Monthly Average Exposure)	1.5 µg/L in lentic aquatic systems  3.1 µg/L in lotic aquatic systems	30 days	Not more than once in three years on average
Water Column <sup>e</sup> (Intermittent Exposure) <sup>f</sup>	$WQC_{int} = \frac{WQC_{30-day} - C_{bkgrnd}(1 - f_{int})}{f_{int}}$	Number of days/month with an elevated concentration	Not more than once in three years on average

<sup>a</sup> Fish tissue elements are expressed as steady-state.

<sup>b</sup> Egg/ovary supersedes any whole-body, muscle, or water column element when fish egg/ovary concentrations are measured.

<sup>c</sup> Fish tissue data provide point measurements that reflect integrative accumulation of selenium over time and space in fish population(s) at a given site.

<sup>d</sup> Fish whole-body or muscle tissue supersedes water column element when both fish tissue and water concentrations are measured.

<sup>e</sup> Water column values are based on dissolved total selenium in water and are derived from fish tissue values via bioaccumulation modeling. Water column values are the applicable criterion element in the absence of steady-state condition fish tissue data.

<sup>f</sup> Where  $WQC_{30-day}$  is the water column monthly element, for either lentic or lotic waters;  $C_{bkgrnd}$  is the average background selenium concentration, and  $f_{int}$  is the fraction of any 30-day period during which elevated selenium concentrations occur, with  $f_{int}$  assigned a value  $\geq 0.033$  (corresponding to 1 day).

<sup>g</sup> Fish tissue studies and implementation decisions will be based on EPA's *Final Criterion: Aquatic Life Ambient Water Quality Criterion for Selenium- Freshwater* (June 30, 2016, 822-R-16-006).

## 9 NUMERIC CRITERIA TABLES

The Tribe has adopted the National Recommended Water Quality Criteria for freshwater pollutants published by EPA pursuant to CWA Section 304(a).

## 9.1 NUMERIC CRITERIA FOR AQUATIC LIFE

Table 20 below lists acute (CMC) and chronic (CCC) criteria for the protection of aquatic life. They apply to all water designated for aquatic life use, regardless of sub-category. Hardness-dependent criteria for certain metals are discussed in Subsection 8.6 above. All criteria are expressed in dissolved fractions unless otherwise noted.

Table 20. Numeric Criteria for the Protection of Aquatic Life in Surface Water.

Pollutant	CAS Number	CMC (acute) - µg/L <sup>N</sup>	CCC (chronic) - µg/L <sup>N</sup>
Acrolein	107028	3	3
Aldrin <sup>A</sup>	309002	3.0	-
Alkalinity <sup>B</sup>	-	-	20000
alpha-Endosulfan <sup>A,C</sup>	959988	0.22	0.056
Aluminum <sup>D</sup>	7429905		
Ammonia	7664417	See Table 18	
Arsenic <sup>E,F</sup>	7440382	340	150
beta-Endosulfan <sup>A,C</sup>	33213659	0.22	0.056
Cadmium <sup>F</sup>	7440439	See Table 16	
Carbaryl	63252	2.1	2.1
Chlordane <sup>A</sup>	57749	2.4	0.0043
Chloride	16887006	860000	230000
Chlorine	7782505	19	11
Chlorpyrifos	2921882	0.083	0.041
Chromium (III) <sup>F</sup>	16065831	See Table 16	
Chromium (VI) <sup>F</sup>	18540299	16	11
Copper <sup>G</sup>	7440508		
Cyanide <sup>H</sup>	57125	22	5.2
Demeton	8065483	-	0.1
Diazinon	333415	0.17	0.17
Dieldrin <sup>A</sup>	60571	0.24	0.056
Endrin <sup>I</sup>	72208	0.086	0.036
gamma-BHC (Lindane)	58899	0.95	-
Guthion	86500	-	0.01
Heptachlor <sup>A</sup>	76448	0.52	0.0038
Heptachlor Epoxide <sup>A,J</sup>	1024573	0.52	0.0038
Iron	7439896	-	1000
Lead <sup>F</sup>	7439921	See Table 16	
Malathion	121755	-	0.1
Mercury <sup>F,K</sup>	22967926 or 7439976	1.4	
Methoxychlor	72435	-	0.03
Mirex	2385855	-	0.001
Nickel <sup>F</sup>	7440020	See Table 16	
Nonylphenol	84852153	28	6.6
Oxygen, Dissolved <sup>L</sup>	7782447	See Table 15	
Parathion	56382	0.065	0.013
Pentachlorophenol <sup>M</sup>	87865	19	15

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Pollutant	CAS Number	CMC (acute) - µg/L <sup>N</sup>	CCC (chronic) - µg/L <sup>N</sup>
pH	-	-	6.5 – 9
Selenium	7782492	See Table 19	
Silver <sup>A,F</sup>	7440224	See Table 16	
Sulfide-Hydrogen Sulfide	7783064	-	2
Temperature	-	Cold, Cool, and Warm Water Matrix – See Section 8.5	
Toxaphene	8001352	0.73	0.0002
Tributyltin (TBT)	-	0.46	0.072
Zinc <sup>F</sup>	7440666	See Table 16	
4,4'-DDT <sup>A</sup>	50293	1.1	0.001

**Aquatic Life Table – Footnotes**

- A. These criteria are based on the 1980 criteria, which used different Minimum Data Requirements and derivation procedures from the 1985 Guidelines. If evaluation is to be done using an averaging period, the acute criteria values given are not to be exceeded and should be divided by 2 to obtain a value that is more comparable to a CMC derived using the 1985 Guidelines.
- B. The CCC of 20mg/L is a minimum value except where alkalinity is naturally lower, in which case the criterion cannot be lower than 25% of the natural level.
- C. This value was derived from data for endosulfan and is most appropriately applied to the sum of alpha-endosulfan and beta-endosulfan.
- D. Freshwater criteria for aluminum shall be developed using EPA's 2018 Final Aquatic Life Ambient Water Quality Criteria for Aluminum (December 2018, EPA 822-R-18-001).
- E. This recommended water quality criterion was derived from data for arsenic (III) but is applied here to total arsenic.
- F. Freshwater and saltwater criteria for metals are expressed in terms of the dissolved metal in the water column. See Office of Water Policy and Technical Guidance on Interpretation and Implementation of Aquatic Life Metals Criteria. See Table 1a for conversion factors.
- G. Acute (CMC) and chronic (CCC) freshwater copper criteria shall be developed using EPA's 2007 *Aquatic Life Ambient Freshwater Quality Criteria—Copper* (EPA-822-R-07-001), which incorporates use of the copper biotic ligand model (BLM). Where sufficiently representative ambient data for DOC, calcium, magnesium, sodium, potassium, sulfate, chloride, or alkalinity are not available, the Tribe shall use the values from the Draft Technical Support Document: Recommended Estimates for Missing Water Quality Parameters for Application in EPA's Biotic Ligand Model, March 2016, EPA 820-E-15-106, which is hereby incorporated by reference. If taking stream order into account, the Tribe will use Tables 8, 9, and 10 of the document; for estimates irrespective of stream order, the state or tribe will refer to Table 4.
- H. These recommended water quality criteria are expressed as µg free cyanide (CN/L).
- I. The derivation of the CCC for this pollutant did not consider exposure through the diet, which evidence suggests is important for aquatic life occupying upper trophic levels.
- J. This value was derived from data for heptachlor and there was insufficient data to determine relative toxicities of heptachlor and heptachlor epoxide.
- K. This recommended water quality criterion was derived from data for inorganic mercury (II), but is applied here to total dissolved mercury. If a substantial portion of the mercury in the water column is methylmercury, this criterion will probably be under protective. In addition, even though inorganic



mercury is converted to methylmercury and methylmercury bioaccumulates to a great extent, this criterion does not account for uptake via the food chain because sufficient data were not available when the criterion was derived.

- L. For fresh waters, see Quality Criteria for Water, 1986 ("Gold Book"), for protection of early life stages.
- M. Freshwater aquatic life values for pentachlorophenol are expressed as a function of pH and values displayed in table correspond to a pH of 7.8.  $CCC = e^{1.005(pH) - 5.134}$ ,  $CMC = e^{1.005(pH) - 4.869}$
- N. Criteria duration: the acute criterion is instantaneous, and the chronic criterion is a thirty-day rolling average. Criteria frequency: Not to be exceeded more than once in 3 years.

## 9.2 NUMERIC CRITERIA FOR HUMAN HEALTH

Table 21 lists numeric criteria for surface water to protect human health from ingesting water and resident organisms and for ingesting resident organisms only. The calculated human health criteria are based on a fish consumption rate of 22 grams/day and cancer risk level of 1 in 1,000,000 people ( $10^{-6}$ ) and applies to all waters designated for Potable Water Supply use.

Table 21. Numeric Criteria for the Protection of Human Health in Surface Water.

Pollutant	CAS Number	Water + Organism ( $\mu\text{g/L}$ ) <sup>J</sup>	Organism Only ( $\mu\text{g/L}$ ) <sup>J</sup>
1,1,1-Trichloroethane <sup>A</sup>	71556	10000	200000
1,1,2,2-Tetrachloroethane	79345	0.2	3
1,1,2-Trichloroethane <sup>A</sup>	79005	0.55	8.9
1,1-Dichloroethylene <sup>A</sup>	75354	300	20000
1,2,4,5-Tetrachlorobenzene	95943	0.03	0.03
1,2,4-Trichlorobenzene <sup>A</sup>	120821	0.071	0.076
1,2-Dichlorobenzene <sup>A</sup>	95501	1000	3000
1,2-Dichloroethane <sup>A</sup>	107062	9.9	650
1,2-Dichloropropane	78875	0.90	31
1,2-Diphenylhydrazine	122667	0.03	0.2
1,2-Trans-Dichloroethylene <sup>A</sup>	156605	100	4000
1,3-Dichlorobenzene	541731	7	10

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Pollutant	CAS Number	Water + Organism (µg/L) <sup>J</sup>	Organism Only (µg/L) <sup>J</sup>
1,3-Dichloropropene	542756	0.27	12
1,4-Dichlorobenzene <sup>A</sup>	106467	300	900
2,3,7,8-TCDD (Dioxin)	1746016	5.0e-9	5.1e-9
2,4,5-Trichlorophenol <sup>B</sup>	95954	300	600
2,4,6-Trichlorophenol <sup>B</sup>	88062	1.5	2.8
2,4-Dichlorophenol <sup>B</sup>	120832	10	60
2,4-Dimethylphenol <sup>B</sup>	105679	100	3000
2,4-Dinitrophenol	51285	10	300
2,4-Dinitrotoluene	121142	0.049	1.7
2-Chloronaphthalene	91587	800	1000
2-Chlorophenol <sup>B</sup>	95578	30	800
2-Methyl-4,6-Dinitrophenol	534521	2	30
3,3'-Dichlorobenzidine	91941	0.049	0.15
3-Methyl-4-Chlorophenol <sup>B</sup>	59507	500	2000
4,4'-DDD	72548	0.00012	0.00012
4,4'-DDE	72559	0.000018	0.000018
4,4'-DDT	50293	0.000030	0.000030
Acenaphthene <sup>B</sup>	83329	70	90
Acrolein	107028	3	400
Acrylonitrile	107131	0.061	7.0
Aldrin	309002	7.7e-7	7.7e-7

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Pollutant	CAS Number	Water + Organism (µg/L) <sup>J</sup>	Organism Only (µg/L) <sup>J</sup>
alpha-BHC	319-84-6	0.00036	0.00039
alpha-Endosulfan	959988	20	30
Anthracene	120127	300	400
Antimony <sup>A,C,D</sup>	7440360	5.6	640
Arsenic	7440382	0.018	0.14
Asbestos <sup>A,C,E</sup>	1332214	7 million fibers/L	--
Barium <sup>A,C,E,F</sup>	7440393	1000	--
Benzene <sup>A</sup>	71432	0.58	16
Benzidine	92875	0.00014	0.011
Benzo(a) Anthracene	56553	0.0012	0.0013
Benzo(a) Pyrene <sup>A</sup>	50328	0.00012	0.00013
Benzo(b) Fluoranthene	205992	0.0012	0.0013
Benzo(k) Fluoranthene	207089	0.012	0.013
beta-BHC (beta-HCH)	319857	0.0080	0.014
beta-Endosulfan	33213659	20	40
Bis(2-Chloro-1-Methylethyl) Ether	108601	200	4000
Bis(2-Chloroethyl) Ether	111444	0.030	2.2
Bis(2-Ethylhexyl) Phthalate <sup>A</sup>	117817	0.32	0.37
Bis(Chlormethyl) Ether	542881	0.00015	0.017
Bromoform <sup>A</sup>	75252	7.0	120

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Pollutant	CAS Number	Water + Organism (µg/L) <sup>J</sup>	Organism Only (µg/L) <sup>J</sup>
Butylbenzyl Phthalate	85687	0.10	0.10
Carbon Tetrachloride <sup>A</sup>	56235	0.4	5
Chlordane <sup>A</sup>	57749	0.00031	0.00032
Chlorobenzene <sup>A,B</sup>	108907	100	800
Chlorodibromomethane <sup>A</sup>	124481	0.80	21
Chloroform <sup>A</sup>	67663	60	2000
Chlorophenoxy Herbicide (2,4,5-TP) [Silvex] <sup>A</sup>	93721	100	400
Chlorophenoxy Herbicide (2,4-D) <sup>A</sup>	94757	1300	12000
Chrysene <sup>A</sup>	218019	0.12	0.13
Copper <sup>A, B, C, E</sup>	7440508	1300	--
Cyanide <sup>A</sup>	57125	4	400
Cylindrospermopsin <sup>K</sup>	143545-90-8	15	--
Di-n-Butyl Phthalate	84-74-2	20	30
Dibenzo(a,h) Anthracene	53703	0.00012	0.00013
Dichlorobromomethane <sup>A</sup>	75274	0.95	27
Dieldrin	60571	0.0000012	0.0000012
Diethyl Phthalate	84662	600	600
Dimethyl Phthalate	131113	2000	2000
Dinitrophenols	25550587	10	1000
Endosulfan Sulfate	1031078	20	40

WATER QUALITY STANDARDS  
FOR SURFACE WATERS ON THE SOUTHERN UTE INDIAN RESERVATION

Pollutant	CAS Number	Water + Organism (µg/L) <sup>J</sup>	Organism Only (µg/L) <sup>J</sup>
Endrin	72208	0.03	0.03
Endrin Aldehyde <sup>A</sup>	7421934	1	1
Ethylbenzene <sup>A</sup>	100414	68	130
Fluoranthene	206440	20	20
Fluorene	86737	50	70
Gamma-BHC (HCH); Lindane <sup>A</sup>	58899	4.2	4.4
Heptachlor <sup>A</sup>	76448	0.0000059	0.0000059
Heptachlor Epoxide <sup>A</sup>	1024573	0.000032	0.000032
Hexachlorobenzene <sup>A</sup>	118741	0.000079	0.000079
Hexachlorobutadiene <sup>A</sup>	87683	0.01	0.01
Hexachlorocyclohexane (HCH) - Technical	608731	0.0066	0.010
Hexachlorocyclopentadiene <sup>A,B</sup>	77474	4	4
Hexachloroethane	67721	0.1	0.1
Indeno(1,2,3-cd) Pyrene	193395	0.0012	0.0013
Isophorone	78591	34	1800
Manganese <sup>B,C,G,E</sup>	7439965	50	100
Methoxychlor <sup>A</sup>	72435	0.02	0.02
Methyl Bromide	74839	100	10000
Methylene Chloride <sup>A</sup>	75092	20	1000
Methylmercury <sup>C,H</sup>	22967926	N/A	0.3 mg/Kg

WATER QUALITY STANDARDS  
FOR SURFACE WATERS ON THE SOUTHERN UTE INDIAN RESERVATION

Pollutant	CAS Number	Water + Organism (µg/L) <sup>J</sup>	Organism Only (µg/L) <sup>J</sup>
Microcystin <sup>K</sup>	101043-37-2	8	--
N-Nitrosodi-n-Propylamine <sup>C</sup>	621647	0.0050	0.51
N-Nitrosodimethylamine <sup>C</sup>	62-75-9	0.00069	3.0
N-Nitrosodiphenylamine <sup>C</sup>	86306	3.3	6.0
Nickel <sup>C,D</sup>	7440020	610	4600
Nitrates <sup>A,C,E</sup>	14797558	10000	--
Nitrobenzene <sup>B</sup>	98953	10	600
Nitrosamines <sup>C</sup>	70-25-7	0.0008	1.24
Nitrosodibutylamine <sup>C</sup>	924-16-3	0.0063	0.22
Nitrosodiethylamine <sup>C</sup>	55-18-5	0.0008	1.24
Nitrosopyrrolidine <sup>C</sup>	930-55-2	0.016	34
Pentachlorobenzene	608935	0.1	0.1
Pentachlorophenol (PCP) <sup>A,B</sup>	87865	0.03	0.04
pH <sup>C,E</sup>	-	5-9	--
Phenol <sup>B</sup>	108952	4000	300000
Polychlorinated Biphenyls (PCBs) <sup>A,C,I</sup>	1336-36-3	0.000064	0.000064
Pyrene	129000	20	30
Selenium <sup>A,C</sup>	7782492	170	4200
Solids Dissolved and Salinity <sup>C,E</sup>	-	250000	--
Tetrachloroethylene <sup>A</sup>	127184	10	29

WATER QUALITY STANDARDS  
FOR SURFACE WATERS ON THE SOUTHERN UTE INDIAN RESERVATION

Pollutant	CAS Number	Water + Organism (µg/L) <sup>J</sup>	Organism Only (µg/L) <sup>J</sup>
Thallium	7440280	0.24	0.47
Toluene <sup>A</sup>	108883	57	520
Toxaphene <sup>A</sup>	8001352	0.00070	0.00071
Trichloroethylene <sup>A</sup>	79016	0.6	7
Vinyl Chloride <sup>A</sup>	75014	0.022	1.6
Zinc <sup>B,C</sup>	7440666	7400	26000

**Footnotes for Numerical Criteria for Human Health:**

- A. Epa has issued a Maximum Contaminant Level (MCL) for this chemical which may be more stringent. See EPA's National Primary Drinking Water Regulations.
- B. The criterion for organoleptic (taste and odor) effects may be more stringent. See National Recommended Water Quality Criteria - Organoleptic Effects.
- C. EPA's National Recommended Human Health Water Quality Criteria for this pollutant were not updated in 2015.
- D. This criterion was revised to reflect EPA's q1\* or RfD as contained in the Integrated Risk Information System (IRIS) as of May 17, 2002. The fish tissue bioconcentration factor (BCF) is from the 1980 Ambient Water Quality Criteria document.
- E. Criteria for these pollutants are from the National Recommended Water Quality Criteria - Human Health Criteria Table. They are not calculated based on this table's inputs for fish consumption rate and cancer risk level.
- F. This human health criterion is the same as originally published in the Quality Criteria for Water, 1976 ("Red Book") which predates the 1980 methodology and did not utilize the fish ingestion BCF approach. This same criterion value is published in the Quality Criteria for Water, 1986 ("Gold Book").
- G. The Human Health for the consumption of Water + Organism criterion for manganese is not based on toxic effects, but rather is intended to minimize objectionable qualities such as laundry stains and objectionable tastes in beverages.
- H. This fish tissue residue criterion for methylmercury is based on the total fish consumption rate of 0.0175 kg/day.
- I. This criterion applies to total PCBs (e.g., the sum of all congener or all isomer or homolog or Aroclor analyses).
- J. Criteria duration: instantaneous. Criteria frequency: Not to be exceeded.
- K. This criterion is valid for implementation with a duration of '1 sampling event within any 10-day assessment period across a recreational season' and an exceedance frequency not to exceed 3 excursions in a recreational season in more than one year. An excursion is defined as a 10-day assessment period with any toxin concentration higher than the recommended criteria magnitude. When more than three excursions occur within a recreational season and that pattern reoccurs in more than one year, it is an indication the water quality has been or is becoming degraded and is not supporting its recreational use. Methods for sampling, data management, and assessment are included

in an EPA-approved Quality Assurance Program Plan (QAPP). Should they be necessary, public advisories will be drafted by EPD, reviewed and approved by Tribal governance, and distributed via the Tribe's electronic information services.

## 10 WATER QUALITY STANDARDS FOR WETLANDS

All tribal waters that are wetlands, unless a constructed wetland, shall be subject to the level of protection as defined by the designated uses assigned to the river or stream segment to which they are hydraulically connected. Wetlands shall be presumed to provide habitat capable of supporting aquatic biota (e.g., fish, macroinvertebrates, amphibians, or hydrophytic vegetation) on a regular or periodic basis. It shall be a goal of the Tribe to maintain the water quality, functions, and values of wetlands at naturally occurring levels, within the natural range of variation for the individual wetland. The functions and values that shall be maintained include, but are not limited to, the following:

1. Storm and flood water storage and retention and the moderation of water level fluctuation extremes;
2. Filtration or storage of sediments, nutrients or toxic substances that would otherwise adversely impact the quality of other waters of the Tribe;
3. Shoreline protection against erosion through the dissipation of wave energy and water velocity and anchoring of sediments;
4. Habitat for aquatic organisms in the food web including, but not limited to, fish, crustaceans, mollusks, insects, annelids, planktonic organisms and the plants and animals upon which these aquatic organisms feed and depend upon for their development in all life stages;
5. Habitat for resident and transient wildlife species, including mammals, birds, reptiles and amphibians for breeding, resting, nesting, escape cover, travel corridors and food; and
6. Recreational, culturally significant wetland plant species, educational, scientific and natural scenic beauty values and uses.

Wetlands shall be subject to narrative criteria, numeric criteria, and applicable antidegradation provisions. For substances that are not naturally occurring, water quality requirements shall be based on protecting designated uses of the wetland consistent with antidegradation requirements, the Tribe's narrative water quality criteria, narrative biological criteria, criteria assigned to hydraulically-connected surface waters, or appropriate criteria guidance issued by EPA. The Tribe recognizes and expects that certain parameters may exceed applicable numeric criteria in wetlands due to natural forces and variability. Wetlands, except for constructed wetlands, shall not be permitted as repositories or treatment systems for wastes from human sources.

## 11 OUTSTANDING TRIBAL RESOURCE WATERS

Outstanding Tribal Resource Water (OTRW) means a segment that has been classified as an OTRW pursuant to the provisions of these water quality standards and any procedures the Tribe adopts specific to OTRW. The intent of OTRW classification is to provide enhanced protection for certain waters. OTRW segments may include, but are not limited to, waters that have outstanding water quality, unique aquatic ecology, or recreational, cultural, ceremonial or aesthetic characteristics that qualify them for such classification by the Tribe. In addition to the numeric and narrative criteria for other applicable designated uses, waters classified as an OTRW shall be subject to the water quality requirements specified below and to tier 3 review under the Tribe's antidegradation review policies and procedures.



1. To qualify as an OTRW, following nomination from a member of the public or tribal personnel, the Tribal Council must make a finding that a tribal water is a unique tribal resource based upon one of the following criteria:
  - a. The tribal water is of exceptional recreational or ecological significance because of its unique attributes including, but not limited to, those related to cultural values, geology, flora, water quality, aesthetic value, or its wilderness characteristics.
  - b. Threatened or endangered species are known to be associated with the tribal water. The existing water quality is essential to the maintenance and propagation of a threatened or endangered species or provides critical habitat. Threatened and endangered species can be those identified under the Endangered Species Act, ones listed by the State of Colorado, or any additional species status designated by the Tribe.
2. The disclosure to the public of the existence and location of waters that qualify as an OTRW may result in visitation and impacts that are not consistent with the objectives of OTRW classification. Accordingly, the Tribe may, in the interest of protection of these waters, limit the public disclosure of any OTRW classification, the information supporting such classification, and the basis of the decision. The Tribe will develop procedures and policies to govern the confidential classification and administration of such waters, and the OTRW classifications will be made available to interested parties upon request in accordance with these procedures and policies.
3. The following water quality requirements apply to each OTRW, regardless of whether it is confidential. These water quality requirements are supplemental to the narrative and numeric water quality criteria associated with all other applicable designated uses for the water body.

Table 22. These water quality requirements apply to all Outstanding Tribal Resource Waters.

Constituent	Standard
Dissolved oxygen	No observable change caused by discharge
pH	No observable change caused by discharge
Temperature	No observable change caused by discharge
Total dissolved solids	No observable change caused by discharge
Total nitrogen	No observable change caused by discharge
Total phosphorus	No observable change caused by discharge
All numerical criteria	No observable change caused by discharge

The water quality requirement of “No observable change caused by discharge” will be implemented through the antidegradation review process and through incorporation into applicable NPDES permits for point source discharges and through required, enforceable BMPs for nonpoint sources.

4. The Tribe may adopt site-specific water quality standards to maintain and protect water quality in OTRWs.

## 12 ANALYTICAL METHODS

All methods of analysis used to measure the water quality of surface waters for purposes of determining compliance with these standards shall be in accordance with procedures prescribed in the current 40 C.F.R. part 136.

## 13 ANTIDEGRADATION REVIEW POLICIES AND PROCEDURES

### 13.1 ANTIDEGRADATION POLICY

Antidegradation refers to the mechanism to review the potential water quality impacts of existing or proposed activities; then to take actions that ensure that existing uses and water quality will be maintained or improved or ensure public notification and comment before allowing any degradation to occur. The Tribe's Antidegradation Policy is based on the three-tiered federal antidegradation policy found in 40 C.F.R. Section 131.12. The antidegradation policy applicable to all tribal waters is as follows:

Tier 1 - Existing uses and the level of water quality necessary to protect the existing uses shall be maintained and protected.

Tier 2 - Where the quality of the waters exceeds a level of quality necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water, that quality shall be maintained and protected unless the Tribe finds, after appropriate intergovernmental coordination and public participation, 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. Further, the Tribe shall assure that there shall be achieved the highest statutory and regulatory requirements for all new and existing point sources and all cost-effective and reasonable best management practices for nonpoint source water pollution control.

Before allowing any degradation of water quality, pursuant to 40 C.F.R. Section 131.12 (a)(2), the Tribe will find, after an analysis of alternatives, that such a lowering is necessary to accommodate important economic or social development in the area in which the waters are located. The analysis of alternatives will evaluate a range of practicable alternatives that would prevent or lessen the degradation associated with the proposed activity. When the analysis of alternatives identifies one or more practicable alternatives, the Tribe will only find that a lowering is necessary if one such alternative is selected for implementation.

Tier 3 - Where a tribal water has been classified an OTRW, that water quality shall be maintained and protected.

In those cases where potential water quality impairment associated with a thermal discharge is involved, the antidegradation policy and implementing method shall be consistent with CWA Section 316, 33 U.S.C. Section 1326. Among other things, Section 316 requires effluent limits for thermal discharges and any interacting pollutants that assure the protection and propagation of a balanced, indigenous population of fish and wildlife.

## 13.2 ANTIDegradation Implementation Procedures

See Appendix A, *Antidegradation Implementation Procedures*, for specific procedures governing tribal review and approval of a proposed regulated activity that may have some effect on surface water quality and *Antidegradation Review Worksheet* for a worksheet intended to facilitate each antidegradation review.

## 14 VARIANCES FROM WATER QUALITY STANDARDS

A variance is a short-term exemption from meeting certain otherwise applicable components of these water quality standards. EPA authorizes tribes to include variances in their water quality standards for CWA purposes. See 40 C.F.R. Section 131.13. The Tribe has adopted these variance policies and procedures to avoid the potential for unreasonable consequences where a water quality standard may not be attainable on a near-term basis, yet it represents an attainable goal. The Tribe's intent is to encourage maintenance of adopted standards as goals as an alternative to removing or putting in place a standard that represents a lesser goal than can reasonably be attained should conditions change (e.g., technological improvements allow for improved treatment of a particular discharge at a reasonable cost). Therefore, the objective of this policy and procedure is (1) to provide for the proper issuance of variances when information demonstrates that such unreasonable consequences may arise, (2) to limit the possibility that a variance will be inappropriately relied upon when a current standard is reasonably achievable, and (3) to ensure the highest level of water quality achievable during the term of any variance that is granted.

Because a variance is a revision to these water quality standards that may involve temporarily removing a designated use as it relates to a particular discharge or activity, the procedures for issuing a variance involve the same substantive and procedural requirements as removing a designated use, including public notice and opportunity for public comment (Section 14). Variances may be justified under any of the factors listed at 40 C.F.R. Section 131.10(g) for which removing a use may be considered. But unlike removing a use, a variance is specific to a particular discharge or regulated activity, is specific to one or more particular pollutants, is time-limited, and does not remove the currently designated use as a goal. Like all revisions to the Tribe's water quality standards, EPA review and approval is required of any variance before it becomes the applicable water quality standard under the CWA. Variances are also subject to review at least every three years, including during subsequent triennial reviews of these water quality standards by the Tribe. A variance to these water quality standards must meet all applicable requirements at 40 C.F.R. Section 131.14.

### 14.1 APPLICATION

If it is not feasible for a discharge or regulated activity to comply with a component of these water quality standards, a variance may be granted according to the requirements of this section and any other applicable provision of these water quality standards and 40 C.F.R. 131.14. A variance temporarily modifies one or more of the four components of these water quality standards for a specific water body (i.e., a designated use, a numeric or narrative water quality criterion, an anti-degradation requirement, or a general policy adopted in these water quality standards). A variance shall include an expiration date and any interim standards that are to be effective for the duration of the variance in lieu of any otherwise applicable standards. All other components of the water quality standards that are not modified by the variance shall remain in effect. Any variances that are issued will be incorporated into the Tribe's water quality standards document as an appendix.

## 14.2 REQUIREMENTS FOR A VARIANCE

1. All variances must be supported by a technical analysis demonstrating why the proposed level of treatment for a discharge or activity is expected to cause non-compliance with one or more components of these water quality standards (e.g., an analysis demonstrating that the attainment of a use or criterion is not feasible), must provide for protection of the highest attainable use and water quality condition that can be met and the most protective criteria reasonably achievable to protect that use and water quality condition (i.e., as close to the underlying use and numeric criteria as is achievable), and must be approved by the Tribe and EPA. In many cases, this will require the collection and submission of site-specific water quality data sufficient to characterize conditions in each water body that may be affected by the discharge or activity.
2. A variance for a designated use may be adopted where existing uses are protected and one or more of the following conditions precluding the attainment of the designated use are shown to be applicable to a specific discharge or activity:
  - a. naturally occurring pollutant concentrations prevent the attainment of the use;
  - b. natural, ephemeral, intermittent, or low-flow conditions or water levels prevent the attainment of the use, unless these conditions may be compensated for by the discharge of sufficient volume of effluent discharges without violating water conservation requirements to enable uses to be met;
  - c. human caused conditions or sources of pollutants prevent the attainment of the use and cannot be remedied or would cause more environmental damage to correct than to leave in place;
  - d. dams, diversions or other types of hydrologic modifications preclude the attainment of the use, and it is not feasible to restore the water body to its original condition or to operate such modification in a way that would result in the attainment of the use;
  - e. physical conditions related to the natural features of the water body, such as the lack of a proper substrate, cover, flow, depth, pools, riffles, and the like, unrelated to water quality, preclude attainment of aquatic life protection uses;
  - f. controls more stringent than those required by sections 301(b) and 306 of the CWA would result in substantial and widespread economic and social impact.
  - g. actions necessary to facilitate lake, wetland or stream restoration through dam removal or other significant reconfiguration activities preclude attainment of the designated use and criterion while the actions are being implemented.

A variance to otherwise applicable water quality criteria, antidegradation requirements, or other policies of these water quality standards must be supported with an analysis consistent with all provisions governing those components of these water quality standards.

3. The written justification for a variance must include documentation that all reasonable alternatives to the proposed activity or discharge and all reasonable potential controls have been evaluated to conclude there is no reasonable alternative or control available that can be used to achieve compliance with the otherwise applicable water quality standards during the variance term. In particular, the proponent of a variance must evaluate treatment more advanced than that required to meet technology based effluent limits under CWA Sections 301(b) and 306 and alternative effluent control strategies. The justification must also include a plan to gather additional information and/or

complete activities to remedy the conditions that preclude the attainment of designated uses, including completing and implementing a watershed restoration plan where warranted.

4. All variances shall have an expiration date. The date shall be based upon the amount of time it is reasonably expected will be needed to implement reasonable controls or to remedy the water quality problem precluding compliance with the otherwise applicable water quality standards. Upon expiration, the original, otherwise applicable water quality standards shall apply.
5. All variances shall identify interim water quality standards that are the most protective standards reasonably achievable.
6. For variances applicable to facilities with NPDES permits, such permits should include two sets of permit limits. One set should be at a level sufficient to achieve the interim standards, and one set should be at a level to achieve the underlying standards upon expiration of the variance. Permit limits for facilities for which a variance has been obtained should also be set to achieve all applicable technology-based controls.
7. Variances and the water quality of affected water bodies shall be reviewed at least every three years. Prior to expiration, a proponent may request that the variance be extended (through a new variance being adopted). The Tribe shall only grant a new variance if (a) the variance is still justified pursuant to the requirements of this section; (b) the request for a new variance meets all applicable requirements at 40 C.F.R. 131.14; and (c) the proponent can demonstrate that it has ensured achievement of the highest level of water quality achievable during the term of the variance and that it has made reasonable progress to comply with the otherwise applicable water quality standards. This shall include re-evaluating all reasonable alternatives to the activity or discharge and all reasonable potential controls (e.g., new, or improved treatment technologies).
8. Any party requesting a variance must provide the proposed terms of the variance, any required technical analyses, and any other information reasonably required by the Tribe to evaluate the request. Regardless of whether the request is ultimately successful, the Tribe may require a proponent to pay a fee to reimburse the Tribe for its staff time and reasonable expenses incurred to evaluate and adopt a proposed variance. Those expenses may include costs to hire a third-party expert to evaluate the proposed variance or extension.

## APPENDIX A ANTIDEGRADATION IMPLEMENTATION PROCEDURES

### ANTIDEGRADATION IMPLEMENTATION PROCEDURES

#### (1) Introduction

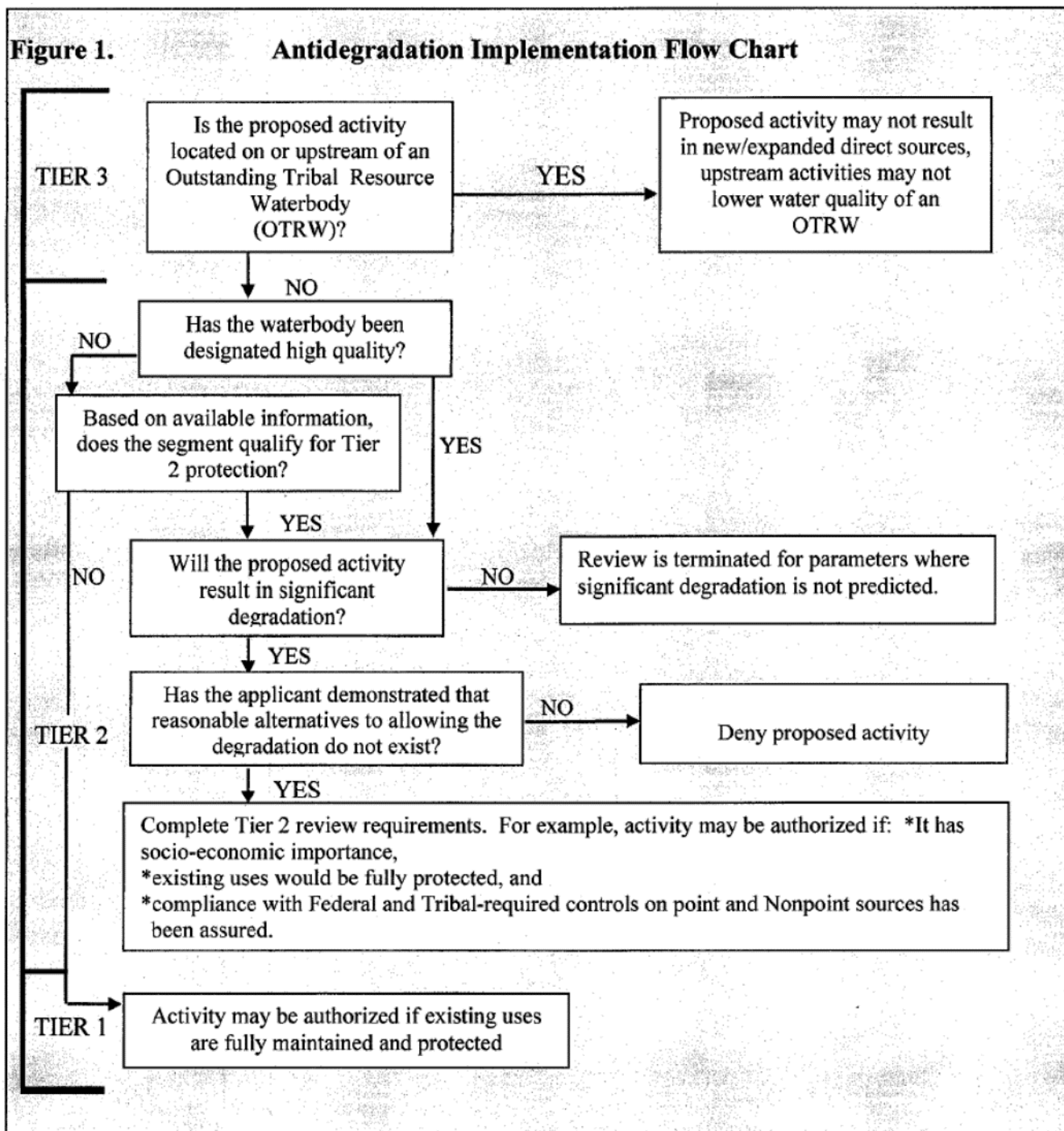
Implementation of tribal antidegradation requirements serves to promote the maintenance and protection of existing surface water quality. Under this program, all tribal waters are provided one of three different levels of protection. The level of protection that is provided to a specific segment depends upon a number of factors discussed below. At a minimum, all waters are subject to a base level of protection referred to as tier 1 or existing use protection; some waters may qualify only for this level of protection. Antidegradation reviews are triggered whenever a regulated activity is proposed that may have some effect on surface water quality. Such activities are reviewed to determine, based on the level of antidegradation protection afforded to the affected water body segment, whether the proposed activity should be authorized and under what conditions. All information, correspondence and notifications regarding antidegradation reviews are to be directed to the Water Quality and Remediation Division Head, Environmental Programs Department, Southern Ute Indian Tribe, P.O. Box 737 #81, 71 Mike Frost Way, Ignacio, Colorado 81137.

#### (a) Scope

The Tribe will conduct some level of antidegradation review for all “regulated activities” (see definition in Section I.7) that have the potential to affect existing water quality. The specifics of the review will depend upon the water body segment that would be affected, the tier of antidegradation applicable to that water body segment, and the extent to which existing water quality would be degraded.

The sequence of steps to be completed in conducting an antidegradation review is summarized in Figure 1. In conducting an antidegradation review, the first task is to determine which tier of antidegradation applies. This is accomplished, as described in detail below, based on whether an OTRW designation has been assigned to the segment (i.e., subject to tier 3) and whether the existing quality of the segment is better than necessary to support aquatic life and/or recreation uses (i.e., subject to tier 2). The Tribe then determines whether authorizing the proposed activity would be consistent with tribal antidegradation requirements. The major conclusions of the review are documented using the antidegradation worksheet found in Appendix B. Based upon the review findings, a preliminary decision is made by the Tribe and subjected to intergovernmental coordination and public participation. Public participation occurs regardless of the outcome of the preliminary decision (i.e., whether the proposed activity would be authorized or denied). The Tribe then considers public comments and reaches a final decision regarding whether to authorize the proposed activity pursuant to the antidegradation requirements. The substance and basis of the final decision by the Tribe are documented in the administrative record.





(b) Information Required from Applicants

The applicant will be required to provide information, including monitoring data, sufficient to evaluate the potential effects of the proposed activity on water quality and complete the antidegradation review process. The information that will be required in a given situation will be identified on a case-by-case basis by the Tribe. Such information may include recent ambient chemical, physical, and biological

monitoring data sufficient to characterize, during the appropriate critical condition(s), the existing uses and the spatial and temporal variability of existing quality of the segment for the parameters that would be affected by the proposed regulated activity, as well as the water quality that would result if the proposed activity were authorized. Approaches and procedures similar to those used in watershed-scale cleanup or restoration plans may be the basis for identifying needed information, interpreting available data, or for characterizing existing water quality and projecting future water quality.

## **(2) TIER 3 PROCEDURES**

### **(a) Direct Sources to OTRWs: Prohibition on New or Expanded Sources**

Any proposed activity that would result in a permanent new or expanded direct source of pollutants to any segment which has been designated as an OTRW is prohibited. This prohibition applies to new sources, expansion of existing sources in which treatment levels are maintained, and expansion of existing sources in which treatment levels are increased to maintain existing pollutant loading levels. Regardless of effluent quality, any new or expanded direct source is prohibited.

### **(b) Sources Upstream of OTRWs**

#### **(i) No Change in Water Quality Allowed**

Any proposed activity that would result in a permanent new or expanded indirect source of pollutants (i.e., an upstream source) to an OTRW segment is prohibited except where such source would have no effect on the existing quality of the OTRW segment. Effects on OTRW water quality resulting from upstream sources will be determined based on appropriate techniques and best professional judgment. Factors that may be considered include: (a) percent change in ambient concentrations predicted at the appropriate critical condition(s), (b) percent change in loadings (i.e., the new or expanded loadings compared to total existing loadings to the segment), (c) percent reduction in available assimilative capacity, (d) nature, persistence, and potential effects of the parameter, (e) potential for cumulative effects, and (f) degree of confidence in the various components of any modeling technique utilized (e.g., associated with the predicted effluent variability).

#### **(ii) Trading**

A proposed activity that will result in a new or expanded upstream source may be allowed where the applicant agrees to implement or finance upstream controls of point or nonpoint sources sufficient to offset the water quality effects of the proposed activity. Where such trading occurs upstream of an OTRW segment, tier 3 requirements will be considered satisfied where the applicant can show that water quality at all points within the study area will be either maintained or improved. The applicant and Tribe must document a technical rationale for the trade that ensures a margin of safety sufficient to offset any uncertainties (e.g., in loading reductions or effluent quality). This may be addressed using approaches similar to those used to prepare watershed cleanup or restoration plans.

### **(c) Temporary and Limited Effects**

A direct or upstream source that would result in a temporary and limited effect on OTRW water quality



may be authorized. The decision regarding whether effects will be temporary and limited will be handled on a case-by-case basis. As a non-binding rule of thumb, activities with durations less than one month and resulting in less than a 5% change in ambient concentration will be deemed to have temporary and limited effects. Decisions on individual proposed activities may be based on the following factors: (a) length of time during which water quality will be lowered, (b) percent change in ambient concentrations, (c) parameters affected, (d) likelihood for long term water quality benefits to the segment (e.g., as may result from dredging of contaminated sediments), (e) degree to which achieving applicable water quality standards during the proposed activity may be at risk, and (f) potential for any residual long term influences on existing uses.

### **(3) TIER 2 PROCEDURES**

#### **(a) Waters Qualifying for Tier 2 Protection**

##### **(i) Qualification Criteria**

The Tribe will determine whether a segment qualifies for tier 2 protection within 30 days of receiving a complete application for a regulated activity that triggers an antidegradation review. Such decisions will be based on all relevant information including any ambient water quality (i.e., physical, chemical, biological) data submitted by the applicant. The criteria that will be used in identifying high quality tier 2 waters are described below.

Decisions regarding whether a water body is high quality and subject to tier 2 protection requirements will be based on a best professional judgment of the overall quality and value of the segment. In general, waters with existing quality that is better than necessary to support aquatic life and/or recreation uses will be considered high quality and subject to tier 2 requirements. The factors that may be considered in determining whether a segment satisfies the high quality test include the following: (a) existing aquatic life uses, (b) existing recreational, cultural or aesthetic uses, (c) existing water quality for all parameters (i.e., subject to the availability of monitoring data or other information for the segment, upstream segments, or for comparable segments), and (d) the overall value of the segment from an ecological and public use perspective. Note that attainment of both aquatic life (fishable) and recreational (swimmable) uses is not required in order to qualify for tier 2 protection.

##### **(ii) Presumptive Applicability**

In general, it is presumed that a majority of tribal waters qualify for tier 2 protection. However, there may be some tribal waters where aquatic life and recreation goal uses are not attained. It is the intent of these procedures to apply only existing use (tier 1) protection to such waters. There also may be tribal waters where one or both of the goal uses are attained, but existing water quality is not “better than necessary” to support the goal uses (i.e. assimilative capacity does not exist for a number of parameters). It is the intent of these procedures to apply only existing use (tier 1) protection to such waters provided that there is no assimilative capacity for each of the parameters to be affected by the proposed activity.

(iii) Criteria Exceedances

Exceedances of one or more narrative or numeric water quality criteria may constitute nonattainment sufficient to preclude tier 2 protection. For waters where exceedances have occurred and continue to occur for one or more parameters, a judgment will be made based on the factors identified above and in consideration of information submitted by the applicant and by the public. As a general rule, tier 2 protection will be applied even where the criteria for some parameters are not always satisfied.

(iv) Characterizing Existing Quality

The Tribe will use available water quality data. This water quality data should be no more than 5 years in age or the most recent available data. Characterization of existing quality will appropriately consider spatial and temporal variability. Assimilative capacity will be identified for the appropriate critical condition which, depending on the situation, may be at high or low flow.

(b) Significant Degradation

(i) Significance Factors

Once it is determined that tier 2 protection applies to a water body, the next step in the review process is to determine whether the degradation that will result from the proposed activity is significant enough to warrant further review. The likelihood that a proposed activity will pose significant degradation will be judged by the Tribe for all water quality parameters that would be affected by the proposed activity. Such significance judgments will be made on a parameter-by-parameter basis. The Tribe will identify and eliminate from further review only those proposed activities that present insignificant threats to water quality. Proposed activities will be considered significant and subject to tier 2 requirements where significant degradation is projected for one or more water quality parameters. Because determinations of significant degradation are most appropriately made based on case-specific information, these procedures do not provide rigid decision criteria for judging significant changes in water quality. Rather, significant degradation may be demonstrated with respect to any one (or a combination) of the following factors: (a) percent change in ambient concentrations predicted at the appropriate critical condition(s), (b) the difference, if any, between existing ambient quality and ambient quality that would exist if all point sources were discharging at permitted loading rates, (c) percent change in loadings (i.e., the new or expanded loadings compared to total existing loadings to the segment or, for existing facilities only, the proposed permitted loadings compared to the existing permitted loadings), (d) percent reduction in available assimilative capacity, (e) nature, persistence, and potential effects of the parameter, (f) potential for cumulative effects, (g) predicted impacts to aquatic biota, (h) degree of confidence in any modeling techniques utilized, (i) the difference, if any, between permitted and existing effluent quality, and (j) the duration of the proposed activity or the expected water quality changes.

1. Required Analyses. Based on one or more of the significance factors identified above, the Tribe may make determinations of significant degradation based on appropriate modeling techniques coupled with detailed characterization of the existing background water quality. However, determinations of significance need not be complicated, data-intensive, or resource

intensive. It is not the intent of these procedures to require detailed analyses to address each of the factors identified above. Where appropriate, determinations of significance may be based on simple analyses. For example, proposed activities may be judged as insignificant where: (a) available dilution exceeds 100:1, (b) the proposed activity would not result in a significant increase of loadings for any parameter, (c) there is a reasonable expectation and substantial potential for the proposed activity to result in a net long-term water quality benefit to the segment, or (d) the projected water quality changes are temporary and limited. Likewise, a significant increase in loading for any given parameter may be the basis for concluding that significant degradation will occur.

2. Persistent Toxics. The significance of proposed new or expanded sources of bioaccumulative or other persistent toxic substances will be judged depending upon, for example, existing loadings of the substances to the segment from all sources. The Tribe's interpretation of monitoring data or other information indicating fish tissue or sediment accumulation in the watershed will be considered with respect to judging the significance of new or expanded sources of persistent toxic substances.

(ii) General Guidelines

As a non-binding rule of thumb, proposed activities that would lower ambient quality of any parameter by more than 5%, reduce the available assimilative capacity by more than 5%, or increase pollutant loadings to a segment by more than 5% will be presumed to pose significant degradation. The intent of this guideline is to establish a de minimis test of significance and to eliminate from further review only those proposed activities that will result in truly minor changes in water quality. Regardless of other considerations, any proposed activity or activities that will cumulatively lower a water quality parameter, lead to a reduction in assimilative capacity, or increase in pollutant loading greater than 10% shall be considered significant degradation.

(iii) By-passing the Significance Test

Where available information clearly indicates that practicable non-degrading or less-degrading alternatives to lowering existing water quality exist, the Tribe may by-pass the significant degradation requirements and direct the applicant to demonstrate the necessity of the degradation pursuant to section (4)(c) below.

(iv) Trading

The Tribe may also conclude that a proposed activity will not pose significant degradation based upon the specifics of any upstream/downstream trading that has been agreed to by the project applicant. The applicant and Tribe must document a technical rationale for the trade that ensures a margin of safety sufficient to offset any uncertainties (e.g., in loading reductions or effluent quality). This may be addressed using approaches similar to those used to prepare watershed cleanup or restoration plans.

(v) Determine Significance of Proposed Activity

Proposed regulated activities determined to be significant by the Tribe shall be subject to the tier 2

review requirements described below. If the Tribe determines that an activity will not pose significant degradation for any parameter, no further antidegradation tier 2 requirements shall apply; however, such activities must still meet all technology or water quality-based control requirements or conditions of the permit or the water quality certification.

(c) Evaluation of Alternatives to Lower Water Quality

(i) Role of the Tribe

The primary emphasis of the Tribe's tier 2 antidegradation reviews will be to determine whether practicable non-degrading or less-degrading alternatives to allowing the proposed activity are available. The Tribe will first evaluate any alternatives analysis submitted by the applicant for consistency with the minimum requirements described below. If an acceptable analysis of alternatives was completed and submitted to the Tribe as part of the initial project proposal, no further evaluation of alternatives will be required of the applicant. If an acceptable alternatives analysis has not been completed, the Tribe will work with the project applicant to ensure that an acceptable alternatives analysis is developed.

(ii) Role of the Applicant

The applicant of any proposed activity that would significantly lower water quality in a tier 2 segment is required to prepare an evaluation of alternatives. The evaluation is required, at a minimum, to provide substantive information pertaining to the costs and environmental impacts associated with the following alternatives: (a) pollution prevention measures; (b) reduction in scale of the project, (c) water recycle or reuse, (d) process changes, (e) innovative treatment technology, (f) advanced treatment technology, (g) seasonal or controlled discharge options to avoid critical water quality periods, (h) improved operation and maintenance of existing treatment system, and (i) alternative discharge locations.

(iii) Preliminary Determination

Once the Tribe has determined that feasible alternatives to allowing the degradation have been adequately evaluated, the Tribe shall make a preliminary determination regarding whether practicable non-degrading or less-degrading alternatives are available. This determination will be based primarily on the alternatives analysis developed by the project applicant, but may be supplemented with other information or data. If the Tribe determines that practicable alternatives to allowing the degradation do not exist, the Tribe shall continue with the tier 2 review and document the substance and basis for that preliminary determination using the antidegradation review worksheet.

(iv) If Practicable Alternatives Exist

If the Tribe makes a preliminary determination that one or more practicable alternatives to allowing the degradation exists, the Tribe will work with the project applicant to revise the project design. If a mutually-acceptable resolution cannot be reached, the Tribe will document the alternatives analysis findings and provide public notice of a preliminary decision, based on antidegradation tier 2 requirements, to deny the activity.

(v) Role of Public

Based upon comments and information received during the public comment period, the Tribe may reverse its preliminary determination regarding the availability of practicable alternatives to allowing the degradation.

(d) Determination of Socio-Economic Importance

(i) Role of the Applicant

The applicant is required to demonstrate the social and economic importance of the proposed activity. The factors to be addressed in such a demonstration may include, but are not limited to, the following:

(a) employment (i.e., increasing, maintaining, or avoiding a reduction in employment), (b) increased production, (c) improved community tax base, (d) housing, and (e) correction of environmental or public health concern.

(ii) Role of the Tribe

Prior to authorizing any proposed activity that would significantly lower the water quality of a tier 2 water, the Tribe shall ensure that the proposed activity will provide important social or economic development in the area in which the waters are located. In making a preliminary determination, the Tribe will rely primarily on the demonstration made by the applicant. However, the Tribe may weigh the applicant's demonstration against counterbalancing socio-economic costs associated with the proposed activity, such as projected negative socio-economic effects on the community and projected environmental effects (i.e., those determined in the significance or alternatives analysis decision processes).

(iii) Additional Information Requirements

If information available to the Tribe is not sufficient to make a preliminary determination regarding the socio-economic costs or benefits associated with the proposed activity, the Tribe may require the project applicant to submit specific items of information needed to support a determination of importance. The types of information required of the applicant will be determined on a case-by-case basis, but may include: (a) information pertaining to current aquatic life, recreational, or other water body uses, (b) information necessary to determine the environmental impacts that may result from the proposed activity, (c) facts pertaining to the current state of economic development in the area (e.g., population, area employment, area income, major employers, types of businesses), (d) government fiscal base, and (e) land use in the areas surrounding the proposed activity.

(iv) Mitigation

The applicant may voluntarily submit a proposal to mitigate the adverse environmental effects of the proposed activity (e.g., in-stream habitat improvement, bank stabilization/upgraded riparian vegetation). Such mitigation plans should describe the proposed mitigation measures and the costs of such mitigation. Such a mitigation plan will not release the Tribe from its obligation to require any practicable non-degrading or less-degrading alternative under this procedure, nor should such plans have any effect on the effluent limitations to be included in any NPDES permit (except possibly where a previously -

completed mitigation project has resulted in an improvement in background water quality that affects the water quality-based limit). Such mitigation plans will be developed and implemented by the applicant as a means to further minimize the environmental effects of the proposed activity and to increase its socio-economic importance. It is anticipated that an effective mitigation plan may, in some cases, allow the Tribe to conclude “importance” and to authorize proposed activities that could otherwise not be authorized pursuant to the Tribe’s antidegradation requirements. Mitigation plans should include criteria for determining success of the mitigation, legal commitment for follow-up monitoring and additional work if necessary, and where practicable, a commitment to implement the mitigation before the project and water quality degradation are allowed.

(v) Preliminary Determination

Once the tribe has reviewed available information pertaining to the socio-economic importance of the proposed activity, the Tribe shall make a preliminary determination regarding importance. If the Tribe determines that the proposed activity has social or economic importance in the area in which the affected waters are located, the Tribe shall continue with the tier 2 review and document the substance and basis for that preliminary determination using the antidegradation review worksheet.

(vi) If Importance is Found Lacking

If the Tribe makes a preliminary determination that the proposed activity does not have social or economic importance in the area in which the affected water is located, the Tribe will document that antidegradation review finding and provide public notice of a preliminary decision, based upon antidegradation tier 2 requirements, to deny the proposed activity.

(vii) Role of Public

Because the socio-economic importance of a proposed activity is a question best addressed by local interests, the Tribe will give particular weight to the comments submitted by local governments, land use planning authorities, and other local interests in determining whether the balancing of benefits and costs were an appropriate basis for the Tribe’s preliminary decision. Based upon comments and information received during the public comment period, the Tribe may reverse its preliminary decision regarding the social or economic importance of a proposed activity.

(e) Ensure Full Protection of Existing Uses

Prior to authorizing any proposed activity that would significantly degrade a tier 2 water, the Tribe shall ensure that existing uses will be fully protected consistent with the tier 1 implementation procedures provided below.

(f) Ensure Implementation of Tribe-Required Point and Nonpoint Source Controls

(i) Role of Tribe

Prior to authorizing a regulated activity that would significantly degrade a tier 2 water, the Tribe shall determine that compliance with required controls on all point and nonpoint sources in the zone of

influence has been assured. This requirement is intended to ensure that regulated activities that will result in water quality degradation for a particular parameter will not be authorized where there are existing unresolved compliance problems involving the same parameter in the zone of influence of the proposed activity. The “zone of influence” is determined as appropriate for the parameter of concern, the characteristics of the receiving water body (e.g., lake versus river, etc.), and other relevant factors. Where available, a watershed-scale restoration plan may be the basis for identifying the appropriate zone of influence. The Tribe may conclude that such compliance has not been assured where facilities are in noncompliance with their NPDES permit limits. However, the existence of schedules of compliance for purposes of NPDES permit requirements will be taken into consideration in such cases. Where there are nonpoint sources that are regulated activities, the Tribe shall determine that any Tribe-required controls or BMPs have been achieved or that a plan that assures such compliance has been developed. In other words, required controls on existing regulated sources in the area need not be finally achieved prior to authorizing a proposed activity provided there is reasonable assurance of future compliance.

(ii) Preliminary Determination

Based upon available data or other information, the Tribe will make a preliminary determination regarding whether compliance with required controls on point and nonpoint sources in the zone of influence has been assured. If the preliminary determination is that such compliance has been assured, the Tribe shall continue with the tier 2 review and document the substance and basis for that preliminary determination using the antidegradation review worksheet.

(iii) Controls have not been Assured

If the Tribe makes a preliminary determination that compliance with required point and nonpoint source controls has not been assured, the Tribe shall document that antidegradation review finding and provide public notice of a preliminary decision based upon tier 2 requirements, to deny the proposed activity.

(iv) Role of Public

Based upon comments and information received during the public comment period, the Tribe may reverse its preliminary decision regarding the degree to which compliance with required point and nonpoint source controls has been assured.

**(4) TIER 1 PROCEDURES**

(a) Waters Subject to Tier 1 Requirements

All tribal waters are subject to tier 1 protection. Those which are *only* subject to tier 1 protection are those waters that have not been classified as an OTRW and that do not currently possess the overall water quality or value necessary to meet the tier 2 applicability test. In general, tier 1-only waters are those segments where fishable and swimmable goal uses are not attained, or where assimilative capacity does not exist for any of the parameters that would be affected by the proposed activity.

(b) Two-Part Requirement: Protect Water Quality and Uses



The tribal antidegradation policy requires that existing uses, and the water quality necessary to protect existing uses, shall be maintained and protected.

(c) Ensure Water Quality Necessary to Maintain and Protect Existing Uses

(i) Confirm that Designated Uses Address Existing Uses

Prior to authorizing any proposed activity, the Tribe shall ensure that water quality sufficient to protect existing uses fully will be achieved. The Tribe must decide whether the water body currently supports, or has supported since November 28, 1975, an existing use that has more stringent water quality requirements than the currently designated uses. In making this decision, the Tribe will focus on whether a higher designated use (i.e., based on the tribal use designations) should be assigned to the water body to reflect an existing use. Where the Tribe determines that the currently designated uses appropriately reflect the existing water body uses, the Tribe shall document that preliminary determination using the antidegradation review worksheet. In such cases, the water quality control requirements necessary to protect designated uses will be presumed to also fully protect existing uses.

Where the designated uses are found to be appropriate but there is clear and convincing evidence that the numeric criteria adopted would not adequately protect existing uses, the Tribe may either apply more stringent numeric criteria that will protect existing uses (where defensible criteria are readily available) or pursue development of criteria that will protect existing uses. The applicant may be required to assist with any needed studies. The Tribe will apply appropriate, defensible criteria as necessary to protect existing uses, and propose any needed revisions to the water quality standards for the affected segments at the earliest rulemaking opportunity.

(ii) Where Designated Uses do not Address Existing Uses

The procedure outlined in paragraph (i) above should ensure that designated uses appropriately address existing uses pursuant to tribal and federal requirements. Where this is not the case, a revision to tribal standards may be needed because, pursuant to the tribal and federal water quality standards regulations, designated uses are required to reflect, at a minimum, all attainable (including currently attained, or existing) uses. Where existing uses with more stringent protection requirements than currently designated uses are identified, the Tribe will ensure levels of water quality necessary to protect existing uses fully and, at the earliest opportunity, propose that appropriate revisions to the designated uses be adopted into the tribal water quality standards. However, the Tribe will not delay tier 1 protection pending any revision.

(iii) Require Water Quality Necessary to Protect Existing Uses

Where the Tribe determines that the water body currently supports, or has supported since November 28, 1975, an existing use that has more stringent water quality requirements than the currently designated uses, the Tribe shall identify the level of water quality necessary to protect existing uses fully for the parameters in question. The Tribe's estimate of the level of water quality required will be based on numeric tribal water quality criteria, narrative tribal criteria, or federal criteria guidance. In general, water quality sufficient to maintain and protect existing uses for the parameters in question will be



assured using the same procedures that would have been followed had the water quality standards (i.e., uses and criteria) been appropriately assigned to begin with. The preliminary finding regarding existing uses and the level of water quality necessary to protect existing uses will be documented using the antidegradation review worksheet.

(iv) Trading

The procedures outlined above describe one way in which a new or expanded discharge can be allowed consistent with tier 1 requirements. For example, if existing water quality for a given parameter exceeds the criteria determined appropriate for the protection of existing uses (as determined above), one option to meet tier 1 requirements would be to require a new or expanded discharge to meet those criteria at the end of pipe, or some other effluent requirement that is specified in a watershed cleanup or restoration plan. As an alternative, a proposed activity that will result in a new or expanded source could also be allowed where the applicant agrees to implement or finance upstream controls of point or nonpoint sources sufficient to protect existing uses fully. Under such a trading arrangement, the effluent limits for the new or expanded source may be less stringent than criteria at end of pipe, provided that the net effect of the trade is that the level of water quality necessary to protect existing uses will be achieved. The applicant and Tribe must document a technical rationale for the trade that ensures a margin of safety sufficient to offset any uncertainties (e.g., in loading reductions or effluent quality). This may be addressed using approaches similar to those used to prepare watershed cleanup or restoration plans.

(d) Ensure Full Protection of Existing Uses

(i) Presume that Applicable Criteria Will Protect Existing Uses

The procedure just discussed presumes that implementation of the water quality criteria established to protect designated uses will also incidentally protect existing uses. However, situations may arise where a proposed (regulated) activity will impair or eliminate an existing use in a manner that cannot readily be predicted with the water quality criteria established to protect designated uses. Examples include situations where appropriate and specific water quality criteria are not yet in place (e.g., impacts to aquatic life habitat that may result from the discharge of “clean” sediment).

(ii) Where Applicable Criteria Will Not Protect Existing Uses

Where the Tribe concludes that existing uses will be impaired by a regulated activity, the Tribe will work with the project applicant to revise the project design such that existing uses will be maintained and protected. If a mutually-acceptable resolution cannot be achieved, the Tribe will document the basis for its preliminary determination regarding the loss or impairment of existing uses that will occur using the antidegradation review worksheet, identify appropriate control requirements, up to and including denial of the proposed activity, and provide public notice of its preliminary decision. Where possible, such effects will be predicted based upon quantitative methods. In predicting effects, the Tribe will use all information submitted by the applicant, available modeling techniques, and best professional judgment, as appropriate.

(iii) Where Loss or Impairment of Existing Uses Is Not Predicted

Where the Tribe determines that implementation of the applicable water quality criteria will fully protect the existing uses, that finding will be documented using the antidegradation review worksheet.

**(5) DOCUMENTATION, PUBLIC REVIEW, AND INTERGOVERNMENTAL COORDINATION PROCEDURES**

(a) Documentation of Antidegradation Review Findings

The Tribe will complete an antidegradation review for all proposed regulated activities that may have some effect on surface water quality. The findings of all antidegradation reviews will be documented using an antidegradation review worksheet, a copy of which is in Appendix B.

(b) Public Review Procedures

(i) Public Notice Requirements

Generally, the regulated activities triggering an antidegradation review will be generated by or require a permitting action by one or more federal agencies, including but not limited to the U.S. Environmental Protection Agency, the U.S. Army Corps of Engineers, the Bureau of Indian Affairs, and/or the Bureau of Reclamation. As part of the public notice requirements for these agencies, the Tribe will provide a copy of the antidegradation worksheet which may be incorporated into the public notice issued by these cooperating agencies. Where an antidegradation review results in the identification of water quality protection requirements that may affect activities other than the proposed activity under review (e.g., the review identifies an existing use that is not currently designated or a numeric criterion that is not stringent enough to protect an existing use), the Tribe will make a reasonable effort to inform potentially affected entities located on and off the Reservation so that they have an opportunity to review and comment on the basis for the Tribe's antidegradation review.

(ii) Content of Public Notice

If the Tribe takes an action without a federal partner, a public notice will be prepared and published in a local newspaper for two weeks with comments taken for no less than two weeks after the public notice is published in the newspaper. In preparing the public notice, the Tribe will at a minimum: (a) outline the substance and basis of the Tribe's antidegradation review conclusions, including the preliminary finding regarding whether to authorize the proposed activity, (b) request public input on particular aspects of the antidegradation review that might be improved based on public input (e.g., existing uses of the water body by the public, the preliminary determination on socio-economic importance), (c) provide notice of the availability of the antidegradation review worksheet, (d) provide notice of the availability of any introductory public information regarding the antidegradation program, and (e) include a reference to the Tribe's antidegradation policy.

(c) Intergovernmental Coordination Procedures: Minimum Process

At a minimum, the Tribe will provide copies of the completed antidegradation review worksheet or the public notice to appropriate tribal, state, and federal government agencies along with a written request to provide comments by the public comment deadline.

## APPENDIX B. ANTIDegradation REVIEW WORKSHEET

### ANTIDegradation REVIEW WORKSHEET

1. Name of Reviewer: \_\_\_\_\_

Name of Receiving Water: \_\_\_\_\_

Watershed: \_\_\_\_\_

Segment Location (Land Description): \_\_\_\_\_

Stream Classification: \_\_\_\_\_

Other: \_\_\_\_\_

2. Brief Description of Proposed Activity:

ID Number if any: \_\_\_\_\_

3. Which tier(s) of antidegradation apply?

\_\_\_\_\_ Tier 3 - go to question 4

\_\_\_\_\_ Tier 2 - go to question 7

\_\_\_\_\_ Tier 1 - go to question 13

Basis for conclusion:

### **Tier 3 Questions**

4. Will the proposed activity result in a permanent new or expanded source of pollutants directly to an OTRW segment (see section (2)(a) of the implementation procedure)?

\_\_\_\_\_ yes - recommend denial of a proposed activity

\_\_\_\_\_ no

Basis for conclusion:

5. If the proposed activity will result in a permanent new or expanded source of pollutants to a segment upstream from an OTRW segment, will the proposed activity affect OTRW water quality (see section (2)(b) of the implementation procedure)?

\_\_\_\_\_ yes - recommend denial of proposed activity

\_\_\_\_\_ no

Basis for conclusion:

6. If the proposed activity will result in a non-permanent new or expanded source of pollutants to OTRW segment or a segment upstream from an OTRW segment, will the proposed activity result in “temporary and limited” effects on OTRW water quality (see section (2)(c) of the implementation procedure)?

\_\_\_\_\_ yes

\_\_\_\_\_ no - recommend denial of proposed activity

Basis for conclusion:

**Tier 2 Questions**

7. Does the segment qualify for tier 2 protection based on the applicable criteria (see section (3)(a) of the implementation procedure)?

\_\_\_\_\_ yes

\_\_\_\_\_ no

Basis for conclusion:

8. Will the proposed activity result in significant degradation (see section (3)(b) of the implementation procedure)?

\_\_\_\_\_ yes

\_\_\_\_\_ no - recommend approval of the activity

\_\_\_\_\_ significance test by-passed due to availability of a reasonable less degrading alternative (see sections (3)(b)(iii) and (3)(c) of the implementation procedure)

Basis for conclusion:

9. Has the applicant completed an adequate evaluation of alternatives and demonstrated that there are not practicable alternatives to allowing the degradation (see section (3)(c) of the implementation procedure)?

\_\_\_ yes

\_\_\_ no - recommend denial of the proposed activity

Basis for conclusion:



10. Has the applicant demonstrated that the proposed activity will provide important socio-economic development in the area in which the affected waters are located (see section (3)(d) of the implementation procedure)?

\_\_\_\_\_ yes

\_\_\_\_\_ no - recommend denial of the proposed activity

Basis for conclusion:

11. Will existing uses be fully protected consistent with the Tier 1 procedures outlined by questions 14-16 below?

\_\_\_\_\_ yes

\_\_\_\_\_ no- recommend denial of proposed activity

Basis for conclusion:

12. Has compliance with required controls on point and nonpoint sources in the zone of influence been assured (see section (3)(f) of the implementation procedures)?

\_\_\_\_\_ yes

\_\_\_\_\_ no - recommend denial of the proposed activity

**Basis for conclusion:**

**Tier 1 Questions**

13. The basis for concluding that tier 2 requirements do not apply is as follows (see section (4)(a) of the implementation procedure):

14. Do the currently designated uses appropriately reflect the existing water body uses (see section (4)(c) of the implementation procedures)?

\_\_\_\_\_ yes

\_\_\_\_\_ no

Basis for conclusion:

15. If the answer to question 14 was no, what water quality criteria requirements will ensure protection of such existing uses (see section (4)(d)(i) of the implementation procedure)? (Indicate parameters and applicable water quality criteria.)

16. Will existing uses be fully maintained and protected (see section (4)(d)(ii) of the implementation procedure)?

\_\_\_\_\_ Yes

\_\_\_\_\_ no - recommend denial of the proposed activity

Basis for conclusion:

**Preliminary Decision**

17. Based on the above, can the proposed activity be authorized pursuant to the Tribe's antidegradation policy?

\_\_\_\_\_ yes

\_\_\_\_\_ no

Basis for conclusion:

Signature: \_\_\_\_\_

Date: \_\_\_\_\_