Presented below are water quality standards that are in effect for Clean Water Act purposes.

EPA is posting these standards as a convenience to users and has made a reasonable effort to assure their accuracy. Additionally, EPA has made a reasonable effort to identify parts of the standards that are not approved, disapproved, or are otherwise not in effect for Clean Water Act purposes.

Eastern Band of Cherokee Indians (EBCI) Administrative Regulations
Title 15, Subchapter B: Surface Water Quality Standards

Effective March 28, 2019

The following provisions are in effect for Clean Water Act purposes with the exception of the following:

- EPA has not completed review of the specific conductance and numeric dissolved solids criteria that protect the ceremonial, recreation, cold water aquatic habitat, and warm water aquatic habitat designated uses
- EPA has not completed review of the threshold odor and radioactive substance criteria that protect the public water supply designated use

Eastern Band of Cherokee Indians
Water Quality Standards:
Administrative Rules

Table of Contents

1 Introduction

The Eastern Band of Cherokee Indians recognizes Tribal waters are the source of life, tranquility, and prosperity. Tribal waters include, but are not limited to, streams, rivers, natural springs, and wetlands that support a diverse array of environmental, cultural, and economic values. The Tribe recognizes that protecting these waters requires a strategic and integrated approach across all Tribal watersheds to encourage prudent use of the Tribe's water resources and enhance its quality and productivity.

Chapter 113 of the Cherokee Tribal Code establishes the Division of Agriculture and Natural Resources (DANR) as the primary entity responsible for administering Tribal laws for managing and protecting the natural environment of the Tribe, including Cherokee waters. More specifically, Cherokee Code Chapter 113E (approved by Tribal Council on 28 September 2017) sets forth the Water Quality Code for Tribal Waters. The Water Quality Code states that the DANR is responsible for establishing water quality standards to facilitate the following management goals:

1. restore, maintain, and enhance the water quality for all beneficial uses of tribal waterbodies,
2. protect human health, social welfare, aquatic life, wildlife and the economic well-being of the Eastern Band of Cherokee Indians;
3. ensure that no contaminants are discharged into Cherokee waters from either point sources or non-point sources without being given the degree of treatment or control necessary to prevent pollution;
4. establish numeric and narrative standards that provide a legal basis for water pollution control; and
5. encourage prudent use of the Tribe's water resources and enhance its quality and productivity as stated in goals of the Cherokee Legacy Plan.

The following sections constitute the Water Quality Standards Administrative Rules, which outline the DANR departmental policies and procedures that will allow the division to meet the above management goals.

2 Definitions

1. **Acute toxicity** means a relatively short-term lethal or other adverse effect to a test organism caused by pollutants, usually occurring within four days for fish and large invertebrates and may apply at shorter intervals for smaller organisms. Refer to EPA approved species as listed in Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms, EPA/600/4-90/027F.
2. **Ceremonial and religious water use** means activities involving traditional Native American spiritual practices which involve, among other things, primary (direct) contact with water.
3. **Cherokee waters** means all water within the exterior boundaries of the Qualla Boundary and all other lands held in trust for the Eastern Band of Cherokee Indians, including but not limited to lakes, ponds, reservoirs, artificial impoundments, streams, rivers, springs, seeps, wetlands, and any subterranean waters flowing in well-defined channels and having a demonstrable hydrologic connection with the surface.
4. **Chronic toxicity** means the lowest concentration of a constituent causing observable effects (i.e., considering lethality, growth, reduced reproduction, etc.) over a relatively long period of

time. Refer to EPA approved species as listed in Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, EPA/600/4-91/002.

5. **Common Plan of Development or Sale** mean a contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under one common plan. The "common plan" of development or sale is broadly defined as any announcement or piece of documentation (including a sign, public notice or hearing, sales pitch, advertisement, drawing, permit application, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating construction activities may occur on a specific plot.
6. **EPA** means the United States Environmental Protection Agency.
7. **Geometric mean** means the nth root of a product of "n" factors.
8. **Mixing zone or dilution zone** means a limited area determined by the Tribe or volume of water where initial dilution of a discharge takes place and where numeric water quality criteria can be exceeded but acutely toxic conditions are prevented from occurring.
9. **Natural background conditions** means background concentration due only to non-anthropogenic sources, i.e., non-manmade sources.
10. **NPDES** means a National Pollutant Discharge Elimination System permit issued by the EPA.
11. **Outstanding Reservation Resource Waters (ORRW)** means high quality waters with unique aspects such as aquatic life, water quality or quantity, riparian habitat or other unique qualities designated by the Eastern Band of Cherokee Indians that constitute an outstanding resource such as waters in parks, wildlife refuges, and waters of exceptional recreational or ecological significance. Any permanent new or expanded source of pollutants in these waters is prohibited.
12. **pH** means the negative logarithm of hydrogen ion concentration.
13. **Pollutant Minimization Plan (PMP)** means an organized set of activities developed by the Tribe, focused on achieving reduction of the targeted pollutant in the facility's discharge and through means other than treatment at the facility, in the case of nonpoint source pollution.
14. **Post-Development** refers to the extent and distribution of land cover types anticipated to occur under conditions of full development of the disturbed area(s).
15. **Practicable** means technologically possible, able to be put into practice, and economically viable.
16. **Pre-Development** refers to the extent and distribution of land cover types present before the initiation of land development activity, assuming all land uses prior to land disturbing activity are in good condition.
17. **Primary contact recreation** means activities in which a person would have direct contact with water to the point of complete submergence, including but not limited to skin diving, swimming, and water skiing.
18. **Stormwater** means stormwater runoff, snowmelt runoff, and surface runoff and drainage.
19. **"SWPPP" (Stormwater Pollution Prevention Plan)** means a site-specific, written document that, among other things: (1) identifies potential sources of stormwater pollution at the construction site; (2) describes stormwater controls to reduce or eliminate pollutants in stormwater discharges from the construction site; and (3) identifies procedures the operator will implement to comply with the terms and conditions of the construction general permit.
20. **Temperature** means water temperature expressed in degrees Celsius (C) or Fahrenheit (F).

21. **Total dissolved solids** means all of the dissolved solids in a water. TDS is measured on a sample of water that has passed through a very fine mesh filter to remove suspended solids. The water passing through the filter is evaporated and the residue represents the dissolved solids.
22. **Toxicity** means acute and/or chronic toxicity.
23. **Toxic substance or toxicant** means any substance or combination of substances which after discharge and upon exposure, ingestion, inhalation, or assimilation into any organism either through the environment or indirectly through food chains has the potential to produce adverse health effects.
24. **Tribal reserve lands** means Eastern Band of Cherokee Indians lands that are held in trust and have no possessory holder, being specifically designated by the Tribe as reserve lands to be conserved for the use and enjoyment of all Tribal members.
25. **Tribal resource waters (TRW)** means waters classified by the Eastern Band of Cherokee Indians that are of such exceptional recreational or ecological significance that water quality with unique aspects such as aquatic life, water quality or quantity, riparian habitat, or other unique qualities shall be protected.
26. **Turbidity** means the clarity of water expressed as nephelometric turbidity units (NTU) and measured with a calibrated turbidimeter.

3 Water Designations

The Tribal waters support a diverse array of cultural, environmental, and economic values, such as spiritual healing, cleansing, drinking water, recreation, and habitat uses.

3.1 Designation of Uses

The uses of Cherokee waters are as follows:

1. **Ceremonial Use (C)** - The quality of water is suitable for traditional purposes by members of the Eastern Band of Cherokee that involve immersion and intentional or incidental ingestion of water.

2. **Public Water Supply Use (PWS)** - The quality of water is suitable for a source of raw water supply for drinking and food processing purposes.

3. **Recreation Use (REC)** - The quality of water is suitable for recreational activities in or on the water when the ingestion of small quantities of water is likely to occur, such as swimming, fishing, wading, and other activities likely to result in immersion.

4. **Cold-Water Aquatic Habitat Use (CAH)** - The water quality is suitable for propagation and survival of cold water aquatic communities such as trout.

    a. Water bodies designated as CAH may be further classified as CAH Class 1 or CAH Class 2, based on their bioclassification, which can be determined by habitat assessment and investigation of benthic macroinvertebrate assemblages.

    b. CAH Class 1 are those waters having conditions which will sustain and allow for the propagation and protection of salmonids on a year-round basis.

c. CAH Class 2 are those waters that allow for the year-round survival of salmonids but may not have conditions (i.e., adequate reproductive habitat and temperatures tolerated by juvenile salmonid species) to meet all life-history requirements. These waters also support propagation and maintenance of cool and warm-water species.

5. **Warm-Water Aquatic Habitat Use (WAH)** - The water quality is suitable for the propagation and maintenance of a healthy, well-balanced population of warm water fish, wildlife, and other aquatic life.

3.2 Designation of Tribal Waterbodies

1. Cherokee Waters are contained in the following sub-watersheds:

Sub-Watershed	HUC Code/Description
Cheoah River	0601020401
Hiwassee River	0602000207
Oconaluftee River	0601020302
Raven Fork	0601020302
Soco Creek	0601020302

2. The following waterbodies are designated as **PWS**:
   The Oconaluftee River and all its tributaries upstream of the raw-water intake for the Tribal Drinking Water Plant (N 35.499955, W 83.310232).

3. The following waterbodies are designated as **WAH**:
   The Tribal waters on the southern side of the Tuckasegee River, upstream and downstream of the confluence with the Oconaluftee River.

4. The following waterbodies are designated as **CAH Class I:**
   (Reserved for future use.)

5. The following waterbodies are designated as **CAH Class 2**:
   (Reserved for future use.)

6. All Cherokee Waters are designated for **Ceremonial Use**.

7. All other Cherokee Waters not specifically mentioned in this section are designated for **Recreation** and **CAH Uses**.

8. When multiple uses are recognized for a waterbody, the designated use with the most stringent water quality criteria shall be the applicable criteria for each parameter.

9. If the Division of Agriculture and Natural Resources (DANR) determines that the designated use is not appropriate, the Tribe will evaluate the highest attainable use and, if appropriate, revise the designation in accordance with 40 CFR 131.10.

4 General Water Quality Criteria

1. All surface waters, including those within the mixing zone, must be capable of supporting aquatic life and shall be free from:
    a. Substances that settle to form objectionable deposits or sediments,
    b. Floating debris, scum, oil, and other floating materials that form a nuisance or interfere with designated water uses,
    c. Material or practices that produce objectionable color, odor, taste, or turbidity,
    d. Substances which are acutely toxic or produce adverse physiological or behavioral responses in humans, animals, plants, fish and other aquatic life,
    e. Substances which produce undesirable aquatic life or result in the dominance of nuisance species, and
    f. Substances which cause fish flesh tainting.

2. When multiple criteria for the same parameter are assigned to a waterbody, the most stringent criterion shall be the applicable criterion.

3. Unless otherwise specified, parameters which are naturally variable constituents (e.g., pH, temperature, turbidity) should not be exceeded in more than 10% of samples.

4. All toxics criteria found in Tables 1 and 2 (Appendix A), should not exceed the magnitude listed more than once in a three-year period.

5. On occasion, there will be natural events, such as floods or other extreme weather events, that may cause a temporary exceedance(s) of the criteria values. When caused by natural events, such exceedances shall not be viewed as adverse to the designated use.

4.1 Surface Water Criteria

All surface waters shall meet the following criteria:

4.1.1 Nutrients Criteria

Except as due to natural conditions, nutrients shall not be allowed in concentrations that render the waters unsuitable for the existing or designated uses due to objectionable algal densities, nuisance aquatic vegetation, diurnal fluctuations in dissolved oxygen, or pH indicative of excessive photosynthetic activity, detrimental changes to the composition of aquatic ecosystems or other indicators of use impairment caused by nutrients.

4.1.2 Flow

Natural daily, seasonal, annual, and inter-annual fluctuations of flow shall be maintained to support the naturally balanced indigenous biological community including those species most sensitive to alterations in flow, including trout and all life stages of trout.

4.1.3 pH

The normal pH of the water shall be 6.0 to 9.0 and shall not vary more than 1.0 unit.

4.1.4 Temperature

The maximum temperature rise above natural background temperatures shall not exceed 2.8 °C (5.04 °F), and in no case shall the temperature exceed 29 °C (84.2 °F).

4.1.5 Turbidity

The turbidity in the receiving water shall not exceed 50 Nephelometric Turbidity Units (NTU) in waters not designated as CAH and 10 NTU in waters designated CAH or PWS.

4.1.6 Toxic Substances

4.1.6.1 Aquatic Life Criteria:

The concentration of toxic substances shall not result in chronic or acute toxicity or impairment of the uses of aquatic life and shall not exceed the chronic or acute criteria in **Table 1**, unless within a mixing zone or a site-specific criterion is developed consistent with the documented procedures.

4.1.6.2 Human Health Criteria

The concentration of toxic substances shall not exceed the level necessary to protect human health through exposure routes of fish tissue consumption, water consumption, or other routes identified as appropriate for the particular body of water, as presented in **Table 2**. "Water and Organisms" criteria assume the consumption of 2.4 liters of water and 22.0 grams of fish per day, while the "Organisms Only" criteria are based on the consumption of 22.0 grams of fish per day.

4.1.6.3 Applying Toxic Substance Criteria

When applying acute or chronic toxicity or human health criteria, the following shall apply:

1. For evaluating human health effects, all waters must comply only with the "Organisms Only" criteria, except for water designated as public water supply. Stream segments and tributaries designated as public water supply shall comply with the "Water and Organisms" criteria.
2. In developing effluent limitations using toxicity or human health criteria the stream flows found in Section 9 shall be used.

4.1.6.4 Parameters with No Established Numeric Criteria

For those aquatic life and human health parameters for which no numeric criteria have been established, limitations shall be determined using available references which shall include, but not be limited to, *Quality Criteria for Water* (Section 304(a)), Federal regulations under Section 307 of the Clean Water Act, and Federal regulations under Section 1412 of the Public Health Service Act as amended by the Safe Drinking Act (Pub. 93-523).

1. Numeric aquatic life criteria shall be developed consistent with EPA's *Guidelines for Deriving Numerical National Water Quality Criteria for the Protection of Aquatic Organisms and Their Uses*, 1985, PB85-227049:
2. Human health noncarcinogen concentrations will be determined using the more recent value of a Reference Dose (RfD) as published by the EPA pursuant to Section 304(a) of the Federal Water Pollution Act as amended or a RfD issued by the EPA as listed in the Integrated Risk Information Systems (IRIS) file. Water quality standards or criteria used to calculate water quality-based assessments, 401 certifications, and effluent limitations to protect human health through the different exposure routes are determined as follows:

a. Fish Tissue Consumption: $WQS = \frac{RfD \times Body\ Weight \times RSC}{FCR \times BAF}$, where *WQS* is the water quality standard, *RfD* is the reference dose, *RSC* is the relative source contribution, *FCR*[a] is the fish consumption rate (22.0 grams/day), and *BAF*[b] is the bioaccumulation factor.
b. Water and Fish Tissue Consumption: $WQS = \frac{RfD \times Body\ Weight \times RSC}{WCR + (FCR \times BAF)}$, where *WQS* is the water quality standard, *RfD* is the reference dose, *RSC* is the relative source contribution, *WCR* is the water consumption rate (assumed to be 2.4 L/day for adults), *FCR* is the fish consumption rate (22.0 grams/day), and *BAF* is the bioaccumulation factor.

3. Human health carcinogen concentrations will not result in unacceptable health risk[c] and will be based on a Carcinogenic Potency Factor (CPF). The CPF is a measure of the cancer-causing potency of a substance. Water quality standards or criteria used to calculate water quality-based effluent limitations (and for all other purposes of water quality criteria under Section 303(c) of the Clean Water Act) to protect human health through the different exposure routes are determined as follows:
    a. Fish Tissue Consumption: $WQS = \frac{Risk \times Body\ Weight}{CPF \times FCR \times BAF}$, where *WQS* is the water quality standard, *Risk* is the risk factor (10^{-6}), CPF is the cancer potency factor, *FCR* is the fish consumption rate (22.0 grams/day), and *BAF* is the bioaccumulation factor.
    b. Water and Fish Tissue Consumption: $WQS = \frac{Risk \times Body\ Weight}{CPF \times (WCR + (FCR \times BAF))}$, where *WQS* is the water quality standard, *Risk* is the risk factor (10^{-6}), *CPF* is the cancer potency factor, *WCR* is the water consumption rate (assumed to be 2.4 L/day for adults), *FCR* is the fish consumption rate (22.0 grams/day), and *BAF* is the bioaccumulation factor.
4. Site-specific aquatic life criteria may be established based on natural background conditions, the recalculation procedure, or other scientifically defensible methods. The procedure for developing a site-specific criterion using the recalculation procedure must be consistent with the procedure found in Appendix B of EPA's *Interim Guidance on Determination and Use of Water Effects Ratios for Metals*, February 1994, EPA No. 823-B-94-001.
5. Discharger specific alternative criteria for existing discharges may be established based on the water effect ratio (WER) procedure, the recalculation procedure, or other scientifically defensible methods. The procedure for developing WER must be consistent with EPA's *Interim Guidance on Determination and Use of Water Effects Ratios for Metals*, February 1994, EPA No. 823-B-94-001 or the most recent edition of this document. The procedure for developing a discharger specific criterion using the recalculation procedure must be consistent with the procedure found in Appendix B of EPA's *Interim Guidance on Determination and Use of Water Effects Ratios for Metals*, February 1994, EPA No. 823-B-94-001. The discharger must satisfy the following conditions:
    a. The discharge existed prior to the adoption of the published standards;

[a] FCR values are average consumption rates for an 80kg (176 lb) adult for a lifetime of the population; alternative FCR values may be used when it is considered necessary to protect localized populations which may be consuming fish at a higher rate. Alternative FCRs must be approved by the EPA.
[b] BAF values are based on EPA publications pursuant to Section 304(a) of the Clean Water Act.
[c] An unacceptable health risk for cancer will be considered to be more than one additional case of cancer per one million people exposed (10-6 risk level).

b. The discharger performs acute and or chronic bioassay and instream biological assessments and other evaluations as deemed appropriate by DANR;
c. The designated use of the waters is maintained; and
d. The water quality standards of downstream waters are attained and maintained

6. All site-specific alternative criteria, as described in point 4 of this section will be subject to the public participation requirement for revisions to water quality standards and will be subject to review and action by the EPA. Discharger-specific criteria developed using the WER procedure described in point 5 of this section are translation of a criterion, EPA review, concurrence and public participation is conducted as a part of the NPDES permitting process.

5 Water Quality Criteria for Specific Uses

The general water quality criteria explained in Section 4 apply to all Cherokee waters. This section describes additional criteria that protects specific designated uses. Unless otherwise specified, parameters which are naturally variable constituents (e.g., temperature, dissolved oxygen, solids) should not be exceeded in more than 10% of samples. On occasion, there will be natural events, such as floods or other extreme weather events, that may cause a temporary exceedance(s) of the criteria values. When caused by natural events, such exceedances shall not be viewed as adverse to the designated use. Unless otherwise specified, the duration and frequency of specific chemical parameters identified in this section should be expressed consistent with how they were derived.

5.1 Ceremonial Use

The water in this use is suitable for traditional purposes by members of the Eastern Band of Cherokee that involve immersion and intentional or incidental ingestion of water. Unique aspects of the waters designated for the Ceremonial Use such as aquatic life, water quality or quantity, riparian habitat or other unique qualities shall be protected. Riparian buffers may be designated for Ceremonial Use if determine necessary by the Tribe. Criteria specific to the use are as follows:

EPA has not yet approved the specific conductance or dissolved solids criteria for ceremonial use.

The criteria in strikeout are not effective for CWA purposes.

1. **Bacteria**: Escherichia coli shall not exceed a geometric mean of 126 colonies per 100 mL nor shall more than ten percent of the samples examined during any month exceed 410 colonies per 100mL.
2. ~~**Specific conductance**: There shall be no substances added to increase the conductivity above 1000 microhms/cm.~~
3. ~~**Dissolved solids**: There shall be no substances added to the water to cause the dissolved solids to exceed 750mg/L as a monthly average value, nor to exceed 1500 mg/L at any time.~~

5.2 Public Water Supply Use

Water in this use is for use as a source of raw water supply for drinking and food processing purposes. The raw water supply shall be such that after the treatment process, it will satisfy the regulations established pursuant to Section 1412 of the Public Health Service Act as amended by the Safe Drinking Water Act (Pub.L.93-523). Criteria specific to the use are:

1. **Bacteria**: Escherichia coli concentrations shall be less than a geometric mean of 50 colonies per 100 mL.[a]

[a] As prescribed in 40 CFR 141.701- Source water monitoring.

EPA has not yet approved the threshold odor or radioactive substances criteria for public water supply use.

The criteria in strikeout are not effective for CWA purposes.

2. **Specific Conductance**: No substances shall be added to increase the conductivity above 500 microhms/cm.
3. **Dissolved solids**: No substance shall be added to the waters which will cause the dissolved solids to exceed 500 mg/L.
4. **Turbidity**: No substances shall be added to increase the turbidity above 10 NTU.
5. ~~**Threshold odor:** No substance shall be added which will cause the threshold odor number to exceed 24 (at 60 °C) as a daily average.~~
6. ~~**Radioactive substances**: No radioactive substances shall be added which will cause the gross beta activity (in the known absence of Strontium-90 and alpha emitters) to exceed 1000 picocuries per liter at any time.~~
7. **Specific Chemical Constituents:** In addition to the provisions in Table 2, the following concentrations shall not be exceeded at any time.

Constituent	Concentration (mg/L)
*Barium	1
*2,4 Dichlorophenoxy acetic acid	0.7
**Fluoride	2.0
*Nitrate (NO_3-N)	10
**Sulfate	250
*Total Trihalomethanes	0.0807
*1,1,1-trichloroethane	0.2
*Trichloroethylene	0.005
*2,4,5-Trichlorophenoxy propionic acid (Silvex)	0.05

*Maximum contaminant levels (MCLs)

**Secondary Drinking Water Requirements

5.3 Recreation Use

Waters in this use are suitable for recreational purposes involving prolonged contact and the risk of ingesting water in quantities sufficient to pose a health hazard such as swimming, snorkeling, or water skiing. The waters may also be suitable for other uses not listed. Criteria specific to the use are as follows:

EPA has not yet approved the specific conductance or dissolved solids criteria for recreation use.

The criteria in strikeout are not effective for CWA purposes.

1. **Bacteria:** Escherichia coli shall not exceed a geometric mean of 126 colonies per 100 mL nor shall more than ten percent of the samples examined during any month exceed 410 colonies per 100 mL.
2. ~~**Specific Conductance:** There shall be no substances added to increase the conductivity above 1000 microhms/cm.~~
3. ~~**Dissolved Solids:** There shall be no substances added to the water to cause the dissolved solids to exceed 750 mg/L as a monthly average value, nor to exceed 1500 mg/L at any time.~~

5.4 Cold-Water Aquatic Habitat

The waters in this use support the cold-water aquatic communities described at 3.1.4. Criteria specific to the use are as follows:

1. **Dissolved oxygen:** A minimum concentration of 6.5 mg/L as a daily average and 5 mg/L as an instantaneous minimum shall be maintained at all times.
2. **Temperature:** Water temperature shall not be increased by more than 0.5 °C as a result of discharge and in no case be increased to exceed 20 °C (68 °F), the required temperature necessary to support trout habitat.
3. **Turbidity**: The turbidity in the receiving water shall not exceed 10 NTU in streams, lakes and reservoirs.
4. **Phenolic Compounds**: No substances shall be added which will cause the phenolic content to exceed 300 µg/L (expressed as phenol).
5. ~~**Specific Conductance**: There shall be no substances added to increase the conductivity above 1000 microhms/cm.~~
6. ~~**Solids**: No substance shall be added to the waters which will cause the dissolved solids to exceed 750 mg/L as a monthly average value nor exceed 1500 mg/L at any time.~~ Neither total dissolved solids nor total suspended solids shall be changed to the extent that the indigenous aquatic community is adversely affected. No settleable solids shall be added that may adversely alter the stream bottom.
7. **Ammonia:** Ammonia criteria shall be in accordance with EPA recommendations as expressed on pages 40, 41, 42, 44, 45, 46, and 49 of Aquatic Life Ambient Water Quality Criteria for Ammonia – Freshwater 2013 (April 2013, EPA-822-R-13-001). Such information is hereby incorporated by reference. Where mussels in the order Unionoida are absent at a site, ammonia criteria may be calculated on a site-specific basis. Any such site-specific criteria shall be in accordance with the equations and tables expressed on pages 228, 229, 231, 235, 236, 239, and 240 in Appendix N of the document referenced above.

EPA has not yet approved the specific conductance or numeric dissolved solids criteria for cold water aquatic habitat use.

The criteria in strikeout are not effective for CWA purposes.

5.5 Warm-Water Aquatic Habitat

Waters in this use are intended for fishing and the propagation of fish, aquatic life, and wildlife. The following parameters and associated criteria shall apply for the protection of productive warm water uatic communities, fowl, and wildlife.

EPA has not yet approved the specific conductance or numeric dissolved solids criteria for warm water aquatic habitat use.

The criteria in strikeout are not effective for CWA purposes.

1. **Dissolved oxygen**: A minimum concentration of 5.0 mg/L as a daily average and 4 mg/L as an instantaneous minimum shall maintained at all times.
2. ~~**Specific conductance:** There shall be no substances added to increase the conductivity above 1000 microhms/cm.~~
3. ~~**Solids:** No substance shall be added to the waters which will cause the dissolved solids to exceed 750 mg/L as a monthly average value nor exceed 1500 mg/L at any time.~~ Neither total dissolved solids nor total suspended solids shall be changed to the extent that the indigenous aquatic community is adversely affected. No settleable solids shall be added that may adversely alter the stream bottom.
4. **Phenolic compounds:** No substances shall be added which will cause the phenolic content to exceed 300 µg/L (expressed as phenol).
5. **Ammonia:** Ammonia criteria shall be in accordance with EPA recommendations as expressed on pages 40, 41, 42, 44, 45, 46, and 49 of Aquatic Life Ambient Water Quality Criteria for Ammonia – Freshwater 2013 (April 2013, EPA-822-R-13-001). Such information is hereby incorporated by reference. Where mussels in the order Unionoida are absent at a site, ammonia criteria may be

calculated on a site-specific basis. Any such site-specific criteria shall be in accordance with the equations and tables expressed on pages 228, 229, 231, 235, 236, 239, and 240 in Appendix N of the document referenced above.

6 Antidegradation Policy and Implementation Plan

6.1 Antidegradation Policy

The antidegradation policy of the Eastern Band of Cherokee Indians is as follows:

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

2. Where the quality and quantity of waters exceeds levels established by sections 3, 4, and 5 of these rules as necessary to support their uses, including the protection and propagation of fish, shellfish, and wildlife, and recreation in and on the water, that quality and quantity shall be maintained and protected, unless the Tribe finds that allowing lower water quality or quantity is necessary to accommodate important economic or social development in the area in which the water are located. Any lower water quality or quantity allowed shall assure water quality adequate to protect existing uses fully. In no case may water quality or quantity be degraded below the base levels set for the protection of the surface water designated uses. The Tribe shall assure that 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 control shall be achieved. All antidegradation reviews are conducted on a parameter-by-parameter basis.

3. 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 Section 316 of the Federal Clean Water Act.

4. All waterbodies on Tribal Reserve Lands shall be considered Tribal Resource Waters (TRW). The TRW classification dictates that water quality or quantity shall be maintained and protected. New point or nonpoint source discharges or expansion of existing point source discharges shall not be allowed unless the permit applicant has demonstrated to the satisfaction of the DANR that no significant adverse effect to water quality will occur.

5. Where high quality waters are classified as Outstanding Reservation Resource Waters (ORRW), the existing water quality or quantity shall be maintained and protected, and no discharges shall be allowed.

6.2 Antidegradation Implementation Plan

Acting under authority delegated by the Eastern Band of Cherokee Indians Tribal Council, the DANR shall implement the water quality standards, including the antidegradation policy, by establishing and maintaining controls on the introduction of pollutants in Cherokee Waters. The DANR shall provide an opportunity for public involvement during the development and any subsequent revisions of these implementation methods and shall make the methods available to the public.

6.2.1 Definitions of Water Body Tiers

The antidegradation policy will be implemented utilizing tiers of water quality protection. All Cherokee waters are classified into the appropriate protection tier, as determined by the DANR with appropriate public involvement.

6.2.1.1 Tier 1 Waters

Tier 1 waters are those waters that are known to be impaired by pollution for a given parameter and in which the existing water quality or quantity does not support designated uses. For other pollutants or pollution, the water will be classified pursuant to 6.2.1.2.

6.2.1.2 Tier 2 Waters

1. Tier 2 waters are those waters in which the water quality meets or exceeds the mandatory minimum levels to support the Clean Water Act goal of propagation of fish, shellfish, and wildlife, and recreation in and on such waters.
2. All Cherokee waters are considered Tier 2 waters unless the water is classified as an ORRW (Tier 3) or as a TRW (Tier 2.5).

6.2.1.3 Tier 2.5 Waters

Tier 2.5 waters are high-quality cold waters supporting exceptional levels of biodiversity and are classified as TRWs, as defined in section 6.1.

6.2.1.4 Tier 3 Waters

Tier 3 waters are high quality waters that constitute ORRWs, as identified in section 6.1. Tier 3 water bodies will not be allowed to experience any degradation.

6.2.2 Responsibility

It is the responsibility of any individual, business, or Tribal program that proposes a discharge from a point source to Cherokee waters, including TRW waters, to contact the DANR and to apply for an Antidegradation Review pursuant to this section. An Antidegradation Review Report is required for all proposed new or expanding discharges into Tier 2 and Tier 2.5 waters. The antidegradation review will include the potential impact on water quality from a proposed activity, considering factors such as the type of activity and magnitude of the discharge, as described in the implementation sections 6.2.3 through 6.2.7.

6.2.3 Activities Subject to Antidegradation Review

6.2.3.1 Point Source Pollution

The EBCI Water Quality Administrative Rules and Antidegradation Policy and Implementation methods contained herein shall be applied to all Cherokee Waters and all discharges that require a federal permit or license and are subject to Tribal certification under section 401 of the CWA (e.g. CWA section 402 permits, CWA section 404 permits, and Federal Energy Regulatory Commission licenses). Such activities include, but are not limited to, wastewater discharges, industrial discharges, urban storm water containment discharges, and other discharges from pipes or other discreet conveyances that may affect the quality of Cherokee waters. Coverage under any nationwide permit for an activity that could degrade receiving waters shall not remove that activity from compliance with this document.

6.2.3.2 Non-Point Source Pollution

Non-point source pollution activities in which an Antidegradation Review will be conducted include, but are not limited to, large earth disturbing activities which fall outside the requirements of needing a EPA NPDES construction storm water permit, water management system design, wastewater management system design, and solid waste management system design of infrastructure that may convey pollution to Cherokee Waters.

6.2.4 Tier 1 Antidegradation Reviews

Tier 1 waters are those waterbodies that are known to be impaired by a pollutant based on the results of the tribe's monitoring data record. Where these waters are subject to a Pollution Minimization Plan (PMP), the Tier 1 level of protection is implemented through the NPDES permit issuance process. New or expanding discharges are not allowed in Tier 1 waters if there is no assimilative capacity for the pollutant(s) for which the waterbody is listed. Tier 1 waterbodies are pollutant specific, and this designation does not relieve a permit applicant from the requirements of an Antidegradation Review Report for this and other non-listed pollutants proposed to be discharged.

6.2.5 Tier 2 Antidegradation Reviews

For activities covered by 6.2.3 and within Tier 2 waters, the following describes the process for a Tier 2 Antidegradation Review Report. If an application for a new or expanded discharge for a NPDES permit is submitted for a Tier 2 water or a nonpoint source activity affecting a Tier 2 water is proposed and if verification is made by the DANR that the waterbody has water quality greater than that defined by the all of the designated uses in the standards such that available assimilative capacity for the parameter(s) of concern does exist then the following additional antidegradation review would be initiated.

1. To verify that a waterbody is a high-quality water for a parameter of concern to initiate a Tier 2 antidegradation review, the DANR must evaluate:
    a. if and to what degree water quality exceeds the level necessary to protect designated uses,
    b. if and to what degree water quality will be lowered, and
    c. if designated uses will be maintained and protected by applying the standards outlined in sections 4 and 5.

    In multiple discharge situations, the aggregate predicted lowering of water quality must be allocated among the dischargers.

2. An alternatives analysis must be conducted by the applicant to determine whether alternatives (e.g., water recycle or reuse, use of other discharge locations, connection to other wastewater treatment facilities, or any treatment options) would minimize or eliminate the lowering of water quality in a technologically feasible and economically viable manner. The conclusion will either be that no practicable alternatives exist or at least one practicable alternative exists. A socio-economic analysis, as described in 6.2.5.3, will be conducted for any alternatives selected that utilize some of the assimilative capacity. If the alternative utilizes no assimilative capacity, no socio-economic analysis is needed.

3. The DANR will evaluate whether a proposed discharge that will lower water quality and for which there are no practicable alternatives is necessary for important economic or social

development. For this to be determined, several economic and social factors must be considered. These factors include, but are not limited to, increased production for greater Tribal economic gain, housing, and correction of environmental or public health concern. The Tribe will use the review procedures prescribed in the Interim Economic Guidance for Water Quality Standards Workbook[a]. If the DANR deems that the socio-economic value is not of sufficient value to warrant a degradation of water quality, the degradation will not be approved. If, after review and response to public comments regarding the proposed activity, the Tribe determines that activity is socially and/or economically important, lowering of the water quality will be allowed. If no socioeconomic value can be attributed to the proposed activity, it shall not be approved.

4. If after the DANR reviews the analysis of alternatives and determines that the lowering of water quality can be minimized or eliminated the applicant can either: implement one of the practicable alternatives and determine whether a lowering is necessary for important social and economic development, or, proceed without an analysis of important social or economic development if a non-degrading alternative is selected for implementation. If the analysis identifies affordable treatment options that would prevent the discharge from occurring, the request to discharge will be denied. If the proposed discharge does support important social and economic development, either when a practicable alternative is implemented or absent, then the DANR may decide to grant the request for lowering of water quality provided water quality sufficient to protect designated uses is maintained and provided the decision is subject to public participation and comment.

5. A public review shall be conducted of the application, the proposed activity that will lower water quality, and the Tribe's draft antidegradation review. Public notice shall be made using reasonably available outreach tools such as tribal and/or local newspaper legal notices, and/or web-based media. Comments shall be sought to guide a final review decision. Following an appropriate public review period as required by applicable law, the review period will close. Response to each comment shall occur prior to the approval or disapproval of a permit or license application to discharge, and these responses shall be documented with the final Antidegradation Review Report.

6. In addition to providing the opportunity to comment during public review, the Tribe shall coordinate as needed with other tribal departments and governments, and federal agencies such as US Fish and Wildlife Service, US Army Corps of Engineers, and US Environmental Protection Agency.

7. Once the Tier 2 antidegradation review is completed, documentation of its final decision will either be included in the rationale for the point-source permit and/or tribal administrative record related to the non-point source activity. The DANR will maintain records of the evaluation and decision of all activities that have been reviewed under these conditions.

[a] EPA 823-B-95-002, March 1995

6.2.6 Tier 2.5 Antidegradation Reviews

Tier 2.5 level of protection applies to waters defined in 6.2.1.3. Storm water and other nonpoint source runoff including that from agriculture or permitted discharge is allowed in the waters provided there will be no adverse water quality effects deemed significant by the Tribe, as determined through consultation with the EPA.

1. The DANR, in cooperation with the EPA, will review an application for a proposed discharge to TRW waters to determine the impact on water quality and ensure that the discharge can be considered.

2. Once it has been determined that the discharge can be considered, it must be determined whether the discharge will result in a discernable change in water quality. If the proposed discharge would cause degradation, then the discharge must be denied. Since only discharges that would result in the maintenance and protection of existing water quality are permitted, no further antidegradation review is necessary. Any allowable permit would then proceed through the permitting process and allow for public participation, as described in the Tier 2 Antidegradation Review Section (6.2.5)

3. Once it has been determined that the nonpoint source activity can be considered, it must be determined whether the activity will result in a discernable change in water quality. If the proposed activity would cause degradation, then the activity must be denied. Since only activities that would result in the maintenance and protection of existing water quality are allowed, no further antidegradation review is necessary. Any allowable activity would then proceed through the antidegradation review process and allow for public participation, as described in Section 6.2.5.

4. Once the Tier 2.5 antidegradation review is completed, documentation of its final decision will either be included in the rationale for the permit and/or tribal administrative record. The DANR will maintain records of the evaluation and decision of all activities that have been reviewed under these conditions.

6.2.7 Tier 3 Antidegradation Reviews

The Tier 3 level of protection applies to waterbodies classified as ORRWs. ORRW waters are protected by applying the standards of the TRW waters which require maintenance of existing water quality and additionally by not allowing any point-source discharges. No permanent permitted discharges of any kind shall be allowed in these waters, however a discharge may be allowed on a short-term and temporary basis as long as there is no associated degradation of water quality.

7 Sampling and Analyses

1. Sample collection and preservation used to determine water quality and to maintain the standards set forth in these water quality standards shall be performed in accordance with procedures prescribed by the latest EPA authoritative analytical reference, including but not limited to the latest editions of any of the following authorities: (1) American Public Health

Association, “Standard Methods for the Examination of Water and Wastewater[a],” (2) “Methods for Chemical Analyses for Water and Wastes[b],” (3) “EPA Guidelines Establishing Test Procedures for the Analysis of Pollutants,” (4) “Short- term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, EPA/600/491/002,” and “Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms, EPA/600/4-90/027F.”

2. All methods of analysis used in measuring the quality of surface water for purposes of determining compliance with these standards shall be in accordance with procedures prescribed in the current version of 40 C.F.R. Part 136 or other methods approved in writing by the EPA.

8 Mixing Zones

In order to provide a reasonable opportunity for the mixture of discharges and receiving waters, mixing zones may be established in the area of the discharge. Any designated mixing zone shall be approved by the DANR in consultation with the EPA. When a mixing zone is established, the mixing zone shall not be an area of waste treatment nor shall it interfere with or impair the existing uses of the waterbody. The size of the mixing zone shall be minimized, as determined by the DANR, and shall be based upon applicable critical flow conditions. The chronic water quality criterion for the mixing zone parameters of concern will not apply in these regions, except that the zone will be subject to the conditions established in accordance with this section. Mixing zone limits will be defined on a case-by-case basis upon consideration of the magnitude and character of the waste discharge, and the size and character of the receiving waters. Methods and guidelines for mixing zone policies are prescribed in accordance with the EPA's *Water Quality Standards Handbook*, Second Edition (1993) and the EPA’s *Technical Support Document for Water Quality-based Toxics Control*, March 1991, EPA/505/2-90-001. For the protection of the receiving waters uses and to maintain conformity with NPDES permit requirements the following guidelines and restrictions are followed to protect the designated uses of Tribal waters.

1. In order to protect human health, mixing zones are not allowed when they would endanger public health and welfare or be for bacteria (e.g., escherichia coli).

2. In order to protect aquatic life, mixing zones are not allowed when a pollutant in a discharge would attract biota, the mixing zone would result in undesirable aquatic organisms or a dominance of nuisance species outside of the mixing zone, there is a reasonable expectation that a discharge would adversely affect a federally-listed endangered or threatened aquatic species, its habitat, or a proposed or designated critical habitat, the mixing zone would not allow safe passage of aquatic organisms when passage would otherwise be unobstructed, or the mixing zone would not allow for the protection and propagation of a balanced native aquatic community in and on the water body.

3. In order to protect both human health and aquatic life, mixing zones are not allowed when a discharge would not be predicted to, or does not produce, adequate mixing at the point of discharge; or a discharge would be to a waterbody where multiple discharges interact if the combined mixing zone would impair the waterbody outside the mixing

[a] Standards Methods Washington, DC 20460 EPA/600/4-79/020 March 1983

[b] 40 CFR Part 136

zone. The DANR may prohibit or limit mixing zones in Tribal waters that may be considered a significant nursery habitat for resident species.

4. The size of the mixing zone shall be kept to a minimum and may be determined on an individual project basis considering biological, chemical, engineering, hydrological, and physical factors. The factors include, but are not limited to, the type and character of receiving waters, outfall configuration, effluent characteristics, extent of mixing/dilution, specific aquatic resource concerns (e.g. sensitive areas or species, ceremonial uses). Federal resource agencies will be consulted as appropriate.

9 Low Flow

1. When deriving permit limitations to protect surface waters for the designated uses and purposes, the following stream flows shall be utilized:

Criteria	Stream Flow
Acute Aquatic Life	1-day, 10-year flow (1Q10)
Chronic Aquatic Life	7-day, 10-year flow (7Q10)
Human Health- Carcinogens	Harmonic mean flow
Human Health- Non-carcinogens	Harmonic mean flow

2. If critical flows data is not available, the flow may be used when authorized by the Tribe using the methods outlined in EPA's *Technical Support Document for Water Quality-based Toxics*, EPA/505/2-90-001, March 1991.

10 National Pollutant Discharge Elimination System

1. Point-source water quality discharge permits may be granted by the EPA, in consultation with the DANR, to dischargers for pollutant-specific contamination through the National Pollutant Discharge Elimination System (NPDES) program (https://www.epa.gov/npdes). These permits are granted with the goal of meeting the applicable criteria rather than lowering the water quality standards or changing the designated use of the stream.

2. A NPDES permit may be approved for a permittee(s) or water body/water body segment, but only applies to the permittee(s) or water body/water body segment specified in the permit.

3. The Tribe may use the approved permit when issuing certifications under Section 401 of the CWA.

4. The underlying designated use and criteria addressed by the NPDES permit will remain unless the Tribe adopts revisions to the designated use or criteria. All other applicable standards not specifically addressed by the NPDES permit remain applicable.

5. Application materials and instructions can be found on the EPA's NPDES website (https://www.epa.gov/npdes/npdes-application-forms).

11 Clean Water Act Section 401 Certification

The CWA Section 401 (Water Quality Certification) gives the DANR broad authority to review proposed activities requiring certification of a federal permit or license when those activities are on Tribal lands and/or have the potential to affect Cherokee waters. The DANR can recommend to the permitting agency that it grant, deny, or condition certification of federal permits or licenses that may result in a discharge to waters to achieve compliance with the Tribe's water quality standards. For waters and activities within Tribal lands, the DANR shall have full authority to grant, deny, or condition certification.

A completed application for water quality certification will be submitted to the Water Quality Office (WQO) of the DANR. The application will be reviewed by the WQO for compliance with Tribal water quality standards. The application form is found in Appendix B. After thorough review by the WQO and DANR, the application will be granted, denied, or conditioned. The complete certification process, including timeline, is found in Appendix C.

12 Underground Injection Control Class 5 Wells

Underground Injection Control Class 5 wells are primarily used to dispose wastes underground and depend on gravity to drain fluids directly into the ground. These systems include, but are not limited to, stormwater drainage wells, large capacity septic system leach fields (serving 20 persons or more), and agricultural drainage wells. If not properly constructed and maintained, Class 5 wells have the potential to contaminate water resources.

Pursuant to EPA requirements, Class 5 wells may typically be operated without a permit provided the owners or operators:

1. Submit inventory information to the EPA Region 4 office and verify that they are authorized to inject. Owner/operator will receive a Rule Authorization letter from the EPA.
2. Operate the well using Best Management Practices so as to not endanger water resources, as advised on a case-by-case basis by the EPA.
3. Properly close their Class 5 well when it is no longer be used so that the movement of any contaminated fluids is prevented.

12.1 Class 5 Well Inventory

EPA Region 4 maintains a Class 5 well inventory. Prior to construction of a new Class 5 well, inventory information should be submitted to the EPA. The inventory form can be found in Appendix D. Existing Class 5 wells whose information has not previously been submitted to the inventory must also complete and submit the inventory form to ensure inclusion in the program.

12.2 Class 5 Well Inspection

All Class 5 wells are subject to periodic inspection as needed to ensure that Best Management Practices are being used and water resources remain protected. Inspections will be performed by the EPA Region 4 Office, in cooperation with the DANR.

13 Stormwater Controls

Stormwater controls are important to protect Cherokee waters from runoff containing sediments and pollutants. Stormwater controls will be based on performance standards designed to:

1. Protect life and property from dangers associated with flooding;
2. Protect Cherokee lands, public and private from damage resulting from runoff, erosion and sedimentation, and increased flooding;
3. Protect water quality from nutrients, pathogens, toxic matter, debris and other contaminants;
4. Ensure that annual runoff rates and volumes from post-development site conditions mimic the annual runoff rates and volumes from pre-development site conditions;
5. Provide a single set of performance standards applicable to Best Management Practices (BMPs) implemented on Cherokee lands;
6. Promote infiltration and groundwater recharge;
7. Protect functional values of natural water courses and wetlands;
8. Provide plant and animal habitat and support riparian ecosystems;
9. Require the implementation of Stormwater BMPs to minimize the discharge of pollutants into streams, rivers, lakes, other bodies of water and infrastructure, while maximizing areas for stormwater treatment.

Any construction project on Cherokee lands that disturbs one acre or more, or is part of a common plan of development, will be subject to the requirements of the EPA Construction General Permit (CGP), and be required to submit a notice of intent for coverage prior to the start of construction activities. The plan of implementation shall be the stormwater pollution prevention plan (SWPPP) as required to be developed as part of the permit. This plan shall outline the proper operation and maintenance of the necessary stormwater management structures, including scheduled maintenance activities, as outlined and required under the CGP. The responsible party must also ensure that the structures be easily accessible for inspection by the DANR. The Tribe will review and approve the plan during the Section 401 Certification process. Project managers must also ensure that all requirements detailed in EBCI Code of Ordinances Chapter 113D SOIL EROSION AND SEDIMENTATION CONTROL are met. Whenever conflicts exist between federal or Tribal laws, ordinance, or rules, the more restrictive provision shall apply (113D-42).

14 Source Water Protection

Any water that could potentially be the source of drinking water is called source water. Source water provides water for public drinking water supplies and private water wells. The Cherokee waters with the PWS use designation are considered Tribal source water. In order to preserve existing sources of drinking water to meet present and future Tribal needs, management actions are required to eliminate and/or reduce the risk of contamination to water supply sources.

14.1 Source Water Protection Area

The Source Water Protection Area (SWPA) is defined as all of the Tribal lands that drain into the Oconaluftee River and its tributaries upstream of the raw-water intake for the for the Tribal Drinking Water Plant (N 35.499955, W 83.310232).

14.2 Protective Management Actions

The DANR shall engage in a variety of activities with the goal of eliminating and/or reducing the risk of contamination within the SWPA. These activities include:

1. Promoting awareness and protection of the SWPA through public outreach activities, including signs, pamphlets, and community meetings as needed.

2. Promoting preservation of the SWPA in all permitting activities by considering impacts to source water when conducting Section 401 Water Quality Certification reviews, as described in Section 11.

3. Conducting rigorous water quality monitoring within the SWPA. These monitoring activities include, but are not limited to:
    a. monthly physical sample collection and analysis; and
    b. operation of 3 continuous monitoring stations throughout the SWPA.

In addition, waters within the SWPA receive appropriate levels of antidegradation protection (either Tier 2 or Tier 2.5, as determined by the Tribe), as described in Section 6 of this document, taken into account during the review of permit and Section 401 Certification applications.

15 Enforcement

15.1 Investigation & Corrective Action Plans

The DANR shall, no less than annually, test Cherokee waters at different locations to determine if the standards for designated uses are being met. When it is demonstrated that the water quality standards are not being met the following actions shall commence:

1. The WQS will initiate further investigation to produce a statistically defensible data set that identifies and documents the cause of the water degradation. The breadth of the investigation may vary on a case-by-case basis, using the approach most appropriate for the location and type of pollution occurring.

2. In the event of a finding for the source cause of water degradation causing the non-compliance with water quality standards, as demonstrated by the facts from the WQS investigation, the EBCI Natural Resources Enforcement program (NRE) shall serve a notice of violation upon the responsible person or entity.

3. The notice shall specify a date certain by which the person must develop a Corrective Action Plan to address the practices causing the violation. For violations within a SWPA, the Corrective Action Plan must be submitted to the DANR within 30 calendar days of receipt of the notice of violation. For violations affecting all other Cherokee waters, the person or entity has 30 business days to submit their Corrective Action Plan.

4. The person or entity deemed responsible for the cause of the water degradation may request a reconsideration of the findings. Requests for reconsideration must be in writing and contain a statement of the facts prompting the request that are sufficient to allow for appropriate review of the additional facts. Requests shall be made within 30 days from receipt of the original findings of responsibility for water degradation and non-compliance with water quality standards.

5. Proof of the date of delivery of the notice of non-compliance shall be the burden of the NRE. Delivery of the notice may be made by personal delivery, U.S. Mail or other mail carrier's return receipt for delivery, or certified US mail.

6. The request for reconsideration shall be delivered in person, by mail, facsimile, or electronic mail to the Director of the DANR. This contact information will be provided in the first Notice of non-compliance.

7. Upon the receipt of the request for reconsideration, the DANR must issue facts and findings and a final decision on responsibility for the cause of water degradation within 30 days of receipt of the request. Proof that the request was received shall be the burden of the person or entity receiving the Notice of Non-Compliance.

8. If after reconsideration the person or entity is still found to be responsible for the source of the water quality degradation, the person or entity must comply with (3) above. The final notice shall reiterate the instructions and provide a date certain for submission of a corrective action plan.

9. Any determination and/or official interpretation, shall be stayed until a final DANR decision is issued.
10. The DANR shall either approve or deny the Corrective Action Plan within 5 business days of receipt of the plan. If the proposed Corrective Action Plan is denied, the person or entity may revise their plan under the guidance of the DANR. The timeline for these revisions will be determined on a case-by-case basis as necessary to accommodate the extent of the required revisions. A date certain shall be documented on DANR's approval for extension of time to revise the plan and provided to the person or entity responsible for the plan.

15.2 Non-Compliance

1. If the responsible party does not submit a Corrective Action Plan to the DANR within the specified date in the notice of violation, a daily fine of $1,000 will be assessed for each day after the deadline the person or entity does not comply with the required corrective action plan. DANR may seek the assistance of the Attorney General to petition the Cherokee Court for injunctive relief.

2. If the responsible party submits a Corrective Action Plan that is denied and fails to make revisions deemed acceptable by the DANR, the person or entity will be assessed a daily fine of $1,000 for each day after the deadline that they do not submit their revised Corrective Action Plan.

3. Once the Corrective Action Plan is in place, standard water quality monitoring by the WQO will resume. If it becomes clear that the remediation efforts are not effective, the WQO will initiate another investigation, as outlined in section 15.1, and the responsible party shall have all rights of reconsideration and assistance from DANR to correct the source of water degradation available during the previous corrective action process.

4. If the responsible party fails to comply with any portion of their Corrective Action Plan or to pay their assessed fines, the DANR may seek the assistance of the Attorney General to seek an injunction to compel compliance and collection of unpaid administrative fines. Debts from fines shall be deemed a debt to the Tribe and garnishment under C.C. 16C shall be allowed. Should a business license be attached to the property at issue, then the Attorney General shall petition the Business Committee for the suspension or revocation of the responsible party's business license, as a last resort should legal remedies fail.

15.3 Appeals

Any person or entity has the right to appeal the actions of the DANR and NRE by filing a petition for a contested case to be heard by an administrative law judge in the Cherokee Court, pursuant to C.C. Section 150-16(b) and C.C. Chapter 150, Article 4.

Appendix A- Toxic Substances Numeric Criteria

Table 1. Toxic substance criteria for the protection of aquatic life.

Compound	CAS No.	Criteria[a]	
		Acute (µg/L)	Chronic (µg/L)
Arsenic	7440382	340.0	150.0
Cadmium	7440439	exp{0.9789[ln(Hardness)]-3.866}(1.136672-[(ln(hardness)(0.041838)])	exp{0.7977[ln(Hardness)]-3.909}(1.101672-[(lnhardness)(0.041838)])
Chromium (VI)	18540299	16.0	11.0
Chromium (III)	16065831	exp{0.8190[ln(hardness)]+3.7256}(0.316)	exp{0.8190[ln(hardness)]+0.6848}(0.860)
Copper	7440508	exp{0.9422[ln(Hardness)]-1.700}(0.96)	exp{0.8545[ln(Hardness)]-1.702}(0.96)
Lead	7439921	exp{1.273[ln(Hardness)]-1.460}(1.46203-[ln(hardness)(0.145712)])	exp{1.273[ln(Hardness)]-4.705}(1.46203-[(ln(hardness))(0.145712)]
Mercury	7439976	1.4	0.77
Nickel	7440020	exp{0.8460[ln(Hardness)]+2.255}(0.998)	exp{0.8460[ln(Hardness)]+0.0584}(0.997]
Selenium	7782492		3.1
Silver	7440224	exp{1.72[ln(Hardness)]-6.59}(0.85)	
Zinc	7440666	exp{0.8473[ln(Hardness)]+0.884)(0.978)	exp{0.8473[ln(Hardness)]+0.884)(0.986)
Chlorine, total residual	7782505	19.0	11.0
Cyanide	57125	22	5.2
Pentachlorophenol	87865	exp{1.005(pH)-4.869}	exp{1.005 (pH)-5.134}
Acrolein	107028	3.0	3.0
Aldrin	309002	3.0	
g-BHC	58899	0.95	
Chlordane	57749	2.4	0.0043
4-4’ DDT	50293	1.1	0.001
Dieldrin	60571	0.24	0.056
a-Endosulfan	959988	0.22	0.056
b-Endosulfan	33213659	0.22	0.056

[a] Criteria for all metals are expressed as dissolved metals

Compound	CAS No.	Criteria[a]	
		Acute (μg/L)	Chronic (μg/L)
Endrin	72208	0.086	0.036
Heptachlor	76448	0.52	0.0038
Heptachlor Epoxide	1024573	0.52	0.0038
Carbaryl	63252	2.1	2.1
Chloropyrifos	2921882	0.083	0.041
Demeton	8085483		0.1
Diazinon	333415	0.17	0.17
Guthion	86500		0.01
Malathion	121755		0.1
Methoxychlor	72435		0.03
Mirex	2385855		0.001
Parathion	56382	0.065	0.013
Total Polychlorinated Biphenyls (PCBs)			0.014
Toxaphene	8001352	0.73	0.0002

Table 2. Toxic substances criteria for the protection of human health.

Compound	CAS No.	Water and Organisms (µg/L)	Organisms Only (µg/L)
Antimony	7440360	5.6	640
Arsenic	7440382	0.018	0.14
Copper	7440508	1300	
Methyl Mercury	22967926	0.3 mg/kg[a]	0.3 mg/kg[a]
Nickel	7440020	610	4600
Thallium	7440280	0.24	0.47
Cyanide	57125	4	400
Asbestos	1332214	7,000,000 fibers/L	
2,3,7,8-TCDD-Dioxin	1746016	5.0×10^{-9}	5.1×10^{-9}
Acrolein	107028	3	400
Acrylonitrile	107131	0.061	7.0
Benzene	71432	2.1	58
Bromoform	75252	7.0	120
Carbon Tetrachloride	56235	0.4	5.0
Chlorobenzene	108907	100	800
Chlorodibromomethane Dibromochloromethane	124481	0.8	21
Chloroform	67663	60	2000
Dichlorobromomethane Bromodichloromethane	75274	0.95	27
1,2-Dichloroethane	107062	9.9	650
1,1-Dichloroethylene	75354	300	20000
Trans-1,2-Dichloroethylene (DCE)	156605	100	4000
1,2-Dichloropropane	78875	0.9	31
1,3-Dichloropropene	542756	0.27	12
Ethylbenzene	100414	68	130
Methyl Bromide Bromomethane	74839	100	10000
Methylene Chloride Dichloromethane	75092	20	1000
1,1,1-Trichloroethane	71556	10000	200000
1,1,2-Trichloroethane	79005	0.55	8.9
1,1,2,2-Tetrachloroethane	79345	0.2	3
Tetrachloroethylene	127184	10	29
Toluene	108883	57	520
Trichloroethylene (TCE)	79016	0.6	7
Selenium	7782492	170	4200
Zinc	7440666	7400	26000
Benzidine	92875	0.00014	0.011
Benzo(a) Anthracene	56553	0.0012	0.0013
Benzo(a) Pyrene	50328	0.00012	0.00013
Benzo(b) Fluoranthene	205992	0.0012	0.0013

[a] The fish tissue residue criterion for methylmercury is based on a total fish consumption rate of 22 gm/day.

Compound	CAS No.	Water and Organisms (μg/L)	Organisms Only (μg/L)
Benzo(k) Fluoranthene	207089	0.012	0.013
Bis 2-Ethylhexyl Phthalate	117817	0.32	0.37
Butylbenzyl Phthalate	85687	0.10	0.10
2-Chloronaphthalene	91587	800	1000
Chrysene	218019	0.12	0.13
Dibenzo(a),(h) Anthracene	53703	0.00012	0.00013
1,2-Dichlorobenzene	95501	1000	3000
1,3-Dichlorobenzene	541731	7	10
1,4-Dichlorobenzene	106467	300	900
1,2,4,5-Tetrachlorobenzene	95943	0.03	0.03
Pentachlorobenzene	608935	0.1	0.1
3,3-Dichlorobenzidine	91941	0.049	0.15
Methoxchlor	72435	0.02	0.02
Diethyl Phthalate	84662	600	600
Dimethyl Phthalate	131113	2000	2000
Di-n-Butyl Phthlatate	84742	20	30
2,4-Dinitrotoluene	121142	0.049	1.7
1,2-Diphenylhydrazine	122667	0.03	0.2
Fluoranthene	206440	20	20
Fluorene	86737	50	70
Hexachlorobenzene	118741	0.000079	0.000079
Hexachlorobutadiene	87683	0.01	0.01
1,2,4-Trichlororbenzene	120821	0.071	0.076
Toxaphene	8001352	0.00070	0.00071
Indeno (1,2,3-cd) Pyrene	193395	0.0012	0.0013
Isophorone	78591	34	1800
Chlordane	57749	0.00031	0.00032
a-Endosulfan	959988	20	30
b-Endosulfan	33213659	20	40
Endosulfan Sulfate	1031078	20	40
Polychlorinated Biphenyls (PCBs)		0.000064	0.000064
Vinyl Chloride	75014	0.022	1.6
2-Chlorophenol	95578	30	800
2,4-Dichlorophenol	120832	10	60
2,4-Dimethylphenol	105679	100	3000
2-Methyl-4,6-Dinitrophenol	534521	2	30
Dintrophenols	25550587	10	1000
2,4-Dinitrophenol	51285	10	300
3-Methyl-4-Chlorophenol	59507	500	2000
Pentachlorophenol	87865	0.03	0.04
Phenol	108952	4000	300000
2,4,5-Trichlorophenol	95954	300	600
2,4,6-Trichlorophenol	88062	1.5	2.8
Acenaphthene	83329	70	90

Compound	CAS No.	Water and Organisms (μg/L)	Organisms Only (μg/L)
Anthracene	120127	300	400
Bis(2-Chloroethyl) Ether	111444	0.030	2.2
Bis(2-Chloro-1-Methylethyl) Ether	108601	200	4000
Bis(Chloromethyl) Ether	542881	0.00015	0.017
Hexachlorocyclopentadiene	77474	4	4
Hexachloroethane	67721	0.1	0.1
Nitrobenzene	98953	10	600
N-Nitrosodimethylamine	62759	0.00069	3.0
N-Nitrosodi-n-Propylamine	621647	0.0050	0.51
N-Nitrosodiphenylamine	86306	3.3	6.0
Pyrene	129000	20	30
Aldrin	309002	0.00000077	0.00000077
Alpha-Hexchlorochyclohexane (HCH)	319846	0.00036	0.00039
Beta-Hexchlorocyclohexane (HCH)	319857	0.0080	0.014
Gamma-Hexachlorocyclohexane gamma-BHC (Lindane)	58899	4.2	4.4
Hexchlorocyclohexane (HCH)-Technical	608731	0.0066	0.010
DDT p,p'-Dichlorodiphenyltrichlorethane	50293	0.000030	0.000030
DDE p,p'-Dichlorodiphenyldichloroethylene	72559	0.000018	0.000018
DDD p,p'-Dichlorodiphenyldichloroethane	72548	0.00012	0.00012
Dieldrin	60571	0.0000012	0.0000012
Endrin	72208	0.03	0.03
Endrin Aldehyde	7421934	1	1
Heptachlor	76448	0.0000059	0.0000059
Heptachlor Epoxide	1024573	0.000032	0.000032
Chlorophenoxy Herbicide (2,4-D)	94757	1300	12000
Chlorophenoxy Herbicide (2,4,5-TP) [Chlorophenoxy]	93721	100	400

Appendix B- Section 401 Certification Application

Eastern Band of Cherokee Indians

401 Water Quality Certification Application

Instructions: Please fill out this form completely. Incomplete forms will be returned. All forms should be returned to:

Michael Bolt Eastern Band of Cherokee Indians Natural Resources Program	P.O. Box 1925 Cherokee, NC 28719	Phone: (828) 554-6772 Fax: (828)497-5419 Email: michbolt@nc-cherokee.com

1. Applicant
   Name_____
   Address_____
   City/state/zip code_____
   Contact Person_____
   Phone Number/Fax_____
   Email_____
2. Applicant's Agent
   Name_____
   Address_____
   City/state/zip code_____
   Contact Person_____
   Phone Number/Fax_____
   Email_____

3. Project Name:
   _____

4. Project Type (Check One)
   □ 404 Dredge and Fill
   □ 402 NPDES
   □ Bank Stabilization
   □ Other _____

5. Project Location; Address_____
   City _____
   GPS Coordinates Latitude _____
   Longitude_____

6. Project Description: (Attach other sheets if necessary)

_____

_____

_____

_____

_____

_____

7. Receiving Waters (River/stream/wetland name) _____

8. Impacted Waters (As applicable) _____

9. Federal Permits required: (check box)
   - □ 402 NPDES
   - □ 404 Dredge & Fill
   - □ N/A

10. Other required permits, please list:

_____

_____

11. Related Projects:

_____

_____

_____

_____

_____

_____

12. Avoidance/Minimization Activities:

_____

_____

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13. Proposed Mitigation:

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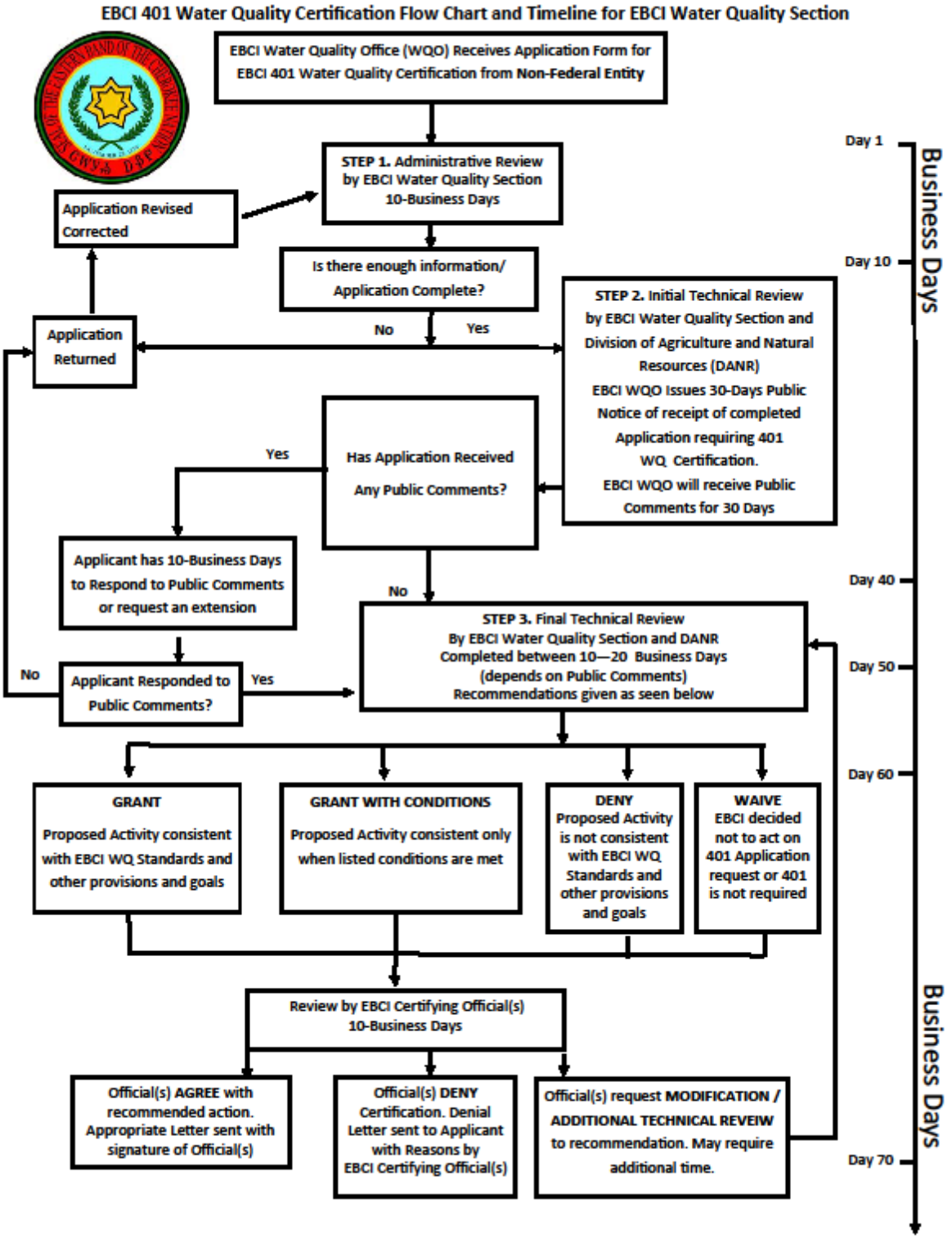
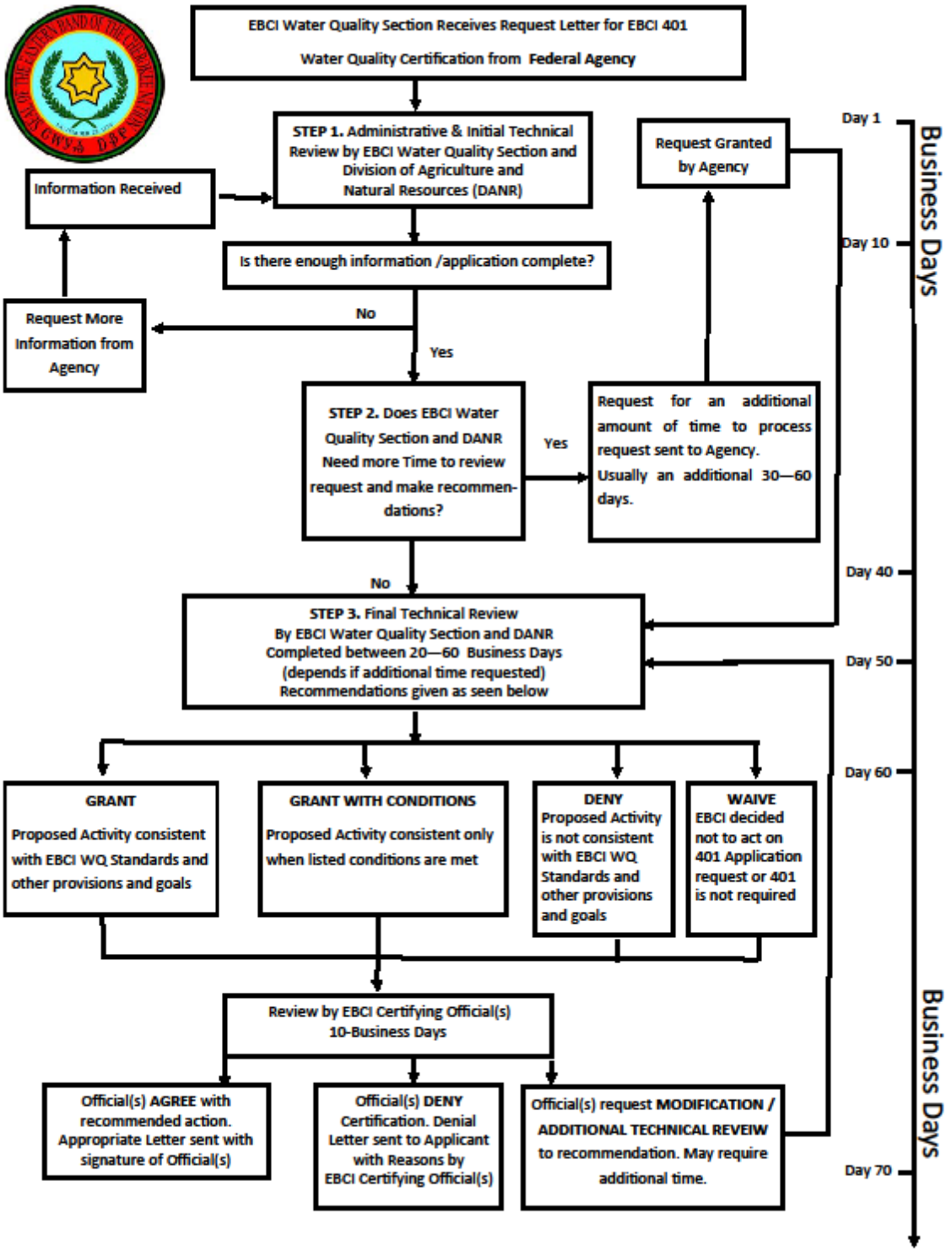
_____ _____

Signature Date

Appendix C- Section 401 Certification Process Flow Charts



EBCI 401 Water Quality Certification Flow Chart and Timeline for EBCI Water Quality Section



Appendix D- UIC Class V Well Inventory Information

United States Environmental Protection Agency - Region 4
Underground Injection Control Class 5 Well Inventory Report
EPA R4 - WPD/GWUIC; 61 Forsyth St SW; Atlanta, GA 30303-8960; (404) 562-9423

Facility Name:_____

Facility Address:_____

City:_____ **State:**_____ **Zip Code:**_____ **County:**_____

Nature of Business:_____

Facility Contact:_____ **Phone:(____)**_____

Facility Owner (if different)**:**_____ **Phone:(____)**_____

Owner Address:_____

City:_____ **State:**_____ **Zip Code:**_____ **County:**_____

Ownership (check one): ☐Private ☐Federal ☐Tribal ☐State ☐County ☐City ☐Other:_____

Does this facility have any UIC Class 5 wells? ☐Yes ☐No **If yes, how many?**_____

Number of Injection Wells: ____Active ____Inactive ____P&A ____Proposed ____Under Const.

Injection Well Type(s):

_____ Septic System, Large Capacity (>20 persons, sanitary waste only) [5F]
_____ Beauty or Barber Shop [5A4]
_____ Medical or Dental Facility [5A11]
_____ Veterinarian [5A15]
_____ Funeral Services, with embalming [5A8]
_____ Carwash [5A1]
_____ Sewage Treatment Effluent (drip, cluster) [5D]
_____ Storm Water (improved sinkhole, dry well) [5H1]
_____ Slaughterhouse [5A20]
_____ Motor Vehicle Waste Disposal [5K]
_____ Large Capacity Cesspool (>20 persons) [5E]
_____ Subsurface Remediation [5B6]
_____ Other_____

Nature of Injection Fluid:_____
GPS Position (If there are multiple wells, please provide each additional locations on the back.):

Latitude (N):_____ Deg. Min. Sec. **Longitude (W):**_____ Deg. Min. Sec.

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. imprisonment. (Ref. 40 CFR 144.32)

Name & Title:_____

Signature:_____ **Date Signed:**_____

Please provide additional remarks and a site sketch on back.

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