

PUBLIC NOTICE
U.S. Environmental Protection Agency, Region 4
Water Division
Permitting and Grants Branch
Atlanta Federal Center
61 Forsyth Street, S.W.
Atlanta, Georgia 30303
(404) 562-9847

Public Notice No. 20NC00001

Date: 03/18/2020

NOTICE OF PROPOSED ISSUANCE OF
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

The U.S. Environmental Protection Agency intends to issue a National Pollutant Discharge Elimination System (NPDES) permit to the Eastern Band of Cherokee Indians, P.O. Box 455, Cherokee, North Carolina 28719. The applicant has a request for issuance of NPDES No. NC0089907 for its Jacob Cornsilk Complex Wastewater Treatment Plant, located at 314 Cornsilk Branch Road, Robbinsville, North Carolina 28871. The draft permit authorizes the discharge of treated sanitary wastewater (SIC Code 4952) through Outfall 001 to Snowbird Creek.

Persons wishing to comment upon or object to any aspects of the permit issuance or wishing to request a public hearing, are invited to submit the same in writing within thirty (30) days of this notice to the NPDES Permitting Section, Water Division, Environmental Protection Agency, 61 Forsyth Street, S.W., Atlanta, Georgia 30303-8960, ATTENTION: Ms. Mary Kuo. Comments may also be sent via email to: kuo.mary@epa.gov. Pursuant to 40 CFR § 124.13, any person who believes that any proposed permit condition is inappropriate must raise all reasonably ascertainable issues and submit all reasonably available arguments in full, supporting his/her position, by the close of the comment period. The public notice number and NPDES number should be included on the first page of comments.

All comments received within the 30-day period will be considered in the formulation of a final determination regarding the permit issuance. Also, within the 30-day period, any interested person may request a public hearing. Where there is a significant degree of public interest in a proposed permit issuance, the EPA Regional Administrator will schedule and hold a public hearing which would be formally announced in accordance with 40 CFR §§ 124.10 and 124.12.

After consideration of all written comments and the requirements and policies in the Clean Water Act and appropriate regulations, the EPA Regional Administrator will make a determination regarding the permit issuance. If the determination is substantially unchanged from that announced by this notice, the EPA Regional Administrator will so notify all persons submitting written comments. If the determination is substantially changed, the EPA Regional Administrator will issue a public notice indicating the revised determination. Appeal of NPDES permits may be filed after the Regional Administrator makes the above-described determination. Additional information regarding appeal of NPDES permits is available in 40 CFR § 124.19, or by contacting Suzanne Armor of the Office of Regional Counsel at (404) 562-9701.

The administrative record, including the draft permit, fact sheet, a sketch showing the exact location of the permit area, comments received and additional information on hearing procedures is available at cost by writing to the EPA at the address above between the hours of 8:15 a.m. and 4:30 p.m., Monday through Friday (copies will be provided at a minimal cost per page), or by downloading these documents from <https://www.epa.gov/aboutepa/about-epa-region-4-southeast>.

Please bring the foregoing to the attention of persons whom you know will be interested in this matter. If you would like to be added to our public notice mailing list, submit your name and mailing address to the EPA, at the address given above.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
Water Division
Atlanta Federal Center
61 Forsyth Street SW
Atlanta, Georgia 30303-8960

AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
PERMIT NUMBER
NC0089907

Under the authority of the Clean Water Act (CWA) of 1977 (33 USC § 1251 et seq.) and in accordance with the effluent limitations, monitoring requirements, and other conditions set forth herein

Permittee: **Eastern Band of Cherokee Indians**
P.O. Box 455
Cherokee, North Carolina 28719

is authorized to discharge: **Municipal Wastewater**

from the facility located: **Jacob Cornsilk Complex**
314 Cornsilk Branch Road
Robbinsville, North Carolina 28771

from the outfall: **001 (Latitude 35°18'13.0" North; Longitude 83°52'24.1" West)**

into the receiving water body: **Snowbird Creek**

This permit shall become effective on: **DATE**

This permit shall expire on: **DATE**

Issuance Date: **DATE**

The permittee shall reapply for NPDES coverage to discharge before **DATE**, 180 days before the expiration of this permit, if the permittee intends to continue to discharge at the facility beyond the term of this permit.

Jeaneanne M. Gettle, Director
Water Division

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SCHEDULE OF SUBMISSIONS

The following is a summary of some of the items which the permittee must complete and/or submit to the U.S. Environmental Protection Agency during the term of this permit:

Item	Due Date
1. Discharge Monitoring Reports (DMRs)	Unless an exception is granted, the DMRs (EPA Form No.3320-1) are due quarterly and must be entered into NetDMR (see Part II.B.1).
2. Submittal of NPDES Application	A complete application (Forms 1, 2A, and 2S) for the next permit cycle must be submitted to the EPA no later than 180 days before the permit expires (see 40 C.F.R. § 122.21).

Submittal Addresses:

For DMRs

Targeting, Data & Measures Office Chief
U.S. Environmental Protection Agency, Region 4
Enforcement and Compliance Assurance Division | Targeting, Data & Measures Office
61 Forsyth Street SW | Atlanta GA 30303-8960

For NPDES Application Forms

Permitting and Grants Branch Chief
U.S. Environmental Protection Agency, Region 4
Water Division | Permitting and Grants Branch
61 Forsyth Street SW | Atlanta GA 30303-8960
R4NPDESPermits@epa.gov

PART I – LIMITATIONS AND MONITORING REQUIREMENTS

A. Effluent Limitations and Other Monitoring Requirements

1. During the period beginning on the effective date and lasting through the term of this permit, the permittee is authorized to discharge from Outfall 001 from a treatment facility with a **design capacity of 0.03 MGD** to the receiving water body. Such discharges shall be limited and monitored by the permittee as specified in Table 1.

Table 1: Limitations and Monitoring Requirements for Outfall 001

PARAMETERS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS		
	Daily Min	Monthly Avg	Weekly Avg	Daily Max	Sampling Location	Measurement Frequency	Sample Type
Flow, MGD	---	Report	Report	---	Effluent	2/Month	Instantaneous
Dissolved Oxygen (DO), mg/l	3.0	---	---	---	Effluent	2/Month	Grab
Carbonaceous Biochemical Oxygen Demand 5-Day (CBOD ₅), mg/l (lbs/day)	---	Report 25.0 (6.26)	---	---	Influent Effluent	2/Month	Grab
Carbonaceous Biochemical Oxygen Demand 5-Day (CBOD ₅) Percent Removal, %	85% ^a				Influent/ Effluent	2/Month	Calculated
Total Suspended Solids (TSS), mg/l (lbs/day)	---	Report 30.0 (7.51)	---	---	Influent Effluent	2/Month	Grab
Total Suspended Solids (TSS) Percent Removal, %	85% ^a				Influent/ Effluent	2/Month	Calculated
pH, standard units (SU)	6.0	---	---	9.0	Effluent	2/Month	Instantaneous
E. coli, #/100 mL	---	126 ^b	---	410 ^b	Effluent	2/Month	Grab
Temperature	---	Report	Report		Effluent	2/Month	Grab
Total Nitrogen as Nitrogen (TN), mg/l	---	Report	Report	---	Effluent	Monthly	Grab

PARAMETERS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS		
	Daily Min	Monthly Avg	Weekly Avg	Daily Max	Sampling Location	Measurement Frequency	Sample Type
Total Phosphorus as Phosphorous (TP), mg/l	---	Report	Report	---	Effluent	Monthly	Grab
Total Ammonia as Nitrogen (TAN), mg/l (lbs/day)	---	10.0 (2.50)	---	15.0 (3.75)	Effluent	2/Month	Grab

^a Each month, the monthly average effluent CBOD₅ and TSS concentrations shall not exceed 15% of the average of their respective influent concentration values (85% removal). The percent removal shall be reported on the DMR submitted electronically using NetDMR.

^b The geometric mean of the E. coli values collected during any monthly period shall not exceed 126 colonies per 100 ml of effluent sample and shall be reported as the monthly average value on the DMR form. No more than ten percent of the E. coli samples examined during any month shall exceed 410 colonies per 100mL.

2. Samples taken in compliance with the influent monitoring requirements specified in this permit shall be taken at the nearest accessible point prior to treatment. Samples taken in compliance with the effluent monitoring requirements specified in this permit shall be taken at the nearest accessible point to the outfall, after final treatment but prior to the actual discharge or mixing with the receiving waters (unless otherwise specified).
3. Any bypass of the treatment facility, which is not included in the effluent monitored above, is to be monitored for flow and all other parameters. For parameters other than flow, at least one grab sample per day shall be monitored. Daily flow shall be monitored or, if monitoring is not feasible, estimated to obtain reportable data. All monitoring results shall be reported on the DMR and submitted electronically using NetDMR.
4. There shall be no discharge of floating debris, oil, scum, and other floating materials in amounts sufficient to be unsightly or deleterious.
5. If the results for a given sample analysis are such that any parameter (other than E. coli) is not detected at or above the minimum level for the test method used, a value of zero will be used for that sample in calculating an arithmetic mean value for the parameter. If the resulting calculated arithmetic mean value for that reporting period is zero, the permittee shall report "NODI=B" on the DMR. For E. coli, a value of 1.0 shall be used in calculating the geometric mean. If the resulting E. coli mean value is 1.0, the permittee shall report "NODI=B" on the DMR. For each quantitative sample value that is not detectable, the test method used and the minimum level for that method for that parameter shall be attached to and submitted with the DMR. The permittee shall then be considered in compliance with the appropriate effluent limitation and/or reporting requirement.
6. Overflow identification: The permittee shall identify all wastewater discharges at locations not authorized as permitted outfalls that occur prior to the headworks of the wastewater treatment plant covered by this permit. The permittee shall submit, with the scheduled DMR, the following information for each discharge event at each source that occurs during the reporting period covered by the DMR:

- a. the cause of the discharge;
- b. duration and volume (estimate if unknown);
- c. description of the source, e.g., manhole cover, pump station;
- d. type of collection system that overflowed, i.e., combined or separate;
- e. location by street address, or any other appropriate method;
- f. date of event;
- g. the ultimate destination of the flow, e.g., surface water body, land use location, via municipal separate storm sewer system to a surface water body, (show location on a USGS map or copy thereof); and
- h. corrective actions or plans to eliminate future discharges.

The permittee shall refer to Part III.D.8 of this permit which contains information about reporting unpermitted discharge events. Submittal or reporting of any of this information does not provide relief from any subsequent enforcement actions for unpermitted discharges to waters of the United States.

B. Sludge Management Practices

1. Annually, the permittee shall sample and analyze the sludge for arsenic, chromium, and nickel.
2. The permittee shall submit within 30 days of the effective date of this permit the sludge production volume (specify if daily or annual; if actual volume is not known, estimate the quantity of sludge being handled and so indicate) and the sludge disposal practice.
3. The permittee shall provide sludge inventory data to the EPA as part of the EPA's inventory updates as requested. The data should include, but not be limited to, sludge quantity and characteristics.
4. Reopener. If an applicable "acceptable management practice" or numerical limitation for pollutants in sewage sludge promulgated under Clean Water Act (CWA) § 405(d)(2), as amended by the Water Quality Act of 1987, is more stringent than the sludge pollutant limit or acceptable management practice in this permit or controls a pollutant not limited in this permit, this permit shall be promptly modified or revoked and reissued to conform to the requirements promulgated under CWA § 405(d)(2). The permittee shall comply with the limitations by no later than the compliance deadline specified in the applicable regulations as required by CWA § 405(d)(2)(D).
5. Notice of change in sludge disposal practice. The permittee shall give prior notice to the Director of any change planned in the permittee's sludge disposal practice.
6. Cause for modification. 40 C.F.R. § 122.62(a)(1) provides the alterations are a cause for modification but not revocation and reissuance of permits except when the permittee requests or agrees. Alterations are defined as follows: There are material and substantial changes or additions to the permitted facility or activity (including a change or changes in the permittee's sludge use or disposal practice) which occurred after permit issuance which justify the application of permit conditions that are different or absent in the existing permit.
7. Upon review of information provided by the permittee as required by the above items, or results from an

on-site inspection, the permit shall be subject to modification to incorporate appropriate requirements.

8. Should the permittee's sewage sludge be disposed of in a solid-waste landfill, the permittee shall demonstrate the absence of free liquids in its sewage sludge through the utilization of Test Method 9095 (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods" (EPA Publication No. SW-846). These tests shall be conducted on representative samples of all sewage sludge prior to each disposal at solid-waste landfills. A successful demonstration shall be performed before the permittee's sewage sludge is allowed to be disposed of at a solid-waste landfill. The permittee shall: 1) report on the DMR only the number of tests that failed during the quarter and 2) in any quarter where one or more tests failed, submit a separate report attached to the DMR which shows the date of each failed and subsequent passing test along with their respective results. Prior notice shall be given to the EPA of any changes in disposal practice resulting from test failures.
9. The permittee shall ensure that the sludge generated by its facility will be disposed of in accordance with the requirements of 40 C.F.R. Part 503.

C. Schedule of Compliance

1. The permittee shall achieve compliance with the effluent limitations specified for discharges in accordance with the following schedule:

Operational Level Attained..... Effective Date of Permit

PART II – OTHER PERMIT REQUIREMENTS

A. Reporting, Monitoring, and Recording Requirements

1. Electronic Reporting Requirements

- a. Monitoring data required by this permit shall be submitted on EPA Form 3320-1 DMR forms using the NetDMR internet application. NetDMR is a web-based application that allows National Pollutant Discharge Elimination System (NPDES) Permittee Users to enter and electronically submit DMR data through the Central Data Exchange (CDX) to the Integrated Compliance Information System (ICIS). The EPA's NetDMR webpage can be found at: <https://cdxnodengn.epa.gov/net-netdmr/>.
- b. The DMRs shall be signed by a facility's Responsible Official or a Delegated Responsible Official (i.e. a person delegated by the Responsible Official). The Responsible Official of a facility is defined in Part V. For NetDMR, the person(s) viewing, editing, signing and submitting the DMRs will need to register for a new account managed by the EPA Region 4. A request for signatory privilege requires submission of a Subscriber Agreement to the EPA Region 4. Additionally, Delegated Responsible Officials must be delegated by the Responsible Official, either on-line using NetDMR, or on a paper delegation form provided by the EPA. For more information and guidance on NetDMR, please view the following web page: <https://netdmr.zendesk.com/home>
- c. DMRs submitted using NetDMR shall be submitted to the EPA Region 4 by the 21st day of the month (April, July, October, January) following the quarter for which the monitoring was completed.

A paper copy of the submitted EPA 3320-1 DMR shall be maintained onsite for records retention purposes. For NetDMR users, view and print the DMR from the Submission Report Information page after each original or revised DMR is submitted.

- d. DMRs must be reported using the EPA's electronic NetDMR tool unless a waiver from electronic reporting has been granted from the EPA Region 4.

2. Monitoring procedures

Monitoring and sampling must be conducted according to test procedures approved under 40 C.F.R. Part 136, unless other test procedures have been specified in this permit or approved by the EPA as an alternate test procedure under 40 C.F.R. § 136.5.

3. Additional monitoring by the Permittee

If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 C.F.R. Part 136 or as specified in this permit, the permittee must include the results of this monitoring in the calculation and reporting of the data submitted in the DMR. Upon request by the EPA, the permittee must submit results of any other sampling, regardless of the test method used.

In order to ensure that the effluent limits set forth in this permit are not violated at times other than when routine samples are taken, the permittee must collect additional samples at the outfall

whenever any discharge occurs that may reasonably be expected to cause or contribute to a violation that is unlikely to be detected by a routine sample. The permittee must analyze the additional samples for those parameters limited in Table 1: Effluent Limitations and Monitoring Requirements.

B. Reopener Clause

This permit shall be modified, or alternatively, revoked and reissued, to comply with any applicable effluent standard or limitation issued or approved under CWA § 301(b)(2)(C), CWA § 301(b)(2)(D), and CWA § 307(a)(2), as amended, if the effluent standard or limitation so issued or approved:

1. Contains different conditions or is otherwise more stringent than any condition in the permit; or
2. Controls any pollutant not addressed in the permit.

The permit as modified or reissued under this paragraph shall contain any other requirements of the CWA then applicable.

PART III – STANDARD CONDITIONS FOR NPDES PERMITS

A. General Conditions

1. Duty to Comply [40 C.F.R. §§ 122.41(a) and 122.41(a)(1)]

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act (CWA or Act) and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.

2. Penalties for Violations of Permit Conditions [40 C.F.R. § 122.41(a)(2) and 40 C.F.R. § 122.41(a)(3)]

(Note: Civil and administrative penalty amounts described in this subsection are based on adjustments to the original statutory amounts based on inflation, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990 (28 U.S.C. § 2461 note; Pub. L. 101- 410, enacted October 5, 1990; 104 Stat. 890), as amended by the Debt Collection Improvement Act of 1996 (31 U.S.C. § 3701 note; Public Law 104-134, enacted April 26, 1996; 110 Stat. 1321) and as set forth at 40 C.F.R. § 19.4.)

The CWA provides that any person who violates Section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under Section 402, or any requirement imposed in a pretreatment program approved under Sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed \$51,570 per day for each violation. The CWA provides that any person who negligently violates Sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under Section 402 of the Act, or any requirement imposed in a pretreatment program approved under Section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of \$2,500 to \$25,000 per day of violation, or imprisonment of not more than one year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than \$50,000 per day of violation, or by imprisonment of not more than two years, or both. Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of \$5,000 to \$50,000 per day of violation, or imprisonment for not more than three years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than \$100,000 per day of violation, or imprisonment of not more than six years, or both. Any person who knowingly violates Section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under Section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than \$250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than \$500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in Section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than \$1,000,000 and can

be fined up to \$2,000,000 for second or subsequent convictions.

Any person may be assessed an administrative penalty by the Administrator for violating Section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under Section 402 of this Act.

Administrative penalties for Class I violations are not to exceed \$20,628 per violation, with the maximum amount of any Class I penalty assessed not to exceed \$51,570. Penalties for Class II violations are not to exceed \$20,628 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed \$257,848. The specific penalty amounts described above for violations reflect those in effect at the time of permit issuance and are subject to change.

3. Civil and Criminal Liability [40 C.F.R. § 122.41(m) and (n)]

Except as provided in permit conditions on “Bypassing” Section B, Paragraph 3, and “Upset” Section B, Paragraph 4, nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

4. Duty to Mitigate [40 C.F.R. § 122.41(d)]

The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

5. Permit Actions [40 C.F.R. § 122.41(f)]

This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

6. Toxic Pollutants [40 C.F.R. § 122.44(b)(1)]

If any applicable toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under Section 307(a) of the CWA for a toxic pollutant and that standard or prohibition is more stringent than any limitation on the pollutant in the permit, the Director shall institute proceedings under these regulations to modify or revoke and reissue the permit to conform to the toxic effluent standard or prohibition.

7. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the CWA.

8. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the CWA.

9. Effect of a Permit [40 C.F.R. § 122.5(a)(1) and (2)]

Except for any toxic effluent standards and prohibitions imposed under Section 307 of the CWA and “standards for sewage sludge use or disposal” under Section 405(d) of the CWA, compliance with a permit during its term constitutes compliance, for purposes of enforcement, with Sections 301, 302, 306, 307, 318, 403, and 405 (a)-(b) of the CWA. However, a permit may be modified, revoked and reissued, or terminated during its term for cause as set forth in 40 C.F.R. §§ 122.62 and 122.64.

Compliance with a permit condition which implements a particular “standard for sewage sludge use or disposal” shall be an affirmative defense in any enforcement action brought for a violation of that “standard for sewage sludge use or disposal” pursuant to Sections 405(e) and 309 of the CWA.

10. Property Rights [40 C.F.R. § 122.5(b), 40 C.F.R. § 122.41(g), and 40 C.F.R. § 122.5(c)]

This permit does not convey any property rights of any sort, or any exclusive privilege. The issuance of a permit does not authorize any injury to persons or property or invasion of other private rights, or any infringement of State or local law or regulations.

11. Onshore or Offshore Construction

This permit does not authorize or approve the construction of any onshore or offshore physical structures or facilities or the undertaking of any work in any waters of the United States.

12. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

13. Duty to Provide Information [40 C.F.R. § 122.41(h)]

The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the Director upon request, copies of records required to be kept by this permit.

B. Operation and Maintenance of Pollution Controls

1. Proper Operation and Maintenance [40 C.F.R. § 122.41(e)]

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

2. Need to Halt or Reduce Activity Not a Defense [40 C.F.R. § 122.41(c)]

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

3. Bypass of Treatment Facilities [40 C.F.R. § 122.41(m)(1)-(4)]

a. Definitions

- (1) **“Bypass”** means the intentional diversion of waste streams from any portion of a treatment facility.
- (2) **“Severe property damage”** means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

b. Bypass not exceeding limitations.

The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Paragraphs c. and d. of this subsection.

c. Notice

- (1) **Anticipated bypass.** If the permittee knows in advance of the need for a bypass, it shall submit prior notice to the Director, if possible at least ten days before the date of the bypass.
- (2) **Unanticipated bypass.** The permittee shall submit notice of an unanticipated bypass as required in Section D, Subsection 8 (24-hour notice).

d. Prohibition of bypass

- (1) Bypass is prohibited, and the Director may take enforcement action against a permittee for bypass, unless:
 - (a) Bypass was unavoidable to prevent loss of life and person injury, or severe property damage; and
 - (b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 - (c) The permittee submitted notices as required under Paragraph c. of this subsection.

- (2) The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in Paragraph d.(1) of this subsection.

4. Upsets [40 C.F.R. § 122.41(n)(1)-(4)]

a. Definition

“**Upset**” means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

b. Effect of an upset

An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of Paragraph c. of this subsection are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

c. Conditions necessary for a demonstration of upset

A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

- (1) An upset occurred and that the permittee can identify the cause(s) of the upset;
- (2) The permitted facility was at the time being properly operated;
- (3) The permittee submitted notice of the upset as required in Section D, Subsection 8 (24-hour notice); and
- (4) The permittee complied with any remedial measures required under Section A, Subsection 4.

d. Burden of proof

In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

5. Removed Substances

This permit does not authorize discharge of solids, sludge, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters of the United States unless specifically limited in Part I.

C. Monitoring and Records

1. Representative Sampling [40 C.F.R. § 122.41(j)(1)]

Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. All samples shall be taken at the monitoring points specified in this permit (Part I.A.2). Monitoring points shall not be changed without notification to and the approval of the Director.

2. Flow Measurements

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to insure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to ensure that the accuracy of all measurements are consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than \pm 10% from the true discharge rates throughout the range of expected discharge volumes.

3. Monitoring Procedures [40 C.F.R. § 122.41(j)(4)]

Monitoring results must be conducted according to test procedures approved under 40 C.F.R. Part 136 or, in the case of Sewage sludge use or disposal, approved under 40 C.F.R. Part 136 unless otherwise specified in 40 C.F.R. Part 503, unless other test procedures have been specified in the permit.

4. Penalties for Tampering [40 C.F.R. § 122.41(j)(5)]

The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than 4 years, or both.

5. Retention of Records [40 C.F.R. § 122.41(j)(2)]

Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 C.F.R. Part 503), the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time.

6. Record Contents [40 C.F.R. § 122.41(j)(3)(i)-(vi)]

Records of monitoring information shall include:

- a. The date, exact place, and time of sampling or measurements;

- b. The individual(s) who performed the sampling or measurements;
- c. The date(s) analyses were performed;
- d. The individual(s) who performed the analyses;
- e. The analytical techniques or methods used; and
- f. The results of such analyses.

7. Inspection and Entry [40 C.F.R. § 122.41(i)(1)-(4)]

The permittee shall allow the Director or an authorized representative (including an authorized contractor acting as a representative of the Director), upon presentation of credentials and other documents as may be required by law, to:

- a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the CWA, any substances or parameters at any location.

D. Reporting Requirements

1. Change in Discharge [40 C.F.R. § 122.41(l)(1)(i)-(iii)]

The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

- a. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 C.F.R. § 122.29(b); or
- b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under Section D, Subsection 11.
- c. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

2. Anticipated Noncompliance [40 C.F.R. § 122.41(l)(2)]

The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

Any maintenance of facilities, which might necessitate unavoidable interruption of operation and degradation of effluent quality, shall be scheduled during noncritical water quality periods and carried out in a manner approved by the Director.

3. Transfer of Ownership of Control [40 C.F.R. § 122.41(l)(3), § 122.61, and § 122.61(b)]

a. This permit is not transferable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the CWA.

b. In some cases, modification or revocation and reissuance is mandatory.

c. Automatic Transfers. As an alternative to transfers of permits by modification, any NPDES permit may be automatically transferred to a new permittee if:

(1) The current permittee notifies the Director at least 30 days in advance of the proposed transfer date in Subparagraph c(2) of this subsection;

(2) The notice includes a written agreement between the existing and new permittee(s) containing a specific date for transfer of permit responsibility, coverage, and liability between them; and

(3) The Director does not notify the existing permittee and the proposed new permittee of his or her intent to modify or revoke and reissue the permit. A modification under this subparagraph may also be a minor modification under 40 C.F.R. § 122.63. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in Subparagraph c(2) of this subsection.

4. Monitoring Reports [40 C.F.R. § 122.41(l)(4) and 40 C.F.R. § 122.41(l)(4)(i)]

Monitoring results shall be reported at the intervals specified in Part I of the permit. Monitoring results must be reported on a DMR or forms provided or specified by the Director for reporting results of monitoring of sewage sludge use or disposal practices.

5. Additional Monitoring by the Permittee [40 C.F.R. § 122.41(l)(4)(ii)]

If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 C.F.R. Part 136 or, in the case of sewage sludge use or disposal, approved under 40 C.F.R. Part 136 unless otherwise specified in 40 C.F.R. Part 503, or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sewage sludge reporting form specified by this permit.

6. Averaging of Measurements [40 C.F.R. § 122.41(l)(4)(iii)]

Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Director in this permit.

7. Compliance Schedules [40 C.F.R. § 122.41(l)(5)]

The permittee shall achieve compliance with the effluent limitations and monitoring requirements specified for discharges by the effective date of this permit. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date. Any reports of noncompliance shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

8. Twenty-Four Hour Reporting [40 C.F.R. §§ 122.44(g), 122.41(l)(6), and 122.44(g)]

The permittee shall report to the Director any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 calendar days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

The following shall be included as information which must be reported within 24 hours under this paragraph. The Director may waive the written report on a case-by-case basis for reports under this subsection if the oral report has been received within 24 hours.

- a. Any unanticipated bypass which exceeds any effluent limitation in the permit.
- b. Any upset which exceeds any effluent limitation in the permit.
- c. Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in the permit to be reported within 24 hours.

9. Other Noncompliance [40 C.F.R. § 122.41(l)(7)]

The permittee shall report all instances of noncompliance not reported under Section D at the time DMRs are submitted. The reports shall contain the information listed in Section D, Subsection 8.

10. Other Information [40 C.F.R. § 122.41(l)(8)]

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information to the Director.

11. Changes in Discharge of Toxic Substances [40 C.F.R. § 122.42(a)(1)(i-iii) and 40 C.F.R. § 122.42(a)(2)(i-iii)]

The following conditions apply to all NPDES permits within the categories specified below:

- a. Existing manufacturing, commercial, mining, and silvicultural dischargers. All existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe:
 - (1) That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following “notification levels”:
 - (a) One hundred micrograms per liter (100 µg/l);
 - (b) Two hundred micrograms per liter (200 µg/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony; or
 - (c) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R. § 122.21(g)(7).
 - (2) That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following “notification levels”:
 - (a) Five hundred micrograms per liter (500 µg/l);
 - (b) One milligram per liter (1 mg/l) for antimony; or
 - (c) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R. § 122.21(g)(7).
- b. Publicly owned treatment works (POTWs). All POTWs must provide adequate notice to the Director of the following:
 - (1) Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to Section 301 or 306 of CWA if it were directly discharging those pollutants; and
 - (2) Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
 - (3) For purposes of this paragraph, adequate notice shall include information on the quality and quantity of effluent introduced into the POTW, and any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW [40 C.F.R. § 122.42(b)].

12. Duty to Reapply [40 C.F.R. § 122.41(b), § 122.21(d), § 122.6(a), and § 122.6(b)]

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit.

The application should be submitted at least 180 days before the expiration date of this permit. The Director may grant permission to submit an application later than the 180 days in advance, but no later than the permit expiration date.

The conditions of an expired permit continue in force under 5 U.S.C. 558(c) until the effective date of a new permit if the permittee has submitted a timely application under this subsection which is a complete application for a new permit; and the Director, through no fault of the permittee, does not issue a new permit with an effective date on or before the expiration date of the previous permit.

Permits continued under this section remain fully effective and enforceable.

13. Signatory Requirements [40 C.F.R. § 122.41(k)(1) and 40 C.F.R. § 122.22]

All applications, reports, or information submitted to the Director shall be signed and certified.

a. Applications. All permit applications shall be signed as follows:

(1) For a corporation. By a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

(a) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or

(b) The manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

NOTE: The EPA does not require specific assignments or delegations of authority to responsible corporate officers identified in this subparagraph. The Agency will presume that these responsible corporate officers have the requisite authority to sign permit applications unless the corporation has notified the Director to the contrary. Corporate procedures governing authority to sign permit applications may provide for assignment or delegation to applicable corporate positions under this subparagraph rather than to specific individuals.

(2) For a partnership or sole proprietorship. By a general partner or the proprietor, respectively; or

(3) For a municipality, State, Federal, or other public agency. By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:

- (a) the chief executive officer of the agency, or
 - (b) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of the EPA).
- b. All reports required by permits, and other information requested by the Director shall be signed by a person described in Paragraph a. of this section, or by a duly authorized representative of that person. A person is a duly authorized representative only if:
- (1) The authorization is made in writing by a person described in Paragraph a. of this section;
 - (2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company.
 - (3) The written authorization is submitted to the Director.
- c. Changes to Authorization. If an authorization under Paragraph b. of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Paragraph b. of this section must be submitted to the Director prior to or together with any reports, information, or applications to be signed by an authorized representative.
- d. Certification. Any person signing a document under Paragraph a. or b. of this section shall make the following certification:

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

14. Availability of Reports and the Administrative Record [40 C.F.R. §§ 124.18 & 122]

Except for data determined to be confidential under 40 C.F.R. Part 2, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the EPA. As required by the Act, permit applications, permits and effluent data shall not be considered confidential.

15. Penalties for Falsification of Reports [40 C.F.R. § 122.41(k)(2)]

The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for

not more than six (6) months per violation, or by both.

E. Definitions

1. The EPA [40 C.F.R. § 122.2]

The Regional Administrator of the EPA Region 4 or his/her designee is the “**The EPA**,” unless at some time in the future the State or Indian Tribe receives authority to administer the NPDES program and assumes jurisdiction over the permit at which time, the Director of the State or Tribal program receiving the authorization becomes the issuing authority.

The use of the term “Director” in this permit shall mean the EPA Region 4 Water Division Director, as the Regional Administrator’s designee.

2. Act [40 C.F.R. § 124.2]

“**Act**” means the CWA (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Public Law 92-500, as amended by Public Law 95-217, Public Law 95-576, Public Law 96-483, and Public Law 97-117, 33 U.S.C. 1251 et seq.

3. Discharge Monitoring Report (DMR) [40 C.F.R. § 122.2]

“**Discharge Monitoring Report**” means the EPA national form (Form 3320-1) or electronic reporting form required by the federal regulations including any subsequent additions, revisions, or modifications for the reporting of self-monitoring results by permittees.

4. Measurements [40 C.F.R. § 122.2]

The “**Daily discharge**” means the “discharge of a pollutant” measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the “daily discharge” is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement (i.e., concentration), the “daily discharge” is calculated as the average measurement of the pollutant over the day.

The “**average annual discharge limitation**” means the highest allowable average of “daily discharges” over a period of twelve consecutive calendar months, calculated as the “arithmetic mean” of the monthly averages for the current calendar month and the eleven prior calendar months. The annual average is calculated each month. This limitation is identified as “Annual Average” in Part I of the permit.

The “**average monthly discharge limitation**” other than for bacterial indicators, means the highest allowable average of “daily discharges” over a calendar month, calculated as the sum of all “daily discharges” measured during a calendar month divided by the number of “daily discharges” measured during that month. For bacterial indicators, the “average monthly discharge limitation” is calculated using a “geometric mean.” This limitation is identified as “Monthly Average” or “Daily Average” in Part I of the permit.

The “**average weekly discharge limitation**” means the highest allowable average of “daily discharges” over a calendar week, calculated as the sum of all “daily discharges” measured

during a calendar week divided by the number of “daily discharges” measured during that week. This limitation is identified as “Weekly Average” in Part I of the permit.

The “**maximum daily discharge limitation**” means the highest allowable “daily discharge.” This limitation is identified as “Daily Maximum” in Part I of the permit.

The “**Method Detection Limit (MDL)**” means the minimum concentration of a substance (analyte) that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte.

The “**Minimum Level (ML)**” means the concentration at which the entire analytical system must give a recognizable signal and an acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method-specified sample weights, volumes and processing steps have been followed.

5. Types of Samples

- a. Composite Sample: A “**composite sample**” is a combination of not less than eight influent or effluent portions (aliquots), of at least 100 ml, collected over the full time period specified in Part I of the permit. The composite sample must be flow proportioned by either a time interval between each aliquot, or by volume as it relates to effluent flow at the time of sampling, or by total flow since collection of the previous aliquot. Aliquots may be collected manually or automatically.
- b. Grab Sample: A “**grab sample**” is a single influent or effluent portion which is not a composite sample. The sample(s) shall be collected at the period(s) most representative of the total discharge.

6. Calculation of Means

- a. Arithmetic Mean: The “**arithmetic mean**” of any set of values is the sum of the individual values divided by the number of individual values.
- b. Geometric Mean: The “**geometric mean**” of any set of values is the N^{th} root of the product of the individual values where N is equal to the number of individual values. The geometric mean is equivalent to the antilog of the arithmetic mean of the logarithms of the individual values. For purposes of calculating the geometric mean, values of zero (0) shall be considered to be one (1).

7. Permittee [40 C.F.R. § 122.21(b)]

The “**Permittee**” means the operator who has substantial control over the day-to-day operations of the facility; when a facility or activity is owned by one person but is operated by another person, it is the operator’s duty to obtain a permit.

8. Hazardous Substance [40 C.F.R. § 122.2]

A “**hazardous substance**” means any substance designated under 40 C.F.R. Part 116 pursuant to Section 311 of the CWA.

9. Toxic Pollutants [40 C.F.R. § 122.2]

A “**toxic pollutant**” is any pollutant listed as toxic under Section 307(a)(1) of the CWA or, in the case of “Sewage sludge use or disposal practices,” any pollutant identified in regulations implementing Section 405(d) of the CWA.

MUNICIPAL FACILITY FACT SHEET

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT TO DISCHARGE TREATED WASTEWATER TO WATERS OF THE UNITED STATES

Permit No.: NC0089907

Last Updated: March 18, 2020

1. Summary of Permit Changes

Not applicable since this is a new permit.

2. Facility Information

- A. Name and Address of Permittee: Eastern Band of Cherokee Indians
P.O. Box 455
Cherokee, North Carolina 28719
- B. Facility Address: Jacob Cornsilk Complex
314 Cornsilk Branch Road
Robbinsville, North Carolina 28771
- C. Type of Facility: Municipal Wastewater Treatment Plant
Publicly-Owned Treatment Works (POTW)
Standard Industrial Classification Code: 4952
- D. Location and Description of the discharge (as reported by applicant):

Outfall	Latitude	Longitude	Receiving Waterbody	Watershed
001	35°18'13.0" N	83°52'24.1" W	Snowbird Creek	Lower Little Tennessee HUC 06010204

E. Permitted Capacity: 0.03 MGD

F. Description of Wastewater Treatment Facility:

Outfall	Operation Description	Treatment Description
1	Sanitary Wastewater	Treatment consists of influent equalization, followed by attached-growth aerobic biological treatment, ultraviolet (UV) disinfection, and effluent flow monitoring. Estimated population served is 140.

G. Type of Wastewater Discharge:

- Process Wastewater Stormwater
 Domestic Wastewater Combined (describe)
 Other (describe)

H. Characterization of Effluent

No data are available since this is a new facility. This data will be collected within 24 months of issuance in accordance with Item 1.2 in Application Form 2A (EPA Form 3510-2A).

3. **Water Quality Standards & Receiving Waterbody Information**

A. Receiving Waterbody Classification and Information – The discharge goes into Snowbird Creek, which is within the Cheoah River subwatershed. Based on the Eastern Band of Cherokee Indians' (EBCI) Water Quality Standards (WQS), Cherokee waters within the Cheoah River subwatershed are designated for Ceremonial, Recreation, and Cold-Water Aquatic Habitat uses (3.2). Downstream, the State of North Carolina WQS are applicable as well. The section of Snowbird Creek within the State of North Carolina downstream of the discharge has designated uses of Class C (Secondary Recreation, Fishing, Aquatic Life, and Wildlife) and Tr (Trout Waters). By developing this permit to comply with the Tribe's promulgated criteria, this permit is protective of downstream State-designated uses.

B. Specific Water Quality Criteria for Classified Water Usage

The following are the most protective of criteria within the following applicable use classifications:

- a. Nutrients: 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.
- b. 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.
- c. pH: The normal pH of the water shall be 6.0 to 9.0 and shall not vary more than 1.0 unit.
- d. Bacteria: *Escherichia coli* shall not exceed a geometric mean of 126 per 100 mL nor shall more than ten percent of the samples examined during any month exceed 410 per 100 mL.
- e. 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.
- f. 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.
- g. Solids: 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.

h. 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 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.

i. Toxicants

a. Narrative:

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.
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.

b. Numerics: *Eastern Band of Cherokee Indians Water Quality Standards: Administrative Rules Appendix A: Table 1 and Table 2*

j. “Free-Froms”: 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.

C. Critical Flows – Implementing ECBI water quality standards requires consideration of flow design criteria for effluent limitations. Due to minimal flow data in the receiving waterbody, conservative assumptions were made regarding critical flows, resulting in a 7Q10 flow consistent with the 7Q10 cited in the *EBCI Environmental Information Document, August 2019*¹.

Snowbird Creek: 7Q10 = 31 cfs

D. 303(d) Status – Snowbird Creek has not been assessed for water quality by the EBCI. Based on

¹ Environmental Information Document for a New Wastewater Treatment Plant, Jacob Cornsilk Complex, Robbinsonville, North Carolina, Prepared for Eastern Band of Cherokee Indians by Civil & Environmental Consultants, Inc., CEC Project 191-994, August 2019.

the State of North Carolina's 2018 Integrated Report, Snowbird Creek was assessed in 2014 and is meeting its designated aquatic life use.

E. Total Maximum Daily Loads – A statewide mercury TMDL was finalized in 2012.

4. Effluent Limits and Permit Conditions

A. Proposed Effluent Limitations for Outfall 001

PARAMETERS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS		
	Daily Min	Monthly Avg	Weekly Avg	Daily Max	Sampling Location	Measurement Frequency	Sample Type
Flow, MGD	---	Report	Report	---	Effluent	2/Month	Instantaneous
Dissolved Oxygen (DO), mg/l	3.0	---	---	---	Effluent	2/Month	Grab
Carbonaceous Biochemical Oxygen Demand 5-Day (CBOD ₅), mg/l (lbs/day)	---	Report 25.0 (6.26)	---	---	Influent Effluent	2/Month	Grab
Carbonaceous Biochemical Oxygen Demand 5-Day (CBOD ₅) Percent Removal, %	85% ^a				Influent/ Effluent	2/Month	Calculated
Total Suspended Solids (TSS), mg/l (lbs/day)	---	Report 30.0 (7.51)	---	---	Influent Effluent	2/Month	Grab
Total Suspended Solids (TSS) Percent Removal, %	85% ^a				Influent/ Effluent	2/Month	Calculated
pH, standard units (SU)	6.0	---	---	9.0	Effluent	2/Month	Instantaneous
E. coli, #/100 mL	---	126 ^b	---	410 ^b	Effluent	2/Month	Grab
Temperature	---	Report	Report		Effluent	2/Month	Grab
Total Nitrogen (TN) as Nitrogen, mg/l	---	Report	Report	---	Effluent	Monthly	Grab

PARAMETERS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS		
	Daily Min	Monthly Avg	Weekly Avg	Daily Max	Sampling Location	Measurement Frequency	Sample Type
Total Phosphorus, (TP) as Phosphorous, mg/l	---	Report	Report	---	Effluent	Monthly	Grab
Ammonia Nitrogen, (NH ₃ -N), mg/l	---	10.0 (2.50)	15.0 (3.75)	---	Effluent	2/Month	Grab

^a Each month, the average effluent CBOD₅ and TSS concentrations shall not exceed 15% of the average of their respective influent concentration values (85% removal).

^b The geometric mean of the E. coli values collected during any monthly period shall not exceed 126 colonies per 100 ml of effluent sample and shall be reported as the monthly average value. No more than ten percent of the E. coli samples examined during any month shall exceed 410 colonies per 100 ml.

B. Reasonable Potential (RP)

Title 40 of the Federal Code of Regulations, 40 CFR 122.44(d) requires NPDES permit issuing authorities to develop procedures for determining whether a discharge causes, has the reasonable potential to cause, or contributes to an instream excursion above a narrative or numeric criterion. If such reasonable potential is determined to exist, the NPDES permit must contain pollutant effluent limits and/or effluent limits for whole effluent toxicity. The EPA's reasonable potential analysis is based on guidelines provided in the "U.S. EPA NPDES Permit Writer's Manual (2010)" and its references. No effluent data were available, and reasonable potential was simulated or calculated using assumed values, as discussed below.

C. Basis for Conventional Pollutants Limits

Pollutant of Concern	Basis
pH, SU	The effluent limitation range for pH was based on minimum level of effluent quality requirements of 40 CFR § 133.102 for discharges of wastewater from POTWs.
5-Day Carbonaceous Biochemical Oxygen Demand (CBOD ₅), mg/l	Effluent CBOD ₅ limits in the permit include a monthly average concentration of 25.0 mg/l and a weekly average concentration of 40.0 mg/l, which are based on secondary treatment standards. Effluent CBOD ₅ loading limits of 6.26 lbs/day monthly average and 10.01 lbs/day weekly average are also included in this permit; they are based on the design flow as reported on the application. The CBOD ₅ limits are based on meeting the EBCI's DO standard of 6.5mg/L at the point of discharge and are protective of the State of North Carolina's downstream water quality standard of 6.0 mg/L in Snowbird Creek down to Lake Santeetlah, as modeled through QUAL2K. The percent removal limitation for CBOD ₅ is based on the minimum level of effluent quality requirements of 40 CFR § 133.102 for discharge of waters from POTWs. For calculation of the percent removal, influent CBOD ₅ monitoring has been added.
Total Suspended Solids (TSS), mg/l	The effluent limitations for TSS are based on minimum level of effluent quality requirements of 40 CFR § 133.102 for discharges of wastewater from POTWs. The permit includes monthly average limits of 30 mg/l and 7.51 lbs/day and weekly average limits of

	45 mg/l and 11.26 lbs/day, as well as an 85% removal limitation and influent monitoring.
E. coli, #/100ml	The effluent limitations for Escherichia coli are based on meeting the EBCI's water quality standards for ceremonial and recreational uses. The permit includes a monthly limit expressed as a geometric mean of 126 #/100 mL and a daily maximum limit that no more than ten percent of the samples examined during any month shall exceed of 410 #/100 ml.

D. Basis for Nonconventional Pollutants Limits

Pollutant of Concern	Basis
Ammonia, mg/l	The permit includes monthly average ammonia limits of 10.0 mg/l and 2.50 lbs/day and weekly average ammonia limits of 15.0 mg/l and 3.75 lbs/day. Assuming rapid and instantaneous mixing at the point of discharge, model runs using QUAL2K show that the limits are protective of the EBCI's dissolved oxygen criteria at critical conditions. The basis for the ammonia limit was not water-quality based given that the instream waste concentration is 0.15% (see discussion below). Instead, the monthly and weekly average limits were selected based on BPJ and meeting the DO criteria. The potential for any near-field effects will be revisited.
Dissolved Oxygen, DO, mg/l	The permit includes a daily minimum dissolved oxygen limit of 3.0 mg/l. Assuming rapid and instantaneous mixing at the point of discharge, model runs using QUAL2K show that the limits are protective of EBCI's dissolved oxygen criteria for its cold-water aquatic habitat use. This limit is also protective of North Carolina's water quality standard for dissolved oxygen based on model results of downstream waters. The basis for the DO limit was not water-quality based given that the instream waste concentration is 0.15% (see discussion below). Instead, the daily minimum limit was selected based on BPJ. The potential for any near-field effects will be revisited.
Total Nitrogen, mg/l	Monitoring for Total Nitrogen is being required so that sufficient information will be available from this point source should it be necessary at some later time to impose limits on this discharge.
Total Phosphorus, mg/l	Monitoring for Total Phosphorus is being required so that sufficient information will be available from this point source should it be necessary at some later time to impose limits on this discharge.

E. Calculations for Water Quality-Based Effluent Limits (WQBELs)

a. Instream Waste Concentration (IWC)

$$IWC (\%) = \frac{\text{Design Flow (gpd)}}{\text{Design Flow (gpd)} + 7Q_{10}(\text{gpd})} \times 100\%$$

$$IWC (\%) = \frac{30,000 \text{ gpd}}{30,000 \text{ gpd} + 20,035,823.38 \text{ gpd}} \times 100\%$$

$$IWC (\%) = 0.15\% \text{ in the Unnamed Tributary to Snowbird Creek}$$

b. Dissolved Oxygen (DO)

i. Minimum DO Analysis

The EBCI's DO criteria for its cold-water aquatic habitat use is a minimum concentration of 6.5 mg/L as a daily average and 5 mg/L as an instantaneous minimum. Given the small discharge flow relative to the receiving water, rapid and instantaneous mixing of the

effluent is assumed at the point of discharge. Best professional judgement was used to select a daily minimum DO limit of 3.0 mg/L. The analysis below was done to show how a DO limit of 3.0 mg/L has negligible impacts to the receiving water.

Rearranging a mass balance equation, $C_s Q_s + C_d Q_d = C_r Q_r$ results in the equation:

$$C_r = \frac{[(C_s)(Q_s) + (C_d)(Q_d)]}{(Q_r)}$$

Where:

C_r = Receiving water concentration

C_s = Upstream receiving water concentration

Q_s = Upstream receiving water flow

C_d = Effluent concentration

Q_d = Effluent flow

Q_r = Downstream receiving water flow

Using the DO criteria for C_s and 7Q10 flow for Q_s results in the equation:

$$C_r = \frac{[(6.5 \text{ mg/L})(20.04 \text{ MGD}) + (3 \text{ mg/L})(0.03 \text{ MGD})]}{(20.04 + 0.03 \text{ MGD})}$$

$$C_r = 6.495 \text{ mg/L}$$

Selection of a minimum DO limit of 3.0 mg/L for the discharge results in a DO concentration of 6.495 mg/L in the receiving water. The difference between the resulting receiving water concentration compared to EBCI's DO criteria of 6.5 mg/L is immeasurable. These calculations account for multiple conservative assumptions, including the use of a 7Q10 flow for the receiving water and the facility's design flow. Additionally, the facility is predicted to routinely achieve higher DO concentrations in the effluent.

Modeling using QUAL2K was run to meet a minimum target DO concentration of 6.5 mg/L in the receiving water. The model was used to analyze the effect of the facility's effluent on the receiving waterbody and determine CBOD₅, ammonia, and DO limits that are protective of these criteria. See Appendix 1 for a description of the model.

c. Ammonia

i. Ammonia Toxicity Analysis

The EBCI's WQS for ammonia references EPA's *Aquatic Life Ambient Water Quality Criteria for Ammonia – Freshwater 2013* (EPA-822-R-13-001). The below analyses

were done to determine whether there is a reasonable potential for ammonia toxicity upon discharge.

Criterion Maximum Concentration (CMC) - *Oncorhynchus spp.* Present

$$CMC = MIN \left(24.10, \left(0.7249 \times 23.12 \left(10^{0.036 \times (20 - T)} \right) \right) \right)$$

Where:

T = Temperature

CMC = acute criterion magnitude for total ammonia

Using average measured instream pH and temperature values of 7.1 SU and 18 °C correlates to an instream CMC of 18 mg/L, according to Table 5a of EPA's ammonia criteria document.

$$C_E = \frac{[CMC \times (Design\ Flow + 7Q10)] - (7Q10 \times C_B)}{Design\ Flow}$$

$$C_E = \frac{[18\ mg/L \times (0.03 + 20.04\ MGD)] - (20.04 \times 0)}{0.03}$$

Where:

C_B = Upstream ammonia concentration = 0 mg/L

C_E = Allowable ammonia effluent concentration, mg/L

C_E = 12,042 mg/L

Criterion Continuous Concentration (CCC)

$$CCC = 0.8876 \times \left(\frac{0.0278}{1 + 10^{(7.688 - pH)}} + \frac{1.1994}{1 + 10^{(pH - 7.688)}} \right) \times (2.126 \times 10^{0.028 \times (20 - MAX(T, 7))})$$

CCC = Instream criterion continuous concentration for total ammonia

Using average measured instream pH and temperature values of 7.1 SU and 18 °C correlates to an instream CCC of 2.1 mg/L, according to Table 6 of EPA's ammonia criteria document.

$$C_E = \frac{[CCC \times (Design\ Flow + 7Q10)] - (7Q10 \times C_B)}{Design\ Flow}$$

$$C_E = \frac{[2.1 \times (0.03 + 20.04\ MGD)] - (20.04 \times 0)}{0.03}$$

Where:

C_B = Upstream ammonia concentration = 0 mg/L

$$C_E = 1405 \text{ mg/L}$$

The allowable acute and chronic ammonia effluent concentrations are 12,042 mg/L and 1405 mg/L, given the small discharge flow relative to the receiving water. As such, the ammonia limits in the permit were not based on the allowable water-quality based ammonia effluent concentrations. Best professional judgement was used to select more reasonable ammonia limits of 10 mg/L (monthly average) and 15 mg/L (weekly average) that would result in compliance with a minimum, simulated instream DO concentration. The selected ammonia permit limits should not result in ammonia toxicity when compared to the allowable acute and chronic values calculated above.

F. Applicable Technology-Based Effluent Limits (TBELs)

Technology-based effluent limitations aim to prevent pollution by requiring a minimum level of effluent quality that is attainable using demonstrated technologies for reducing discharges of pollutants or pollution into the waters of the United States.

i. Secondary Treatment Standards

Parameter	Secondary Treatment Standard
CBOD ₅	25 mg/L Monthly Average 40 mg/L Weekly Average
TSS	30 mg/L Monthly Average 45 mg/L Weekly Average
Removal	85% CBOD ₅ and TSS
pH	Maintained within the limits of 6.0-9.0 standard units

G. Comparison & Summary of Water Quality-Based vs. Technology-Based Effluent Limits

For each parameter, applicable technology-based limits (TBELs) were compared to the applicable water-quality based limits (WQBELs), and the most stringent limits were selected for the permit. The selected limits, indicated by bold text, were compared to the limits in the current permit, and all are at least as stringent as the current permit limits.

Parameter	Proposed Permit Limits							
	WQBELs				TBELs			
	Daily Min	Monthly Avg	Weekly Avg	Daily Max	Daily Min	Monthly Avg	Weekly Avg	Daily Max
Flow, MGD	---	Report	Report	---	---	---	---	---
Dissolved Oxygen, mg/l	3.0	---			---			
CBOD ₅ , mg/l (lb/d)	---	25.0 (6.26)	40.0 (10.01)	---	---	25	37.5	---
CBOD ₅ % Removal	---				85%			
TSS, mg/l (lb/d)	---				---	30.0 (7.51)	45.0 (11.26)	---
TSS % Removal	---				85%			
pH, S.U.	6.0	---		9.0	6.0	---		9.0

E. coli, #/100 ml	---	126	---	410	---			
Temperature	---	Report	Report	---	---	---	---	---
TN, mg/l	---	Report	Report	---	---			
TP, mg/l	---	Report	Report	---	---			
Total Ammonia as Nitrogen, mg/l (lb/d)	---	10.0 (2.50)	15.0 (3.75)	---	---			

5. 401 Certification

The Clean Water Act (CWA) §401 statute and regulations stipulate that no federal permit or license can be issued that may result in a discharge to waters of the United States unless the state or authorized tribe certifies that the discharge is consistent with water quality standards and other water quality goals, or waives its certification authority.

The CWA §401 regulations direct certifying agencies to conclude that the permitted activity will be consistent with effluent limitations for conventional and non-conventional pollutants, water quality standards, new source performance standards, and toxic pollutant limitations, and any other appropriate state and/or tribal requirements. A second component of the scope of the CWA §401 review is determining whether an activity requiring certification in one state or tribe (i.e., in the location where the discharge originates) may potentially impact the water quality of a neighboring state or tribe. In those instances, the EPA is directed to notify the state or tribe whose water quality may be affected, and other review processes may be triggered.

The Eastern Band of Cherokee Indians has promulgated water quality standards. The permit was developed to be consistent with the EBCI's Water Quality Standards. It is protective of designated uses of tribal waters and with the other applicable provisions of the CWA (i.e., §§ 301, 302, 303, 306, and 307). The Tribe has been granted §401 certification authority, and this authority covers the issuance of this Permit.

In addition, North Carolina has promulgated Water Quality Standards, and the permit is protective of the designated uses of North Carolina's waters. North Carolina has been granted §401 certification authority, and this authority covers the issuance of this Permit.

6. Services Consultation

In accordance with 40 CFR §122.49(c) the EPA is required to ensure, in consultation with the U.S. Fish and Wildlife Service (Service), that "any action authorized by the EPA is not likely to jeopardize the continued existence of any endangered or threatened species or adversely affect its critical habitat." In a letter dated February 19, 2020, the Service concurred with the EPA's determination that the project, as proposed, will not adversely affect federally listed species. According to a review of their records and of the information provided, no federally listed species or their habitat occur in Snowbird Creek.

7. National Environmental Policy Act (NEPA)

This facility is not considered a “new source” according to the definitions at 40 CFR §122.2 and therefore does not require an environmental assessment, environmental impact statement, or other information specified under 40 CFR §124.9(b)(6).

8. National Historic Preservation Act

Section 106 of the National Historic Preservation Act requires federal agencies to consider the effect of their undertakings on historic properties that are either listed on, or eligible for listing on, the National Register of Historic Places. As described in the *EBCI Environmental Information Document, August 2019*, EBCI consulted the Tribal Historic Preservation Office (THPO) to evaluate the potential for any historic and archeological preservation issues. THPO considers the probability for finding significant archaeological resources at the site of the Cornsilk Complex to be low and requested that EBCI monitor for artifacts during the initial phase of demolition and grading.

9. Public Participation

The public notice for this draft permit will be published in The Cherokee One Feather with the permit documents available on the EPA Region 4 website. The public comment period will be open for 30 days after publication of the public notice. A response to comment document will be drafted and included with the final permit should any significant comments be received.

Appendix 1 – Description of QUAL2K²

QUAL2K (or Q2K) is a river and stream water quality model that is intended to represent a modernized version of the QUAL2E (or Q2E) model (Brown and Barnwell 1987). Q2K is similar to Q2E in the following respects:

- One dimensional. The channel is well-mixed vertically and laterally.
- Branching. The system can consist of a mainstem river with branched tributaries.
- Steady state hydraulics. Non-uniform, steady flow is simulated.
- Diel heat budget. The heat budget and temperature are simulated as a function of meteorology on a diel time scale.
- Diel water-quality kinetics. All water quality variables are simulated on a diel time scale.
- Heat and mass inputs. Point and non-point loads and withdrawals are simulated.

The QUAL2K framework includes the following new elements:

- Software Environment and Interface. Q2K is implemented within the Microsoft Windows environment. Numerical computations are programmed in Fortran 90. Excel is used as the graphical user interface. All interface operations are programmed in the Microsoft Office macro language: Visual Basic for Applications (VBA).
- Model segmentation. Q2E segments the system into river reaches comprised of equally spaced elements. Q2K also divides the system into reaches and elements. However, in contrast to Q2E, the element size for Q2K can vary from reach to reach. In addition, multiple loadings and withdrawals can be input to any element.
- Carbonaceous BOD speciation. Q2K uses two forms of carbonaceous BOD to represent organic carbon. These forms are a slowly oxidizing form (slow CBOD) and a rapidly oxidizing form (fast CBOD).
- Anoxia. Q2K accommodates anoxia by reducing oxidation reactions to zero at low oxygen levels. In addition, denitrification is modeled as a first-order reaction that becomes pronounced at low oxygen concentrations.
- Sediment-water interactions. Sediment-water fluxes of dissolved oxygen and nutrients can be simulated internally rather than being prescribed. That is, oxygen (SOD) and nutrient fluxes are simulated as a function of settling particulate organic matter, reactions within the sediments, and the concentrations of soluble forms in the overlying waters.
- Bottom algae. The model explicitly simulates attached bottom algae. These algae have variable stoichiometry.
- Light extinction. Light extinction is calculated as a function of algae, detritus and inorganic solids.
- pH. Both alkalinity and total inorganic carbon are simulated. The river's pH is then computed based on these two quantities.
- Pathogens. A generic pathogen is simulated. Pathogen removal is determined as a function of temperature, light, and settling.
- Reach specific kinetic parameters. Q2K allows you to specify many of the kinetic parameters on a reach-specific basis.
- Weirs and waterfalls. The hydraulics of weirs as well as the effect of weirs and waterfalls on gas transfer are explicitly included.

² Chapra, S.C., Pelletier, G.J. and Tao, H. 2008. QUAL2K: A Modeling Framework for Simulating River and Stream Water Quality, Version 2.11: Documentation and Users Manual. Civil and Environmental Engineering Dept., Tufts University, Medford, MA.

Appendix 2 – Summary of Instream Monitoring

EBCI conducted a baseline sampling study in Snowbird Creek prior to submitting an NPDES permit application since there were no available water quality data. The sampling study consisted of samples collected from four locations in the creek - one site upstream and three downstream of the proposed facility. Sampling was conducted every other week from May 22, 2019 to August 14, 2019 for the following parameters:

- Dissolved Oxygen
- Temperature
- pH
- Conductivity
- Total Kjeldahl Nitrogen
- Total Nitrogen
- Nitrate
- Nitrite
- Ammonia-Nitrogen
- Total Phosphorus
- Phosphate
- 5-day Carbonaceous Biochemical Demand
- Total Suspended Solids
- Turbidity

Water quality samples were collected by personnel from EBCI Natural Resources and measured or analyzed using approved methods. The sampling results are presented in Tables 1-3 of the *EBCI Environmental Information Document, August 2019*.

Based on the monitoring results, paired with historical flow data, the ECBI document concludes that “the effluent from a well operated and properly designed WWTP should have virtually no measurable effect on the water quality in Snowbird Creek, even at low-flow conditions.”