NPDES PERMIT NO. LA0124656
FACT SHEET

FOR THE DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT TO DISCHARGE TO WATERS OF THE UNITED STATES

APPLICANT

Coushatta Casino Resort Waste Water Treatment Plant
777 Coushatta Drive
Kinder, LA 70648

ISSUING OFFICE

U.S. Environmental Protection Agency
Region 6
1445 Ross Avenue
Dallas, Texas 75202-2733

PREPARED BY

Ruben Alayon-Gonzalez
Environmental Engineer
Permitting Section (6WQ-PP)
Water Quality Protection Division
VOICE: 214-665-2785
EMAIL: alayon-gonzalez.ruben@epa.gov

DATE PREPARED

June 1, 2016

PERMIT ACTION

Proposed reissuance of the current NPDES permit issued February 25, 2011, with an effective date of April 1, 2011 and an expiration date of March 31, 2016.

RECEIVING WATER – BASIN

Levee/ditch on tribal land to tributary of Calcasieu River thence to Calcasieu River Basin.

DOCUMENT ABBREVIATIONS

In the document that follows, various abbreviations are used. They are as follows:

4Q3	Lowest four-day average flow rate expected to occur once every three-years
BAT	Best available technology economically achievable
BCT	Best conventional pollutant control technology
BPT	Best practicable control technology currently available
BMP	Best management plan
BOD	Biochemical oxygen demand (five-day unless noted otherwise)
BPJ	Best professional judgment
CBOD	Carbonaceous biochemical oxygen demand (five-day unless noted otherwise)
CD	Critical dilution
CFR	Code of Federal Regulations
cfs	Cubic feet per second
COD	Chemical oxygen demand
COE	United States Corp of Engineers
CWA	Clean Water Act
DMR	Discharge monitoring report
DO	Dissolved Oxygen
ELG	Effluent limitation guidelines
EPA	United States Environmental Protection Agency
ESA	Endangered Species Act
E. coli	Escherichia coli
FCB	Fecal coliform bacteria
FWS	United States Fish and Wildlife Service
LAIP	Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards
LDEQ	Louisiana Department of Environmental Quality
LWQS	Louisiana Water Quality Standards: Title 33 Environmental Quality, Part IX Water Quality
µg/l	Micrograms per liter (one part per billion)
mg/l	Milligrams per liter (one part per million)
MGD	Million gallons per day
ng/l	Nanograms per liter (one part per trillion)
NPDES	National Pollutant Discharge Elimination System
MQL	Minimum quantification level
O&G	Oil and grease
POTW	Publically owned treatment works
RP	Reasonable potential
SIC	Standard industrial classification
s.u.	Standard units (for parameter pH)
TDS	Total dissolved solids
TKN	Total Kjeldahl Nitrogen
TMDL	Total maximum daily load
TRC	Total residual chlorine
TSS	Total suspended solids
UAA	Use attainability analysis
USGS	United States Geological Service
WET	Whole effluent toxicity
WQMP	Water Quality Management Plan
WWTP	Wastewater treatment plant

In this document, references to State WQS and/or rules shall be that of the State of Louisiana and the Coushatta Tribe of Louisiana.

I. CHANGES FROM THE PREVIOUS PERMIT

1. WET monitoring frequency will be reduced since all quarterly toxicity test reports passed survival testing requirements.

2. Removed Fecal Coliforms limit based on compliance with E.coli limit while still meeting State's Fecal Coliform Standards.

II. APPLICANT LOCATION and ACTIVITY

As described in the application, the facility is located at 777 Coushatta Drive in Kinder, Allen Parish, Louisiana.

Under the Standard Industrial Classification Code 4952, the applicant will operate a POTW with a design flow capacity of 0.80 MGD serving a transient population which encompasses hotel rooms, restaurants golf course and RV Park, population served 3,000.

The facility will employ the conventional activated sludge process designed for single stage nitrification. All facilities will be sized to handle a hydraulic peaking factor of 4. The offsite lift station will take an average daily flow of 0.8 million gallons per day (MGD) to the headworks of the facility. The headworks will consist of a rotary drum screen placed on top of an entrance channel. The entrance channel will capture the flow from the screen and will be equipped with weirs to handle overflow from the screen. The entrance channel will act as a mixing chamber and splitter box to the aeration basins. There will be three aeration basins and the flow will be split equally between the three (0.367 MGD Average Daily Flow). The entrance channel is designed to have stop gates to allow a basin to be temporarily taken out of service. The aeration basins will be equipped with fine bubble diffusers and aeration. The total air rate to the three aeration basins is approximately 2,600 standard cubic feet per minute. The size of the basins and air rate will allow nitrification to occur in the basins. From the aeration basins the flow will travel through an exit channel which will allow the flow to come to equilibrium. The flow will then be transferred to the clarifiers. The clarifiers will be conventional, center pier feed, settling clarifiers that include sludge bottom draw and double sided effluent launder troughs. There will be three clarifiers and the flow will be split equally between the three. If necessary a clarifier can be taken out of service and the other two clarifiers are able to treat the average daily flow. The maximum surface loading rate for the clarifiers will be 1,200 gallons per day per square foot. The clarifier design will have a weir loading rate of approximately 7,500 gallons per day per linear foot of weir length. Return activated sludge will be pumped from the clarifier back to the headworks at a rate of 30% of the average daily flow. The return activated sludge pumps are sized for a maximum flowrate of 100% of forward flow. The waste activated sludge will be pumped from the clarifier to a two-stage aerobic digester. A scum pump station will be installed to remove scum from the clarifier. The scum pump station will return the flow to the first stage disgester or to the headworks. The clear water will flow over the weirs in the clarifier and into a rotating disk filter. The rotating disk filter, equipped with multiple disks will remove particulate such as total suspended solids (TSS) as well as particulates that contribute to biological oxygen demand (BOD). The filtered effluent will then flow into an entrance channel for the chlorine contact chambers. There will be three chlorine contact chambers that will take flow equally. The chlorine

contact chambers will be outfitted with baffle walls to allow for adequate mixing and detention time. A sodium hypochlorite solution will be mixed with non-potable water from the plant and introduced at the head of the chlorine contact chamber. From the chlorine contact chamber the flow will go into an aerated exit channel that is equipped with a flow measurement device and associated v-notch weir as well as a proposed effluent composite sampler. The flow will be then be piped to an existing drainage ditch which flows into the Calcasieu River.

The waste activated sludge (WAS) will be pumped to a two-stage aerobic digester. The WAS will be pumped to the first basin and will then flow into the second basin or second stage of digestion. A coarse bubble aeration system will be installed in each digester. One digester will be constantly aerated with the adjacent digester used for decanting and thickening. The decant will be returned to the headworks. The sludge will be wet hauled by a licensed sludge hauler/disposal company. The plant will be equipped with a diesel generator for backup power during power outages. The diesel generator is sized to run necessary equipment to treat the average daily flow.

The discharge from the POTW is through Outfall 001 at Latitude 30° 32' 38" North and Longitude 92° 49' 9" West.

III. EFFLUENT CHARACTERISTICS

A quantitative description of the discharge(s) described in the EPA Permit Application Form 2A received October 7, 2015, are presented below:

Table 1: Discharge characteristics

Parameter	**Max.**	**Avg.**
	(mg/l unless noted)	
Flow, million gallons/day (MGD)	0.21	0.19
Temperature, winter	14.0° C	21.3° C
Temperature, summer	31.0° C	26.7° C
pH, minimum, standard units (su)	7.2 su	N/A
pH, maximum, standard units (su)	7.8 su	N/A
Carbonaceous Biochemical Oxygen Demand, (CBOD5)	4.09	2.89
Fecal Coliform (cfu/100 ml)	88.0	33.0
Total Suspended Solids (TSS)	3.52	2.44

A summary of the last 3-years of pollutant data taken from DMRs indicates reported violations for the following parameters:

- CBOD5 (Concentration, mg/L) 7 day avg. – Jan.2013, Dec. 2013, Jun. 2015
  CBOD5 (Concentration, mg/L) 30 day avg. – Jan. 2013, Apr. 2013, Dec. 2013
- Fecal Coliform (cfu/100 mL) 7 day avg. – Jul. 2013
- E. coli (monthly geo. mean, cfu/100mL) – Jul. 2013
- TRC (Concentration, µg/L) – Jul. 2013

- Nitrogen, ammonia total as N (Concentration, mg/L) 7 day avg. – Jan. 2013, Mar. 2013, Jul. 2013, and Mar. 2014.
- TSS (Concentration, mg/L) 7 day avg. – Mar. 2013, Apr. 2013, Dec. 2013
  TSS (Concentration, mg/L) 30 day avg. – May. 2013, Dec. 2013

IV. REGULATORY AUTHORITY/PERMIT ACTION

In November 1972, Congress passed the Federal Water Pollution Control Act establishing the NPDES permit program to control water pollution. These amendments established technology-based or end-of-pipe control mechanisms and an interim goal to achieve "water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water"; more commonly known as the "swimmable, fishable" goal. Further amendments in 1977 of the CWA gave EPA the authority to implement pollution control programs such as setting wastewater standards for industry and established the basic structure for regulating pollutants discharges into the waters of the United States. In addition, it made it unlawful for any person to discharge any pollutant from a point source into navigable waters, unless a permit was obtained under its provisions. Regulations governing the EPA administered NPDES permit program are generally found at 40 CFR §122 (program requirements & permit conditions), §124 (procedures for decision making), §125 (technology-based standards) and §136 (analytical procedures). Other parts of 40 CFR provide guidance for specific activities and may be used in this document as required.

The Congress passed the Federal Water Pollution Control Act establishing the NPDES permit program to control water pollution. These amendments established technology based or end of pipe control mechanisms and an interim goal to achieve water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water; more commonly known as the swimmable, fishable goal. Further amendments in the CWA gave EPA the authority to implement pollution control programs such as setting wastewater standards for industry and established the basic structure for regulating pollutants discharges into the waters of the United States. In addition, it made it unlawful for any person to discharge any pollutant from a point source into navigable waters, unless

It is proposed that the permit be issued for a 5-year term following regulations promulgated at 40 CFR §122.46(a).

V. DRAFT PERMIT RATIONALE AND PROPOSED PERMIT CONDITIONS

A. OVERVIEW OF TECHNOLOGY-BASED VERSUS WATER QUALITY STANDARDS-BASED EFFLUENT LIMITATIONS AND CONDITIONS

Regulations contained in 40 CFR §122.44 NPDES permit limits are developed that meet the more stringent of either technology-based effluent limitation guidelines, numerical and/or narrative water quality standard-based effluent limits.

Technology-based effluent limitations are not established in the proposed draft permit. Water quality-based effluent limitations are established in the proposed draft permit for *E. coli* bacteria, FCB bacteria, TRC, CBOD, TSS, ammonia-nitrogen, DO, nitrate, pH and TDS.

B. TECHNOLOGY-BASED EFFLUENT LIMITATIONS/CONDITIONS

Regulations promulgated at 40 CFR §122.44 (a) require technology-based effluent limitations to be placed in NPDES permits based on ELGs where applicable, on BPJ in the absence of guidelines, or on a combination of the two. In the absence of promulgated guidelines for the discharge, permit conditions may be established using BPJ procedures. EPA establishes limitations based on the following technology-based controls: BPT, BCT, and BAT. These levels of treatment are:

BPT - The first level of technology-based standards generally based on the average of the best existing performance facilities within an industrial category or subcategory.

BCT - Technology-based standard for the discharge from existing industrial point sources of conventional pollutants including CBOD, TSS, FCB, pH, and O&G.

BAT - The most appropriate means available on a national basis for controlling the direct discharge of toxic and non-conventional pollutants to navigable waters. BAT effluent limits represent the best existing performance of treatment technologies that are economically achievable within an industrial point source category or subcategory.

The Coushatta Casino Resort facility is a POTW treating sanitary wastewater. POTW's have technology-based ELG's established at 40 CFR Part 133, Secondary Treatment Regulation. Pollutants with ELG's established in this Chapter are CBOD, TSS and pH. CBOD limits of 25 mg/L for the 30-day average and 40 mg/L for the 7-day average are found at 40 CFR §133.102(a)(4). TSS limits; also 30 mg/L for the 30-day average and 45 mg/L for the 7-day average, are found at 40 CFR §133.102(b). ELG's for pH are between 6-9 s.u. and are found at 40 CFR §133.102(c). Regulations at 40 CFR §122.45(f)(1) require all pollutants limited in permits to have limits expressed in terms of mass such as pounds per day. When determining mass limits for POTW's, the plant's design flow is used to establish the mass load.

Loading in lbs/day = pollutant concentration in mg/l * 8.345 lbs/gal * design flow in MGD

No technology based limitations are established in this permit. In this permit, water quality based limitations will be used in lieu of technology based limitations because they will be more stringent.

C. WATER QUALITY BASED LIMITATIONS

1. General Comments

Water quality based requirements are necessary where effluent limits more stringent than technology-based limits are necessary to maintain or achieve federal or state water quality limits.

Under Section 301(b)(1)(C) of the CWA, discharges are subject to effluent limitations based on federal or state WQS. Effluent limitations and/or conditions established in the draft permit are in compliance with applicable Tribal/State WQS and applicable Tribal/State water quality management plans to assure that surface WQS of the receiving waters are protected and maintained, or attained. Since the Coushatta Tribe of Louisiana does not have Tribal WQS and the discharge flows into the downstream state of Louisiana whose WQS must be protected in accordance with 40 CFR 122.4(d) and 122.44(d)(4), Louisiana WQS will be used to develop permit conditions.

3. Final Effluent Limits – 0.8 MGD

Table 2

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS lbs/day, unless noted			DISCHARGE LIMITATIONS mg/L, unless noted (*6)			MONITORING REQUIREMENTS	
POLLUTANT	30-DAY AVG	DAILY MAX	7-DAY AVG	30-DAY AVG	DAILY MAX	7-DAY AVG	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow	Report MGD	Report MGD	Report MGD	***	***	***	Daily	Totalizing Meter
Carbonaceous Biochemical Oxygen Demand, 5-day	33	N/A	50	5	N/A	7.5	Once/Week (*1)	3-Hour Composite
Total Suspended Solids (TSS)	33	N/A	50	5	N/A	7.5	Once/Week (*1)	3-Hour Composite
Dissolved Oxygen	N/A	N/A	N/A	5	N/A	7.5	Once/Week (*1)	Grab
Ammonia-Total, as N (NH_3)	13	N/A	20	2	N/A	3	Once/Week (*1)	3-Hour Composite
E. Coli Bacteria	N/A	N/A	N/A	126 (*2)	126 (*2)	N/A	Three/Month (*1)	Grab
Total Residual Chlorine (*5)	N/A	N/A	N/A	N/A	19 µg/l	N/A	Daily	Instantaneous Grab
Mercury	N/A	Report (*4)	N/A	N/A	Report (*4)	N/A	Once/Permit Term	12-Hour Composite

Table 3

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATIONS Standard Units		MONITORING REQUIREMENTS	
POLLUTANT	STORET CODE	MINIMUM	MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
pH (*5)	00400	6.0	8.5	Daily	Instantaneous Grab

Table 4

EFFLUENT CHARACTERISTICS	DISCHARGE MONITORING		MONITORING REQUIREMENTS	
WHOLE EFFLUENT Toxicity (48 Hr. Static Renewal) (*3) (*7)	30-DAY AVG MINIMUM	48-HR MINIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
Daphnia pulex	Report	Report	Once/6 months	24-Hr Composite
Pimephales promelas	Report	Report	Once/6 months	24-Hr Composite

Footnotes:
*1 Sampling at least one week apart.
*2 Colony forming units (cfu) per 100 ml.
*3 Monitoring and reporting requirements begin on the effective date of this permit. Samples should be taken upon first discharge.
*4 Mercury testing shall be one time during the permit term after the permit effective date. Test shall use EPA Method 1631E.
*5 Daily minimum. Instantaneous grab samples are to be taken between the times of 10:00 am-2:00 pm.
*6 See Part II. Section A. Minimum Quantification Level (MQL) of permit.
*7 See PART II, Whole Effluent Toxicity testing requirements for additional WET monitoring and reporting conditions.

3. Water Quality Numerical Standards

a. GENERAL COMMENTS

"Numerical criteria identified in LAC 33:IX.1123, Table 3, apply to specified water bodies, and their tributaries, distributaries, and interconnected streams and water bodies contained in the water management segment if they are not specifically named therein, unless unique chemical, physical, and/or biological conditions preclude attainment of the criteria (LAC 33:IX.1113.C.)" For the State of Louisiana, the tributary to the Calcasieu River (Tier 2 waterbody) has designated uses of primary contact recreation, secondary contact recreation, fish and wildlife propagation, and agriculture and the Calcasieu River (Tier 3 waterbody) has designated uses of primary contact recreation, secondary contact recreation, fish and wildlife propagation, agriculture, and outstanding natural resource waters (scenic) needing protective limits.

b. RECEIVING WATER STANDARDS and DESIGNATED USES

The facility is located on Tribal land and the discharge from Outfall 001 enters a levee/ditch on Tribal land and in Tribal waters on to a tributary of the Calcasieu River thence to the Calcasieu River. The state portion of the Calcasieu River is designated as Segment 030103 in the Calcasieu River Basin. For the State of Louisiana, the Calcasieu River has designated uses of primary contact recreation, secondary contact recreation, fish and wildlife propagation, agriculture, and outstanding natural resource waters.

c. WATER QUALITY STANDARDS

i. Water Quality Standards

The Louisiana State Standards are found at Title 33 Environmental Quality Part IX Water Quality Subpart 1 Water Pollution Control, amended through June 2016.

4. Permit Action - Water Quality-Based Limits

Regulations promulgated at 40 CFR §122.44(d) require limits in addition to, or more stringent than effluent limitation guidelines (technology based). For the purposes of this permit, EPA believes the specific characteristics of this effluent and this permit's effluent limitations will prohibit measureable instream degradation and will have the effect of maintaining water quality at current levels in both direct receiving water and downstream waterbodies. WQS that are more stringent than effluent limitation guidelines are as follows:

a. pH

State of Louisiana stream segment 030103 WQS require pH to be between 6.0 and 8.5 s.u. These criteria are more restrictive than the technology-based limits. The draft permit shall establish 6.0 to 8.5 s.u. for pH based on the State of Louisiana stream segment 030103 WQS.

b. Fecal Coliform Bacteria

Based on data during previous permit term the facility met *E. coli* limits proving that the State's Fecal Coliform Standards would also be met, therefore EPA proposes to remove Fecal Coliform in this permit to reduce the cost of redundant bacteria testing.

c. *E. coli* Bacteria

The State of Louisiana has not adopted *E. coli* as the State bacteria standard yet. The federal recommendation is 126 cfu/ 100 mL of *E. coli* as the bacteria standard for primary contact recreation. Since this permit is a federal permit, *E. coli* will continue at the recommended limitation.

d. Total Dissolved Solids

State of Louisiana stream segment 030103 WQS has a TDS numerical criteria of 225 mg/L. In the last permit term, TDS was reported only once/permit term (after first discharge) with a value of 468 mg/L, exceeding the numerical criteria. Using a simple mass-balance equation to determine the impact of the effluent discharge on the receiving water under critical conditions (after complete mixing occurs), when TDS mixes with the receiving water the resultant in-stream pollutant concentration is well below the numeric criteria for TDS. No limit concentration will be required at this time.

e. CBOD, TSS, ammonia (NH_3), and DO

LDEQ and EPA agree that 30 day average limits of 5 mg/L CBOD, 5 mg/L TSS, 2 mg/L ammonia (NH_3), and 5 mg/L DO are sufficiently stringent enough to meet Tier 2 and Tier 3

antidegradation requirements for the tributary to the Calcasieu River and the Calcasieu River once the effluent reaches the Outstanding Natural Resource Water (scenic) portion of the stream segment. Furthermore, EPA will require 7 day average limits of 7.5 mg/L CBOD, 7.5 mg/L TSS, 3 mg/L ammonia (NH_3), and 7.5 mg/L DO to ensure water quality is preserved. Therefore the effluent will not contribute to the impairment of the Calcasieu River.

The loading limits for TSS, $CBOD_5$, and ammonia (NH_3) are determined as follows:

30-Day Avg.: TSS/$CBOD_5$ loading (lbs/day) = 5 mg/L * 8.345 lbs/gal * 0.8 MGD = 33 lbs/day

30-Day Avg.: ammonia (NH_3) loading (lbs/day) = 2 mg/L * 8.345 lbs/gal * 0.8 MGD = 13 lbs/day

7-Day Avg.: TSS/$CBOD_5$ loading (lbs/day) = 7.5 mg/L * 8.345 lbs/gal * 0.8 MGD = 50 lbs/day

7-Day Avg.: ammonia (NH_3) loading (lbs/day) = 3 mg/L * 8.345 lbs/gal * 0.8 MGD = 20 lbs/day

f. TOXICS

i. General Comments

The CWA in Section 301 (b) requires that effluent limitations for point sources include any limitations necessary to meet water quality standards. Federal regulations found at 40 CFR §122.44 (d) state that if a discharge poses the reasonable potential to cause an in-stream excursion above a water quality criteria, the permit must contain an effluent limit for that pollutant.

All applicable facilities are required to fill out appropriate sections of the Form 2A to apply for an NPDES permit or reissuance of an NPDES permit. The form is applicable not only to POTWs, but also to facilities that are similar to POTWs, but which do not meet the regulatory definition of "publicly owned treatment works" (like private domestics, or similar facilities on Federal property). The forms were designed and promulgated to "make it easier for permit applicants to provide the necessary information with their applications and minimize the need for additional follow-up requests from permitting authorities," per the summary statement in the preamble to the Rule. These forms became effective December 1, 1999, after publication of the final rule on August 4, 1999, Volume 64, Number 149, pages 42433 through 42527 of the FRL.

The facility is designated as a minor, and does not need to fill out the expanded pollutant testing section Part D of Form 2A.

ii. Critical Conditions

Critical conditions are used to establish certain permit limitations and conditions. The effluent will enter the Calcasieu River ~4.2 miles from the point of discharge. Since upstream flow is not known but is expected to be minimal, for permitting purposes a zero low flow is assumed and the

discharges must meet State WQS at end-of-pipe to protect both tribal water quality and State WQS.

For permitting purposes of certain parameters such as WET, the critical dilution of the effluent to the receiving stream will be 100%.

iii. TRC

In instances where a facility uses chlorine for disinfection as the application indicates, TRC must be limited in the permit. TRC limitations will be added to this permit consistent with the State WQS for the protection of freshwater aquatic organisms. The critical dilution determined in the above section labeled ii. Critical Conditions used in conjunction with the acute criteria at the end-of-pipe is 19 µg/L. This TRC limitation will be in the draft permit.

5. 303(d) List Impacts

The Calcasieu River, Stream Segment 030103, is listed as impaired on the "FINAL 2006 Louisiana Water Quality Integrated Report." The waterbody is assessed as Integrated Report Category 5 with primary contact recreation (swimming), secondary recreation (boating), agricultural use and outstanding natural resources as fully supporting but fish and wildlife propagation as not being supported. Probable causes of impairments are listed as mercury in fish tissue.

The stream segment 030103 in the "FINAL 2006 Louisiana Water Quality Integrated Report" indicates that mercury in fish tissue is a suspected cause of impairment. The suspected source of impairment is atmospheric deposition- toxics but is otherwise unknown. Since this facility is a wastewater treatment plant and is not suspected to cause an increase of mercury above background levels, EPA will require a one time only monitoring and reporting requirement that will take place upon permit issuance which consistent with the August 23, 2007 James Hanlon, EPA Memorandum. Additionally the more sensitive EPA Method 1631E will be used in lieu of less sensitive methods such as Method 245.1 and 245.2 also consistent with the August 23, 2007 James Hanlon, EPA Memorandum.

The standard reopener language in the permit allows additional permit conditions if warranted by the additional data based on these requirements and/or new or revised TMDLs.

D. MONITORING FREQUENCY FOR LIMITED PARAMETERS

Regulations require permits to establish monitoring requirements to yield data representative of the monitored activity, 40 CFR §122.48(b), and to assure compliance with permit limitations, 40 CFR §122.44(i)(1). Flow is proposed to be monitored continuously.
Water quality-based pollutant monitoring frequency for *E. coli* bacteria shall be three (3) times per week using grab samples. The pollutants pH and TRC shall be monitored daily by instantaneous grab sample. CBOD, TSS and ammonia-nitrogen shall be monitored once per week using 3-hour composite samples. DO shall be monitored once a week using grab sample. Regulations at 40 CFR Part 136 define instantaneous grab as being analyzed within 15-minutes of collection.

E. WHOLE EFFLUENT TOXICITY (WET)

As per the LDEQ Implementation Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, WET requirements are required for all major and significant minor facilities, or on a case-by-case basis. This facility is a significant minor facility because it is a new facility that will discharge 0.8 MGD to Tier 2 and Tier 3 waterbodies. The design flow for this facility is close to achieving major status. Therefore, WET must be employed to assure the public that the effluent will not be toxic to the downstream State and its protected waterbodies.

In Section V.C.4.h.ii. above; "Critical Conditions", it was indicated that the critical dilution, CD, for the facility is 100%. Based on LAC 33: IX 1121.B.3.b.i., acute toxicity will be used for this "end-of-pipe" effluent. The draft permit will propose 48-hour acute WET testing using *Daphnia pulex* and *Pimephales promelas* at a once per six-month frequency based on passed survival testing requirements in the past five (5) years of data. The proposed permit requires five (5) dilutions in addition to the control (0% effluent) to be used in the toxicity tests based on a 0.75 dilution series. These additional effluent concentrations shall be 32%, 42%, 56%, 75%, and 100%.

The permittee shall conduct separate WET tests in accordance with the following table:

EFFLUENT CHARACTERISTIC	DISCHARGE MONITORING	
	30-DAY AVG MINIMUM	48-Hr. MINIMUM
Whole Effluent Toxicity Testing (48 Hr. Static Renewal) 1/		
Daphnia pulex	REPORT	REPORT
Pimephales promelas	REPORT	REPORT

EFFLUENT CHARACTERISTIC	MONITORING REQUIREMENTS	
	FREQUENCY	TYPE
Whole Effluent Toxicity Testing (48 Hr. Static Renewal) 1/		
Daphnia pulex	1/6 months	24 Hr. Composite
Pimephales promelas	1/6 months	24-Hr. Composite

FOOTNOTES:
1/ Monitoring and reporting requirements begin on the effective date of this permit. See Part II, Whole Effluent Toxicity Testing Requirements for additional WET monitoring and reporting conditions.

VI. FACILITY OPERATIONAL PRACTICES

A. SEWAGE SLUDGE

The permittee shall use only those sewage sludge disposal or reuse practices that comply with the federal regulations established in 40 CFR Part 503 "Standards for the Use or Disposal of Sewage Sludge". The specific requirements in the permit apply as a result of the design flow of the facility, the type of waste discharged to the collection system, and the sewage sludge disposal or reuse practice utilized by the treatment works. EPA may at a later date issue a sludge-only permit. Until such future issuance of a sludge-only permit, sludge management and disposal at the facility will be subject to Part 503 sewage sludge requirements. Part 503 regulations are self-implementing, which means that facilities must comply with them whether or not a sludge-only permit has been issued. Part IV of the draft permit contains sewage sludge permit requirements. The permittee shall submit an Annual Sludge Status report in accordance with NPDES permit LA0124656, Parts I and IV.

B. WASTE WATER POLLUTION PREVENTION REQUIREMENTS

The permittee shall institute programs directed towards pollution prevention. The permittee will institute programs to improve the operating efficiency and extend the useful life of the treatment system.

C. INDUSTRIAL WASTEWATER CONTRIBUTIONS

The treatment plant has no non-categorical Significant Industrial User's (SIU) and no Categorical Industrial User's (CIU). The EPA has tentatively determined that the permittee will not be required to develop a full pretreatment program. However, general pretreatment provisions have been required. The facility is required to report to EPA, in terms of character and volume of pollutants any significant indirect dischargers into the POTW/WWTP subject to pretreatment standards under Section307(b) of the CWA and 40 CFR Part 403.

D. OPERATION AND REPORTING

The applicant is required to operate the treatment facility at maximum efficiency at all times; to monitor the facility's discharge on a regular basis; and report the results quarterly. The monitoring results will be available to the public.

VII. ANTIDEGRADATION

The facility will discharge into Subsegment 030103 which is described as the Calcasieu River from the Rapides-Allen Parish line to Marsh Bayou. This subsegment is designated as an Outstanding Natural Resource Waterbody (ONRW). However, the facility will first discharge into an unnamed tributary of the Calcasieu River, thence into the Calcasieu River. The tributary is not designated as an ONRW. See LAC 33:IX.1111. Additionally, as per LAC 33:IX.1123.Table 3, only the section of the subsegment including the junction with Whiskey Chitto Creek to the confluence with Marsh Bayou is designated as a Scenic River. When this section of the Calcasieu River was designated as a scenic stream, the LDEQ policy was to adopt

the ONRW designation to the same waterbody. Therefore, the ONRW designation applies only within the Calcasieu River from the junction with Whiskey Chitto Creek to the confluence with Marsh Bayou. Since the junction with Whiskey Chitto Creek occurs downstream from the discharge, the discharge will flow approximately nine miles before reaching waters designated as an ONRW. However, based on the size of the discharge, the agency has determined that additional protection of the water quality is justified to ensure protection of the downstream ONRW. Rather than secondary treatment limitations and advanced treatment limitations, as described in the Statewide Sanitary Effluent Limitations Policy, advanced tertiary treatment is necessary to ensure protection of the downstream ONRW. The agency finds that effluent limits of 5 mg/l $CBOD_5$, 2 mg/l ammonia-nitrogen, and 5 mg/l minimum dissolved oxygen would afford the necessary protection of the downstream ONRW. These limits are based on similar LPDES water discharge permits in order to protect water quality in the receiving streams (EDMS[1] Document #s 1294103, 3209533, and 6638051 are just a few examples). Based on the distance of the discharge from the ONRW and the fact that limitations of 5 mg/l $CBOD_5$, 2 mg/l ammonia-nitrogen, and 5 mg/l minimum dissolved oxygen have proven to protect water quality, these limits in the permit will protect the water quality of the downstream ONRW.

VIII. ANTIBACKSLIDING

The proposed permit is consistent with the requirements to meet antibacksliding provisions of the Clean Water Act, Section 402(o) and 40 CFR §122.44(l)(i)(A), which state in part that interim or final effluent limitations must be as stringent as those in the previous permit, unless material and substantial alterations or additions to the permitted facility occurred after permit issuance which justify the application of a less stringent effluent limitation. The proposed permit maintains the mass loading requirements of the previous permit for CBOD and TSS and the concentration limits for E. coli bacteria, DO, NH3, pH and TRC.

IX. ENDANGERED SPECIES CONSIDERATIONS

In accordance with requirements under section 7(a)(2) of the Endangered Species Act, EPA has reviewed this permit for its effect on listed threatened and endangered species and designated critical habitat. After review, EPA has determined that the issuance of this permit will have "*no effect*" on listed threatened and endangered species nor will adversely modify designated critical habitat.

According to the most recent county listing available at US Fish and Wildlife Service (USFWS), Southeast Region 4 website, http://www.fws.gov/southeast/, two species in Allen Parish are listed as endangered (E). One species is a bird and includes the Red-Cockaded Woodpecker

[1] EDMS stands for Electronic Document Management System, the LDEQ's electronic repository of official records that have been created or received by LDEQ. Employees and members of the public can search and retrieve documents stored in the EDMS via this web application. (See http://edms.deq.louisiana.gov/app/doc/querydef.aspx).

(*Picoides borealis*) (E). The other species is a plant and is the American Chaff-Seed (*Schwalbea Americana*) (E).

The red-cockaded woodpecker (*Picoides borealis*) is listed as endangered without critical habitat. The red-cockaded woodpecker is not identified as an aquatic-related species in the NPDES BiOp. 50 C.F.R. Part 17 does not identify any critical habitat for this species. The habitat of this species includes open, old-growth loblolly, shortleaf, and slash and longleaf pine woodlands. The woodpecker feeds primarily on insects (85% of diet), and also consumes fruits and seeds (15% of diet). Primary threats to the red-cockaded woodpecker include decrease in old growth forest nesting habitat, as a result of timber management, fire suppression practices, and infestation by the southern pine beetle. Based on this information, EPA has determined that will have no effect upon the red-cockaded woodpecker.

The American Chaff-Seed (*Schwalbea americana*) is listed as endangered within Allen Parish. The NPDES BiOp identifies this species as a monotypic perennial herb of the figwort family. The American Chaff-Seed occurs primarily in open pine flatwoods, savannas, and other open areas, in moist to dry acidic sandy loams or sandy peat loams. Threats to this species include destruction of habitat due to development, agriculture, or forestry practices, succession of vegetation, and improper management that renders the habitat unsuitable. The permittee has identified the only known occurrence of this endangered species in Louisiana to occur over 20 miles southwest of the facility. Based upon this information and upon the fact that the major threats to this species concern habitat destruction, EPA has determined that will have no effect on the American Chaff-Seed.

X. HISTORICAL and ARCHEOLOGICAL PRESERVATION CONSIDERATIONS

The issuance of this permit should not have an impact on historical and/or archeological sites. A letter from the Coushatta Tribe to EPA indicates that the proposed site for the WWTP and area surrounding did not contain any artifacts or other historical indicators showing that the site could not be used for the intended purpose. If at a future date due to construction, artifacts or other historical indicators are found, the Coushatta Tribe has a plan of action in place and will take immediate action to preserve any artifacts or historical findings located within the proposed site.

XI. PERMIT REOPENER

The permit may be reopened and modified during the life of the permit if relevant portions of LDEQ's WQS are revised or remanded or if the Coushatta Tribe develops WQS that must be implemented. In addition, the permit may be reopened and modified during the life of the permit if relevant procedures implementing the States Water Quality Standards are either revised or promulgated. Should either State adopt a new WQS, and/or develop or amend a TMDL, this permit may be reopened to establish effluent limitations for the parameter(s) to be consistent with that approved State standard and/or water quality management plan, in accordance with 40 CFR §122.44(d). Modification of the permit is subject to the provisions of 40 CFR §124.5.

XII. VARIANCE REQUESTS

No variance requests have been received.

XIII. CWA & 401 CERTIFICATION

The Environmental Protection Agency has made a tentative determination to issue the permit for the discharge described in the application. Permit requirements are based on NPDES regulations (40 CFR §§122 and 124). Since the discharge is from a facility located within the boundaries of the Coushatta Reservation, EPA Region 6 is the CWA §401 certifying agency for this permit.

XIV. FINAL DETERMINATION

The public notice describes the procedures for the formulation of final determinations.

XV. ADMINISTRATIVE RECORD

The following information was used to develop the proposed permit:

A. APPLICATION(s)

EPA Application Form 2A received October 2015.

B. 40 CFR CITATIONS

Citations to 40 CFR are as of July 2016.
Sections 122, 124, 125, 133, 136

C. TRIBAL (Permittee)/STATE WATER QUALITY REFERENCES

Louisiana Environmental Regulatory Code, May 2016.

Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards Water Quality Management Plan.

FINAL 2006 Louisiana Water Quality Integrated Report. May 2016.

August 23, 2007 Memorandum: James A. Hanlon, EPA Director of Office of Wastewater Management to Water Division Directors, Region 1-10.
American Chaffseed (*Schwalbea Americana*) Recovery Plan. By Dana Peters. Region 5 U.S. Fish and Wildlife Service.

Coushatta Tribe of Louisiana Coushatta Casino Resort Allen Parish, Louisiana: Proposed 0.8 MGD Waste Water Treatment Plant. Environmental Assessment. Prepared by Brown & Gay Engineers, Inc. October 2010.

January 6, 2003 Memorandum: Jack Ferguson, EPA Chief Permits Branch to Region 6 Program Managers.