

**Georgia Department of Natural Resources**

**Environmental Protection Division**

2 Martin Luther King Jr. Drive, Suite 1456, Atlanta, Georgia 30334

Judson H. Turner, Director

(404) 656-4713

DEC 29 2015

Mr. Fred J. Perrett, General Manager  
Rayonier Performance Fibers LLC  
4470 Savannah Highway  
Jesup, Georgia 31545

RE: Permit Issuance  
Rayonier Performance Fibers LLC  
NPDES Permit No. GA0003620  
Jesup, Wayne County, Georgia

Dear Mr. Perrett:

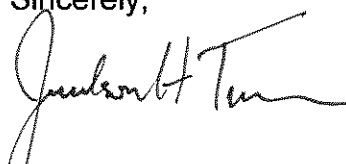
Pursuant to the Georgia Water Quality Control Act, as amended, the Federal Clean Water Act, as amended, and the Rules and Regulations promulgated thereunder, we have issued the attached permit for the above-referenced facility.

Your facility has been assigned to the following EPD office for reporting and compliance. Signed copies of all required reports shall be submitted to the following address:

Environmental Protection Division  
Coastal District Office  
400 Commerce Center Drive  
Brunswick, Georgia 31523

Please be advised that on and after the effective date indicated in the permit, the permittee must comply with all terms, conditions, and limitations of the permit. If you have questions concerning this correspondence, please contact Alan Leake at 404.463.4957 or [alan.leake@dnr.ga.gov](mailto:alan.leake@dnr.ga.gov).

Sincerely,



Judson H. Turner  
Director

JHT:awl  
Enclosure(s)

cc: EPD Coastal District Office – Christopher Beranek (email)

PERMIT NO. GA0003620

STATE OF GEORGIA  
DEPARTMENT OF NATURAL RESOURCES  
ENVIRONMENTAL PROTECTION DIVISION

AUTHORIZATION TO DISCHARGE UNDER THE  
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In accordance with the provisions of the Georgia Water Quality Control Act (Georgia Laws 1964, p. 416, as amended), hereinafter called the State Act; the Federal Water Pollution Control Act, as amended (33 U.S. C. 1251 et seq.), hereinafter called the Federal Act; and the Rules and Regulations promulgated pursuant to each of these Acts,

Rayonier Performance Fibers LLC  
4470 Savannah Hwy  
Jesup, Georgia 31545

is issued a permit to discharge from a facility located at

Rayonier Performance Fibers LLC  
4470 Savannah Hwy  
Jesup, Wayne County, Georgia 31545

to receiving waters

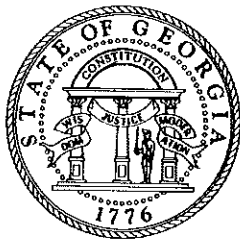
Altamaha River in the Altamaha River Basin.

in accordance with effluent limitations, monitoring requirements and other conditions set forth in the permit.

This permit is issued in reliance upon the permit application signed on July 12, 2012, any other applications upon which this permit is based, supporting data entered therein or attached thereto, and any subsequent submittal of supporting data.

This permit shall become effective on MAR 01 2016

This permit and the authorization to discharge shall expire at midnight January 31, 2021.



Issued this 29<sup>th</sup> day of December 2015.

  
Director,  
Environmental Protection Division

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

- During the period specified on the first page of this permit, the permittee is authorized to discharge from outfall(s) serial number(s) 001\* and 002\* combined, unless otherwise stated, – process wastewater, sanitary wastes, and stormwater runoff.

Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristics (Units)	Discharge Limitations <sup>(1)</sup>				Monitoring Requirements**		
	Mass Based (lbs/day unless specified otherwise)		Concentration Based (mg/L unless specified otherwise)				
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.	Measurement Frequency	Sample Type	Sample Location
Flow (MGD)	Report	Report	--	--	Continuous	Recorder	Effluent <sup>(3)</sup>
BOD <sub>5-day</sub>							
May 1 – Nov. 30	18,650	28,000	--	--	Daily	Composite	Effluent <sup>(3)</sup>
Dec. 1 – Apr. 30	32,000	48,000	--	--	Daily	Composite	Effluent <sup>(3)</sup>
TSS							
May 1 – Nov. 30	36,987	77,600	--	--	Daily	Composite	Effluent <sup>(3)</sup>
Dec. 1 – Apr. 30	42,010	77,600	--	--	Daily	Composite	Effluent <sup>(3)</sup>
Color (tons/day) <sup>(4)</sup>	229	344	--	--	Daily	Composite	Effluent <sup>(3)</sup>
BOD <sub>120-day</sub>	Report	Report	--	--	Annually	Composite	Effluent <sup>(3)</sup>
Dioxin (2,3,7,8-TCDD) (ng/L) <sup>(2)</sup>	--	--	0.153	--	Quarterly	Composite	Effluent <sup>(3)</sup>
Phosphorus	--	--	Report	Report	Monthly	Composite	Effluent <sup>(3)</sup>
Fecal Coliform (MPN/100 mL)	--	--	Report <sup>(5)</sup>	Report	2/month	Grab	Outfall 002 Effluent
E.Coli (MPN/100 mL)	--	--	Report <sup>(5)</sup>	Report	2/month	Grab	Outfall 002 Effluent
AOX <sup>(6)</sup>	2463	3760	--	--	Weekly	Composite	Effluent <sup>(3)</sup>
Chronic Whole Effluent Toxicity (WET) <sup>(7)</sup>	--	--	--	--	Annually	Composite	Effluent <sup>(3)</sup>

The pH for each outfall (001 and 002) shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored daily by a grab sample at each final effluent.

\* There shall be no discharge of floating solids, oil, scum or visible foam in other than trace amounts.

\*\* All the parameters must be monitored if there is any discharge. If there is no discharge, state such in the discharge monitoring report for the monitoring period.

<sup>(1)</sup> These limits are the total mass limits for both outfalls combined, unless otherwise stated. The permittee is encouraged to discharge a majority of the effluent through Outfall 002. If the permittee is going to be discharging a majority of the effluent through Outfall No. 001 for an extended period of time, the permittee shall notify EPD.

<sup>(2)</sup> The permittee shall adhere to the analytical protocol described in Appendix C of the U.S. EPA/Paper Industry Cooperative Dioxin Screening Study (EPA 440/1-88-025, March 1988) when analyzing wastewater effluent samples for 2,3,7,8-TCDD.

<sup>(3)</sup> The effluent sample locations for outfalls 001 and 002 shall be defined as the discharge stream after treatment, but prior to mixing with any other waters.

<sup>(4)</sup> See Part III.B.1 of Special Conditions.

<sup>(5)</sup> Bacteria samples shall be reported as a geometric mean.

<sup>(6)</sup> The permittee shall adhere to the approved EPD test method for AOX, 1650. The minimum detection level for AOX is 20 ug/L.

<sup>(7)</sup> Analysis shall be performed annually and submitted to EPD annually in accordance with the Part I.B.2 of this permit. The testing must comply with the most current U.S. Environmental Protection Agency (EPA) chronic aquatic toxicity testing manuals. The referenced document is entitled Short-Term Methods of Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, 4<sup>th</sup> Edition, U.S. EPA, 821-R-02-013, October 2002. Definitive tests must be run on the same samples concurrently using both an invertebrate species (i.e., *Ceriodaphnia dubia*) and a vertebrate species (i.e., Fathead Minnow, *Pimephales promelas*) and should include a dilution equal to the facility's instream wastewater concentration of 4.3%.

2. During the period specified on the first page of this permit, the permittee is authorized to discharge from the internal bleach plant wastestream outfalls as listed<sup>(2)</sup> from A-Mill, B-Mill, C-Mill and combined. The permittee shall be limited and monitored in accordance with the Bleach Plant Sampling (Plan) approved by EPD on January 7, 2015. Beginning on January 8, 2016, the permittee is authorized to discharge from the internal bleach plant wastestream outfalls as listed<sup>(2)</sup> from A-Mill, B-Mill, and C-Mill and those discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristics (units)	Discharge Limitations				Monitoring Requirements*				
	Mass Based (lb/day unless specified otherwise)		Concentration Based (ug/L unless specified otherwise)						
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.	Measurement Frequency	Sample Type <sup>(1)</sup>	Analytical Method	Minimum Level (ML)	Sample Location <sup>(2)</sup>
Flow (MGD)	Report	Report	--	--	Calculated	Recorder	--	--	BP Effluent <sup>(2)</sup>
2,3,7,8-TCDD (pg/l)	--	--	Report	Report	Monthly	Composite	1613b	10 pg/L	BP Effluent <sup>(2)</sup>
2,3,7,8-TCDF (pg/l)	--	--	Report	Report	Monthly	Composite	1613b	10 pg/L	BP Effluent <sup>(2)</sup>
Chloroform	Report	Report	Report	Report	Monthly	Composite	624	10 ug/L	BP Effluent <sup>(2)</sup>
Trichlorosyringol	--	--	Report	Report	Monthly	Composite	1653	2.5 ug/L	BP Effluent <sup>(2)</sup>
3,4,5-trichlorocatechol	--	--	Report	Report	Monthly	Composite	1653	5.0 ug/L	BP Effluent <sup>(2)</sup>
3,4,6-trichlorocatechol	--	--	Report	Report	Monthly	Composite	1653	5.0 ug/L	BP Effluent <sup>(2)</sup>
3,4,5-trichloroguaiacol	--	--	Report	Report	Monthly	Composite	1653	2.5 ug/L	BP Effluent <sup>(2)</sup>
3,4,6-trichloroguaiacol	--	--	Report	Report	Monthly	Composite	1653	2.5 ug/L	BP Effluent <sup>(2)</sup>
4,5,6-trichloroguaiacol	--	--	Report	Report	Monthly	Composite	1653	2.5 ug/L	BP Effluent <sup>(2)</sup>

Effluent Characteristics (units)	Discharge Limitations				Monitoring Requirements*				
	Mass Based (lb/day unless specified otherwise)		Concentration Based (ug/L unless specified otherwise)						
	Daily Avg.	Daily Max.	Daily Avg.	Daily Max.	Measurement Frequency	Sample Type <sup>(1)</sup>	Analytical Method	Minimum Level (ML)	Sample Location <sup>(2)</sup>
2,4,5-trichlorophenol	--	--	Report	Report	Monthly	Composite	1653	2.5 ug/L	BP Effluent <sup>(2)</sup>
2,4,6-trichlorophenol	--	--	Report	Report	Monthly	Composite	1653	2.5 ug/L	BP Effluent <sup>(2)</sup>
Tetrachlorocatechol	--	--	Report	Report	Monthly	Composite	1653	5.0 ug/L	BP Effluent <sup>(2)</sup>
Tetrachloroguaiacol	--	--	Report	Report	Monthly	Composite	1653	5.0 ug/L	BP Effluent <sup>(2)</sup>
2,3,4,6-Tetrachlorophenol	--	--	Report	Report	Monthly	Composite	1653	2.5 ug/L	BP Effluent <sup>(2)</sup>
Pentachlorophenol	--	--	Report	Report	Monthly	Composite	1653	5.0 ug/L	BP Effluent <sup>(2)</sup>

\*All the parameters must be monitored if there is any discharge. If there is no discharge, state such in the discharge monitoring report for the monitoring period. Sampling is not required if the bleach plant is not operating or if the bleach plant operates for less than 48 consecutive hours during the monitoring period.

<sup>(1)</sup> Bleach plant sampling will be conducted in accordance with EPA's established generic sampling plan described in Appendix B – Sample Collection Methods of the EPA guidance document entitled Permit Guidance Document, Pulp, Paper and Paperboard Manufacturing Point Source Category, EPA-821-B-00-003, except where exceptions are approved by the EPA or EPD. As an exception, EPD hereby approves the National Council for Air and Stream Improvement (NCASI) Special Report 98-01, Appendix C as the guidance for sample collection (full title is "NCASI Guidance on Sampling, Contracting, and Auditing Analytical Data for the Effluent Limitations Guidelines Monitoring Parameters – Special Report No. 98-01, April 1998). As a further exception for the collection of chloroform samples, automated grab sampling devices or other samplers capable of automating the grab sampling process are applicable, provided samples are collected according to the manual grab sampling requirements.

(2) The Bleach Plant Sampling Locations are identified as follows:

<b>Location</b>	<b>Sample Point*</b>	<b>Sample Identification</b>
A Mill	W06	A Weak
A Mill	Tap Off A Filtrate Line	A Filtrate
X Annex	W08	X Weak
B Mill	W07	B Weak
B Mill	Tap Off B Filtrate Line	B Filtrate
Y Annex	W09	Y Weak
Y Annex	Pump #14087	1 Y Annex Draw Off
C Mill	W15	C Weak
C Mill	F04	C Filtrate
Z Annex	Pump # 97008	1 Z Filtrate Pump
Combined Filtrate Sewers	F01	Filtrate Flume

\* Analyze each sampling point separately except the Combined Filtrate Sewers.

**B. Monitoring and Reporting**

**1. Representative Sampling**

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge.

**2. Reporting**

- a. Monitoring results obtained during the calendar month shall be summarized for each month and reported on the Discharge Monitoring Report (DMR). The results of each sampling event shall be reported on the Operating Monitoring Report (OMR) and submitted as an attachment to the DMR. The DMR and OMR and any other required forms, reports and/or information shall be completed, signed and certified by a principal executive officer or ranking elected official, or by a duly authorized representative of that person who has the authority to act for or on behalf of that person, and submitted to EPD, postmarked no later than the 15th day of the month following the reporting period.
- b. However, upon final approval from EPD to use the online NetDMR application for the submittal of DMRs and OMRs required by this permit, the permittee shall submit the DMRs and OMRs to EPD utilizing the online NetDMR submittal process. The permittee shall submit the DMR no later than 11:59 p.m. on the 15<sup>th</sup> day of the month following the reporting period.
- c. Signed copies of these and all other reports required herein, unless otherwise stated, shall be submitted to the EPD Office listed on the permit issuance letter signed by the Director of EPD.
- d. All instances of noncompliance not reported under Part I.B. and Part II. A. shall be reported at the time the operation monitoring report is submitted.
- e. Unless otherwise specified in this permit, quarterly samples shall be taken during the periods January-March, April-June, July-September, and October-December. Semiannual samples shall be taken during the periods January-June and July-December. Results from these samples shall be reported to the EPD on the monitoring report for the last month of the period. Results of annual samples will be reported on the June monitoring report.

**3. Definitions**

- a. The "daily average" mass means the total discharge by mass during a calendar month divided by the number of days in the month that the production or commercial facility was operating. Where less than daily sampling is required by this permit, the daily average discharge shall be determined by the summation of all the measured daily discharges by weight divided by the number of days sampled during the calendar month when the measurements were made.



- b. The "daily maximum" mass means the total discharge by mass during any calendar day.
- c. The "daily average" concentration means the arithmetic average of all the daily determinations of concentrations made during a calendar month. Daily determinations of concentration made using a composite sample shall be the concentration of the composite sample.
- d. The "daily maximum" concentration means the daily determination of concentration for any calendar day.
- e. For the purpose of this permit, a "calendar day" is defined as any consecutive 24-hour period.
- f. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.
- g. "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.
- h. "EPD" as used herein means the Environmental Protection Division of the Department of Natural Resources.
- i. "State Act" as used herein means the Georgia Water Quality Control Act (Official Code of Georgia Annotated; Title 12, Chapter 5, Article 2).
- j. "Rules" as used herein means the Georgia Rules and Regulations for Water Quality Control.
- k. "Annual average" means the arithmetic average of color results for any daily sample taken in a calendar year, expressed in U.S. tons (2,000 pounds) of color per day.
- l. "Bleach plant" means all process equipment used for bleaching beginning with the first application of bleaching agents, each subsequent extraction stage, and each subsequent stage where bleaching agents are applied to the pulp. It also includes process equipment used for hydrolysis or extraction stages prior to the first application of bleaching agents.
- m. "Bleach plant effluent" means the total discharge of process wastewaters from the bleach plant from each physical bleach line operated at the mill, comprising separate acid and alkaline filtrates or the combination thereof.
- n. "Elemental chlorine-free (ECF)" means any process for bleaching pulps in the absence of elemental chlorine and hypochlorite that uses exclusively chlorine dioxide as the only chlorine-containing bleaching agent.

- o. "Production pertaining to adsorbable organic halides" shall mean the annual unbleached pulp production entering the first stage of the bleach plant divided by the number of operating days during that year. Unbleached pulp production shall be measured in air-dried-metric tons (10% moisture) of brownstock pulp entering the bleach plant at the stage during which chlorine or chlorine containing compounds are first applied to the pulp. Production shall be determined for each mill based on past production practices, present trends, or committed growth.

#### **4. Monitoring Procedures**

Analytical methods, sample containers, sample preservation techniques, and sample holding times must be consistent with the techniques and methods listed in 40 CFR Part 136. The analytical method used shall be sufficiently sensitive. EPA-approved methods must be applicable to the concentration ranges of the NPDES permit samples.

#### **5. Detection Limits**

All parameters will be analyzed using the appropriate detection limits. If the results for a given sample are such that a parameter is not detected at or above the specified detection limit, a value of "NOT DETECTED" will be reported for that sample and the detection limit will also be reported.

#### **6. Recording of Results**

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

- a. The exact place, date, and time of sampling or measurements, and the person(s) performing the sampling or the measurements;
- b. The dates of the analyses, and the person(s) who performed the analyses;
- c. The analytical techniques or methods used; and
- d. The results of all required analyses.

#### **7. Additional Monitoring by Permittee**

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Discharge Monitoring Report Form 3320-1. Such increased monitoring frequency shall also be indicated. EPD may require, by written notification, more frequent monitoring or the monitoring of other pollutants not required in this permit.

#### **8. Records Retention**

The permittee shall retain records of all monitoring information, including all records of analyses performed, calibration and maintenance of instrumentation,

copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a minimum of three (3) years from the date of the sample, measurement, report or application or longer if requested by EPD.

**9. Penalties**

The Federal Clean Water Act and the Georgia Water Quality Control Act provide that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit, 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 noncompliance shall, upon conviction, be punished by a fine or by imprisonment, or by both. The Federal Clean Water Act and the Georgia Water Quality Control Act also provide procedures for imposing civil penalties which may be levied for violations of the Act, any permit condition or limitation established pursuant to the Act, or negligently or intentionally failing or refusing to comply with any final or emergency order of the Director of EPD.

**PART II**

**A. MANAGEMENT REQUIREMENTS**

**1. Notification of Changes**

- a. The permittee shall provide EPD at least 90 days advance notice of any planned physical alterations or additions to the permitted facility that meet the following criteria:
  1. 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 CFR 122.29(b);
  2. 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 40 CFR 122.42(a)(1); or
  3. 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.
- b. The permittee shall give at least 90 days advance notice to EPD of any planned changes to the permitted facility or activity which may result in noncompliance with permit requirements.
- c. Following the notice in paragraph a. or b. of this condition the permit may be modified. The permittee shall not make any changes, or conduct any activities, requiring notification in paragraph a. or b. of this condition without approval from EPD.
- d. The permittee shall provide at least 30 days advance notice to EPD of:
  1. any planned expansion or increase in production capacity; or
  2. any planned installation of new equipment or modification of existing processes that could increase the quantity of pollutants discharged or result in the discharge of pollutants that were not being discharged prior to the planned change

if such change was not identified in the permit application(s) upon which this permit is based and for which notice was not submitted under paragraphs a. or b. of this condition.

- e. All existing manufacturing, commercial, mining, and silvicultural dischargers shall notify EPD as soon as it is known or there is reason to believe that any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant not limited in the permit, if that discharge will exceed (i) 100 µg/L, (ii) five times the maximum concentration reported for that pollutant in the permit application, or (iii) 200 µg/L for acrolein and acrylonitrile, 500 µg/L for 2,4 dinitrophenol and for 2-methyl-4-6-dinitrophenol, or 1 mg/L antimony.
- f. All existing manufacturing, commercial, mining, and silvicultural dischargers shall notify EPD as soon as it is known or there is reason to believe that any activity has occurred or will occur which would result in any discharge on a nonroutine or infrequent basis, of any toxic pollutant not limited in the permit, if that discharge will exceed (i) 500 µg/L, (ii) ten times the maximum concentration reported for that pollutant in the permit application, or (iii) 1 mg/L antimony.
- g. Upon the effective date of this permit, the permittee shall submit to EPD an annual certification in June of each year certifying whether or not there has been any change in processes or wastewater characteristics as described in the submitted NPDES permit application that required notification in paragraph a., b., or d. of this condition. The permittee shall also certify annually in June whether the facility has received offsite wastes or wastewater and detail any such occurrences.

## 2. Noncompliance Notification

If, for any reason, the permittee does not comply with, or will be unable to comply with any effluent limitation specified in this permit, the permittee shall provide EPD with an oral report within 24 hours from the time the permittee becomes aware of the circumstances followed by a written report within five (5) days of becoming aware of such condition. The written submission shall contain the following information:

- a. A description of the discharge and cause of noncompliance; and
- b. The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the non-complying discharge.

## 3. Facilities Operation

The permittee shall at all times maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

**4. Adverse Impact**

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit, which has a reasonable likelihood of adversely affecting human health or the environment, including such accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge.

**5. Bypassing**

a. If the permittee knows in advance of the need for a bypass, it shall submit prior notice to EPD at least 10 days (if possible) before the date of the bypass. The permittee shall submit notice of any unanticipated bypass with an oral report within 24 hours from the time the permittee becomes aware of the circumstances followed by a written report within five (5) days of becoming aware of such condition. The written submission shall contain the following information:

1. A description of the discharge and cause of noncompliance; and
2. The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the non-complying discharge.

b. Any diversion or bypass of facilities covered by this permit is prohibited, except (i) where unavoidable to prevent loss of life, personal injury, or severe property damage; (ii) 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 the permittee could have installed adequate back-up equipment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance); and (iii) the permittee submitted a notice as required above. The permittee shall operate the treatment works, including the treatment plant and total sewer system, to minimize discharge of the pollutants listed in Part I of this permit from combined sewer overflows or bypasses. Upon written notification by EPD, the permittee may be required to submit a plan and schedule for reducing bypasses, overflows, and infiltration in the system.

**6. Sludge Disposal Requirements**

Sludge shall be disposed of in accordance with the regulations and guidelines established by EPD, the Federal Clean Water Act, and the Resource Conservation and Recovery Act (RCRA). The permittee shall submit an updated sludge management plan to the Watershed Protection Branch of EPD for written approval in accordance with Part III.B.6 of this permit. For land application of nonhazardous sludge, the permittee shall comply with the applicable criteria outlined in the most current version of EPD's "Guidelines for Land Application of Sewage Sludge (Biosolids) at Agronomic Rates" and with the State Rules, Chapter 391-3-6-.17. EPD may require more stringent control of this activity.

Upon approval, the plan for land application will become a part of the NPDES permit upon modification of the permit.

**7. Sludge Monitoring Requirements**

The permittee shall develop and implement procedures to ensure adequate year-round sludge disposal. The permittee shall monitor the volume and concentration of solids removed from the plant. Records shall be maintained which document the quantity of solids removed from the plant. The ultimate disposal of solids shall be reported monthly in pounds to EPD with the Operation Monitoring Report Forms required under Part I.B.2. of this permit.

**8. Power Failures**

Upon the reduction, loss, or failure of the primary source of power to said water pollution control facilities, the permittee shall use an alternative source of power if available to reduce or otherwise control production and/or all discharges in order to maintain compliance with the effluent limitations and prohibitions of this permit.

If such alternative power source is not in existence, and no date for its implementation appears in Part I, the permittee shall halt, reduce or otherwise control production and/or all discharges from wastewater control facilities upon the reduction, loss, or failure of the primary source of power to said wastewater control facilities.

**9. Operator Certification Requirements**

The permittee shall ensure that, when required, a certified operator is in charge of the facility in accordance with Georgia State Board of Examiners for Certification of Water and Wastewater Treatment Plant operators And Laboratory Analysts Rule 43-51-6.(b)

**10. Laboratory Analyst Certification Requirements**

The permittee shall ensure that, when required, the person in responsible charge of the laboratory performing the analyses for determining permit compliance is certified in accordance with the Georgia Certification of Water and Wastewater Treatment Plant operators and Laboratory Analysts Act, as amended, and the Rules promulgated thereunder.

**B. RESPONSIBILITIES**

**1. Right of Entry**

The permittee shall allow the Director of the Division, the Regional Administrator of EPA, and/or their authorized representatives, agents, or employees, upon the presentation of credentials:

- a. To enter upon the permittee's premises where a regulated activity or facility is located or conducted or where any records are required to be kept under the terms and conditions of this permit; and

- b. At reasonable times, to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and to sample any substance or parameters in any location.

## 2. Transfer of Ownership or Control

A permit may be transferred to another person by a permittee if:

- a. The permittee notifies the Director in writing of the proposed transfer at least thirty (30) days in advance of the proposed transfer;
- b. A written agreement containing a specific date for transfer of permit responsibility and coverage between the current and new permittee (including acknowledgment that the existing permittee is liable for violations up to that date, and that the new permittee is liable for violations from that date on) is submitted to the Director at least thirty (30) days in advance of the proposed transfer; and
- b. The Director, within thirty (30) days, does not notify the current permittee and the new permittee of the Division's intent to modify, revoke and reissue, or terminate the permit and to require that a new application be filed rather than agreeing to the transfer of the permit.

## 3. Availability of Reports

Except for data deemed to be confidential under O.C.G.A. § 12-5-26 or by the Regional Administrator of the EPA under the Code of Federal Regulations, Title 40, Part 2, all reports prepared in accordance with the terms of this permit shall be available for public inspection at an office of EPD. Effluent data, permit applications, permittee's names and addresses, and permits shall not be considered confidential.

## 4. Permit Modification

After written notice and opportunity for a hearing, this permit may be modified, suspended, revoked or reissued in whole or in part during its term for cause including, but not limited to, the following:

- a. Violation of any conditions of this permit;
- b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts;
- c. A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge; or
- d. To comply with any applicable effluent limitation issued pursuant to the order the United States District Court for the District of Columbia issued on June 8, 1976, in Natural Resources Defense Council, Inc. et.al. v. Russell E. Train, 8 ERC 2120(D.D.C. 1976), if the effluent limitation so issued:



- (1) is different in conditions or more stringent than any effluent limitation in the permit; or
- (2) controls any pollutant not limited in the permit.

**5. Toxic Pollutants**

The permittee shall comply with effluent standards or prohibitions established pursuant to Section 307(a) of the Federal Clean Water Act for toxic pollutants, which are present in the discharge within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

**6. Civil and Criminal Liability**

Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

**7. 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 Federal Clean Water Act.

**8. Water Quality Standards**

Nothing in this permit shall be construed to preclude the modification of any condition of this permit when it is determined that the effluent limitations specified herein fail to achieve the applicable State water quality standards.

**9. Property Rights**

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

**10. Expiration of Permit**

The permittee shall not discharge after the expiration date. In order to receive authorization to discharge beyond the expiration date, the permittee shall submit such information, forms, and fees as are required by EPD at least 180 days prior to the expiration date.

**11. Contested Hearings**

Any person who is aggrieved or adversely affected by an action of the Director of EPD shall petition the Director for a hearing within thirty (30) days of notice of such action.

**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. Best Management Practices**

The permittee will implement best management practices to control the discharge of hazardous and/or toxic materials from ancillary manufacturing activities. Such activities include, but are not limited to, materials storage, in-plant transfer, process and material handling; loading and unloading operations; plant site runoff; and sludge and waste disposal.

**14. Need to Halt or Reduce Activity Not a Defense**

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.

**15. Duty to Provide Information**

- a. The permittee shall furnish to the EPD 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 upon request copies of records required to be kept by this permit.
- b. When 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 any report to the Director, it shall promptly submit such facts and information.

**16. Upset Provisions**

Provisions of 40 CFR 122.41(n)(1)-(4), regarding "Upset" shall be applicable to any civil, criminal, or administrative proceeding brought to enforce this permit.

**PART III**

**A. PREVIOUS PERMITS**

1. All previous State wastewater permits issued to this facility, whether for construction or operation, are hereby revoked by the issuance of this permit. This action is taken to assure compliance with the Georgia Water Quality Control Act, as amended, and the Federal Clean Water Act, as amended. Receipt of the permit constitutes notice of such action. The conditions, requirements, terms and provisions of this permit authorizing discharge under the National Pollutant Discharge Elimination System govern discharges from this facility.

**B. SPECIAL CONDITIONS**

1. In accordance with Consent Order No. EPD-WQ-4837, as amended, the permittee shall meet the color limits specified in the below referenced timeline. The limits are based on an annual average as defined in this permit using a calendar year from January 1 through December 31. For calendar year 2015, the annual average color discharge limit is 270 U.S. tons/day. Beginning on March 6, 2016, the annual average color discharge limit is the lesser of: (i) 250 tons per day, or (ii) 115% of the average of the color discharge for the 12 months immediately preceding March 6, 2016.

<b>Deadline</b>	<b>Annual Average Color Discharge</b>
March 6, 2015	270 U.S. tons/day
March 6, 2016	115% of the average of the color discharge for the immediately preceding 12 months, not to exceed 250 U.S. tons/day annual average

2. The permittee shall monitor all seventeen congeners of dioxin (2,3,7,8-TCDD) and furan (2,3,7,8-TCDF) in ambient fish fillet tissue in the facility's receiving stream every three years. The dioxin monitoring program shall be conducted in accordance with the Study Plan to Conduct Dioxin Monitoring in Fish Tissue From The Vicinity of Five Georgia Bleached Kraft Mills, March 31, 1989. The permittee shall utilize the most recent fish tissue sampling protocols, which exclude the use of all plastic wraps and utensils during the collection and preservation of the samples. The sampling and testing program shall be conducted no later than 36 months from the previous sampling and testing program and the report shall be submitted to EPD within 90 days of completion of the testing.
3. Upon the effective date of the permit, the permittee shall implement the attached "Altamaha River Study," (Attachment A) and comply with all of the requirements and milestones in accordance with the schedules therein. EPD reserves the right to reopen this permit at the conclusion of the river study to incorporate additional or different effluent limits based on the study findings.

4. The Permittee shall certify annually in June the following:
  - a. The bleaching process is elemental chlorine free (ECF).
  - b. There is a 100% substitution of chlorine dioxide for chlorine.
  - c. The elimination of the use of hypochlorite in the bleaching process.
  - d. Chlorophenolic compounds are not being used as biocides.
5. Within 60 days of the effective date of this permit, the permittee shall develop a written Best Management Practices (BMP) Plan that documents the BMPs which have been implemented for control of spent pulping liquor, soap, and turpentine. The BMP Plan must be approved and signed by a person meeting the signatory authority requirements specified in the federal NPDES permit regulations. The BMP Plan must be maintained on site and readily available for inspection by EPD.
  - a. The permittee must amend the BMP Plan whenever there is a change in mill design, construction, operation, or maintenance that materially affects the potential for leaks or spills of spent pulping liquor, turpentine, or soap from the immediate process areas.
  - b. The permittee must complete a review and evaluation of the BMP Plan at a minimum of every five years and must amend the BMP Plan within three months of the review if the mill determines that any new or modified management practices and engineered controls are necessary to reduce significantly the likelihood of spent pulping liquor, soap, and turpentine leaks, spills, or intentional diversions from the immediate process areas, including a schedule for implementation of such practices and controls.
  - c. The permittee must submit a certification with each application for renewal of this permit that it has implemented the BMP Plan, that it has maintained records demonstrating the effectiveness of the BMP Plan, and that it has reviewed and made appropriate modifications to the Plan as specified above.
6. Within 90 days of the effective date of the permit, the permittee shall submit an updated Sludge Management Plan for review and approval.
7. In-stream Monitoring
  - a. The permittee shall collect and analyze samples of the discharge receiving waters for BOD<sub>5</sub>, dissolved oxygen, pH and temperature, twice per month during the months of May through November and report the data in accordance with Part 1.B.2 of this permit.
    1. Samples shall be taken from the U.S. Highway Bridge, the Rayonier marker just upstream from the confluence of Penholloway Creek and the Altamaha River and the monitoring station at Everett City.

2. Sampling shall be done near midstream or at a point which is judged to be representative of the Altamaha River. Sampling shall be taken when flows are less than 10,000 cfs and when the river is at steady state flow conditions. The time of the collection at various points shall coincide with time of travel for the river.
  3. The river stage and associated flow at Doctortown shall be reported during periods scheduled for sampling whether or not sampling is actually conducted at that time.
- b. The data from the in-stream monitoring described above shall be used by EPD to refine and update the current stream model. Upon review of the data, if there is a potential to cause or contribute to a water quality violation, EPD may reopen this permit to include applicable permit conditions.
8. The permittee shall continue to implement and submit the required information from the Groundwater Monitoring Plan approved by EPD on December 5, 2005.

**C. BIOMONITORING AND TOXICITY REDUCTION REQUIREMENTS**

1. The permittee shall comply with effluent standards or prohibitions established by section 307(a) of the Federal Act and with chapter 391-3-6-.03(5)(e) of the State Rules and may not discharge toxic pollutants in concentrations or combinations that are harmful to humans, animals, or aquatic life.

If toxicity is suspected in the effluent, EPD may require the permittee to perform any of the following actions:

- a. Acute biomonitoring tests;
  - b. Chronic biomonitoring tests;
  - c. Stream studies;
  - d. Priority pollutant analyses;
  - e. Toxicity reduction evaluations (TRE); or
  - f. Any other appropriate study.
2. EPD will specify the requirements and methodologies for performing any of these tests or studies. Unless other concentrations are specified by EPD, the critical concentration used to determine toxicity in biomonitoring tests will be the effluent instream wastewater concentration (IWC) based on the representative plant flow of the facility and the critical low flow of the receiving stream (7Q10). The endpoints that will be reported are the effluent concentration that is lethal to 50% of the test organisms (LC50) if the test is for acute toxicity, and the no observed effect concentration (NOEC) of effluent if the test is for chronic toxicity.

The permittee must eliminate effluent toxicity and supply EPD with data and evidence to confirm toxicity elimination.

## Attachment A - Altamaha River Study

### Purpose

The permittee shall conduct a water quality study of the stretch of the Altamaha River (River) upstream and downstream of the Rayonier facility in Jesup, Georgia. The purpose of the study plan is to develop data to determine if the designated use (fishing) of the River is impaired. The study shall consist of five modules 1) collection of data for the evaluation of color behavior and mixing; 2) evaluation of the CORMIX modeling; 3) river use survey; 4) fish and mussel assessment; and 5) analysis of fish tissue and river water for compounds associated with organoleptic effects.

### Sampling Quality Assurance Plans

A Sampling Quality Assurance Plan (SQAP) for Module Nos. 1, 2, and 4 shall be submitted for review and approval to EPD within 90 days of the permit effective date. A SQAP for Module No. 3 shall be submitted for review and approval to EPD within 180 days of the permit effective date. Within 60 days of EPD's approval of the River Use Survey (Module No. 3), the permittee shall submit the SQAP for Module No. 5. Upon EPD's review, the permittee shall respond to comments and revise the SQAP as necessary within 30 days of receipt of the comment letter(s). EPD may approve an extension of the schedule if the permittee demonstrates in writing that additional time is necessary to fully address the comments or to allow time for the permittee and EPD to resolve any issues regarding the nature of identified deficiencies and the scope of requested revisions. SQAPs shall include, as appropriate for each Module, sampling and analytical procedures, quality assurance and quality control procedures, sample locations and conditions for sampling, survey questions, and other information sufficient to allow EPD oversight of the study design.

Deviations from the approved SQAPs and/or specific provisions of the study requirements in this permit may be made if necessitated by safety considerations and/or field conditions (e.g., flow conditions, weather, etc...). EPD shall be notified before the permittee makes field modifications. In all cases, such deviations shall be documented and noted in the study and progress reports.

### Data Management

Sampling data for each of the Modules referenced herein shall be compiled in a project database maintained in a Microsoft Office Excel format for maximum accessibility and compatibility with publically available software packages of all involved parties. Any field notes taken at the time of sampling, including instrument calibration notes, shall be scanned and linked to the Excel file.

## Attachment A - Altamaha River Study

### Milestone Deadlines

Progress Reports for each module required within this study shall be submitted semi-annually , by July 30<sup>th</sup> for the period January 1- June 30, and by January 31<sup>st</sup> for the period July 1- December 31 until the entire study is completed and approved by EPD. Study report submittal deadlines are provided in each module.

## Attachment A - Altamaha River Study

### **Module No. 1 - Evaluation of Color Behavior and Mixing (Critical Condition and Normal Flow Condition)**

#### **Goals**

1. Define the behavior of effluent color as it travels downstream of the outfalls and interacts with the receiving water under critical and normal River flow conditions.
2. Collect data necessary to calibrate the CORMIX model by determining color mixing and extent of visual impacts of the mill's discharges.

#### **Study Elements**

Color mixing studies shall be conducted under two separate events, one during a critical, low flow (~7Q10 or 1,630 cfs) condition and another at a normal flow (~13,900 cfs). The permittee shall notify EPD 14 days in advance of the scheduled sampling dates to provide EPD staff an opportunity to observe the sampling. The permittee shall analyze the samples using a laboratory accredited for such work.

In order to identify the existing color mixing area, true color samples (measurements made following the removal of colloidal or suspended sources of turbidity) and field measurements of temperature, dissolved oxygen, pH, turbidity, and conductivity shall be collected at approximately 20 horizontal River transects. The upstream transects shall be taken 0.5 miles upstream from US 301. Samples taken at this location shall be used as boundary conditions in the mixing study. Transects shall contain a minimum of 5 equidistant sample collection points located horizontally across the River channel. A second transect shall be taken approximately 0.5 miles downstream from US 301 to verify the upstream boundary condition. All sampling and analysis shall be performed using standard methods, as described in the approved Study Plan.

In order to establish the near-field vertical mixing, samples shall be collected at the discharge pipes (001 and 002) and at River transects 50 feet, 100 feet, 250 feet, and 500 feet downstream from each discharge pipe. Water samples and water quality measurements per transect shall be collected at a minimum of 5 sample points located within the plume and shall include the centerline, right edge, and left edge of the plume. The sample locations shall be recorded using a GPS unit and total depth measurements shall be taken at each sample point. Visual observations and/or conductivity measurements shall be used to determine the approximate location of the plume. The location where the discharge plume is first visible at the water surface shall be recorded. In order to characterize the vertical mixing, the sampling along the horizontal transects immediately downstream from the discharges shall be conducted at a minimum of four depths (surface, ~25%, 50%, 75% of total depth) until the discharge is



## Attachment A - Altamaha River Study

completely vertically mixed. Visual observations and conductivity measurements shall be used to determine complete vertical mixing. Samples shall be collected using the equipment specified in the approved SQAP.

After the plume is vertically mixed (discharge is visible at the surface), samples shall be collected every 0.1 – 0.2 miles until the color has fully mixed horizontally (based on visual observation and conductivity measurements). Samples shall be collected at 1 meter depth or mid-depth if the total depth is less than 2 meters for the rest of the horizontal transects. At each transect, the GPS coordinates of the edge of the plume shall be recorded in order to determine the horizontal extent of the plume. Two additional transects shall be sampled at approximately 0.2 and 0.4 miles downstream of the point where the color has fully mixed horizontally. The final transects shall verify far-field complete mix.

River cross-sections and velocity shall be determined at each transect. A FlowTracker or other appropriate device(s) shall be used to measure velocity, channel geometry, and calculated discharge. The flow at the USGS Doctortown gage shall be monitored to determine appropriate sampling conditions.

Additionally, at the time of the River sampling, color and turbidity samples and flow measurements shall be taken from several local tributaries in order to quantify other potential sources of color. If possible to sample, tributaries shall include: Goose Creek, Harper Slough, Penholloway Creek, and Doctor's Creek. Measurements and samples shall be taken upstream of the River backwater area. This may require navigating upstream for a distance further than initially expected. The locations of samples and gaging shall be recorded. Color and turbidity samples shall be grab samples at mid-stream and 1 meter depth unless the stream is less than 2 meters, then samples shall be taken at mid-depth.

### **Submittal Deadline**

The Module No. 1, the Color Study, shall be implemented as soon as practicable after EPD approves the SQAP for Module No. 1, when River flows are within 10% of the target flow of critical, low flow condition and normal flow. The permittee must complete Module No. 1 and submit the raw data and results to EPD within 1 year from the date EPD approves the SQAP for Module No. 1 unless the River flows do not fall within the target flow range (in which case, EPD shall provide a new deadline in writing). Upon EPD's review, the permittee shall respond to EPD comments and revise the results report as necessary within 30 days of receipt of the comment letter(s). EPD may approve an extension of the schedule if the permittee demonstrates in writing that additional time is necessary to fully address the comments or to allow time for the permittee and EPD to resolve any issues regarding the nature of identified deficiencies and the scope of requested revisions.

## Attachment A - Altamaha River Study

### Module No. 2 - Evaluation of the CORMIX Modeling (Critical Condition and Normal Flow Condition)

#### Goal

1. Verify the results of CORMIX modeling using data collected in the field study (Module 1).

#### Study Elements

The physical data collected in Module 1 shall be used as model inputs for CORMIX.

The physical data shall include:

- River width
- depth
- velocity
- temperature
- color (PCU)

The diffuser information includes:

- port size
- number of ports
- discharge pipe length
- angle
- height
- distance to nearest bank
- other necessary data shall be used

The effluent data shall include:

- flow rate (or velocity)
- density
- temperature
- color concentration

Wind speed data from local meteorological stations, such as the Georgia Automated Environmental Monitoring Network Odum Station or the USGS wind monitoring station at Doctortown, shall be used. Wind speed data may critically affect the far-field mixing and it shall be used for evaluating surface heat transfer and ambient mixing only.

## Attachment A - Altamaha River Study

### Submittal Deadline

The permittee must complete Module No. 2 and submit the CORMIX Evaluation Report and raw data to EPD within 180 days from EPD's approval of the final report for Module No. 1. Upon EPD's review, the permittee shall respond to EPD comments and revise the CORMIX evaluation report as necessary within 30 days of receipt of the comment letter(s). EPD may approve an extension of the schedule if the permittee demonstrates in writing that additional time is necessary to fully address the comments or to allow time for the permittee and EPD to resolve any issues regarding the nature of identified deficiencies and the scope of requested revisions.

## Attachment A - Altamaha River Study

### Module No. 3 - River Use Surveys (Surveys)

#### Goal

1. Document, through the performance and analysis of the surveys, whether there is a color, and/or odor "impairment" in the River adjacent to the Rayonier facility in Jesup, Georgia.
2. Document 1) whether boaters and anglers frequent or avoid locations within the vicinity of the mill's outfalls; 2) whether the anglers consume fish from these locations; and 3) observations about why they make the choices they do.
3. Compile available data on recreational use of the River, i.e. fishing tournaments, boating events, etc.

#### Study Elements

The Surveys shall be conducted by a qualified 3<sup>rd</sup> party contractor and all of the Study Elements of Module No. 3 listed below shall be included in the SQAP and approved by EPD before the Surveys are performed.

1. EPD shall review and approve the Survey questionnaire(s) and schedule for appropriate randomized survey periods.
2. The Surveys shall include a written mail out Survey and a verbal on the River Survey. All responses shall be anonymous.
3. For the mail out Survey, the 3<sup>rd</sup> party contractor shall identify a representative population, at a minimum, by identifying those who have boating and fishing licenses in a regionally representative area.
4. For the on the River Survey, the Survey shall, at a minimum, be verbally asked to recreational users on the River to a regionally representative population upstream and downstream of the discharge location.
5. The permittee shall verbally notify EPD in advance of the randomized on the River Survey dates to provide EPD staff an opportunity to observe the Survey. Notification procedures shall be described in the SQAP.
6. The analysis of the Surveys shall utilize an appropriate statistical method to evaluate the Survey population and the responses. A sufficient sample size shall be identified in the SQAP and shall take into consideration the anticipated mail in response rate.

### Attachment A - Altamaha River Study

7. The individual raw data and results of the Surveys shall be submitted to EPD.
8. Concurrent with the Survey, Module No. 1 color and turbidity samples of the River downstream of outfall 2 shall be taken at locations identified in the approved SQAP on the Survey days on the River and analyzed.

#### **Submittal Deadline**

The permittee must complete Module No. 3 and submit the results in a River Use Report to EPD within 1 year from the date EPD approves the SQAP for Module No. 3. If River Use Surveys are conducted in an extremely wet or dry year, EPD may require that the Surveys be conducted again if comparisons with existing GA Wildlife Resource Division creel data shows significantly reduced river use. Upon EPD's review, the permittee shall respond to EPD comments and revise the River Use Report as necessary within 30 days of receipt of the comment letter(s). EPD may approve an extension of the schedule if the permittee demonstrates in writing that additional time is necessary to fully address the comments or to allow time for the permittee and EPD to resolve any issues regarding the nature of identified deficiencies and the scope of requested revisions.

## Attachment A - Altamaha River Study

### Module No. 4 - Fish and Mussel Assessment

#### Goal

1. Evaluate the status of fish and mussels upstream and downstream of the mills discharge.

#### Study Elements

The permittee shall conduct a fish and mussel study that shall analyze the condition of the fish communities, habitats, and populations and the presence or absence of mussels and their habitats upstream and downstream of the mill's discharge. The permittee shall include in the SQAP an analysis of historical fish community and mussel survey data collected in the Altamaha River, identified data gaps, and the study design to address the data gaps to meet the goal of this Module. The SQAP shall be reviewed and approved by EPD prior to the initiation of sampling. The permittee shall notify EPD 14 days in advance of the fish and mussel field study dates to provide EPD staff an opportunity to observe.

#### Submittal Deadline

The permittee must complete Module No. 4 and submit the Fish and Mussel Assessment Report to EPD within 1 year from the date EPD approves the SQAP for Module No. 4 unless the River flows and stages do not fall within the targeted ranges for the mussel assessment (in which case, EPD shall provide a new deadline in writing). Upon EPD's review, the permittee shall respond to EPD comments and revise the Fish and Mussel Assessment Report as necessary within 30 days of receipt of the comment letter(s). EPD may approve an extension of the schedule if the permittee demonstrates in writing that additional time is necessary to fully address the comments or to allow time for the permittee and EPD to resolve any issues regarding the nature of identified deficiencies and the scope of requested revisions.

## Attachment A - Altamaha River Study

### **Module No. 5 - Fish Tissue Analysis for Compounds Associated with Organoleptic Effects**

#### **Goal**

1. Analyze fish tissues and river water for compounds which may be associated with organoleptic effects to determine if the River is impaired for the narrative odor criteria.

#### **Study Elements**

The permittee shall collect and analyze river water in the vicinity of the mill's outfall area, both upstream and downstream from the discharges, for the following list of compounds associated with organoleptic effects, as stated in the National Recommended Water Quality Criteria: 2,6-Dichlorophenol; 2,4,5-Trichlorophenol; 2,4,6-Trichlorophenol; 2,3,4,6-Tetrachlorophenol; 2-Chlorophenol; Copper; 2,4-Dichlorophenol; 2,4-Dimethylphenol; Hexachlorocyclopentadiene; Nitrobenzene; Pentachlorophenol; Phenol. If the river samples are below the published national recommended water quality criteria for organoleptic effects, then the permittee shall only collect and analyze fish from both upstream and downstream of the discharges for Phenol and Copper. Otherwise, the permittee shall collect and analyze the fish from both upstream and downstream of the discharges for those compounds that are present in the river water above the recommended water quality criteria for organoleptic effects in addition to Phenol and Copper. The permittee shall collect and analyze fish of the same or similar species and age according to EPD's fish collection protocols for consumption guidance. Additional fish such as largemouth bass, flathead catfish, sunfish, suckers or mullet shall be collected as part of the assessment. Based on outcomes of the River Use Survey (Model No. 3), it may be appropriate to also collect other fish. The permittee shall notify EPD 14 days in advance of the fish tissue and river water field study dates to provide EPD staff an opportunity to observe.

#### **Submittal Deadline:**

The permittee must complete Module No. 5 and submit the Fish Tissue and River Water Report to EPD within 18 months from the date EPD approves the SQAP for Module No. 5. Upon EPD's review, the permittee shall respond to EPD comments and revise the Fish Tissue and River Water Report as necessary within 30 days of receipt of the comment letter(s). EPD may approve an extension of the schedule if the permittee demonstrates in writing that additional time is necessary to fully address the comments or to allow time for the permittee and EPD to resolve any issues regarding the nature of identified deficiencies and the scope of requested revisions.