

## APPENDIX A

APPENDIX 10 - SITE DRAINAGE AND STORMWATER RUNOFF

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# Site Drainage and Stormwater Runoff System



## APPENDIX B

General Permit  
No. GAR050000

**State of Georgia  
Department of Natural Resources  
Environmental Protection Division**

**Authorization to Discharge Under the  
National Pollutant Discharge Elimination System  
Storm Water Discharges Associated with Industrial Activity**

In compliance with the provisions of the Georgia Water Quality Control Act (Georgia Laws 1964, p. 416, as amended), hereinafter called the "State Act," the Federal Clean Water Act, as amended (33 U.S.C.1251 et seq.), hereinafter called the "Clean Water Act," and the Rules and Regulations promulgated pursuant to each of these Acts, all new and existing storm water point sources within the State of Georgia that are required to have a permit, upon submittal of a Notice of Intent, are authorized to discharge storm water associated with industrial activity to the waters of the State of Georgia in accordance with the limitations, monitoring requirements and other conditions set forth in Parts 1 through 8 and Appendices hereof.

This permit shall become effective on June 1, 2012.

This permit and the authorization to discharge shall expire at midnight, May 31, 2017.

Signed this 16<sup>th</sup> day of April, 2012.



  
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Director,  
Environmental Protection Division

**NPDES GENERAL PERMIT FOR  
STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY  
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**PERMIT FOR STORM WATER DISCHARGES  
ASSOCIATED WITH INDUSTRIAL ACTIVITY (IGP)  
GAR050000**

**1 Coverage under this Permit.**

**1.1 Eligibility.**

**1.1.1 Facilities Covered.**

1.1.1.1 Sectors A through AA. To be eligible to discharge under this permit under Sectors A through AA, permittees must have a storm water discharge associated with industrial activity from the permittee's primary industrial activity, as defined in Appendix A, and have a primary industrial activity included in Appendix D.

1.1.1.2 Sector AB. This permit also authorizes storm water discharges under Sector AB from any industrial activity designated by EPD where the designation is based on the potential for contribution to a violation of a water quality standard or for significant contribution of pollutants to Waters of the State. Sector AB permittees must be notified by EPD that the permittee is eligible for coverage under Sector AB of this permit.

1.1.1.3 Municipally owned or operated industrial facilities and military installations must comply with the permit and monitoring requirements for all types of industrial activities that such installations perform.

**1.1.2 Allowable Storm Water Discharges.** Unless otherwise made ineligible under Part 1.1.4, the following discharges are eligible for coverage under this permit:

1.1.2.1 Storm water discharges associated with industrial activity for any primary industrial activity and co-located industrial activities, as defined in Appendix A;

1.1.2.2 Discharges designated by EPD as needing a storm water permit as provided in Part 8, Sector AB;

1.1.2.3 Discharges that are not otherwise required to obtain NPDES permit authorization but are commingled with discharges that are authorized under this permit;

1.1.2.4 Discharges subject to any of the National storm water-specific effluent limitations listed in Table 1-1; and

1.1.2.5 Discharges composed of allowable discharges listed in Parts 1.1.2 and 1.1.3 commingled with a storm water discharge authorized by a different NPDES permit.



<b>Table 1-1. Storm Water-Specific Effluent Limitations</b>			
<b>Regulated Discharge</b>	<b>40 CFR Section</b>	<b>Part 8 Sector</b>	<b>Effluent Limit</b>
Discharges resulting from spray down or intentional wetting of logs at wet deck storage areas	Part 429, Subpart I	A	See Part 8.A.7
Runoff from phosphate fertilizer manufacturing facilities that comes into contact with any raw materials, finished product, by-products or waste products (SIC 2874)	Part 418, Subpart A	C	See Part 8.C.4
Runoff from asphalt emulsion facilities	Part 443, Subpart A	D	See Part 8.D.4
Runoff from material storage piles at cement manufacturing facilities	Part 411, Subpart C	E	See Part 8.E.5
Runoff from hazardous waste landfills	Part 445, Subpart A	K	See Part 8.K.6
Runoff from non-hazardous waste landfills	Part 445, Subpart B	L	See Part 8.L.10
Runoff from coal storage piles at steam electric generating facilities	Part 423	O	See Part 8.O.7

### 1.1.3 Allowable Non-Storm Water Discharges.

1.1.3.1 The following are the non-storm water discharges authorized, if uncontaminated, under this permit. If you discharge to a municipal separate storm sewer system (MS4), check local ordinances as these discharges may not be allowed:

- a. Discharges from fire-fighting activities;
- b. Fire hydrant flushing;
- c. Potable water, including water line flushing and hydrostatic test water;
- d. Uncontaminated condensate from air conditioners, coolers, and other compressors and from the outside storage of refrigerated gases or liquids;
- e. Irrigation drainage;
- f. Landscape watering, provided all pesticides, herbicides, and fertilizer have been applied in accordance with the approved labeling;
- g. Pavement wash waters where no detergents are used and no spills or leaks of toxic or hazardous materials have occurred (unless all spilled material has been removed);
- h. Routine external building washdown that does not use detergents;
- i. Uncontaminated ground water or spring water;
- j. Foundation or footing drains where flows are not contaminated with process materials;
- k. Incidental windblown mist from cooling towers that collects on rooftops or adjacent portions of the facility, but not intentional discharges from the cooling tower (e.g., piped cooling tower blowdown or drains);
- l. Water used for dust suppression on roads; and
- m. Storm water released from containment and through oil/water separators (see also Part 4.1.1.1).

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**1.1.4 Limitations on Coverage.**

1.1.4.1 Discharges Mixed with Non-Storm Water. Storm water discharges that are mixed with non-storm water, other than those non-storm water discharges listed in Part 1.1.3, are not eligible for coverage under this permit. Typical non-allowable non-storm water includes but is not limited to the following:

- a. Piped cooling tower blowdown or drains;
- b. Vehicle and equipment wash water;
- c. Non-contact cooling water;
- d. Landfill leachate;
- e. Waste pile leachate except in de minimus amounts;
- f. Pavement wash water from containment zones; and
- g. Any other type(s) of process wastewater unless specifically allowed by this permit.

1.1.4.2 Storm Water Discharges Associated with Construction Activity. Storm water discharges associated with construction activity disturbing one acre or more are not eligible for coverage under this permit.

1.1.4.3 Discharges Currently or Previously Covered by Another Permit. Unless permittees received written notification from EPD specifically allowing these discharges to be covered under this permit, the following discharges are not eligible for coverage under this permit:

- a. Storm water discharges associated with industrial activity that are either stand-alone or are a component of a discharge currently covered under an individual NPDES permit or an alternative NPDES general permit;
- b. Discharges covered within five years prior to the effective date of this permit by an individual permit or alternative general permit where that permit established site-specific, numeric water quality based limitations developed for the storm water component of the discharge; or
- c. Discharges from facilities where any NPDES permit has been or is in the process of being denied, terminated, or revoked by EPD (this does not apply to the routine reissuance of permits).

1.1.4.4 Storm Water Discharges Subject to Effluent Limitations. For discharges subject to storm water effluent limitation guidelines under 40 CFR, Subchapter N, only those storm water discharges identified in Table 1-1 are eligible for coverage under this permit.

1.1.4.5 Consistency with Municipal Separate Storm Sewer Systems (MS4). Nothing in this permit relieves the permittee from the applicable requirements in municipal storm water management programs developed under NPDES permits issued for the discharge of the MS4 that receives the facility's discharge or any other local requirements.

1.1.4.6 New Discharges to Water-Quality Impaired Waters. The requirements for new discharges to water-quality impaired waters are addressed in Appendix C.

1.1.4.7 Existing Discharges to Water-Quality Impaired Waters. The requirements for existing discharges to water-quality impaired waters are addressed in Appendix C.

1.1.4.8 Discharges to Waters Designated as Outstanding National Resource Water (ONRW). New and existing discharges to waters designated as ONRW or Wild or Scenic River must comply with any additional Best Management Practices (BMP) specified or incorporated by reference in DNR Rules which so designate such water.

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**1.2 Permit Compliance.** Noncompliance with any of the requirements of this permit constitutes a violation of the Clean Water Act (CWA) and the Georgia Water Quality Control Act (WQCA). As detailed in Part 3 (Corrective Actions) of this permit, failure to take any required corrective actions constitutes an independent, additional violation of this permit, CWA, and WQCA. As such, any actions and time periods specified for remedying noncompliance do not absolve parties of the initial, underlying noncompliance. However, where corrective action is triggered by an event that does not itself constitute permit noncompliance, such as an exceedance of an applicable benchmark, there is no permit violation, provided permittees take the required corrective action within the relevant deadlines established in Part 3.3.

**1.3 Authorization under this Permit.** All Existing Discharges, New Discharges or Sources, New Owner/Operators of Existing Discharges, and Other Eligible Discharges are required to meet the requirements outlined in Section 1.3.1 in order to obtain authorization to discharge under this permit.

**1.3.1 How to Obtain Authorization.**

1.3.1.1 To obtain authorization under this permit, the facility must:

- a. Have a storm water point source discharge to waters of the State of Georgia;
- b. Meet the Part 1.1 eligibility requirements;
- c. Select, design, install, and implement control measures in accordance with Part 2.1 to meet numeric and non-numeric effluent limits;
- d. Develop a Storm Water Pollution Prevention Plan (SWPPP) according to the requirements in Part 5 of this permit;
- e. Complete an accurate Notice of Intent (NOI) containing the following:
  - i. Name, mailing address, street address (provide a descriptive or narrative location if no address is available), and County of the facility for which the notification is submitted;
  - ii. The latitude and longitude of the approximate center of the facility (decimal degrees);
  - iii. The legal name, address, email address and telephone number of the operator of the facility;
  - iv. The name, title, telephone number and email address of the individual at the facility who will serve as the point of contact for storm water and permit-related issues;
  - v. The 4-digit Standard Industrial Classification (SIC) code that best represents the primary industrial activity as defined in Appendix A, Sector per Part 8, and up to four SIC codes that best represent the secondary industrial activity, and indicate whether the facility is subject to effluent limits as stated in Part 8: A,C,D,E,K,L or O. (For a list of SIC codes, see the SIC Manual on the US Department of Labor site at <http://www.osha.gov>.);
  - vi. Name of the river basin where the facility is located and the name of receiving waters (each stream, if more than one);
  - vii. Indicate whether the facility is discharging storm water associated with industrial activity to, or within one (1) linear mile upstream of and within the same watershed as, any portion of an impaired stream segment listed as “not supporting” designated uses on Georgia’s most current 305(b)/303(d) lists. Georgia’s 305(b)/303(d) lists can be viewed on EPD’s website at <http://www.gaepd.org/Documents/IndustrialStormwater.html>.
  - viii. For those facilities that answered “Yes” to Part 1.3.1.1.e.vii above, indicate whether the pollutant(s) of concern may be exposed to storm water according to the options specified in Appendix C.1. Indicate accordingly if the facility is seeking exemption from impaired stream segment sampling under Part C.1.3.1 or C.1.3.2. Facilities seeking this exemption shall attach documentation required by Part 5.4 with a Professional Engineer’s Certification to the NOI.
  - ix. If permittees do not expose the pollutant of concern to storm water then permittees must maintain documentation that the pollutant(s) for which the water body is impaired is not exposed or present at the facility in accordance with Appendix C.1.1 or C.1.2; respectively.

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- x. Previous permittees that were subject to impaired stream segment sampling under the 2006 GAR000000 permit must indicate the requirements for which their facility is subject stated in Appendix C.2 as C.6, C.7, C.8 or C.10.;
  - xi. Indicate whether the facility discharges to a Municipal Separate Storm Sewer System (MS4). If so, state the name of the MS4 which receives the storm water discharge and indicate that a copy of the NOI was submitted to the MS4;
  - xii. A statement of whether the owner or operator has existing quantitative data describing the concentration of pollutants in storm water discharges (do not attach or include existing data when submitting the NOI).
  - xiii. The permit number of any additional NPDES permits for any discharges (including non-storm water discharges) from the site
  - xiv. Indicate on the SWPPP checklist the activities completed by checking the appropriate boxes. Facilities with an existing storm water discharge associated with industrial activity prior to the effective date of this permit shall update the SWPPP within ninety (90) days and implement it within one hundred eighty (180) days in compliance with Part 5 of the permit after the effective date of this permit. Facilities that begin industrial operations after the effective date of this permit are required to implement and maintain a SWPPP in compliance with Part 5 of this permit on or before the day industrial operations commence at the facility ;
  - xv. Signature per Appendix B.7 certifying:
    - a. That the applicant is requesting coverage under the IGP, GAR050000.
    - b. That a SWPPP has been or will be prepared and implemented in accordance with 1.3.1.1.e.xiv of this permit for the facility, signed, and dated by an authorized representative as defined in Appendix B, and the name and address of the person signing the NOI.
    - c. That the NOI was properly completed.
    - d. The signature on the submitted NOI must be original.
  - xvi. For those facilities in Part 8 - Sector (J) Mining; submit a copy of the NOI to EPD's Surface Mining Unit;
  - xvii. Any other information EPD requires on the NOI form. This form is available on our website at: <http://www.gaepd.org/Documents/IndustrialStormwater.html>.
- f. Submit a complete, accurate and signed original Notice of Intent (NOI) **via return receipt** (or similar service) to EPD at the address listed in Part 7.6. (EPD does not acknowledge receipt, therefore the return receipt serves as confirmation of the submittal.)

1.3.1.2 Late NOIs will be accepted but authorization to discharge will not be retroactive.

1.3.1.3 Timeframes for discharge authorization are contained in Table 1-2.

Table 1-2. NOI Submittal Deadlines/Discharge Authorization Dates		
Category	NOI Submission Deadline	Discharge Authorization Date <sup>1</sup>
Existing Discharges – Having submitted a complete NOI for coverage under the 2006 IGP before the effective date of this permit.	No later than 30 days after the effective date of this permit.	Immediately upon submittal of the NOI (i.e., on the day the complete NOI is postmarked).  Authorization under the 2006 IGP is automatically continued until permittees have been granted coverage under this permit or an alternative permit, or coverage is otherwise terminated.

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<b>Table 1-2. NOI Submittal Deadlines/Discharge Authorization Dates (cont.)</b>		
<b>Category</b>	<b>NOI Submission Deadline</b>	<b>Discharge Authorization Date<sup>1</sup></b>
<u>New Discharges or New Sources</u> - commencing discharge on or after the effective date of this permit.	A minimum of 7 days prior to commencing discharge.	Immediately upon submittal of the NOI (i.e., on the day the complete NOI is postmarked).
<u>New Owner/Operator of Existing Discharges</u> - transfer of ownership and/or operation of a facility whose discharge is authorized under this permit.	No later than 30 days after a change of owner/operator in accordance with Part 1.3.6.	Immediately upon submittal of the NOI (i.e., on the day the complete NOI is postmarked).
<u>Other Eligible Discharges</u> - in operation prior to the effective date of this permit, but not covered under the IGP or another NPDES permit.	Immediately, to minimize the time discharges from the facility will continue to be unauthorized.	Immediately upon submittal of the NOI (i.e., on the day the complete NOI is postmarked).
Operators of oil and gas exploration, production, processing, or treatment operations or transmission facilities, that were not required to submit a permit application as of October 1, 1992 in accordance with 40 CFR Part 122.26(c)(1)(iii), but that after October 1, 1992 have or have had a discharge of a reportable quantity of oil or a hazardous substance for which notification is required pursuant to either Georgia's Oil or Hazardous Material Spills or Releases Act (O.C.G.A. 12-14-2), 40 CFR Part 110.6, 40 CFR Part 117.21 or 40 CFR Part 302.6	Within 14 calendar days of the first knowledge of such release.	Immediately upon submittal of the NOI (i.e., on the day the complete NOI is postmarked).

<sup>1</sup> Based on a review of the NOI or other information, EPD may delay the permittee's authorization for further review, may notify permittees that additional effluent limitations are necessary, or may deny coverage under this permit and require submission of an application for an individual or alternative general NPDES permit, as detailed in Part 1.6. In these instances, EPD will notify permittees in writing of the delay, of the need for additional effluent limits, or of the request for submission of an individual NPDES permit application or alternative general permit NOI.

### 1.3.2 Continuation of this Permit.

1.3.2.1 This permit will continue to be in effect until the date five (5) years after the effective date and will expire on the date shown on the cover page. However, an expired general permit continues in force and effect until a new general permit is issued. Any permittee who submits a properly-completed GAR050000 Notice of Intent (NOI) form to obtain coverage under this permit prior to the expiration date will automatically remain covered under the continued permit until one of the following occurs:

- a. Authorization for coverage under a reissued permit or a replacement of this permit following timely and appropriate submittal of a complete NOI requesting authorization to discharge under the new permit and in compliance with the requirements of the new permit; or
- b. Submittal of a Notice of Termination (NOT); or

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- c. An individual NPDES permit authorizing storm water discharges associated with industrial activity is issued for all discharges formerly covered by the continued permit; or
- d. A formal permit decision is made by the Director not to reissue this general permit, at which time coverage under an individual permit or an alternate general permit will be required.

**1.3.3 Additional Notification.** Facilities that discharge storm water associated with industrial activity through a permitted MS4, in addition to filing the NOI in accordance with Part 1.3.1, shall also submit signed copies of the NOI to the City or County in accordance with the deadlines in Table 1.2.

**1.3.4 Renotification.** Upon issuance of a new or different general permit for some or all of the discharges of storm water covered by this permit, the permittee is required to notify EPD of its intent to be covered by the new or different permit. The permittee is required to submit a new NOI in accordance with the notification requirements of the new or different permit at that time.

**1.3.5 Change of Information.** For an existing permittee, if any of the information supplied on the NOI form changes during the term of this permit, with the exception of the statement regarding existing quantitative data and the name of the site contact, the permittee must submit an updated NOI, with the "Change of Information" box marked at the top of the form, within thirty (30) days after the change.

**1.3.6 Change in Operator.** At facilities where there is a transfer of ownership and/or a new operator takes over operational control at an existing facility the new operator shall submit an NOI no later than thirty (30) days after a change in owner/operator. The previous owner/operator must submit a notice of termination (NOT) no later than thirty (30) days after the operator changes.

#### **1.4 Terminating Coverage.**

**1.4.1 Submitting a Notice of Termination (NOT).** To terminate permit coverage, permittees must submit a complete and accurate NOT using the NOT form provided by EPD to the address listed in Part 7.6. Authorization to discharge under this permit terminates at midnight of the day that a complete NOT is received by EPD. If permittees submit an NOT without meeting one or more of the conditions identified in Part 1.4.2, then the NOT is not valid. Permittees are responsible for meeting the terms of this permit until authorization is terminated.

#### **1.4.2 When to Submit an NOT.**

1.4.2.1 Permittees must submit an NOT within 30 days after one or more of the following conditions have been met:

- a. A new owner or operator has taken over responsibility for the facility; or
- b. Permittees have ceased operations at the facility, there will no longer be discharges of storm water associated with industrial activity from the facility, and permittees have already implemented necessary sediment and erosion controls as required by Part 2.1.2.5; or
- c. Permittees are a Sector J facility and have met the applicable termination requirements stated in Part 8.J.3.7; or
- d. Permittees have obtained coverage under an individual or alternative general permit for all discharges required to be covered by an NPDES permit, unless EPD has required that permittee to obtain such coverage under authority of Part 1.6.1, in which case coverage under this permit will terminate automatically.

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**1.4.3 Information to Be Included in the NOT.**

1.4.3.1 Provide information as follows and as requested in the form provided by EPD for this permit:

- a. Name and address of the entity holding permit coverage to be terminated;
- b. Name and location of the facility;
- c. Signature per Appendix B.7 certifying proper closure. Also, provide the typed or printed name, position, and address of the person signing the NOT;
- d. Any other information EPD requires on the NOT form. This form is available on our website at <http://www.gaepd.org/Documents/IndustrialStormwater.html>; and
- e. The NOT must be submitted via return receipt (or similar service) to EPD at the address listed in Part 7.6. EPD does not acknowledge receipt; therefore the return receipt serves as confirmation of the submittal.

**1.5 Conditional Exclusion for No Exposure.**

1.5.1 Those facilities that have certified to a condition of No Exposure by submitting the Industrial No Exposure Exclusion (NEE) Certification form (available on EPD's website at <http://www.gaepd.org/Documents/IndustrialStormwater.html>) are exempt from the IGP as long as the condition of No Exposure is maintained and, therefore, are not required to submit an NOI. Permitted facilities that are able to meet the requirements for the NEE at a later date will, after submitting the Industrial NEE form, no longer be authorized by or required to comply with the IGP. Submittal of an NOI is not required prior to submittal of the Industrial NEE form. Owners and operators of facilities for which an NEE form is submitted shall conduct quarterly inspections each year after the effective date of this permit to ensure that a condition of No Exposure is maintained at the facility. Results of each such inspection shall be maintained at the NEE facility and available to EPD upon request. If an inspection shows that a condition of No Exposure does not exist, then the NEE facility must be restored to a condition of No Exposure by implementing appropriate remedial measures within thirty (30) days of the inspection, or the facility owner or operator must submit an NOI by the end of that thirty (30) day period to obtain coverage under this permit and must thereafter comply with the conditions of this permit. EPD may revoke NEE status for any facility that does not adequately demonstrate that it complied or continues to comply with the NEE requirements. The NEE form must be submitted on every permit cycle re-issuance. Existing NEEs shall submit the NEE form no later than thirty (30) days after the effective date of this permit.

**1.6 Alternative Permits.**

**1.6.1 Requiring Coverage under an Alternative Permit.** EPD may require permittees to apply for and/or obtain authorization to discharge under either an individual NPDES permit or an alternative NPDES general permit. EPD may pursue an individual permit in instances where compliance under this permit is not being obtained and where the discharge is considered to cause or contribute to a violation of Water Quality Standards in the receiving waterbody. If a facility were on an impaired water and failed sampling requirements of the previous permit, GAR000000, then they will receive a notification letter from EPD stating they are ineligible for coverage under this permit without making the improvements necessary to meet the benchmark value as an end-of-pipe effluent limit (Part C.10.1). If the permittee decides or EPD requires the permittee to apply for an individual NPDES permit, EPD will notify the permittee in writing that a permit application is required. This notification will include a brief statement of the reasons for this decision and will provide application information. In addition, if permittees are an existing discharger authorized to discharge under this permit, the notice will set a deadline to file the permit application, and will include a statement that on the effective date of the individual NPDES permit, or the alternative general permit as it applies to the permittee, coverage under this general

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permit will terminate. EPD may grant additional time to submit the application if permittees request it. If permittees are covered under this permit and fail to submit an individual NPDES permit application as required by EPD, then the applicability of this permit to the permittee is terminated at the end of the day specified by EPD as the deadline for application submittal. EPD may take appropriate enforcement action for any unpermitted discharge.

**1.7 Severability.** Invalidation of a portion of this permit does not necessarily render the whole permit invalid. EPD's intent is that the permit remain in effect to the extent possible; in the event that any part of this permit is invalidated, EPD will advise the regulated community as to the effect of such invalidation.

**2 Control Measures and Effluent Limits.** In the technology-based limits included in Part 2.1 and in Part 8, the term "minimize" means reduce and/or eliminate to the extent achievable using control measures (including best management practices [BMPs]) that are technologically available and economically practicable and achievable in light of best industry practice.

**2.1 Control Measures.** Permittees must select, design, install, and implement control measures (including BMPs) to address the selection and design considerations in Part 2.1.1, meet the non-numeric effluent limits in Part 2.1.2, and meet limits contained in applicable effluent limitations in Part 2.2. The selection, design, installation, and implementation of these control measures must be in accordance with good engineering practices and manufacturer's specifications. Note that permittees may deviate from manufacturer's specifications where justification is provided for such deviation and documentation of the rationale is included in the part of the SWPPP that describes the control measures, consistent with Part 5.1.4. If permittees find that control measures are not achieving their intended effect of minimizing pollutant discharges, permittees must modify these control measures as expeditiously as practicable. The permittee is not responsible for pollutants resulting from documented conditions emanating from run-on or rainfall. Documentation shall be provided by the permittee.

**2.1.1 Control Measure Selection and Design Considerations.**

- 2.1.1.1 Permittees must consider the following when selecting and designing control measures:
- a. preventing storm water from coming into contact with polluting materials is generally more effective and less costly than trying to remove pollutants from storm water;
  - b. using control measures in combination is more effective than using control measures in isolation for minimizing pollutants in the storm water discharge;
  - c. assessing the type and quantity of pollutants, including their potential to impact receiving water quality, is critical to designing effective control measures that will achieve the limits in this permit;
  - d. minimizing impervious areas at the facility and infiltrating runoff onsite (including bioretention cells, green roofs, and pervious pavement, among other approaches) can reduce runoff and improve groundwater recharge and stream base flows in local streams; although, care must be taken to avoid groundwater contamination;
  - e. attenuating flow using open, vegetated swales and natural depressions can reduce in-stream impacts of erosive flows;
  - f. conserving and/or restoring riparian buffers will help protect streams from storm water runoff and improve water quality; and
  - g. using treatment interceptors (e.g., swirl separators and sand filters) may be appropriate in some instances to minimize the discharge of pollutants.



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**2.1.2 Non-Numeric Technology-Based Effluent Limits.**

2.1.2.1 Minimize Exposure. Permittees must minimize the exposure of manufacturing, processing, and material storage areas (including loading and unloading, storage, disposal, cleaning, maintenance, and fueling operations) to rain, snow, snowmelt, and runoff by either locating these industrial materials and activities inside or protecting them with storm resistant coverings (although significant enlargement of impervious surface area is not recommended). In minimizing exposure, permittees should pay particular attention to the following:

- a. use grading, berming, or curbing to prevent runoff of contaminated flows and divert run-on away from these areas;
- b. locate materials, equipment, and activities so that leaks are contained in existing containment and diversion systems (e.g., confine the storage of leaky or leak-prone vehicles and equipment awaiting maintenance to protected areas);
- c. clean up spills and leaks promptly using dry methods (e.g., absorbents) to prevent the discharge of pollutants;
- d. use drip pans and absorbents under or around leaky vehicles and equipment or store indoors where feasible;
- e. use spill/overflow protection equipment;
- f. drain fluids from equipment and vehicles prior to on-site storage or disposal;
- g. perform all cleaning operations indoors, under cover, or in bermed areas that prevent runoff and run-on and also that capture any overspray; and
- h. ensure that all wash water drains to a proper collection system (i.e., not the storm water drainage system).

Note 1: The discharge of vehicle and equipment wash water, including tank-cleaning operations, is not authorized by this permit. These wastewaters must be covered under a separate NPDES permit, discharged to a sanitary sewer in accordance with applicable industrial pretreatment requirements, or disposed of otherwise in accordance with applicable law. See Part 1.1.4.1.

Note 2: Industrial materials do not need to be enclosed or covered if storm water runoff from affected areas will not be discharged to receiving waters or if discharges are authorized under another NPDES permit.

2.1.2.2 Good Housekeeping. Permittees must keep clean all exposed areas that are potential sources of pollutants, using such measures as sweeping at regular intervals, keeping materials orderly and labeled, and storing materials in appropriate containers.

2.1.2.3 Maintenance. Permittees must regularly inspect, test, maintain, and repair all industrial equipment and systems to avoid situations that may result in leaks, spills, and other releases of pollutants in storm water discharged to receiving waters. Permittees must maintain in effective operating condition all control measures that are used to achieve the effluent limits required by this permit. Nonstructural control measures must also be diligently maintained (e.g., keeping spill response supplies available, training personnel appropriately). If permittees find that control measures need to be replaced or repaired, permittees must make the necessary repairs or modifications as expeditiously as practicable.

2.1.2.4 Spill Prevention and Response Procedures. Permittees must minimize the potential for leaks, spills, and other releases that may be exposed to storm water and develop plans for effective response to such spills if or when they occur. At a minimum, permittees must implement:

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- a. Procedures for plainly labeling containers (e.g., “used oil,” “spent solvents,” “fertilizers and pesticides,” etc.) that could be susceptible to spillage or leakage to encourage proper handling and facilitate rapid response if spills or leaks occur;
- b. Preventative measures such as barriers between material storage and traffic areas, secondary containment provisions, and procedures for material storage and handling;
- c. Procedures for expeditiously stopping, containing, and cleaning up leaks, spills, and other releases. Employees who may cause, detect, or respond to a spill or leak must be trained in these procedures and have necessary spill response equipment available. If possible, one of these individuals should be a member of the storm water pollution prevention team (see Part 5.1.1);
- d. The discharge of hazardous substances or oil in the storm water discharge(s) from a facility covered by this permit shall be prevented, if at all possible, or minimized in accordance with the applicable SWPPP for the facility. This permit does not relieve the permittee of the reporting requirements of Georgia’s Oil or Hazardous Materials Spills or Releases Act (O.C.G.A 12-14-2), 40 CFR Part 110.6, 40 CFR Part 117, and 40 CFR Part 302;
- e. The SWPPP required of this permit must be modified within thirty (30) calendar days of knowledge of a release with the potential to impact storm water equal to or in excess of a reportable quantity under Georgia’s Oil or Hazardous Materials Spills or Releases Act (O.C.G.A 12-14-2), 40 CFR Part 110.6, 40 CFR Part 117 or 40 CFR Part 302 to: provide a description of the release, the circumstances leading to the release, and the date of the release. In addition, the SWPPP must be reviewed and amended to identify measures needed to prevent the reoccurrence of such release and to respond to such releases; and
- f. Spills. This permit does not authorize the discharge of hazardous substances or oil resulting from an on-site spill except in *de minimis* amounts after removal and proper disposal of the spilled material has been completed in accordance with State and Federal requirements.

2.1.2.5 Erosion and Sediment Controls. Permittees must stabilize exposed areas and manage runoff using structural and/or non-structural control measures to minimize onsite erosion and sedimentation and the resulting discharge of pollutants.

2.1.2.6 Management of Runoff. Permittees must divert, infiltrate, reuse, contain, or otherwise reduce storm water runoff to minimize pollutants in discharges to the maximum extent practicable. In selecting, designing, installing, and implementing appropriate control measures, permittees are encouraged to consult with EPA’s internet-based resources relating to runoff management, including the sector-specific Industrial Storm Water Fact Sheet Series ([www.epa.gov/npdes/stormwater/msgp](http://www.epa.gov/npdes/stormwater/msgp)), National Menu of Storm Water BMPs ([www.epa.gov/npdes/stormwater/menuofbmps](http://www.epa.gov/npdes/stormwater/menuofbmps)) and National Management Measures to Control Nonpoint Source Pollution from Urban Areas ([www.epa.gov/owow/nps/urbanmm/index.html](http://www.epa.gov/owow/nps/urbanmm/index.html)), and the Georgia Stormwater Management Manual.

2.1.2.7 Salt Storage and Pavement Deicing.

- a. Salt Storage Piles or Piles Containing Salt. Permittees must enclose or cover storage piles of salt, or piles containing salt, used for deicing or other commercial or industrial purposes, including maintenance of paved surfaces, except for exposure resulting from adding or removing materials from the pile. Permittees must implement appropriate measures (e.g., good housekeeping, diversions, containment) to minimize exposure resulting from adding to or removing materials from the pile. Piles do not need to be enclosed or covered if storm water runoff from the piles is not discharged or if discharges from the piles are authorized under another NPDES permit that does not require their cover.
- b. Pavement Deicing Activities - For any pavement deicing activities at facilities, other than airports, covered under this permit, the SWPPP must include measures to assure that no SARA 313

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chemicals are used for deicing and that no deicing occurs where spills or leaks of toxic or hazardous materials have occurred (unless all spilled material has been removed). Deicing is to be carried out only for safety purposes during inclement weather and must meet Water Quality Standards in the receiving waterbody in compliance with Part 2.3. (See also Part 5.1.3.5).

2.1.2.8 Dust Generation and Vehicle Tracking of Industrial Materials. Permittees must minimize generation of dust and off-site tracking of raw, final, or waste materials.

2.1.2.9 Waste, Garbage, and Floatable Debris. Permittees must ensure that waste, garbage, and floatable debris are not discharged to receiving waters by keeping exposed areas free of such materials or by intercepting them before they are discharged.

## 2.2 Numeric Effluent Limitations.

2.2.1 For discharges subject to stormwater effluent limitations under 40 CFR, Subchapter N, only those stormwater discharges identified in Table 1.1 are eligible for coverage under this permit. Permittees must meet the effluent limits referenced in Table 1-1 and specifically listed within their respective sectors in Part 8.

## 2.3 Water Quality-Based Effluent Limitations.

### 2.3.1 Water Quality Standards.

2.3.1.1 Discharges must be controlled as necessary to ensure that the receiving waterbody does not exceed the applicable Water Quality Standards as stated in the Georgia Rules and Regulations for Water Quality Control 391-3-6-.03, Water Use Classification and Water Quality Standards. These water quality standards apply to the receiving waterbodies themselves, not to the storm water discharges into those waterbodies.

2.3.1.2 EPD expects that compliance with the other conditions in this permit will control storm water discharges as necessary to ensure that the receiving waterbody does not exceed the applicable Water Quality Standards. If at any time permittees become aware, or EPD determines, that the permittee's discharge causes or contributes to an exceedance of applicable Water Quality Standards in the receiving waterbody, permittees shall take corrective action as required in Part 3.1 and document the corrective actions as required in Parts 3.4 and 5.4.

2.3.1.3 Additionally, EPD may impose additional water quality-based limitations on a site-specific basis, or require permittees to obtain coverage under an individual permit, if information in the NOI or required reports or from other sources indicates that the permittee's discharges are not controlled as necessary to ensure that the receiving waterbody does not exceed applicable Water Quality Standards. (See also Part 1.6.1, Requiring Coverage under an Alternative Permit).

## 3 Corrective Actions

3.1 **Conditions Requiring Review and Revision to Eliminate a Problem.** If any of the following conditions occur, permittees must review and revise the selection, design, installation, and implementation of control measures to ensure that the condition is eliminated and will not be repeated in the future:

- a. an unauthorized release or discharge (e.g., spill, leak, or discharge of non-storm water not authorized by this or another NPDES permit) occurs at facility;

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- b. a discharge violates a numeric effluent limit;
- c. Permittees become aware, or EPD determines and notifies permittee, that existing control measures are not stringent enough to sufficiently minimize pollutants in the permittee's discharges to ensure that the receiving waterbody does not exceed applicable Water Quality Standards as a result of the discharges;
- d. an inspection or evaluation of the facility by an EPD representative or a representative of the MS4, if the facility discharges to the MS4, determines that modifications to the control measures are necessary to meet the non-numeric effluent limits in this permit; or
- e. permittees find in a routine facility inspection, quarterly visual assessment, or comprehensive site inspection that control measures are not being properly operated and maintained.

**3.2 Conditions Requiring Review to Determine if Modifications Are Necessary.** If any of the following conditions occur, permittees must review the selection, design, installation, and implementation of control measures 2.1.2.1 through 2.1.2.9 and any additional sector specific non-numeric technology-based effluent limits to determine if modifications are necessary to meet the effluent limits in this permit:

- a. construction or a change in design, operation, or maintenance at the facility significantly changes the nature of pollutants discharged in storm water from the facility or significantly increases the quantity of pollutants discharged, or
- b. the annual sampling result exceeds an applicable benchmark.

**3.3 Corrective Action Deadlines.** Permittees must document the discovery of any of the conditions listed in Parts 3.1 and 3.2 within 24-hours of making such discovery. If there are extenuating circumstances that prevent documentation within the 24-hour time frame, such as occurrence over a weekend, holiday, or at an unstaffed and/or inactive site, then the documentation must occur by the end of the next business day after discovery. Subsequently, within 30 days of such discovery, permittees must document any corrective action(s) to be taken to eliminate or further investigate the deficiency, or if no corrective action is needed, the basis for that determination. Specific documentation required is detailed in Part 3.4. If permittees determine that changes are necessary following the review, any modifications to control measures must be made as soon as practicable following that storm event, but in no case more than ninety (90) days after the discovery, unless additional time is approved by EPD. These time intervals are not grace periods, but are schedules considered reasonable for documenting the permittee's findings and for making repairs and improvements. They are included in this permit to ensure that the conditions prompting the need for these repairs and improvements are not allowed to persist indefinitely.

### **3.4 Corrective Action Report.**

**3.4.1 Corrective Action Discovery.** Within 24 hours of discovery or by the end of the next business day (see 3.3 above) of any condition listed in Parts 3.1 and 3.2, permittees must document the following information:

- a. Identification of the condition triggering the need for corrective action review;
- b. Description of the problem identified; and
- c. Date the problem was identified.

3.4.1.1 Within 30 days of discovery of any condition listed in Parts 3.1 and 3.2, permittees must document the following information:

- a. Summary of corrective action taken or to be taken (or, for triggering events identified in Part 3.2 where permittees determine that corrective action is not necessary, the basis for this determination);

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- b. Date corrective action is initiated; and
- c. Date corrective action is completed or expected to be completed.

## 3.4.1.2 Additional Documentation of Corrective Action.

- a. Corrective actions must be documented in the SWPPP; and
- b. Corrective actions must be documented in the annual report.

**3.5 Effect of Corrective Action.** If the event triggering the review is a permit violation (e.g., non-compliance with an effluent limit), correcting it does not eliminate the original violation. Additionally, failing to take corrective action in accordance with this section is an additional permit violation. EPD will consider the appropriateness and promptness of corrective action in determining enforcement responses to permit violations. However, ineffectiveness of the selected corrective action shall not constitute a violation of the permit, providing that the permittee has taken the steps outlined in this Part 3.

**3.6 Substantially Identical Outfalls.** If the event triggering corrective action is linked to an outfall that represents other substantially identical outfalls, the permittee's review must assess the need for corrective action for each outfall represented by the outfall that triggered the review. Any necessary changes to control measures that affect these other outfalls must also be made before the next storm event if possible, or as soon as practicable following that storm event.

**4 Inspections.** Permittees must conduct the inspections described in Parts 4.1, 4.2 and 4.3 at the facility.

**4.1 Routine Facility Inspections.**

**4.1.1 Routine Facility Inspection Procedures.** Conduct routine facility inspections of all areas of the facility where industrial materials or activities are exposed to storm water, and of all storm water control measures used to comply with the effluent limits contained in this permit. Routine facility inspections must be conducted at least quarterly (i.e., once each calendar quarter) although in many instances, more frequent inspection (e.g., monthly) may be appropriate for some types of equipment, processes, and control measures or areas of the facility with significant activities and materials exposed to storm water. Perform these inspections during periods when the facility is in operation. Permittees must specify the relevant inspection schedules in the SWPPP document as required in Part 5.1.5. These routine inspections must be performed by qualified personnel (for definition, see Appendix A) with at least one member of the storm water pollution prevention team participating. At least once each calendar year, the routine facility inspection must be conducted during a period when a storm water discharge is occurring.

4.1.1.1 During the routine facility inspection, containment areas and oil/water separator discharge should be inspected for a visible sheen.

**4.1.2 Routine Facility Inspection Documentation.**

4.1.2.1 Permittees must document the findings of each routine facility inspection performed and maintain this documentation onsite with the SWPPP as required in Part 5.4. Permittees are not required to submit routine facility inspection findings to EPD, unless specifically requested to do so. At a minimum, documentation of each routine facility inspection must include:

- a. The inspection date and time;

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- b. The name(s) and signature(s) of the inspector(s) (signature in accordance with Appendix B.7);
- c. Weather information and a description of any discharges occurring at the time of the inspection;
- d. Any previously unidentified discharges of pollutants from the facility for the previous three (3) years;
- e. Any control measures needing maintenance or repairs;
- f. Any failed control measures that need replacement;
- g. Any incidents of noncompliance observed; and
- h. Any additional control measures needed to comply with the permit requirements.

4.1.2.2 Any corrective action required as a result of a routine facility inspection must be performed consistent with Part 3 of this permit.

#### **4.1.3 Exceptions to Routine Facility Inspections. (Inactive and Unstaffed Facilities)**

##### **4.1.3.1 Inactive and Unstaffed Sites:**

- a. The requirement to conduct routine facility inspections on a quarterly basis does not apply at a facility that is inactive and unstaffed, as long as there are no industrial materials or activities exposed to storm water. Such a facility is only required to conduct an annual comprehensive site inspection in accordance with the requirements of Part 4.3. To invoke this exception, permittees must maintain a statement in the SWPPP pursuant to Part 5.1.5.2.g indicating that the site is inactive and unstaffed, and that there are no industrial materials or activities exposed to precipitation. The statement must be signed and certified in accordance with Appendix B.7. If circumstances change and industrial materials or activities become exposed to storm water or the facility becomes active and/or staffed, this exception no longer applies, and the permittee must resume periodic (at least quarterly) facility inspections as soon as possible. If the permittee is not qualified for this exception at the time of authorization under this permit, but during the permit term becomes qualified because the facility is inactive and unstaffed, and there are no industrial materials or activities that are exposed to storm water, then the permittee must include the same signed and certified statement as above and retain it with the permittee's records pursuant to Part 5.4.
- b. Inactive and unstaffed facilities covered under Sector J (Mining) are not required to meet the "no industrial materials or activities exposed to storm water" standard to be eligible for this exception from routine inspections, consistent with the requirements established in Part 8.J.

#### **4.2 Quarterly Visual Assessment of Storm Water Discharges.**

##### **4.2.1 Quarterly Visual Assessment Procedures.**

4.2.1.1 Once each quarter for the entire permit term, permittees must collect a storm water sample from each outfall (except as noted in Part 4.2.3) and conduct a visual assessment of each of these samples. These samples are not required to be collected consistent with 40 CFR Part 136 procedures but should be collected in such a manner that the samples are representative of the storm water discharge. The sampling required must occur during a site's normal operating hours.

##### **4.2.1.2 The visual assessment must be made:**

- a. Of a sample in a clean, clear glass or plastic container and examined in a well-lit area;
- b. On samples collected within the first 30 minutes of an actual discharge from a storm event. If it is not possible to collect the sample within the first 30 minutes of discharge, the sample must be collected as soon as possible after the first 30 minutes, and the permittee must document why it

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was not possible to take samples within the first 30 minutes. In the case of snowmelt, samples must be taken during a period with a measurable discharge from the facility; and

- c. For storm events, on discharges that occur at least 72 hours from the previous discharge.

#### 4.2.1.3 Permittees must visually inspect the sample for the following water quality characteristics:

- a. Color;
- b. Odor;
- c. Turbidity;
- d. Floating solids;
- e. Settled solids;
- f. Suspended solids;
- g. Foam;
- h. Oil sheen; and
- i. Other obvious indicators of storm water pollution.

#### 4.2.2 Quarterly Visual Assessment Documentation.

4.2.2.1 Permittees must document the results of visual assessments and maintain this documentation onsite with the SWPPP as required in Part 5.4. Permittees are not required to submit visual assessment findings to EPD, unless specifically requested to do so. Photo documentation is recommended. At a minimum, documentation of the visual assessment must include:

- a. Sample location(s);
- b. Sample collection date and time, and visual assessment date and time for each sample;
- c. Personnel collecting the sample and performing visual assessment, and their signatures;
- d. Nature of the discharge (i.e., runoff or snowmelt);
- e. Results of observations of the storm water discharge;
- f. Probable sources of any observed storm water contamination; and
- g. If applicable, why it was not possible to take samples within the first 30 minutes.

4.2.2.2 Any corrective action required as a result of a quarterly visual assessment must be performed consistent with Part 3 of this permit.

#### 4.2.3 Exceptions to Quarterly Visual Assessments.

4.2.3.1 Adverse Weather Conditions: When adverse weather conditions prevent the collection of samples during the quarter, permittees must take a sample during the next qualifying storm event. Documentation of the rationale for not making a visual assessment for the quarter must be included with the SWPPP records as described in Part 5.4. Adverse conditions are those that are dangerous or create inaccessibility for personnel, such as local flooding, high winds, or electrical storms, or situations that otherwise make sampling impractical, such as drought or extended frozen conditions.

#### 4.2.3.2 Inactive and unstaffed sites:

- a. The requirement for a quarterly visual assessment does not apply at a facility that is inactive and unstaffed, as long as there are no industrial materials or activities exposed to storm water. To invoke this exception, permittees must maintain a statement in the SWPPP as required in Part 5.1.5.2.g indicating that the site is inactive and unstaffed and that there are no industrial materials or activities exposed to precipitation. The statement must be signed and certified in accordance with Appendix B.7.

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- b. If circumstances change and industrial materials or activities become exposed to storm water or the facility becomes active and/or staffed, this exception no longer applies and permittees must resume quarterly visual assessments as soon as possible.
- c. If the permittee is not qualified for this exception at the time of authorization under this permit, but during the permit term becomes qualified because the facility is inactive and unstaffed, and there are no industrial materials or activities that are exposed to storm water, then the permittee must include the same signed and certified statement as above and retain it with records pursuant to Part 5.4.
- d. Inactive and unstaffed facilities covered under Sector J (Mining) are not required to meet the “no industrial materials or activities exposed to storm water” standard to be eligible for this exception from quarterly visual assessment, consistent with the requirements established in Parts 8.J.

## 4.2.3.3 Substantially identical outfalls:

- a. If the facility has two or more outfalls that the permittee believes discharge substantially identical effluents, as documented in Part 5.1.5.2, the permittee may conduct quarterly visual assessments of the discharge at just one of the outfalls and report that the results also apply to the substantially identical outfall(s) provided that a visual assessment is performed on a rotating basis of each substantially identical outfall throughout the period of coverage under this permit.
- b. If storm water contamination is identified through visual assessment at a substantially identical outfall, the permittee must assess and modify control measures as appropriate for each outfall represented by the monitored outfall.

**4.3 Annual Comprehensive Site Inspections.****4.3.1 Annual Comprehensive Site Inspection Procedures.**

## 4.3.1.1 Permittees must comply with the following Annual Comprehensive Site Inspection Procedures:

- a. Permittees must conduct annual comprehensive site inspections while covered under this permit. Annual, as defined in this Part, means once during each of the following inspection periods beginning with the period the permittee is authorized to discharge under this permit:
  - Year 1: *Permit effective date – December 31, 2012*
  - Year 2: *January 1, 2013 – December 31, 2013*
  - Year 3: *January 1, 2014 – December 31, 2014*
  - Year 4: *January 1, 2015 – December 31, 2015*
  - Year 5: *January 1, 2016 – Permit expiration date (unless the permit is extended to or past December 31, 2016, in which case, December 31, 2016.)*
- b. The requirement for the permittee to perform an annual comprehensive site inspection for an inspection period is waived, as defined above, if the permittee obtains authorization to discharge less than three months before the end of that inspection period.
- c. Should coverage be administratively continued after the expiration date of this permit, permittees must continue to perform these inspections annually until coverage is terminated or a new permit is issued.
- d. Annual comprehensive site inspections must be conducted by qualified personnel (see Appendix A), with at least one member of the storm water pollution prevention team participating in the comprehensive site inspections.
- e. Annual comprehensive site inspections must cover all areas of the facility affected by the requirements in this permit, including the areas identified in the SWPPP as potential pollutant sources (see Part 5.1.3) where industrial materials or activities are exposed to storm water, any areas where control measures are used to comply with the effluent limits in Part 2, and areas



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where spills and leaks have occurred in the past 3 years. The inspections must also include a review of monitoring data collected in accordance with Part 6.2. Inspectors must consider the results of the past year's visual and analytical monitoring when planning and conducting inspections. Inspectors must examine the following:

- i. Industrial materials, residue, or trash that may have or could come into contact with storm water;
  - ii. Leaks or spills from industrial equipment, drums, tanks, and other containers;
  - iii. Offsite tracking of industrial or waste materials or sediment where vehicles enter or exit the site;
  - iv. Tracking or blowing of raw, final, or waste materials from exposed areas to areas of no exposure;
  - v. Control measures needing replacement, maintenance, or repair;
  - vi. Equipment needed to implement the SWPPP, such as spill response equipment; and
  - vii. EPD's most current 305(b)/303(d) impaired stream segment list and list of approved TMDLs (found at <http://www.gaepd.org/Documents/IndustrialStormwater.html>) must be reviewed during each annual comprehensive site compliance evaluation and related to water-quality-based monitoring as required in Appendix C and potential corrective action. Documentation of the inspector's findings must be kept with the SWPPP records and signed in accordance with B.7 on the annual report.
- f. Storm water control measures required by this permit must be observed to ensure that they are functioning correctly. In addition, if outfalls are inaccessible, nearby downstream locations must be observed.
- g. Certification that all discharge points have been visually tested or evaluated at least once each year for the presence of non-storm water discharges other than the allowable non-storm water discharges currently identified under Part 1.1.3 of this permit. The certification shall include the identification of potential significant sources of non-storm water at the site, the date of any visual testing and/or evaluation, and the on-site drainage points that were directly observed during the visual test.
- h. The annual comprehensive site inspection may also be used as one of the routine inspections, as long as all components of both types of inspections are included.

#### **4.3.2 Annual Comprehensive Site Inspection Documentation.**

4.3.2.1 Permittees must document the findings of each annual comprehensive site inspection and maintain this documentation onsite with the SWPPP as required in Part 5.4. At a minimum, documentation of the annual comprehensive site inspection must include:

- a. The date of the inspection;
- b. The name(s) and title(s) of the personnel making the inspection;
- c. Findings from the examination of areas of facility identified in Part 4.3.1;
- d. All observations relating to the implementation of control measures including:
  - i. previously unidentified discharges from the site;
  - ii. previously unidentified pollutants in existing discharges;
  - iii. evidence of, or the potential for, pollutants entering the drainage system;
  - iv. evidence of pollutants discharging to receiving waters at all facility outfall(s), and the condition of and around the outfall, including flow dissipation measures to prevent scouring; and
  - v. additional control measures needed to address any conditions requiring corrective action identified during the inspection.
- e. Any required revisions to the SWPPP resulting from the inspection;

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- f. Any incidents of noncompliance observed or a certification stating the facility is in compliance with this permit (if there is no noncompliance); and
- g. A statement signed and certified in accordance with Appendix B.7 of the permit.

4.3.2.2 Any corrective action required as a result of the comprehensive site inspection must be performed consistent with Part 3 of this permit.

**5 Storm Water Pollution Prevention Plan (SWPPP).** The SWPPP does not contain effluent limitations; the limitations are contained in Part 1 and Part 8 of the permit. The SWPPP is intended to document the selection, design, and installation of control measures. The additional documentation requirements of Part 5.4 are intended to document the implementation (including inspection, maintenance, monitoring, and corrective action) of the permit requirements. Facilities must implement and maintain the provisions of the SWPPP as a condition of this permit.

New dischargers must prepare a SWPPP before submitting the NOI for permit coverage. Existing dischargers must review and update the SWPPP within ninety (90) days and implement all provisions of this permit within one hundred eighty (180) days of the effective date of this permit. The SWPPP shall be prepared in accordance with good engineering practices and to industry standards and shall be certified by an individual with the education, experience, and accountability necessary for its implementation. EPD may also require the SWPPP to be prepared, reviewed, or certified by a Professional Engineer, or for Sector J, by a Professional Geologist, with the education, experience and accountability necessary for developing and implementing a SWPPP and who is authorized by State law to perform design work required by this permit if the Director concludes, based upon reliable evidence, that the SWPPP is not in substantial compliance with this permit.

**5.1 Contents of the SWPPP.** For coverage under this permit the SWPPP must contain all the elements contained in Parts 5.1 through 5.4 as applicable. Where the SWPPP refers to procedures in other facility documents, such as a Spill Prevention, Control, and Countermeasure (SPCC) Plan, a copy of the relevant portions of those documents must be kept with the SWPPP or if referenced, must be readily available onsite.

- a. Storm water pollution prevention team (Part 5.1.1);
- b. Site description (Part 5.1.2);
- c. Summary of potential pollutant sources (Part 5.1.3);
- d. Description of control measures (Part 5.1.4);
- e. Schedules and procedures (Part 5.1.5); and
- f. Signature requirements (Appendix B.7).

**5.1.1 Storm Water Pollution Prevention Team.**

**5.1.1.1 Pollution Prevention Team.** Permittees must identify the staff members that comprise the facility's storm water pollution prevention team as well as their individual responsibilities. The storm water pollution prevention team is responsible for assisting the facility manager in developing and revising the facility's SWPPP as well as maintaining control measures and taking corrective actions where required. Each member of the storm water pollution prevention team must have ready access to either an electronic or paper copy of applicable portions of this permit and the SWPPP.

**5.1.1.2 Employee Training.** Permittees must train all employees who work in areas where industrial materials or activities are exposed to storm water, or who are responsible for implementing activities necessary to meet the conditions of this permit (e.g., inspectors, maintenance personnel), including all members of the Pollution Prevention Team. Training must cover both the specific control measures used to achieve the effluent limits, and monitoring, inspection, planning, reporting, and documentation

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requirements in other parts of this permit. EPD recommends that training be conducted at hiring and annually for existing employees. Rosters of employee training or certificates of completion that include individual names and training dates must be maintained with the SWPPP or be readily available onsite.

**5.1.2 Site Description.** The SWPPP must include the following:

5.1.2.1 Activities at the Facility. Provide a description of the nature of the industrial activities at the facility, including any co-located activities.

5.1.2.2 General location map. Provide a general location map with enough detail to identify the location of the facility and identify all receiving waters for storm water discharges.

5.1.2.3 Site map of sufficient scale and quality to be legible and readable, providing the following:

- a. Location and extent of significant structures and impervious surfaces;
- b. Direction of storm water flow (use arrows);
- c. Location of all existing structural control measures;
- d. Location of all receiving waters in the immediate vicinity of the facility, indicating if any of the waters are impaired;
- e. Location of all storm water conveyances including ditches, pipes, and swales;
- f. Location of potential pollutant sources identified under Part 5.1.3.2;
- g. Location where significant spills or leaks identified under Part 5.1.3.3 have occurred;
- h. Location of all storm water outfalls which discharge storm water associated with industrial activity;
- i. Location of storm water inlets and outfalls which discharge storm water associated with industrial activity, with a unique identification code for each outfall (e.g., Outfall No. 1, No. 2), indicating if permittees are treating one or more outfalls as "substantially identical" under Parts 4.2.3, 5.1.5.2, and 6.1.1, and an approximate outline of the areas draining to each outfall with an indication of the applicable Sector(s) for each outlined area;
- j. Name of the MS4, to which the facility's storm water discharges, if applicable;
- k. Location and descriptions of all non-storm water discharges in areas associated with industrial activities identified under Part 1.1.3;
- l. Location of industrial activities in areas exposed to precipitation:
  - i. Fueling stations;
  - ii. Vehicle and equipment maintenance and/or cleaning areas;
  - iii. Loading/unloading areas;
  - iv. Location used for the treatment, storage, or disposal of wastes;
  - v. Liquid storage tanks;
  - vi. Processing and storage areas;
  - vii. Immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility;
  - viii. Transfer areas for substances in bulk;
  - ix. Machinery; and
  - x. Significant dust or particulate generating processes.
- m. Location and source of run-on to the facility that contain significant quantities of pollutants from adjacent property.

**5.1.3 Summary of Potential Pollutant Sources.** Permittees must document areas at the facility where industrial materials or activities are exposed to storm water and from which allowable non-storm water discharges are released. Industrial materials or activities include, but are not limited to: material handling equipment or activities; industrial machinery; raw materials; industrial production and

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processes; and intermediate products, by-products, final products, and waste products. Material handling activities include, but are not limited to: the storage, loading and unloading, transportation, disposal, or conveyance of any raw material, intermediate product, final product or waste product. For each area identified, the description must include:

5.1.3.1 Activities in the area. A list of the industrial activities exposed to storm water (e.g., material storage; equipment fueling, maintenance, and cleaning).

5.1.3.2 Pollutants. A list of the pollutant(s) or pollutant constituents (e.g., crankcase oil, zinc, sulfuric acid, and cleaning solvents) associated with each identified activity. The pollutant list must include all significant materials that have been handled, treated, stored, or disposed, and that have been exposed to storm water in the 3 years prior to the date permittees prepare or amend the SWPPP.

5.1.3.3 Spills and Leaks. Permittees must document where potential spills and leaks could occur that could contribute pollutants to storm water discharges, and the corresponding outfall(s) that would be affected by such spills and leaks. The necessary equipment to implement proper cleanup of a spill should be made readily available to personnel. Permittees must document all significant spills and leaks of oil or toxic or hazardous pollutants that actually occurred at exposed areas, or that drained to a storm water conveyance, in the 3 years prior to the date permittees prepare or amend the SWPPP. Refer to Part 2.1.2.4 for spill response requirements.

5.1.3.4 Non-Storm Water Discharges. Permittees must document on the annual report that they have evaluated for the presence of non-storm water discharges annually and that all unauthorized discharges have been eliminated. Documentation of the evaluation must include:

- a. The date of evaluation;
- b. A description of the evaluation criteria used;
- c. A list of the outfalls or onsite drainage points that were directly observed during the evaluation;
- d. The different types of non-storm water discharge(s) and source locations; and
- e. The action(s) taken, such as a list of control measures used to eliminate unauthorized discharge(s), if any were identified. For example, a floor drain was sealed, a sink drain was re-routed to sanitary, or an NPDES permit application was submitted for an unauthorized cooling water discharge.
- f. At least once during the term of the permit, a dye, smoke or equivalent test must be conducted to evaluate for the presence of non-storm water discharges into the storm sewer system from all floor drains, and from all sinks in industrial areas excluding eye wash stations, that were installed prior to 1/1/2006. If the permittee has performed either a dye, smoke or *equivalent* test during the previous 2006 permit cycle this requirement is waived provided the facility maintains documentation of the test and retests five years after the previous test. Permittees must document in the annual report the date of the last dye, smoke or *equivalent* test at the facility or why this test is not applicable to the facility. Examples of acceptable *equivalent* tests include television surveillance, and analysis of as-built drawings and piping and drainage schematics. Permittees that discharge to the MS4 are advised to notify the local MS4 and/or wastewater treatment plant prior to conducting a smoke/dye test. Facilities that certify on their annual report that they have made an analysis within the last 5 years of as-built drawings and/or piping and drainage schematics and found them current and accurate have met this requirement.

5.1.3.5 Salt Storage and Pavement Deicing.

- a. Permittees must document the location of any storage piles containing salt used for deicing or other commercial or industrial purposes and areas where de-icing is expected to occur. Storage

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piles of salt used for deicing shall be enclosed or covered to prevent exposure to precipitation, except for exposure resulting from adding or removing material from the pile.

- b. Pavement deicing activities. For any pavement deicing activities at facilities, other than airports, covered under this permit, the SWPPP must include measures to assure that no SARA 313 chemical[s] is used for deicing and that no deicing occurs where spills or leaks of toxic or hazardous materials have occurred (unless all spilled material has been removed). Deicing is to be carried out only for safety purposes during inclement weather and must meet Water Quality Standards in the receiving waterbody in compliance with Part 2.3.

5.1.3.6 Sampling Data and Retention of Records from Previous Permit. Permittees must summarize all storm water discharge analytical sampling data collected at the facility during the previous permit term. In addition, the permittee must summarize all annual site evaluations including, but not limited to, corrective actions and BMP modifications.

**5.1.4 Description of Control Measures.** Control Measures to Meet Non-Numeric Technology-Based, Numeric Effluent and Water Quality-Based Effluent Limits. Permittees must document the location and type of control measures installed and implemented at the facility to achieve the non-numeric effluent limits in Part 2.1.2, and where applicable in Part 8, the effluent limitations in Part 2.2., the water quality-based effluent limits in Part 2.3, and describe how permittees addressed the control measure selection and design considerations in Part 2.1.1. This documentation must describe how the control measures at the facility address both the pollutant sources identified in Part 5.1.3, and any storm water run-on that commingles with any discharges covered under this permit. Permittees must keep, operate, and maintain any permanent storm water detention or retention pond or other permanent storm water management device installed under the requirements of State or local regulatory authority. (Appendix E of the Georgia Stormwater Management Manual contains an Operation and Maintenance checklist that can be used to create a pond maintenance program.)

**5.1.5 Schedules and Procedures.**

5.1.5.1 Pertaining to Control Measures Used to Comply with the Effluent Limits in Part 2.

- a. The following must be documented in the SWPPP:
  - i. Good Housekeeping (See Part 2.1.2.2) – A schedule for regular pickup and disposal of waste materials, along with routine inspections for leaks and conditions of drums, tanks and containers;
  - ii. Maintenance (See Part 2.1.2.3) – Preventative maintenance procedures, including regular inspections, testing, maintenance, and repair of all industrial equipment and systems, and control measures, to avoid situations that may result in leaks, spills, and other releases, and any back-up practices in place should a runoff event occur while a control measure is off-line;
  - iii. Spill Prevention and Response Procedures (See Part 2.1.2.4); and
  - iv. Employee Training (Part 5.1.1.2) – A schedule for all types of necessary training.

5.1.5.2 Pertaining to Monitoring and Inspection.

- a. Permittees must document in the SWPPP the procedures for conducting the four types of analytical monitoring specified by this permit, where applicable to the facility, including:
  - i. Benchmark monitoring (see Part 6.2.1);
  - ii. Effluent limitations monitoring (see Part 6.2.2);
  - iii. Impaired stream segment monitoring (see Appendix C); and
  - iv. Other monitoring as required by EPD (see Part 6.2.4).
- b. For each type of monitoring, the SWPPP must document:

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- i. Locations where samples are collected, including any determination that two or more outfalls are substantially identical;
  - ii. Parameters for sampling and the frequency of sampling for each parameter;
  - iii. Schedules for monitoring at the facility;
  - iv. Any numeric control values (benchmarks, effluent limitations, TMDL-related requirements, or other requirements) applicable to discharges from each outfall; and
  - v. Procedures (e.g., responsible staff, logistics, laboratory to be used) for gathering storm event data, as specified in Part 6.1.
- c. If permittees are invoking the exception for inactive and unstaffed sites for benchmark monitoring, permittees must include in the SWPPP the information to support this claim as required by Part 6.2.1.3.
- d. Permittees must document the following in the SWPPP, if permittees plan to use the exception for substantially identical outfalls for the quarterly visual assessment requirements in Part 4.2.3.3. or the benchmark monitoring requirements in Part 6.2.1:
- i. Location of each of the substantially identical outfalls;
  - ii. Description of the general industrial activities conducted in the drainage area of each outfall;
  - iii. Description of the control measures implemented in the drainage area of each outfall;
  - iv. Description of the exposed materials located in the drainage area of each outfall that are likely to be significant contributors of pollutants to storm water discharges;
  - v. Why the outfalls are expected to discharge substantially identical effluents.
- e. Permittees must document in the SWPPP the procedures for performing, as appropriate, the three types of inspections specified by this permit, including:
- i. Routine facility inspections (see Part 4.1);
  - ii. Quarterly visual assessment of storm water discharges (see Part 4.2); and
  - iii. Comprehensive site inspections (see Part 4.3).
- f. For each type of inspection performed, the SWPPP must identify:
- i. Person(s) or positions of person(s) responsible for inspection;
  - ii. Schedules for conducting inspections, and
  - iii. Specific items to be covered by the inspection, including schedules for specific outfalls.
- g. If permittees are invoking the exception for inactive and unstaffed sites relating to routine facility inspections and quarterly visual assessments, permittees must include in the SWPPP the information to support this claim as required by Parts 4.1.3 and 4.2.3.

**5.1.6 Signature Requirements.** Permittees must sign and date the SWPPP in accordance with Appendix B.7 including the date of signature.

## **5.2 SWPPP Modifications.**

**5.2.1 Keeping the SWPPP Current.** The permittee shall amend the SWPPP within thirty (30) days whenever there is a change in design, construction, operation, or maintenance, which has a significant effect on the potential for the discharge of pollutants to the waters of the State of Georgia, or if the SWPPP proves to be ineffective in eliminating or significantly minimizing pollutants from sources identified in the SWPPP, or in otherwise achieving the general objectives of controlling pollutants in storm water discharges associated with industrial activity. The SWPPP must be updated at least annually.

**5.2.2 Required SWPPP Modifications.** Permittees must modify the SWPPP whenever necessary to address any of the triggering conditions for corrective action in Part 3.1 and to ensure that they do not reoccur, or to reflect changes implemented when a review following the triggering conditions in Part 3.2 indicates that changes to control measures are necessary to meet the effluent limits in this permit. Changes to the SWPPP document must be made in accordance with the corrective action deadlines in

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Parts 3.3 and 3.4, and must be signed and dated in accordance with Appendix B.7.

5.2.3 The SWPPP must be updated within 30 days of a change of owner or operator.

### 5.3 SWPPP Availability.

5.3.1 Permittees must retain a copy of the current SWPPP required by this permit at the facility or if inactive at a readily available location, and it must be readily available to EPD, local agencies approving storm water management plans, and the operator of an MS4 receiving discharges from the facility, at the time of an onsite inspection or upon request. The permittee shall make the SWPPP available upon request to EPD within fifteen (15) days of the request and, in the case of storm water associated with industrial activity that discharges through a permitted MS4, to the operator of the MS4. Failure to do so is a violation of the permit. EPD may request a copy of the complete SWPPP or a version of the SWPPP that would be publicly available. (The publicly available version should not contain any information that is exempt from public disclosure under the Georgia Open Records Act or other applicable law.)

5.3.2 EPD encourages permittees to post the SWPPP online and provide the website address on the NOI.

**5.4 Additional Documentation Requirements.** Permittees are required to maintain the following inspection, monitoring, and certification records in accordance with Part 7.5 and make them readily available to EPD. Along with the SWPPP, these complete and up-to-date records demonstrate full compliance with the conditions of this permit:

5.4.1 A copy of the NOI submitted to EPD along with any correspondence exchanged between permittee and EPD specific to coverage under this permit;

5.4.2 A copy of this permit (an electronic copy easily available to SWPPP personnel is also acceptable);

5.4.3 Descriptions and dates of any incidences of significant spills, leaks, or other releases that resulted in discharges of pollutants to waters of the State or U.S., through storm water or otherwise; the circumstances leading to the release and actions taken in response to the release; and measures taken to prevent the recurrence of such releases (see Part 2.1.2.4);

5.4.4 Documentation of maintenance and repairs of control measures, including the date(s) of regular maintenance, date(s) of discovery of areas in need of repair/replacement, and for repairs, date(s) that the control measure(s) returned to full function, and the justification for any extended maintenance/repair schedules (see Part 2.1.2.3);

5.4.5 All inspection reports, including the Routine Facility Inspection Reports (see Part 4.1), the Quarterly Visual Assessment Reports (see Part 4.2), and the Comprehensive Site Inspection Reports (see Part 4.3);

5.4.6 Descriptions of any deviations from the schedule for visual assessments and/or monitoring, and the reasons for the deviations (e.g., adverse weather, it was impracticable to collect samples within the first 30 minutes of a measurable storm event, inactive and unstaffed facility, see Parts 4.2.3.1, 6.1.5, and 6.2.1.3);

5.4.7 Description of any corrective action taken at the facility, including triggering event and dates when problems were discovered and modifications occurred;

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5.4.8 Documentation of any benchmark exceedances and how they were responded to, including either (1) corrective action taken, or (2) a finding that no further pollutant reductions were technologically available and economically practicable and achievable in light of best industry practice consistent with Part 6.2.1.2;

5.4.9 Documentation to support the claim that the facility has changed its status from active to inactive and unstaffed with respect to the requirements to conduct routine facility inspections (see Part 4.1.3), quarterly visual assessments (see Part 4.2.3), and/or benchmark monitoring (see Part 6.2.1.3);

5.4.10 Facilities must identify in their SWPPP areas with industrial materials or activities that are potential sources of fecal coliform and that may be exposed to storm water at the facility. Such potential sources include, but are not limited to: areas that contain or may contain live animals, animal matter, animal wastes, or human wastes that are directly related to current or previous industrial activity at the facility, within the current operator's knowledge, or that the current operator should have known about. The SWPPP must include, for each potential industrial source of fecal coliform, a detailed description of the installation and maintenance of BMPs used to minimize exposure and otherwise reduce and control fecal coliform in storm water discharges from the facility.

5.4.11 Records of employee training, including a signed attendance roster or certificate of completion with the date training is received (see Part 5.1.1.2).

5.4.12 Documentation to support the claim that benchmark parameter pollutants are not present or expected to be in the discharges at the facility with respect to the requirements to conduct benchmark monitoring (see Part 6.2.1.4).

**6 Monitoring.** Permittees must collect and analyze storm water samples and document monitoring activities consistent with the procedures described in Part 6, Appendix B, Appendix C and any additional sector-specific requirements in Parts 8, respectively. Refer to Part 7 for reporting and recordkeeping requirements. The sampling required must occur during a site's normal operating hours.

**6.1 Monitoring Procedures.**

**6.1.1 Monitored Outfalls and Substantially Identical Outfalls.** Applicable monitoring requirements apply to each outfall authorized by this permit, except as otherwise exempt from monitoring as a "substantially identical outfall." If the facility has two or more outfalls that permittees believe discharge substantially identical effluents, based on the similarities of the general industrial activities and control measures, exposed materials that may significantly contribute pollutants to storm water, and runoff coefficients of their drainage areas, permittees may monitor the effluent of just one of the outfalls and report that the results also apply to the substantially identical outfall(s). As required in Part 5.1.5.2, the SWPPP must identify each outfall authorized by this permit and describe the rationale for any substantially identical outfall determinations. The allowance for monitoring only one of the substantially identical outfalls is not applicable to any outfalls with numeric effluent limitations or to outfalls that discharge to an impaired stream segment. Permittees are required to monitor each outfall covered by a numeric effluent limit as identified in Part 6.2.2 and each outfall to an impaired stream segment as identified in Appendix C.

**6.1.2 Commingled Discharges.** If discharges authorized by this permit commingle with discharges not authorized under this permit, any required sampling of the authorized discharges must be performed at a point before they mix with other waste streams, to the extent practicable.



**6.1.3 Measurable Storm Events.**

6.1.3.1 All required monitoring must be performed on a storm event that is greater than 0.1 inch of rainfall (measurable storm event) that results in an actual discharge from the facility that follows the preceding measurable storm event by at least 72 hours. In the case of snowmelt, the monitoring must be performed at a time when a measurable discharge occurs at the facility.

6.1.3.2 For each monitoring event, except snowmelt monitoring, permittees must identify the date and duration (in hours) of the rainfall event, rainfall total (in inches) for that rainfall event, time (in days) since the previous measurable storm event or, alternatively, the absence of measurable precipitation in the 72 hours preceding the monitoring event, and estimated volume (in gallons) of discharge sampled.

**6.1.4 Sample Type.** Permittees must take a minimum of one sample from a discharge resulting from a measurable storm event as described in Part 6.1.3. Grab samples and the first aliquot of a composite sample must be collected within the first 30 minutes of initial discharge from a measurable storm event. If it is not possible to collect the sample within the first 30 minutes of initial discharge from a measurable storm event, the sample must be collected as soon as practicable after the first 30 minutes, and documentation must be kept with the SWPPP explaining why it was not possible to take samples within the first 30 minutes initial discharge. In the case of snowmelt, samples must be taken during a period with a measurable discharge.

**6.1.5 Adverse Weather Conditions.** When adverse weather conditions as described in Part 4.2.3.1 prevent the collection of samples according to the relevant monitoring schedule, permittees must take a sample during the next qualifying storm event. Permittees must document in the SWPPP any failure to monitor, indicating the basis for not sampling during the usual monitoring period.

**6.1.6 Monitoring for Allowable Non-Storm Water Discharges.** Permittees are only required to monitor allowable non-storm water discharges (specified in Part 1.1.3) when they are commingled with storm water discharges associated with industrial activity.

**6.1.7 Monitoring Periods.**

6.1.7.1 Monitoring requirements in this permit begin in the first full quarter following the effective date of the permit or the permittee's date of discharge authorization, whichever date comes later unless otherwise stated. If the monitoring is required on a quarterly basis, permittees must monitor at least once in each of the following 3-month intervals:

January 1 – March 31;  
 April 1 – June 30;  
 July 1 – September 30; and  
 October 1 – December 31.

- a. If the monitoring is required on a bi-annual basis as required in Appendix C.3.4, permittees must monitor at least once in each of the following 6-month intervals:

January 1 – June 30;  
 July 1 – December 31.

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- b. For example, if a permittee obtains permit coverage on August 15, 2011, then the first monitoring quarter is October 1 – December 31, 2011. This monitoring schedule may be modified in accordance with Part 6.1.5 if the revised schedule is documented within the SWPPP.

**6.2 Required Monitoring.** All required monitoring must be conducted in accordance with the procedures described in Appendix B.14. This permit includes the following types of required analytical monitoring, one or more of which may apply to the permittee's discharge:

- a. Annual benchmark monitoring (see Part 6.2.1);
- b. Annual effluent limitation monitoring (see Part 6.2.2);
- c. Monitoring of discharges to an impaired stream segment (see Appendix C); and
- d. Other monitoring as required by EPD (see Part 6.2.4).

**6.2.1 Benchmark Monitoring.** This permit lists pollutant benchmark concentrations that may be applicable to the permittee's discharge. More than one sector may apply to a discharge and all must be addressed in the sampling. The benchmark concentrations are not effluent limitations; a benchmark exceedance, therefore, is not a permit violation. Benchmark monitoring data are primarily for the permittee's use in minimizing the discharge of pollutants and, specifically, to determine the overall effectiveness of the control measures 2.1.2.1 through 2.1.2.9 and any additional sector specific non-numeric technology-based effluent limits to determine if modifications are necessary to meet the effluent limits in this permit and to assist permittees in knowing when additional corrective action(s) may be necessary to comply with the effluent limitations in Part 2 and the Water Quality Standards in the receiving waterbody in Part 2.3.1.1.

**6.2.1.1 Applicability of Benchmark Monitoring.**

- a. Permittees must monitor for any benchmark parameters specified for the industrial sector(s), both primary industrial activity and any co-located secondary industrial activities, applicable to the discharge. The industry-specific benchmark concentrations are listed in the sector-specific sections of Part 8.
- b. Permittees have the option of establishing their own alternative benchmark for any or all of the sector-specific benchmark pollutants. Alternative benchmarks shall be for the same pollutants as the benchmarks in this permit. An alternative benchmark must be documented in the SWPPP, which must contain any supporting data used to develop the alternative benchmark, and submitted to EPD **by return receipt certified mail** (or similar service). Unless notified by the EPD to the contrary within 90 days of EPD's receipt of the alternative benchmark submittal, permittees who submit such documentation are authorized to use the alternative benchmark for discharge of storm water associated with industrial activity under the terms and conditions of this permit. An alternative benchmark shall be based on the following:
  - i. A study by qualified person(s) published within 5 years of the effective date of this permit that establishes the industry standard; or
  - ii. A site-specific study by a professional engineer registered in the State of Georgia. The study must be signed, dated and sealed; or
  - iii. Georgia's Water Quality Standards or EPA's Water Quality Criteria value multiplied by the ratio of the combined drainage areas for the receiving waterbody and the storm water discharge to the drainage area for the storm water discharge. The value of this ratio shall not be less than one (1) nor greater than one hundred (100). If the facility is in one of the industrial sectors subject to benchmark concentrations that are hardness-dependent, include in the SWPPP with the first benchmark result a hardness value, established consistent with the procedures in Appendix E, which is representative of the storm water discharge combined with the receiving waterbody.

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- iv. Use of alternative benchmarks cannot cause or contribute to an exceedance of a Water Quality Standard.
- c. If the facility is in one of the industrial sectors subject to benchmark concentrations that are hardness-dependent, include in the SWPPP with the first benchmark result a hardness value, established consistent with the procedures in Appendix E, which is representative of the storm water discharge.

#### 6.2.1.2 Benchmark Monitoring Schedule. Benchmark monitoring must be conducted annually, for every year of permit coverage.

- a. Data not exceeding benchmarks: After collection of the annual sample, if the monitoring value for any parameter does not exceed the benchmark, permittees have fulfilled the annual monitoring requirement for that parameter for the permit year.
- b. Data exceeding benchmarks: After collection of the annual sample, if the value for any parameter exceeds the benchmark, permittees must, in accordance with Part 3.2, review the selection, design, installation, and implementation of control measures Parts 2.1.2.1 through 2.1.2.9 and any additional sector specific non-numeric technology-based effluent limits to determine if modifications are necessary to meet the benchmarks in this permit, and either:
  - i. Make the necessary modifications and continue sampling each subsequent quarter until the benchmark is met; or
  - ii. Make a determination that no further pollutant reductions are technologically available and economically practicable and achievable in light of best industry practice to meet the non-numeric technology-based effluent limits in Parts 2.1.2.1 through 2.1.2.9, in which case permittees must continue monitoring once per year. This determination is a one-time occurrence during the permit term and can be relied upon for the duration of the permit term, so long as there are no significant construction or changes in design, operation, or maintenance at the facility that significantly changes the nature of pollutants discharged in storm water from the facility or significantly increases the quantity of pollutants discharged. Permittees must document the rationale for concluding that no further pollutant reductions are achievable, and retain all records related to this documentation with the SWPPP. Permittees must notify EPD of this determination via annual report submittal.
  - iii. In accordance with Part 3.2, permittees must review control measures and perform any required corrective action as quickly as possible (or document why no corrective action is required). If after modifying control measures and additional quarterly monitoring, the sample value still exceeds the benchmark, permittees must again review control measures and take one of the two actions above.
- c. Averages:
  - i. Since pH is measured on a log scale, the average of the 4 monitoring values for pH should be determined by first converting each pH measurement to its corresponding hydrogen ion concentration, calculating the average of the four hydrogen ion concentrations, and then converting the average hydrogen ion concentration back to its corresponding pH value. This would be the average pH value.
  - ii. For biological parameters (i.e. fecal coliform), the samples shall be a geometric mean, not an arithmetic average.

#### 6.2.1.3 Exception for Inactive and Unstaffed Sites.

- a. The requirement for benchmark monitoring does not apply at a facility that is inactive and unstaffed, as long as there are no industrial materials or activities exposed to storm water. To invoke this exception, permittees must do the following:
  - i. Maintain a statement onsite with the SWPPP stating that the site is inactive and unstaffed and that there are no industrial materials or activities exposed to storm water in accordance with

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the substantive requirements in 40 CFR Part 122.26(g) and sign and certify the statement in accordance with Appendix B.7, and

- ii. If circumstances change and industrial materials or activities become exposed to storm water or the facility becomes active and/or staffed, this exception no longer applies and permittees must begin complying with the applicable benchmark monitoring requirements under Part 6.2 as if permittees were in the first year of permit coverage. Permittees must indicate in the first benchmark monitoring report that the facility has materials or activities exposed to storm water or has become active and/or staffed.
- b. If the permittee is not qualified for this exception at the time of authorization under this permit, but during the permit term becomes qualified because the facility is inactive and unstaffed, and there are no industrial materials or activities that are exposed to storm water, then the permittee must notify EPD of this change before cessation of monitoring under the permit. The permittee may discontinue benchmark monitoring once they have notified EPD and prepared and signed the certification statement described above in 6.2.1.3.a.i. concerning the facility's qualification for this special exception. Note this exception has different requirements for Sector J (see Part 8).

#### 6.2.1.4 Exemption for Facilities without the Benchmark Pollutant.

- a. The requirement for benchmark monitoring does not apply at a facility where the pollutant(s) listed as the Sector-specific benchmark parameter(s) is not present as a result of current or previous industrial activity at the facility. To invoke this exception, the permittee must do the following:
  - i. Maintain a statement onsite with the SWPPP stating that the pollutant(s) listed as the Sector-specific benchmark parameter is not present at the facility and sign and certify the statement in accordance with Appendix B.7, and
  - ii. If circumstances change and the pollutant(s) listed as the Sector-specific benchmark parameter becomes exposed to storm water, this exception no longer applies and the permittee must begin complying with the applicable benchmark monitoring requirements under Part 6.2 as if the permittee was in the first year of permit coverage. The permittee must indicate in the first benchmark monitoring report that the facility has materials or activities exposed to storm water or has become active and/or staffed.
- b. If the permittee is not qualified for this exception at the time of authorization under this permit, but during the permit term becomes qualified because the pollutant(s) listed as the Sector-specific benchmark parameter is not present at the facility, then the permittee must comply with the requirements of 6.2.1.4.a.i above.

### 6.2.2 Effluent Limitation Monitoring.

#### 6.2.2.1 Monitoring Based on Effluent Limitations.

- a. Table 6-1 identifies the storm water discharges subject to effluent limitations that are authorized for coverage under this permit. For such discharges, beginning in the first full quarter after the effective date of the permit, for existing permittees, or the permittee's date of discharge authorization for new discharges, permittees must monitor once per year at each outfall containing the discharges identified in Table 6-1 for the parameters specified in the sector-specific section(s) of Part 8.
- b. For facilities covered by Georgia's 2006 Industrial Storm Water General NPDES Permit, monitoring for the first year of the permit for parameters with effluent limitations in this permit, must be carried out within 180 days of the effective date of the permit (or during the next qualifying runoff event, should none occur within 180 calendar days), unless the permittee has carried out monitoring within one year prior to the effective date of this permit for all pollutants

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for which the permittee's sector(s) has limitations in this permit.

- c. If the facility is in one of the industrial sectors subject to effluent concentrations that are hardness dependent, the permittee is required to include in the SWPPP with the first effluent result a hardness value established consistent with the procedures in Appendix E, which is representative of the receiving water.

<b>Regulated Activity</b>	<b>Effluent Limit</b>	<b>Monitoring Frequency</b>	<b>Sample Type</b>
Discharges resulting from spray down or intentional wetting of logs at wet deck storage areas	See Part 8.A.7	1/year	Grab
Runoff from phosphate fertilizer manufacturing facilities that comes into contact with any raw materials, finished product, by-products or waste products (SIC 2874)	See Part 8.C.4	1/year	Grab
Runoff from asphalt emulsion facilities	See Part 8.D.4	1/year	Grab
Runoff from material storage piles at cement manufacturing facilities	See Part 8.E.5	1/year	Grab
Runoff from hazardous waste landfills	See Part 8.K.6	1/year	Grab
Runoff from non-hazardous waste landfills	See Part 8.L.10	1/year	Grab
Runoff from coal storage piles at steam electric generating facilities	See Part 8.O.8	1/year	Grab

6.2.2.2 Substantially Identical Outfalls. Permittees must monitor each outfall discharging runoff from any regulated activity identified in Table 6-1 once annually during the term of the permit. **The substantially identical outfall monitoring provisions are not available for numeric effluent limits monitoring or monitoring of discharges to impaired stream segments.** When more than one type of monitoring for the same parameter at the same outfall applies (e.g., total suspended solids once per year for an effluent limit and once per quarter for benchmark monitoring at a given outfall), permittees may use a single sample to satisfy both monitoring requirements.

**6.2.3 Laboratory and Analyst Accreditation.** All monitoring data not prepared in situ shall be prepared by a laboratory accredited by the State of Georgia in accordance with EPD Rules for Commercial Environmental Laboratories 391-3-26, or, where the permittee does their own analysis with their own personnel, by a Laboratory Analyst certified in compliance with the Georgia State Board of Examiners for Certification of Water and Wastewater Treatment Plant Operators and Laboratory Analysts Act. In situ means that the sample is analyzed at the point of collection and has not been transported any distance. Per 40 CFR 136.3, the field parameter of pH must be acted upon in a timely manner to assure accurate results. Due to the small timeframe required for accurate pH samples, the proliferation of pH sampling required by this permit, and the remoteness of many of the types of sites covered by this permit, EPD is waiving the certification requirement.

**6.2.4 Additional Monitoring Required by EPD.** EPD may notify permittees of additional discharge monitoring requirements. Any such notice will briefly state the reasons for the monitoring, locations, and parameters to be monitored, frequency and period of monitoring, sample types, and reporting requirements.

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**6.3 Follow-up Actions if Discharge Exceeds Numeric Effluent Limit.** Permittees must conduct follow-up monitoring within 30 calendar days (or during the next qualifying runoff event, should none occur within 30 days) of implementing corrective action(s) taken pursuant to Part 3 in response to an exceedance of a numeric effluent limit contained in this permit. Monitoring must be performed for any pollutant(s) that exceeds the effluent limit. If this follow-up monitoring exceeds the applicable effluent limitation, permittees must comply with both Parts 6.3.1 and 6.3.2.

**6.3.1 Exceedance Notification Report.** Permittees must maintain an Exceedance Report consistent with Part 7.3 and must notify EPD of any exceedances within thirty (30) days of an exceedance. Exceedances shall also be noted on the annual report submittal.

**6.3.2 Continue to Monitor.** Permittees must continue to monitor, at least quarterly, until the discharge is in compliance with the effluent limit.

## 7 Reporting and Recordkeeping

**7.1 Reporting Monitoring Data to EPD.** All monitoring data collected pursuant to Parts 6.2.1, 6.2.2, 6.2.4, 6.3, and Appendix C must be submitted in a format approved by EPD. The annual reporting form is available on <http://www.gaepd.org/Documents/IndustrialStormwater.html>. Paper reporting forms should be submitted to the appropriate address identified in Part 7.6.

**7.2 Annual Reports.** Annual reports must be submitted annually per the following schedule:

- a. January 31, 2013, from the date of your last annual report and all of calendar year 2012.
- b. January 31, 2014, for calendar year 2013.
- c. January 31, 2015, for calendar year 2014.
- d. January 31, 2016, for calendar year 2015.
- e. January 31, 2017, for calendar year 2016.

**7.3 Exceedance Report for Numeric Effluent Limits.** If follow-up monitoring pursuant to Part 6.3 exceeds a numeric effluent limit, permittees must retain copies with the SWPPP after permittees have received the lab results. The report must include the following:

- a. Facility name, physical address and location;
- b. Name of the river basin and receiving water;
- c. Monitoring data from this and the preceding monitoring event(s);
- d. An explanation of the situation; what the permittee has done and intends to do (should the corrective actions not yet be complete) to correct the violation; and
- e. An appropriate contact name and phone number.

**7.4 Additional Reporting.** In addition to the reporting requirements stipulated in Part 7, permittees are also subject to the standard permit reporting provisions of Appendix B. **If a facility discharges through an MS4, the permittee must also submit these reports to the MS4 operator** identified pursuant to Part 5.1.2. Where applicable, permittees must submit the following reports to the address listed in Part 7.6:

- a. 24-hour reporting - Permittees must report any noncompliance which may endanger health or the environment. Any information must be provided orally within 24 hours to Georgia's Emergency Response Network (ERN) at 1-800-241-4113 from the time the permittee become aware of the circumstances;
- b. 5-day follow-up reporting - A written submission must also be provided within five business days of the time the permittee becomes aware of the circumstances, contained in 7.4.a;

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- c. Reportable quantity spills (see Part 2.1.2.4) – The permittee must provide notification, as required under Part 2.1.2.4, as soon as the permittee has knowledge of a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity.
- d. Other information (see Appendix B) – The permittee must promptly submit facts or information if they become aware that they failed to submit relevant facts in an NOI or that they submitted incorrect information in the NOI or in any report.
- e. The permittee must submit, within 30 days after the request, results of required monitoring when specifically requested by EPD.

**7.5 Recordkeeping.** The permittee must retain copies of the SWPPP (including any modifications made during the term of this permit), additional documentation requirements pursuant to Part 5.4 (including documentation related to corrective actions taken pursuant to Part 3), all reports and certifications required by this permit, monitoring data, and records of all data used to complete the NOI to be covered by this permit, for a period of at least 3 years after the date that coverage under this permit expires or is terminated.

**7.6 Address for All Submittals.** Facilities that discharge storm water associated with industrial activity must use forms provided by EPD. Forms are available on EPD's web site at <http://www.gaepd.org/Documents/IndustrialStormwater.html> or by calling EPD at (404) 675-6240. All forms must be signed in accordance with Appendix B.7 of this permit. All forms must be submitted **by return receipt certified mail** (or a similar service) to EPD at the following address:

**Georgia Environmental Protection Division  
Watershed Protection Branch  
NonPoint Source Program, Storm Water Unit  
4220 International Parkway, Suite 101  
Atlanta, Georgia 30354**

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**Part 8 – Sector-Specific Requirements for Industrial Activity**

Permittees must comply with Part 8 sector-specific requirements associated with the primary industrial activity and any co-located industrial activities, as defined in Appendix A. The sector-specific requirements apply to those areas of the facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

EPA has created a series of Fact Sheets that address the nature of the industrial activity in each sector, types of materials typically handled, and commonly employed material practices. Permittees should consider this a resource in BMP consideration and development of the SWPPP. This material can be found at the following address: <http://cfpupl.epa.gov/npdes/stormwater/swsectors.cfm>. The sector numbering of the Fact Sheets is similar to Georgia's 2011 IGP and where it differs, follows EPA's 2008 Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (2008 MSGP).



**Sector 8.A – Timber Products.**

Subsector	SIC Code	Activity Represented
<b>SECTOR A: TIMBER PRODUCTS</b>		
A1	2421	General Sawmills and Planing Mills
A2	2491	Wood Preserving
A3	2411	Log Storage and Handling
A4	2426	Hardwood Dimension and Flooring Mills
	2429	Special Product Sawmills, Not Elsewhere Classified
	2431-2439 (except 2434)	Millwork, Veneer, Plywood, and Structural Wood (see Sector W)
	2448	Wood Pallets and Skids
	2449	Wood Containers, Not Elsewhere Classified
	2451, 2452	Wood Buildings and Mobile Homes
	2493	Reconstituted Wood Products
A5	2499	Wood Products, Not Elsewhere Classified
	2441	Nailed and Lock Corner Wood Boxes and Shook

**8.A.1 Covered Storm Water Discharges.**

The requirements in Sector A apply to storm water discharges associated with industrial activity from Timber Products facilities as identified by the SIC Codes specified above.

**8.A.2 Limitation on Coverage.**

8.A.2.1 *Prohibition of Discharges.* (See also Part 1.1.4) Not covered by this permit: storm water discharges from areas where there may be contact with the chemical formulations sprayed to provide surface protection. These discharges must be covered by a separate NPDES permit.

8.A.2.2 *Authorized Non-Storm Water Discharges.* (See also Part 1.1.3) Also authorized by this permit, provided the non-storm water component of the discharge is in compliance with the requirements in Part 2.1.2: discharges from the spray down of lumber and wood product storage yards where no chemical additives are used in the spray-down waters and no chemicals are applied to the wood during storage.

**8.A.3 Additional Technology-Based Effluent Limits.**

*Good Housekeeping.* (See also Part 2.1.2.2) In areas where storage, loading and unloading, and material handling occur, perform good housekeeping to limit the discharge of wood debris, minimize the leachate generated from decaying wood materials, and minimize the generation of dust.

**8.A.4 Additional SWPPP Requirements.**

8.A.4.1 *Drainage Area Site Map.* (See also Part 5.1.2) Document in the SWPPP where any of the following may be exposed to precipitation or surface runoff: processing areas, treatment chemical storage areas, treated wood and residue storage areas, wet decking areas, dry decking areas, untreated wood and residue storage areas, and treatment equipment storage areas.

8.A.4.2 *Inventory of Exposed Materials.* (See also Part 5.1.3.2) Where such information exists, if the facility has used chlorophenolic, creosote, or chromium-copper-arsenic formulations for wood surface

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protection or preserving, document in the SWPPP the following: areas where contaminated soils, treatment equipment, and stored materials still remain and the management practices employed to minimize the contact of these materials with storm water runoff.

8.A.4.3 *Description of Storm Water Management Controls.* (See also Part 5.1.4) Document measures implemented to address the following activities and sources: log, lumber, and wood product storage areas; residue storage areas; loading and unloading areas; material handling areas; chemical storage areas; and equipment and vehicle maintenance, storage, and repair areas. If the facility performs wood surface protection and preservation activities, address the specific control measures, including any BMPs, for these activities.

#### 8.A.5 Additional Inspection Requirements.

If the facility performs wood surface protection and preservation activities, inspect processing areas, transport areas, and treated wood storage areas monthly to assess the usefulness of practices to minimize the deposit of treatment chemicals on unprotected soils and in areas that will come in contact with storm water discharges. (See also Part 4)

#### 8.A.6 Sector-Specific Benchmarks. (See also Part 6)

Table 8.A-1 identifies benchmarks that apply to the specific subsectors of Sector A. These benchmarks apply to each of the outfalls whether described by the primary industrial activity, any applicable co-located industrial activities, or both.

<b>Table 8.A-1</b>		
<b>Subsector</b> (Permittees may be subject to requirements for more than one sector/subsector)	<b>Parameter</b>	<b>Benchmark Monitoring Concentration</b>
<b>Subsector A1.</b> General Sawmills and Planing Mills (SIC 2421)	Chemical Oxygen Demand (COD)	120 mg/L
	Total Suspended Solids (TSS)	100 mg/L
	Dissolved Zinc <sup>1</sup>	Hardness Dependent
<b>Subsector A2.</b> Wood Preserving (SIC 2491) <sup>2</sup>	Dissolved Arsenic	0.15 mg/L
	Dissolved Copper <sup>1</sup>	Hardness Dependent
	Total Suspended Solids (TSS)	100 mg/L
<b>Subsector A3.</b> Log Storage and Handling (SIC 2411)	Total Suspended Solids (TSS)	100 mg/L
<b>Subsector A4.</b> Hardwood Dimension and Flooring Mills; Special Products Sawmills, not elsewhere classified; Millwork, Veneer, Plywood, and Structural Wood; Wood Pallets and Skids; Wood Containers, not elsewhere classified; Wood Buildings and Mobile Homes; Reconstituted Wood Products; and Wood Products Facilities not elsewhere classified (SIC 2426, 2429, 2431-2439 (except 2434), 2441, 2448, 2449, 2451, 2452, 2493, and 2499)	Chemical Oxygen Demand (COD)	120 mg/L
	Total Suspended Solids (TSS)	100 mg/L
Facilities in Subsectors A1, A2, A3 and A4 with discharges from material storage piles. <sup>3</sup>	Chemical Oxygen Demand (COD)	120 mg/L

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<sup>1</sup> The benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness in accordance with Appendix E, "Determining Benchmarks for Hardness Dependent Metals" (Part 6.2.1.1), to identify the applicable 'hardness range' for determining their benchmark value applicable to their facility. The ranges occur in 25 mg/L increments.

<sup>2</sup> Sampling for Dissolved Arsenic and Dissolved Copper only required for permittees that use chromium-arsenic formulations.

<sup>3</sup> Facilities with discharges from material storage piles must sample one (1) qualifying rain event each quarter at outfalls receiving the discharges, in the first year of permit coverage. If at least seventy-five (75) percent or the average of the samples do not exceed the benchmark value, permittees may revert to annual sampling in accordance with Part 6.2.

#### 8.A.7 Effluent Limitations. (See also Part 6.2.2.1)

Table 8.A-2 identifies effluent limits that apply to the storm water discharges from the industrial activities described below. Compliance with these effluent limits is to be determined based on the storm water discharges from these industrial activities independent of commingling with any other wastestreams that may be covered under this permit.

Table 8.A-2 <sup>1</sup>		
Industrial Activity		
Discharges resulting from spray down or intentional wetting of logs at wet deck storage areas	pH	6.0 - 9.0 s.u.
	Debris (woody material such as bark, twigs, branches, heartwood, or sapwood)	No discharge of debris that will not pass through a 2.54-cm (1-in.) diameter round opening

<sup>1</sup> Monitor annually.

**Sector 8.B – Paper and Allied Products.**

Subsector	SIC Code	Activity Represented
B1	2631	Paperboard Mills
B2	2611	Pulp Mills
	2621	Paper Mills
	2652-2657	Paperboard Containers and Boxes
	2671-2679	Converted Paper and Paperboard Products, Except Containers and Boxes

**8.B.1 Covered Storm Water Discharges.**

The requirements in Sector B apply to storm water discharges associated with industrial activity from Paper and Allied Products Manufacturing facilities, as identified by the SIC Codes specified above.

**8.B.2 Sector-Specific Benchmarks. (See also Part 6)**

Table 8.B-1 identifies benchmarks that apply to the specific subsectors of Sector B. These benchmarks apply to each of the outfalls whether described by the primary industrial activity, any applicable co-located industrial activities, or both.

<b>Table 8.B-1</b>		
<b>Subsector</b> (Permittees may be subject to requirements for more than one sector/subsector)	<b>Parameter</b>	<b>Benchmark Monitoring Concentration</b>
<b>Subsector B1.</b> Paperboard Mills (SIC Code 2631)	Chemical Oxygen Demand (COD)	120 mg/L
Facilities with discharges from material storage piles. <sup>1</sup>	Chemical Oxygen Demand (COD)	120 mg/L

<sup>1</sup> Facilities with discharges from material storage piles must sample one (1) qualifying rain event each quarter at outfalls receiving the discharges, in the first year of permit coverage. If at least seventy-five (75) percent or the average of the samples do not exceed the benchmark value, permittees may revert to annual sampling in accordance with Part 6.2.

**Sector 8.C – Chemical and Allied Products Manufacturing, and Refining.**

Subsector	SIC Code	Activity Represented
C1	2873-2879	Agricultural Chemicals
C2	2812-2819	Industrial Inorganic Chemicals
C3	2841-2844	Soaps, Detergents, and Cleaning Preparations; Perfumes, Cosmetics, and Other Toilet Preparations
C4	2821-2824	Plastics Materials and Synthetic Resins, Synthetic Rubber, Cellulosic and Other Manmade Fibers Except Glass
C5	2833-2836	Medicinal Chemicals and Botanical Products; Pharmaceutical Preparations; in vitro and in vivo Diagnostic Substances; and Biological Products, Except Diagnostic Substances
	2851	Paints, Varnishes, Lacquers, Enamels, and Allied Products
	2861-2869	Industrial Organic Chemicals
	2891-2899	Miscellaneous Chemical Products
	3952 (limited to list of inks and paints)	Inks and Paints, Including China Painting Enamels, India Ink, Drawing Ink, Platinum Paints for Burnt Wood or Leather Work, Paints for China Painting, Artist's Paints and Watercolors
	2911	Petroleum Refining

**8.C.1 Covered Storm Water Discharges.**

The requirements in Sector C apply to storm water discharges associated with industrial activity from Chemical and Allied Products Manufacturing, and Refining facilities, as identified by the SIC Codes specified above.

**8.C.2 Limitations on Coverage.**

8.C.2.1 *Prohibition of Non-Storm Water Discharges.* (See also Part 1.1.4) The following are not covered by this permit: non-storm water discharges containing inks, paints, or substances (hazardous, nonhazardous, etc.) resulting from an onsite spill, including materials collected in drip pans; washwater from material handling and processing areas; and washwater from drum, tank, or container rinsing and cleaning.

**8.C.3 Sector-Specific Benchmarks. (See also Part 6)**

Table 8.C-1 identifies benchmarks that apply to the specific subsectors of Sector C. These benchmarks apply to each of the outfalls whether described by the primary industrial activity, any applicable co-located industrial activities, or both.

<b>Table 8.C-1</b>		
<b>Subsector</b> (Permittees may be subject to requirements for more than one sector/subsector)	<b>Parameter</b>	<b>Benchmark Monitoring Concentration</b>
<b>Subsector C1.</b> Agricultural Chemicals (SIC 2873-2879)	Nitrate plus Nitrite Nitrogen	0.68 mg/L
	Dissolved Lead <sup>1</sup>	Hardness Dependent
	Dissolved Zinc <sup>1</sup>	Hardness Dependent

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<b>Subsector C1.</b> Agricultural Chemicals (SIC 2873-2879) continued	Phosphorus	Measure in mg/L
	Oil & Grease	15 mg/L
	Chemical Oxygen Demand (COD)	120 mg/L
	Total Suspended Solids (TSS)	100 mg/L
	pH	6 – 9 s.u.
<b>Subsector C2.</b> Industrial Inorganic Chemicals (SIC 2812-2819)	Nitrate plus Nitrite Nitrogen	0.68 mg/L
	Oil & Grease	15 mg/L
	Chemical Oxygen Demand (COD)	120 mg/L
	Total Suspended Solids (TSS)	100 mg/L
	pH	6 – 9 s.u.
<b>Subsector C3.</b> Soaps, Detergents, Cosmetics, and Perfumes (SIC 2841-2844)	Nitrate plus Nitrite Nitrogen	0.68 mg/L
	Dissolved Zinc <sup>1</sup>	Hardness Dependent
	Oil & Grease	15 mg/L
	Chemical Oxygen Demand (COD)	120 mg/L
	Total Suspended Solids (TSS)	100 mg/L
	pH	6 – 9 s.u.
<b>Subsector C4.</b> Plastics, Synthetics, and Resins (SIC 2821-2824)	Dissolved Zinc <sup>1</sup>	Hardness Dependent
	Oil & Grease	15 mg/L
	Chemical Oxygen Demand (COD)	120 mg/L
	Total Suspended Solids (TSS)	100 mg/L
	pH	6 – 9 s.u.
<b>Subsector C5.</b> Medicinal Chemicals and Botanical Products; Pharmaceutical Preparations; in vitro and in vivo Diagnostic Substances; Biological Products, Except Diagnostic Substances; Paints, Varnishes, Lacquers, Enamels, and Allied Products; Industrial Organic Chemicals; Miscellaneous Chemical Products Inks and Paints; Petroleum Refining (SIC 2833-2836, 2851, 2861-2869, 2891-2899, 3952, 2911)	Oil & Grease	15 mg/L
	Chemical Oxygen Demand (COD)	120 mg/L
	Total Suspended Solids (TSS)	100 mg/L
	pH	6 – 9 s.u.

<sup>1</sup> The benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness in accordance with Appendix E, “Determining Benchmarks for Hardness Dependent Metals” (Part 6.2.1.1), to identify the applicable ‘hardness range’ for determining their benchmark value applicable to their facility. The ranges occur in 25 mg/L increments.

#### 8.C.4 Effluent Limitations. (See also Part 6.2.2.1)

Table 8.C-2 identifies effluent limits that apply to the storm water discharges from the industrial activities described below. Compliance with these effluent limits is to be determined based on discharges from these industrial activities independent of commingling with any other wastestreams that may be covered under this permit.

<b>Industrial Activity</b>	<b>Parameter</b>	<b>Effluent Limit</b>
Runoff from phosphate fertilizer manufacturing facilities that comes into contact with any raw materials, finished product, by-products or waste products (SIC 2874)	Total Phosphorus (as P)	105.0 mg/L, daily maximum
		35 mg/L, 30-day avg.
	Fluoride	75.0 mg/L, daily maximum
		25.0 mg/L, 30-day avg.

<sup>1</sup> Monitor annually.

**Sector 8.D – Asphalt Paving and Roofing Materials and Lubricant Manufacturing.**

Subsector	SIC Code	Activity Represented
D1	2951, 2952	Asphalt Paving and Roofing Materials
D2	2992, 2999	Miscellaneous Products of Petroleum and Coal

**8.D.1 Covered Storm Water Discharges.**

The requirements in Sector D apply to storm water discharges associated with industrial activity from Asphalt Paving and Roofing Materials and Lubricant Manufacturing facilities, as identified by the SIC Codes specified above.

**8.D.2 Limitations on Coverage.**

The following storm water discharges associated with industrial activity are not authorized by this permit (See also Part 1.1.4):

- a. Discharges from petroleum refining facilities, including those that manufacture asphalt or asphalt products, that are subject to nationally established effluent limitations found in 40 CFR Part 419 (Petroleum Refining); or
- b. Discharges from oil recycling facilities.

**8.D.3 Sector-Specific Benchmarks. (See also Part 6)**

Table 8.D-1 identifies benchmarks that apply to the specific subsectors of Sector D. These benchmarks apply to each of the outfalls whether described by the primary industrial activity, any applicable co-located industrial activities, or both.

Subsector	Parameter	Benchmark Monitoring Concentration
<b>Subsector D1.</b> Asphalt Paving and Roofing Materials (SIC 2951, 2952)	Total Suspended Solids (TSS)	100 mg/L

**8.D.4 Effluent Limitations (See also Part 6.2.2.1)**

Table 8.D-2 identifies effluent limits that apply to storm water discharges from the industrial activities described below. Compliance with these effluent limits is to be determined based on discharges from these industrial activities independent of commingling with any other wastestreams that may be covered under this permit.

Industrial Activity	Parameter	Effluent Limit
Discharges from asphalt emulsion facilities.	Total Suspended Solids (TSS)	23.0 mg/L, daily maximum
		15.0 mg/L, 30-day avg.
	pH	6.0 - 9.0 s.u.
	Oil & Grease	15.0 mg/L, daily maximum
10 mg/L, 30-day avg.		

<sup>1</sup>Monitor annually.



**Sector 8.E – Glass, Clay, Cement, Concrete, and Gypsum Products.**

Subsector	SIC Code	Activity Represented
E1	3251-3259	Structural Clay Products
	3261-3269	Pottery and Related Products
E2	3271-3274	Concrete and Plaster Products
E3	3211	Flat Glass
	3221, 3229	Glass and Glassware, Pressed or Blown
	3231	Glass Products Made of Purchased Glass
	3241	Hydraulic Cement
	3275	Gypsum
	3281	Cut Stone and Stone Products
	3291-3299	Abrasive, Asbestos, and Miscellaneous Nonmetallic Mineral Products

**8.E.1 Covered Storm Water Discharges.**

The requirements in Sector E apply to storm water discharges associated with industrial activity from Glass, Clay, Cement, Concrete, and Gypsum Products facilities, as identified by the SIC codes above.

**8.E.2 Additional Technology-Based Effluent Limits.**

*Good Housekeeping Measures.* (See also Part 2.1.2.2) With good housekeeping, prevent or minimize the discharge of spilled cement, aggregate (including sand or gravel), kiln dust, fly ash, settled dust, or other significant material in storm water from paved portions of the site that are exposed to storm water. Consider sweeping regularly or using other equivalent measures to minimize the presence of these materials. Indicate in the SWPPP the frequency of sweeping or equivalent measures. Determine the frequency based on the amount of industrial activity occurring in the area and the frequency of precipitation, but it must be performed at least once a week if cement, aggregate, kiln dust, fly ash, or settled dust are being handled or processed. Permittees must also prevent the exposure of fine granular solids (cement, fly ash, kiln dust, etc.) to storm water, where practicable, by storing these materials in enclosed silos, hoppers, or buildings, or under other covering.

**8.E.3 Additional SWPPP Requirements.**

8.E.3.1 *Drainage Area Site Map.* (See also Part 5.1.2) Document in the SWPPP the locations of the following, as applicable: bag house or other dust control device; recycle/sedimentation pond, clarifier, or other device used for the treatment of process wastewater; and the areas that drain to the treatment device.

8.E.3.2 *Certification.* (See also Part 5.1.3.4) For facilities producing ready-mix concrete, concrete block, brick, or similar products, include in the non-storm water discharge certification a description of measures that ensure that process waste waters resulting from washing trucks, mixers, transport buckets, forms, or other equipment are discharged in accordance with NPDES requirements or are recycled.

**8.E.4 Sector-Specific Benchmarks. (See also Part 6)**

Table 8.E-1 identifies benchmarks that apply to the specific subsectors of Sector E. These benchmarks apply to each of the outfalls whether described by the primary industrial activity, any applicable co-located industrial activities, or both.

<b>Table 8.E-1</b>		
<b>Subsector</b> (Permittees may be subject to requirements for more than one sector/subsector)	<b>Parameter</b>	<b>Benchmark Monitoring Concentration</b>
<b>Subsector E1.</b> Clay Product Manufacturers (SIC 3251-3259, 3261-3269)	Total Suspended Solids (TSS)	100 mg/L
	Turbidity	Measure in NTUs
<b>Subsector E2.</b> Concrete Product Manufacturers (SIC 3271-3274)	Total Suspended Solids (TSS)	100 mg/L
	pH	6.0 - 9.0 s.u.
	Oil & Grease	15 mg/L
	Chemical Oxygen Demand (COD)	120 mg/L
<b>Subsector E3.</b> Flat Glass; Glass and Glassware, Pressed or Blown; Glass Products Made of Purchased Glass; Hydraulic Cement; Gypsum, Cut Stone and Stone Products; and Abrasive, Asbestos, and Miscellaneous Nonmetallic Mineral Products (SIC 3211, 3221, 3229, 3231, 3241, 3275, 3281, 3291-3299)	Total Suspended Solids (TSS)	100 mg/L
Facilities in Subsectors E1, E2 and E3 with discharges from material storage piles. <sup>1</sup>	Total Suspended Solids (TSS)	100 mg/L

<sup>1</sup> Facilities with discharges from material storage piles must sample one (1) qualifying rain event each quarter at outfalls receiving the discharges, in the first year of permit coverage. If at least seventy-five (75) percent or the average of the samples do not exceed the benchmark value, permittees may revert to annual sampling in accordance with Part 6.2.

**8.E.5 Effluent Limitations. (See also Part 6.2.2.1)**

Table 8.E-2 identifies effluent limits that apply to storm water discharges from the industrial activities described below. Compliance with these limits is to be determined based on discharges from these industrial activities independent of commingling with any other wastestreams that may be covered under this permit.

<b>Table 8.E-2<sup>1</sup></b>		
<b>Industrial Activity</b>	<b>Parameter</b>	<b>Effluent Limit</b>
Discharges from material storage piles at cement manufacturing facilities	Total Suspended Solids (TSS)	50 mg/L, daily maximum
	pH	6.0 - 9.0 s.u.

<sup>1</sup> Monitor annually.

**Sector 8.F – Primary Metals.**

Subsector	SIC Code	Activity Represented
F1	3312-3317	Steel Works, Blast Furnaces, and Rolling and Finishing Mills
F2	3321-3325	Iron and Steel Foundries
F3	3351-3357	Rolling, Drawing, and Extruding of Nonferrous Metals
F4	3363-3369	Nonferrous Foundries (Castings)
F5	3331-3339	Primary Smelting and Refining of Nonferrous Metals
	3341	Secondary Smelting and Refining of Nonferrous Metals
	3398, 3399	Miscellaneous Primary Metal Products

**8.F.1 Covered Storm Water Discharges.**

The requirements in Sector F apply to storm water discharges associated with industrial activity from Primary Metals facilities, as identified by the SIC Codes specified above.

**8.F.2 Additional Technology-Based Effluent Limits.**

*Good Housekeeping Measures.* (See also Part 2.1.2.2) As part of the good housekeeping program, include a cleaning and maintenance program for all impervious areas of the facility where particulate matter, dust, or debris may accumulate, especially areas where material loading and unloading, storage, handling, and processing occur; and, where practicable, the paving of areas where vehicle traffic or material storage occur but where vegetative or other stabilization methods are not practicable (institute a sweeping program in these areas too). For unstabilized areas where sweeping is not practicable, consider using storm water management devices such as sediment traps, vegetative buffer strips, filter fabric fence, sediment filtering boom, gravel outlet protection, or other equivalent measures that effectively trap or remove sediment.

**8.F.3 Additional SWPPP Requirements.**

**8.F.3.1 Drainage Area Site Map.** (See also Part 5.1.2) Identify in the SWPPP where any of the following activities may be exposed to precipitation or surface runoff: storage or disposal of wastes such as spent solvents and baths, sand, slag and dross; liquid storage tanks and drums; processing areas including pollution control equipment (e.g., baghouses); and storage areas of raw material such as coal, coke, scrap, sand, fluxes, refractories, or metal in any form. In addition, indicate where an accumulation of significant amounts of particulate matter could occur from such sources as furnace or oven emissions, losses from coal and coke handling operations, etc., and could result in a discharge of pollutants to waters of the State.

**8.F.3.2 Inventory of Exposed Material.** (See also Part 5.1.3.2) Include in the inventory of materials handled at the site that potentially may be exposed to precipitation or runoff, areas where deposition of particulate matter from process air emissions or losses during material-handling activities are possible.

**8.F.4 Additional Inspection Requirements.**

As part of conducting quarterly routine facility inspections (Part 4.1) and/or in conjunction with any quarterly inspections required by air quality permits, address all potential sources of storm water pollutants, including (if applicable) air pollution control equipment (e.g., baghouses, electrostatic precipitators, scrubbers, and cyclones), for any signs of degradation (e.g., leaks, corrosion, or improper operation) that could contribute to storm water pollution. Also inspect all process and material handling

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equipment (e.g., conveyors, cranes, and vehicles) for leaks, drips, or the potential loss of material; and material storage areas (e.g., piles, bins, or hoppers for storing coke, coal, scrap, or slag, as well as chemicals stored in tanks and drums) for signs of material losses due to wind or storm water runoff.

#### 8.F.5 Sector-Specific Benchmarks. (See also Part 6)

These benchmarks apply to each of the outfalls whether described by the primary industrial activity, any applicable co-located industrial activities, or both.

<b>Subsector</b> (Permittees may be subject to requirements for more than one sector/subsector)	<b>Parameter</b>	<b>Benchmark Monitoring Concentration</b>
<b>Subsector F1.</b> Steel Works, Blast Furnaces, and Rolling and Finishing Mills (SIC 3312-3317)	Dissolved Zinc <sup>1</sup>	Hardness Dependent
	Oil & Grease	15 mg/L
	Chemical Oxygen Demand (COD)	120 mg/L
<b>Subsector F2.</b> Iron and Steel Foundries (SIC 3321-3325)	Total Suspended Solids (TSS)	100 mg/L
	pH	6-9 s.u.
	Dissolved Lead <sup>1</sup>	Hardness Dependent
<b>Subsector F3.</b> Rolling, Drawing, and Extruding of Nonferrous Metals (SIC 3351-3357)	Dissolved Cadmium <sup>1</sup>	Hardness Dependent
	Dissolved Copper <sup>1</sup>	Hardness Dependent
	Dissolved Arsenic	0.15 mg/L
<b>Subsector F4.</b> Nonferrous Foundries (SIC 3363-3369)	Dissolved Chromium	Measure in mg/L

<sup>1</sup> The benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness in accordance with Appendix E, "Determining Benchmarks for Hardness Dependent Metals" (Part 6.2.1.1), to identify the applicable 'hardness range' for determining their benchmark value applicable to their facility. The ranges occur in 25 mg/L increments.

**Sector G – Transportation Equipment, Industrial or Commercial Machinery Facilities.**

Subsector	SIC Code	Activity Represented
G1	3511-3599 (except 3571-3579)	Industrial and Commercial Machinery, Except Computer and Office Equipment (see Sector H)
	3711-3799 (except 3731, 3732)	Transportation Equipment Except Ship and Boat Building and Repairing (see Sector R)

**8.G.1 Covered Storm Water Discharges.**

The requirements in Sector G apply to storm water discharges associated with industrial activity from Transportation Equipment, Industrial or Commercial Machinery facilities as identified by the SIC Codes specified above.

**8.G.2 Additional SWPPP Requirements.**

8.G.2.1 *Drainage Area Site Map. (See also Part 5.1.2) Identify in the SWPPP where any of the following may be exposed to precipitation or surface runoff: vents and stacks from metal processing and similar operations.*

8.G.2.2 *Vehicle and Equipment Washwater Requirements.* If washwater is generated, describe the disposal method (e.g., hauled offsite, retained onsite) and attach all pertinent documentation/information (e.g., frequency, volume, destination, etc.) in the SWPPP.

**Sector 8.H –Electronic and Electrical Equipment and Components, Photographic and Optical Goods.**

Subsector	SIC Code	Activity Represented
H1	3571-3579	Computer and Office Equipment
	3812-3873	Measuring, Analyzing, and Controlling Instruments; Photographic and Optical Goods, Watches, and Clocks
	3612-3699	Electronic and Electrical Equipment and Components, Except Computer Equipment

**8.H.1 Covered Storm Water Discharges.**

The requirements in Sector H apply to storm water discharges associated with industrial activity from facilities that manufacture Electronic and Electrical Equipment and Components, Photographic and Optical Goods as identified by the SIC Codes specified above.

**8.H.2 Additional Requirements.**

No additional sector-specific requirements apply.

**Sector 8.I – Oil and Gas Extraction.**

Subsector	SIC Code	Activity Represented
11	1311	Crude Petroleum and Natural Gas
	1321	Natural Gas Liquids
	1381-1389	Oil and Gas Field Services

**8.I.1 Covered Storm Water Discharges.**

The requirements in Sector I apply to storm water discharges associated with industrial activity from Oil and Gas Extraction facilities as identified by the SIC Codes specified above.

8.I.1.1 Discharges of storm water runoff from field activities or operations associated with oil and gas exploration, production, processing, or treatment operations or transmission facilities are exempt from NPDES permit coverage unless, in accordance with 40 CFR 122.26(c)(1)(iii), the facility:

- a. Has had a discharge of storm water resulting in the discharge of a reportable quantity for which notification is or was required pursuant to 40 CFR 117.21 or 40 CFR 302.6 at anytime since November 16, 1987; or
- b. Has had a discharge of storm water resulting in the discharge of a reportable quantity for which notification is or was required pursuant to 40 CFR 110.6 at any time since November 16, 1987; or
- c. Contributes to a violation of a water quality standard.

8.I.1.2 Any storm water discharges that require permit coverage as a result of meeting one of the conditions of 122.26(c)(1)(iii) may be covered under this permit unless otherwise required to obtain coverage under an alternative NPDES general permit or an individual NPDES permit as specified in Part 1.6.1.

**8.I.2 Limitations on Coverage.**

8.I.2.1 *Storm Water Discharges Subject to Effluent Limitations.* (See also Part 1.1.4.4) This permit does not authorize storm water discharges from petroleum drilling operations that are subject to nationally established effluent limitations found at 40 CFR Part 435, respectively.

8.I.2.2 *Non-Storm Water Discharges.* Discharges of vehicle and equipment washwater, including tank cleaning operations, are not authorized by this permit. Alternatively, washwater discharges must be authorized under a separate NPDES permit, or be discharged to a sanitary sewer in accordance with applicable industrial pretreatment requirements.

**8.I.3 Additional Technology-Based Effluent Limits.**

8.I.3.1 *Vegetative Controls.* Implement vegetative practices designed to preserve existing vegetation, where attainable, and revegetate open areas as soon as practicable after grade drilling. Consider the following (or equivalent measures): temporary or permanent seeding, mulching, sod stabilization, vegetative buffer strips, and tree protection practices. Begin implementing appropriate vegetative practices on all disturbed areas within 14 days following the last activity in that area.

**8.I.4 Additional SWPPP Requirements.**

8.I.4.1 *Drainage Area Site Map.* (See also Part 5.1.2) Document in the SWPPP where any of the following may be exposed to precipitation or surface runoff: Reportable Quantity (RQ) releases; locations used for the treatment, storage, or disposal of wastes; processing areas and storage areas; chemical mixing areas; construction and drilling areas; all areas subject to the effluent guidelines requirements for “No Discharge” in accordance with 40 CFR 435.32; and the structural controls to achieve compliance with the

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“No Discharge” requirements.

8.1.4.2 *Potential Pollutant Sources.* (See also Part 5.1.3) Also document in the SWPPP the following sources and activities that have potential pollutants associated with them: chemical, cement, mud, or gel mixing activities; drilling or mining activities; and equipment cleaning and rehabilitation activities. In addition, include information about the RQ release that triggered the permit application requirements: the nature of the release (e.g., spill of oil from a drum storage area), amount of oil or hazardous substance released, amount of substance recovered, date of the release, cause of the release (e.g., poor handling techniques and lack of containment in the area), areas affected by the release (i.e., land and water), procedure to clean up release, actions or procedures implemented to prevent or improve response to a release, and remaining potential contamination of storm water from release (taking into account human health risks, the control of drinking water intakes, and the designated uses of the receiving water).

8.1.4.3 *Erosion and Sedimentation Control.* (See also Part 2.1.2.5) Additional documentation requirements for erosion and sediment controls for well drillings and sand/shale mining areas include the following:

8.1.4.3.1 *Site Description.* Also include a description in the SWPPP of the nature of the exploration activity, estimates of the total area of site and area disturbed due to exploration activity, an estimate of runoff coefficient of the site, a site drainage map, including approximate slopes, and the names of all receiving waters.

8.1.4.3.2 *Vegetative Controls.* Document vegetative practices used consistent with Part 8.1.3.1 in the SWPPP.



**Sector 8.J –Mining and Dressing.**

Subsector	SIC Code	Activity Represented
J1	1011, 1021, 1031, 1041, 1044, 1061, 1081, 1094, 1099, 1411, 1422-1429, 1442, 1446, 1459, 1474- 1479, 1481, 1499	Mining
J2	1455	Kaolin and Clay Ball Mining

**8.J.1 Covered Storm Water Discharges.**

The requirements in Sector J apply to storm water discharges associated with industrial activity from Active and Inactive Mining and Dressing facilities as identified by the SIC Codes specified above.

8.J.1.1 *Discharges from Inactive Facilities.* All storm water discharges.

8.J.1.2 *Discharges from Active and Temporarily Inactive Facilities.* All storm water discharges, except for storm water discharges subject to the existing effluent limitations at 40 CFR Part 436. Water utilized in fugitive dust suppressions systems including but not limited to wheel washers, fixed water sprays, water trucks, and similar water-based systems, excluding vehicle and equipment wash water, can be covered by this permit provided it is not allowed to run-off or discharge from the site during dry weather.

8.J.1.3 *Discharges from Exploration and Construction of Mining Facilities.* All storm water discharges, except those disturbing 1 acre or greater not associated with the mining activity, (e.g., construction of scales, offices, and buildings).

8.J.1.4 *Discharges from Sites Undergoing Reclamation.* All storm water discharges.

**8.J.2 Limitations on Coverage.**

Storm water discharges subject to an existing effluent limitation at 40 CFR Part 436 are not authorized by this permit. Discharges from vehicle wash water are prohibited in accordance with 1.1.4.1.

**8.J.3 Definitions.**

The following definitions are not intended to supersede the definitions of active and inactive mining facilities established by 40 CFR 122.26(b)(14)(iii).

8.J.3.1 *Mining operations* - Consists of the active and temporarily inactive phases, removal of overburden, land disturbing activities for construction of buildings, equipment and appurtenances where the land disturbance is less than an acre, and the reclamation phase, but excludes the exploration phase.

8.J.3.2 *Active phase* - Activities including the extraction, removal or recovery of minerals. For surface mines, this definition does not include any land where grading has returned the earth to a desired contour and reclamation has begun. This definition is derived from the definition of “active mining area” found at 40 CFR 440.132(a). The active phase is considered part of “mining operations.”

8.J.3.3 *Reclamation phase* - Activities undertaken, in compliance with applicable mined land reclamation requirements, following the cessation of the “active phase”, intended to return the land to

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an appropriate post-mining land use. The reclamation phase is considered part of "mining operations".

8.J.3.4 *Active Mining Facility* - A place where work or other activity related to the extraction, removal, or recovery of minerals is being conducted. For surface mines, this definition does not include any land where grading has returned the earth to a desired contour and reclamation has begun. This definition is derived from the definition of "active mining area" found at 40 CFR 440.132(a).

8.J.3.5 *Inactive Mining Facility* - A site or portion of a site where mineral mining and/or milling occurred in the past but is not an active facility as defined above, and where the inactive portion is not covered by an active mining permit issued by the applicable State or Federal agency. An inactive mineral mining facility has an identifiable owner/operator. Sites where mining claims are being maintained prior to disturbances associated with the extraction, beneficiation, or processing of mined materials, and sites where minimal activities are undertaken for the sole purpose of maintaining a mining claim are not considered either active or inactive mining facilities and do not require an NPDES industrial storm water permit.

8.J.3.6 *Temporarily Inactive Mining Facility* - A site or portion of a site where mining and/or milling occurred in the past but currently are not being actively undertaken, and the facility is covered by an active mining permit issued by the applicable State or Federal agency.

8.J.3.7 *Final Stabilization* - A site or portion of a site is "finally stabilized" when it has implemented all applicable Federal and State reclamation requirements.

8.J.3.8 *Uncontaminated* - Free from the presence of pollutants attributable to industrial activity.

#### **8.J.4 Additional Technology-Based Effluent Limits.**

8.J.4.1 Permittees are required to certify on the NOI that the facility has submitted or will submit, prior to the commencement of industrial activity, a copy of the NOI to EPD's Surface Mining Unit and has an Approved Surface Mining Land Use Plan and any Approved Amendments, including but not limited to maintenance of adequate erosion and sediment control. Erosion and sediment control shall be in accordance with the Manual for Erosion and Sediment Control in Georgia or EPD-approved "Best Management Practices for the Aggregates Mining Industry" or "Georgia's Best Management Practices for Mining" (kaolin and clay mining industries), as applicable.

8.J.4.2 *Storm Water Controls*: Apart from the control measures permittees implement to meet the Part 2 effluent limits, where necessary to minimize pollutant discharges, implement the following control measures at the facility. The potential pollutants identified in Part 5.1.3 shall determine the priority and appropriateness of the control measures selected.

8.J.4.2.1 *Storm Water Diversions*: Consider diverting storm water away from potential pollutant sources. Following are some control measure options: interceptor or diversion controls (e.g., dikes, swales, curbs, or berms); pipe slope drains; subsurface drains; conveyance systems (e.g., channels or gutters, open-top box culverts, and waterbars; rolling dips and road sloping; roadway surface water deflector and culverts); or their equivalents.

8.J.4.2.2 *Treatment*: If treatment of storm water (e.g., chemical or physical systems, oil and water separators, artificial wetlands) is necessary to protect water quality, describe in the SWPPP the type and location of treatment used. Passive and/or active treatment of storm water runoff is encouraged. Treated runoff may be discharged as a storm water source regulated under this permit provided the discharge is not combined with discharges subject to effluent limitation guidelines for the Mineral Mining and Processing Point Source Category (40 CFR Part 436).

8.J.4.3 *Certification of Discharge Testing*: (See also Part 5.1.3.4) Test or evaluate all outfalls covered under this permit for the presence of specific mining-related non-storm water discharges such as discharges subject to effluent limitations (e.g., 40 CFR Part 436).

#### **8.J.5 Additional Inspection Requirements.**

Permittees must inspect sites at least quarterly unless adverse weather conditions make the site

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inaccessible. See Part 8.J.6.1 for inspection requirements for inactive and unstaffed sites. (See also Part 4.1.3.1)

### 8.J.6 Sector-Specific Benchmarks. (See also Part 6)

Table 8.J-1 identifies benchmarks that apply to the specific subsectors of Sector J. These benchmarks apply to each of the outfalls whether described by the primary industrial activity, any applicable co-located industrial activities, or both.

<b>Table 8.J-1.</b>		
<b>Subsector</b> (Permittees may be subject to requirements for more than one sector/subsector)	<b>Parameter</b>	<b>Benchmark Monitoring Concentration</b>
<b>Subsector J1.</b> Mining (SIC 1011, 1021, 1031, 1041, 1044, 1061, 1081, 1094, 1099, 1411, 1422-1429, 1442, 1446, 1459, 1474-1479, 1481, 1499)	Total Suspended Solids (TSS)	100 mg/L
<b>Subsector J2.</b> Kaolin and Clay Ball Mining (SIC 1455)	Total Suspended Solids (TSS)	100 mg/L
	pH	6 - 9 s.u.
	Turbidity	Measure in NTUs
Facilities in Subsectors J1 and J2 with discharges from material storage piles. <sup>1</sup>	Total Suspended Solids (TSS)	100 mg/L

<sup>1</sup> Facilities with discharges from material storage piles must sample one (1) qualifying rain event each quarter at outfalls receiving the discharges, in the first year of permit coverage. If at least seventy-five (75) percent or the average of the samples do not exceed the benchmark value, permittees may revert to annual sampling in accordance with Part 6.2.

8.J.6.1 Inactive and Unstaffed Sites – Conditional Exemption from No Exposure Requirement for Routine Inspections, Quarterly Visual Assessments, and Benchmark Monitoring. As a Sector J facility, if permittees are seeking to exercise a waiver from either the routine inspection, quarterly visual assessment or the benchmark monitoring requirements for inactive and unstaffed sites (including temporarily inactive sites), permittees are conditionally exempt from the requirement to certify that “there are no industrial materials or activities exposed to storm water” in Parts 4.2.3 and 6.2.1.3, respectively. This exemption is conditioned on the following:

- a. If circumstances change and the facility becomes active and/or staffed, this exception no longer applies and permittees must begin complying with the applicable benchmark monitoring requirements as if permittees were in the first year of permit coverage, and the quarterly visual assessment requirements; and
- b. EPD retains the authority to revoke this exemption and/or the monitoring waiver where it is determined that the discharge causes, has a reasonable potential to cause, or contributes to an instream excursion above an applicable water quality standard, including designated uses.

8.J.6.2 Subject to the two conditions above, if the facility is inactive and unstaffed, permittees are waived from the requirement to conduct quarterly visual assessments and routine facility inspections. The requirement is not waived for conducting the Part 4.3 comprehensive site inspection. The permittee is encouraged to inspect the facility more frequently where there is reason to believe that severe weather or natural disasters may have damaged control measures or increased discharges.

**Sector 8.K – Hazardous Waste Treatment, Storage, or Disposal Facilities.**

Subsector	SIC Code	Activity Represented
K1	HZ	Hazardous Waste Treatment, Storage, or Disposal Facilities, including those that are operating under interim status or a permit under Subtitle C of RCRA

**8.K.1 Covered Storm Water Discharges.**

The requirements in Sector K apply to storm water discharges associated with industrial activity from Hazardous Waste Treatment, Storage, or Disposal facilities (TSDFs) as identified by the Activity Code specified above.

**8.K.2 Industrial Activities Covered by Sector K.**

- a. Facilities that treat, store, or dispose of hazardous wastes, including those that are operating under interim status or a permit under subtitle C of RCRA.
- b. Disposal facilities that have been properly closed and capped, and have no significant materials exposed to storm water, are considered inactive and do not require permits.

**8.K.3 Limitations on Coverage.**

*Prohibition of Non-Storm Water Discharges.* (See also Part 1.1.4) The following are not authorized by this permit: leachate, gas collection condensate, drained free liquids, contaminated ground water, laboratory-derived wastewater, and contact washwater from washing truck and railcar exteriors and surface areas that have come in direct contact with solid waste at the landfill facility.

**8.K.4 Definitions.**

8.K.4.1 *Contaminated storm water* - storm water that comes into direct contact with landfill wastes, the waste handling and treatment areas, or landfill wastewater as defined in Part 8.K.4.4. Some specific areas of a landfill that may produce contaminated storm water include (but are not limited to) the open face of an active landfill with exposed waste (no cover added); the areas around wastewater treatment operations; trucks, equipment, or machinery that has been in direct contact with the waste; and waste dumping areas.

8.K.4.2 *Drained free liquids* - aqueous wastes drained from waste containers (e.g., drums) prior to landfilling.

8.K.4.3 *Landfill* - an area of land or an excavation in which wastes are placed for permanent disposal, but that is not a land application or land treatment unit, surface impoundment, underground injection well, waste pile, salt dome formation, salt bed formation, underground mine, or cave as these terms are defined in 40 CFR Parts 257.2, 258.2, and 260.10.

8.K.4.4 *Landfill wastewater* - as defined in 40 CFR Part 445 (Landfills Point Source Category), all wastewater associated with, or produced by, landfilling activities except for sanitary wastewater, non-contaminated storm water, contaminated groundwater, and wastewater from recovery pumping wells. Landfill wastewater includes, but is not limited to, leachate, gas collection condensate, drained free liquids, laboratory-derived wastewater, contaminated storm water, and contact washwater from washing truck, equipment, and railcar exteriors and surface areas that have come in direct contact with solid waste at the landfill facility.

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8.K.4.5 *Leachate* - liquid that has passed through or emerged from solid waste and contains soluble, suspended, or miscible materials removed from such waste.

8.K.4.6 *Non-contaminated storm water* - storm water that does not come into direct contact with landfill wastes, the waste handling and treatment areas, or landfill wastewater as defined in Part 8.K.4.4. Non-contaminated storm water includes storm water that flows off the cap, cover, intermediate cover, daily cover, and/or final cover of the landfill.

### 8.K.5 Sector-Specific Benchmarks. (See also Part 6)

Table 8.K-1 identifies benchmarks that apply to the specific subsectors of Sector K. These benchmarks apply to each of the outfalls whether described by the primary industrial activity, any applicable co-located industrial activities, or both.

<b>Table 8.K-1</b>		
<b>Subsector</b> (Permittees may be subject to requirements for more than one sector/subsector)	<b>Parameter</b>	<b>Benchmark Monitoring Concentration</b>
<b>Subsector K1. ALL - Industrial Activity</b> Benchmarks only applicable to discharges not subject to effluent limitations in 40 CFR Part 445 Subpart A (see below).	Ammonia	2.14 mg/L
	Dissolved Magnesium	0.064 mg/L
	Chemical Oxygen Demand (COD)	120 mg/L
	Dissolved Arsenic	0.15 mg/L
	Dissolved Cadmium <sup>1</sup>	Hardness Dependent
	Dissolved Cyanide	0.022 mg/L
	Dissolved Lead <sup>1</sup>	Hardness Dependent
	Dissolved Mercury	0.0014 mg/L
	Dissolved Selenium	0.005 mg/L
	Biochemical Oxygen Demand (BOD <sub>5</sub> )	30 mg/L
	Dissolved Zinc	Hardness Dependent
	pH	6-9 s.u.
Total Suspended Solids (TSS)	100 mg/L	

<sup>1</sup> The benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness in accordance with Appendix E, "Determining Benchmarks for Hardness Dependent Metals" (Part 6.2.1.1), to identify the applicable 'hardness range' for determining their benchmark value applicable to their facility. The ranges occur in 25 mg/L increments.

### 8.K.6 Effluent Limitations. (See also Part 6.2.2.1)

Table 8.K-2 identifies effluent limits that apply to storm water discharges from the industrial activities described below. Compliance with these effluent limits is to be determined based on discharges from these industrial activities independent of commingling with any other wastestreams that may be covered under this permit.

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Industrial Activity	Parameter	Effluent Limit
Discharges from hazardous waste landfills subject to effluent limitations in 40 CFR Part 445 Subpart A (see footnote).	Biochemical Oxygen Demand (BOD <sub>5</sub> )	220 mg/L, daily maximum
		56 mg/L, monthly avg. maximum
	Total Suspended Solids (TSS)	88 mg/L, daily maximum
		27 mg/L, monthly avg. maximum
	Ammonia	10 mg/L, daily maximum
		4.9 mg/L, monthly avg. maximum
	Alpha Terpineol	0.042 mg/L, daily maximum
		0.019 mg/L, monthly avg. maximum
	Aniline	0.024 mg/L, daily maximum
		0.015 mg/L, monthly avg. maximum
	Benzoic Acid	0.119 mg/L, daily maximum
		0.073 mg/L, monthly avg. maximum
	Naphthalene	0.059 mg/L, daily maximum
		0.022 mg/L, monthly avg. maximum
	p-Cresol	0.024 mg/L, daily maximum
		0.015 mg/L, monthly avg. maximum
	Phenol	0.048 mg/L, daily maximum
		0.029 mg/L, monthly avg. maximum
	Pyridine	0.072 mg/L, daily maximum
		0.025 mg/L, monthly avg. maximum
Total Arsenic	1.1 mg/L, daily maximum	
	0.54 mg/L, monthly avg. maximum	
Total Chromium	1.1 mg/L, daily maximum	
	0.46 mg/L, monthly avg. maximum	
Total Zinc	0.535 mg/L, daily maximum	
	0.296 mg/L, monthly avg. maximum	
	pH	6.0-9.0 s.u.

<sup>1</sup> Monitor annually.

<sup>2</sup> As set forth at 40 CFR Part 445 Subpart A, these numeric limitations apply to contaminated storm water discharges from hazardous waste landfills subject to the provisions of RCRA Subtitle C at 40 CFR Parts 264 (Subpart N) and 265 (Subpart N) **except for discharges from any of the following facilities:**

- (a) landfills operated in conjunction with other industrial or commercial operations when the landfill receives only wastes generated by the industrial or commercial operation directly associated with the landfill;

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- (b) landfills operated in conjunction with other industrial or commercial operations when the landfill receives wastes generated by the industrial or commercial operation directly associated with the landfill and also receives other wastes, provided that the other wastes received for disposal are generated by a facility that is subject to the same provisions in 40 CFR Subchapter N as the industrial or commercial operation or that the other wastes received are of similar nature to the wastes generated by the industrial or commercial operation;
- (c) landfills operated in conjunction with Centralized Waste Treatment (CWT) facilities subject to 40 CFR Part 437, so long as the CWT facility commingles the landfill wastewater with other non-landfill wastewater for discharge. A landfill directly associated with a CWT facility is subject to this part if the CWT facility discharges landfill wastewater separately from other CWT wastewater or commingles the wastewater from its landfill only with wastewater from other landfills; or
- (d) landfills operated in conjunction with other industrial or commercial operations when the landfill receives wastes from public service activities, so long as the company owning the landfill does not receive a fee or other remuneration for the disposal service.

**Sector 8.L – Landfills, Land Application Sites, and Open Dumps.**

Subsector	SIC Code	Activity Represented
L1	LF	All Landfills, Land Application Sites and Open Dumps

**8.L.1 Covered Storm Water Discharges.**

The requirements in Subpart L apply to storm water discharges associated with industrial activity from Landfills and Land Application Sites and Open Dumps as identified by the Activity Code specified above.

**8.L.2 Industrial Activities Covered by Sector L.**

This permit may authorize storm water discharges for Sector L facilities associated with waste disposal at landfills, land application sites, and open dumps that receive or have received industrial waste, including sites subject to regulation under Subtitle D of RCRA.

8.L.2.1 *On-site Borrow Areas.* Clearing for, and operation of, a borrow pit for cover at a landfill is considered to be part of the normal operation of a landfill. The storm water discharges from such borrow pit activities are covered under this permit, as long as the removed soil is not transferred to others for use elsewhere. Borrow pits covered by an NPDES Construction Storm Water General Permit are not subject to the IGP.

8.L.2.2 *Solid Waste Transfer Stations.* Refer to Sector P.

**8.L.3 Limitations on Coverage.**

8.L.3.1 *Prohibition of Non-Storm Water Discharges.* (See also Part 1.1.4) The following discharges are not authorized by this permit: leachate, gas collection condensate, drained free liquids, contaminated ground water, laboratory-derived wastewater, and contact washwater from washing truck and railcar exteriors and surface areas that have come in direct contact with solid waste at the landfill facility. Construction one acre or greater in size is not covered by this permit.

8.L.3.2 *Closed Landfills.* Permit coverage is not required where a site has achieved final regulatory closure with respect to solid waste regulations, and where the entire landfill area has been filled in, re-graded, and finally stabilized. If the landfill has been closed according to EPD regulations (including re-grading and stabilization) and is in the regulatory post closure monitoring period, then permit coverage is not required as long as there is no industrial activity occurring at the site and no material is exposed. Industrial activity may include, but is not limited to, associated vehicles and equipment, material handling or storage areas, buildings, waste or material storage piles, and access roads.

8.L.3.2.1 Closed or inactive landfills that are no longer in use but have not received closure approval from EPD are considered to still have discharges associated with industrial activity and coverage should be maintained as an inactive landfill (See also 4.1.3 and 6.2.1.3).

**8.L.4 Definitions.**

8.L.4.1 *Contaminated storm water* - Storm water that comes into direct contact with landfill wastes, waste handling and treatment areas, or landfill wastewater. Some areas of a landfill that may produce contaminated storm water include but are not limited to the open face of an active landfill with exposed waste (no cover added); the areas around wastewater treatment operations; trucks, equipment, or machinery that has been in direct contact with the waste; and waste dumping areas.



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8.L.4.2 *Drained free liquids* - Aqueous wastes drained from waste containers (e.g., drums) prior to landfilling.

8.L.4.3 *Inactive Landfill* - A site or portion of a site where landfilling or landfilling activities occurred in the past but is not an active landfill and maintains authorization under this general permit.

8.L.4.4 *Industrial Waste* - Solid waste from manufacturing portions of industrial activities defined in this general permit.

8.L.4.5 *Landfill wastewater* - As defined in 40 CFR Part 445 (Landfills Point Source Category) all wastewater associated with, or produced by, landfilling activities except for sanitary wastewater, non-contaminated storm water, contaminated groundwater, and wastewater from recovery pumping wells.

8.L.4.6 *Leachate* - Liquid that has passed through or emerged from solid waste and contains soluble, suspended, or miscible materials removed from such waste.

8.L.4.7 *Non-contaminated storm water* - Storm water that does not come into direct contact with landfill wastes, the waste handling and treatment areas, or landfill wastewater. Non-contaminated storm water includes storm water that flows off the cap, cover, intermediate cover, daily cover, and/or final cover of the landfill.

8.L.4.8 *Open Dump* - A facility for the disposal of solid waste that is not otherwise defined in this section.

#### **8.L.5 Additional Technology-Based Effluent Limits.**

8.L.5.1 *Preventive Maintenance Program.* (See also Part 2.1.2.3) As part of the permittee's preventive maintenance program, maintain the following: all elements of leachate collection and treatment systems (prevent commingling of leachate with storm water); the integrity and effectiveness of any intermediate or final cover, including repairing the cover as necessary (to minimize the effects of settlement, sinking, and erosion).

8.L.5.2 *Erosion and Sedimentation Control.* (See also Part 2.1.2.5) Provide temporary stabilization (e.g., temporary seeding, mulching, and placing geotextiles on the inactive portions of stockpiles) for the following: materials stockpiled for daily, intermediate, and final cover; inactive areas of the landfill or open dump; landfills or open dump areas that have gotten final covers but where vegetation has yet to establish itself; and land application sites where waste application has been completed but final vegetation has not yet been established.

8.L.5.3 *Unauthorized Discharge Test Certification.* (See also Part 5.1.3.4) The discharge test and certification must also be conducted for the presence of leachate and vehicle washwater.

#### **8.L.6 Additional SWPPP Requirements.**

8.L.6.1 *Drainage Area Site Map.* (See also Part 5.1.2) Document in the SWPPP where any of the following may be exposed to precipitation or surface runoff: active and closed landfill cells or trenches, active and closed land application areas, locations where open dumping is occurring or has occurred, locations of any known leachate springs or other areas where uncontrolled leachate may commingle with runoff, and leachate collection and handling systems.

8.L.6.2 *Summary of Potential Pollutant Sources.* (See also Part 5.1.3) Document in the SWPPP the following sources and activities that have potential pollutants associated with them: fertilizer, herbicide, and pesticide application; earth and soil moving; waste hauling and loading or unloading; outdoor storage of significant materials, including daily, interim, and final cover material stockpiles as well as temporary waste storage areas; exposure of active and inactive landfill and land application areas; uncontrolled leachate flows; and failure or leaks from leachate collection and treatment systems.

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**8.L.7 Additional Inspection Requirements. (See also Part 4)**

8.L.7.1 *Inspections of Active Sites.* Inspect operating landfills, open dumps, and land application sites at least quarterly. Focus on areas of landfills that have not yet been finally stabilized; active land application areas, areas used for storage of material and wastes that are exposed to precipitation, stabilization, and structural control measures; leachate collection and treatment systems; and locations where equipment and waste trucks enter and exit the site. Ensure that erosion and sediment control measures are operating properly.

8.L.7.2 *Inspections of Inactive Sites.* Inspect inactive landfills, open dumps, and land application sites at least quarterly. Qualified personnel must inspect landfill (or open dump) stabilization and structural erosion control measures, leachate collection and treatment systems, and all closed land application areas.

**8.L.8 Additional Post-Authorization Documentation Requirements.**

8.L.1 *Recordkeeping and Internal Reporting.* Keep records with the SWPPP of the types of wastes disposed of in each cell or trench of a landfill or open dump. For land application sites, track the types and quantities of wastes applied in specific areas.

**8.L.9 Sector-Specific Benchmarks. (See also Part 6)**

Table 8.L-1 identifies benchmarks that apply to Sector L. These benchmarks apply to each of the outfalls whether described by the primary industrial activity, any applicable co-located industrial activities, or both.

<b>Table 8.L-1</b>		
<b>Subsector</b> (Permittees may be subject to requirements for more than one sector/subsector)	<b>Parameter</b>	<b>Benchmark Monitoring Concentration<sup>1</sup></b>
<b>Subsector L1.</b> All Landfills, Land Application Sites, and Open Dumps	Total Suspended Solids (TSS)	100 mg/L

<sup>1</sup>Benchmark monitoring required only for discharges not subject to effluent limitations in 40 CFR Part 445 Subpart B (see Table L-2 below).

**8.L.10. Effluent Limitations. (See also Part 6.2.2.1)**

Table 8.L-2 identifies effluent limits that apply to contaminated storm water discharges from the industrial activities described below (See 8.L.4.1). Compliance with these effluent limits is to be determined based on discharges from these industrial activities independent of commingling with any other wastestreams that may be covered under this permit.

<b>Table 8.L-2<sup>1, 2</sup></b>		
<b>Industrial Activity</b>	<b>Parameter</b>	<b>Effluent Limit</b>
Discharges from non-hazardous waste landfills subject to effluent limitations in 40 CFR Part 445 Subpart B.	Biochemical Oxygen Demand (BOD <sub>5</sub> )	140 mg/L, daily maximum
		37 mg/L, monthly avg. maximum
	Total Suspended Solids (TSS)	88 mg/L, daily maximum
		27 mg/L, monthly avg. maximum
Ammonia	10 mg/L, daily maximum	
	4.9 mg/L, monthly avg. maximum	

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<b>Industrial Activity</b>	<b>Parameter</b>	<b>Effluent Limit</b>
	Alpha Terpineol	0.033 mg/L, daily maximum
		0.016 mg/L monthly avg. maximum
	Benzoic Acid	0.12 mg/L, daily maximum
		0.071 mg/L, monthly avg. maximum
	p-Cresol	0.025 mg/L, daily maximum
		0.014 mg/L, monthly avg. maximum
	Phenol	0.026 mg/L, daily maximum
		0.015 mg/L, monthly avg. maximum
	Total Zinc	0.20 mg/L, daily maximum
		0.11 mg/L, monthly avg. maximum
	pH	6.0-9.0 s.u.

<sup>1</sup> Monitor annually.

<sup>2</sup> As set forth at 40 CFR Part 445 Subpart B, these numeric limitations apply to contaminated storm water discharges from Municipal Solid Waste Landfills (MSWLFs) that have not been closed in accordance with 40 CFR 258.60, and to contaminated storm water discharges from those landfills that are subject to the provisions of 40 CFR Part 257 **except for discharges from any of the following facilities:**

- (a) landfills operated in conjunction with other industrial or commercial operations, when the landfill receives only wastes generated by the industrial or commercial operation directly associated with the landfill;
- (b) landfills operated in conjunction with other industrial or commercial operations, when the landfill receives wastes generated by the industrial or commercial operation directly associated with the landfill and also receives other wastes, provided that the other wastes received for disposal are generated by a facility that is subject to the same provisions in 40 CFR Subchapter N as the industrial or commercial operation, or that the other wastes received are of similar nature to the wastes generated by the industrial or commercial operation;
- (c) landfills operated in conjunction with Centralized Waste Treatment (CWT) facilities subject to 40 CFR Part 437, so long as the CWT facility commingles the landfill wastewater with other non-landfill wastewater for discharge. A landfill directly associated with a CWT facility is subject to this part if the CWT facility discharges landfill wastewater separately from other CWT wastewater or commingles the wastewater from its landfill only with wastewater from other landfills; or
- (d) landfills operated in conjunction with other industrial or commercial operations when the landfill receives wastes from public service activities, so long as the company owning the landfill does not receive a fee or other remuneration for the disposal service.

**Sector 8.M – Automobile Salvage Yards.**

Subsector	SIC Code	Activity Represented
M1	5015	Automobile Salvage Yards

**8.M.1 Covered Storm Water Discharges.**

The requirements in Sector M apply to storm water discharges associated with industrial activity from Automobile Salvage Yards as identified by the SIC Code specified above. When a facility has industrial activities being conducted on-site that meet the description(s) of 8.M.1(a) or (b), the facility shall comply with the sampling requirements stated in Table 8.M-1.

- a. Over 50 auto/truck bodies with drivelines (engine, transmission, axles, and wheels), 50 drivelines, or any combination thereof (in whole or in parts) that are exposed to storm water;
- b. Over 50 units per year are dismantled and automotive fluids are drained or stored in areas exposed to storm water.

**8.M.2 Additional Technology-Based Effluent Limits.**

**8.M.2.1 Spill and Leak Prevention Procedures.** (See also Part 2.1.2.4) Drain vehicles intended to be dismantled of all fluids upon arrival at the site (or as soon thereafter as feasible), or employ some other equivalent means to prevent spills and leaks. An example of other equivalent means would be placing vehicles not drained upon arrival on an impermeable area that is bermed and/or drains to a sump to capture any potential fluid leaks. Following are some control measure options:

- (a) Install alarms and/or pump shutoff systems on outdoor equipment with hydraulic reservoirs exceeding 150 gallons in the event of a line break. Alternatively, a secondary containment system capable of holding the entire contents of the reservoir plus room for precipitation can be used;
- (b) Use a mercury spill kit for any release of mercury from switches, anti-lock brake systems, and switch storage areas. Use dry-absorbents or other cleanup practices to collect and dispose of or recycle spilled or leaking fluids;
- (c) If malfunctioning equipment is responsible for the spill/leak, repairs shall be made as soon as possible;
- (d) Drums containing liquids, especially oil and lubricants, shall be stored: indoors; in a bermed area; in overpack containers or spill pallets; or in similar containment devices; and
- (e) Drip pans or equivalent measures shall be placed under any leaking piece of stationary equipment until the leak is repaired. The drips pans shall be inspected for leaks and potential overflow and all liquids properly disposed of in accordance with Federal, State and local requirements.

**8.M.2.2 Inbound Material Control.** Minimize the chance of accepting vehicles or vehicle parts that could be significant sources of pollutants by conducting inspections of inbound materials. Following are some control measure options:

- (a) Educate suppliers of material on draining and properly disposing of residual fluids (e.g., engines, radiators, and transmissions, and oily parts) and removal of mercury switches from vehicles before delivery to the facility;
- (b) Provide training targeted for those personnel engaged in the inspection and acceptance of inbound recyclable materials; education of personnel shall include draining and properly

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disposing of residual fluids upon delivery to the facility (e.g., from vehicles and equipment engines, radiators and transmissions, oil filled transformers, and individual containers or drums) and removal of mercury switches from vehicles prior to any action that could expose the mercury in the switches to storm water;

(c) Use a mercury spill kit for any release of mercury from switches, anti-lock brake systems, and switch storage areas. Use dry-absorbents or other cleanup practices to collect and dispose of or recycle spilled or leaking fluids;

(d) Establish procedures to minimize the potential of any residual fluids from coming into contact with precipitation or runoff;

(e) Establish procedures for accepting/removing batteries; and

(f) Establish procedures to ensure that liquid wastes, including used oil, are stored in materially compatible and non-leaking containers and are disposed of or recycled in accordance with Federal, State and local requirements. Permittees must regularly maintain the oil and water separator (or its equivalent) and properly dispose of or recycle collected residual fluids.

8.M.2.3 *Employee Training.* (See also Part 5.1.1.2) If applicable to the facility, address the following areas (at a minimum) in the employee training program: proper handling (collection, storage, and disposal) of oil, gasoline, used mineral spirits, anti-freeze, mercury switches, batteries and solvents.

8.M.2.4 *Management of Runoff.* (See also Part 2.1.2.6) Minimize contact of storm water runoff with stock-piled materials. Following are some control measure options:

(a) Berms or drainage ditches on the property line to help prevent run-on from neighboring properties;

(b) Dikes, berms, containment trenches, culverts, and surface grading to divert runoff from storage of oily parts, engine blocks, and above-ground liquid storage;

(c) Installation of detention ponds;

(d) Oil and water separators, sumps, and dry absorbents for areas where potential sources of residual fluids are stockpiled (e.g., automobile engine storage areas); and

(e) Permanent or semi-permanent covers.

8.M.2.5 *Erosion and Sedimentation for Unstabilized Areas.* Due to daily operations as well as expansions, maintain adequate erosion and sediment control in accordance with the Manual for Erosion and Sediment Control in Georgia, 5<sup>th</sup> edition, latest edition, as applicable. (See Part 2.1.2.5). Following are some control measure options:

(a) Gravel;

(b) Silt fencing; and

(c) Sediment traps, vegetated swales and strips, catch basin filters, and sand filters to facilitate settling or filtering of pollutants.

8.M.2.6 *Scrap Lead-Acid Battery Program.* Properly handle, store, and dispose of scrap lead-acid batteries. Following are some control measure options:

(a) Segregate scrap lead-acid batteries from other scrap materials;

(b) Properly handle, store, and dispose of cracked or broken batteries;

(c) Collect and dispose of leaking lead-acid battery fluid;

(d) Eliminate exposure of scrap lead-acid batteries to precipitation or runoff; and

(e) Provide employee training for the management of scrap batteries.

### 8.M.3 Additional SWPPP Requirements.

8.M.3.1 *Drainage Area Site Map.* (See also Part 5.1.2) Identify locations used for dismantling, storage, and maintenance of used motor vehicle parts. Also identify where any of the following may be exposed to precipitation or surface runoff: dismantling areas, parts (e.g., engine blocks, tires, hub caps, batteries, hoods, mufflers) storage areas, and liquid storage tanks and drums for fuel and other fluids.

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8.M.3.2 *Potential Pollutant Sources.* (See also Part 5.1.3) Assess the potential for the following to contribute pollutants to storm water discharges: vehicle storage areas, dismantling areas, parts storage areas (e.g., engine blocks, tires, hub caps, batteries, hoods, mufflers), and fueling stations.

**8.M.4 Additional Inspection Requirements. (See also Part 4)**

Immediately or as soon thereafter as feasible inspect vehicles arriving at the site for leaks. Inspect quarterly for signs of leakage all equipment containing oily parts, hydraulic fluids, or any other types of fluids. Also, inspect quarterly for signs of leakage of all vessels and areas where hazardous materials and general automotive fluids are stored, including, but not limited to, brake fluid, transmission fluid, radiator water, and antifreeze.

**8.M.5 Sector-Specific Benchmarks. (See also Part 6)**

These benchmarks apply to each of the outfalls whether described by the primary industrial activity, any applicable co-located industrial activities, or both.

<b>Subsector</b> (Permittees may be subject to requirements for more than one sector/subsector)	<b>Parameter</b>	<b>Benchmark Monitoring Concentration</b>
<b>Subsector M1.</b> Automobile Salvage Yards (SIC 5015)	Total Suspended Solids (TSS)	100 mg/L
	Oil & Grease	15 mg/L
	Chemical Oxygen Demand (COD)	120 mg/L
	Dissolved Lead <sup>1</sup>	Hardness Dependent
	pH	6 – 9 s.u.

<sup>1</sup> The benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness in accordance with Appendix E, "Determining Benchmarks for Hardness Dependent Metals" (Part 6.2.1.1), to identify the applicable 'hardness range' for determining their benchmark value applicable to their facility. The ranges occur in 25 mg/L increments.

**Sector 8.N – Scrap Recycling Facilities.**

Subsector	SIC Code	Activity Represented
N1	5093	Scrap Recycling Facilities and Liquid Recycling Facilities
N2	5093	Source-separated Recycling Facility

**8.N.1 Covered Storm Water Discharges.**

The requirements in Sector N apply to storm water discharges associated with industrial activity from Scrap Recycling facilities as identified by the SIC Code specified above.

**8.N.2 Industrial Activities Covered by Sector N.**

This permit authorizes storm water discharges from the following three types of industrial activities at Sector N facilities:

- (a) **Scrap recycling facilities (Part 8.N.4.1)** - facilities that are engaged in the processing, reclaiming, and wholesale distribution of scrap materials such as ferrous and nonferrous metals, plastics, glass, cardboard and paper.
- (b) **Liquid recycling facilities (Part 8.N.4.2)** - facilities that are engaged in reclaiming and recycling liquid materials such as used oil, antifreeze, mineral spirits and industrial solvents.
- (c) **Source-separated recycling facilities (Part 8.N.4.3)** - facilities primarily engaged in accepting materials from nonindustrial and residential sources such as common consumer products including paper, newspaper, glass cardboard, plastic containers, aluminum and tin cans.

**8.N.3 Limitations on Coverage.**

8.N.3.1 *Solid Waste Handling Facilities.* This permit does not apply to solid waste handling facilities including solid waste transfer facilities, which are covered in the land transportation and warehousing sector (Sector P) as SIC 4212: “local collecting and hauling of garbage without disposal”.

8.N.3.2 *Prohibition of Non-Storm Water Discharges.* (See also Part 1.1.4) Non-storm water discharges from turnings containment areas are not covered by this permit (see also Part 8.N.4.1.3). Discharges from containment areas in the absence of a storm event are prohibited unless covered by a separate NPDES permit.

**8.N.4 Additional Technology-Based Effluent Limits.**

The permittee shall describe in the SWPPP and implement a program to address those items that apply. Included are lists of BMP options specific for each category of recycling facility that, along with any functional equivalents, shall be considered for implementation. Selection or deselection of a particular BMP or approach is up to the best professional judgment of the permittee, as long as the objective of the requirement is met.

**8.N.4.1 Scrap Recycling Facilities.** Requirements for facilities that receive, process, and do wholesale distribution of nonliquid recyclable materials (e.g., ferrous and nonferrous metals, plastics, glass, cardboard, and paper). These facilities may receive both nonrecyclable and recyclable materials. This section is not intended for those facilities that only accept source-separated recyclable materials primarily from non-industrial and residential sources, which are addressed in Part 8.N.4.3.

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8.N.4.1.1 *Inbound Material Control Program.* The SWPPP shall include a recyclable and waste material inspection program to minimize the likelihood of receiving materials that may be significant pollutant sources to storm water discharges. Following are some control measure options:

- (a) Establish procedures to minimize the potential of any residual fluids from coming into contact with precipitation or runoff;
- (b) Establish procedures for accepting scrap lead-acid batteries (additional requirements for the handling, storage, and disposal or recycling of batteries are contained in the scrap lead-acid battery program provisions in Part 8.N.4.1.6);
- (c) Provide training targeted for those personnel engaged in the inspection and acceptance of inbound recyclable materials; education of personnel shall include draining and properly disposing of residual fluids upon delivery to the facility (e.g., from vehicles and equipment engines, radiators and transmissions, oil filled transformers, and individual containers or drums) and removal of mercury switches from vehicles prior to any action that could expose the mercury in the switches to storm water; and
- (d) Establish procedures to ensure that liquid wastes, including used oil, are stored in materially compatible and non-leaking containers and are disposed of or recycled in accordance with Federal, State and local requirements.

8.N.4.1.2 *Scrap and Waste Material Stockpiles and Storage (Outdoor).* Minimize contact of storm water runoff with stockpiled materials, processed materials, and non-recyclable wastes. Following are some control measure options:

- (a) Permanent or semi-permanent covers;
- (b) Sediment traps, vegetated swales and strips, catch basin filters, and sand filters to facilitate settling or filtering of pollutants;
- (c) Dikes, berms, containment trenches, culverts, and surface grading to divert runoff from storage areas;
- (d) Silt fencing; and
- (e) Oil and water separators, sumps, and dry absorbents for areas where potential sources of residual fluids are stockpiled (e.g., automobile engine storage areas).

8.N.4.1.3 *Stockpiling of Turnings Exposed to Cutting Fluids (Outdoor Storage).* Non-storm water discharges from turnings containment areas are not covered by this permit. Minimize contact of surface runoff with residual cutting fluids using the following options:

- (a) Store all turnings exposed to cutting fluids under some form of permanent or semi-permanent cover, or
- (b) Establish dedicated containment areas for all turnings that have been exposed to cutting fluids. Storm water runoff from these areas can be discharged provided:
  1. Any containment area must be constructed of concrete, asphalt, or other equivalent types of impermeable material;
  2. There is a barrier (e.g., berms, curbing, elevated pads) around the perimeter of the containment areas to prevent contact with storm water run-on; and
  3. Runoff is collected and treated by an oil and water separator or its equivalent. Permittees must regularly maintain the oil and water separator (or its equivalent) and properly dispose of or recycle collected residual fluids.

8.N.4.1.4 *Scrap and Waste Material Stockpiles and Storage (Covered or Indoor Storage).* Minimize contact of residual liquids and particulate matter from materials stored indoors or under cover with surface runoff. Following are some control measure options:



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- (a) Good housekeeping measures, including the use of dry absorbents or wet vacuuming to contain, dispose of, or recycle residual liquids originating from recyclable containers, or mercury spill kits for spills from storage of mercury switches;
- (b) Not allowing washwater from tipping floors or other processing areas to discharge to the storm sewer system; and
- (c) Disconnecting or sealing off all floor drains connected to the storm sewer system.

8.N.4.1.5 *Scrap and Recyclable Processing Areas.* Minimize surface runoff from coming in contact with scrap processing equipment. Pay attention to operations that generate visible amounts of particulate residue (e.g., shredding) to minimize the contact of accumulated particulate matter and residual fluids with runoff (i.e., through good housekeeping, preventive maintenance). Following are some control measure options:

- (a) Regularly inspect equipment for spills or leaks and malfunctioning, worn, or corroded parts or equipment;
- (b) Establish a preventive maintenance program for processing equipment;
- (c) Use dry-absorbents or other cleanup practices to collect and dispose of or recycle spilled or leaking fluids or use mercury spill kits for spills from storage of mercury switches;
- (d) On unattended hydraulic reservoirs over 150 gallons in capacity, install protection devices such as alarms or equivalent devices, or secondary containment that can hold the entire volume of the reservoir;
- (e) Containment or diversion structures such as dikes, berms, culverts, trenches, elevated concrete pads, and grading to minimize contact of storm water runoff with outdoor processing equipment or stored materials;
- (f) Oil and water separators or sumps;
- (g) Permanent or semi-permanent covers in processing areas where there are residual fluids and grease;
- (h) Retention or detention ponds or basins; sediment traps, and vegetated swales or strips (for pollutant settling and filtration); and
- (i) Catch basin filters or sand filters.

8.N.4.1.6 *Scrap Lead-Acid Battery Program.* Properly handle, store, and dispose of scrap lead-acid batteries. Following are some control measure options:

- (a) Segregate scrap lead-acid batteries from other scrap materials;
- (b) Properly handle, store, and dispose of cracked or broken batteries;
- (c) Collect and dispose of leaking lead-acid battery fluid;
- (d) Eliminate exposure of scrap lead-acid batteries to precipitation or runoff; and
- (e) Provide employee training for the management of scrap batteries.

8.N.4.1.7 *Spill Prevention and Response Procedures.* (See also Part 2.1.2.4)

- (a) Install alarms and/or pump shutoff systems on outdoor equipment with hydraulic reservoirs exceeding 150 gallons in the event of a line break. Alternatively, a secondary containment system capable of holding the entire contents of the reservoir plus room for precipitation can be used;
- (b) Use a mercury spill kit for any release of mercury from switches, anti-lock brake systems, and switch storage areas. Use dry-absorbents or other cleanup practices to collect and dispose of or recycle spilled or leaking fluids;
- (c) If malfunctioning equipment is responsible for the spill/leak, repairs shall be made as soon as possible;

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- (d) Drums containing liquids, especially oil and lubricants, shall be stored: indoors; in a bermed area; in overpack containers or spill pallets; or in similar containment devices; and
- (e) Drip pans or equivalent measures shall be placed under any leaking piece of stationary equipment until the leak is repaired. The drips pans shall be inspected for leaks and potential overflow and all liquids properly disposed of in accordance with Federal, State and local requirements.

8.N.4.1.8 *Supplier Notification Program*. As appropriate, notify major suppliers which scrap materials will not be accepted at the facility or will be accepted only under certain conditions.

#### **8.N.4.2 Liquid Recycling Facilities.**

8.N.4.2.1 *Material Storage (Indoor)*. Minimize or eliminate contact between residual liquids from waste materials stored indoors and from surface runoff. The SWPPP may refer to applicable portions of other existing plans, such as Spill Prevention, Control, and Countermeasure (SPCC) plans required under 40 CFR Part 112. Following are some control measure options:

- (a) Procedures for material handling (including labeling and marking);
- (b) Clean up spills and leaks with dry absorbent materials or a wet vacuum system;
- (c) Disconnecting or sealing off all floor drains connected to the storm sewer system;
- (d) Appropriate containment structures (trenching, curbing, gutters, etc.); and
- (e) A drainage system, including appurtenances (e.g., pumps or ejectors, manually operated valves), to handle discharges from diked or bermed areas. Drainage should be discharged to an appropriate treatment facility or sanitary sewer system, or otherwise disposed of properly. These discharges may require coverage under a separate NPDES wastewater permit.

8.N.4.2.2 *Material Storage (Outdoor)*. Minimize contact between stored residual liquids and precipitation or runoff. The SWPPP may refer to applicable portions of other existing plans, such as SPCC plans required under 40 CFR Part 112. Discharges of precipitation from containment areas containing used oil must also be in accordance with applicable sections of 40 CFR Part 112. Following are some control measure options:

- (a) Appropriate containment structures (e.g., dikes, berms, curbing, pits) to store the volume of the largest tank, with sufficient extra capacity for precipitation;
- (b) Drainage control and other diversionary structures;
- (c) Corrosion protection and/or leak detection systems for storage tanks; and
- (d) Dry-absorbent materials or a wet vacuum system to collect spills.

8.N.4.2.3 *Trucks and Rail Car Material Transfer Areas*. Minimize pollutants in discharges from truck and rail car loading and unloading areas. Include measures to clean up minor spills and leaks resulting from the transfer of liquid materials. Following are two control measure options:

- (a) Containment and diversionary structures to minimize contact with precipitation or runoff; and
- (b) Dry clean-up methods, wet vacuuming, roof coverings, or runoff controls.

**8.N.4.3 Source-Separated Materials Recycling Facilities.** The following identifies considerations for facilities that receive only source-separated recyclables, primarily from non-industrial and residential sources.

8.N.4.3.1 *Inbound Recyclable Material Control*. Minimize the chance of accepting non-recyclables (e.g., hazardous materials) that could be a significant source of pollutants by conducting inspections of inbound materials. Following are some control measure options:

- (a) Provide information and education measures to inform suppliers of recyclables about acceptable and non-acceptable materials;

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- (b) Training drivers responsible for pickup of recycled material;
- (c) Clearly marking public drop-off containers regarding which materials can be accepted;
- (d) Rejecting nonrecyclable wastes or household hazardous wastes at the source; and
- (e) Establishing procedures for handling and disposal of nonrecyclable material.

8.N.4.3.2 *Outdoor Storage.* Minimize exposure of recyclables to precipitation and runoff. Use good housekeeping measures to prevent accumulation of particulate matter and fluids, particularly in high traffic areas. Following are some control measure options:

- (a) Provide totally enclosed drop-off containers for the public;
- (b) Install a sump and pump with each container pit and treat or discharge collected fluids to a sanitary sewer system;
- (c) Provide dikes and curbs for secondary containment (e.g., around bales of recyclable waste paper);
- (d) Divert surface water runoff away from outside material storage areas;
- (e) Provide covers over containment bins, dumpsters, and roll-off boxes; and
- (f) Store the equivalent of one day's volume of recyclable material indoors.

8.N.4.3.3 *Indoor Storage and Material Processing.* Minimize the release of pollutants from indoor storage and processing areas. Following are some control measure options:

- (a) Schedule routine good housekeeping measures for all storage and processing areas;
- (b) Disconnecting or sealing off all floor drains connected to the storm sewer system;
- (c) Prohibit tipping floor washwater from draining to the storm sewer system; and
- (d) Provide employee training on pollution prevention practices.

8.N.4.3.4 *Vehicle and Equipment Maintenance.* Vehicle and equipment washwater is prohibited from discharging to the storm sewer system (see Part 1.1.4.1.b). Following are some control measure options for areas where vehicle and equipment maintenance occur outdoors:

- (a) Disconnect or seal off all floor drains connected to the storm sewer system;
- (b) Minimize or eliminate outdoor maintenance areas whenever possible;
- (c) Establish spill prevention and clean-up procedures in fueling areas;
- (d) Avoid topping off fuel tanks;
- (e) Divert runoff from fueling areas;
- (f) Store lubricants and hydraulic fluids indoors; and
- (g) Provide employee training on proper handling and storage of hydraulic fluids and lubricants.

### **8.N.5 Additional SWPPP Requirements For All Recycling Facilities.**

8.N.5.1 *Drainage Area Site Map.* (See also Part 5.1.2) Document locations in the SWPPP of any of the following activities or sources that may be exposed to precipitation or surface runoff, for example, scrap and waste material storage, outdoor scrap and waste processing equipment, and containment areas for turnings exposed to cutting fluids, and liquid material storage.

8.N.5.2 *Maintenance Schedules/Procedures for Collection, Handling, and Disposal or Recycling of Residual Fluids at Scrap Recycling Facilities.* If the permittee is subject to Part 8.N.4.1.3, the SWPPP must identify any applicable maintenance schedule and the procedures to collect, handle, and dispose of or recycle residual fluids.

### **8.N.6 Additional Inspection Requirements.**

8.N.6.1 *Inspections for Recycling Facilities.* The inspections must be performed quarterly, pursuant to Part 4, and include, at a minimum, all areas:

- (a) Where waste is generated, received, stored, treated, or disposed of and that are exposed to either precipitation or storm water runoff; and/or

- (b) Where recycling materials are received, stored, treated or processed and that are exposed to either precipitation or storm water runoff.

### 8.N.7 Sector-Specific Benchmarks. (See also Part 6)

These benchmarks apply to each of the outfalls whether described by the primary industrial activity, any applicable co-located industrial activities, or both.

<b>Table 8.N-1</b>		
<b>Subsector</b> (Permittees may be subject to requirements for more than one sector/subsector)	<b>Parameter</b>	<b>Benchmark Monitoring Concentration</b>
<b>Subsector N1.</b> Scrap Recycling and Liquid Recycling Facilities (SIC 5093)	Chemical Oxygen Demand (COD)	120 mg/L
	Oil & Grease	15 mg/L
	Dissolved Copper <sup>1</sup>	Hardness Dependent
	Dissolved Lead <sup>1</sup>	Hardness Dependent
	Dissolved Zinc <sup>1</sup>	Hardness Dependent
	Total Suspended Solids (TSS)	100 mg/L

<sup>1</sup> The benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness in accordance with Appendix E, "Determining Benchmarks for Hardness Dependent Metals" (Part 6.2.1.1), to identify the applicable 'hardness range' for determining their benchmark value applicable to their facility. The ranges occur in 25 mg/L increments.

**Sector 8.O – Steam Electric Generating Facilities.**

Subsector	SIC Code	Activity Represented
O1	SE	Steam Electric Generating Facilities, including coal handling sites

**8.O.1 Covered Storm water Discharges.**

The requirements in Sector O apply to storm water discharges associated with industrial activity from Steam Electric Power Generating Facilities as identified by the Activity Code specified above.

**8.O.2 Industrial Activities Covered by Sector O.**

This permit authorizes storm water discharges from the following industrial activities at Sector O facilities:

- a. Steam electric power generation using coal, natural gas, oil, nuclear energy, etc., to produce a steam source, including coal handling areas;
- b. Coal pile runoff, including effluent limitations established by 40 CFR Part 423; and
- c. Dual fuel facilities that could employ a steam boiler.

**8.O.3 Limitations on Coverage.**

8.O.3.1 *Prohibition of Non-Storm Water Discharges.* Non-storm water discharges subject to effluent limitations are not covered by this permit.

8.O.3.2 *Prohibition of Storm Water Discharges.* Storm water discharges from the following are not covered by this permit:

- a. Ancillary facilities (e.g., fleet centers and substations) that are not contiguous to a stream electric power generating facility;
- b. Gas turbine facilities (providing the facility is not a dual-fuel facility that includes a steam boiler), and combined-cycle facilities where no supplemental fuel oil is burned (and the facility is not a dual-fuel facility that includes a steam boiler); and
- c. Cogeneration (combined heat and power) facilities utilizing a gas turbine.

**8.O.4 Additional Technology-Based Effluent Limits.**

The following good housekeeping measures are required in addition to Part 2.1.2.2:

8.O.4.1 *Fugitive Dust Emissions.* Minimize fugitive dust emissions from coal handling areas. To minimize the tracking of coal dust offsite, consider procedures such as installing specially designed tires or washing vehicles in a designated area before they leave the site and controlling the wash water.

8.O.4.2 *Delivery Vehicles.* Minimize contamination of storm water runoff from delivery vehicles arriving at the plant site. Consider procedures to inspect delivery vehicles arriving at the plant site and ensure overall integrity of the body or container and procedures to deal with leakage or spillage from vehicles or containers.

8.O.4.3 *Fuel Oil Unloading Areas.* Minimize contamination of precipitation or surface runoff from fuel oil unloading areas. Consider using containment curbs in unloading areas, having personnel familiar with spill prevention and response procedures present during deliveries to ensure that any leaks or spills are contained and cleaned up as soon as possible, and using spill and overflow protection devices (e.g., drip pans, drip diapers, or other containment devices placed beneath fuel oil connectors to contain potential spillage during deliveries or from leaks at the connectors).

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8.O.4.4 *Chemical Loading and Unloading.* Minimize contamination of precipitation or surface runoff from chemical loading and unloading areas. Consider using containment curbs at chemical loading and unloading areas to contain spills, having personnel familiar with spill prevention and response procedures present during deliveries to ensure that any leaks or spills are contained and cleaned up as soon as possible, and loading and unloading in covered areas and storing chemicals indoors.

8.O.4.5 *Miscellaneous Loading and Unloading Areas.* Minimize contamination of precipitation or surface runoff from loading and unloading areas. Consider covering the loading area; grading, berming, or curbing around the loading area to divert run-on; locating the loading and unloading equipment and vehicles so that leaks are contained in existing containment and flow diversion systems; or equivalent procedures.

8.O.4.6 *Liquid Storage Tanks.* Minimize contamination of surface runoff from above-ground liquid storage tanks. Consider protective guards around tanks, containment curbs, spill and overflow protection, dry cleanup methods, or equivalent measures.

8.O.4.7 *Large Bulk Fuel Storage Tanks.* Minimize contamination of surface runoff from large bulk fuel storage tanks. Consider containment berms (or their equivalent). Permittees must also comply with applicable State and Federal laws, including Spill Prevention, Control, and Countermeasure (SPCC) Plan requirements.

8.O.4.8 *Spill Reduction Measures.* Minimize the potential for an oil or chemical spill, or reference the appropriate part of the SPCC plan. Visually inspect as part of the routine facility inspection the structural integrity of all above-ground tanks, pipelines, pumps, and related equipment that may be exposed to storm water, and make any necessary repairs as soon as possible.

8.O.4.9 *Oil-Bearing Equipment in Switchyards.* Minimize contamination of surface runoff from oil-bearing equipment in switchyard areas. Consider using level grades and gravel surfaces to retard flows and limit the spread of spills, or collecting runoff in perimeter ditches.

8.O.4.10 *Residue-Hauling Vehicles.* Inspect all residue-hauling vehicles for proper covering over the load, adequate gate sealing, and overall integrity of the container body. Repair vehicles without load covering or adequate gate sealing, or with leaking containers or beds.

8.O.4.11 *Ash Loading Areas.* Reduce or control the tracking of ash and residue from ash loading areas. Clear the ash building floor and adjacent roadways of spillage, debris, and excess water before departure of each loaded vehicle.

8.O.4.12 *Areas Adjacent to Disposal Ponds or Landfills.* Minimize contamination of surface runoff from areas adjacent to disposal ponds or landfills. Reduce ash residue that may be tracked on to access roads traveled by residue handling vehicles, and reduce ash residue on exit roads leading into and out of residue handling areas.

8.O.4.13 *Landfills, Scrap yards, Surface Impoundments, Open Dumps, General Refuse Sites.* Minimize the potential for contamination of runoff from these areas.

### **8.O.5 Additional SWPPP Requirements.**

8.O.5.1 *Drainage Area Site Map.* (See also Part 5.1.2) Document in the SWPPP the locations of any of the following activities or sources that may be exposed to precipitation or surface runoff: storage tanks, scrap yards, and general refuse areas; short-term and long-term storage of general materials (including but not limited to supplies, construction materials, paint equipment, oils, fuels, used and unused solvents, cleaning materials, paint, water treatment chemicals, fertilizer, and pesticides); landfills and construction sites; and stock pile areas (e.g., coal and limestone piles).

8.O.5.2 *Documentation of Good Housekeeping Measures.* Permittees must document in the SWPPP the good housekeeping measures implemented to meet the effluent limits in Part 8.O.4.

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**8.O.6 Additional Inspection Requirements.**

*Site Compliance Inspection.* (See also Part 4) As part of the permittee's inspection, inspect the following areas quarterly: coal handling areas, loading or unloading areas, switchyards, fueling areas, bulk storage areas, ash handling areas, areas adjacent to disposal ponds and landfills, maintenance areas, liquid storage tanks, and long-term and short-term material storage areas.

**8.O.7 Sector-Specific Benchmarks. (See also Part 6)**

Table 8.O-1 identifies benchmarks that apply to the specific subsectors of Sector O. These benchmarks apply to each of the outfalls whether described by the primary industrial activity, any applicable co-located industrial activities, or both.

<b>Subsector</b> (Permittees may be subject to requirements for more than one sector/subsector)	<b>Parameter</b>	<b>Benchmark Monitoring Concentration</b>
<b>Subsector O1.</b> Steam Electric Generating Facilities (Industrial Activity Code "SE")	Oil & Grease	15 mg/L
	Dissolved Copper <sup>1</sup>	Hardness Dependent
	Dissolved Nickel <sup>1</sup>	Hardness Dependent
	Dissolved Zinc <sup>1</sup>	Hardness Dependent

<sup>1</sup> The benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness in accordance with Appendix E, "Determining Benchmarks for Hardness Dependent Metals" (Part 6.2.1.1), to identify the applicable 'hardness range' for determining their benchmark value applicable to their facility. The ranges occur in 25 mg/L increments.

**8.O.8 Effluent Limitations. (See also Part 6.2.2.1)**

Table 8.O-2 identifies effluent limits that apply to storm water discharges from the industrial activities described below. Compliance with these effluent limits is to be determined based on discharges from these industrial activities independent of commingling with any other wastestreams that may be covered under this permit.

<b>Industrial Activity</b>	<b>Parameter</b>	<b>Effluent Limit</b>
Discharges from coal storage piles at Steam Electric Generating Facilities	Total Suspended Solids (TSS)	50 mg/L <sup>2</sup>
	pH	6.0-9.0 s.u.

<sup>1</sup> Monitor annually.

<sup>2</sup> If the permittee's facility is designed, constructed, and operated to treat the volume of coal pile runoff that is associated with a 10-year, 24-hour rainfall event, any untreated overflow of coal pile runoff from the treatment unit is not subject to the 50 mg/L limitation for TSS.

**Sector 8.P – Land Transportation and Warehousing.**

Subsector	SIC Code	Activity Represented
P1	4011, 4013	Railroad Transportation
	4111-4173	Local and Highway Passenger Transportation
	4212-4231	Motor Freight Transportation and Warehousing
	4311	United States Postal Service
	5171	Petroleum Bulk Stations and Terminals

**8.P.1 Covered Storm Water Discharges.**

The requirements in Sector P apply to storm water discharges associated with industrial activity from Land Transportation and Warehousing facilities as identified by the SIC Codes specified above which have vehicle maintenance shops or equipment cleaning operations.

**8.P.1.1 Solid Waste Transfer Stations.** SIC code 4212 includes facilities primarily engaged in local collecting and hauling of garbage without disposal. Only those portions of the facility that are either involved in vehicle maintenance (including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication) or equipment cleaning operations are considered to be associated with industrial activity under this permit. Those portions of the facility that are involved in the above activities are regulated by this permit. If a solid waste transfer station does not conduct any of these activities, then that facility would not be applicable for coverage under this permit.

**8.P.2 Limitation on Coverage.** This permit authorizes storm water discharges from only those portions of the land transportation facility that are involved in vehicle maintenance (including vehicle rehabilitation, mechanical repairs, painting, fueling and lubrication) or equipment cleaning operations.

**8.P.2.1 Prohibited Discharges.** (See also Parts 1.1.4 and 8.P.3.6) This permit does not authorize the discharge of vehicle/equipment/surface washwater, including tank-cleaning operations. Such discharges must be authorized under a separate NPDES permit, discharged to a sanitary sewer in accordance with applicable industrial pretreatment requirements, or recycled on-site.

**8.P.3 Additional Technology-Based Effluent Limits.**

**8.P.3.1 Good Housekeeping Measures.** In addition to Part 2.1.2.2, permittees must adhere to the following recommended control measures as indicated:

**8.P.3.2 Vehicle and Equipment Storage Areas.** Minimize the potential for storm water exposure to leaky or leak-prone vehicles/equipment awaiting maintenance. Consider the following, or other equivalent measures: use of drip pans under vehicles/equipment, indoor storage of vehicles and equipment, installation of berms or dikes, use of absorbents, roofing or covering storage areas, and cleaning pavement surfaces to remove oil and grease.

**8.P.3.3 Fueling Areas.** Minimize contamination of storm water runoff from fueling areas. Consider the following, or other equivalent measures: Covering the fueling area; using spill/overflow protection and cleanup equipment; minimizing storm water run-on/runoff to the fueling area; using dry cleanup methods; and treating and/or recycling collected storm water runoff.

**8.P.3.4 Material Storage Areas.** Maintain all material storage vessels (e.g., for used oil/oil filters, spent solvents, paint wastes, hydraulic fluids) to prevent contamination of storm water and plainly label them (e.g., "Used Oil," "Spent Solvents"). Consider the following, or other equivalent measures: storing the



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materials indoors; installing berms/dikes around the areas; minimizing runoff of storm water to the areas; using dry cleanup methods; and treating and/or recycling collected storm water runoff.

8.P.3.5 *Vehicle and Equipment Cleaning Areas.* Minimize contamination of storm water runoff from all areas used for vehicle/equipment cleaning. Consider the following, or other equivalent measures: performing all cleaning operations indoors; covering the cleaning operation, ensuring that all washwater drains to a proper collection system (i.e., not the storm water drainage system); treating and/or recycling collected washwater, or other equivalent measures.

8.P.3.6 *Vehicle and Equipment Maintenance Areas.* Minimize contamination of storm water runoff from all areas used for vehicle/equipment maintenance. Consider the following, or other equivalent measures: performing maintenance activities indoors; using drip pans; keeping an organized inventory of materials used in the shop; draining all parts of fluid prior to disposal; prohibiting wet clean up practices if these practices would result in the discharge of pollutants to storm water drainage systems; using dry cleanup methods; treating and/or recycling collected storm water runoff, minimizing run on/runoff of storm water to maintenance areas.

8.P.3.7 *Locomotive Sanding (Loading Sand for Traction) Areas.* Consider the following, or other equivalent measures: covering sanding areas; minimizing storm water run on/runoff; or appropriate sediment removal practices to minimize the offsite transport of sanding material by storm water.

8.P.3.8 *Employee Training.* (See also Part 5.1.1) Train personnel at least once a year and address the following activities, as applicable: used oil and spent solvent management; fueling procedures; general good housekeeping practices; proper painting procedures; and used battery management.

#### **8.P.4 Additional SWPPP Requirements.**

8.P.4.1 *Drainage Area Site Map.* (See also Part 5.1.2) Identify in the SWPPP the following areas of the facility and indicate whether activities occurring there may be exposed to precipitation/surface runoff: Fueling stations; vehicle/equipment maintenance or cleaning areas; storage areas for vehicle/equipment with actual or potential fluid leaks; loading/unloading areas; areas where treatment, storage or disposal of wastes occur; liquid storage tanks; processing areas; and storage areas.

8.P.4.2 *Potential Pollutant Sources.* (See also Part 5.1.3) Assess the potential for the following activities and facility areas to contribute pollutants to storm water discharges: Onsite waste storage or disposal; dirt/gravel parking areas for vehicles awaiting maintenance; illicit plumbing connections between shop floor drains and the storm water conveyance system(s); and fueling areas. Describe these activities in the SWPPP.

8.P.4.3 *Description of Good Housekeeping Measures.* Permittees must document in the SWPPP the good housekeeping measures permittees implement consistent with Part 8.P.3.

8.P.4.4 *Vehicle and Equipment Washwater Requirements.* If applicable, attach to or reference in the SWPPP, a copy of the NPDES permit issued for vehicle/equipment washwater or, if an NPDES permit has not been issued, a copy of the pending application. If an industrial user permit is issued under a local pretreatment program, attach a copy to the SWPPP. In any case, implement all non-storm water discharge permit conditions or pretreatment conditions contained in the SWPPP. If washwater is handled in another manner (e.g., hauled offsite), describe the disposal method and attach pertinent documentation/information (e.g., frequency, volume, destination) to the SWPPP.

#### **8.P.5 Additional Inspection Requirements. (See also Part 4)**

Inspect all the following areas/activities: storage areas for vehicles/equipment awaiting maintenance, fueling areas, indoor and outdoor vehicle/equipment maintenance areas, material storage areas, vehicle/equipment cleaning areas and loading/unloading areas.

**Sector 8.Q – Water Transportation: Maintenance/Cleaning.**

Subsector	SIC Code	Activity Represented
Q1	4412-4499	Water Transportation Facilities

**8.Q.1 Covered Storm Water Discharges.**

The requirements in Sector Q apply to storm water discharges associated with industrial activity from Water Transportation facilities as identified by the SIC Codes specified above, which have land and/or water vehicle maintenance activities or equipment cleaning operations. Only those portions of the facility that are either involved in vehicle maintenance (including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication) or equipment cleaning operations are considered to be associated with industrial activity under this permit.

**8.Q.2 Limitations on Coverage.**

*Prohibition of Non-Storm Water Discharges.* (See also Part 1.1.4) Not covered by this permit: bilge and ballast water, sanitary wastes, pressure wash water, and cooling water originating from vessels.

**8.Q.3 Additional Technology-Based Effluent Limits.**

8.Q.3.1 *Good Housekeeping Measures.* Permittees must implement the following good housekeeping measures in addition to the requirements of Part 2.1.2.2:

8.Q.3.2 *Pressure Washing Area.* If pressure washing is used to remove marine growth from vessels, the discharge water must be permitted by a separate NPDES permit. Collect or contain the discharge from the pressure washing area so that it is not co-mingled with storm water discharges authorized by this permit.

8.Q.3.3 *Blasting and Painting Area.* Minimize the potential for spent abrasives, paint chips, and overspray to discharge into receiving waters or the storm sewer systems. Consider containing all blasting and painting activities or use other measures to minimize the discharge of contaminants (e.g., hanging plastic barriers or tarpaulins during blasting and painting operations, to contain debris). When necessary, regularly clean storm water conveyances of deposits of abrasive blasting debris and paint chips.

8.Q.3.4 *Material Storage Areas.* Store and plainly label all containerized materials (e.g., fuels, paints, solvents, waste oil, antifreeze, batteries) in a protected, secure location away from drains. Minimize the contamination of precipitation or surface runoff from the storage areas. Specify which materials are stored indoors, and consider containment or enclosure for those stored outdoors. If abrasive blasting is performed, discuss the storage and disposal of spent abrasive materials generated at the facility. Consider implementing an inventory control plan to limit the presence of potentially hazardous materials onsite.

8.Q.3.5 *Engine Maintenance and Repair Areas.* Minimize the contamination of precipitation or surface runoff from all areas used for engine maintenance and repair. Consider the following, or their equivalents: performing all maintenance activities indoors, maintaining an organized inventory of materials used in the shop, draining all parts of fluid prior to disposal, prohibiting the practice of hosing down the shop floor, using dry cleanup methods, and treating and/or recycling storm water runoff collected from the maintenance area.

8.Q.3.6 *Material Handling Area.* Minimize the contamination of precipitation or surface runoff from material handling operations and areas (e.g., fueling, paint and solvent mixing, disposal of process

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wastewater streams from vessels). Consider the following, or their equivalents: covering fueling areas, using spill and overflow protection, mixing paints and solvents in a designated area (preferably indoors or under a shed), and minimizing runoff of storm water to material handling areas.

**8.Q.3.7 *Drydock Activities.*** Routinely maintain and clean the drydock to minimize pollutants in storm water runoff. Address the cleaning of accessible areas of the drydock prior to flooding, and final cleanup following removal of the vessel and raising the dock. Include procedures for cleaning up oil, grease, and fuel spills occurring on the drydock. Consider the following, or their equivalents: sweeping rather than hosing off debris and spent blasting material from accessible areas of the drydock prior to flooding and making absorbent materials and oil containment booms readily available to clean up or contain any spills.

**8.Q.3.8 *Employee Training.*** (See also Part 5.1.1) As part of the employee training program, address, at a minimum, the following activities, as applicable: used oil management, spent solvent management, disposal of spent abrasives, disposal of vessel wastewaters, spill prevention and control, fueling procedures, general good housekeeping practices, painting and blasting procedures, and used battery management.

**8.Q.3.9 Preventive Maintenance.** (See also Part 2.1.2.3) As part of the preventive maintenance program, perform timely inspection and maintenance of storm water management devices (e.g., cleaning oil and water separators and sediment traps to ensure that oil, spent abrasives, paint chips, and solids will be intercepted and retained prior to entering the storm drainage system), as well as inspecting and testing facility equipment and systems to uncover conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters.

#### **8.Q.4 Additional SWPPP Requirements.**

**8.Q.4.1 Drainage Area Site Map.** (See also Part 5.1.2) Document in the SWPPP where any of the following may be exposed to precipitation or surface runoff: fueling; engine maintenance and repair; vessel maintenance and repair; pressure washing; painting; sanding; blasting; welding; metal fabrication; loading and unloading areas; locations used for the treatment, storage, or disposal of wastes; liquid storage tanks; liquid storage areas (e.g., paint, solvents, resins); and material storage areas (e.g., blasting media, aluminum, steel, scrap iron).

**8.Q.4.2 Summary of Potential Pollutant Sources.** (See also Part 5.1.3) Document in the SWPPP the following additional sources and activities that have potential pollutants associated with them: outdoor manufacturing or processing activities (e.g., welding, metal fabricating) and significant dust or particulate generating processes (e.g., abrasive blasting, sanding, and painting.)

**8.Q.4.3 *SWPPP Responsibility.*** EPD will interpret submittal of the NOI(s) as an indication of the responsibility of the SWPPP and other permit requirements.

#### **8.Q.5 Additional Inspection Requirements. (See also Part 4)**

Include the following in all quarterly routine facility inspections: pressure washing area; blasting, sanding, and painting areas; material storage areas; engine maintenance and repair areas; material handling areas; drydock area; and general yard area.

#### **8.Q.6 Sector-Specific Benchmarks. (See also Part 6)**

Table 8.Q-1 identifies benchmarks that apply to the specific subsectors of Sector Q. These benchmarks apply to each of the outfalls whether described by the primary industrial activity, any applicable co-located industrial activities, or both.

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<b>Subsector</b> (Permittees may be subject to requirements for more than one sector/subsector)	<b>Parameter</b>	<b>Benchmark Monitoring Concentration</b>
<b>Subsector Q1. Water Transportation: Maintenance/Cleaning Facilities (SIC 4412-4499)</b>	Oil & Grease	15 mg/L
	Total Suspended Solids (TSS)	100 mg/L
	Dissolved Lead <sup>1</sup>	Hardness Dependent
	Dissolved Zinc <sup>1</sup>	Hardness Dependent

<sup>1</sup> The benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness in accordance with Appendix E, "Determining Benchmarks for Hardness Dependent Metals" (Part 6.2.1.1), to identify the applicable 'hardness range' for determining their benchmark value applicable to their facility. The ranges occur in 25 mg/L increments.

**Sector 8.R – Ship and Boat Building and Repair Yards.**

Subsector	SIC Code	Activity Represented
R1	3731, 3732	Ship and Boat Building or Repairing Yards

**8.R.1 Covered Storm Water Discharges.**

The requirements in Sector R apply to storm water discharges associated with industrial activity from Ship and Boat Building and Repair Yards as identified by the SIC Codes specified above.

**8.R.2 Limitations on Coverage.**

8.R.2.1 *Prohibition of Non-Storm Water Discharges.* (See also Part 1.1.4) Discharges containing bilge and ballast water, sanitary wastes, pressure wash water, and cooling water originating from vessels are not covered by this permit.

**8.R.3 Additional Technology-Based Effluent Limits.**

8.R.3.1 *Good Housekeeping Measures.* (See also Part 2.1.2.2)

8.R.3.2 *Pressure Washing Area.* If pressure washing is used to remove marine growth from vessels, the discharged water must be permitted as a process wastewater by a separate NPDES permit.

8.R.3.3 *Blasting and Painting Area.* Minimize the potential for spent abrasives, paint chips, and overspray to discharge into the receiving water or the storm sewer systems. Consider containing all blasting and painting activities, or use other measures to prevent the discharge of the contaminants (e.g., hanging plastic barriers or tarpaulins during blasting or painting operations to contain debris). When necessary, regularly clean storm water conveyances of deposits of abrasive blasting debris and paint chips.

8.R.3.4 *Material Storage Areas.* Store and plainly label all containerized materials (e.g., fuels, paints, solvents, waste oil, antifreeze, batteries) in a protected, secure location away from drains. Minimize the contamination of precipitation or surface runoff from the storage areas. If abrasive blasting is performed, discuss the storage and disposal of spent abrasive materials generated at the facility. Consider implementing an inventory control plan to limit the presence of potentially hazardous materials onsite.

8.R.3.5 *Engine Maintenance and Repair Areas.* Minimize the contamination of precipitation or surface runoff from all areas used for engine maintenance and repair. Consider the following, or their equivalents: performing all maintenance activities indoors, maintaining an organized inventory of materials used in the shop, draining all parts of fluid prior to disposal, prohibiting the practice of hosing down the shop floor, using dry cleanup methods, and treating and/or recycling storm water runoff collected from the maintenance area.

8.R.3.6 *Material Handling Area.* Minimize the contamination of precipitation or surface runoff from material handling operations and areas (e.g., fueling, paint and solvent mixing, disposal of process wastewater streams from vessels). Consider the following, or their equivalents: covering fueling areas, using spill and overflow protection, mixing paints and solvents in a designated area (preferably indoors or under a shed), and minimizing storm water run-on to material handling areas.

8.R.3.7 *Drydock Activities.* Routinely maintain and clean the drydock to minimize pollutants in storm water runoff. Clean accessible areas of the drydock prior to flooding and final cleanup following removal of the vessel and raising the dock. Include procedures for cleaning up oil, grease, or fuel spills occurring on the drydock. Consider the following, or their equivalents: sweeping rather than hosing off

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debris and spent blasting material from accessible areas of the drydock prior to flooding, and having absorbent materials and oil containment booms readily available to clean up and contain any spills.

8.R.3.8 *Employee Training.* (See also Part 5.1.1) As part of the employee training program, address, at a minimum, the following activities (as applicable): used oil management, spent solvent management, disposal of spent abrasives, disposal of vessel wastewaters, spill prevention and control, fueling procedures, general good housekeeping practices, painting and blasting procedures, and used battery management.

8.R.3.9 *Preventive Maintenance.* (See also Part 2.1.2.3) As part of the preventive maintenance program, perform timely inspection and maintenance of storm water management devices (e.g., cleaning oil and water separators and sediment traps to ensure that oil, spent abrasives, paint chips, and solids will be intercepted and retained prior to entering the storm drainage system), as well as inspecting and testing facility equipment and systems to uncover conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters.

#### **8.R.4 Additional SWPPP Requirements.**

A ship authority and tenants are encouraged to work in partnership in SWPPP development. EPD will interpret submittal of the NOI(s) as an indication of the responsibility of the SWPPP and other permit requirements.

8.R.4.1 *Drainage Area Site Map.* (See also Part 5.1.2) Document in the SWPPP where any of the following may be exposed to precipitation or surface runoff: fueling; engine maintenance or repair; vessel maintenance or repair; pressure washing; painting; sanding; blasting; welding; metal fabrication; loading and unloading areas; treatment, storage, and waste disposal areas; liquid storage tanks; liquid storage areas (e.g., paint, solvents, resins); and material storage areas (e.g., blasting media, aluminum, steel, scrap iron).

8.R.4.2 *Potential Pollutant Sources.* (See also Part 5.1.3) Document in the SWPPP the following additional sources and activities that have potential pollutants associated with them (if applicable): outdoor manufacturing or processing activities (e.g., welding, metal fabricating) and significant dust or particulate generating processes (e.g., abrasive blasting, sanding, and painting).

8.R.4.3 *Documentation of Good Housekeeping Measures.* Document in the SWPPP any good housekeeping measures implemented to meet the effluent limits in Part 8.R.3.

8.R.4.3.1 *Blasting and Painting Areas.* Document in the SWPPP any standard operating practices relating to blasting and painting (e.g., prohibiting uncontained blasting and painting over open water or prohibiting blasting and painting during windy conditions, which can render containment ineffective).

8.R.4.3.2 *Storage Areas.* Specify in the SWPPP which materials are stored indoors, and consider containment or enclosure for those stored outdoors.

#### **8.R.5 Additional Inspection Requirements. (See also Part 4)**

Include the following in all quarterly routine facility inspections: pressure washing area; blasting, sanding, and painting areas; material storage areas; engine maintenance and repair areas; material handling areas; drydock area; and general yard area.

#### **8.R.6 Sector-Specific Benchmarks. (See also Part 6)**

Table 8.R-1 identifies benchmarks that apply to the specific subsectors of Sector R. These benchmarks apply to each of the outfalls whether described by the primary industrial activity, any applicable co-located industrial activities, or both.

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<b>Subsector</b> (Permittees may be subject to requirements for more than one sector/subsector)	<b>Parameter</b>	<b>Benchmark Monitoring Concentration</b>
<b>Subsector R1.</b> Ship building/repairing facilities (SIC 3731, 3732)	Total Suspended Solids (TSS)	100 mg/L
	pH	6.0-9.0 s.u.
	Chemical Oxygen Demand (COD)	120 mg/L
	Oil & Grease	15 mg/L
	Dissolved Lead <sup>1</sup>	Hardness Dependent
	Dissolved Zinc <sup>1</sup>	Hardness Dependent

<sup>1</sup> The benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness in accordance with Appendix E, "Determining Benchmarks for Hardness Dependent Metals" (Part 6.2.1.1), to identify the applicable 'hardness range' for determining their benchmark value applicable to their facility. The ranges occur in 25 mg/L increments.

**Sector 8.S – Air Transportation.**

Subsector	SIC Code	Activity Represented
S1	4512-4581	Air Transportation Facilities

**8.S.1 Covered Storm Water Discharges.**

The requirements in Sector S apply to storm water discharges associated with industrial activity from Air Transportation facilities identified by the SIC Codes specified above, which have air and/or land vehicle maintenance activities, equipment cleaning operations, or airport deicing operations. Only those portions of the facility that are either involved in vehicle maintenance (including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication), equipment cleaning operations, or airport deicing operations are considered to be associated with industrial activity under this permit.

**8.S.2 Limitations on Coverage.**

**8.S.2.1 Limitations on Coverage.** This permit authorizes storm water discharges from only those portions of the air transportation facility that are involved in vehicle maintenance (including vehicle rehabilitation, mechanical repairs, painting, fueling and lubrication), equipment cleaning operations or deicing operations.

**Note:** “Deicing” will generally be used to imply both deicing (removing frost, snow or ice) and anti-icing (preventing accumulation of frost, snow or ice) activities, unless specific mention is made regarding anti-icing and/or deicing activities.

**8.S.2.2 Prohibition of Non-Storm Water Discharges.** (See also Part 1.1.4) This permit does not authorize the discharge of aircraft, ground vehicle, runway and equipment washwaters; nor the dry weather discharge of deicing chemicals. Such discharges must be covered by separate NPDES permit(s). Note that a discharge resulting from snowmelt is not a dry weather discharge.

**8.S.3 Additional Technology-Based Effluent Limits.**

**8.S.3.1 Good Housekeeping Measures.** (See also Part 2.1.2.2)

**8.S.3.1.1 Aircraft, Ground Vehicle and Equipment Maintenance Areas.** Minimize the contamination of storm water runoff from all areas used for aircraft, ground vehicle and equipment maintenance, including the maintenance conducted on the terminal apron and in dedicated hangers. Consider the following practices, or their equivalents: performing maintenance activities indoors; maintaining an organized inventory of material used in the maintenance areas; draining all parts of fluids prior to disposal; prohibiting the practice of hosing down the apron or hanger floor; using dry cleanup methods; and collecting the storm water runoff from the maintenance area and providing treatment or recycling.

**8.S.3.1.2 Aircraft, Ground Vehicle and Equipment Cleaning Areas.** Clearly demarcate these areas on the ground using signage or other appropriate means. Minimize the contamination of storm water runoff from cleaning areas.

**8.S.3.1.3 Aircraft, Ground Vehicle and Equipment Storage Areas.** Store all aircraft, ground vehicles and equipment awaiting maintenance in designated areas only and minimize the contamination of storm water runoff from these storage areas. Consider the following control measures, including any BMPs, or their equivalents: storing aircraft and ground vehicles indoors; using drip pans for the collection of fluid leaks; and perimeter drains, dikes or berms surrounding the storage areas.

**8.S.3.1.4 Material Storage Areas.** Maintain the vessels of stored materials (e.g., used oils, hydraulic fluids, spent solvents, and waste aircraft fuel) in good condition, to prevent or minimize contamination



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of storm water. Also plainly label the vessels (e.g., “used oil,” “Contaminated Jet A,” etc.). Minimize contamination of precipitation/runoff from these areas. Consider the following control measures, or their equivalents: storing materials indoors; storing waste materials in a centralized location; and installing berms/dikes around storage areas.

8.S.3.1.5 Airport Fuel System and Fueling Areas. Minimize the discharge of fuel to the storm sewer/surface waters resulting from fuel servicing activities or other operations conducted in support of the airport fuel system. Provide an explanation in the SWPPP describing procedures for the removal and disposal of water from the fuel storage and delivery systems. Consider the following control measures, or their equivalents: implementing spill and overflow practices (e.g., placing absorptive materials beneath aircraft during fueling operations); using only dry cleanup methods; routing water drawoffs to a system equipped with an oil/water separator or equivalent system; and collecting storm water runoff.

8.S.3.1.6 Source Reduction. Minimize, and where feasible eliminate, the use of urea and glycol-based deicing chemicals, in order to reduce the aggregate amount of deicing chemicals used and/or lessen the environmental impact. Chemical options to replace ethylene glycol, propylene glycol and urea include: potassium acetate; magnesium acetate; calcium acetate; and anhydrous sodium acetate.

8.S.3.1.6.1 Runway Deicing Operation: Minimize contamination of storm water runoff from runways as a result of deicing operations. Evaluate whether over-application of deicing chemicals occurs by analyzing application rates, and adjust as necessary, consistent with considerations of flight safety. Also consider these control measure options (or their equivalents): metered application of chemicals; pre-wetting dry chemical constituents prior to application; installing a runway ice detection system; implementing anti-icing operations as a preventive measure against ice buildup.

8.S.3.1.6.2 Aircraft Deicing Operations. Minimize contamination of storm water runoff from aircraft deicing operations. Determine whether excessive application of deicing chemicals occurs and adjust as necessary, consistent with considerations of flight safety. This evaluation should be carried out by the personnel most familiar with the particular aircraft and flight operations in question (versus an outside entity such as the airport authority). Consider using alternative deicing/anti-icing agents as well as containment measures for all applied chemicals. Also consider these control measure options, or their equivalents for reducing deicing fluid use: forced-air deicing systems, computer-controlled fixed-gantry systems, infrared technology, hot water, varying glycol content to air temperature, enclosed-basket deicing trucks, mechanical methods, hangar storage, aircraft covers, and thermal blankets for MD-80s and DC-9s. Also consider using ice-detection systems and airport traffic flow strategies and departure slot allocation systems.

8.S.3.1.7 Management of Runoff. (See also 2.1.2.6) Where deicing operations occur, implement a program to control or manage contaminated runoff to minimize the amount of pollutants being discharged from the site. Consider these control measure options, or their equivalents: a dedicated deicing facility with a runoff collection/recovery system; using vacuum/collection trucks; storing contaminated storm water/deicing fluids in tanks and releasing controlled amounts to a publicly owned treatment works; collecting contaminated runoff in a wet pond for biochemical decomposition (be aware of attracting wildlife that may prove hazardous to flight operations); and directing runoff into vegetative swales or other infiltration measures. Also consider recovering deicing materials when these materials are applied during non-precipitation events (e.g., covering storm sewer inlets, using booms, installing absorptive interceptors in the drains) to prevent these materials from later becoming a source of storm water contamination. Used deicing fluid should be recycled whenever possible.

8.S.3.2 *Deicing Season*. Permittees must determine the seasonal timeframe (i.e., December-February, October - March, etc.) during which deicing activities typically occur at the facility. Implementation of control measures, including any BMP, facility inspections and monitoring must be conducted with particular emphasis throughout the defined deicing season. If the permittee meets the deicing chemical usage thresholds of 100,000 gallons glycol and/or 100 tons of urea, the deicing season identified is the

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timeframe during which they must obtain the four required benchmark monitoring-event results (See Table 8.S-1).

**8.S.4 Additional SWPPP Requirements.**

An airport authority and tenants of the airport are encouraged to work in partnership in the development of a SWPPP. Tenants of the airport facility include air passenger or cargo companies, fixed based operators and other parties who have contracts with the airport authority to conduct business operations on airport property and whose operations result in storm water discharges associated with industrial activity. EPD will interpret submittal of the NOI(s) as an indication of the responsibility of the SWPPP and other permit requirements.

**8.S.4.1 Drainage Area Site Map.** (See also Part 5.1.2) Document in the SWPPP the following areas of the facility and indicate whether activities occurring there may be exposed to precipitation/surface runoff: aircraft and runway deicing operations; fueling stations; aircraft, ground vehicle and equipment maintenance/cleaning areas; storage areas for aircraft, ground vehicles and equipment awaiting maintenance; and fuel storage and transfer areas.

**8.S.4.2 Potential Pollutant Sources.** (See also Part 5.1.3) In the inventory of exposed materials, describe in the SWPPP the potential for the following activities and facility areas to contribute pollutants to storm water discharges: aircraft, runway, ground vehicle and equipment maintenance and cleaning; aircraft and runway deicing operations (including apron and centralized aircraft deicing stations, runways, taxiways and ramps). If permittees use deicing chemicals, permittees must maintain a record of the types (including the Material Safety Data Sheets [MSDS]) used and the monthly quantities, either as measured or, in the absence of metering, as estimated to the best of the permittee's knowledge. This includes all deicing chemicals, not just glycols and urea (e.g., potassium acetate), because large quantities of these other chemicals can still have an adverse impact on receiving waters. Tenants or other fixed-based operations that conduct deicing operations must provide the above information to the airport authority for inclusion with any comprehensive airport SWPPPs.

**8.S.4.3 Vehicle and Equipment Washwater Requirements.** If washwater is generated, describe the disposal method (e.g., hauled offsite, retained onsite) and attach all pertinent documentation/information (i.e., frequency, volume, destination, etc.) in the SWPPP.

**8.S.4.4 Documentation of Control Measures Used for Management of Runoff:** Document in the SWPPP the control measures used for collecting or containing contaminated melt water from collection areas used for disposal of contaminated snow.

**8.S.5 Additional Inspection Requirements.**

**8.S.5.1 Inspections.** (See also Part 4) At a minimum conduct routine facility inspections at least quarterly during the deicing season (e.g., October through April for most mid-latitude airports). If the facility needs to deice before or after this period, expand the quarterly inspections to include all months during which deicing chemicals may be used. EPD may specifically require permittees to increase inspection frequencies.

**8.S.5.2 Comprehensive Site Inspections.** (See also Part 4.3) Using only qualified personnel, conduct the annual site inspection during periods of actual deicing operations, if possible. If not practicable during active deicing because of weather, conduct the inspection during the season when deicing operations occur and the materials and equipment for deicing are in place.

**8.S.6 Sector-Specific Benchmarks. (See also Part 6)**

Monitor per the requirements in Tables 8.S-1 and 8.S-2. These benchmarks apply to each of the outfalls whether described by the primary industrial activity, any applicable co-located industrial activities, or both.

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<b>Table 8.S-1</b>		
<b>Subsector</b> (Permittees may be subject to requirements for more than one sector/subsector)	<b>Parameter</b>	<b>Benchmark Monitoring Concentration</b>
<b>Usage Threshold.</b> For airports where a single permittee, or a combination of permitted facilities use more than 100,000 gallons of glycol-based deicing chemicals and/or 100 tons or more of urea on an average annual basis, monitor the first four parameters in ONLY those outfalls that collect runoff from areas where deicing activities occur (SIC 4512-4581).	Chemical Oxygen Demand (COD) <sup>1</sup>	120 mg/L
	Total Suspended Solids (TSS)	100 mg/L
	Ammonia <sup>1</sup>	2.14 mg/L
	pH <sup>1</sup>	6.0 - 9.0 s.u.
	Oil & Grease	15 mg/L

<sup>1</sup> These are deicing-related parameters. Collect the benchmark samples, and any required follow-up benchmark samples, during the timeframe defined in Part 8.S.3.2 when deicing activities are occurring.

<b>Table 8.S-2</b>		
<b>Subsector</b> (Permittees may be subject to requirements for more than one sector/subsector)	<b>Parameter</b>	<b>Benchmark Monitoring Concentration</b>
<b>Flight Threshold.</b> For airports with over 50,000 flight operations per year, facilities with storm water discharges from areas where aircraft or airport deicing operations occur (including runways, taxiways, ramps, and dedicated airport deicing stations) are required to sample such storm water that is discharged from the facility when deicing activities are occurring.	Chemical Oxygen Demand (COD) <sup>1</sup>	120 mg/L
	Total Suspended Solids (TSS)	100 mg/L
	pH <sup>1</sup>	6.0 - 9.0 s.u.
	Oil & Grease	15 mg/L
	And primary ingredient used in the deicing materials used (e.g. ethylene glycol, urea, etc.) <sup>1</sup>	Measure

<sup>1</sup> These are deicing-related parameters. Collect the benchmark samples, and any required follow-up benchmark samples, during the timeframe defined in Part 8.S.3.2 when deicing activities are occurring.

**Sector 8.T – Treatment Works.**

Subsector	SIC Code	Activity Represented
T1	TW	Treatment Works treating domestic sewage or any other sewage sludge or wastewater treatment device or system, used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated to the disposal of sewage sludge that is located within the confines of the facility, with a design flow of 1.0 million gallons per day (MGD) or more, or required to have an approved pretreatment program under 40 CFR Part 403. Not included are farm lands, domestic gardens or lands used for sludge management where sludge is beneficially reused and which are not physically located in the confines of the facility, or areas that are in compliance with Section 405 of the CWA

**8.T.1 Covered Storm Water Discharges.**

The requirements in Sector T apply to storm water discharges associated with industrial activity from Treatment Works as identified by the Activity Code specified above.

**8.T.2 Industrial Activities Covered by Sector T.**

The requirements listed under this part apply to all existing point source storm water discharges associated with the following activities:

- a. Treatment works treating domestic sewage, or any other sewage sludge or wastewater treatment device or system used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated to the disposal of sewage sludge; that are located within the confines of a facility with a design flow of 1.0 MGD or more; or are required to have an approved pretreatment program under 40 CFR Part 403.
- b. The following are not required to have permit coverage: farm lands, domestic gardens or lands used for sludge management where sludge is beneficially reused and which are not physically located within the facility, or areas that are in compliance with Section 405 of the CWA.

**8.T.3 Limitations on Coverage.**

*Prohibition of Non-Storm Water Discharges.* (See also Part 1.1.4) Sanitary and industrial wastewater and equipment and vehicle washwater are not authorized by this permit.

**8.T.4 Additional Technology-Based Effluent Limits.**

8.T.4.1 *Control Measures.* (See also the non-numeric effluent limits in Part 2.1.2) In addition to the other control measures, consider the following: routing storm water to the treatment works; or covering exposed materials (i.e., from the following areas: grit, screenings, and other solids handling, storage, or disposal areas; sludge drying beds; dried sludge piles; compost piles; and septage or hauled waste receiving station).

8.T.4.2 *Employee Training.* (See also Part 5.1.1) At a minimum, training must address the following areas when applicable to a facility: petroleum product management; process chemical management;

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septage or hauled waste receiving; spill prevention and controls; fueling procedures; general good housekeeping practices; and proper procedures for using fertilizer, herbicides, and pesticides.

**8.T.5 Additional SWPPP Requirements.**

8.T.5.1 *Site Map.* (See also Part 5.1.2) Document in the SWPPP where any of the following may be exposed to precipitation or surface runoff: grit, screenings, and other solids handling, storage, or disposal areas; sludge drying beds; dried sludge piles; compost piles; septage or hauled waste receiving station; and storage areas for process chemicals, petroleum products, solvents, fertilizers, herbicides, and pesticides.

8.T.5.2 *Potential Pollutant Sources.* (See also Part 5.1.3) Document in the SWPPP the following additional sources and activities that have potential pollutants associated with them, as applicable: grit, screenings, and other solids handling, storage, or disposal areas; sludge drying beds; dried sludge piles; compost piles; septage or hauled waste receiving station; access roads and rail lines; and process chemicals, petroleum products, solvents, fertilizers, herbicides and pesticides.

8.T.5.3 *Wastewater and Washwater Requirements.* Keep a copy of all the current NPDES permits issued for wastewater and industrial, vehicle and equipment washwater discharges or, if an NPDES permit has not yet been issued, a copy of the pending application(s) with the SWPPP. If the washwater is handled in another manner, the disposal method must be described and all pertinent documentation must be retained onsite.

**8.T.6 Additional Inspection Requirements.**

(See also Part 4) Include the following areas in all inspections: access roads and rail lines; grit, screenings, and other solids handling, storage, or disposal areas; sludge drying beds; dried sludge piles; compost piles; and septage or hauled waste receiving station.

**8.T.7 Sector-Specific Benchmarks. (See also Part 6)**

These benchmarks apply to each of the outfalls whether described by the primary industrial activity, any applicable co-located industrial activities, or both.

<b>Table 8.T-1</b>		
<b>Subsector</b> (Permittees may be subject to requirements for more than one Sector/Subsector)	<b>Parameter</b>	<b>Benchmark Monitoring Concentration</b>
<b>Subsector T1.</b> Treatment works (Activity Code TW )	Total Suspended Solids (TSS)	100 mg/L

**Sector 8.U – Food and Kindred Products.**

Subsector	SIC Code	Activity Represented
U1	2041-2048	Grain Mill Products
U2	2074-2079	Fats and Oils Products
U3	2011-2015	Meat Products
U4	2021-2026	Dairy Products
	2032-2038	Canned, Frozen, and Preserved Fruits, Vegetables, and Food Specialties
	2051-2053	Bakery Products
	2061-2068	Sugar and Confectionery Products
	2082-2087	Beverages
	2091-2099	Miscellaneous Food Preparations and Kindred Products
	2111-2141	Tobacco Products

**8.U.1 Covered Storm Water Discharges.**

The requirements in Sector U apply to storm water discharges associated with industrial activity from Food and Kindred Products facilities as identified by the SIC Codes specified above.

**8.U.2 Limitations on Coverage.**

8.U.2.1 Prohibition of Non-Storm Water Discharges. (See also Part 1.1.4) The following discharges are not authorized by this permit: discharges containing boiler blowdown, cooling tower overflow and blowdown, ammonia refrigeration purging, and vehicle washing and clean-out operations.

**8.U.3 Additional Technology-Based Limitations.**

8.U.3.1 *Employee Training.* (See also Part 5.1.1) Address pest control in the employee training program.

8.U.3.2 *Additional BMPs for Subsector U3.* A list of suggested structural and operational BMPs for animal processing plants is included in Part 8.U.7.

**8.U.4 Additional SWPPP Requirements.**

8.U.4.1 *Drainage Area Site Map.* (See also Part 5.1.2) Document in the SWPPP the locations of the following activities if they are exposed to precipitation or runoff: vents and stacks from cooking, drying, and similar operations; dry product vacuum transfer lines; animal holding and handling areas; spoiled product; and broken product container storage areas.

8.U.4.2 *Potential Pollutant Sources.* (See also Part 5.1.3) Document in the SWPPP, in addition to food and kindred products processing-related industrial activities, application and storage of pest control chemicals (e.g., rodenticides, insecticides, fungicides) used on plant grounds.

**8.U.5 Additional Inspection Requirements.**

(See also Part 4) Inspect on a quarterly basis, at a minimum, the following areas where the potential for exposure to storm water exists: loading and unloading areas for all significant materials; storage areas, including associated containment areas; waste management units; vents and stacks emanating from industrial activities; spoiled product and broken product container holding areas; animal handling and holding areas; staging areas; and air pollution control equipment.

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**8.U.6 Sector-Specific Benchmarks. (See also Part 6)**

These benchmarks apply to each of the permittee's outfalls whether described by the permittee's primary industrial activity, any applicable co-located industrial activities, or both.

<b>Table 8.U-1</b>		
<b>Subsector</b> (Permittees may be subject to requirements for more than one Sector / Subsector)	<b>Parameter</b>	<b>Benchmark Monitoring Concentration</b>
<b>Subsector U1.</b> Grain Mill Products (SIC 2041-2048)	Total Suspended Solids (TSS)	100 mg/L
	Biochemical Oxygen Demand (BOD <sub>5</sub> )	30 mg/L
<b>Subsector U2.</b> Fats and Oils Products (SIC 2074-2079)	Biochemical Oxygen Demand (BOD <sub>5</sub> )	30 mg/L
	Oil & Grease	15 mg/L
	Total Suspended Solids (TSS)	100 mg/L
<b>Subsector U3.</b> Meat products - animal handling and meat packing (SIC codes 2011 - 2015)	Total Suspended Solids (TSS)	100 mg/L
	Biochemical Oxygen Demand (BOD <sub>5</sub> )	30 mg/L
	Oil & Grease	15 mg/L
	Total Kjeldahl Nitrogen (TKN)	Measure in mg/L
	Total Phosphorus	Measure in mg/L
	pH	6.0 - 9.0 s.u.
Facilities in Subsectors U3 with discharges from material storage piles. <sup>1</sup>	Total Suspended Solids (TSS)	100 mg/L
	Biochemical Oxygen Demand (BOD <sub>5</sub> )	30 mg/L

<sup>1</sup> Facilities with discharges from material storage piles must sample one (1) qualifying rain event each quarter at outfalls receiving the discharges in the first year of permit coverage. If at least seventy-five (75) percent or the average of the samples do not exceed the benchmark value, permittees may revert to annual sampling in accordance with Part 6.2.

<sup>2</sup>Applies to facilities with live animal handling areas.

**8.U.7 BMP List for Fecal Coliform Control at Animal Processing Plants.**

The following best management practices (BMPs) have been developed as consensus BMPs for animal processing plants under the "animal handling/meat packing facilities" classification defined in, and regulated by, the IGP. All BMPs contained in this document are accepted by the Georgia EPD under the terms of the general permit as appropriate BMPs for this industrial classification and may be appropriate and beneficial for other facilities that are potential sources of fecal coliform. Each permittee must decide which BMP, or combination of BMPs (whether operational, structural, Tier 1, Tier II or Tier III), is most appropriate to achieve the benchmarks for this sector, which are specified in Table 8.U-1. An iterative process has been established in the general permit that allows permittees to implement new BMPs and test the performance of these BMPs against the benchmark. If the benchmark is not

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achieved, then another round of BMPs must be implemented as provided in the general permit. If all technologically and economically feasible BMPs have been implemented as provided in the general permit, and a facility is still unable to meet the benchmarks, provided the facility does not discharge to an impaired stream segment, then the facility may submit a demonstration to EPD under the general permit that allows the facility to rely on the BMPs implemented to date for compliance with the general permit, if EPD accepts the demonstration. In the event of any conflict between the submittal of the demonstration and the general permit, the general permit shall control. Impaired stream segment sampling is addressed in Appendix C.

**8.U.7.1 Operational BMPs.****8.U.7.1.1 TIER I BMPs.**

- a. Perform dry cleanup of live animal holding, staging, storage, etc. areas according to a schedule to be developed as appropriate for the particular facility, taking into account significant rain events and production schedules. Such schedule and a log demonstrating compliance with such schedule shall be maintained as part of the facility's SWPPP.
- b. Park loaded live haul trailers under cover or in live holding sheds to minimize exposure to storm water. If loaded live haul trailers cannot be parked under cover, the areas where these trailers are parked shall discharge to process sewer systems.
- c. Perform dry cleanup of paved driveways, parking areas, etc. where live animal and animal byproducts transport vehicles are staged, stored, moved across, etc. according to a schedule to be developed as appropriate for the particular facility, taking into account significant rain events and production schedules. Such schedule and a log demonstrating compliance with such schedule shall be maintained as part of the facility's SWPPP.
- d. Collect escaped animals on a daily basis.
- e. Properly maintain air pollution control systems to prevent excessive dust emissions from rendering equipment, byproducts handling systems, etc.
- f. Properly maintain exposed animal byproducts and feed-meal handling systems (screw conveyors, elevators, etc.) to ensure these systems are free of leaks, etc.
- g. Inspect storm water collection and discharge systems (manholes, underground storm sewers, sediment ponds/traps, etc.) and remove accumulated silt, sediment, organic materials, etc. according to a schedule to be developed as appropriate for the particular facility, taking into account significant rain events and production schedules. Such schedule and a log demonstrating compliance with such schedule shall be maintained as part of the facility's SWPPP.
- h. Store animals dead on arrival (DOAs) in a manner which prevents the entry and release of storm water.
- i. Store refrigerated trailers with the potential for drainage of water contaminated with animal blood (red water) in containment areas with discharge to process sewer system.
- j. Perform equipment and vehicle washing activities in containment areas with discharge to process sewer system.
- k. Clean containment areas and remove accumulation of solids and organic materials (blood, litter, feed meal, animal byproducts, etc.) according to a schedule to be developed as appropriate for the particular facility, taking into account significant rain events and production schedules. Such schedule and a log demonstrating compliance with such schedule shall be maintained as part of the facility's SWPPP.
- l. Remove solids and other contaminants on vehicles and equipment prior to long-term storage in outdoor areas (e.g., bone yards).



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- m. Properly maintain (or ensure third party rendering companies properly maintain) gates and drain valves on offal trailers to prevent leakage.

**8.U.7.1.2 TIER II BMPs.**

- a. Perform wash down of live animal holding, staging, storage, etc. areas according to a schedule to be developed as appropriate for the particular facility, taking into account significant rain events and production schedules. Such schedule and a log demonstrating compliance with such schedule shall be maintained as part of the facility's SWPPP. Resulting wash water shall be collected and discharged to process sewer systems.
- b. Rinse live animal trailers, offal trailers, cages, etc. before long-term storage in outdoor areas (e.g., bone yards). Resulting rinse water shall be collected and discharged to process sewer systems.
- c. Implement and maintain operational measures which minimize/prevent attraction of excessive numbers of feral animals and birds to facility grounds.
- d. Disinfection of live animal holding, staging, and transfer areas can be performed during dry weather, when rain is not in the forecast within the next twenty-four (24) hours at a thirty (30) percent chance or higher, the neutralization will have time to take effect prior to the rain event, and it is applied such that there is no discharge as a result of the application. This does not relieve the permittee from compliance with the Water Quality Standards in the receiving waterbody (see Part 2.3.1).

**8.U.7.1.3 TIER III BMPs.**

Perform wash down of paved driveways, parking areas, etc. where live animal and animal byproduct transport vehicles are staged, stored, moved across, etc. paved driveways, parking areas, etc. according to a schedule to be developed as appropriate for the particular facility, taking into account significant rain events and production schedules. Such schedule and a log demonstrating compliance with such schedule shall be maintained as part of the facility's SWPPP. Resulting wash water shall be collected and discharged to process sewer systems. This BMP may not be practical for all facilities due to sewer access.

**8.U.7.2 Structural BMPs.****8.U.7.2.1 TIER I BMPs.**

- a. Provide containment areas and/or sewer connection for the following operations:
  - i. Loaded refrigerated trailer parking areas;
  - ii. Live holding sheds;
  - iii. Live receiving areas;
  - iv. Fresh product shipping docks;
  - v. Exposed offal storage and handling systems;
  - vi. Exposed DOA storage areas; and
  - vii. Vehicle and equipment washing areas.
- b. Incidental spillage, wash down water, and storm water from these areas should be collected and discharged to process sewer systems.
- c. Install and maintain pavement and curbing, etc. in the areas identified above to allow routine dry cleanup and/or wash down.
- d. Cover Live Animal Holding/Staging areas and Live Receiving areas.
- e. Install silt fencing or other sediment barriers (storm drain catchment filter inserts, sediment traps, etc.) around, or in, drop inlets, above outfalls, etc. to impede the migration of silt,

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sediment and litter materials into storm water drainage systems. These systems shall be inspected and maintained as needed to remove collected materials (silt, sediment, trash, etc.) and according to a schedule to be developed as appropriate for the particular facility, taking into account significant rain events and production schedules. Such schedule and a log demonstrating compliance with such schedule shall be maintained as part of the facility's SWPPP.

- f. Install and maintain collection and diversion structures (gutters, separate storm water drainage systems, etc.) to segregate "clean" storm water runoff from "sensitive" areas. Sensitive areas are defined as areas where live animals, litter materials, animal manures, animal byproducts, and other potential sources of fecal coliform may be present on surfaces.
- g. Install and maintain netting, curtains, etc. around Live Holding Sheds and Live Receiving Areas to contain feathers, litter material and associated dusts in containment areas.

**8.U.7.2.2 TIER II BMPs.**

- a. Provide containment areas and/or sewer connection for the following operations:
  - i. Loaded offal trailer parking areas;
  - ii. Live haul trailer parking areas;
  - iii. Dirty cage storage areas; and
  - iv. Trash compactor/dumpster areas, which can contain animal byproducts, litter/manure and other potential sources of fecal coliform.
- b. Install and maintain pavement and curbing, etc. in the areas identified above to allow routine dry cleanup and/or wash down.
- c. Where allowed and appropriate, install filter strips adjacent to paved areas to treat sheet flow runoff from areas.
- d. Where allowed and appropriate, install and maintain grass buffer strips upgradient of drainage ways.
- e. Purchase mechanical pavement sweepers or vacuums, or contract with associated third party contractor for service, and clean applicable paved areas on an as needed basis.

**8.U.7.2.3 TIER III BMPs.**

- a. Where allowed and appropriate, install first flush systems in other sensitive areas where incidental releases of manure, litter, red water, animal byproducts, etc. can occur. These systems should collect the first inch of rainfall and wash down water from areas. The first inch of rainfall and wash down water collected by these systems shall be discharged to process sewer. This BMP may not be practical for all facilities due to sewer access and/or limitations on storm water flow entry in sewer systems.
- b. If feasible, install air pollution control devices on ventilation exhaust from Live Hang areas.

**Sector 8.V – Textile Mills, Apparel, and Other Fabric Products.**

Subsector	SIC Code	Activity Represented
V1	2211-2299	Textile Mill Products
	2311-2399	Apparel and Other Finished Products Made from Fabrics and Similar Materials
	3131-3199	Leather and Leather Products (note: see Sector Z1 for Leather Tanning and Finishing)

**8.V.1 Covered Storm Water Discharges.**

The requirements in Sector V apply to storm water discharges associated with industrial activity from Textile Mills, Apparel, and Other Fabric Product manufacturing as identified by the SIC Codes specified above.

**8.V.2 Limitations on Coverage.**

8.V.2.1 *Prohibition of Non-Storm Water Discharges.* (See also Part 1.1.4) The following are not authorized by this permit: discharges of wastewater (e.g., wastewater resulting from wet processing or from any processes relating to the production process), reused or recycled water, and waters used in cooling towers. If permittees have these types of discharges from the facility, permittees must cover them under a separate NPDES permit.

**8.V.3 Additional Technology-Based Limitations.**

8.V.3.1 *Good Housekeeping Measures.* (See also Part 2.1.2.2)

8.V.3.1.1 *Material Storage Areas.* Plainly label and store all containerized materials (e.g., fuels, petroleum products, solvents, and dyes) in a protected area, away from drains. Minimize contamination of the storm water runoff from such storage areas. Also consider an inventory control plan to prevent excessive purchasing of potentially hazardous substances. For storing empty chemical drums or containers, ensure that the drums and containers are clean (consider triple-rinsing) and that there is no contact of residuals with precipitation or runoff. Collect and dispose of washwater from these cleanings properly.

8.V.3.1.2 *Material Handling Areas.* Minimize contamination of storm water runoff from material handling operations and areas. Consider the following, or their equivalents: use of spill and overflow protection; covering fueling areas; and covering or enclosing areas where the transfer of material may occur. When applicable, address the replacement or repair of leaking connections, valves, transfer lines, and pipes that may carry chemicals, dyes, or wastewater.

8.V.3.1.3 *Fueling Areas.* Minimize contamination of storm water runoff from fueling areas. Consider the following, or their equivalents: covering the fueling area, using spill and overflow protection, minimizing run-on of storm water to the fueling areas, using dry cleanup methods, and treating and/or recycling storm water runoff collected from the fueling area.

8.V.3.1.4 *Above-Ground Storage Tank Area.* Minimize contamination of the storm water runoff from above-ground storage tank areas, including the associated piping and valves. Consider the following, or their equivalents: regular cleanup of these areas; including measures for tanks, piping and valves explicitly in the permittee's SPCC program; minimizing runoff of storm water from adjacent areas; restricting access to the area; inserting filters in adjacent catch basins; providing absorbent booms in

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unbermed fueling areas; using dry cleanup methods; and permanently sealing drains within critical areas that may discharge to a storm drain.

8.V.3.2 *Employee Training.* (See also Part 5.1.1) As part of the employee training program, address, at a minimum, the following activities (as applicable): use of reused and recycled waters, solvents management, proper disposal of dyes, proper disposal of petroleum products and spent lubricants, spill prevention and control, fueling procedures, and general good housekeeping practices.

**8.V.4 Additional SWPPP Requirements.**

8.V.4.1 *Potential Pollutant Sources.* (See also Part 5.1.3) Document in the SWPPP the following additional sources and activities that have potential pollutants associated with them: industry-specific significant materials and industrial activities (e.g., backwinding, beaming, bleaching, backing bonding, carbonizing, carding, cut and sew operations, desizing, drawing, dyeing locking, fulling, knitting, mercerizing, opening, packing, plying, scouring, slashing, spinning, synthetic-felt processing, textile waste processing, tufting, turning, weaving, web forming, winging, yarn spinning, and yarn texturing).

8.V.4.2 *Description of Good Housekeeping Measures for Material Storage Areas.* Document in the SWPPP containment areas or enclosure for materials stored outdoors in connection with Part 8.V.3.1.1 above.

**Sector 8.W – Furniture and Fixtures.**

Subsector	SIC Code	Activity Represented
W1	2434	Wood Kitchen Cabinets
	2511-2599	Furniture and Fixtures

**8.W.1 Covered Storm Water Discharges.**

The requirements in Subpart W apply to storm water discharges associated with industrial activity from Furniture and Fixtures facilities as identified by the SIC Codes specified above.

**8.W.2 Additional SWPPP Requirements.**

8.W.2.1 *Drainage Area Site Map.* (See also Part 5.1.2) Document in the SWPPP where any of the following may be exposed to precipitation or surface runoff: material storage (including tanks or other vessels used for liquid or waste storage) areas; outdoor material processing areas; areas where wastes are treated, stored, or disposed of; access roads; and rail spurs.

**Sector 8.X – Printing and Publishing.**

Subsector	SIC Code	Activity Represented
X1	2711-2796	Printing, Publishing, and Allied Industries

**8.X.1 Covered Storm Water Discharges.**

The requirements in Sector X apply to storm water discharges associated with industrial activity from Printing and Publishing facilities as identified by the SIC Codes specified above.

**8.X.2 Additional Technology-Based Effluent Limits.**

8.X.2.1 *Good Housekeeping Measures.* (See also Part 2.1.2.2)

8.X.2.1.1 *Material Storage Areas.* Plainly label and store all containerized materials (e.g., skids, pallets, solvents, bulk inks, hazardous waste, empty drums, portable and mobile containers of plant debris, wood crates, steel racks, and fuel oil) in a protected area, away from drains. Minimize contamination of the storm water runoff from such storage areas. Also consider an inventory control plan to prevent excessive purchasing of potentially hazardous substances.

8.X.2.1.2 *Material Handling Areas.* Minimize contamination of storm water runoff from material handling operations and areas (e.g., blanket wash, mixing solvents, loading and unloading materials). Consider the following (or their equivalents): using spill and overflow protection, covering fueling areas, and covering or enclosing areas where the transfer of materials may occur. When applicable, address the replacement or repair of leaking connections, valves, transfer lines, and pipes that may carry chemicals or wastewater.

8.X.2.1.3 *Fueling Areas.* Minimize contamination of storm water runoff from fueling areas. Consider the following, or their equivalents: covering the fueling area, using spill and overflow protection, minimizing runoff of storm water to the fueling areas, using dry cleanup methods, and treating and/or recycling storm water runoff collected from the fueling area.

8.X.2.1.4 *Above Ground Storage Tank Areas.* Minimize contamination of the storm water runoff from above-ground storage tank areas, including the associated piping and valves. Consider the following, or their equivalents: regularly cleaning these areas, explicitly addressing tanks, piping and valves in the SPCC program, minimizing storm water runoff from adjacent areas, restricting access to the area, inserting filters in adjacent catch basins, providing absorbent booms in unbermed fueling areas, using dry cleanup methods, and permanently sealing drains within critical areas that may discharge to a storm drain.

8.X.2.2 *Employee Training.* (See also Part 5.1.1) As part of the employee training program, address, at a minimum, the following activities, as applicable: spent solvent management, spill prevention and control, used oil management, fueling procedures, and general good housekeeping practices.

**8.X.3 Additional SWPPP Requirements.**

8.X.31 *Description of Good Housekeeping Measures for Material Storage Areas.* In connection with Part 8.X.2.1.1, describe in the SWPPP the containment area or enclosure for materials stored outdoors.

## Sector 8.Y – Rubber, Miscellaneous Plastic Products, and Miscellaneous Manufacturing Industries.

Subsector	SIC Code	Activity Represented
Y1	3011	Tires and Inner Tubes
	3021	Rubber and Plastics Footwear
	3052, 3053	Gaskets, Packing and Sealing Devices, and Rubber and Plastic Hoses and Belting
	3061, 3069	Fabricated Rubber Products, Not Elsewhere Classified
Y2	3081-3089	Miscellaneous Plastics Products
	3931	Musical Instruments
	3942-3949	Dolls, Toys, Games, and Sporting and Athletic Goods
	3951-3955 (except 3952 – see Sector C)	Pens, Pencils, and Other Artists' Materials
	3961, 3965	Costume Jewelry, Costume Novelties, Buttons, and Miscellaneous Notions, Except Precious Metal
	3991-3999	Miscellaneous Manufacturing Industries

### 8.Y.1 Covered Storm Water Discharges.

The requirements in Sector Y apply to storm water discharges associated with industrial activity from Rubber, Miscellaneous Plastic Products, and Miscellaneous Manufacturing Industrial facilities as identified by the SIC Codes specified above.

### 8.Y.2 Additional Technology-Based Effluent Limits.

8.Y.2.1 *Controls for Rubber Manufacturers.* (See also Part 2.1.2) Minimize the discharge of zinc in storm water discharges. Parts 8.Y.2.1.1 to 8.Y.2.1.5 give possible sources of zinc to be reviewed and list some specific control measures to be considered for implementation, or their equivalents. Following are some general control measure options to consider: using chemicals purchased in pre-weighed, sealed polyethylene bags; storing in-use materials in sealable containers, ensuring an airspace between the container and the cover to minimize “puffing” losses when the container is opened, and using automatic dispensing and weighing equipment.

8.Y.2.1.1 *Zinc Bags.* Ensure proper handling and storage of zinc bags at the facility. Following are some control measure options: employee training on the handling and storage of zinc bags, indoor storage of zinc bags, cleanup of zinc spills without washing the zinc into the storm drain, and the use of 2,500-pound sacks of zinc rather than 50-pound to 100-pound sacks.

8.Y.2.1.2 *Dumpsters.* Minimize discharges of zinc from dumpsters. Following are some control measure options: covering the dumpster, moving the dumpster indoors, or providing a lining for the dumpster.

8.Y.2.1.3 *Dust Collectors and Baghouses.* Minimize contributions of zinc to storm water from dust collectors and baghouses. Replace or repair, as appropriate, improperly operating dust collectors and baghouses.

8.Y.2.1.4 *Grinding Operations.* Minimize contamination of storm water as a result of dust generation from rubber grinding operations. One control measure option is to install a dust collection system.

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8.Y.2.1.5 *Zinc Stearate Coating Operations.* Minimize the potential for storm water contamination from drips and spills of zinc stearate slurry that may be released to the storm drain. One control measure option is to use alternative compounds to zinc stearate.

8.Y.2.2 *Controls for Plastic Products Manufacturers.* Minimize the discharge of plastic resin pellets in storm water discharges. Control measures to be considered for implementation, or their equivalents, include: minimizing spills, cleaning up of spills promptly and thoroughly, sweeping thoroughly, pellet capturing, employee education, and disposal precautions.

### 8.Y.3 Additional SWPPP Requirements.

8.Y.3.1 *Potential Pollutant Sources for Rubber Manufacturers.* (See also Part 5.1.3) Document in the SWPPP the use of zinc at the facility and the possible pathways through which zinc may be discharged in storm water runoff.

### 8.Y.4 Sector-Specific Benchmarks. (See also Part 6)

These benchmarks apply to each of the outfalls whether described by the primary industrial activity, any applicable co-located industrial activities, or both.

<b>Subsector</b> (Permittees may be subject to requirements for more than one sector/subsector)	<b>Parameter</b>	<b>Benchmark Monitoring Concentration</b>
<b>Subsector Y1.</b> Rubber Products Manufacturing (SIC 3011, 3021, 3052, 3053, 3061, 3069)	Dissolved Zinc <sup>1</sup>	Hardness Dependent
	Oil & Grease	15 mg/L
	Chemical Oxygen Demand (COD)	120 mg/L
	Total Suspended Solids (TSS)	100 mg/L
	pH	6.0 - 9.0 s.u.
Facilities in Subsector Y1 with discharges from material storage piles. <sup>2</sup>	Total Suspended Solids (TSS)	100 mg/L

<sup>1</sup> The benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness in accordance with Appendix E, "Determining Benchmarks for Hardness Dependent Metals" (Part 6.2.1.1), to identify the applicable 'hardness range' for determining their benchmark value applicable to their facility. The ranges occur in 25 mg/L increments.

<sup>2</sup> Facilities with discharges from material storage piles must sample one (1) qualifying rain event each quarter at outfalls receiving the discharges, in the first year of permit coverage. If at least seventy-five (75) percent or the average of the samples do not exceed the benchmark value, permittees may revert to annual sampling in accordance with Part 6.2.



**Sector 8.Z – Leather Tanning and Finishing.**

Subsector	SIC Code	Activity Represented
Z1	3111 (also see sector V)	Leather Tanning and Finishing

**8.Z.1 Covered Storm Water Discharges.**

The requirements in Sector Z apply to storm water discharges associated with industrial activity from Leather Tanning and Finishing facilities as identified by the SIC Code specified above.

**8.Z.2 Additional Technology-Based Effluent Limits.**

8.Z.2.1 *Good Housekeeping Measures.* (See also Part 2.1.2.2.)

8.Z.2.2 *Storage Areas for Raw, Semiprocessed, or Finished Tannery By-products.* Minimize contamination of storm water runoff from pallets and bales of raw, semi-processed, or finished tannery by-products (e.g., splits, trimmings, shavings). Consider indoor storage or protection with polyethylene wrapping, tarpaulins, roofed storage, etc. Consider placing materials on an impermeable surface and enclosing or putting berms or equivalent measures around the area to prevent storm water run-on and runoff.

8.Z.2.3 *Material Storage Areas.* Label storage containers of all materials (e.g., specific chemicals, hazardous materials, spent solvents, waste materials) minimize contact of such materials with storm water.

8.Z.2.4 *Buffing and Shaving Areas.* Minimize contamination of storm water runoff with leather dust from buffing and shaving areas. Consider dust collection enclosures, preventive inspection and maintenance programs, or other appropriate preventive measures.

8.Z.2.5 *Receiving, Unloading, and Storage Areas.* Minimize contamination of storm water runoff from receiving, unloading, and storage areas. If these areas are exposed, consider the following, or their equivalents: covering all hides and chemical supplies, diverting drainage to the process sewer, or grading, berming or curbing the area to prevent storm water runoff.

8.Z.2.6 *Outdoor Storage of Contaminated Equipment.* Minimize contact of storm water with contaminated equipment. Consider the following, or their equivalents: covering equipment, diverting drainage to the process sewer, and cleaning thoroughly prior to storage.

8.Z.2.7 *Waste Management.* Minimize contamination of storm water runoff from waste storage areas. Consider the following, or their equivalents: covering dumpsters, moving waste management activities indoors, covering waste piles with temporary covering material such as tarpaulins or polyethylene, and minimizing storm water runoff by enclosing the area or building berms around the area.

**8.Z.3 Additional SWPPP Requirements.**

8.Z.3.1 *Drainage Area Site Map.* (See also Part 5.1.2) Identify in the SWPPP where any of the following may be exposed to precipitation or surface runoff: processing and storage areas of the beamhouse, tanyard, and re-tan wet finishing and dry finishing operations.

8.Z.3.2 *Potential Pollutant Sources.* (See also Part 5.1.3) Document in the SWPPP the following sources and activities that have potential pollutants associated with them, as appropriate: temporary or permanent storage of fresh and brine-cured hides; extraneous hide substances and hair; leather dust, scraps, trimmings, and shavings.

**Sector 8.AA – Fabricated Metal Products.**

Subsector	SIC Code	Activity Represented
AA1	3411-3499 (except 3479)	Fabricated Metal Products, Except Machinery and Transportation Equipment, and Coating, Engraving, and Allied Services.
	3911-3915	Jewelry, Silverware, and Plated Ware
AA2	3479	Fabricated Metal Coating and Engraving

**8.AA.1 Covered Storm Water Discharges.**

The requirements in Sector AA apply to storm water discharges associated with industrial activity from Fabricated Metal Products facilities as identified by the SIC Codes specified above.

**8.AA.2 Additional Technology-Based Effluent Limits.**

8.AA.2.1 *Good Housekeeping Measures.* (See also Part 2.1.2.2)

8.AA.2.1.1 *Raw Steel Handling Storage.* Minimize the generation of and/or recover and properly manage scrap metals, fines, and iron dust. Include measures for containing materials within storage handling areas.

8.AA.2.1.2 *Paints and Painting Equipment.* Minimize exposure of paint and painting equipment to storm water.

8.AA.2.1.3 *Spill Prevention and Response Procedures.* (See also Part 2.1.2.4) Ensure that the necessary equipment to implement a cleanup is available to personnel. The following areas should be addressed:

8.AA.2.1.4 *Metal Fabricating Areas.* Maintain clean, dry, orderly conditions in these areas. Consider using dry clean-up techniques.

8.AA.2.1.5 *Storage Areas for Raw Metal.* Keep these areas free of conditions that could cause, or impede appropriate and timely response to, spills or leakage of materials. Consider the following, or their equivalents: maintaining storage areas so that there is easy access in the event of a spill, and labeling stored materials to aid in identifying spill contents.

8.AA.2.1.6 *Metal Working Fluid Storage Areas.* Minimize the potential for storm water contamination from storage areas for metal working fluids.

8.AA.2.1.7 *Cleaners and Rinse Water.* Control and clean up spills of solvents and other liquid cleaners, control sand buildup and disbursement from sand-blasting operations, and prevent exposure of recyclable wastes. Substitute environmentally benign cleaners when possible.

8.AA.2.1.8 *Lubricating Oil and Hydraulic Fluid Operations.* Minimize the potential for storm water contamination from lubricating oil and hydraulic fluid operations. Consider using monitoring equipment or other devices to detect and control leaks and overflows. Consider installing perimeter controls such as dikes, curbs, grass filter strips, or equivalent measures.

8.AA.2.1.9 *Chemical Storage Areas.* Minimize storm water contamination and accidental spillage in chemical storage areas. Include a program to inspect containers and identify proper disposal methods.

8.AA.2.2 *Spills and Leaks.* (See also Part 5.1.3.3.) In the spill prevention and response procedures, required by Part 2.1.2.4, pay attention to the following materials, at a minimum: chromium, toluene, pickling liquor, sulfuric acid, zinc and other water priority chemicals, and hazardous chemicals and wastes.

**8.AA.3 Additional SWPPP Requirements.**

8.AA.3.1 *Drainage Area Site Map.* (See also Part 5.1.2) Document in the SWPPP where any of the following may be exposed to precipitation or surface runoff: raw metal storage areas; finished metal storage areas; scrap disposal collection sites; equipment storage areas; retention and detention basins; temporary and permanent diversion dikes or berms; right-of-way or perimeter diversion devices; sediment traps and barriers; processing areas, including outside painting areas; wood preparation; recycling; and raw material storage.

8.AA.3.2 *Potential Pollutant Sources.* (See also Part 5.1.3) Document in the SWPPP the following additional sources and activities that have potential pollutants associated with them: loading and unloading operations for paints, chemicals, and raw materials; outdoor storage activities for raw materials, paints, empty containers, chemicals, and scrap metals; outdoor manufacturing or processing activities such as grinding, cutting, degreasing, buffing, and brazing; onsite waste disposal practices for spent solvents, sludge, pickling baths, shavings, ingot pieces, and refuse and waste piles.

**8.AA.4 Additional Inspection Requirements.**

8.AA.4.1 *Inspections.* (See also Part 4) At a minimum, include the following areas in all inspections: raw metal storage areas, finished product storage areas, material and chemical storage areas, recycling areas, loading and unloading areas, equipment storage areas, paint areas, and vehicle fueling and maintenance areas.

8.AA.4.2 *Comprehensive Site Inspections.* (See also Part 4.3) As part of the inspection, also inspect areas associated with the storage of raw metals, spent solvents and chemicals storage areas, outdoor paint areas, and drainage from roof. Potential pollutants include chromium, zinc, lubricating oil, solvents, aluminum, oil and grease, methyl ethyl ketone, steel, and related materials.

**8.AA.5 Sector-Specific Benchmarks. (See also Part 6)**

These benchmarks apply to each of the outfalls whether described by the primary industrial activity, any applicable co-located industrial activities, or both.

<b>Table 8.AA-1</b>		
<b>Subsector</b> (Permittees may be subject to requirements for more than one sector/subsector)	<b>Parameter</b>	<b>Benchmark Monitoring Concentration</b>
<b>Subsector AA1.</b> Fabricated Metal Products, (SIC 3411-3499; 3911-3915)	Dissolved Zinc <sup>1</sup>	Hardness Dependent
	Chemical Oxygen Demand (COD)	120 mg/L
	Total Suspended Solids (TSS)	100 mg/L
<b>Subsector AA2.</b> Fabricated Metal Coating and Engraving (SIC 3479)	Dissolved Zinc <sup>1</sup>	Hardness Dependent

<sup>1</sup> The benchmark values of some metals are dependent on water hardness. For these parameters, permittees must determine the hardness in accordance with Appendix E, "Determining Benchmarks for Hardness Dependent Metals" (Part 6.2.1.1), to identify the applicable 'hardness range' for determining their benchmark value applicable to their facility. The ranges occur in 25 mg/L increments.

**Sector 8.AB – Storm Water Discharges Designated by the Director as Requiring Permits.**

Subsector	SIC Code	Activity Represented
AB1		Other storm water discharges designated by the Director as needing a permit [see 40 CFR 122.26(a)(9)(i)(C) and (D)] with industrial activity not described by Sectors A-AA. NOTE: Facilities may not elect to be covered under Sector AB. Only the Director may assign a facility to Sector AB.

**8.AB.1 Covered Storm Water Discharges.**

Sector AB is used to provide permit coverage for facilities designated by the Director as needing a storm water permit.

**8.AB.1.1 Eligibility for Permit Coverage.** Because this sector is intended for use by discharges designated by the Director as needing a storm water permit, which is an atypical circumstance, permittees must obtain the Director's written directive to use this permit prior to submitting an NOI. If the permittee is directed to use this permit, they will still be required to ensure that discharges meet the basic eligibility provisions of this permit at Part 1.2.

**8.AB.2 Sector-Specific Benchmarks and Effluent Limits. (See also Part 6)**

The Director may establish any additional monitoring and reporting requirements for the facility prior to authorizing the permittee to be covered by this permit. Additional monitoring requirements would be based on the nature of activities and storm water discharges at the facility.

## Appendix A Definitions

### A.1 DEFINITIONS (for the purposes of this permit):

**Action Area** – all areas to be affected directly or indirectly by the storm water discharges, allowable non-storm water discharges, and storm water discharge-related activities, and not merely the immediate area involved in these discharges and activities.

**Associated with Industrial Activity** - any industrial activity or industrial facility identified in 40 CFR Part 122.26(b)(14)(i) through (ix) and (xi) identified in Appendix D.

**Best Management Practices (BMPs)** - schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the State of Georgia. BMPs also include treatment requirements, operating procedures, and practices to control facility site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

**Co-located Industrial Activities** – any industrial activities, excluding the permittee’s primary industrial activity, located on-site that are defined by the storm water regulations at 122.26(b)(14)(i)-(ix) and (xi). An activity at a facility is not considered co-located if the activity, when considered separately, does not meet the description of a category of industrial activity covered by the storm water regulations or identified by the SIC code list in Appendix D.

**Commencement of Operations** - the date on which any raw material, intermediate product, finished product, by-product or waste product is first brought onto the facility and exposed to storm water.

**Containment Zone** – areas that include, but are not limited to, all loading areas, unloading areas and designated live animal holding areas that are free of cracks or gaps and must be sufficiently sized and impervious to contain leaks, spills, and accumulated precipitation.

**Control Measure** – refers to any BMP or other method (including effluent limitations) used to prevent or reduce the discharge of pollutants to waters of the United States.

**Director** - the Director of the Georgia Environmental Protection Division or an authorized representative.

**Discharge** – when used without qualification, means the "discharge of a pollutant."

**Discharge of a Pollutant** – any addition of any “pollutant” or combination of pollutants to waters of the State or “waters of the United States” from any “point source,” or any addition of any pollutant or combination of pollutants to the waters of the “contiguous zone” or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation. This includes additions of pollutants into waters of the United States from: surface runoff which is collected or channeled by man; discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works.

**Discharge-related Activities** – activities that cause, contribute to, or result in storm water and allowable non-storm water point source discharges, and measures such as the siting, construction, and operation of BMP to control, reduce, or prevent pollution in the discharges.

**Drought-stricken Area** – a period of below average water content in streams, reservoirs, ground-water aquifers, lakes and soils.

**EPA Approved Total Maximum Daily Loads (TMDL)** – “EPA Approved TMDL” are those that are developed by EPD and approved by EPA.

**EPD or Division** - the Georgia Environmental Protection Division of the Department of Natural Resources.

**Existing Discharger** – an operator applying for coverage under this permit for discharges authorized previously under an NPDES general or individual permit.

**Facility or Activity** – any NPDES “point source” (including land or appurtenances thereto) that is subject to regulation under the NPDES program.

**Federal Facility** – any buildings, installations, structures, land, public works, equipment, aircraft, vessels, and other vehicles and property, owned by, or constructed or manufactured for the purpose of leasing to, the Federal government.

**First Flush** – storm water discharge from initiation of flow to the end of the first thirty (30) minutes of flow.

**Impaired Stream Segment** - any waterbody, stream, river or lake segment that is identified as “not supporting” its designated use(s) on Georgia’s most current 305(b)/303(d) list documents (Final). Impaired waters include both waters with approved TMDL, and those for which a TMDL has not yet been approved. Georgia’s 305(b)/303(d) lists can be viewed on EPD’s website at <http://www.gaepd.org/Documents/IndustrialStormwater.html>.

**Industrial Activity** - any industrial activity or industrial facility identified in 40 CFR Part 122.26(b)(14)(i) through (ix) and (xi) identified in Appendix D.

**Maximum Extent Practicable (MEP)** - reduction of the discharge of pollutants associated with industrial activity using a combination of best management practices, control techniques, system design and engineering methods, and such other provisions as described in the SWPPP.

**Measurable Storm Event** – a storm event greater than 0.1 inch of rainfall.

**Minimize** - reduce and/or eliminate to the extent achievable using control measures (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practices.

**Municipal Separate Storm Sewer System (MS4)** - either a large, medium, or small municipal storm sewer system, or a municipal separate storm sewer system owned or operated by a City, County or authority which is regulated by a National Pollutant Discharge Elimination System Permit.

**New Discharger** – an operator applying for coverage under this permit for discharges not authorized previously under Georgia’s NPDES Industrial Storm Water General Permit Number GAR000000 or an NPDES individual permit.

**No Exposure** – all industrial materials or activities are protected by a storm-resistant shelter to prevent exposure to rain, snow, snowmelt, and/or runoff.

**NOI** – means Notice of Intent as defined in Part 1.3.

**NOT** – means Notice of Termination as defined in Part 1.4.

**NPDES** – means National Pollutant Discharge Elimination System.

**Operator** – the entity that has the primary day-to-day operational control of those activities at the facility necessary to ensure compliance with the SWPPP requirements and permit conditions.

**Outfall** – the location where storm water in a discernible, confined and discrete conveyance, leaves a facility or site or, if there is a receiving water on site, becomes a point source discharging into that receiving water.

**Outstanding National Resource Water** – waters as defined in 391-3-6-.03(2).

**Owner** - the legal owner of the facility where an industrial activity takes place.

**Permittee** - the entity that has submitted an NOI and that is the owner or operator of an industrial activity.

**Person** – an individual, association, partnership, corporation, municipality, State or Federal agency, or an agent or employee thereof.

**Point Source** – any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel, or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff.

**Pollutant** – dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials (except those regulated under the Atomic Energy Act [42 U.S.C. 2011, et seq.]), , wrecked or discarded equipment, rock, sand, and industrial and municipal waste discharged into water.

**Pollutant of Concern** – a water quality parameter associated with the impairment of a stream segment, or other specified portion of a water of the State, that is identified on either Georgia's 305(b)/303(d) lists and/or in an approved TMDL.

**Primary Industrial Activity** – includes any activities performed on-site which are (1) identified by the facility's primary SIC code; or (2) included in the narrative descriptions of 122.26(b)(14)(i), (iv), (v), or (vii), and (ix). [For co-located activities covered by multiple SIC codes, it is recommended that the primary industrial determination be based on the value of receipts or revenues or, if such information is not available for a particular facility, the number of employees or production rate for each process may be compared. The operation that generates the most revenue or employs the most personnel is the operation in which the facility is primarily engaged. In situations where the vast majority of on-site activity falls within one SIC code, that activity may be the primary industrial activity.] Narrative descriptions in 40 CFR 122.26(b)(14) identified above include: (i) activities subject to storm water effluent limitations guidelines, new source performance standards, or toxic pollutant effluent standards; (iv) hazardous waste treatment storage, or disposal facilities including those that are operating under interim status or a permit under Subtitle C of the RCRA; (v) landfills, land application sites and open dumps that receive or have received industrial wastes; (vii) steam electric power generating facilities; and (ix) sewage

treatment works with a design flow of 1.0 mgd or greater, or has a pretreatment program.

**Professional Engineer's Certification** – preparation by or under the direct supervision of, and bearing the seal and signature of a Professional Engineer competent in the field of storm water licensed in the State of Georgia, and consistent with the requirements of O.C.G.A 43-15.

**Qualified Personnel** – personnel who possess the knowledge and skills to assess conditions and activities that could impact storm water quality at the permittee's facility, and who can also evaluate the effectiveness of control measures.

**Receiving Waters** - waters of the State into which the runoff of storm water from a facility will actually discharge, either directly or indirectly.

**Reportable Quantity Release** – a release of a hazardous substance at or above the established legal threshold that requires emergency notification. Refer to 40 CFR Parts 110, 117, and 302 for complete definitions and reportable quantities for which notification is required.

**Runoff Coefficient** – the fraction of total rainfall that will appear at the conveyance as runoff.

**Run-on** – any storm water-related or other discharge coming from an upgradient site.

**Significant materials** – includes, but is not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under section 101(14) of CERCLA; any chemical the facility is required to report pursuant to Section 313 of Title III of SARA; fertilizers; pesticides; and waste products such as ashes, slag and sludge that have the potential to be released with storm water discharges.

**Significant Spills** - includes, but is not limited to: releases of oil or hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (see 40 CFR 110.10 and CFR 117.21) or Section 102 of CERCLA (see 40 CFR 302.4).

**Storm Water** – storm water runoff, snow melt runoff, surface runoff, and drainage.

**Storm Water Discharges Associated with Construction Activity** – a discharge of pollutants in storm water runoff from areas where soil disturbing activities (e.g., clearing, grading, or excavating), construction materials, or equipment storage or maintenance (e.g., fill piles, borrow areas, concrete truck washout, fueling), or other industrial storm water directly related to the construction process (e.g., concrete or asphalt batch plants) are located. Storm water runoff from these areas should be covered under its NPDES Construction General Permit.

**Storm Water Discharges Associated with Industrial Activity** - the discharge from any conveyance which is used for collecting and conveying storm water and that is directly related to manufacturing, processing or raw materials storage areas at an industrial plant. The term does not include discharges from facilities or activities excluded from the NPDES program. For the categories of industries identified in Appendix D, the term includes, but is not limited to, storm water discharges from industrial plant yards; immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility; material handling sites; refuse sites; sites used for the application or disposal of process waste waters (as defined at 40 CFR 401); sites used for the storage and maintenance of material handling equipment; sites used for residual treatment, storage, or disposal; shipping and receiving areas; manufacturing buildings; storage areas (including tank farms) for raw materials, and intermediate and finished products; and



areas where industrial activity has taken place in the past and significant materials remain and are exposed to storm water. For the purposes of this paragraph, material handling activities include the storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, finished product, by-product or waste product. The term excludes areas located on plant lands separate from the plant's industrial activities, such as office buildings and accompanying parking lots as long as the drainage from the excluded areas is not mixed with storm water drained from the above described areas. Industrial facilities (including industrial facilities that are Federally, State or municipally owned or operated that meet the description of the facilities listed in Appendix D) include those facilities designated under 40 CFR 122.26(b)(14)(i)–(ix) and (xi). See Appendix D for categories of facilities are considered to be engaging in “industrial activity” for purposes of this permit.

**Substantially Identical Outfalls** - outfalls that have generally similar industrial activities, control measures, exposed materials that may significantly contribute pollutants to storm water, and runoff coefficients of their drainage areas.

**SWPPP** – Storm Water Pollution Prevention Plan as defined in Part 5.

**Total Maximum Daily Load (TMDL)** –a calculation of the maximum amount of a pollutant that a water body can receive and still meet Water Quality Standards in the receiving waterbody, and an allocation of that amount to the pollutant's sources. A TMDL includes wasteload allocations (WLA) for point source discharges; load allocations (LA) for nonpoint sources and/or natural background, and must include a margin of safety (MOS) and account for seasonal variations. (See Section 303(d) of the Clean Water Act and 40 CFR 130.2 and 130.7).

**Uncontaminated** - free from the presence of pollutants attributable to industrial activity.

**Water Quality Impaired** – See ‘Impaired Stream Segment’.

**Water Quality Standards (WQS)** – definition of the water quality goals of a water body, or portion thereof, by designating the use or uses to be made of the water and by setting criteria necessary to protect the uses. States and EPA adopt water quality standards to protect public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act (See CWA sections 101(a)2 and 303(c)) and the Georgia Water Quality Control Act.

**Watershed** - a geographic area draining to a stream or stream segment. All of the land area that drains to a stream or stream segment is considered to be within the “watershed” of that stream or stream segment.

**Waters of Georgia or Waters of the State** - any and all rivers, streams, creeks, branches, lakes, reservoirs, ponds, drainage systems, springs, wells, wetlands, and all other bodies of surface or subsurface water, natural or artificial, lying within or forming a part of the boundaries of the State which are not confined and retained completely upon the property of a single individual, partnership, or corporation.

## Appendix B

### Standard Permit Conditions

#### B.1 Duty to Comply.

B.1.1 The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Georgia Water Quality Control Act (O.C.G.A. § 12-5-20 et. seq.) and is grounds for enforcement action; for permit termination; revocation and reissuance, or modification; or for denial of a permit renewal application. Any instances of noncompliance must be reported to EPD as specified in Part 7.4 of this permit.

B.1.2. Penalties for violations of permit conditions. The Federal Clean Water Act and the Georgia Water Quality Control Act (O.C.G.A. § 12-5-20 et. seq.) provide that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required 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 Georgia Water Quality Control Act (Act) also provides 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.

**B.2. Duty to Reapply/Continuation of the Expired General Permit.** This permit will continue in effect until the date five (5) years after the effective date and will expire on the date shown on the cover page. However, an expired general permit continues in force and effect until a new general permit is issued, final and effective. Any permittee who submitted a properly-completed Notice of Intent-GAR050000 form to obtain coverage under this permit prior to the expiration date will automatically remain covered under the continued permit until one of the following occurs:

B.2.1 Reissuance or replacement of this permit, at which time a new NOI form will be required under the terms of the new permit in order to maintain authorization to discharge; or

B.2.2 Submittal of a properly completed NOT for the facility; or

B.2.3 An individual NPDES permit authorizing storm water discharges associated with industrial activity is issued for all of the permittee's discharges formerly covered by the continued permit; or

B.2.4 A formal permit decision is made by the Director not to reissue this general permit, at which time coverage under an individual permit or an alternate general permit will be required.

B.2.5 A formal permit decision is made by the Director not to allow the permittee to be covered under this general permit, at which time coverage under an individual permit or an alternative general permit may be required.

**B.3 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.

**B.4 Duty to Mitigate.** 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.

**B.5 Duty to Provide Information.** The permittee shall furnish to EPD, within a specified time, any requested information which may be used to determine compliance with this permit. The permittee shall also furnish to EPD upon request copies of records required to be kept by this permit. When the facility discharges storm water associated with industrial activity through a permitted municipal separate storm sewer system (MS4), the

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permittee shall also furnish to the MS4 any information which is requested to determine compliance with this permit and other NPDES permits. In the case of information submitted to EPD, such information shall be considered public information and available under the Georgia Open Records Act. The failure to provide information requested by EPD in accordance with this permit is a violation of this permit.

**B.6 Other Information.** If the permittee becomes aware of a failure to submit any relevant facts or of the submittal of incorrect information in the NOI, Annual Report, or in any report to EPD, the permittee shall promptly submit the relevant facts or information.

**B.7 Signatory Requirements.** All records and information such as NOI, NOT, SWPPP, reports, certifications which are required to be kept by this permit, to be submitted to EPD and/or to be submitted to the operator of a permitted municipal separate storm sewer system, shall be signed as follows:

**B.7.1. All Notices of Intent** shall be signed as follows:

**B.7.1.1** For a corporation: by a responsible corporate officer. For the purpose of this permit, a responsible corporate officer means: (1) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation; or (2) the manager of one or more manufacturing, production or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

**B.7.1.2** For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

**B.7.1.3** For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official.

**B.7.2** All reports required by the permit and other information requested by EPD shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

**B.7.2.1** The authorization is made in writing by a person described above and submitted to EPD.

**B.7.2.2** The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of manager, operator, superintendent, or position of equivalent responsibility or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.)

**B.7.2.3** Changes in authorization. If an authorization under B.7.2 is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of this Part must be submitted to EPD prior to or together with any reports, information, or applications to be signed by an authorized representative.

**B.7.2.4** Certification. Any person signing documents under this section shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly

gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

**B.8 Oil and Hazardous Substance Liability.** Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Clean Water Act (CWA) or Section 106 of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

**B.9 Property Rights.** The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

**B.10 Severability.** The provisions of this permit are severable. If any provision of this permit or the application of any permit provision to any circumstance is held invalid, the provision does not affect other circumstances or the remainder of this permit.

**B.11. Requiring an Individual Permit or an Alternative General Permit.** EPD may require any permittee or person authorized by this permit to apply for and/or obtain either an individual NPDES permit or an alternative NPDES general permit.

**B.12 Other Applicable Environmental Regulations and 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 Clean Water Act. Nothing in this permit, unless explicitly stated, exempts the permittee from compliance with other applicable local, State and Federal ordinances, rules, regulations, and laws. No condition of this permit shall release the permittee from any responsibility or requirements under other environmental statutes or regulations.

**B.13. Proper Operation and Maintenance.** The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances), owned or operated by the permittee to achieve compliance with the terms and conditions of this permit and with the requirements of the SWPPP. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems which are installed by a permittee only when necessary to achieve compliance with the conditions of the permit.

**B.14 Monitoring and Records.**

B.14.1 Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

B.14.2 The permittee shall retain records of all monitoring information including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of the reports required by this permit, and records of all data used to complete the application for this permit, for a period as specified in Part 7.5 of this permit. This period may be extended at the request of EPD at any time.

**B.14.3 Sampling, Test Procedures and Analysis.** All 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, unless other test procedures have been specified in this permit. The analytical method used shall be sufficiently sensitive. The EPA approved methods must be applicable to the concentration ranges of the NPDES permit samples.

- a. Sampling must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.
- b. Samples must be analyzed consistent with 40 CFR Part 136 analytical methods and using test procedures with quantitation limits at or below benchmark values for all benchmark parameters for which permittees are required to sample.
- c. For averaging purposes, use a value of zero for any individual sample parameter analyzed using procedures consistent with Part 6.2.1.1 which is determined to be less than the method detection limit.
- d. For sample values that fall between the method detection level and the quantitation limit (i.e., a confirmed detection but below the level that can be reliably quantified), use a value halfway between zero and the quantitation limit.

**B.14.4 Records Contents.** Records of monitoring information shall include:

- a. The date, exact place, and time of sampling;
- b. The initials or the name(s) of the individual(s) who performed the sampling or measurements;
- c. The date(s) analyses were initiated;
- d. The date(s) the analysis were performed;
- e. The initials or the name(s) of the individual(s) who performed the analyses;
- f. References and written procedures, when available, for the analytical techniques or methods used; and
- g. The results of such analyses, including the bench sheets, instrument readouts, computer disks or tapes, etc., used to determine these results.

**B.15 Inspection and Entry.** The permittee shall allow the Director, the Regional Administrator of USEPA, or their authorized representatives, or, in the case of a facility which discharges through a municipal separate storm sewer system, an authorized representative of the MS4 receiving the discharge, upon the presentation of credentials and other documents as may be required by law, to:

**B.15.1** Enter the permittee's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit;

**B.15.2** Have access to and copy at reasonable times, any records that must be kept under the conditions of this permit;

**B.15.3** Inspect at reasonable times any facilities or equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

**B.15.4** Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

**B.16 Permit Actions.** The permit may be modified, revoked and reissued, or terminated for cause.

**B.17 Availability of Reports.** Except for data determined by EPD to be confidential under Section 16 of the State Act or by the Regional Administrator of the USEPA under the Code of Federal Regulations, Title 40, Part 2, all reports prepared according to the terms of this permit shall be available for public inspection at an office of the EPD under the Georgia Open Records Act. All monitoring data, permit applications, permittees' names and addresses, and permits shall not be considered confidential.

**B.18 Contested Hearing.** Any person who is aggrieved or adversely affected by any action of the Director shall petition the Director for a hearing within thirty (30) days of notice of this action.

**B.19 Civil and Criminal Liability.** The permittee is liable for civil and criminal penalties for noncompliance with this permit and must comply with applicable State and Federal laws. The permit cannot be interpreted to relieve the permittee of this liability even if it has not been modified to incorporate new requirements.

**B.20 Transfer of Ownership.** The permit is not transferrable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Clean Water Act.

## Appendix C

### Impaired Stream Segment Sampling and Requirements

(A flowchart that illustrates the Appendix C decision tree is attached to this Appendix.)

**NOTE: Clarification of Discharge into an Impaired Stream Segment:** In Appendix C “discharge into an impaired stream segment” means “discharge into, or within one linear mile upstream of, and in the same watershed as, any portion of an impaired stream segment”. The linear distance shall be measured from the closest storm water outfall that discharges upstream of, and in the same watershed as, any portion the impaired waterbody.

**C.1 New Discharges into an Impaired Stream Segment.** If the permittee is a new discharger, not on record as having filed previously, the permittee **is not eligible for coverage** under this permit to discharge to an impaired stream segment, as defined in Appendix A, unless the permittee:

C.1.1 Prevents all exposure as a result of industrial activity to storm water of the pollutant(s) for which the water body is impaired, and retains documentation of procedures taken to prevent exposure onsite with the SWPPP; or

C.1.2 Documents that the pollutant(s) for which the water body is impaired is not present at the facility as a result of industrial activity, and retains documentation with the SWPPP; or

C.1.3 Prepares and submits data certified in accordance with C.1.4 documenting that the discharge will not cause or contribute to an exceedance of a Water Quality Standard, and retains such data onsite with the SWPPP. To do this, the permittee must include data and other technical information demonstrating that the discharge will not cause or contribute to an exceedance of a Water Quality Standard, as follows:

C.1.3.1 For discharges to waters without an EPA-approved TMDL, that the discharge of the pollutant for which the water is impaired will not exceed the in-stream water quality criteria at the point of discharge to the water body; or

C.1.3.2 For discharges to waters with an EPA-approved TMDL, that there is sufficient remaining wasteload allocation (WLA) in the TMDL to allow the discharge and that existing discharges to the water body are subject to compliance schedules designed to bring the water body into attainment with Water Quality Standards; or

C.1.3.3 Characterizes the ability of the discharge to cause or contribute to an exceedance of a Water Quality Standard by performing benchmark or composite sampling as prescribed in Section C.2.

C.1.4 **Certification.** In order to qualify for the sampling exclusion in Part C.1.3.1 or C.1.3.2, the permittee must submit supporting documentation, with a Professional Engineer’s Certification as defined in Appendix A, with the NOI. The Director may also require a Professional Engineer’s Certification for any facility that does not adequately demonstrate that it is in compliance with the exclusions in Part C.1.1 or C.1.2. Permittees qualifying to discharge to impaired waterbodies under C.1.1, C.1.2, C.1.3.1 or C.1.3.2 have satisfied the requirements of Appendix C and no further sampling under Appendix C is required.

**C.2 Existing Discharges.** Existing discharges into an impaired stream segment are subject to Parts C.2 through C.12, as applicable. Existing dischargers that were subject to the impaired stream segment sampling contained in Part III.C of Georgia’s 2006 Industrial Storm Water General Permit, refer to C.6, C.7, C.8 or C.10 for sampling requirements. Existing dischargers may choose to document that they do not cause or contribute to an exceedance of a Water Quality Standard by meeting the requirements of C.1.1, C.1.2 or C.1.3.

**C.2.1 Applicable Benchmark Values.** The applicable benchmark values shall be the same numeric value as the instream Water Quality Standard for the pollutant(s) of concern as specified in Georgia's Rules and Regulations for Water Quality Control (Georgia Rule 391-3-6-.03) unless otherwise established in Appendix C of this permit. The benchmark values are designed to assist permittees in characterizing the ability of the discharge to cause or contribute to an exceedance of a Water Quality Standard and in determining if the BMPs established in a facility's SWPPP are effective in minimizing the concentration of the pollutant(s) of concern in storm water discharge(s) from their facility. These benchmark values are intended to be guideline concentrations rather than numeric effluent limitations. The exceedance of a benchmark value is not a permit violation and does not of itself indicate a violation of instream Water Quality Standards. However, an exceedance of a benchmark value may be used in conjunction with other information to demonstrate a violation of this permit or a violation of Water Quality Standards.

**C.2.2 Specific Requirements for Discharges into a Stream Segment Impaired for Dissolved Oxygen (DO).**

C.2.2.1 Facilities for which the listing criterion is identified as DO will only be required to conduct sampling under Appendix C if industrial materials that may contribute Five-Day Carbonaceous Biochemical Oxygen Demand (CBOD<sub>5</sub>) or ammonia-nitrogen (NH<sub>3</sub>-N) may be exposed to storm water as a result of current or previous industrial activity at the facility. These facilities must sample for CBOD<sub>5</sub> and NH<sub>3</sub>-N. The applicable benchmark value for these discharges shall be an Ultimate Oxygen Demand (UOD) of 125 mg/L. The UOD shall be calculated as  $[(CBOD_5 \times 1.5) + (NH_3-N \times 4.57)]$ .

C.2.2.2 A summary of the sampling results for CBOD<sub>5</sub> and NH<sub>3</sub>-N must be submitted to EPD's Watershed Protection Branch with the annual report. The annual report must identify the applicable benchmark value and state whether the facility has passed or failed the benchmark requirement for the twelve (12) month sampling period.

**C.2.3 Specific Requirements for Discharges into a Stream Segment Impaired by Non-Pollutant Specific Criteria Including but Not Limited to Biota F and Biota M.**

C.2.3.1 Facilities for which the listing criterion is identified as "Biota or Sediment" are required to conduct sampling for TSS unless a TMDL has identified a different pollutant from nonpoint sources as causing the impairment, in which case sampling must be conducted for the pollutant(s) identified in the TMDL. The applicable TSS benchmark value for these discharges shall be 100 mg/L.

C.2.3.2 Facilities for which the listing criterion is toxicity, FCG (fish consumption guidelines), SB (shellfishing ban), CFB (commercial fishing ban) or TWR (trophic weighted residue value of mercury in fish tissue) will only be required to conduct sampling under Appendix C if a TMDL identifying a specific water quality parameter has been approved for the stream segment.

C.2.3.3 A summary of the sampling results for TSS must be submitted to EPD's Watershed Protection Branch with the annual report. The annual report must identify the applicable benchmark value(s) and state whether the facility has passed or failed the benchmark requirement for the twelve (12) month sampling period. If no sampling was conducted because the listing criterion is FCG, SB, CFB or TWR, a statement to that effect must be submitted to EPD's Watershed Protection Branch with the annual report.

**C.2.4 Specific Requirements for Discharges into a Stream Segment Impaired by Fecal Coliform.**

C.2.4.1 *Facilities without animal handling.* Facilities without animal handling, for which the listing criteria is identified as fecal coliform (FC), shall conduct sampling in accordance with Appendix C for industrial storm water discharges regulated by this permit. The applicable benchmark value for these discharges shall be the instream geometric mean Water Quality Standard for FC. Where collection of the four samples needed to calculate the geometric mean is not possible due to weather or other adverse conditions then the benchmark for the months of November through April shall be the daily maximum



Water Quality Standard for any sample, and the benchmark for the months May through October shall be four times the instream geometric mean Water Quality Standard.

C.2.4.2 *Facilities with animal handling.* Facilities with animal handling, for which the listing criteria is identified as fecal coliform (FC), will be required to:

- a. Conduct sampling under Appendix C for storm water discharges from the animal handling areas of the facility, and/or
- b. Capture (collect and not discharge as untreated stormwater under this permit) the 24-hour storm event rainfall depth of 1.2 inches (85<sup>th</sup> percentile storm event, Georgia Stormwater Management Manual, Vol. 2, Section 1.3.2.1) in animal handling areas. If the area of capture is larger than the animal handling area, the volume calculation shall be based on the area of capture. When a rain event exceeds 1.2 inches in 24 hours, the discharge that occurs in excess of the 1.2-inch treatment volume is not subject to benchmark values listed below.

C.2.4.2.1 The applicable benchmark value for the discharges in a. and b. above shall be the instream geometric mean Water Quality Standard for FC. Where collection of the four samples needed to calculate the geometric mean is not possible due to weather or other adverse conditions then the benchmark for the months of November through April shall be the daily maximum Water Quality Standard for any sample, and the benchmark for the months May through October shall be four times the instream geometric mean Water Quality Standard.

C.2.4.2.2 Facilities that intend to capture the storm water discharge from animal handling areas and then treat it using chemical addition shall notify EPD in writing of the proposed treatment system. EPD may specify additional end-of-pipe monitoring and/or effluent limitations as necessary to ensure compliance with applicable Water Quality Standards and/or criteria in the receiving stream.

C.2.4.2.3 For the purposes of Appendix C of this permit, animal handling areas are those areas where animals or animal containers (trucks, cages, etc.) are stored or unloaded and where offal is stored and loaded. Animal handling areas exclude access roads with no truck parking, clean truck and cage storage areas, clean equipment storage yards, and roof runoff; these shall be considered background conditions and are not subject to the requirements of Appendix C.

C.2.4.3 A summary of the sampling results for fecal coliform must be submitted to EPD's Watershed Protection Branch with the Annual Report. The report must also identify the applicable benchmark value and state whether the facility has passed or failed the benchmark requirement for the twelve (12) month sampling period.

C.2.4.4 A list of BMPs designed to reduce fecal coliform levels in storm water runoff has been developed for animal processing plants that may be potential sources of fecal coliform. Other facilities may find this list to be useful as well. The list is provided in Sector U of this permit.

### **C.3 Sampling Schedule.**

C.3.1 Regulated industrial facilities that are subject to the requirements in Appendix C of this permit must conduct storm water discharge sampling two times per quarter for a period of twelve (12) months. The sampling will only be required for those outfalls at the facility that have the potential to discharge storm water associated with industrial activity where industrial materials or activities that are potential sources of the pollutant of concern and are, or may be, exposed to storm water at the facility during the term of this permit. The sampling must be conducted in accordance with Part 6 of this permit.

C.3.2 Monitoring requirements in this permit begin in the first full quarter following the effective date of the permit or the permittee's date of discharge authorization, whichever date comes later, unless an alternate schedule is approved by EPD.

C.3.3 If a facility is unable to conduct one or both of the sampling event(s) during a certain quarter due to adverse climatic conditions (i.e., no qualifying rainfall event occurs), then the facility shall include a written explanation for the absence of the sampling event in the next Annual Report submitted to EPD.

C.3.4 Facilities who passed the benchmark sampling required by Appendix C.2 and those subject to the sampling requirements in C.4 below shall sample bi-annually for the pollutant of concern according to the schedule in Part 6.1.7. Facilities who fail to meet the benchmark in 2 consecutive bi-annual samples shall be required to sample in accordance with Appendix C.2.

#### C.4 Optional Sampling.

**C.4.1 Composite Sampling.** Permittees may conduct flow-weighted composite sampling to demonstrate the facility's impact or lack thereof on impaired waters, for criteria for which composite sampling is appropriate. The arithmetic average of eight composite samples (two per quarter for 4 quarters) shall be compared to instream Water Quality Standards for the listed criterion. Existing dischargers who decide to conduct flow-weighted composite sampling who failed the second round of sampling contained in Part III.C. of the 2006 Industrial Storm Water General Permit, will have one twelve (12) month sampling period to pass the sampling required by Appendix C.2 using composite sampling. These dischargers will have 180 days after the issuance of this permit to design and implement the systems necessary to conduct composite sampling of all outfalls. The permittee shall notify EPD in writing of the intent to pursue such testing and shall submit it with the NOI, and maintain a copy of the notification and sampling methodology with the SWPPP.

C.4.1.1 A composite sample shall consist of a minimum of four sub-samples collected at least once every hour during the 4-hour period beginning with the first flush. A composite sample shall not exceed a maximum of twenty-four samples collected at least once every hour for twenty-four hours during the 24-hour period beginning with the first flush.

C.4.1.2 Composite samples shall be composited proportionately to flow.

C.4.1.3 The permittee shall have a primary flow measuring device that is correctly installed and operable. Secondary flow measurements must be made using a continuous totalizer and an indicating recorder. Calibration of the secondary instrument will be maintained to  $\pm 10\%$  of the actual flow. The head shall be measured manually to check the flow meter calibration at least once during each composite sampling period. Records of calibration checks shall be maintained.

C.4.1.4 If secondary flow instruments malfunction or fail to maintain calibration as required in C.4.4, the flow shall be computed from the manual measurements taken at the times specified for the collection of composite samples.

C.4.1.5 If the facility is unable to meet instream Water Quality Standard for the pollutant(s) of concern as specified in the 305(b)/303(d) list after using the pass/fail determination listed in C.5.2.1 or C.5.2.2, refer to Part C.10 of this Permit.

C.4.1.6 The applicable values shall be the same numeric value, where applicable, as the Instream Water Quality Standard for the pollutant(s) of concern as specified in the 305(b)/303(d) list. Flow-weighted composite sampling to characterize the discharge can be used for discharges to stream segments impaired for the following pollutants:

- a. Fecal coliform (see sample holding time requirements in 40 CFR Part 136).
- b. Biota F and M - Facilities for which the listing criterion is identified as "Biota or Sediment" are required to conduct sampling in accordance with Appendix C.2.3 above.
- c. Metals.
- d. Priority pollutants.

**C.4.2 Optional Sampling to Confirm the Potential to Cause or Contribute to an Exceedance of the Instream Water Quality Standard for Fecal Coliform.** Existing dischargers who failed the first round and have not conducted the second round, or who failed two rounds of benchmark sampling for TSS under Part III.C of the 2006 Industrial Storm Water General Permit may perform fecal coliform testing in accordance with C.2.4 for 12 months. The permittee shall notify EPD in writing of the intent to pursue such testing and shall submit it with the NOI, and maintain a copy of the notification with the SWPPP. The permittee shall submit the results of the sampling to EPD on a quarterly basis.

**C.5 Evaluation of Appendix C Sampling Data.**

C.5.1 If the benchmark values used to characterize the ability of the discharge to cause or contribute to an exceedance of a water quality standard are exceeded using the pass/fail determination provided below, then improved or additional BMPs are required at the facility.

C.5.2 The sampling data for the twelve (12) month period must be evaluated using one of the criteria listed in C.5.2.1 or C.5.2.2, which **shall constitute the pass/fail determination for evaluating BMP effectiveness:**

C.5.2.1 At least seventy-five (75) percent of the samples collected during the twelve (12) month period do not exceed the applicable benchmark value(s); or

C.5.2.2 The average of the samples collected during the twelve (12) month period does not exceed the applicable benchmark value(s).

C.5.3 If a facility meets at least one of the above criteria then that facility has passed the benchmark requirement and must thereafter properly maintain all of the BMPs that enabled the facility to meet the benchmark requirement and must conduct bi-annual sampling in accordance with C.3.4.

C.5.4 If a facility does not meet at least one of the above criteria, then that facility has failed the benchmark requirement. Those facilities that do not pass the benchmark requirement for the first twelve (12) month sampling period may take up to one year to budget, select, design and construct/implement additional supplemental BMPs at the facility. Once the supplemental BMPs have been implemented, an additional twelve (12) month (two samples per quarter) period of sampling must be conducted as described in C.2. Those facilities that pass the benchmark requirement, using the above pass/fail determination may discontinue the Appendix C.2 sampling but must thereafter properly maintain all of the BMPs that enabled the facility to meet the benchmark requirement and must conduct bi-annual sampling in accordance with C.3.4.

C.5.5 Facilities that are not able to pass the benchmark requirement using the above pass/fail determination must continue the process of implementing additional supplemental BMPs and conducting a subsequent twelve month (two samples per quarter) period of sampling until the facility meets the benchmark requirement using the pass/fail determination provided above, or composite sampling in accordance with C.4 demonstrates that the discharge will not cause or contribute to an exceedance of a water quality standard.

C.5.6 If a facility is unable to pass the benchmark or composite sampling requirements after the second twelve (12) month sampling period following implementation of supplemental BMPs, refer to Part C.10 of this Permit.

**C.6 Existing Dischargers into an Impaired Stream Segment Who Passed Sampling Contained in Part III.C of the 2006 Industrial Storm Water General Permit.** If permittees passed the impaired stream segment sampling contained in Part III.C of Georgia's 2006 Industrial Storm Water General Permit they are required to sample in accordance with C.3.4.

**C.7 Existing Dischargers into an Impaired Stream Segment That Have Not Completed the Second Round of Sampling contained in Part III.C of the 2006 Industrial Storm Water General Permit.** If permittees have not completed the impaired stream segment sampling contained in Part III.C of Georgia's 2006 Industrial Storm Water General Permit, they are required to sample consistent with the requirements of Appendix C.2 until they have completed the second round of sampling. If permittees fail the second round of impaired stream segment sampling, they must refer to Appendix C.10.

**C.8 Existing Dischargers into an Impaired Stream Segment Who Failed Sampling Contained in Part III.C of the 2006 Industrial Storm Water General Permit.** If permittees failed two rounds of the benchmark sampling for the pollutant of concern or designated constituent contained in Part III.C of Georgia's 2006 Industrial Storm Water General Permit, they must refer to Appendix C.10.

**C.9 Dischargers into an Impaired Stream Segment with an EPA Approved TMDL.** If a facility discharges to an impaired water with an EPA approved TMDL, the permittee must comply with any requirement(s) stated in the TMDL that may be applicable to industrial storm water discharges. Industrial storm water, as a point source, is subject to the WLA of TMDLs. Many TMDLs do not contain a WLA that is specific to industrial or other storm water sources. If this is the case for a TMDL to which the facility discharges, the discharges are to be consistent with the pollution reduction goals of the TMDL. Monitoring for the TMDL shall be in accordance with the TMDL implementation plan. The permittee must incorporate into the SWPPP any conditions applicable to the discharge(s) necessary for consistency with the assumptions and requirements of such TMDL.

**C.10 Existing Dischargers Who Failed to Meet the Applicable Benchmark Value under Parts C.4, C.5, C.7 or C.8 of this Permit.**

**C.10.1** Upon written notification by EPD that the facility has failed to meet the applicable benchmark, the facility shall request in writing within sixty (60) days of said notification EPD approval of one of the following options. Permittees shall have up to thirty-six (36) months to comply with the requirements of Parts C.10.1.a, C.10.1.b and C.10.1.c regardless of whether they conduct optional sampling under Part C.4 or instream sampling under Part C.12.

- a. Remain under this General Permit, make necessary improvements to the facility, with the applicable benchmark value becoming a new end-of-pipe effluent limitation and permit condition no later than thirty-six (36) months following EPD written approval of this option.
- b. Remain under this General Permit, make necessary improvements to the facility, prevent all exposure of animal handling areas to storm water in accordance with Part C.1.1 of this permit no later than thirty-six (36) months following EPD written approval of this option. Option b. may be used in combination with Option c.
- c. Remain under this General Permit, make necessary improvements to the facility, provide capture of storm water from animal handling areas in accordance with Part C.2.4.2 of this permit no later than thirty-six (36) months following EPD written approval of this option. Option c. may be used in combination with Option b.
- d. Apply for an individual permit within thirty (30) days following EPD approval of this option. Any such individual permit shall terminate the facility's coverage under this General Permit.

- e. Request an alternate general permit. Coverage under any such alternate general permit shall terminate the facility's coverage under this General Permit.

C.10.2 Facilities which pursue Part C.10.1.a. shall submit semi-annual progress reports to EPD within thirty (30) days following the end of each six (6) month period.

C.10.3. Facilities which pursue Part C.10.1.a and/or C.10.1.c where this results in a discharge of treated storm water shall conduct monthly sampling for the pollutant of concern, except for FC. For facilities where the pollutant of concern is FC, the facility shall, on a quarterly basis, collect at least four (4) samples within a thirty (30) day period of intervals not less than twenty-four (24) hours in order to calculate a geometric mean. Violations of an effluent limit shall be reported to EPD within thirty (30) days of an exceedance.

**C.11 Existing Dischargers into a Newly Listed Impaired Stream Segment.** If a facility discharges to a newly listed water-quality impaired water, listed in the most current 305(b)/303(d) list documents as impaired, and did not perform the impaired stream segment sampling in Part III.C of Georgia's 2006 Industrial Storm Water General Permit, the facility is considered a new discharger and must comply with the requirements of Appendix C.1.

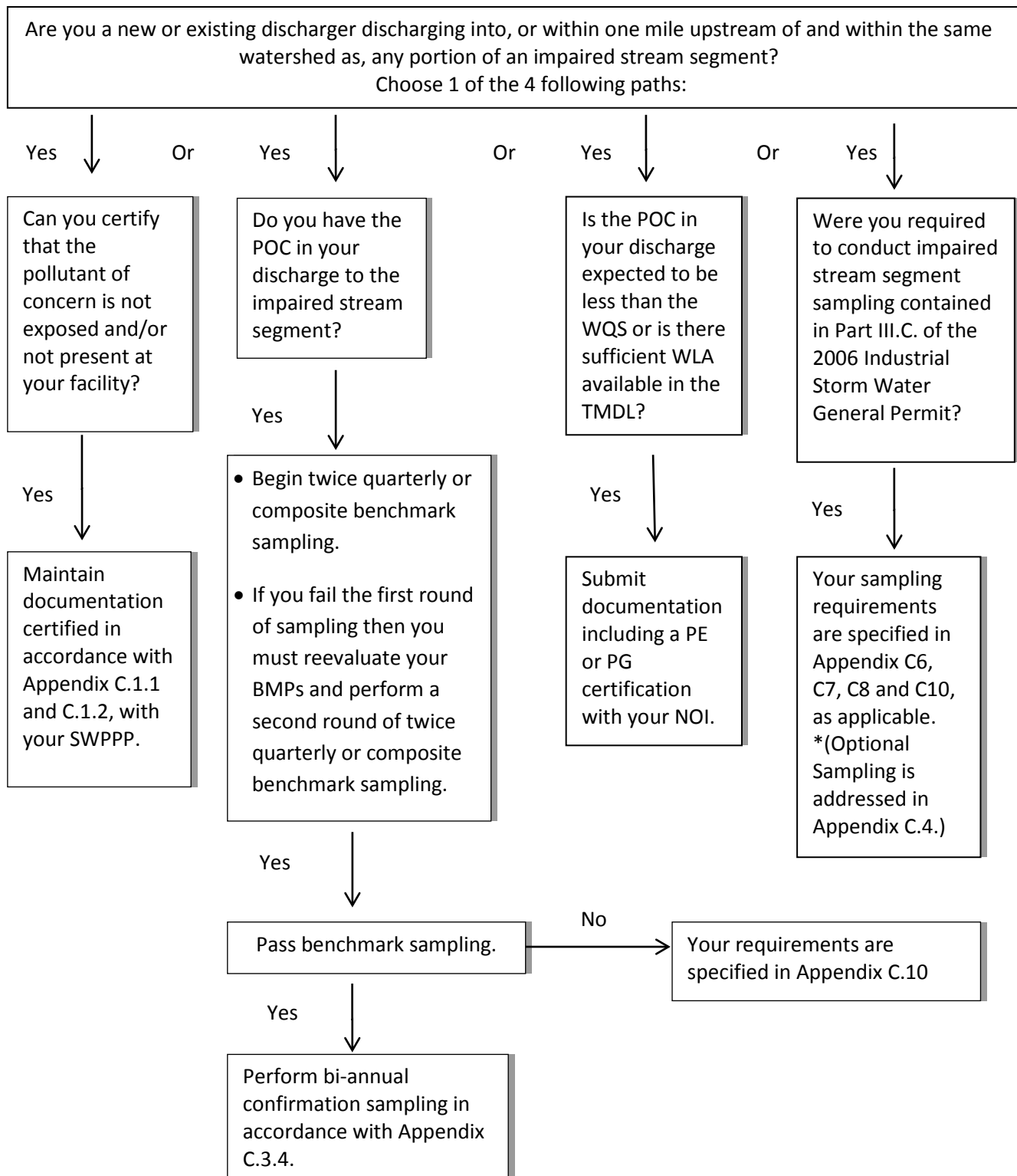
**C.12 Optional Sampling for Impaired Waters Determination.**

Permittees may conduct instream sampling for use in listing or delisting of the impaired water or the receiving waterbody. The permittee has 6 months from the effective date of the permit to submit and obtain EPD approval of a Sampling and Quality Assurance Plan (SQAP) and 12 months from approval of the SQAP to conduct sampling under the SQAP and submit those results to EPD. The SQAP, execution of the SQAP, the report submitted to EPD concerning the SQAP and monitoring results shall meet the requirements of "Guidance on Submitting Water Quality Data for Use by the Georgia Environmental Protection Division in 305(b)/303(d) Listing Assessments", latest edition. The permittee shall notify EPD in writing of the intent to pursue such testing and shall submit it with the NOI, and maintain a copy of the notification with the SWPPP.

**C.12.1 Potential Delisting of a Listed Waterbody.** When the permittee submits the final report to EPD with a request to delist the waterbody, the permittee shall advertise its request by publishing a public notice for one day in the newspaper that serves as the legal organ for that location. The public notice shall inform the public that they have 30 days in which to submit written comments to EPD concerning the permittee's request. Upon written notification from EPD that a waterbody is considered appropriate for delisting, the permittee may suspend implementation of the requirements of Appendix C. EPD will make its decision whether or not to delist the waterbody in accordance with its normal 305(b)/303(d) procedures. If the waterbody remains on the list of impaired waters, the permittee shall resume implementation of the requirements of Appendix C.

**C.12.2 Waterbodies Not Currently Listed But within One Mile Upstream of a Listed Water.** When the permittee submits the final report to EPD with a request not to list the waterbody, the permittee shall advertise its request by publishing a public notice for one day in the newspaper that serves as the legal organ for that location. The public notice shall inform the public that they have 30 days in which to submit written comments to EPD concerning the permittee's request. Upon written notification from EPD that a waterbody that is not currently listed but is within one mile upstream of, and within the same watershed as, a listed water is considered appropriate not to list, the permittee may suspend implementation of the requirements of Appendix C. EPD will make its decision whether or not to list the waterbody in accordance with its normal 305(b)/303(d) procedures. If the waterbody is added to the list of impaired waters, the permittee shall resume implementation of the requirements of Appendix C.

**Appendix C - Impaired Stream Segment Sampling Flowchart**



**NOTE:** This flowchart is a simplified representation of the sampling requirements contained in Appendix C and intended for reference use only. Any discrepancy or inconsistency between this flowchart and Appendix C should be resolved by reading and understanding the sampling requirements contained in Appendix C.

## Appendix D Activities Covered Table

### Appendix D. Facilities and Activities Covered

Permit eligibility is limited to discharges from facilities in the “sectors” of industrial activity summarized in Table D-1. These sector descriptions are based on SIC Codes and Industrial Activity Codes. References to “sectors” in this permit (e.g., sector-specific monitoring requirements) refer to these groupings. Please note: Facilities may be subject to more than one sector or subsector.

<b>Table D-1. Sectors of Industrial Activity Covered by This Permit</b>		
<b>Subsector</b>	<b>SIC Code or Activity Code<sup>1</sup></b>	<b>Activity Represented</b>
<b>SECTOR A: TIMBER PRODUCTS</b>		
A1	2421	General Sawmills and Planing Mills
A2	2491	Wood Preserving
A3	2411	Log Storage and Handling
A4	2426	Hardwood Dimension and Flooring Mills
	2429	Special Product Sawmills, Not Elsewhere Classified
	2431-2439 (except 2434)	Millwork, Veneer, Plywood, and Structural Wood (see Sector W)
	2448	Wood Pallets and Skids
	2449	Wood Containers, Not Elsewhere Classified
	2451, 2452	Wood Buildings and Mobile Homes
	2493	Reconstituted Wood Products
A5	2499	Wood Products, Not Elsewhere Classified
A5	2441	Nailed and Lock Corner Wood Boxes and Shook
<b>SECTOR B: PAPER AND ALLIED PRODUCTS</b>		
B1	2631	Paperboard Mills
B2	2611	Pulp Mills
	2621	Paper Mills
	2652-2657	Paperboard Containers and Boxes
	2671-2679	Converted Paper and Paperboard Products, Except Containers and Boxes
<b>SECTOR C: CHEMICALS AND ALLIED PRODUCTS</b>		
C1	2873-2879	Agricultural Chemicals
C2	2812-2819	Industrial Inorganic Chemicals
C3	2841-2844	Soaps, Detergents, and Cleaning Preparations; Perfumes, Cosmetics, and Other Toilet Preparations
C4	2821-2824	Plastics Materials and Synthetic Resins, Synthetic Rubber, Cellulosic and Other Manmade Fibers Except Glass

<b>Table D-1. Sectors of Industrial Activity Covered by This Permit</b>		
<b>Subsector</b>	<b>SIC Code or Activity Code<sup>1</sup></b>	<b>Activity Represented</b>
C5	2833-2836	Medicinal Chemicals and Botanical Products; Pharmaceutical Preparations; in vitro and in vivo Diagnostic Substances; and Biological Products, Except Diagnostic Substances
	2851	Paints, Varnishes, Lacquers, Enamels, and Allied Products
	2861-2869	Industrial Organic Chemicals
	2891-2899	Miscellaneous Chemical Products
	3952 (limited to list of inks and paints)	Inks and Paints, Including China Painting Enamels, India Ink, Drawing Ink, Platinum Paints for Burnt Wood or Leather Work, Paints for China Painting, Artist's Paints and Watercolors
	2911	Petroleum Refining
<b>SECTOR D: ASPHALT PAVING AND ROOFING MATERIALS AND LUBRICANTS</b>		
D1	2951, 2952	Asphalt Paving and Roofing Materials
D2	2992, 2999	Miscellaneous Products of Petroleum and Coal
<b>SECTOR E: GLASS, CLAY, CEMENT, CONCRETE, AND GYPSUM PRODUCTS</b>		
E1	3251-3259	Structural Clay Products
	3261-3269	Pottery and Related Products
E2	3271-3274	Concrete and Plaster Products
E3	3211	Flat Glass
	3221, 3229	Glass and Glassware, Pressed or Blown
	3231	Glass Products Made of Purchased Glass
	3241	Hydraulic Cement
	3275	Gypsum
	3281	Cut Stone and Stone Products
	3291-3299	Abrasive, Asbestos, and Miscellaneous Nonmetallic Mineral Products
<b>SECTOR F: PRIMARY METALS</b>		
F1	3312-3317	Steel Works, Blast Furnaces, and Rolling and Finishing Mills
F2	3321-3325	Iron and Steel Foundries
F3	3351-3357	Rolling, Drawing, and Extruding of Nonferrous Metals
F4	3363-3369	Nonferrous Foundries (Castings)
F5	3331-3339	Primary Smelting and Refining of Nonferrous Metals
	3341	Secondary Smelting and Refining of Nonferrous Metals
	3398, 3399	Miscellaneous Primary Metal Products
<b>SECTOR G: TRANSPORTATION EQUIPMENT, INDUSTRIAL OR COMMERCIAL MACHINERY</b>		
G1	3511-3599 (except 3571-3579)	Industrial and Commercial Machinery, Except Computer and Office Equipment (see Sector H)
	3711-3799 (except 3731, 3732)	Transportation Equipment Except Ship and Boat Building and Repairing (see Sector R)



<b>Table D-1. Sectors of Industrial Activity Covered by This Permit</b>		
<b>Subsector</b>	<b>SIC Code or Activity Code<sup>1</sup></b>	<b>Activity Represented</b>
<b>SECTOR H: ELECTRONIC, ELECTRICAL, PHOTOGRAPHIC, AND OPTICAL GOODS</b>		
H1	3571-3579	Computer and Office Equipment
	3812-3873	Measuring, Analyzing, and Controlling Instruments; Photographic and Optical Goods, Watches, and Clocks
	3612-3699	Electronic and Electrical Equipment and Components, Except Computer Equipment
<b>SECTOR I: OIL AND GAS EXTRACTION</b>		
I1	1311	Crude Petroleum and Natural Gas
	1321	Natural Gas Liquids
	1381-1389	Oil and Gas Field Services
<b>SECTOR J: MINING AND DRESSING</b>		
J1	1011, 1021, 1031, 1041, 1044, 1061, 1081, 1094, 1099, 1411, 1422-1429, 1442, 1446, 1459, 1474-1479, 1481, 1499	Mining
J2	1455	Kaolin and Clay Ball Mining
<b>SECTOR K: HAZARDOUS WASTE TREATMENT, STORAGE, OR DISPOSAL FACILITIES</b>		
K1	HZ	Hazardous Waste Treatment, Storage, or Disposal Facilities, including those that are operating under interim status or a permit under Subtitle C of RCRA
<b>SECTOR L: LANDFILLS, LAND APPLICATION SITES, AND OPEN DUMPS</b>		
L1	LF	All Landfill, Land Application Sites and Open Dumps
L2	LF	All Landfill, Land Application Sites and Open Dumps, except Municipal Solid Waste Landfill (MSWLF) Areas Closed in Accordance with 40 CFR 258.60
<b>SECTOR M: AUTOMOBILE SALVAGE YARDS</b>		
M1	5015	Automobile Salvage Yards
<b>SECTOR N: SCRAP RECYCLING FACILITIES</b>		
N1	5093	Scrap Recycling Facilities and Liquid Recycling Facilities
N2	5093	Source-separated Recycling Facility
<b>SECTOR O: STEAM ELECTRIC GENERATING FACILITIES</b>		
O1	SE	Steam Electric Generating Facilities, including coal handling sites

<b>Table D-1. Sectors of Industrial Activity Covered by This Permit</b>		
<b>Subsector</b>	<b>SIC Code or Activity Code<sup>1</sup></b>	<b>Activity Represented</b>
<b>SECTOR P: LAND TRANSPORTATION AND WAREHOUSING</b>		
P1	4011, 4013	Railroad Transportation
	4111-4173	Local and Highway Passenger Transportation
	4212-4231	Motor Freight Transportation and Warehousing
	4311	United States Postal Service
	5171	Petroleum Bulk Stations and Terminals
<b>SECTOR Q: WATER TRANSPORTATION: MAINTENANCE/CLEANING</b>		
Q1	4412-4499	Water Transportation Facilities
<b>SECTOR R: SHIP AND BOAT BUILDING AND REPAIRING YARDS</b>		
R1	3731, 3732	Ship and Boat Building or Repairing Yards
<b>SECTOR S: AIR TRANSPORTATION FACILITIES</b>		
S1	4512-4581	Air Transportation Facilities
<b>SECTOR T: TREATMENT WORKS</b>		
T1	TW	Treatment Works treating domestic sewage or any other sewage sludge or wastewater treatment device or system, used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated to the disposal of sewage sludge that is located within the confines of the facility, with a design flow of 1.0 mgd or more, or required to have an approved pretreatment program under 40 CFR Part 403. Not included are farm lands, domestic gardens or lands used for sludge management where sludge is beneficially reused and which are not physically located in the confines of the facility, or areas that are in compliance with section 405 of the CWA
<b>SECTOR U: FOOD AND KINDRED PRODUCTS</b>		
U1	2041-2048	Grain Mill Products
U2	2074-2079	Fats and Oils Products
U3	2011-2015	Meat Products
U4	2021-2026	Dairy Products
	2032-2038	Canned, Frozen, and Preserved Fruits, Vegetables, and Food Specialties
	2051-2053	Bakery Products
	2061-2068	Sugar and Confectionery Products
	2082-2087	Beverages
	2091-2099	Miscellaneous Food Preparations and Kindred Products
	2111-2141	Tobacco Products

<b>Table D-1. Sectors of Industrial Activity Covered by This Permit</b>		
<b>Subsector</b>	<b>SIC Code or Activity Code<sup>1</sup></b>	<b>Activity Represented</b>
<b>SECTOR V: TEXTILE MILLS, APPAREL, AND OTHER FABRIC PRODUCT MANUFACTURING; LEATHER AND LEATHER PRODUCTS</b>		
V1	2211-2299	Textile Mill Products
	2311-2399	Apparel and Other Finished Products Made from Fabrics and Similar Materials
	3131-3199	Leather and Leather Products (note: see Sector Z1 for Leather Tanning and Finishing)
<b>SECTOR W: FURNITURE AND FIXTURES</b>		
W1	2434	Wood Kitchen Cabinets
	2511-2599	Furniture and Fixtures
<b>SECTOR X: PRINTING AND PUBLISHING</b>		
X1	2711-2796	Printing, Publishing, and Allied Industries
<b>SECTOR Y: RUBBER, MISCELLANEOUS PLASTIC PRODUCTS, AND MISCELLANEOUS MANUFACTURING INDUSTRIES</b>		
Y1	3011	Tires and Inner Tubes
	3021	Rubber and Plastics Footwear
	3052, 3053	Gaskets, Packing and Sealing Devices, and Rubber and Plastic Hoses and Belting
	3061, 3069	Fabricated Rubber Products, Not Elsewhere Classified
Y2	3081-3089	Miscellaneous Plastics Products
	3931	Musical Instruments
	3942-3949	Dolls, Toys, Games, and Sporting and Athletic Goods
	3951-3955 (except 3952 – see Sector C)	Pens, Pencils, and Other Artists' Materials
	3961, 3965	Costume Jewelry, Costume Novelties, Buttons, and Miscellaneous Notions, Except Precious Metal
3991-3999	Miscellaneous Manufacturing Industries	
<b>SECTOR Z: LEATHER TANNING AND FINISHING</b>		
Z1	3111 (also see sector V.)	Leather Tanning and Finishing
<b>SECTOR AA: FABRICATED METAL PRODUCTS</b>		
AA1	3411-3499 (except 3479)	Fabricated Metal Products, Except Machinery and Transportation Equipment, and Coating, Engraving, and Allied Services.
	3911-3915	Jewelry, Silverware, and Plated Ware
AA2	3479	Fabricated Metal Coating and Engraving

<b>Table D-1. Sectors of Industrial Activity Covered by This Permit</b>		
<b>Subsector</b>	<b>SIC Code or Activity Code<sup>1</sup></b>	<b>Activity Represented</b>
<b>SECTOR AB: NON-CLASSIFIED FACILITIES</b>		
AB1		Other storm water discharges designated by the Director as needing a permit (see 40 CFR 122.26(a)(9)(i)(C) and (D)) with industrial activity not described by any of Sectors A-AA. NOTE: Facilities may not elect to be covered under Sector AB. Only the Director may assign a facility to Sector AB.

<sup>1</sup> A complete list of SIC Codes can be found at: [http://www.osha.gov/pls/imis/sic\\_manual.html](http://www.osha.gov/pls/imis/sic_manual.html)

Conversions to and from the newer North American Industry Classification System" (NAICS)) can be obtained from the internet at: <http://www.census.gov/eos/www/naics/concordances/concordances.html> or in paper form from various locations in the document titled *Handbook of Standard Industrial Classifications*, Office of Management and Budget, 1987.

## Appendix E

### Determining Benchmarks for Hardness Dependent Metals

#### E.1 Overview

E.1.1 EPD adjusted the benchmarks for five hardness-dependent metals (cadmium, copper, lead, nickel, and zinc) to further ensure compliance with Water Quality Standards. For any sectors required to conduct benchmark sampling for a hardness-dependent metal, 'hardness ranges' are provided below from which the applicable benchmark values are determined. To determine which hardness range applies, a representative hardness of the water to be discharged is used. Where the hardness value is to be representative of the combination of the discharge and the receiving waterbody so as to determine an alternative benchmark as in 6.2.1.1.b.iii, the hardness of both the discharge and the receiving body must be determined, and combined using the ratio of the drainage area of the receiving waterbody and the drainage area of the discharge. Once the site-specific hardness data have been collected, the corresponding benchmark value for each metal is determined by comparing where the hardness data fall within 25 mg/L ranges, as shown in Table 1.

**Table 1. Hardness Ranges to Be Used to Determine Benchmark Values for Cadmium, Copper, Lead, Nickel, and Zinc.**

All Units mg/L	Cadmium	Copper	Lead	Nickel	Zinc
0-25 mg/L	0.0005	0.0038	0.014	0.15	0.04
25-50 mg/L	0.0008	0.0056	0.023	0.20	0.05
50-75 mg/L	0.0013	0.0090	0.045	0.32	0.08
75-100 mg/L	0.0018	0.0123	0.069	0.42	0.11
100-125 mg/L	0.0023	0.0156	0.095	0.52	0.13
125-150 mg/L	0.0029	0.0189	0.122	0.61	0.16
150-175 mg/L	0.0034	0.0221	0.151	0.71	0.18
175-200 mg/L	0.0039	0.0253	0.182	0.80	0.20
200-225 mg/L	0.0045	0.0285	0.213	0.89	0.23
225-250 mg/L	0.0050	0.0316	0.246	0.98	0.25
250+ mg/L	0.0053	0.0332	0.262	1.02	0.26

#### E.2 How to Determine Hardness for Hardness-Dependent Parameters.

E.2.1 Permittees may select one of three methods to determine hardness, including; individual grab sampling, grab sampling by a group of operators which discharge to the same receiving water, or using third-party data. Regardless of the method used, permittees are responsible for documenting the procedures used for determining hardness values. Once the hardness value is established, permittees are required to include this information with the first benchmark monitoring results. Permittees must retain all monitoring data in accordance with Part 7.5 of the permit. The three optional methods for determining hardness are detailed in the following sections.

##### E.2.2 Permittee Samples for Receiving Waterbody Hardness.

E.2.2.1 This method involves collecting samples in the receiving water and submitting these to a laboratory for analysis. If permittees elect to sample the receiving water(s) and submit samples for

analysis, hardness must be determined from the closest intermittent or perennial stream downstream of the point of discharge. The sample can be collected during either dry or wet weather. Collection of the sample during wet weather is more representative of conditions during storm water discharges; however, collection of in-stream samples during wet weather events may be impracticable or present safety issues.

E.2.2.2 Hardness must be sampled and analyzed using approved methods as described in 40 CFR Part 136 (Guidelines Establishing Test Procedures for the Analysis of Pollutants).

### E.2.3 Group Monitoring for Receiving Waterbody Hardness

E.2.3.1 Permittees can be part of a group of permittees discharging to the same receiving waters and collect samples that are representative of the hardness values for all members of the group. In this scenario, hardness of the receiving water must be determined using 40 CFR Part 136 procedures and the results shared by group members. To use the same results, hardness measurements must be taken on a stream reach within a reasonable distance of the discharge points of each of the group members.

### E.2.4 Collection of Third-Party Hardness Data

E.2.4.1 Permittees can submit receiving waterbody hardness data collected by a third party provided the results are collected consistent with the approved 40 CFR Part 136 methods. These data may come from a local water utility, previously conducted stream reports, TMDL, peer reviewed literature, other government publications, or data previously collected by the permittee. Data must be less than 10 years old.

E.2.4.2 Water quality data for many of the nation's surface waters are available on-line or by contacting EPA or the Department. EPA's data system STORET, short for STOrage and RETrieval, is a repository for receiving water quality, biological, and physical data and is used by State environmental agencies, EPA and other Federal agencies, universities, private citizens, and many others. Similarly, State environmental agencies and the U.S. Geological Service (USGS) also have water quality data available that, in some instances, can be accessed online. "Legacy STORET" codes for hardness include: 259 hardness, carbonate; 260 hardness, noncarbonated; and 261 calcium + magnesium, while more recent, "Modern STORET" data codes include: 00900 hardness, 00901 carbonate hardness, and 00902 non-carbonate hardness; or the discrete measurements of calcium (00915) and magnesium (00925) can be used to calculate hardness. Hardness data historically has been reported as "carbonate," "non-carbonate," or "Ca + Mg." If these are unavailable, then individual results for calcium (Ca) and magnesium (Mg) may be used to calculate hardness using the following equation:

$$\text{mg/L CaCO}_3 = 2.497 (\text{Ca mg/L}) + 4.118 (\text{Mg mg/L})$$

E.2.4.3 When interpreting the data for carbonate and non-carbonate hardness, note that total hardness is equivalent to the sum of carbonate and non-carbonate hardness if both forms are reported. If only carbonate hardness is reported, it is more than likely that non-carbonate hardness is absent and the total hardness is equivalent to the available carbonate hardness.

### E.2.5 Determining Hardness for Facilities That Discharge to Tidally-Influenced Waters

When a facility discharges to a tidally-influenced water, the storm water discharge hardness shall be determined from a sample taken prior to tidal influence. Tidal influence shall be determined to mean "areas where salt, fresh and brackish waters mix" as defined in 391-3-6-.03(3)(o). The hardness of the receiving waterbody shall be determined from a sample taken at mid-tide, as the tide is going out.

## APPENDIX C



# MATERIAL SAFETY DATA SHEET

## 1. Product and Company Identification

<b>Product name</b>	<b>Renewable Fuel Oil (RFO), RTP Liquid, RTP Green Fuel</b>
<b>CAS #</b>	Mixture
<b>Product use</b>	Liquid Fuel, Chemical Feedstock
<b>Manufacturer information</b>	Ensyn Technologies Inc. One Innovation Drive Renfrew, ON K7V 0B5 CA Phone: (613) 433-9508
<b>CANUTEC</b>	(613) 996-6666

## 2. Hazards Identification

<b>Emergency overview</b>	WARNING COMBUSTIBLE LIQUID AND VAPOR. MAY CAUSE EYE IRRITATION. MAY CAUSE SKIN IRRITATION.
<b>Potential short term health effects</b>	
<b>Routes of exposure</b>	Eye, Skin contact, Inhalation, Ingestion.
<b>Eyes</b>	May cause serious eye irritation. Symptoms may include redness, burning, itching and watering. Swelling is also possible.
<b>Skin</b>	May cause mild irritation indicated by redness or rash. May cause brown staining.
<b>Inhalation</b>	May cause respiratory tract irritation.
<b>Ingestion</b>	May cause stomach distress, nausea or vomiting.
<b>Target organs</b>	Eyes. Skin.
<b>Chronic effects</b>	None known.
<b>Signs and symptoms</b>	Symptoms may include redness, edema, drying, defatting and cracking of the skin. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.
<b>OSHA regulatory status</b>	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
<b>Potential environmental effects</b>	See section 12.

## 3. Composition/Information on Ingredients

<b>Components</b>	<b>CAS #</b>	<b>Percent</b>
Pyroligneous acids	8030-97-5	100

## 4. First Aid Measures

<b>First aid procedures</b>	
<b>Eye contact</b>	Flush with cool water. Remove contact lenses, if applicable, and continue flushing. Obtain medical attention.
<b>Skin contact</b>	Flush with cool water. Wash with soap and water. Obtain medical attention if irritation persists.
<b>Inhalation</b>	If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.
<b>Ingestion</b>	Do not induce vomiting. Never give anything by mouth if victim is unconscious, or is convulsing. Obtain medical attention.
<b>Notes to physician</b>	Symptoms may be delayed.
<b>General advice</b>	Keep away from sources of ignition. No smoking. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Wear impervious gloves and safety glasses. Keep out of reach of children.

## 5. Fire Fighting Measures

<b>Flammable properties</b>	Combustible by WHMIS/OSHA criteria.
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## Extinguishing media

**Suitable extinguishing media** Dry chemical, CO<sub>2</sub>, water spray or regular foam.

**Unsuitable extinguishing media** Not available

## Protection of firefighters

**Specific hazards arising from the chemical** Not available

**Protective equipment and precautions for firefighters** Firefighters should wear full protective clothing including self contained breathing apparatus.

**Hazardous combustion products** May include and are not limited to: Oxides of carbon.

## Explosion data

**Sensitivity to mechanical impact** Not available.

**Sensitivity to static discharge** Not available.

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## 6. Accidental Release Measures

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**Personal precautions** Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

**Environmental precautions** Do not discharge into lakes, streams, ponds or public waters.

**Methods for containment** Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas.

**Methods for cleaning up** Remove sources of ignition. Before attempting clean up, refer to hazard data given above. Small spills may be absorbed with non-reactive absorbent and placed in suitable, covered, labelled containers. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice. Never return spills to original containers for re-use.

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## 7. Handling and Storage

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**Handling** Use good industrial hygiene practices in handling this material.  
Avoid contact with eyes and skin.  
Wash thoroughly after handling.

**Storage** Keep out of reach of children.  
Store away from heat, flames, sparks, and all other sources of ignition.  
Store in a closed container away from incompatible materials.  
Do not store at temperatures above 120°F (49°C).

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## 8. Exposure Controls/Personal Protection

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**Exposure limits** There are no established ACGIH or OSHA PEL exposure limits for the hazardous chemicals listed in section 3 of the MSDS.

**Engineering controls** General ventilation normally adequate.

### Personal protective equipment

**Eye / face protection** Wear safety glasses with side shields.

**Hand protection** Butyl rubber or Neoprene gloves.

**Skin and body protection** As required by employer code.

**Respiratory protection** Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.

**General hygiene considerations** Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. Wash hands before breaks and immediately after handling the product.

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## 9. Physical and Chemical Properties

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**Appearance** Opaque

**Color** Dark brown

**Form** Liquid

**Odor** Distinct smoky

**Odor threshold** Not available.

**Physical state** Liquid.

<b>pH</b>	> 2.5
<b>Freezing point</b>	Not available.
<b>Boiling point</b>	208.4 - 212 °F (98 - 100 °C)
<b>Pour point</b>	Not available.
<b>Evaporation rate</b>	Not available
<b>Flash point</b>	> 143.60 °F (> 62.00 °C) Closed Cup
<b>Auto-ignition temperature</b>	Not available.
<b>Flammability limits in air, upper, % by volume</b>	Not available.
<b>Flammability limits in air, lower, % by volume</b>	Not available.
<b>Vapor pressure</b>	Not available.
<b>Vapor density</b>	Not available.
<b>Specific gravity</b>	1.15 - 1.25 @20°C
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Solubility (water)</b>	Miscible in water at concentrations <30% water
<b>Relative density</b>	Not available.
<b>Viscosity</b>	Not available.
<b>VOC</b>	Not available
<b>Percent volatile</b>	Not available

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## 10. Stability and Reactivity

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<b>Reactivity</b>	None known.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.
<b>Chemical stability</b>	Stable under recommended storage conditions.
<b>Conditions to avoid</b>	Heat, open flames, static discharge, sparks and other ignition sources. Do not mix with other chemicals.
<b>Incompatible materials</b>	Bases. Oxidizers.
<b>Hazardous decomposition products</b>	May include and are not limited to: Oxides of carbon.

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## 11. Toxicological Information

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<b>Effects of acute exposure</b>	
<b>Eye contact</b>	May cause serious eye irritation. Symptoms may include redness, burning, itching and watering. Swelling is also possible.
<b>Skin contact</b>	May cause mild irritation indicated by redness or rash. May cause brown staining.
<b>Inhalation</b>	May cause respiratory tract irritation.
<b>Ingestion</b>	May cause stomach distress, nausea or vomiting.
<b>Sensitization</b>	Non-hazardous by WHMIS/OSHA criteria.
<b>Chronic effects</b>	Non-hazardous by WHMIS/OSHA criteria.
<b>Carcinogenicity</b>	Non-hazardous by WHMIS/OSHA criteria.
<b>Mutagenicity</b>	Non-hazardous by WHMIS/OSHA criteria.
<b>Reproductive effects</b>	Non-hazardous by WHMIS/OSHA criteria.
<b>Teratogenicity</b>	Non-hazardous by WHMIS/OSHA criteria.
<b>Name of Toxicologically Synergistic Products</b>	Not available.

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## 12. Ecological Information

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<b>Ecotoxicity</b>	Not available.
<b>Persistence and degradability</b>	Not available.

<b>Bioaccumulation / Accumulation</b>	Not available
<b>Mobility in environmental media</b>	Not available.
<b>Environmental effects</b>	Not available.
<b>Aquatic toxicity</b>	Not available.
<b>Partition coefficient</b>	Not available.
<b>Chemical fate information</b>	Not available.

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### 13. Disposal Considerations

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<b>Disposal instructions</b>	Dispose in accordance with all applicable regulations.
<b>Waste from residues / unused products</b>	Not available
<b>Contaminated packaging</b>	Not available

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### 14. Transport Information

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#### U.S. Department of Transportation (DOT)

Not regulated as dangerous goods.

#### Transportation of Dangerous Goods (TDG - Canada)

Not regulated as dangerous goods.

#### IATA/ICAO (Air)

Not regulated as dangerous goods.

#### IMDG (Marine Transport)

Not regulated as dangerous goods.

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### 15. Regulatory Information

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**Canadian federal regulations** This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

**WHMIS status** Controlled

**WHMIS classification** Class B - Division 3 - Combustible Liquid, Class D - Division 2B

**WHMIS labeling**



#### Occupational Safety and Health Administration (OSHA)

**29 CFR 1910.1200 hazardous chemical** Yes

**US federal regulations** All components are on the U.S. EPA TSCA Inventory List.

CERCLA/SARA Hazardous Substances - Not applicable.  
This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

#### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

#### CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

#### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

#### Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

#### CERCLA (Superfund) reportable quantity

None

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories**                      Immediate Hazard - Yes  
 Delayed Hazard - No  
 Fire Hazard - Yes  
 Pressure Hazard - No  
 Reactivity Hazard - No

**State regulations**                      This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

**US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance**

Not listed.

**US. Massachusetts RTK - Substance List**

Not regulated.

**US. Pennsylvania RTK - Hazardous Substances**

Not regulated.

**US. Rhode Island RTK**

Not regulated.

**Inventory status**

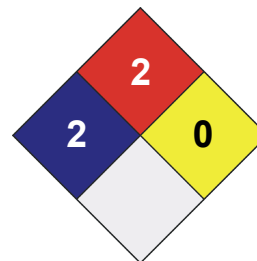
Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

**16. Other Information**

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

<b>HEALTH</b>	/ 2
<b>FLAMMABILITY</b>	2
<b>PHYSICAL HAZARD</b>	0
<b>PERSONAL PROTECTION</b>	X



**Disclaimer**

Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

**Issue date**

25-September-2013

**Effective date**

01-September-2013

**Expiry date**

01-September-2016

**Prepared by**

Dell Tech Laboratories, Ltd. Phone: (519) 858-5021

**Other information**

For an updated MSDS, please contact the supplier/manufacturer listed on the first page of the document.

This MSDS conforms to the ANSI Z400.1/Z129.1-2010 Standard.

## APPENDIX D



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## Ensyn Executive Order Intergovernmental Review

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**Walker, Lesa** <lwalker@dot.ga.gov>

Mon, Dec 30, 2013 at 11:42 AM

To: "sruddell@ensyn.com" <sruddell@ensyn.com>

Cc: "Ellis, Brendalyn" <bellis@dot.ga.gov>, "Harris, Krystal" <kharris@dot.ga.gov>, "Walker, Lesa" <lwalker@dot.ga.gov>

Dear Ms Ruddell,

The Office of Planning has reviewed your clearinghouse request and our response is below:

- This project is considered to be consistent with those state plans with which this organization is concerned.

If we can be of further assistance, please let us know

---

The Georgia Department of Transportation works to improve the quality of water discharged from roadways and properties owned and operated by the Department into Georgia's waterways. The Department has appropriated \$15 million to be spent by 2017 for continuous improvements to stormwater quality. For more information, visit Georgia DOT's Stormwater Pollution Prevention <http://www.dot.ga.gov/Projects/programs/environment/Pages/StormWater.aspx> webpage.

Also follow us on Facebook <http://www.facebook.com/GeorgiaDOT> and Twitter <http://twitter.com/gadepoftrans>.

## APPENDIX E

Rural Development  
Environmental Justice (EJ) and Civil Rights Impact Analysis (CRIA)  
Certification

1. Applicant's name and proposed project description: Enslyn Biorefinery - new facility  
on 67 acres within existing industrial park in city of Vienna

2. Rural Development's loan/grant program/guarantee or other Agency action: \_\_\_\_\_  
9003 Biorefinery Assistance Program

3.  Attach a map of the proposal's area of effect identifying location or EJ populations, location of the proposal, area of impact or

Attach results of EJ analysis from the Environmental Protection Agency's (EPAs) EnviroMapper with proposed project location and impact footprint delineated.

4. Does the applicant's proposal or Agency action directly, indirectly or cumulatively affect the quality and/or level of services provided to the community?

Yes  No  N/A

5. Is the applicant's proposal or Agency action likely to result in a change in the current land use patterns (types of land use, development densities, etc)?

Yes  No  N/A

6. Does a demographic analysis indicate the applicant's proposal or Agency's action may disproportionately affect a significant minority and/or low-income populations?

Yes  No  N/A

If answer is no, skip to item 12. If answer is yes, continue with items 7 through 12.

7. Identify, describe, and provide location of EJ population \_\_\_\_\_

8. If a disproportionate adverse affect is expected to impact an EJ population, identify type/level of public outreach implemented. \_\_\_\_\_

9. Identify disproportionately high and adverse impacts on EJ populations. \_\_\_\_\_

10. Are adverse impacts appreciably more severe or greater in magnitude than the adverse impacts expected on non-minority/low-income populations?

Yes  No  N/A

11. Are alternatives and/or mitigation required to avoid impacts to EJ populations?

Yes  No  N/A

If yes, describe \_\_\_\_\_

12. I certify that I have reviewed the appropriate documentation and have determined that:

No major EJ or civil rights impact is likely to result if the proposal is implemented.  
 A major EJ or civil rights impact is likely to result if the proposal is implemented.

Juliet Bochicchio EPS  
Name and Title of Certifying Official

08-15-2014  
Date



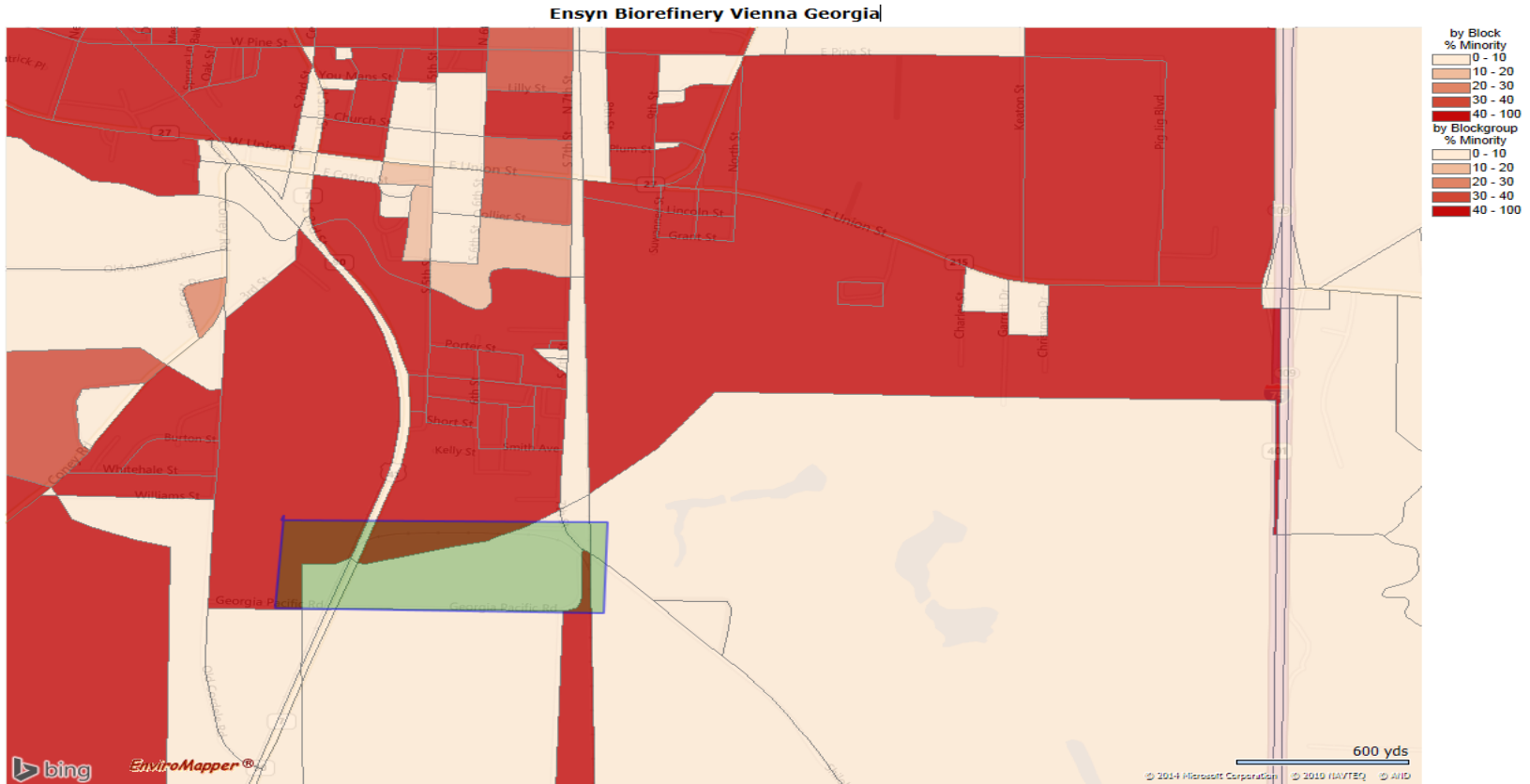


Figure 1. 81 % minority or not inhabited by block group in adjacent locations to the Ensyn Site.

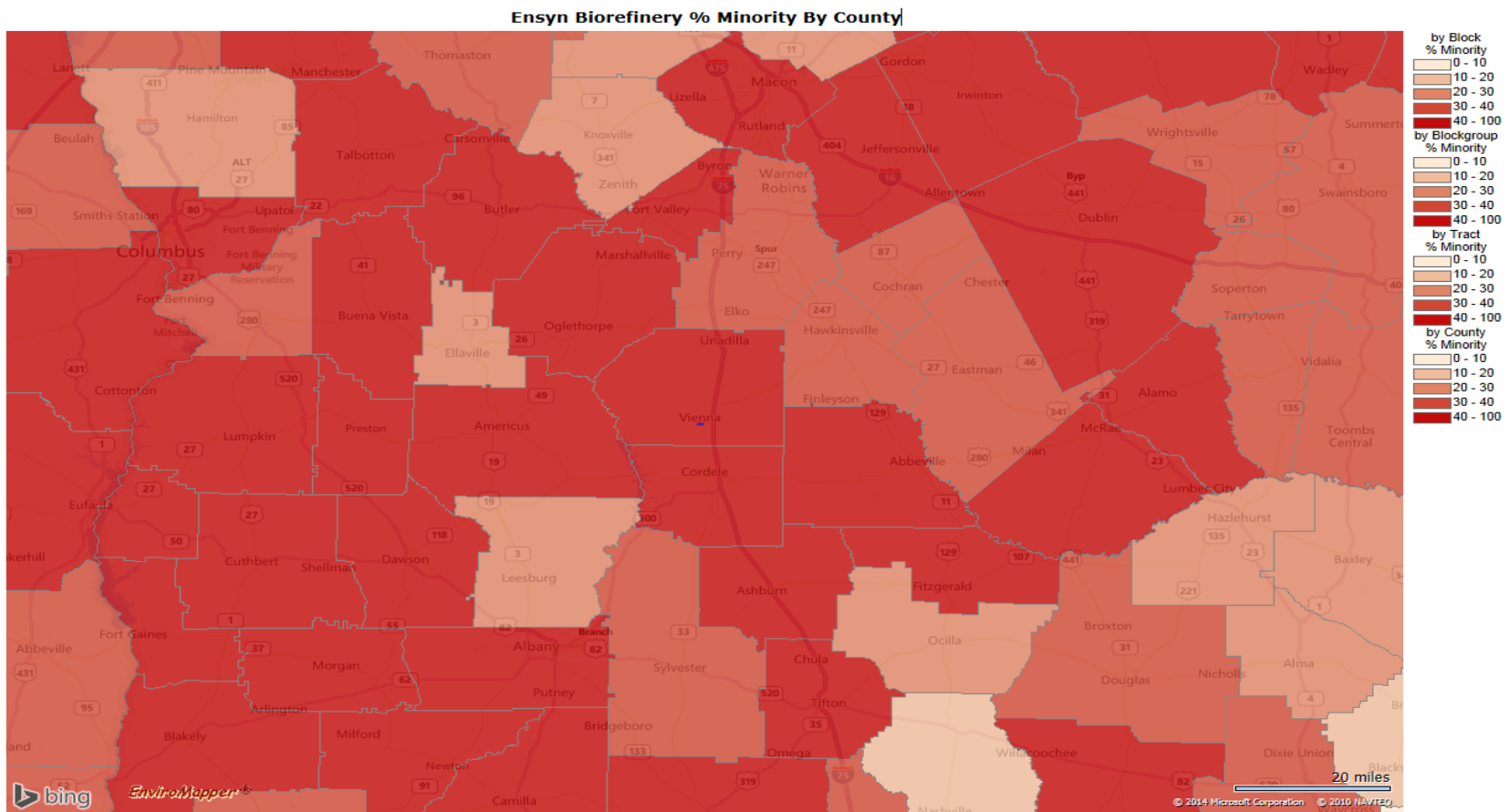


Figure 2. 56 % minority by county in Dooly County where Ensyn Site is located.

Ensyn Biorefinery Vienna Georgia % Below Poverty by Tract

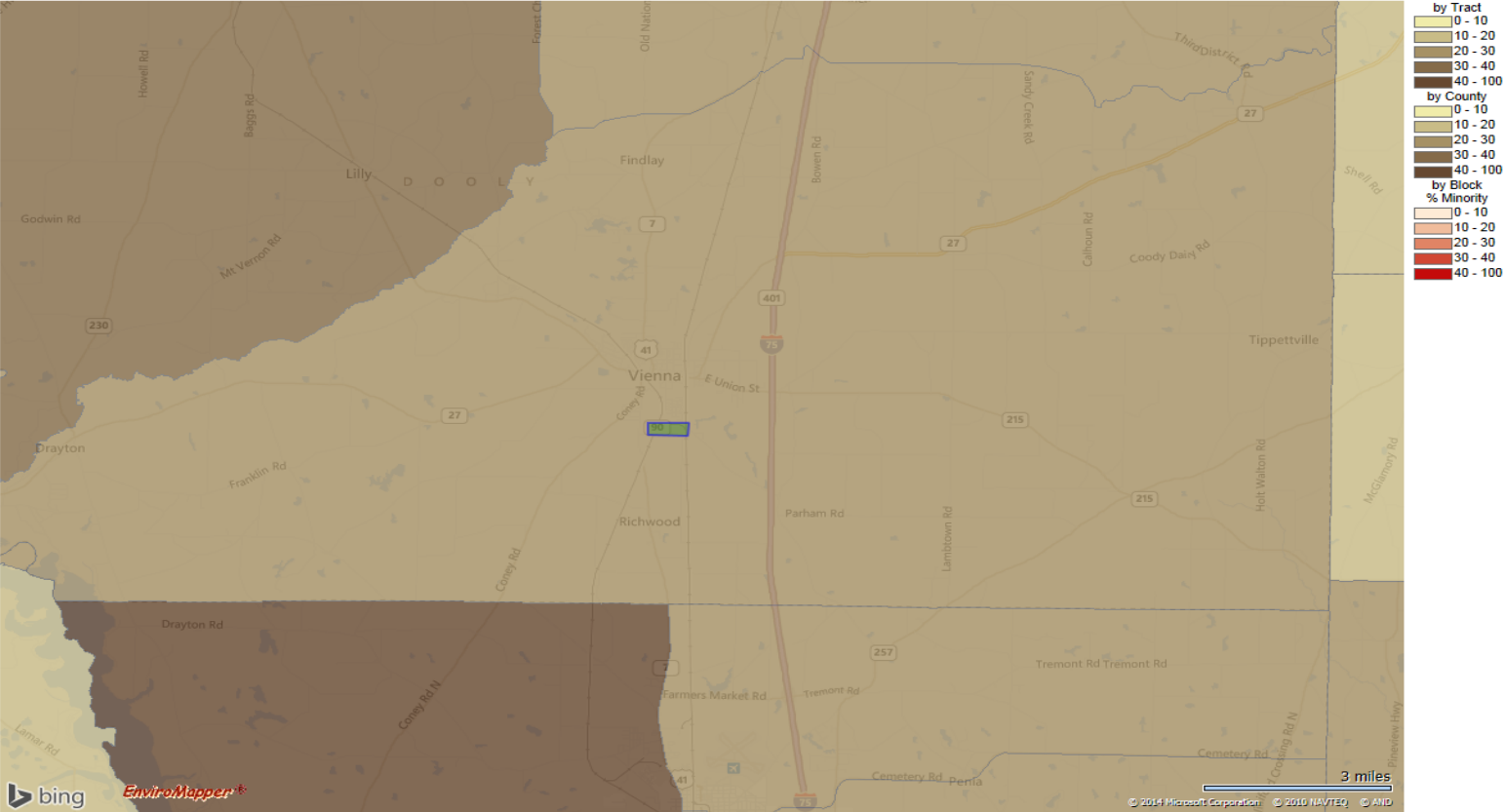


Figure 3. 27 % below poverty by tract at the Ensyn Site and surrounding location.

Ensyn Biorefinery Vienna Georgia % Poverty by County

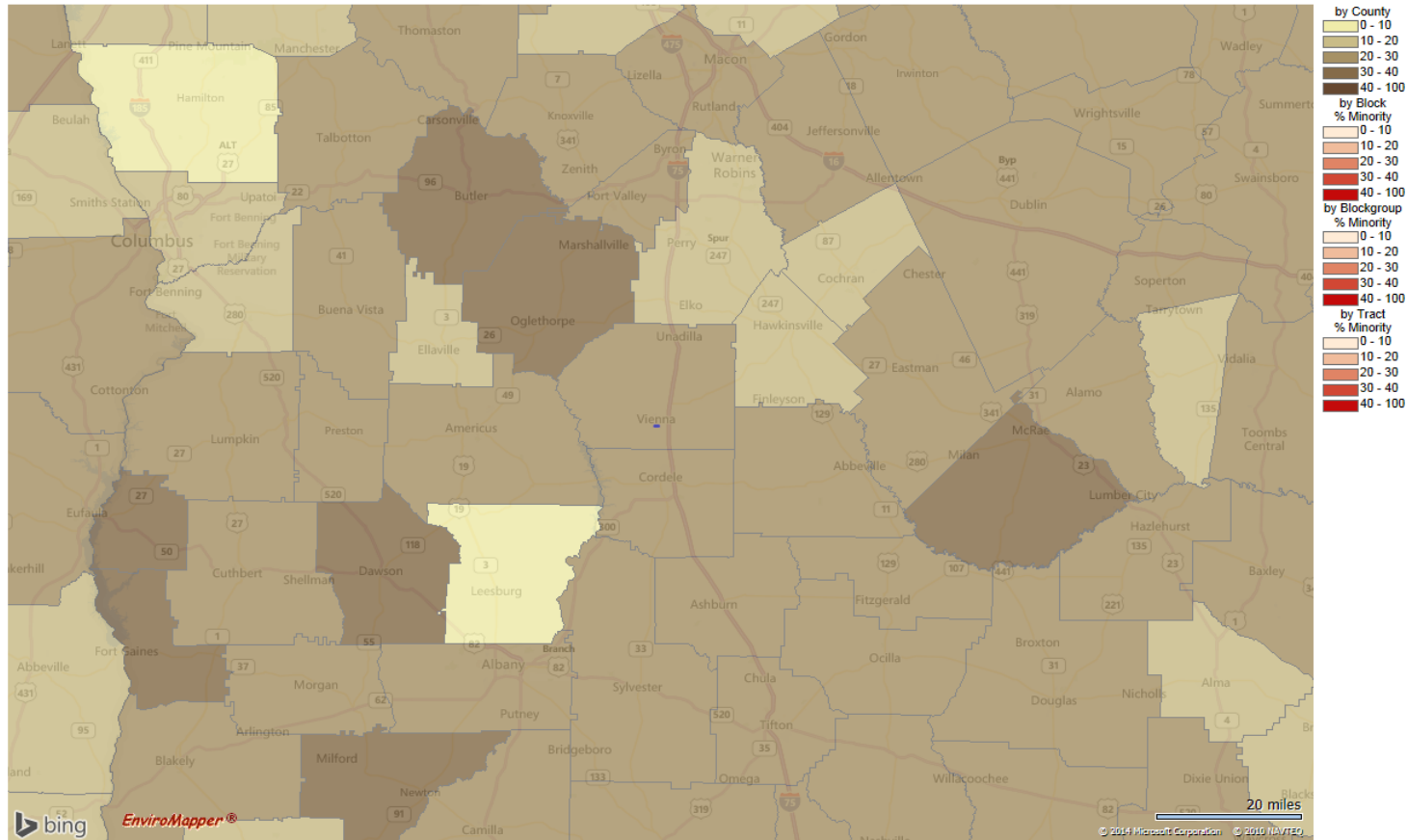


Figure 4. 27 % below poverty by county at the Ensyn Site and within Dooly County as well as several adjacent counties.

## APPENDIX F



April 3, 2014

Historic Preservation Division  
Georgia Department of Natural Resources  
254 Washington Street, SW  
Ground Level  
Atlanta, GA 30334

**Project Number: HP-131211-001 – Ensyn Biorefinery, Vienna Georgia**

Ms. Karen Anderson-Cordova,

In consultation with your office USDA Rural Business-Cooperative Service (RBS) has made a determination of “**no effect to historic properties**” for the proposed undertaking. By issuance of this letter and attachments, RBS requests formal concurrence from the SHPO on this determination. RBS is in receipt of the January 3, 2014 SHPO determination letter (**Attachment 1**) for this undertaking, which was sent by the applicant. If RBS is not notified by SHPO within 30 days we will conclude Section 106 is complete.

**Undertaking**

The proposed undertaking is the issuance of a guaranteed loan from RBS to Citibank N.A. for Ensyn Georgia Biorefinery I, LLC for construction and operation of a woody biomass conversion facility at 551 Roseburg Road in Vienna GA (as described in **Attachment 2**). The proposal would include the construction and operation of the facility and related infrastructure on 67 acres within the existing Roseburg Industrial Park (**Attachments 3**). Construction and operation of the facility would include disturbance within a 67-acre area as well as associated infrastructure within existing rights of way as shown on **Attachment 4**.

**Area of Potential Effect (APE)**

RBS identifies the Area of Potential Effect (APE) for this undertaking as the limits of ground disturbance for the facility and all associated infrastructure improvements as shown on **Attachment 4**.

**Assessment of Effects**

Based on the information with respect to the existence of historic properties in the area of the undertaking, RBS has made a determination of “**no effect to historic properties**” for the proposed undertaking and requests formal concurrence from the SHPO on this determination.

United States Department of Agriculture, Rural Development  
1400 Independence Avenue, SW  
Stop 0761, Room 6900  
Washington DC, 20250  
Voice (202) 720-9619 Fax (202) 690-4335

USDA is an equal opportunity provider and employer

As outlined in the implementing regulations of the National Historic Preservation Act, the SHPO has 30 days to concur or not concur with this determination. If the SHPO does not comment further on this undertaking within 30 days, RBS will move forward with the undertaking. Please feel free to contact me with any comments or questions at [juliet.bochicchio@wdc.usda.gov](mailto:juliet.bochicchio@wdc.usda.gov) or at 202.205.8242. Thank you for forwarding all correspondence to me via email or to my attention at the address above.

Sincerely,



Juliet Bochicchio  
Federal Preservation Officer  
Program Support Staff, RBS

cc: Steve Vierengel, Citibank, N.A.  
Robert Doherty, Ensyn Georgia Biorefinery I, LLC

Attachments:           1) SHPO concurrence letter dated January 3, 2014  
                              2) Project Description  
                              2) Detailed Submittal Packet dated December 9, 2013  
                              3) Proposed Limits of Disturbance

## ***Project Description***

Ensyn Biorefinery  
Vienna, Dooly County, GA

The USDA, Rural Business Service is considering an application for a loan guarantee pursuant to Section 9003 of the Food, Conservation, and Energy Act of 2008 received from Citibank N.A. for Ensyn Georgia Biorefinery I, LLC (1521 Concord Pike, Suite 205, Wilmington, DE 19803) for construction and operation of a woody biomass conversion facility in Vienna, Georgia. The proposal is to be located within an existing industrial site, on a 67 acre parcel which contains the mothballed Roseburg Particleboard Mill located at 551 Roseburg Road in Vienna GA. The proposal would include the refurbishment of existing buildings and new construction of buildings and infrastructure onsite, as well as operation of the biorefinery and related infrastructure. The limits of disturbance for construction are shown on the attached graphic in Attachment 4.

The company plans to produce 21 million gallons per year of advanced, drop-in, renewable cellulosic biofuel know as RFO, a renewable fuel oil, to sell to refineries in the region to meet Renewable Fuel Standard requirements. The proposal would convert approximately 140,000 bone dry tons per year of thinnings and forest residuals sourced within the region to RFO, an ash/sand mix and filter cake. These by-products would include up to 600 tons per year of an ash/sand mix which would either be applied to agricultural land or landfilled; and 5 tons per day of a filter cake which is a solid/slurry fuel that will be sold as fuel for combustion systems.

The proposal is located within an existing industrial park, is zoned industrial, and is consistent with the Long Range Transportation Study conducted by Dooly County. The applicant is anticipating obtaining a new synthetic minor source air permit for this proposal. RBS is currently completing an Environmental Assessment in order to determine whether this proposal supports a Finding of No Significant Impact according to the National Environmental Policy Act.

Information on the proposal is available for review by contacting Ms. Juliet Bochicchio at 202-205-8242 or at [juliet.bochicchio@wdc.usda.gov](mailto:juliet.bochicchio@wdc.usda.gov). Any person interested in commenting on the proposal should submit comments within 30 days following the date of this notice to USDA, Rural Development, 1400 Independence Ave SW, Mail STOP 0761, Washington, DC, 20250, attention: Juliet Bochicchio.





HISTORIC PRESERVATION DIVISION

MARK WILLIAMS  
COMMISSIONER

DR. DAVID CRASS  
DIVISION DIRECTOR

January 3, 2014

Todd Hubbell  
Rural Development, Business Programs  
Energy Division, Biorefinery Assistance Program  
USDA  
1400 Independence Avenue, SW  
Mail Stop 3225  
Washington DC 20250-3225

**RE: Install RTP Facility Equipment, 551 Georgia Pacific Road, Vienna  
Dooly County, Georgia  
HP-131211-001**

Dear Mr. Hubbell:

The Historic Preservation Division (HPD) has received the information submitted concerning the above referenced undertaking. Our comments are offered to assist the US Department of Agriculture, Rural Development and its applicants in complying with provisions of Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA).

Based on the submitted information, HPD finds that the proposed project will have **no effect** on historic or archaeological properties that are listed or eligible for listing in the National Register of Historic Places (NRHP), as defined in 36 CFR Part 800.4(d)(1), due to the scope of work and previous disturbances. Any changes to this project as proposed will require further review by our office for compliance with Section 106.

Please refer to project number **HP-131211-001** in any future correspondence regarding this undertaking. If we may be of further assistance, please do not hesitate to contact Jennifer Dixon, Environmental Review Specialist, at (404) 651-6546 or [jennifer.dixon@dnr.state.ga.us](mailto:jennifer.dixon@dnr.state.ga.us).

Sincerely,

Karen Anderson-Cordova  
Program Manager  
Environmental Review and Preservation Planning

KAC;jad

cc: Allison Slocum, River Valley Regional Commission  
Sarah Ruddell, Ensyn



FROM: Bob Doherty, CFO, Ensyn  
TO: Jennifer Dixon, Historic Preservation Division, GA DNR  
DATE: December 9, 2013  
SUBJECT: Ensyn; Executive Order 12372 Intergovernmental Review

Dear Ms. Dixon:

Enclosed you will find the required material for an Executive Order 12372 Review of our project (see project address at the end of this letter) by your agency. Ensyn is applying to USDA Rural Development for federal financial support for a renewable biomass to fuels project in Vienna, Georgia under the Section 9003 BioRefinery Assistance Program.

We are hereby initiating the Executive Order 12372, "Intergovernmental Review of Federal Programs" process on behalf of the U.S. Department of Agriculture, Rural Development (Agency). The Agency is being asked to consider providing financial assistance for the proposal described below (See Attachments) and your comments are invited on this proposal regarding:

1. Consistency with State and local government planning goals;
2. Extent to which the proposal duplicates, runs counter to, or needs to be coordinated with other activities, or might be revised to increase its effectiveness;
3. Contribution to achieving State or local government goals relating to natural and human resources, or economic and community development;
4. Extent of environmental impacts and alternatives that should be considered in the Agency's environmental review;
5. Influence on area growth or delivery of services, including any disproportionate effects on minority groups;
6. Impacts on energy resource supply and demand;
7. Possible displacement of people or businesses; and
8. Location in a Coastal Zone or Coastal Barrier Resource Area and consistency with any State coastal management plan.

The application process for this Section 9003 Biorefinery Assistance Guaranteed Loan is very competitive; we would appreciate a response as soon as possible. Your written response is an essential element of our application, which will be in its final stages of preparation by January 15, and is due January 31, 2014.

Please send your comments directly to the Agency:

Please also send Ensyn a copy of your response so that we can track the status of this review:

Todd Hubbell  
Rural Development, Business Programs  
Energy Division, Biorefinery Assistance Program  
USDA  
1400 Independence Avenue SW.,  
Mail Stop 3225, Washington, DC 20250- 3225.

Sarah Ruddell  
Ensyn Corporation  
1001 17<sup>th</sup> Street, Suite 1150  
Denver, CO 80202

If you choose not to respond within 60 days of this correspondence, the Agency will assume that you have chosen not to respond and may proceed with their decision. If you have any questions concerning this proposal, please contact Sarah Ruddell at Ensyn (office: 303-945-2936; cell: 616-648-4540; email: sruddell@ensyn.com).

Sincerely,

Bob Doherty

Attachments: Proposal Description and Maps:

1. Georgia Historic Preservation Division Environmental Review Form
2. Ensyn's Responses to Questions Laid out in the Georgia HPD Form
3. Appendix A – Site Layout
4. Appendix B – Topographic Map
5. Appendix C – APE
6. Appendix D – Site Photographs
7. Appendix E – Dooly County NRHP Listings

cc: USDA, Rural Development:

Todd Hubbell  
Rural Development, Business Programs  
Energy Division, Biorefinery Assistance Program  
USDA  
1400 Independence Avenue SW.,  
Mail Stop 3225, Washington, DC 20250– 3225.

cc: Complete list of Agencies receiving an Executive Order 12372 Intergovernmental Review package:

Georgia Department of Natural Resources – Commissioner's Office  
Georgia Department of Natural Resources – Historic Preservation Division  
Georgia Department of Natural Resources – Wildlife Resources Division  
Georgia Department of Natural Resources – Coastal Resources Division  
Georgia Department of Natural Resources – Environmental Protection Division  
Georgia Department of Natural Resources – Environmental Protection Division – Watershed Protection  
Georgia Department of Natural Resources – Environmental Protection Division – Floodplain Mgmt.  
Georgia Department of Transportation  
Georgia River Valley Regional Commission

Project Location:

Ensyn Vienna Biorefinery Project  
551 Georgia Pacific Road  
Vienna, GA 31092-0187

# Georgia Historic Preservation Division Environmental Review Form

At a minimum, the Historic Preservation Division (HPD), Georgia State Historic Preservation Office (SHPO), may require the following information in order to review projects in accordance with applicable federal or state laws (Section 106 of the National Historic Preservation Act or the Georgia Environmental Policy Act, etc). Please note that responsibility for preparing documentation, including the identification of historic resources and the assessment of potential effects resulting from an undertaking, rests with the federal or state agency or its designated applicant. If insufficient information is provided, we may request additional materials. The role of the SHPO is to review, comment, and consult with federal/state agencies, applicants, and consultants. *Please note that the US Corps of Engineers (USACE) does not delegate compliance to applicants and all information prepared for permits through this agency should be coordinated directly with USACE. Also, if you are submitting a cell tower project do not use this form. Please submit all cellular projects on either the Form 620 or 621.*

*Note: Ensyn has Attached a document titled "Ensyn Response to Georgia Historic Preservation Division: Environmental Review Form," which contains answers to the following questions, where noted below.*

## I. General Information

A. **Project Name:** *Ensyn Vienna Biorefinery Project* \_\_\_\_\_

Project Address: *551 Georgia Pacific Road* \_\_\_\_\_

City: *Vienna* \_\_\_\_\_ County: *Dooly County* \_\_\_\_\_

U. S. Congressional District - *District 2* \_\_\_\_\_

B. **Federal Agency:** *USDA Rural Development* \_\_\_\_\_

State Agency (if applicable): \_\_\_\_\_

### C. Agency's Involvement:

- |                                   |                                   |
|-----------------------------------|-----------------------------------|
| - Funding (X)                     | - Unknown                         |
| - License/Permit                  | - Other, please explain:<br>_____ |
| - Direct/Is performing the action |                                   |

### D. Project Type:

- |   |                                |
|---|--------------------------------|
| - Road/Highway Construction or Improvements | - Relicensing                  |
| - Demolition                                | - Utilities/Infrastructure (X) |
| - Rehabilitation                            | - Unknown                      |
| - Addition to Existing Building/Structure   | - Other: _____                 |
| - New Construction                          |                                |

### E. Level of Review:

- Section 106 of the National Historic Preservation Act (Federal) (X)
- Section 110 of the National Historic Preservation Act
- Georgia Environmental Policy Act (State)
- State Agency Historic Property Stewardship Program (State Stewardship)
- Technical Assistance
- Unknown

F. **Project Description and Plans** (Please include details as to what will be constructed, what will be altered and how and what will be demolished, as applicable. Attach additional pages if necessary):

See Ensyn Response and Appendix A

### G. Contact Information:

- |                 |              |
|-----------------|--------------|
| - Applicant (X) | - Consultant |
|-----------------|--------------|

Name: Sarah Ruddell

Address: Enslyn, 1001 17<sup>th</sup> Street, Suite 1150

City: Denver State: CO Zip: 80202

Phone: 303-945-2936 Fax: \_\_\_\_\_

Email: sruddell@ensyn.com

**Agency Contact Info** (either State or Federal, according to review type):

Name and Title: Todd Hubbell  
Rural Development, Business Programs  
Energy Division, Biorefinery Assistance Program (U.S. Department of Agriculture)

Address: 1400 Independence Ave SW

City: Washington State: DC Zip: 20250

Phone: 202-690-2516 Fax: \_\_\_\_\_

Email: Todd.Hubbell@wdc.usda.gov

H. Attach a **map** indicating the precise location of the project, preferably a clear color copy of a USGS topographic quadrangle map (7.5 minute). For projects in urban areas, please also include a city map that shows more detail. For additional help and information you may want to refer to the following website: <http://www.digital-topo-maps.com/><sup>1</sup>.

See Appendix B

I. Has this identical project or a related project been previously submitted for review? YES \_\_\_\_ NO X If yes, please enclose a copy of the State Historic Preservation Officer's comments.

**II. Information Defining the Area of Potential Effect (APE)**

A. The APE varies with project types, and can be direct or indirect (**physical or visual**). The APE is defined as "the geographic area or areas within which an undertaking may cause changes in the character or use of historic properties, if any such properties exist." Factors considered when determining the APE include topography, vegetation, existing development, orientation of an existing resource to the project, physical siting of a resource, and existing and planned future development. For example:

1. Rehabilitation, renovation, and/or demolition of an historic building or structure, or new construction: the APE might include the building itself and the adjacent setting.
2. Streetscapes: the APE might include the viewshed from the street.
3. Pedestrian/bicycle facilities: the APE might extend the length of the corridor and for some distance on both sides of the corridor.
4. Underground utilities: the APE would usually be limited to the area of ground disturbance.

Based on this information, **describe the Area of Potential Effect** for your project:

See Enslyn Response

B. **Attach a map or site plan and project plans (as applicable)**, which indicate the boundaries of the APE and provide information about project scope of work (this may be the same map used above to show project location), please see the examples on our website.

See Appendix C

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<sup>1</sup> Please note, this is not a complete list of websites with topographic map information. This website is not controlled by HPD and HPD bears no responsibility for its content.

C. **Provide high-resolution color photographs**, which illustrate the project area and the entire APE as defined above. Photography should document not only the project area, but also any adjacent properties that are within the APE. If the APE includes buildings or structures, please include clear views of each. All photography should be keyed to a site map and project plans (as applicable), please see our examples. Photographs should be individually numbered, and corresponding numbers should be placed on the map or site plan, showing location and direction of view. Should your project entail the alteration of existing historic structures, please provide photographs of existing conditions of sites, buildings and interior areas to be impacted.

See Appendix D

**III. Site Information**

A. To your knowledge, has a cultural resources assessment or a historic resources survey been conducted in the project area? YES \_\_\_\_\_ NO \_\_\_\_\_ DO NOT KNOW  X

If yes, provide the title of the report, author, date and principal investigator:

\_\_\_\_\_

B. Attach any available information concerning known or suspected archaeological resources in the area of potential effect. (Note: Research at the Georgia Archaeological Site File in Athens may be undertaken only by a qualified archaeologist or site file staff. For questions, please call 706-542-8737.) **Please note that as part of the review process, HPD may request an archaeological survey.**

C. In the past has this property been used for:

- |                      |   |               |
|----------------------|---|---------------|
| 1. Farming           | YES _____   | NO <u> X </u> |
| 2. Pasture           | YES _____   | NO <u> X </u> |
| 3. Mining            | YES _____   | NO <u> X </u> |
| 4. Timbering         | YES _____   | NO <u> X </u> |
| 5. Road construction | YES _____   | NO <u> X </u> |
| 6. Housing           | YES _____   | NO <u> X </u> |
| 7. Landfill          | YES _____   | NO <u> X </u> |
| 8. Commercial        | YES _____   | NO <u> X </u> |
| 9. Industrial        | YES <u> X </u>                                      | NO <u> X </u> |
| 10. Other (explain): | Note: Answers above reflect property use since 1969 |               |

D. Describe what is on the property today (i.e. buildings, parking lot, house, barn, outbuildings, woods, grass, garden, etc.) : \_\_\_\_\_

See Ensyn Response

E. Does the project include any land disturbing activities? (haul roads, cut or fill areas, excavations, landscaping activities, ditching, utility burial, grading, water tower construction etc.) YES  X  NO \_\_\_\_\_ If yes, please describe the nature of the work and the approximate three dimensional extent of work:

See Ensyn Response

F. If not provided in response to previous sections, please include a project specific map and/or preliminary site plan that fully describe the project boundaries and areas of land disturbing work. Note in detail all changes and additions proposed to be made to the existing site.

See Ensyn Response

**IV. Building and Structure Information**

A. Is the project located within or adjacent to a National Register of Historic Places (NRHP) listed or eligible historic district?

YES \_\_\_\_\_ NO  X  DO NOT KNOW \_\_\_\_\_ If yes, please provide the name of the district:

*No, the project is not within or adjacent to a National Register of Historic Places (NRHP) listed or eligible historic district. See Appendix E*

B. Within the project APE, are there any other buildings or structures that are 50 years old or older?  
YES \_\_\_ NO X If yes, provide numbered photographs of each that have been keyed to a site map.

C. Are any of the buildings or structures identified above listed or eligible for listing in the NRHP?  
YES \_\_\_ NO X DO NOT KNOW \_\_\_ If yes, please identify the properties (by name or photo #).

D. Does the project involve the rehabilitation, renovation, relocation, demolition or addition to any building or structure that is 50 years old or older?  
YES \_\_\_ NO X

(Note: Background research for previously identified properties within an APE may be undertaken at HPD, including the National Register of Historic Places files, county architectural surveys, and identified sites files. To make a research appointment, please call 404-651-5911. Some information may also be available on the web.)

**V. Additional Information for Effects Determination**

An effect occurs when an action alters the characteristics of a property that may qualify it for the National Register or alters the features of a property's location, setting or use that contribute to its significance. How is the project going to affect any of the properties identified in the previous section?

A. Will the project take away or change anything within the apparent or existing boundary of any of these historic properties?  
YES \_\_\_ NO X If yes, please explain: \_\_\_\_\_

B. Will the project change the view from or the view of any of these properties?  
YES \_\_\_ NO X If yes, please explain: \_\_\_\_\_

C. Will the project introduce any audible or atmospheric elements to the setting of any of these historic properties?  
YES \_\_\_ NO X If yes, please explain: \_\_\_\_\_

D. Will the project result in the transfer, lease or sale of any of these historic properties?  
YES \_\_\_ NO X If yes, please explain: \_\_\_\_\_

**Please note:** HPD's ability to complete a timely project review largely depends on the quality of the material submitted. For complex projects, some applicants may find it advantageous to hire a historic preservation professional with expertise in history, architectural history and/or archaeology.

**We are unable to accept project submittals via facsimile or e-mail.** There is a 30-day review and comment period. For questions regarding this form or the review process, please contact HPD's Environmental Review Specialist at 404-651-6546 or via email at [Jennifer.dixon@dmr.state.ga.us](mailto:Jennifer.dixon@dmr.state.ga.us) However, we are unable to accept electronic project submittals.

When completed, please send this form along with the supporting material to:

**Dr. David Crass, Division Director,  
Historic Preservation Division  
Attention: Environmental Review  
254 Washington Street, SW  
Ground Level  
Atlanta, GA 30334**

## **Section II: Information Defining the Area of Potential Effect (APE)**

- A. The Project is being developed on an existing industrial site that was formally a particleboard mill. This is not a historic property. The Vienna Mill, which was commissioned in 1970, is currently owned by Roseburg Forest Products. The Mill was closed in 2010. The Project will utilize existing infrastructure and buildings on the site, as well as the new construction of a Rapid Thermal Processing unit for the conversion of woody biomass to Renewable Fuel Oil. The RTP unit will not exceed the height of existing adjacent buildings and thus, there will be no visual impacts from nearby properties. There will be some excavation of the exiting site for additional utilities and foundations, drainage, etc, but the site has been previously impacted by past mill operations.
- B. Please See Appendix C
- C. Please See Appendix D

## **Section III: Site Information**

- A. Please See Original Form
- B. Please See Original Form
- C. Please See Original Form
- D. The 67-acre property is currently a mothballed Particleboard Facility. On the facility there exists three large buildings used for biomass storage, biomass sizing and drying, and particleboard forming and storage; a large concrete fuel yard with a radial stacker; numerous outbuildings; tanks; a parking lot; rail spurs, maintained grass areas, roads and wooded areas on the periphery neat the fence line.
- E. New construction will be required to install the Ensyn RTP unit a the Vienna Mill. The RTP unit - primarily the reactor, reheater, and condenser with associated ancillary systems - will be fabricated off-site and then shipped to the site and erected on a foundation that will be installed adjacent to the Dryer Building. Excavation and foundational work will be required. Pollution control systems will also need to be erected and installed in proximity to the RTP unit and dryers – requiring site excavation, piping, and foundation work. Other systems needed to be constructed to support the Project include: storage and filtration infrastructure in the exiting Particle Board Building, piping, water and wastewater infrastructure upgrades, and potentially a cooling tower construction (dependent on additional engineering). New building and equipment construction may interfere with the mill's current runoff ditching infrastructure. If that is the case, new drainage ditches will need to be installed to the existing sewer inlet.
- F. Information already provided in previous response.

## **Section IV: Building and Structure Information**

- A. Please See Original Form and Appendix E
- B. Please See Original Form



**Ensyn Response to Georgia Historic Preservation Division: Environmental Review Form**

**Section I: General Information**

- A. Please See Original Form
- B. Please See Original Form
- C. Funding
- D. Utilities/Infrastructure
- E. Section 106 of the National Historic Preservation Act (Federal)
- F. Ensyn is developing a Rapid Thermal Processing (RTP) Facility to produce cellulosic Renewable Fuel Oil for the purpose of sale to refineries in the region to allow them to meet Renewable Fuel Standard requirements. The proposed project site is owned by Roseburg Forest Products. The 67 acre industrial site contains a former particleboard facility that has been mothballed since 2010. The plant began operation in 1970. The particleboard plant is comprised of a three primary buildings – a covered storage building, a building housing dryer and sizing equipment, and a building housing forming, cutting and processing equipment, as well as a storage floor. In addition, the site contains a large concrete fuel yard, truck dumps, conveyor systems, rail spurs, a parking lot, and a number of outbuildings and storage tanks, and an electrical sub-station.

The Project will leverage existing front-end fiber processing infrastructure at the Vienna Mill in order to deliver fiber at specification (size, moisture content) to the Ensyn Facility. This includes the truck dump; conveyors; the biomass fuel yard; biomass fuel storage buildings; screens; hammer mills; the duster fine silo; dryers and dryer building, and dryer cyclones; the far northern portion of the particleboard manufacturing and pressing building; and the existing rail spurs. The existing infrastructure is expected to require some refurbishment (i.e. replacement of drives, bearings, belts, painting, etc).

New construction will be required to install the Ensyn RTP unit. The RTP unit - primarily the reactor, reheater, and condenser with associated ancillary systems - will be fabricated off-site and then shipped to the site and erected on a foundation that will be installed adjacent to the Dryer Building. Pollution control systems will also need to be erected and installed in proximity to the RTP unit and dryers – requiring site excavation, piping, and foundational work. Other systems needed to be constructed to support the Project include storage and filtration infrastructure in the existing Particle Board Building, piping, water and wastewater infrastructure upgrades, and potentially a cooling tower (dependent on additional engineering).

Some infrastructure on the site will be altered or removed in order to accommodate the new construction of the RTP adjacent to the Dryer Building. This primarily includes some tankage and piping to the east of the dryer building. Additionally, the overhead conveyor existing the dryer building will need to be modified in order to divert dried biomass into the RTP unit, rather than to the Particleboard Building.

See Appendix A for Site Layout.

- G. Please See Original Form
- H. Please See Appendix B
- I. Please See Original Form

C. Please See Original Form

D. Please See Original Form

**Section V: Additional Information for Effects Determination**

A. Please See Original Form

B. Please See Original Form

C. Please See Original Form

D. Please See Original Form

# **ENSYN**

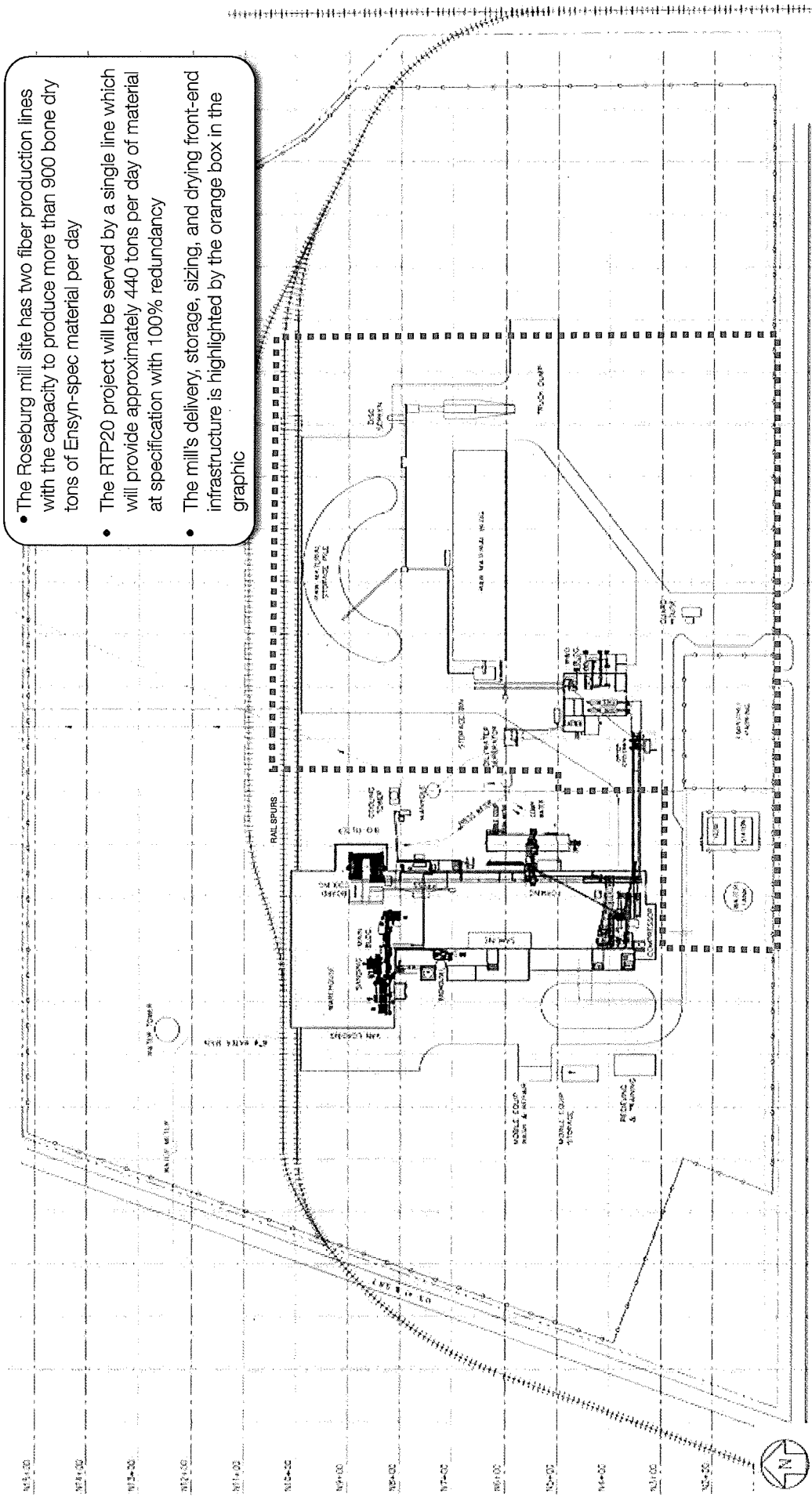
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## *Appendix A - Site Layout*

Ensyn Vienna Biorefinery Project  
551 Georgia Pacific Road  
Vienna, GA 31092

December 2013

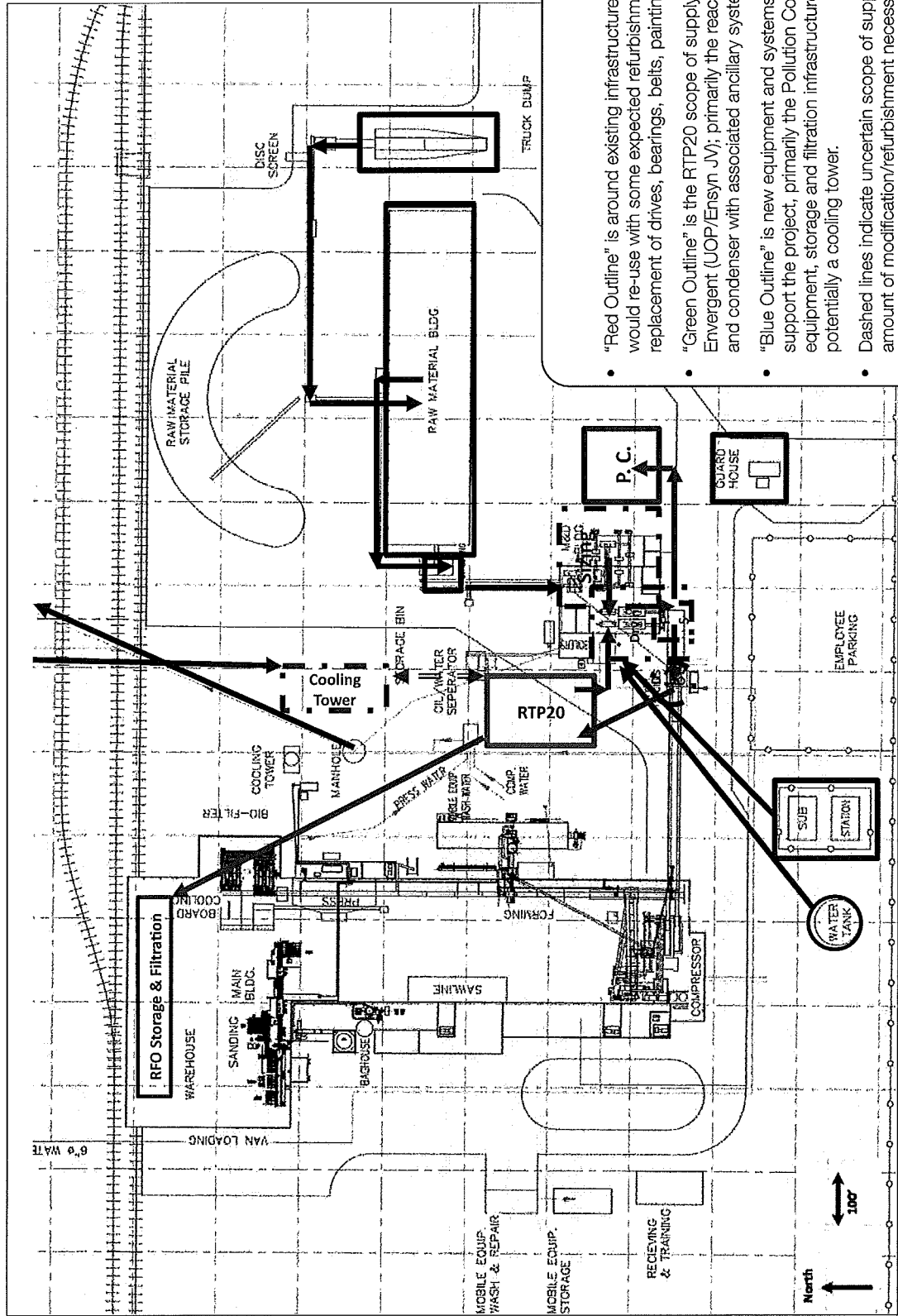
# Site Layout



- The Roseburg mill site has two fiber production lines with the capacity to produce more than 900 bone dry tons of Ensyn-spec material per day
- The RTP20 project will be served by a single line which will provide approximately 440 tons per day of material at specification with 100% redundancy
- The mill's delivery, storage, sizing, and drying front-end infrastructure is highlighted by the orange box in the graphic

00+00 01+00 02+00 03+00 04+00 05+00 06+00 07+00 08+00 09+00 10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00

# Construction of New and Use of Existing Infrastructure



# ENSYN

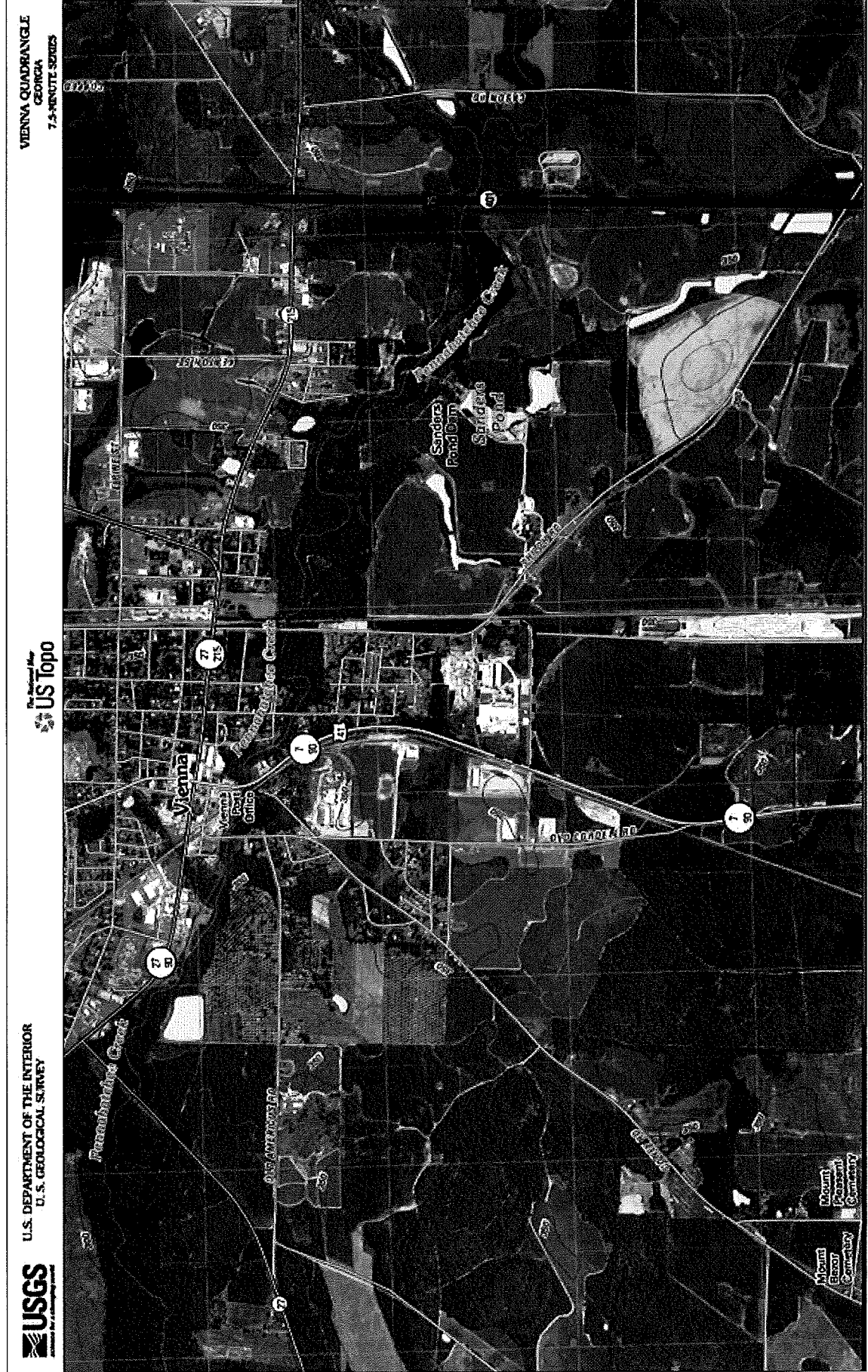
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## *Appendix B - Topographic Map*

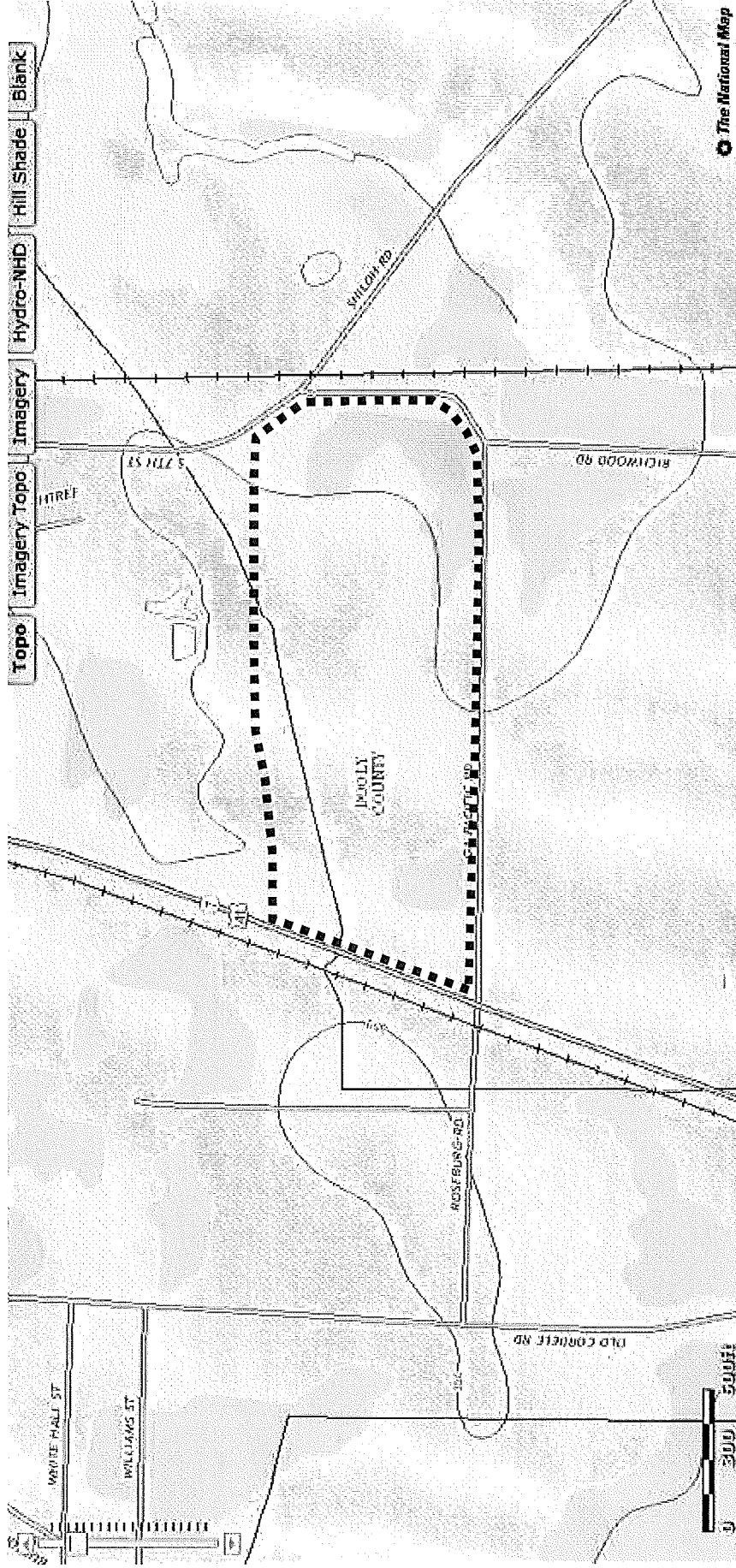
Enslyn Vienna Biorefinery Project  
551 Georgia Pacific Road  
Vienna, GA 31092

December 2013

# Topographic Map of Project Location



# Project Location - Vienna, GA





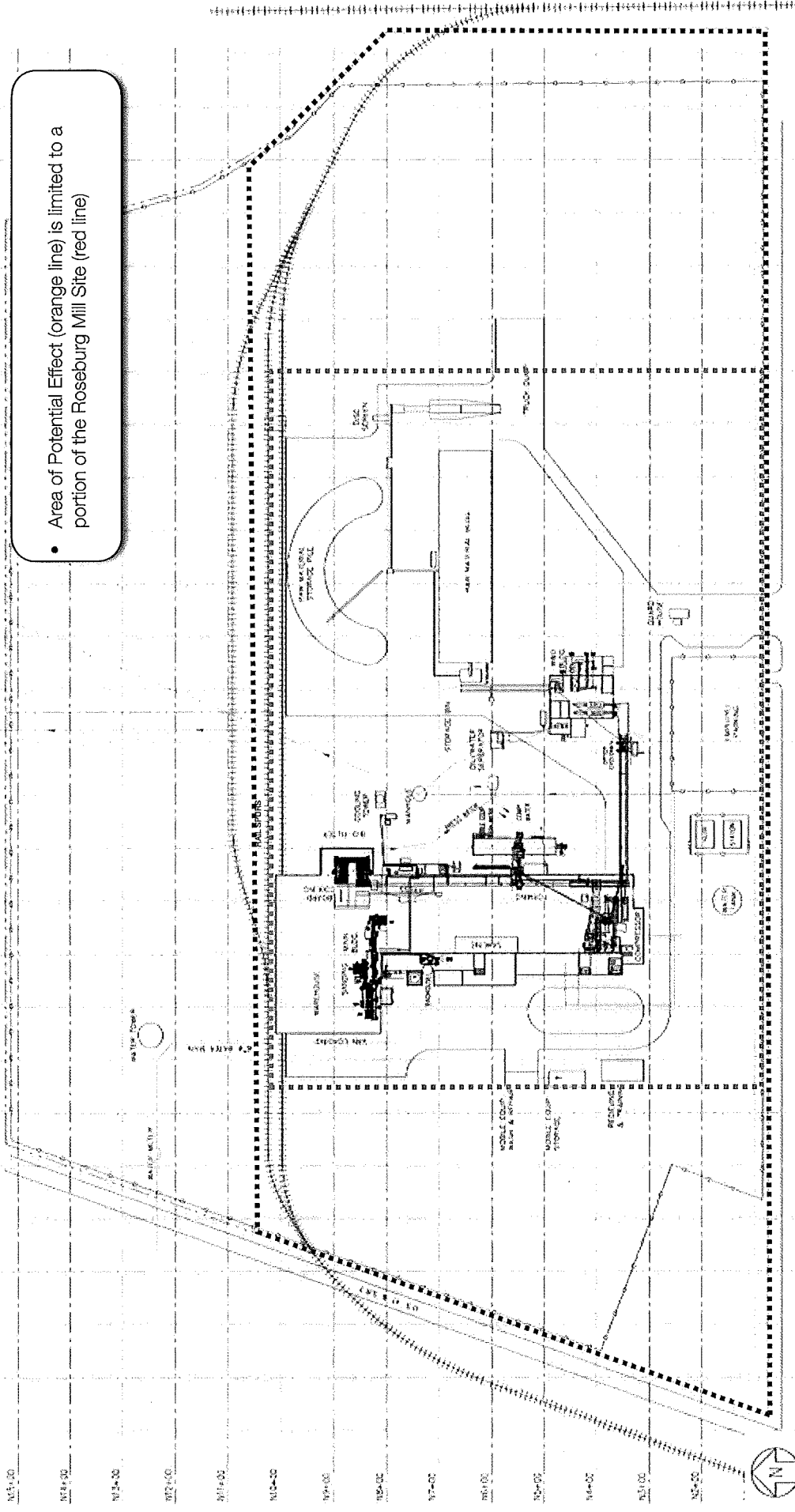
# **ENSYN**

*Appendix C - APE*

Ensyn Vienna Biorefinery Project  
551 Georgia Pacific Road  
Vienna, GA 31092

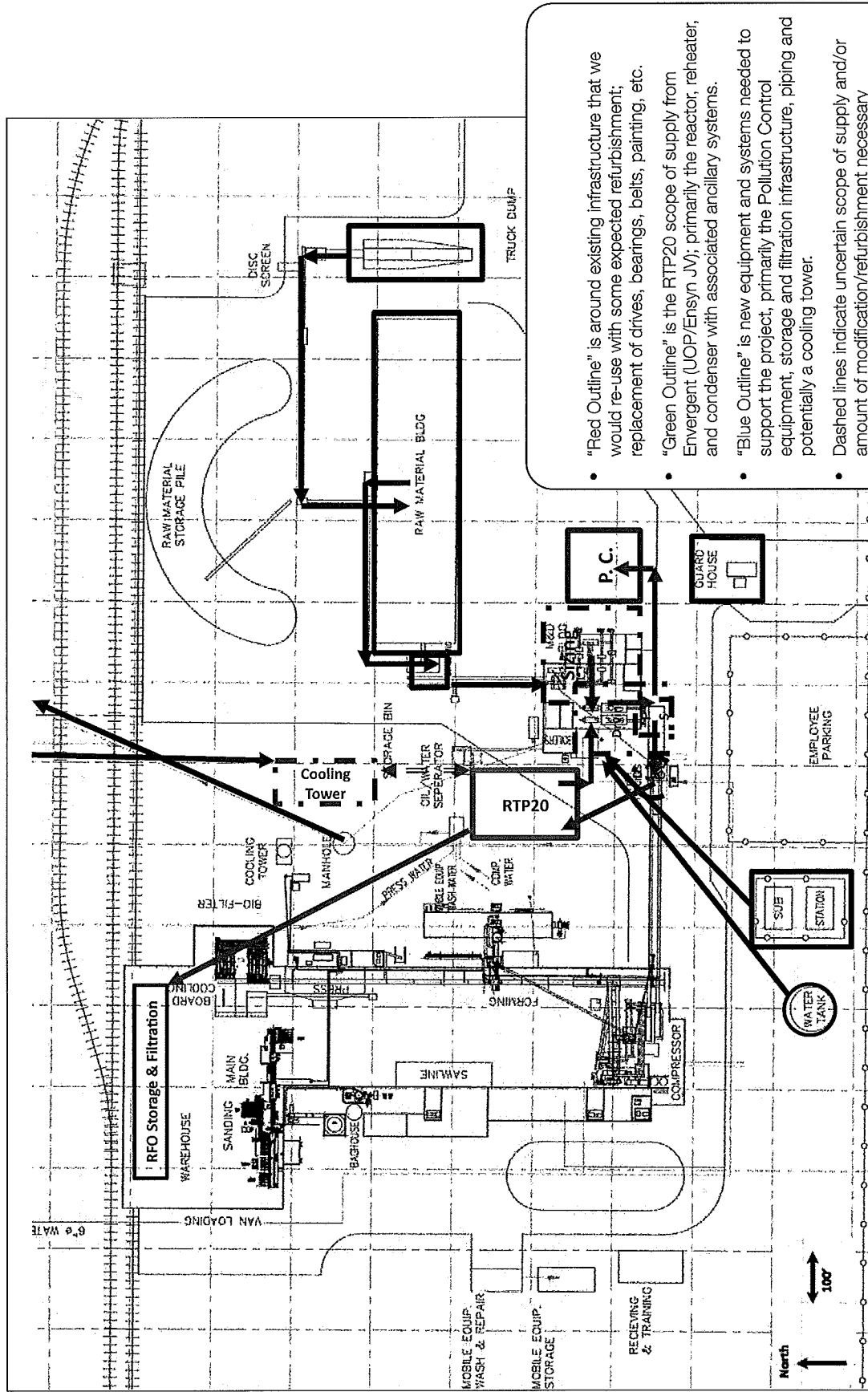
December 2013

# Area of Potential Effect



• Area of Potential Effect (orange line) is limited to a portion of the Roseburg Mill Site (red line)

# Construction of New and Use of Existing Infrastructure



- "Red Outline" is around existing infrastructure that we would re-use with some expected refurbishment; replacement of drives, bearings, belts, painting, etc.
- "Green Outline" is the RTP20 scope of supply from Envergent (UOP/Ensyn JV); primarily the reactor, reheater, and condenser with associated ancillary systems.
- "Blue Outline" is new equipment and systems needed to support the project; primarily the Pollution Control equipment, storage and filtration infrastructure, piping and potentially a cooling tower.
- Dashed lines indicate uncertain scope of supply and/or amount of modification/refurbishment necessary

# ENSYN

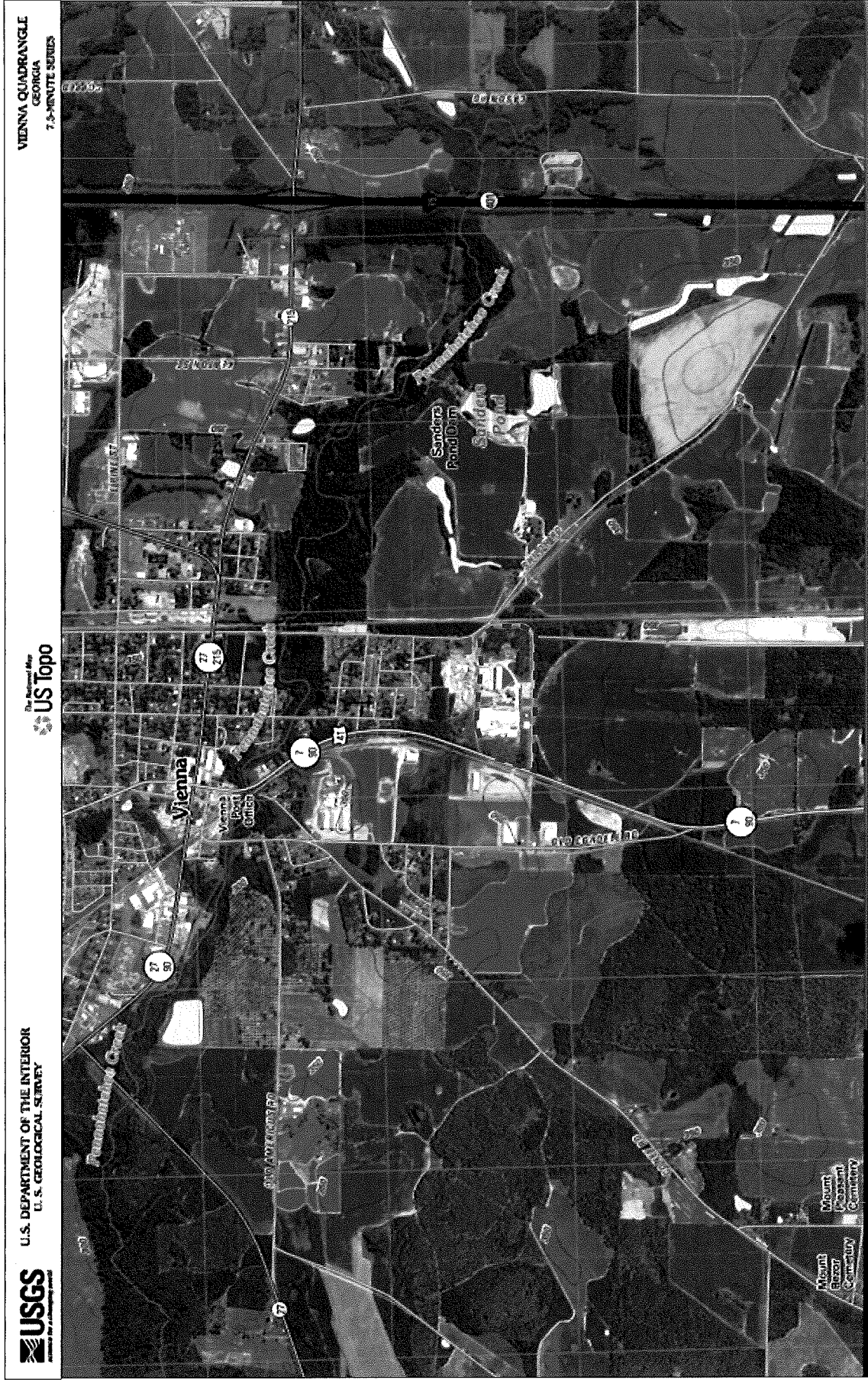
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## *Appendix D - Site Photographs*

Ensyn Vienna Biorefinery Project  
551 Georgia Pacific Road  
Vienna, GA 31092

December 2013

# Topographic Map of Site Location



# **ENSYN**

*Appendix E - National Register of Historic Places*

---

Ensyn Vienna Biorefinery Project  
551 Georgia Pacific Road  
Vienna, GA 31092

December 2013

# National Register Of Historic Places

According to the National Register of Historic Places, none of the registered historic sites are located near Ensyn's project site.

Reference Number	Resource Name	Address	State	County	City	Primary Cert	Primary Certdate	Multiple Property Name
97000053	Byrom, William H., House	Main St., near the jct. of GA 90 and the Seaboard Coast RR	GEORGIA	Dooly	Dooly	LI	19970214	
97001558	Lilly Historic District	Roughly bounded by CSX RR tracks, and Church, Montezuma, Third, and School Sts.	GEORGIA	Dooly	Lilly	LI	19980105	
10000158	County Training School	190 Ninth St.	GEORGIA	Dooly	Vienna	LI	20100407	Rosenwald Schools in Georgia, 1912-1937
80001013	Dooly County Courthouse	GA 27	GEORGIA	Dooly	Vienna	LI	19800918	Georgia County Courthouses TR
97000054	Leonard--Akin House	309 E. Union St.	GEORGIA	Dooly	Vienna	LI	19970214	
79000716	Stovall-George-Woodward House	305 Union St.	GEORGIA	Dooly	Vienna	LI	19790427	
12001056	Vienna High and Industrial School	216 9th St.	GEORGIA	Dooly	Vienna	LI	20121219	
04001557	Vienna Historic District	Roughly centered on the downtown commercial district and includes residential areas and the rail line	GEORGIA	Dooly	Vienna	LI	20050128	Georgia County Courthouses TR (AD)

# **ENSYN**

---

*Maximum Boundary of Disturbance*

Ensyn Vienna Biorefinery Project  
551 Georgia Pacific Road  
Vienna, GA 31092

April 2013



# Maximum Boundary of Disturbance





MARK WILLIAMS  
COMMISSIONER

DR. DAVID CRASS  
DIVISION DIRECTOR

January 3, 2014

Todd Hubbell  
Rural Development, Business Programs  
Energy Division, Biorefinery Assistance Program  
USDA  
1400 Independence Avenue, SW  
Mail Stop 3225  
Washington DC 20250-3225

**RE: Install RTP Facility Equipment, 551 Georgia Pacific Road, Vienna  
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HP-131211-001**

Dear Mr. Hubbell:

The Historic Preservation Division (HPD) has received the information submitted concerning the above referenced undertaking. Our comments are offered to assist the US Department of Agriculture, Rural Development and its applicants in complying with provisions of Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA).

Based on the submitted information, HPD finds that the proposed project will have **no effect** on historic or archaeological properties that are listed or eligible for listing in the National Register of Historic Places (NRHP), as defined in 36 CFR Part 800.4(d)(1), due to the scope of work and previous disturbances. Any changes to this project as proposed will require further review by our office for compliance with Section 106.

Please refer to project number **HP-131211-001** in any future correspondence regarding this undertaking. If we may be of further assistance, please do not hesitate to contact Jennifer Dixon, Environmental Review Specialist, at (404) 651-6546 or [jennifer.dixon@dnr.state.ga.us](mailto:jennifer.dixon@dnr.state.ga.us).

Sincerely,

Karen Anderson-Cordova  
Program Manager  
Environmental Review and Preservation Planning

KAC:jad

cc: Allison Slocum, River Valley Regional Commission  
Sarah Ruddell, Ensyn

## **Bochicchio, Juliet - RD, Washington, DC**

---

**From:** Anderson-Cordova, Karen <Karen.Anderson-Cordova@dnr.state.ga.us>  
**Sent:** Wednesday, April 09, 2014 9:06 AM  
**To:** Bochicchio, Juliet - RD, Washington, DC  
**Subject:** HP-1312110-001, Ensyn Biorefinery, Vienna, Georgia

Dear Ms. Bochicchio: We are in receipt of your April 3, 2014 assessment of effects for the above referenced project. As noted in your submittal, our office has already commented on the proposed project, concurring that it will have no effect on historic properties listed or eligible for listing in the National Register of Historic Places. We have no further comments on this project. Sincerely,

Dr. Karen Anderson-Cordova  
Program Manager  
Environmental Review and Preservation Planning  
Historic Preservation Division  
254 Washington Street, SW  
Ground Level  
Atlanta, Georgia 30334  
Tel: (404-651-6461  
[Karen.anderson-cordova@dnr.state.ga.us](mailto:Karen.anderson-cordova@dnr.state.ga.us)  
[www.georgiashpo.org](http://www.georgiashpo.org)

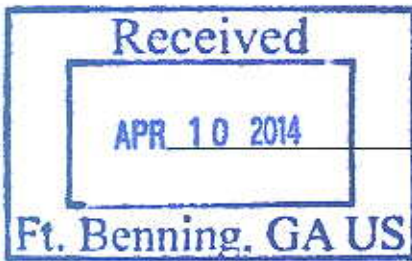
“We have a choice to use the gift of our lives to make the world a better place.” Dr. Jane Goodall

# National Register Of Historic Places

According to the National Register of Historic Places, none of the registered historic sites are located near Ensyn's project site.

Reference Number	Resource Name	Address	State	County	City	Primary Cert	Primary Certdate	Multiple Property Name
97000053	Byrom, William H., House	Main St., near the jct. of GA 90 and the Seaboard Coast RR	GEORGIA	Dooly	Dooly	LI	19970214	
97001558	Lilly Historic District	Roughly bounded by CSX RR tracks, and Church, Montezuma, Third, and School Sts.	GEORGIA	Dooly	Lilly	LI	19980105	
10000158	County Training School	190 Ninth St.	GEORGIA	Dooly	Vienna	LI	20100407	Rosenwald Schools in Georgia, 1912-1937
80001013	Dooly County Courthouse	GA 27	GEORGIA	Dooly	Vienna	LI	19800918	Georgia County Courthouses TR
97000054	Leonard--Akin House	309 E. Union St.	GEORGIA	Dooly	Vienna	LI	19970214	
79000716	Stovall-George-Woodward House	305 Union St.	GEORGIA	Dooly	Vienna	LI	19790427	
12001056	Vienna High and Industrial School	216 9th St.	GEORGIA	Dooly	Vienna	LI	20121219	
04001557	Vienna Historic District	Roughly centered on the downtown commercial district and includes residential areas and the rail line	GEORGIA	Dooly	Vienna	LI	20050128	Georgia County Courthouses TR (AD)

## APPENDIX G



United States Department of Agriculture



U. S. Fish and Wildlife Service  
105 West Park Drive, Suite D  
Athens, GA 30606  
706-613-9493 Fax 706-613-6059

FWS Log No.

2014-CPA-0576

April 8, 2014

Ms. Sandy Abbott  
Georgia Ecological Services Fort Benning Office  
PO BOX 52560  
Fort Benning, Georgia 31995

The service has reviewed the plans for this proposed project. Based on the information you provided, no further action is required under Section 7(a)(2) of the Endangered Species Act. However, if new information or changes in the project involve federally listed species, further consultation with the Service will be required.

Sandra S. Tucker, Field Supervisor  
John Daresky, ADWing

Date 4/14/14

Re: Ensyn Georgia Biorefinery I, LLC – 67- acre Woody Biomass Conversion Facility

Dear Ms. Abbott,

The U.S. Department of Agriculture Rural Business-Cooperative Service (RBS) requests a letter of concurrence from the USFWS with respect to our determination of “**may affect/not likely to affect**” for the Endangered Candidate Species the Gopher tortoise and a “**no effect**” determination for 8 other Endangered species (5 muscle and 3 plant species listed below) identified in the region of the proposed Ensyn woody biomass to renewable fuels conversion facility proposed in Vienna, GA. This determination is based in large part on the biological survey completed on the site (**Attachment 1**). This request is made under the requirements of Section 7 of the Endangered Species Act.

**Listed Endangered Species**

Fat three-ridge (muscle)  
Gulf moccasinshell (muscle)  
Oval pigtoe (muscle)  
Purple backclimber (muscle)  
Shinyrayed pocketbook (muscle)  
Canby’s dropwort (plant)  
Harperella (plant)  
Relict trillium (plant)

**RBS Determination**

no effect  
no effect  
no effect  
no effect  
no effect  
no effect  
no effect  
no effect

**Listed Endangered Candidate Species**

Gopher tortoise

**RBS Determination**

may affect/not likely to affect

RBS is in the process of preparing an Environmental Assessment (EA) on the proposal in accordance with the National Environmental Policy Act. The EA includes an analysis of potential impacts to threatened and endangered species on the site and affected area.

**United States Department of Agriculture, Rural Development**

1400 Independence Avenue, SW  
Stop 0761, Room 6900  
Washington DC, 20250

Voice (202) 720-9619 Fax (202) 690-4335

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April 8, 2014

Ms. Sandy Abbott  
Georgia Ecological Services Fort Benning Office  
PO BOX 52560  
Fort Benning, Georgia 31995

Re: Ensyn Georgia Biorefinery I, LLC – 67- acre Woody Biomass Conversion Facility

Dear Ms. Abbott,

The U.S. Department of Agriculture Rural Business-Cooperative Service (RBS) requests a letter of concurrence from the USFWS with respect to our determination of “**may affect/not likely to affect**” for the Endangered Candidate Species the Gopher tortoise and a “**no effect**” determination for 8 other Endangered species (5 muscle and 3 plant species listed below) identified in the region of the proposed Ensyn woody biomass to renewable fuels conversion facility proposed in Vienna, GA. This determination is based in large part on the biological survey completed on the site (**Attachment 1**). This request is made under the requirements of Section 7 of the Endangered Species Act.

**Listed Endangered Species**

**RBS Determination**

Fat three-ridge (muscle)	no effect
Gulf moccasinshell (muscle)	no effect
Oval pigtoe (muscle)	no effect
Purple backclimber (muscle)	no effect
Shinyrayed pocketbook (muscle)	no effect
Canby’s dropwort (plant)	no effect
Harperella (plant)	no effect
Relict trillium (plant)	no effect

**Listed Endangered Candidate Species**

**RBS Determination**

Gopher tortoise	may affect/not likely to affect
-----------------	---------------------------------

RBS is in the process of preparing an Environmental Assessment (EA) on the proposal in accordance with the National Environmental Policy Act. The EA includes an analysis of potential impacts to threatened and endangered species on the site and affected area.

**United States Department of Agriculture, Rural Development**  
1400 Independence Avenue, SW  
Stop 0761, Room 6900  
Washington DC, 20250  
Voice (202) 720-9619 Fax (202) 690-4335

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## **Project Description**

RBS proposes to issue a guaranteed loan for Ensyn Georgia Biorefinery I, LLC to rehabilitate an existing particle board facility and operate a woody biomass conversion facility in Vienna, GA. The proposed site for which we are submitting this concurrence request is a 67-acre parcel located at 551 Georgia Pacific Road, Vienna, GA, Dooly County.

The proposal would include the refurbishment of existing buildings and new construction of buildings and infrastructure within previously disturbed areas, as well as operation of the biorefinery and related infrastructure. The company plans to produce 21 million gallons per year of advanced, drop-in, renewable cellulosic biofuel known as RFO, a renewable fuel oil, to sell to refineries in the region to meet Renewable Fuel Standard requirements. The proposal would convert approximately 140,000 bone dry tons per year of thinnings and forest residuals sourced within the region to RFO, an ash/sand mix and filter cake. These by-products would include up to 600 tons per year of an ash/sand mix which would either be applied to agricultural land or landfilled; and 5 tons per day of a filter cake which is a solid/slurry fuel that is intended to be sold as fuel for combustion systems.

The site, located along Hwy 41 in Dooly County, is approximately 67 acres. The previous property owner, Roseburg Forest Products, opened the plant in 1970 and operated it as a particleboard manufacturing facility until 2010. The land consists of open land, paved parking and raw product storage areas and buildings. The adjacent land use, as identified by field observation, includes limited residential developments to the north, open land and timberland to the east, south and west. The Norfolk Southern and CSX railroads both have rail spurs that run directly to the site. The land is zoned as Industrial by the local government. (**Attachments 2**).

## **Mitigation Measures**

The proposal will enforce state required erosion control measures to capture stormwater and sediments onsite.

## **RBS Conclusions and Determination**

Based on a review of the existing conditions at the site, and the proposed construction and operation activities, RBS has determined that the proposal **may affect but is not likely to affect** the Endangered Gopher tortoise.

As discussed in the Biological report (**Attachment 1**) Gopher tortoises are typically found in habitats that contain well-drained sandy substrate, sufficient amounts of herbaceous vegetation for food, and sunlit areas for nesting. These conditions are often met in the following habitat types: pine-turkey oak sandhill; sand pine scrub; xeric hammock-pine flatwoods; dry prairie-coastal grasslands and dunes, and mixed hardwood-pine communities. The tortoise excavates deep burrows that provide shelter from climatic extremes and refuge from predation. It does not persist in areas with densely canopied areas and is frequently found in disturbed areas such as roadsides, fence-rows, old fields, and the edges of overgrown uplands.

Potential habitat exists within the undeveloped wooded portions and adjacent open areas of the property located east and west of the existing facility. The site assessment included multiple transects with special attention paid to the habitat transition zones that existed between the



wooded and open herbaceous areas. According to the biologists, based on site conditions those areas appeared to be the most appealing area for gopher tortoises to locate their burrows. No tortoise burrows or tracks were observed during the survey.

All process waters would be leaving the site via conveyance to existing City of Vienna sewer facilities at existing onsite sewer tie-ins. The project does not propose discharge to water bodies. Since the proposal does not propose water dependent construction, and no discharge or outflow to adjacent water bodies or tributaries, RBS has determined that the proposal would have “no effect” on the following five (5) species of muscels.

<b><u>Listed Endangered Species</u></b>	<b><u>RBS Determination</u></b>
Fat three-ridge (muscle)	no effect
Gulf moccasinshell (muscle)	no effect
Oval pigtoe (muscle)	no effect
Purple backclimber (muscle)	no effect
Shinyrayed pocketbook (muscle)	no effect

Since the biological survey did not find suitable habitat for the three listed plant species below on the property, RBS has determined that the proposal would have “no effect” on the following three (3) species of plants.

<b><u>Listed Endangered Species</u></b>	<b><u>RBS Determination</u></b>
Canby’s dropwort (plant)	no effect
Harperella (plant)	no effect
Relict trillium (plant)	no effect

We purport that this proposal would not pose an adverse effects to threatened or endangered species identified as potentially occurring in the area.

Please feel free to contact me with any comments or questions at [juliet.bochicchio@wdc.usda.gov](mailto:juliet.bochicchio@wdc.usda.gov) or at 202.205.8242. Thank you for forwarding all correspondence to me via email or to my attention at the address above.

Sincerely,



Juliet Bochicchio  
Federal Preservation Officer  
Program Support Staff, RBS

cc: Rick Tallman, Ensyn Georgia Biorefinery I, LLC

Attachments: 1) Biological Report dated March 28, 2014  
2) General vicinity map and Aerial Photograph

**REPORT OF PROTECTED SPECIES SURVEY  
ROSEBURG MILL SITE  
VIENNA, GEORGIA  
S&ME PROJECT NO. 418114016**

Prepared for:

Ensyn Georgia Biorefinery I, LLC  
1001 17th Street  
Suite 1150  
Denver, Colorado 80202

Prepared by:



Chattanooga Branch  
4291 Highway 58, Suite 101  
Chattanooga, Tennessee 37416-3355

March 28, 2014



March 28, 2014

Ensyn Georgia Biorefinery I, LLC  
1001 17th Street  
Suite 1150  
Denver, Colorado 80202

Attention: Mr. John Rice, Vice President

**Reference: Report of Protected Species Survey**  
Roseburg Mill Property  
551 Roseburg Road  
Vienna, Dooly County, Georgia  
S&ME Project 418114016

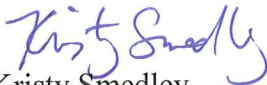
Mr. Rice:

As requested, S&ME, Inc. (S&ME) has completed the attached protected species survey for the approximately 67-acre property referred to as the former Roseburg Mill Site in Vienna, Dooly County, Georgia. The work was conducted in general conformance with the terms and conditions established in S&ME Proposal No. 411400085R, dated and authorized on March 24, 2014 by Mr. Rick Tallman of Ensyn Georgia Biorefinery I, LLC.

S&ME appreciates the opportunity to provide services for this project. If you have any questions, please call.

Respectfully Submitted,

**S&ME, Inc.**

  
Kristy Smedley  
Senior Scientist

  
Elizabeth M Porter  
Senior Reviewer

**TABLE OF CONTENTS**

**1.0 PROJECT INFORMATION .....1**  
**2.0 PROTECTED SPECIES HABITAT REVIEW .....1**  
**3.0 CONCLUSION .....3**

**ATTACHMENT**

Figure 1 – Aerial Location Map

## 1.0 PROJECT INFORMATION

The subject property comprises approximately 67 acres, and is a former particleboard mill facility that began operation in 1970. The subject property is currently owned by Roseburg Forest Products and was previously owned by Georgia Pacific. The mill facility is not currently in operation. The site is surrounded by agricultural or undeveloped properties to the east, south, and west and an industrial property to the north.

Ensyn Georgia Biorefinery I, LLC provided S&ME with the list of federally-protected species that may be encountered within the subject project vicinity according to the United States Fish and Wildlife Service’s (USFWS) Information, Planning, and Conservation System (IPAC) website. The USFWS identifies nine species that have the potential of occurring in the vicinity of the project site. The species are listed below in Table 1.

<b>TABLE 1 – PROTECTED SPECIES LIST</b>		
<b>Common Name</b>	<b>Scientific name</b>	<b>Protection Status</b>
Fat three-ridge	<i>Amblema neislerii</i>	Federal Endangered
Gulf moccasinshell	<i>Medionidus penicillatus</i>	Federal Endangered
Oval pigtoe	<i>Pleuroblema pyriforme</i>	Federal Endangered
Purple bankclimber	<i>Elliptoideus sloatianus</i>	Federal Threatened
Shinyrayed pocketbook	<i>Lampsilis subangulata</i>	Federal Endangered
Canby’s dropwort	<i>Oxypolis canbyi</i>	Federal Endangered
Harperella	<i>Ptilimnium nodosum</i>	Federal Endangered
Relict trillium	<i>Trillium reliquum</i>	Federal Endangered
Gopher tortoise	<i>Gopherus polyphemus</i>	Federal Candidate

## 2.0 PROTECTED SPECIES HABITAT REVIEW

S&ME reviewed various resources to obtain information regarding the documented habitats of the listed species. On March 27, 2014, S&ME biologist Kristy Smedley performed a field reconnaissance to determine if suitable habitats or individuals of the above-listed species are present.

The majority of the subject property is developed with the former Roseburg Mill facility and associated concrete parking and access drive areas. The eastern and western portions of the property consist primarily as areas of planted pine. Between the boundary fence and the wooded areas, a grassed path approximately 20 feet wide is maintained by mowing. An open area with herbaceous vegetation was observed in the eastern portion of the site separating a portion of the pine forest and the mill facility. A brief discussion of each species or species group and the potential for occurrence within the project area follows.

### Aquatic Species

There are five aquatic mussels on the list of protected species that have the potential to occur in the vicinity of the subject property.

The subject property does not contain any surface waters that contain sufficient flow and suitable substrates to support the listed aquatic species. Potential habitat for the listed aquatic mussels does not exist on the subject property.

## **Reptiles**

### Gopher tortoise

The gopher tortoise is a relatively large terrestrial turtle with a domed carapace that typically ranges from 15-28 cm. The hindlimbs are elephantine and the forelimbs are shovel-like. Often the surface of the carapace is smooth in adults, reflecting the abrasion it receives as an individual enters or exits its burrow. The carapace of an adult varies from dark brown to grayish-black.

Gopher tortoises are typically found in habitats that contain well-drained sandy substrate, sufficient amounts of herbaceous vegetation for food, and sunlit areas for nesting. These conditions are often met in the following habitat types: pine-turkey oak sandhill; sand pine scrub; xeric hammock; pine flatwoods; dry prairie; coastal grasslands and dunes, and mixed hardwood-pine communities. The tortoise excavates deep burrows that provide shelter from climatic extremes and refuge from predation. It does not persist in areas with densely canopied areas and is frequently found in disturbed areas such as roadsides, fence-rows, old fields, and the edges of overgrown uplands.

Potential habitat exists within the undeveloped wooded portions and adjacent open areas of the property located east and west of the existing facility. Our site assessment included multiple transects with special attention paid to the habitat transition zones that existed between the wooded and open herbaceous areas. Based on site conditions, this appeared to be the most appealing area for gopher tortoises to locate their burrows. No tortoise burrows or tracks were observed during the survey.

## **Plants**

### Canby's dropwort

This plant is a perennial herb with strong, fleshy rhizomes. The leaves are thin and quill-like and the stems are slender and often more than 1 meter tall. From mid-August to October the plants bear compound clusters of small white flowers. This plant has been found in a variety of Coastal Plain habitats prone to long periods of inundation, including pond cypress ponds, grass-sedge dominated Carolina bays, wet pine savannahs, shallow pineland ponds and cypress-pine swamps or sloughs. The largest and most vigorous populations reported occur in open bays or ponds which are flooded throughout most of the year and which have little or no canopy cover.

S&ME did not observe potential habitat for this plant within the subject property. Based on the field observations, it is unlikely for this species to occur on the subject property.

### Harperella

This herbaceous plant is an annual with slender, erect stems up to 12 decimeters tall. The roots are shallow and diffuse-fibrous. The leaves are reduced to hollow, quill-like structures. Broad clusters of small white flowers bloom in July and August. Near rivers, fluctuating water levels often knock over the flowering stem allowing the deposition of seeds in wet or moist soils near the parent plant. This annual is reported from three habitat types: granite outcrop seeps; rocky shoals or bedrock outcrops beneath the water surface in clear, swift-flowing streams; and edges of intermittent pineland ponds or low, wet savannah meadows on the Coastal Plain. In each of these habitats, the plant can only tolerate a narrow range of water depths and is intolerant of deep water and conditions that are too dry.

Based on the field observations, which did not identify suitable habitat for this plant, it is unlikely for this species to occur on the subject property.

### Relict trillium

This perennial herb has three mottled leaves atop an S-shaped stem that is 7-20 centimeters long. The sessile flower is three-petaled and appears at the apex of the stem in early spring. The flowers range in color from greenish to brownish-purple and, occasionally, to pure yellow. This plant prefers mesic hardwood forests of varying degrees of slope or on bottomlands and floodplains. It tolerates soils that range from rocky clays to alluvial sands but must have high organic matter content in the top level, in which the rhizomes grow. All known populations are relatively close to creeks or rivers where high relative humidity is maintained for most of the year, especially under the hardwood canopy during the late spring and summer seasons.

Although there are some areas of pine forest within the subject property, the mesic hardwood forest this plant prefers is not present. In addition, no surface waters that could provide a source of high relative humidity are located on the property. Based on the absence of potential habitat and the lack of observations, this plant is not anticipated to be present within the subject property.

## **3.0 CONCLUSION**

In summary, it is our opinion that the subject property does not support the existence of the listed protected species that have the potential to occur there. Although the survey was conducted in early spring when the aboveground vegetative portions of many herbaceous plants are not yet visible, the absence of potential habitat of the three protected plant species on the site supports our conclusions. Furthermore, it is our understanding that the wooded undeveloped portions of the property will not be impacted by the future redevelopment of the existing onsite facility.



Source: aerial image with boundary provided by Ensyn Georgia Biorefinery I, LLC

Scale: scale not determined

Checked By: KLS

Date: 3/28/14



**AERIAL LOCATION MAP**  
Former Roseburg Mill Site  
Vienna, Dooly County, Georgia

Project No. 4181-14-016

Figure  
**1**



# Zoning



The Roseburg Property is zoned industrial in Dooly County and is principally surrounded by agricultural zoned lands

[http://www.dot.ga.gov/Projects/studies/Documents/SWGeorgiaMulti-County/dooly\\_lrt.pdf](http://www.dot.ga.gov/Projects/studies/Documents/SWGeorgiaMulti-County/dooly_lrt.pdf)

# Jurisdiction



The Vienna City Boundary runs through the northern portion of the Roseburg Mill Property. The Ensyn project will be outside the City of Vienna boundary in the Southern portion of the site.



MARK WILLIAMS  
COMMISSIONER

DAN FORSTER  
DIRECTOR

December 27, 2013

Todd Hubbell  
Rural Development, Business Programs  
Energy Division, Biorefinery Assistance Programs USDA  
1400 Independence Avenue SW.  
Mail Stop 3225  
Washington, DC 20250-3225

**Subject: Known occurrences of natural communities, plants and animals of highest priority conservation status on or near ENSYN Vienna Biorefinery Project, Dooly County, Georgia**

Dear Mr. Hubbell:

This is in response to the request submitted by Bob Doherty of ENSYN on December 9, 2013. According to our records, within a three-mile radius of the project site, there are the following Natural Heritage Database occurrences:

- US *Oxyptolis canbyi* (Canby Dropwort) approx. 2.5 mi. N of site
- US *Oxyptolis canbyi* (Canby Dropwort) approx. 2.5 mi. NE of site
- US *Oxyptolis canbyi* (Canby Dropwort) approx. 3.0 mi. NE of site
- Limestone Creek [High Priority Stream] approx. 2.0 mi. SW of site

\* Entries above preceded by "US" indicates species with federal status in Georgia (Protected or Candidate). Species that are federally protected in Georgia are also state protected; "GA" indicates Georgia protected species.

**Recommendations:**

We have no records of high priority species or habitats within the project area. However, a federally listed species, *Oxyptolis canbyi* (Canby Dropwort) has been documented within three miles of the proposed project. To minimize potential impacts to this or other federally listed species, we recommend consultation with the United States Fish and Wildlife Service. In southwest Georgia, please contact John Doresky (706-544-6030 or John\_Doresky@fws.gov). Surveys for species of conservation concern should be conducted prior to commencement of construction.

It appears that this project is in close proximity to a tributary of Pennahatchee Creek. To protect aquatic habitats and water quality in this stream, we recommend use of stringent erosion control practices during construction and re-establishment of vegetation on disturbed areas as quickly as

possible following construction. Silt fences and other erosion control devices should be inspected and maintained until soil is stabilized by vegetation. Please use natural vegetation and grading techniques (e.g. vegetated swales, turn-offs, vegetated buffer strips) that will ensure that the project area does not serve as a conduit for storm water or pollutants during or after construction. These measures will help protect water quality in the vicinity of the project as well as in downstream areas.

NEW ENVIRONMENTAL REVIEW COORDINATOR

**Please send all future correspondence to Anna Yellin, Environmental Review Coordinator. Email correspondence is preferred. I can be contacted at [anna.yellin@dnr.state.ga.us](mailto:anna.yellin@dnr.state.ga.us) or 706-557-3283.**

**Disclaimer:**

Please keep in mind the limitations of our database. The data collected by the Nongame Conservation Section come from a variety of sources, including museum and herbarium records, literature, and reports from individuals and organizations, as well as field surveys by our staff biologists. In most cases the information is not the result of a recent on-site survey by our staff. Many areas of Georgia have never been surveyed thoroughly. Therefore, the Nongame Conservation Section can only occasionally provide definitive information on the presence or absence of rare species on a given site. Our files are updated constantly as new information is received. **Thus, information provided by our program represents the existing data in our files at the time of the request and should not be considered a final statement on the species or area under consideration.**

If you know of populations of highest priority species that are not in our database, please fill out the appropriate data collection form and send it to our office. Forms can be obtained through our web site (<http://www.georgiawildlife.com/node/1376>) or by contacting our office. If I can be of further assistance, please let me know.

Sincerely,



Anna Yellin  
Environmental Review Coordinator

**Data Available on the Nongame Conservation Section Website**

- Georgia protected plant and animal profiles are available on our website. These accounts cover basics like descriptions and life history, as well as threats, management recommendations and conservation status. Visit <http://www.georgiawildlife.com/node/2721>.

- Rare species and natural community information can be viewed by Quarter Quad, County and HUC8 Watershed. To access this information, please visit our GA Rare Species and Natural Community Information page at: <http://www.georgiawildlife.com/conservation/species-of-concern?cat=conservation>.
- Downloadable files of rare species and natural community data by quarter quad and county are also available. They can be downloaded from: <http://www.georgiawildlife.com/node/1370>.

cc: Sarah Ruddell

## APPENDIX H

## **Georgia Environmental Policy Act Checklist and Response Ensyn Georgia Biorefinery Project**

The 1991 Session of the Georgia Legislature passed Senate Bill 97, as amended, which was signed into law by Governor Miller on April 23, 1991. The new statute (OCGA 12-16-1), known as the Georgia Environmental Policy Act (“GEPA”), principally provides for the disclosure of the environmental effects of proposed projects in the State.

In passing GEPA, the General Assembly found that:

1. The protection and preservation of Georgia’s diverse environment is necessary for the maintenance of the public health and welfare and the continued viability of the economy of the State and is a matter of the highest public priority;
2. State agencies should conduct their affairs with an awareness that they are stewards of the air, land, water, plants, animals, and environmental, historical, and cultural resources;
3. Environmental evaluation should be a part of the decision-making processes of the State; and
4. Environmental effects reports can facilitate the fullest practicable provision of the timely public information, understanding, and participation in the decision-making process of the state.”

The EPD, in its 1991 guidelines, developed the following checklist to determine the significance of effects of a proposed project with a description of the issues to be considered for each category. The environmental checklist covers the following 24 areas/categories:

1. Wetlands
2. Floodplain/River Corridor
3. Water Supply
4. Water Resources
5. Groundwater Recharge Area
6. Stormwater
7. Wastewater
8. Air Quality
9. Solid Wastes
10. Soil Stability/Erodibility
11. Protected Mountains
12. Endangered Species
13. Critical Habitats
14. Historical
15. Archaeological
16. Parks/Recreation
17. Energy Supplies
18. Beaches
19. Dunes
20. Shoreline
21. Estuary
22. Forest Land
23. Barrier Island

24. Aquatic Life/Trout Streams

Under the GEPA, an evaluation of a proposed project will conclude whether or not the project area is affected by the project, and if that effect is minor, medium or major. The Ensyn team concluded that of the 25 categories, the development, construction, and operation of the Ensyn Georgia Biorefinery Project (“Project”) will affect two categories - Air Quality and Solid Waste. The effect will be minor for both categories.

ENVIRONMENTAL CHECK LIST  
 GEORGIA ENVIRONMENTAL POLICY ACT

GEORGIA AREA/CATEGORY	IS AREA AFFECTED?			IF AFFECTED, HOW SEVERE?			
	NO	YES	UNKNOWN	MINOR	MEDIAN	MAJOR	UNKNOWN
1. Wetlands	✓						
2. Flood Plain/River Corridor	✓						
3. Water Supply	✓						
4. Water Resources	✓						
5. Groundwater Recharge Area	✓						
6. Storm Water	✓						
7. Waste Water	✓						
8. Air Quality		✓		✓			
9. Solid Wastes		✓		✓			
10. Soil Stability/Erodibility	✓						
11. Protected Mountains	✓						
12. Protected Species	✓						
13. Critical Habitats	✓						
14. Historical	✓						
15. Archeological	✓						
16. Parks/Recreation	✓						
17. Energy Supplies	✓						
18. Beaches	✓						
19. Dunes	✓						
20. Shoreline	✓						
21. Estuary	✓						
22. Forest Land	✓						
23. Barrier Island	✓						
24. Aquatic Life/Trout Streams	✓						



### **Air Quality Impacts from the Ensyn Georgia Biorefinery Project**

Point Source Emissions: The Project will discharge air emissions that are subject to regulation under the Georgia Air Quality Control Act and/or the US Clean Air Act. The project is designed to operate under Title V thresholds for criteria air pollutants, as defined by the Georgia Air Protection Branch. Thus, the Project is expected to meet the EPA requirements for a new minor source and will be required to obtain a Synthetic Minor Source Air Permit. In order to operate at expected level emissions, a number of pollution control systems are integrated into the Project design. For example, flue gas recirculation with after burning will be employed to reduce dryer PM, CO and VOC emissions. In order to meet BACT, the Vienna Mills's existing high efficiency cyclones will be supplemented with the addition of a new Wet Electrostatic Precipitator (“WESP”) and Regenerative Thermal Oxidizer (“RTO”). The expected and guaranteed stack emissions listed below are from Ensyn technology bench scale tests and modeling conducted on various feedstocks, API emission factors for rotary dryers, and estimates provided by MEC (the company supplying the dryer to the Project) based on their actual experience. These emissions estimates include the impact of drying green wood from 45% moisture content to 6% moisture content using reheater flue gas (from the combustion of char) and pyrolysis gas (clean, medium btu fuel) and any additional natural gas firing required after all the pollution control measures (abated)

<b>Pollutant</b>	<b>Expected<sup>1</sup>, tpy</b>	<b>Guaranteed<sup>2</sup>, tpy</b>	<b>EPA Minor Source Limit</b>
PM	6	99	100
SOx	1.4	99	100
NOx	78*	99	100
CO	8	99	100
VOC	31	99	100
HAPs	0.5	9.9	10/25 (single/aggregate)
GHG (CO <sub>2</sub> e)	99,000	99,999	100,000

<sup>1</sup> – Includes 22 tpy associated with natural gas firing in the RTO, if the heat balance is such that the RTP pyrolysis gas (process gas) can be used instead then the number would be lower by that much

<sup>2</sup> – Guaranteed not-to-exceed tpy

The development of the Project will lead to a reduction in the permitted air emissions profile at the Vienna Mill site. The Mill operated under, and still holds, a PSD Title V air emissions permit (Appendix X - Title V permit).

Non-Point Source Emissions: The Project requires 440 tons of biomass per day in order to generate the anticipated 21 MM gallons per year of Renewable Fuel. It is estimated that truck traffic into the site will be approximately 40 trucks per day. This volume is only 50% of the volume experienced by the region when the Mill was operating a full capacity. Thus, emissions from truck traffic will be significantly less than the historical 40-year average to the site.

RFO will be shipped off site to regional refineries via rail. The Mill site was originally selected in the 1970's partially due to its strategic location in relation to rail transport. The Vienna Mill property is bounded by two major rail lines and spurs from both lines enter the property directly. The CSX Line bounds the west side of the property. The line is one of the largest in the State and 63MM tons of gross freight pass by the Vienna mill

every year. The Norfolk Southern line bounds the east side of the property. The Norfolk Southern line is mid-sized and carries 30MM tons of freight a year past the Vienna mill. It is estimated that approximately 30 rail cars (30,000 gallon tanker cars) will leave the site every two weeks. There will be a very limited air quality impact from trains entering the site to haul away tanker cars.

### **Solid Waste Impacts from the Ensyn Georgia Biorefinery Project**

There are limited solid waste by-products associated with the production of the approximately 21 million gallons of RFO annually. There are two primary solid wastes created in the RTP process: 1) an inert ash/sand mix created when the biochar is combined with silica (sand), re-circulated in the RTP system, and combusted to maintain temperature in the RTP reactor and 2) a filter cake that is created with the removal of fine char and sand particles from the RFO at the end of the process in order to achieve the highest quality liquid.

Ash/Sand Mix: The RTP process creates an inert ash/sand mix when the biochar is combined with silica (sand), re-circulated in the RTP system, and combusted to maintain temperature in the RTP reactor. Approximately two tons per day of the inert ash/sand mix exits the system as waste in need of offsite disposal - a volume of approximately two cubic meters. There are two options for disposal of the ash/sand mix. The preferred approach is agricultural land application as a natural soil amendment, or other beneficial agricultural use. The ash is high in minerals like potassium, calcium, aluminum, yet devoid of carbon (which binds nitrogen and makes it difficult for plant use the minerals effectively). This makes the material an excellent natural fertilizer. If properly applied, there are no air or water quality impacts from this disposal methodology given the inert nature of the waste product. The development team is currently seeking out landowners and farmers in rural Dooly County who may benefit from land application of up to 600 tons per year of the mineral-rich ash/sand soil amendment. The second option for disposal is to divert the ash/sand mix to the local landfill for disposal (Ensyn has conservatively allocated in the Project pro forma for this disposal option). There are no land-disturbing, air or water quality impacts using a landfill disposal methodology given the inert nature of the waste product.

Filter Cake: The final step in the production of high-quality RFO for use in Refinery Coprocessing is the removal of fine solid particles that are not captured by the cyclonic separators and therefore entrained in the RFO as it flows out of the system. These solid particles are primarily made up of biochar and can also contain a small amount of sand. These particles are removed from RFO prior to onsite storage and transport in order to prevent any possible negative impact on the FCC catalyst during Refinery Coprocessing.

The equipment used to remove the fine particles from RFO is standard solids removal equipment that has been adapted for this particular application. As is common in this type of equipment, the filter cake that is produced will contain between 30% and 50% solids matter, with the remainder being entrained liquid RFO product. The composition of RFO can be found in the Material Safety Data Sheet (Appendix 30). The Project is budgeted to produce 420 lb/hr (or 5 tons per day) of filter cake. Due to its composition, the filter cake has an excellent heating value and therefore is a high value fuel that can be used in any combustion system that is capable of handling solid or slurry fuels:

cement kilns, asphalt plants, hog fuel boilers or coal power plants are just some examples where this filter cake can be utilized as a fuel. For example, there is an asphalt plant that serves the I-75 Corridor construction project within sight of the Project site. If necessary, landfill disposal is an option for the disposition of the filter cake.

For reference, attached below is the evaluation criteria for each category defined by the GEPA and the information used by Ensyn to evaluate each for the Project:

1. **Wetlands** – Will the action occur in a “wetlands” area? The definition of wetlands is included in the Federal Regulation, 33 CFR 32.93. The DNR Rules for Environmental Planning, Chapter 391-3-16-03, incorporate the federal definition as well as both acceptable and unacceptable uses of wetlands. Under current federal law and state policy, alterations or degradations of wetlands should be avoided unless it can be demonstrated that there will be no long-term impacts or net loss of wetlands. A federal permit is required for most wetland activities.
2. **Floodplain/River Corridor** – Will the action occur in a floodplain or a river corridor? Floodplains are designated areas of land that become flooded with water during periods of rainfall, which increases the primary stream flow. Many floodplain areas are shown on Federal Floodplain Maps, which have been prepared in support of the National Flood Insurance Program. Additional maps and information on floodplains are available from the EPD. Most proposed government actions that occur directly in a floodplain area or that may alter the size or character of the floodplain area are considered significant. Under House Bill 643, passed by the 1991 Session of the General Assembly, lands adjacent to major rivers are protected from certain types of development. DNR is charged with developing rules for the River Corridor protection program.
3. **Water Supply** – Does the proposed action have the potential for decreasing either the quality or quantity of water available for water supply? Water supply refers to a source of water that is used for drinking water in addition to other consumptive purposes. The DNR Rules, Chapter 391-3-16, contain criteria for water supply watersheds. These criteria establish a basis to allow development in a water supply watershed without contaminating the water source to a point where it cannot be treated to meet drinking water standards. The EPD can provide information to state agencies as to whether their proposed projects lie within water supply watersheds.
4. **Water Resources** – Will the proposed action result in a large demand for water from the available water resources? Will the proposed action result in a degradation of the quality of waters of the state? The waters of the state include surface and groundwater that is not wholly confined to a single, privately owned piece of property. Water resources management is one of the most important issues facing Georgia now and in the future. A growing population and the potential for water shortages contribute to the importance of adequate amounts of good quality water. The DNR Rules for Surface Water Withdrawals, Chapter 391-3-6, provide the regulatory framework for withdrawal, diversion or impoundment of surface waters of the state. DNR Rules for Groundwater Use, Chapter 391-3-2, establish regulatory framework for withdrawal, diversion or impoundment of surface waters of the state and establish regulatory procedures for withdrawing, obtaining or utilizing groundwaters of the state.
5. **Groundwater Recharge Area** – Will the action result in the disturbance or altering of a groundwater recharge area? Groundwater recharge areas are those portions of the earth’s surface where water infiltrates into the ground to replenish an aquifer. The Significant Recharge Areas of the state are those areas mapped by DNR in Hydrologic Atlas 18 (1989

Edition). The DNR Rules for Environmental Planning Criteria, Chapter 391-3-16, contain specific criteria for the protection of groundwater recharge areas.

6. **Stormwater** – Will the project result in an increase in the amount of stormwater runoff for downstream property owners? The primary concern related to stormwater is the creation of impervious surfaces that contribute to an increase in the amount of stormwater runoff to the point where there is damage or a threat to downstream property owners. Another very important issue is the potential contamination of through increased contact with contaminants.
7. **Wastewater** – Will the project produce wastewater that is discharged to a surface stream? Wastewater refers to contaminated water (sewage or other contaminants) that must be treated and disposed of either by direct discharge to a surface stream or by indirect discharge to an existing municipal sewer system. Even if the wastewater from a state project is to be discharged to a municipal sewer system, the effect can be significant if that wastewater causes the municipality to expand its sewage treatment system.
8. **Air Quality** – Will the action result in a release or discharge of contaminants into the ambient air? Any action that results in the release or discharge of contaminants into the air such that existing ambient air quality may be diminished is a significant action. All discharges or releases may be subject to regulation under the Georgia Air Quality Control Act and/or the US Clean Air Act (CAA). The air quality assessment will be done in accordance with Chapter V, Section 6.2; however, coordination with FHWA and the Interagency group will not be required.
9. **Solid Wastes** – Will the project result in the generation of solid wastes for disposal, or will the proposed actions occur near or in an active or closed landfill? Solid waste is defined in the Georgia Comprehensive Solid Waste Management Act. It includes different categories of wastes that exist in a solid form (household garbage, demolition material, land clearing debris, commercial non-hazardous waste material, etc). Whereas the amount of solid waste generated that requires disposal is of concern, another primary issue relates to a land-disturbing activity in the vicinity of an active or closed landfill.
10. **Soil Stability/Erodibility** – Will the action displace soils that will be carried off site and pose a threat to surface waters or property? Under the Georgia Soil, Erosion and Sedimentation Act, local governments that have authorized management programs under the Act establish control procedures and permit the project. If the action takes place in a county or municipality that does not have such authorization, EPD is the regulating agency. In either case, a technical guidance book is available from either the local government or EPD.
11. **Protected Mountains** – Will the project involve the alteration of lands with high elevations and steep slopes? Under House Bill 643, which was passed by the 1991 Session of the General Assembly, land that lies above 2,200 feet in elevation and has slopes of 25 percent or more are identified as Protected Mountains. In accordance with the Act, DNR is charged with promulgating Rules for implementation of a “Mountain Protection” program. At the time of preparation of this GEPA guidance, these rules are currently under development.
12. **Endangered Species** – Will the proposed action harm or reduce the population of protected species? The term endangered species is used in both the generic sense for protected species and in a more narrow definition sense under the US Endangered Species Act. With respect to GEPA, the term protected species is more applicable. Protected species include those plant and animal species protected by the state in accordance with the Georgia Wildflower Preservation Act of 1973 and the Georgia Endangered Wildlife Act of 1973. DNR Rules, Chapter 391-4-10, provide more detailed criteria for the state’s protected species.
13. **Critical Habitats** – Is the proposed action expected to involve any critical habitats? Critical habitats are those sites on which the state’s protected species are dependent for their

survival. They also include US Forest Lands, US Wildlife Refugees, Wilderness Areas, and Wild or Scenic Rivers.

14. **Historical** – Will the proposed action involve disturbance of any historic property? GEPA specifies consideration of any structure on or eligible for the Georgia Register of Historic Places. In addition, the regulations of the President’s Advisory Council on Historic Preservation (ACHP) (36 CFR 800), which implements Section 106 of the National Historic Preservation Act (NHPA), contains a definition of and criteria for adverse effect for the protection of historic properties.
15. **Archaeological** – Will the proposed action involve disturbance of any archaeological property? Archaeological properties are the physical remains of the past that can be GDOT Environmental Procedures Manual [5] Georgia Environmental Policy Act studied by archaeologists and other scholars to answer questions about prehistory and history. In addition, the regulations of the President’s Advisory Council on Historic Preservation (ACHP) (36 CFR 800), which implements Section 106 of the NHPA, contains a definition of and criteria for adverse effect for the protection of historic properties.
16. **Parks/Recreation** – Will the proposed action involve disturbance or otherwise have a significant impact on the state’s cultural resources? The GEPA includes cultural resources within the area of potential effect of a proposed government action. In addition to the archaeological or historic value, cultural resources may also include park lands, preserves, and other public lands or areas of recognized scenic and/or recreational value.
17. **Energy Supplies** – Will the proposed action have significant impact or reduce available energy supplies? This primarily refers to the source of energy (electrical, gas/oil, solar, etc.) that will be consumed by the project in relation to the total available in the area.
18. **Beaches** – Will the proposed action involve the disturbance of any ocean beach area? The Georgia General Assembly has found that ocean beaches provide an unparalleled recreation resource, which is vitally linked to the economy of Georgia’s Coastal Zone and to that of the entire state. Beaches are also part of the sand-sharing system, which provides habitats and acts as a protective buffer for other areas. This natural resource system is costly, if not impossible, to reconstruct or rehabilitate once adversely affected by man-related activities. Therefore, any action in these areas should be considered highly significant.
19. **Dunes** – Will the proposed activity alter coastal sand dunes? Coastal sand dunes, beaches, sandbars, and shoals comprise a vital natural resource system, known as the “sand-sharing system,” which acts as a buffer to protect real and personal property and natural resources from the damaging effects of floods, winds, tides, and erosion. The coastal sand dunes are the most inland portion of the sand-sharing system and because they are a fragile product of shoreline evolution, they are easily disturbed by action harming their vegetation or inhibiting their natural development. They are protected under the Georgia Shoreline Assistance Act of 1979.
20. **Shoreline** – Will the project involve activities in the Georgia Coastal shoreline area or in areas covered under the river corridor protection requirements of Georgia House Bill 643? In accordance with DNR Rules, Chapter 391-2-2, protective measures and procedures are provided for the implementation of the Georgia Shoreline Assistance Act. Construction, erection, or engaging in any shoreline engineering activity or land alteration that alters the natural topography or vegetation of any area is highly regulated under the Act. In addition, the 1991 General Assembly passed House Bill 643, which also provides for the protection of coastal river corridors.
21. **Estuary** – Will the proposed action alter the Georgia coastal marshlands environment? Georgia’s coast contains saltwater marshes that have been identified as one of the most

extensive and productive marshland systems in the United States. Georgia's marshes, sands, and near-shore ocean water produce more food and energy than any other estuaries zone on the eastern seaboard. They are also an essential life support system GDOT Environmental Procedures Manual [6] Georgia Environmental Policy Act for Georgia's multi-million dollar seafood industry. Any activities that affect this area are closely regulated under the Georgia Coastal Marshlands Protection Act.

22. **Forest Land** – Will the proposed action involve changes in forested areas? The GEPA specifically provides that a proposed government action includes the harvesting of five acres or more of trees over two inches in diameter at breast height. The secondary effects of tree removal as well as other land-disturbing activities that may impact a forested area are of concern. Depending on the type of harvesting methods, tract locations, and other variable criteria, a potential may exist for erosion and sedimentation, habitat alteration, and other changes of concern. Manuals on Best Management Practices (common sense forestry associated practices that minimize the impact on the environment) are available from the Georgia Forestry Commission. These practices were developed by a statewide task force, appointed by the governor, with input from all aspects of the forestry industry in Georgia.
23. **Barrier Island** – Will the proposed action involve activity on or near a barrier island? Along the Georgia Coast, an extensive system of salt marshes, tidal estuaries, and sounds separate a chain of eight major and several smaller barrier islands from the mainland. Two-thirds of the Georgia barrier islands are parks, refuges, or preserves. Sand beaches and dunes protect the islands from erosion and flooding. The islands shelter the marshes from the force of storms. Any proposed action that involves the barrier islands should be considered highly significant.
24. **Aquatic Life/Trout Streams** – Will the proposed action involve an action that significantly impacts freshwater aquatic life? Georgia has an abundance of freshwater lakes, streams, and bodies of water that support aquatic life. The freshwater fisheries are important for the total food chain. Primary and secondary trout streams should be protected.

## APPENDIX I

## **Ensyn Biorefinery Permitting Plan Vienna, Georgia**

Ensyn developed preliminary permitting plan based on the completed conceptual Project design and current permits at the Roseburg Mill.

The following table serves as a summary of that plan to obtain the necessary permits and documentation to develop, build, commission and operate the Project. The plan is organized by Federal, State and Local requirements. It incorporates 1) the anticipated timing for the receipt of permits from the time of application and 2) the estimated cost Ensyn will incur for preparation and submittal for each permit/requirement.

The historical operation of the Roseburg Mill will help streamline the permitting process for the Project. Because of items like . the use of existing infrastructure, previous chemical and oil handling, and previous air emissions, permitting officials and agencies have a high degree of familiarity with the site, which will significantly benefit the permitting for the Project. Ensyn estimates that if started by April 1, 2014, the permitting process will be completed in order to begin construction by December 2014 at a cost of \$300,000 to the Project (includes a 20% contingency).



APPENDIX 34 - PROJECT PERMITTING PLAN

This page contains proprietary information that Ensyn requests not to be released to persons outside the Government, except for purposes for review and evaluation, under obligation of confidentiality.

Vienna BioRefinery Permitting Plan

Permit/Approval	Responsible Agency	Status	Days from Application Submittal to Receipt	Allocated Budget to Permitting Item	Comments
<b>Federal</b>					
Resource Conservation and Recovery ("RCRA") Act Subtitle C Site Identification Form	United States Environmental Protection Agency ("USEPA")	Existing - Site EPA ID Number, GAD991275744, updated 12/1/2006.	NA	\$0	Section 3010 of Subtitle C of RCRA requires any person who generates, transports or recycles regulated wastes to notify EPA of their activities
Hazardous Materials Certification of Registration	U.S. Department of Transportation ("USDOT")	Conditionally exempt, see comments below and under State section.	NA	\$0	As required by USDOT regulations (49 CFR Part 107).
Hazardous Waste Identification Number	USEPA	Existing - GAD991275744 conditionally exempt.	NA	\$0	Required for the use, management and dispose of material categorized as hazardous waste.
Toxic Substance Control Act ("TSCA")	USEPA	Existing- RFO has a CAS# 8030-97-5, 100% Pyrolyigneous acids. See RFO MSDS Sheet (Appendix 30)	NA	\$0	The Toxic Substances Control Act of 1976 provides EPA with authority to require reporting, record-keeping and testing requirements, and restrictions relating to chemical substances and/or mixtures.
Risk Management Plan ("RMP")	USEPA	Existing - RMP Plan dated 2012.	NA	\$0	Required according to Section 112(r) of the Clean Air Act for storage of certain quantities of materials that could cause an emergency situation, if released into the air.
Oil Spill Prevention Control and Countermeasure ("SPCC") Plan	USEPA	Existing - SPCC Plan dated 12/12/2006.	NA	\$0	Required as per 40 CFR 112, Oil Pollution Prevention regulations, if the Project stores more than 1,320 gallons at the site (including electrical equipment transformer oil).
<b>State</b>					
Synthetic Minor Air Quality Permit/Construction Permit	State of Georgia Department of Natural Recourses, Environmental Protection Division ("GDNR, EPD"), Air Protection Branch	New Permit Needed	180 days	\$130,000	Site has existing Title V Permit #2493-093-002-V-04-0 dated 6/5/2012. However, permitting consultant has advised Project should submit for a new Minor Source Permit. Allows construction and operation of air emission sources. Sets forth emission limits, monitoring, and reporting requirements
Storm Water Management Construction Permit	State of Georgia Department of Natural Recourses, Environmental Protection Division ("GDNR, EPD")	New Permit Needed	45 days	\$15,000	Required to assess containment plan from construction site entering surface water supplies
Traffic Permit	Georgia Department of Transportation	New Permit Needed	90 days	\$30,000	Change to the streets traffic may require a traffic study to determine impacts and quality for road use permit
Above Ground Oil Storage Tank Permit	Georgia State Fire Marshal Hazardous Materials Division	New Permit Needed	90 days	\$12,000	Aboveground storage tanks (ASTs) in Georgia are regulated by the state fire code, which adopts National Fire Protection Association (NFPA) Code 30 and NFPA Code 30A with substantial additions for AST plans and installation
Railroad Spur Use Permit and Contract	Norfolk Southern Corporation and CSX Corporation	Historical Permit and Contract/ New Permit Needed	120 days	\$35,000	Needed for interconnection of private rail spur with rail road lines
Asbestos Removal and Disposal Permit	National Emissions Standard for Hazardous Air Pollutants-Asbestos Program (NESHAP-Asbestos) - EPA Region 4	New Permit Needed	45 days	\$15,000	Regulations require facility owners and/or operators involved in demolition and renovation activities to inspect the affected facility before attempting to remove any asbestos, file proper notification and handle and dispose of asbestos properly.
Lead Paint Removal and Disposal Permit	Georgia Department of Natural Resources - Environmental Protection Division Lead-Based Paint & Asbestos Program	New Permit Needed	45 days	\$15,000	Certified lead based paint contractors must notify the department, at least 10 working days in advance of all lead based paint abatement activities. Abatement may not start until the contractor has received a permit.
Authorization to Discharge under the National Pollutant Discharge Elimination System Storm Water Discharges Associated with Industrial Activity	State of Georgia Department of Natural Recourses, Environmental Protection Division ("GDNR, EPD"), Water Protection Branch	Existing - General Permit #GAR000000, Notice of Intent issued and Authorization received 2006. General Permit # GAR050000, SWPPP dated 06/01/12 expires 05/31/2017.	NA	\$0	Generally required for storm water management during operation and requires the preparation of Storm Water Pollution Prevention Plan ("SWPPP").
Hazardous Substance Reporting Certification	State of Georgia Department of Natural Recourses, Environmental Protection Division ("GDNR, EPD"), Land Protection Branch	Facility not required to report, 6/30/2012, Title III Section 313 ID# 31092GRGPCSOUTH	NA	\$0	Hazardous Site Response Act ("HSRA") and Title II reporting requirements of the Superfund Amendments and Reauthorization Act ("SARA").
Solid Waste Handling Permit	State of Georgia Department of Natural Recourses, Environmental Protection Division ("GDNR, EPD"), Land Protection Branch	Update Required - Permit #046-006D(SL) for Dooly County Board of Commissioners dated 04/02/1996	60 days	\$15,000	As required under state regulations for the storage, transportation, and disposal of sold waste.

**APPENDIX 34 - PROJECT PERMITTING PLAN**

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Permit/Approval	Responsible Agency	Status	Days from Application Submittal to Receipt	Allocated Budget to Permitting Item	Comments
<b>Local</b>					
Zoning and Land Use (Conditional Use Permit)	Dooley County Zoning & Building Safety Office	New Permit Needed	30 days	\$10,000	Required to allow certain types of development in existing jurisdictions.
Building Permit	Dooley County Building Inspector's Office	New Permit Needed	30 days	\$3,000	New construction, remodeling and repairs -- require general building construction permits to allow construction
Electrical Permit	Dooley County Building Inspector's Office	New Permit Needed	30 days	\$5,000	New construction, remodeling and repairs -- require general construction permits to allow construction, and then trade-specific permits for each part of the project.
Solid Waste Handling Permit	Dooley County Landfill	New Permit Needed	30 days	\$5,000	Required from local landfill based on Solid Waste Permit from State of Georgia Department of Natural Resources, Environmental Protection Division Land Protection Branch
Water Supply Agreement	City of Vienna, Public Works Department	Existing/Need updated - Agreement with City of Vienna	30 days	\$5,000	For supply of process, fire water, and potable water
Permit for Sanitary and Non Contact Process Wastewater	City of Vienna, Public Works Department	Existing - Discharged to City of Vienna (Permit No. WQ0010186-001).	NA	\$0	For discharge of sanitary sewer to the City waste water treatment system.
Emergency Response Plan	Dooley County Fire Department	New Plan Needed	30 days	\$5,000	Emergency Response Plan establishes the framework to ensure that the Facility is prepared to deal with these hazards of the site
<b>Total Permitting Budget</b>				<b>\$300,000</b>	

## APPENDIX J



April 3, 2014

Mr. Bob Jeter, Executive Director  
Dooly County Economic Development Council  
402 Hawkinsville Highway  
Vienna, GA 31092

Janet P. Joiner, Director  
Vienna Community Development  
203 West Cotton Street  
P. O. Box 436  
Vienna, GA 31092

Subject: Intergovernmental Review  
Review of Proposed "Ensyn Georgia Biorefinery Project"

Dear Mr. Jeter and Ms. Joiner,

By submission of this letter, the U.S. Department of Agriculture, Rural Business Service (RBS) is initiating the Executive Order 12372, "Intergovernmental Review of Federal Programs" process with your municipality. RBS is being asked to consider providing financial assistance for the proposal described below and attached, and your comments are invited on this proposal regarding:

- 1) Consistency with State and local government planning goals;
- 2) Extent to which the proposal duplicates, runs counter to, or needs to be coordinated with other activities, or might be revised to increase its effectiveness;
- 3) Contribution to achieving State or local government goals relating to natural and human resources, or economic and community development;
- 4) Extent of environmental impacts and alternatives that should be considered in the Agency's environmental review;
- 5) Influence on area growth or delivery of services, including any disproportionate effects on minority groups;
- 6) Impacts on energy resource supply and demand;
- 7) Possible displacement of people or businesses; and

**United States Department of Agriculture, Rural Development**  
1400 Independence Avenue, SW  
Stop 0761, Room 6900  
Washington DC, 20250  
Voice (202) 720-9619 Fax (202) 690-4335

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If you wish to file a Civil Rights program complaint of discrimination, complete the USDA Program Discrimination Complaint Form (PDF), found online at [http://www.ascr.usda.gov/complaint\\_filing\\_cust.html](http://www.ascr.usda.gov/complaint_filing_cust.html), or at any USDA office, or call (866) 632-9992 to request a form. You may also write a letter containing all of the information requested in the form. Send your completed complaint form or letter to us by mail at U.S. Department of Agriculture, Director, Office of Adjudication, 1400 Independence Avenue, S.W., Washington D.C. 20250-9410, by fax (202) 690-7442 or email at [program.intake@usda.gov](mailto:program.intake@usda.gov).

- 8) Will the proposal be located in a Coastal Zone or Coastal Barrier Resource Area and/or be consistent with any State coastal management plan?

If possible, we would prefer if you could respond to this request within 30 days. To expedite your review, we have included a checklist response form (Attachment 4) which you can utilize to respond to this request if desired.

We are aware of the letter from Mr. Bob Jeter, Executive Director of the Dooly County Economic Development Council dated January 22, 2014 (Attachment 5) regarding this proposal, but we are still required to initiate this request specific to the proposal's impact on items 1 through 8. Thank you so much for your time in reviewing this request.

Please feel free to contact me with any comments or questions at [juliet.bochicchio@wdc.usda.gov](mailto:juliet.bochicchio@wdc.usda.gov) or at 202.205.8242. Thank you for forwarding all correspondence to me via email or to my attention at the address above.

Sincerely,



Juliet Bochicchio  
Environmental Protection Specialist  
Program Support Staff, RBS

cc: Robert Doherty, Ensyn Georgia Biorefinery I, LLC

Attachments:           1) Project Description  
                              2) General vicinity map  
                              3) Aerial Photograph with Project Location  
                              4) Checklist Response Form  
                              5) January 22, 2014 Letter from Dooly Co. Econ. Dev. Council

## ***Project Description***

Ensyn Biorefinery  
Vienna, Dooly County, GA

The USDA, Rural Business Service is considering an application for a loan guarantee pursuant to Section 9003 of the Food, Conservation, and Energy Act of 2008 received for Ensyn Georgia Biorefinery I, LLC (1521 Concord Pike, Suite 205, Wilmington, DE 19803) for construction and operation of a woody biomass conversion facility in Vienna, Georgia. The proposed facility is to be located within an existing industrial site, on a 67-acre parcel. The proposal would include the refurbishment of existing buildings and new construction of buildings and infrastructure onsite, as well as operation of the biorefinery and related infrastructure. The company plans to produce 21 million gallons per year of advanced, drop-in, renewable cellulosic biofuel know as RFO, a renewable fuel oil, to sell to refineries in the region to meet Renewable Fuel Standard requirements. The proposal would convert approximately 140,000 bone dry tons per year of thinnings and forest residuals sourced within the region to RFO, an ash/sand mix and filter cake. These by-products would include up to 600 tons per year of an ash/sand mix which would either be applied to agricultural land or landfilled; and 5 tons per day of a filter cake which is a solid/slurry fuel that will be sold as fuel for combustion systems.

The proposal is located within an existing industrial park, is zoned industrial, and is consistent with the Long Range Transportation Study conducted by Dooly County. The applicant is anticipating obtaining a new synthetic minor source air permit for this proposal. RBS is currently completing an Environmental Assessment in order to determine whether this proposal supports a Finding of No Significant Impact according to the National Environmental Policy Act.

Information on the proposal is available for review by contacting Ms. Juliet Bochicchio at 202-205-8242 or at [juliet.bochicchio@wdc.usda.gov](mailto:juliet.bochicchio@wdc.usda.gov). Any person interested in commenting on the proposal should submit comments within 30 days following the date of this notice to USDA, Rural Development, 1400 Independence Ave SW, Mail STOP 0761, Washington, DC, 20250, attention: Juliet Bochicchio.

# Zoning



The Roseburg Property is zoned industrial in Dooly County and is principally surrounded by agricultural zoned lands

[http://www.dot.ga.gov/Projects/studies/Documents/SWGeorgiaMulti-County/dooly\\_lrt.pdf](http://www.dot.ga.gov/Projects/studies/Documents/SWGeorgiaMulti-County/dooly_lrt.pdf)

# Jurisdiction



The Vienna City Boundary runs through the northern portion of the Roseburg Mill Property. The Ensyn project will be outside the City of Vienna boundary in the Southern portion of the site.



# Dooly County Economic Development Council

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Harry Ward  
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Robert M. Jeter  
Director

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Grady Miles, Dooly County School Superintendent

Mariene Kimball, Dooly County Chamber of Commerce

402 Hawkinsville Road  
Vienna, Ga. 31092  
Phone(229)258-4554  
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January 22, 2014

Mr. Todd Hubbell  
Rural Development, Business Programs  
Energy Division, Biorefinery Assistance Program  
USDA  
1400 Independence Avenue, SW  
Mail Stop 3225  
Washington, DC 20250-3225

**RE: Letter of Support for Ensyn's USDA 9003 Loan Application**

Dear Mr. Hubbell:

We are pleased to offer this letter of support for Ensyn's Biorefinery Project, to be located in Vienna, Dooly County, Georgia.

Ensyn staff has briefed us on the company's 25 year history of business operations, the technology to be used in the project and the economic and environmental benefits the project will bring to Vienna and the surrounding area. We have also reviewed a socioeconomic impact study prepared for the project.

Dooly County is an economically depressed area of the state. The unemployment rate in the county for 2013 is estimated to be 13.8%, which is well above the state and national averages. Dooly County's population declined by 4% from 2010 to 2012 while Georgia's increased 2.4%, indicating that many people have left the county in search of employment.

The Ensyn Project will help to reverse this trend and will provide a platform for growth, new jobs and further economic investment in our area. The project will serve as a catalyst to the depressed forestry industry by increasing demand for currently undervalued fiber resources and will therefore encourage better forest management practices.

For example, Ensyn will produce its liquid biofuel comprised primarily of wood waste (residues) from forest management and logging operations in the region. The feedstock will ensure the biofuel qualifies for the Federal Renewable Fuel Standard. By increasing demand for forest residuals, the project will promote forest health, improve forest drought tolerance and advance forest management practices. The Ensyn Project will have a positive impact on the environment while producing a renewable fuel and creating forestry jobs in the process. Over its life cycle, the renewable fuel will reduce greenhouse gas emissions compared to the production and use of gasoline and diesel. Additionally, the project's primary waste stream is a biochar that can be used as an amendment to local agricultural

Ensyn Project Letter

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lands to improve soil health.

The cost of this project will be approximately \$119 million. According to the economic impact study prepared for the project, an investment of this magnitude will result in direct capital expenditures of approximately \$50 million in Dooly County. This includes \$25 million during the construction phase (e.g. site work, grading, electrical, etc), \$14 million annually for operations and \$10.4 million from gains to the forestry industry. Indirect expenditures are much higher.

The project will create approximately 138 jobs in the region for the development, construction and operation of the facility. This includes 68 permanent jobs: 32 in the facility itself and another 36 jobs in the surrounding forestry industry. In addition, the project will create approximately 70 construction jobs over the 21-month construction period. These job numbers do not include the significant number of indirect jobs created in our region.

For the 32 jobs in the Ensyn facility, Ensyn projects paying these employees an average of \$46,334 per year, or \$65,232 including benefits. This average includes hourly and salaried employees. On an hourly basis, the wages will range from \$12 to \$41 per hour.

These wage and job numbers represent a very significant and positive impact on Dooly County and the region. In addition, the project promotes the goals of the region in terms of forest health, resource conservation, public health and the environment.

Once again, the Dooly County Economic Development Council is strongly supportive of the project and we urge USDA to provide a loan guarantee for it.

We hope this letter provides you with useful information in conjunction with your review of the loan guarantee application. Please do not hesitate to contact us if you require additional information or clarification.

Sincerely,



Terrell Hudson  
Chairman



Robert M. Jeter  
Executive Director

Intergovernmental Review Consultation with City of Vienna/Dooly County

Proposal: Ensyn Georgia Biorefinery

1) Is the proposal consistent with State or local government planning goals?

Yes  No

2) Does the proposal duplicate, run counter to, or need to be coordinated with other activities, or might be revised to increase its effectiveness?

Yes  No

3) Will the proposal contribute to achieving State or local government goals relating to natural and human resources or economic and community development?

Yes  No

4) Are there environmental impacts and alternatives that should be considered in the Agency's environmental review?

Yes  No

5) Will the proposal influence area growth or delivery of services, including any disproportionate effects on minority groups?

Yes  No

6) Will the proposal impact energy resource supply and demand?

Yes  No

7) Will the proposal displace people or businesses?

Yes  No

8) Will the proposal be located in a Coastal Zone or Coastal Barrier Resource Area and/or be consistent with any State coastal management plan?

Yes  No

Comments:

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Janet Joiner  
Janet Joiner, City of Vienna

4-15-14  
Date

Robert M. Jeter  
Robert M. Jeter, Dooly County Economic Development Council

4-15-14  
Date