



Alabama Department of Environmental Management
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OCT 25 2016

Terry Tyson, Public Works Director
Utilities Board Of The City Of Linden
211 North Main Street
Linden, AL 36748

RE: Draft Permit
NPDES Permit No. AL0045683
City of Linden HCR Lagoon
Marengo County, Alabama

Dear Mr. Tyson:

Transmitted herein is a draft of the referenced permit.

We would appreciate your comments on the permit within **30 days** of the date of this letter. Please direct any comments of a technical or administrative nature to the undersigned.

By copy of this letter and the draft permit, we are also requesting comments within the same time frame from EPA.

Please be aware that Part I.C.1.c of your permit requires that you apply for participation in the Department's web-based electronic environmental (E2) reporting system for submittal of DMRs immediately upon issuance of this permit unless valid justification as to why you cannot participate is submitted in writing. After issuance of the permit, hard copy DMRs may be used only with the written approval from the Department. The E2 Program allows ADEM to electronically validate, acknowledge receipt, and upload data to the state's central wastewater database. This improves the accuracy of reported compliance data and reduces costs to both the regulated community and ADEM. The Permittee Participation Package may be downloaded online at <https://e2.adem.alabama.gov/npdes> or you may obtain a hard copy by submitting a written request or by emailing e2admin@adem.alabama.gov.

The Alabama Department of Environmental Management encourages you to voluntarily consider pollution prevention practices and alternatives at your facility. Pollution Prevention may assist you in complying with effluent limitations, and possibly reduce or eliminate monitoring requirements.

Should you have any questions, please contact the undersigned by email at dkbrown@adem.alabama.gov or by phone at (334) 271-7812.

Sincerely,

A handwritten signature in black ink, appearing to read "Donald Brown", is written over a horizontal line.

Donald Brown
Municipal Section
Water Division

DKB/mfc
Enclosure

cc: Environmental Protection Agency Email
Ms. Elaine Snyder/U.S. Fish and Wildlife Service
Ms. Elizabeth Brown/Alabama Historical Commission
Advisory Council on Historic Preservation
Department of Conservation and Natural Resources





NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

PERMITTEE: UTILITIES BOARD OF THE CITY OF LINDEN
211 NORTH MAIN STREET
LINDEN, ALABAMA 36748

FACILITY LOCATION: CITY OF LINDEN HCR LAGOON (0.45) MGD
CAROLINE STREET
LINDEN, ALABAMA
MARENGO COUNTY

PERMIT NUMBER: AL0045683

RECEIVING WATERS: SYCAMORE CREEK (0011)

In accordance with and subject to the provisions of the Federal Water Pollution Control Act, as amended, 33 U.S.C. §§1251-1388 (the "FWPCA"), the Alabama Water Pollution Control Act, as amended, Code of Alabama 1975, §§ 22-22-1 to 22-22-14 (the "AWPCA"), the Alabama Environmental Management Act, as amended, Code of Alabama 1975, §§22-22A-1 to 22-22A-17, and rules and regulations adopted thereunder, and subject further to the terms and conditions set forth in this permit, the Permittee is hereby authorized to discharge into the above-named receiving waters.

ISSUANCE DATE:

EFFECTIVE DATE:

EXPIRATION DATE:

Draft

Alabama Department of Environmental Management

**MUNICIPAL SECTION
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
PERMIT**

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ATTACHMENT:
FORM 421

NON-COMPLIANCE NOTIFICATION FORM

PART I DISCHARGE LIMITATIONS, CONDITIONS, AND REQUIREMENTS

A. DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS

1. Outfall 0011 Discharge Limits

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the Permittee is authorized to discharge from Outfall 0011, which is described more fully in the Permittee's application. Such discharge shall be limited and monitored by the Permittee as specified below:

Parameter	Discharge Limitations*						Monitoring Requirements**				
	Monthly Average	Weekly Average	Monthly Average	Weekly Average	Daily Minimum	Daily Maximum	Percent Removal	(1) Sample Location	(2) Sample Type	(3) Measurement Frequency	(4) Seasonal
Flow Rate 00058 Z 0 0	*****	*****	*****	*****	1.0 cfs	*****	*****		INSTAN	A	*****
Oxygen, Dissolved (DO) 00300 I 0 0	*****	*****	*****	*****	2.0 mg/l	*****	*****	E	GRAB	F	*****
pH 00400 I 0 0	*****	*****	*****	*****	6.0 S.U.	9.0 S.U.	*****	E	GRAB	F	*****
Solids, Total Suspended 00530 I 0 0	REPORT lbs/day	REPORT lbs/day	90.0 mg/l	135 mg/l	*****	*****	*****	E	GRAB	F	*****
Solids, Total Suspended 00530 G 0 0	REPORT lbs/day	REPORT lbs/day	REPORT mg/l	REPORT mg/l	*****	*****	*****	I	GRAB	F	*****
Nitrogen, Ammonia Total (As N) 00610 I 0 0	REPORT lbs/day	REPORT lbs/day	5.0 mg/l	7.5 mg/l	*****	*****	*****	E	GRAB	F	S
Nitrogen, Ammonia Total (As N) 00610 I 0 0	REPORT lbs/day	REPORT lbs/day	10.0 mg/l	15.0 mg/l	*****	*****	*****	E	GRAB	F	W
Nitrogen, Kjeldahl Total (As N) 00625 I 0 0	REPORT lbs/day	REPORT lbs/day	REPORT mg/l	REPORT mg/l	*****	*****	*****	E	GRAB	G	S
Nitrite Plus Nitrate Total 1 Det. (As N) 00630 I 0 0	REPORT lbs/day	REPORT lbs/day	REPORT mg/l	REPORT mg/l	*****	*****	*****	E	GRAB	G	S
Phosphorus, Total (As P) 00665 I 0 0	REPORT lbs/day	REPORT lbs/day	REPORT mg/l	REPORT mg/l	*****	*****	*****	E	GRAB	G	S
Flow, In Conduit or Thru Treatment Plant(6) 50050 G 0 0	REPORT MGD	*****	*****	*****	*****	REPORT MGD	*****	I	CONTIN	A	*****

* See Part II.C.1. (Bypass); Part II.C.2. (Upset)

** Monitoring Requirements

(1) Sample Location

I - Influent

E - Effluent

X - End Chlorine Contact Chamber

K - Percent Removal of the Monthly Avg. Influent Concentration from the Monthly Avg. Effluent Concentration.

RS - Receiving Stream

(2) Sample Type:

CONTIN - Continuous

INSTAN - Instantaneous

COMP-8 - 8-Hour Composite

COMP24 - 24-Hour Composite

GRAB - Grab

CALCTD - Calculated

(3) Measurement Frequency: See also Part I.B.2.

A - 7 days per week

B - 5 days per week

C - 3 days per week

D - 2 days per week

E - 1 day per week

F - 2 days per month

G - 1 day per month

H - 1 day per quarter

J - Annual

Q - For Effluent Toxicity Testing, see Provision IV.B.

(4) Seasonal Limits:

S = Summer (April - October)

W = Winter (November - March)

ECS = E_coli Summer (June - September)

ECW = E_coli Winter (October - May)

(5) No Discharge is allowed when the stream flow in Sycamore Creek is less than 1.0 cfs.

(6) Influent flow shall be recorded continuously (See Part IV.E.1.c.)

2. Outfall 0011 Discharge Limits (continued)

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the Permittee is authorized to discharge from Outfall 0011, which is described more fully in the Permittee's application. Such discharge shall be limited and monitored by the Permittee as specified below:

Parameter	Discharge Limitations*						Monitoring Requirements**				
	Monthly Average	Weekly Average	Monthly Average	Weekly Average	Daily Minimum	Daily Maximum	Percent Removal	(1) Sample Location	(2) Sample Type	(3) Measurement Frequency	(4) Seasonal
Flow, In Conduit or Thru Treatment Plant(7)	REPORT	*****	*****	*****	*****	REPORT	*****	E	INSTAN	A	*****
50050 I 0 0	MGD	*****	0.056	*****	*****	MGD	*****	E	GRAB	F	*****
Chlorine, Total Residual See note (8)	*****	*****	mg/l	*****	*****	0.096	*****	E	GRAB	F	*****
50060 I 0 0	*****	*****	col/100mL	*****	*****	487	*****	E	GRAB	F	ECS
E. Coli	*****	*****	col/100mL	*****	*****	col/100mL	*****	E	GRAB	F	ECS
51040 I 0 0	*****	*****	548	*****	*****	2307	*****	E	GRAB	F	ECW
E. Coli	*****	*****	col/100mL	*****	*****	col/100mL	*****	E	GRAB	F	ECW
BOD, Carbonaceous 05 Day, 20C	REPORT	REPORT	25.0	37.5	*****	*****	*****	E	GRAB	F	*****
80082 I 0 0	lbs/day	lbs/day	mg/l	mg/l	*****	*****	*****	E	GRAB	F	*****
BOD, Carbonaceous 05 Day, 20C	REPORT	REPORT	REPORT	REPORT	*****	*****	*****	I	GRAB	F	*****
80082 G 0 0	lbs/day	lbs/day	mg/l	mg/l	*****	*****	85.0%	K	CALCTD	G	*****
BOD, Carb-5 Day, 20 Deg C, Percent Remvl	*****	*****	*****	*****	*****	*****	65.0%	K	CALCTD	G	*****
80091 K 0 0	*****	*****	*****	*****	*****	*****	65.0%	K	CALCTD	G	*****
Solids, Suspended Percent Removal	*****	*****	*****	*****	*****	*****	65.0%	K	CALCTD	G	*****
81011 K 0 0	*****	*****	*****	*****	*****	*****	65.0%	K	CALCTD	G	*****

* See Part II.C.1. (Bypass); Part II.C.2. (Upset)

** Monitoring Requirements

(1) Sample Location

I - Influent

E - Effluent

X - End Chlorine Contact Chamber

K - Percent Removal of the Monthly Avg. Influent Concentration

from the Monthly Avg. Effluent Concentration.

RS - Receiving Stream

(2) Sample Type:

CONTIN - Continuous

INSTAN - Instantaneous

COMP-8 - 8-Hour Composite

COMP24 - 24-Hour Composite

GRAB - Grab

CALCTD - Calculated

(3) Measurement Frequency: See also Part I.B.2.

A - 7 days per week

B - 5 days per week

C - 3 days per week

D - 2 days per week

E - 1 day per week

Q - For Effluent Toxicity Testing, see Provision IV.B.

(4) Seasonal Limits:

S = Summer (April - October)

W = Winter (November - March)

ECS = E. coli Summer (June - September)

ECW = E. coli Winter (October - May)

(7) Flow Monitoring is only required on days when discharges occur (See Part IV.F.)

(8) See Part IV.C. for Total Residual Chlorine (TRC). Monitoring for TRC is applicable if chlorine is utilized for disinfection purposes. If monitoring is not applicable during the monitoring period, enter "NODI=9" on the monthly DMR.

(9) Wasteflow (MGD) summer= (streamflow (cfs) x 0.1312) - 0.0847.

(10) Wasteflow (MGD) winter= (streamflow x 0.2086) - 0.1396

B. DISCHARGE MONITORING AND RECORD KEEPING REQUIREMENTS

1. Representative Sampling

Sample collection and measurement actions shall be representative of the volume and nature of the monitored discharge and shall be in accordance with the provisions of this permit. The effluent sampling point shall be at the nearest accessible location just prior to discharge and after final treatment, unless otherwise specified in the permit.

2. Measurement Frequency

Measurement frequency requirements found in Provision I.A. shall mean:

- a. Seven days per week shall mean daily.
- b. Five days per week shall mean any five days of discharge during a calendar weekly period of Sunday through Saturday.
- c. Three days per week shall mean any three days of discharge during a calendar week.
- d. Two days per week shall mean any two days of discharge during a calendar week.
- e. One day per week shall mean any day of discharge during a calendar week.
- f. Two days per month shall mean any two days of discharge during the month that are no less than seven days apart. However, if discharges occur only during one seven-day period in a month, then two days per month shall mean any two days of discharge during that seven day period.
- g. One day per month shall mean any day of discharge during the calendar month.
- h. Quarterly shall mean any day of discharge during each calendar quarter.
- i. The Permittee may increase the frequency of sampling, listed in Provisions I.B.2.a through I.B.2.h; however, all sampling results are to be reported to the Department.

3. Test Procedures

For the purpose of reporting and compliance, Permittees shall use one of the following procedures:

- a. For parameters with an EPA established Minimum Level (ML), report the measured value if the analytical result is at or above the ML and report "0" for values below the ML. Test procedures for the analysis of pollutants shall conform to 40 CFR Part 136 and guidelines published pursuant to Section 304(h) of the FWPCA, 33 U.S.C. Section 1314(h). If more than one method for analysis of a substance is approved for use, a method having a minimum level lower than the permit limit shall be used. If the minimum level of all methods is higher than the permit limit, the method having the lowest minimum level shall be used and a report of less than the minimum level shall be reported as zero and will constitute compliance, however should EPA approve a method with a lower minimum level during the term of this permit the Permittee shall use the newly approved method.
- b. For pollutants parameters without an established ML, an interim ML may be utilized. The interim ML shall be calculated as 3.18 times the Method Detection Level (MDL) calculated pursuant to 40 CFR Part 136, Appendix B.

Permittees may develop an effluent matrix-specific ML, where an effluent matrix prevents attainment of the established ML. However, a matrix specific ML shall be based upon proper laboratory method and technique. Matrix-specific MLs must be approved by the Department, and may be developed by the Permittee during permit issuance, reissuance, modification, or during compliance schedule.

In either case the measured value should be reported if the analytical result is at or above the ML and "0" reported for values below the ML.
- c. For parameters without an EPA established ML, interim ML, or matrix-specific ML, a report of less than the detection limit shall constitute compliance if the detection limit of all analytical methods is higher than the permit limit. For the purpose of calculating a monthly average, "0" shall be used for values reported less than the detection limit.

The Minimum Level utilized for procedures a and b above shall be reported on the Permittee's DMR. When an EPA approved test procedure for analysis of a pollutant does not exist, the Director shall approve the procedure to be used.

4. Recording of Results

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

- a. The facility name and location, point source number, date, time and exact place of sampling;

- b. The name(s) of person(s) who obtained the samples or measurements;
 - c. The dates and times the analyses were performed;
 - d. The name(s) of the person(s) who performed the analyses;
 - e. The analytical techniques or methods used, including source of method and method number; and
 - f. The results of all required analyses.
5. Records Retention and Production
- a. The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by the permit, and records of all data used to complete the above reports or the application for this permit, for a period of at least three years from the date of the sample measurement, report or application. This period may be extended by request of the Director at any time. If litigation or other enforcement action, under the AWPCA and/or the FWPCA, is ongoing which involves any of the above records, the records shall be kept until the litigation is resolved. Upon the written request of the Director or his designee, the Permittee shall provide the Director with a copy of any record required to be retained by this paragraph. Copies of these records should not be submitted unless requested.
 - b. All records required to be kept for a period of three years shall be kept at the permitted facility or an alternate location approved by the Department in writing and shall be available for inspection.
6. Reduction, Suspension or Termination of Monitoring and/or Reporting
- a. The Director may, with respect to any point source identified in Provision I.A. of this permit, authorize the Permittee to reduce, suspend or terminate the monitoring and/or reporting required by this permit upon the submission of a written request for such reduction, suspension or termination by the Permittee, supported by sufficient data which demonstrates to the satisfaction of the Director that the discharge from such point source will continuously meet the discharge limitations specified in Provision I.A. of this permit.
 - b. It remains the responsibility of the Permittee to comply with the monitoring and reporting requirements of this permit until written authorization to reduce, suspend or terminate such monitoring and/or reporting is received by the Permittee from the Director.
7. Monitoring Equipment and Instrumentation
- All equipment and instrumentation used to determine compliance with the requirements of this permit shall be installed, maintained, and calibrated in accordance with the manufacturer's instructions or, in the absence of manufacturer's instructions, in accordance with accepted practices. At a minimum, flow measurement devices shall be calibrated at least once every 12 months.

C. DISCHARGE REPORTING REQUIREMENTS

I. Reporting of Monitoring Requirements

- a. The Permittee shall conduct the required monitoring in accordance with the following schedule:
 - (1) **MONITORING REQUIRED MORE FREQUENTLY THAN MONTHLY AND MONTHLY** shall be conducted during the first full month following the effective date of coverage under this permit and every month thereafter.
 - (2) **QUARTERLY MONITORING** shall be conducted at least once during each calendar quarter. Calendar quarters are the periods of January through March, April through June, July through September, and October through December. The Permittee shall conduct the quarterly monitoring during the first complete calendar quarter following the effective date of this permit and is then required to monitor once during each quarter thereafter. Quarterly monitoring should be reported on the last DMR due for the quarter (i.e., March, June, September and December DMRs).
 - (3) **SEMIANNUAL MONITORING** shall be conducted at least once during the period of January through June and at least once during the period of July through December. The Permittee shall conduct the semiannual monitoring during the first complete calendar semiannual period following the effective date of this permit and is then required to monitor once during each semiannual period thereafter. Semiannual monitoring may be done anytime during the semiannual period, unless restricted elsewhere in this permit, but it should be reported on the last DMR due for the month of the semiannual period (i.e., June and December DMRs).
 - (4) **ANNUAL MONITORING** shall be conducted at least once during the period of January through December. The Permittee shall conduct the annual monitoring during the first complete calendar annual period following the effective date of this permit and is then required to monitor once during each annual period thereafter.

Annual monitoring may be done anytime during the year, unless restricted elsewhere in this permit, but it should be reported on the December DMR.

- b. The Permittee shall submit discharge monitoring reports (DMRs) on the forms approved by the Department and in accordance with the following schedule:
- (1) **REPORTS OF MORE FREQUENTLY THAN MONTHLY AND MONTHLY TESTING** shall be submitted on a monthly basis. The first report is due on the 28th day of the month following the month the permit becomes effective. The reports shall be submitted so that they are received by the Department no later than the 28th day of the month following the reporting period, unless otherwise directed by the Department.
 - (2) **REPORTS OF QUARTERLY TESTING** shall be submitted on a quarterly basis. The first report is due on the 28th day of the month following the month the permit becomes effective. The reports shall be submitted so that they are received by the Department no later than the 28th day of the month following the reporting period, unless otherwise directed by the Department.
 - (3) **REPORTS OF SEMIANNUAL TESTING** shall be submitted on a semiannual basis. The reports are due on the 28th day of JANUARY and the 28th day of JULY. The reports shall be submitted so that they are received by the Department no later than the 28th day of the month following the reporting period, unless otherwise directed by the Department.
 - (4) **REPORTS OF ANNUAL TESTING** shall be submitted on an annual basis. Unless specified elsewhere in the permit, the first report is due on the 28th day of JANUARY. The reports shall be submitted so that they are received by the Department no later than the 28th day of the month following the reporting period, unless otherwise directed by the Department.
- c. Except as allowed by Provision I.C.1.c.(1) or (2), the permittee shall submit all Discharge Monitoring Reports (DMRs) required by Provision I.C.1.b. by utilizing the Department's web-based Electronic Environmental (E2) Reporting System.
- (1) If the permittee is unable to complete the electronic submittal of DMR data due to technical problems originating with the Department's E2 Reporting System (this could include entry/submittal issues with an entire set of DMRs or individual parameters), the permittee is not relieved of their obligation to submit DMR data to the Department by the date specified in Provision I.C.1.b., unless otherwise directed by the Department.

If the E2 Reporting System is down on the 28th day of the month in which the DMR is due or is down for an extended period of time, as determined by the Department, when a DMR is required to be submitted, the permittee may submit the data in an alternate manner and format acceptable to the Department. Preapproved alternate acceptable methods include faxing, e-mailing, mailing, or hand-delivery of data such that they are received by the required reporting date. Within five calendar days of the E2 Reporting System resuming operation, the permittee shall enter the data into the E2 Reporting System, unless an alternate timeframe is approved by the Department. An attachment should be included with the E2 DMR submittal verifying the original submittal date (date of the fax, copy of dated e-mail, or hand-delivery stamped date), if applicable.
 - (2) The permittee may submit a request to the Department for a temporary electronic reporting waiver for DMR submittals. The waiver request should include the permit number; permittee name; facility/site name; facility address; name, address, and contact information for the responsible official or duly authorized representative; a detailed statement regarding the basis for requesting such a waiver; and the duration for which the waiver is requested. Approved electronic reporting waivers are not transferrable.

A permittee with an approved electronic reporting waiver for DMRs may submit hard copy DMRs for the period that the approved electronic reporting waiver request is effective. The permittee shall submit the Department-approved DMR forms to the address listed in Provision I.C.1.e.
 - (3) If a permittee is allowed to submit a hard copy DMR, the DMR must be legible and bear an original signature. Photo and electronic copies of the signature are not acceptable and shall not satisfy the reporting requirements of this permit.
 - (4) If the permittee, using approved analytical methods as specified in Provision I.B.2, monitors any discharge from a point source for a limited substance identified in Provision I.A. of this permit more frequently than required by this permit, the results of such monitoring shall be included in the calculation and reporting of values on the DMR and the increased frequency shall be indicated on the DMR.
 - (5) In the event no discharge from a point source identified in Provision I.A. of this permit and described more fully in the permittee's application occurs during a monitoring period, the permittee shall report "No Discharge" for such period on the appropriate DMR.
- d. All reports and forms required to be submitted by this permit, the AWPCA and the Department's Rules and Regulations, shall be electronically signed (or, if allowed by the Department, traditionally signed) by a "responsible

official" of the permittee as defined in ADEM Administrative Code Rule 335-6-6-.09 or a "duly authorized representative" of such official as defined in ADEM Administrative Code Rule 335-6-6-.09 and shall bear the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering 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."

- e. Discharge Monitoring Reports required by this permit, the AWPCA, and the Department's Rules that are being submitted in hard copy shall be addressed to:

**Alabama Department of Environmental Management
Environmental Data Section, Permits & Services Division
Post Office Box 301463
Montgomery, Alabama 36130-1463**

Certified and Registered Mail containing Discharge Monitoring Reports shall be addressed to:

**Alabama Department of Environmental Management
Environmental Data Section, Permits & Services Division
1400 Coliseum Boulevard
Montgomery, Alabama 36110-2400**

- f. All other correspondence and reports required to be submitted by this permit, the AWPCA, and the Department's Rules shall be addressed to:

**Alabama Department of Environmental Management
Municipal Section, Water Division
Post Office Box 301463
Montgomery, Alabama 36130-1463**

Certified and Registered Mail shall be addressed to:

**Alabama Department of Environmental Management
Municipal Section, Water Division
1400 Coliseum Boulevard
Montgomery, Alabama 36110-2400**

- g. If this permit is a reissuance, then the permittee shall continue to submit DMRs in accordance with the requirements of their previous permit until such time as DMRs are due as discussed in Part I.C.1.b. above.

2. Noncompliance Notification

- a. The Permittee must notify the Department if, for any reason, the Permittee's discharge:
- (1) Does not comply with any daily minimum or maximum discharge limitation for an effluent characteristic specified in Provision I. A. of this permit which is denoted by an "(X)"
 - (2) Potentially threatens human health or welfare,
 - (3) Threatens fish or aquatic life
 - (4) Causes an in-stream water quality criterion to be exceeded;
 - (5) Does not comply with an applicable toxic pollutant effluent standard or prohibition established under Section 307(a) of the FWPCA, 33 U.S.C. Section 1317(a);
 - (6) Contains a quantity of a hazardous substance that may be harmful to public health or welfare under Section 311(b)(4) of the FWPCA, 33 U.S.C. Section 1321(b)(4);
 - (7) Exceeds any discharge limitation for an effluent parameter listed in Part I.A as a result of an unanticipated bypass or upset; or
 - (8) Is an unpermitted direct or indirect discharge of a pollutant to a water of the state (Note that unpermitted discharges properly reported to the Department under any other requirement are not required to be reported under this provision)

The Permittee shall orally or electronically report any of the above occurrences, describing the circumstances and potential effects, to the Department within 24-hours after the Permittee becomes aware of the occurrence of such discharge. In addition to the oral or electronic report, the Permittee shall submit a written report to the Director or Designee, as provided in Provision I.C.2.c, no later than five days after becoming aware of the occurrence of such discharge or occurrence.

- b. If for any reason, the Permittee's discharge does not comply with any limitation of this permit, then the Permittee must submit a written report to the Director or Designee, as provided in Provision I.C.2.c below. This report must be submitted with the next Discharge Monitoring Report required to be submitted by Provision I.C.1 of this permit after becoming aware of the occurrence of such noncompliance.
- c. Form 421 must be submitted to the Director or Designee in accordance with Provisions I.C.2.a. or b. The completed form must document the following information:
 - (1) A description of the discharge and cause of noncompliance;
 - (2) The period of noncompliance, including exact dates, times, and duration of the noncompliance. If not corrected by the due date of the written report, then the Permittee is to state the anticipated timeframe that is expected to transpire before the noncompliance is resolved; and
 - (3) A description of the steps taken by the Permittee and the steps planned to be taken by the Permittee to reduce or eliminate the noncompliant discharge, including all steps taken to prevent recurrence.
- d. Immediate notification

The permittee shall provide notification to the Director, the public, the county health department, and any other affected entity such as public water systems, as soon as possible upon becoming aware of any notifiable sanitary sewer overflow. The Permittee shall also report notification of the noncompliance event to any other affected entity such as the public.
- e. The Permittee shall keep an updated record of all known wastewater discharge points that are not authorized as permitted outfalls, including but not limited to SSOs. The Permittee shall submit annual Municipal Water Pollution Prevention Plan (MWPP) reports to the Department each year by May 31st for the prior calendar year period beginning January 1st and ending December 31st. The Annual MWPP Reports shall contain a list of all known wastewater discharge points that are not authorized as permitted outfalls and any discharges that occur prior to the headworks of the wastewater treatment plant covered by this permit. The MWPP shall also provide a list of any discharges reported in accordance with Provision I.C.2.a. The Permittee shall submit with its Annual MWPP Report the following information for each known unpermitted discharge that occurs:
 - (1) The cause of the discharge;
 - (2) Date, duration and volume of discharge (estimate if unknown);
 - (3) Description of the source (e.g., manhole, lift station);
 - (4) Location of the discharge, by street address or any other appropriate method;
 - (5) The ultimate destination of the flow (e.g., surface waterbody, municipal separate storm sewer to surface waterbody). Location should be shown on a USGS quad sheet or copy thereof; and
 - (6) Corrective actions or plans to eliminate future discharges.
- f. The Permittee shall report SSO and other illicit or anomalous discharge events on Form 415 in accordance with Part I.C.2.a. This form is available on the ADEM web page or upon request from the Permittee.

D. OTHER REPORTING AND NOTIFICATION REQUIREMENTS

1. Anticipated Noncompliance

The Permittee shall give the Director written advance notice of any planned changes or other circumstances regarding a facility which may result in noncompliance with permit requirements.

2. Termination of Discharge

The Permittee shall notify the Director, in writing, when all discharges from any point source(s) identified in Provision I. A. of this permit have permanently ceased. This notification shall serve as sufficient cause for instituting procedures for modification or termination of the permit.

3. Updating Information

- a. The Permittee shall inform the Director of any change in the Permittee's mailing address or telephone number or in the Permittee's designation of a facility contact or office having the authority and responsibility to prevent and abate violations of the AWPCA, the Department's Rules and the terms and conditions of this permit, in writing, no later

than ten (10) days after such change. Upon request of the Director or his designee, the Permittee shall furnish the Director with an update of any information provided in the permit application.

- b. If the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information with a written explanation for the mistake and/or omission.

4. Duty to Provide Information

The Permittee shall furnish to the Director, within a reasonable time, any information which the Director or his designee may request to determine whether cause exists for modifying, revoking and re-issuing, suspending, or terminating this permit, in whole or in part, or to determine compliance with this permit.

E. SCHEDULE OF COMPLIANCE

1. Compliance with discharge limits

The Permittee shall achieve compliance with the discharge limitations specified in Provision I. A. in accordance with the following schedule:

COMPLIANCE SHALL BE ATTAINED ON THE EFFECTIVE DATE OF THIS PERMIT

2. Schedule

No later than 14 calendar days following a date identified in the above schedule of compliance, the permittee shall submit either a report of progress or, in the case of specific actions being required by identified dates, a written notice of compliance or noncompliance. In the latter case, the notice shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

PART II OTHER REQUIREMENTS, RESPONSIBILITIES, AND DUTIES

A. OPERATIONAL AND MANAGEMENT REQUIREMENTS

1. Facilities Operation and Maintenance

The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of the permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities only when necessary to achieve compliance with the conditions of the permit.

2. Best Management Practices (BMP)

- a. Dilution water shall not be added to achieve compliance with discharge limitations except when the Director or his designee has granted prior written authorization for dilution to meet water quality requirements.
- b. The Permittee shall prepare, implement, and maintain a Spill Prevention, Control and Countermeasures (SPCC) Plan in accordance with 40 C.F.R. Section 112 if required thereby.
- c. The Permittee shall prepare, submit for approval and implement a BMP Plan for containment of any or all process liquids or solids, in a manner such that these materials do not present a significant potential for discharge, if so required by the Director or his designee. When submitted and approved, the BMP Plan shall become a part of this permit and all requirements of the BMP Plan shall become requirements of this permit.

3. Certified Operator

The Permittee shall not operate any wastewater treatment plant unless the competency of the operator to operate such plant has been duly certified by the Director pursuant to AWPCA, and meets the requirements specified in ADEM Administrative Code, Rule 335-10-1.

B. OTHER RESPONSIBILITIES

1. Duty to Mitigate Adverse Impacts

The Permittee shall promptly take all reasonable steps to mitigate and minimize or prevent any adverse impact on human health or the environment resulting from noncompliance with any discharge limitation specified in Provision I. A. of this permit, including such accelerated or additional monitoring of the discharge and/or the receiving waterbody as necessary to determine the nature and impact of the noncomplying discharge.

2. Right of Entry and Inspection

The Permittee shall allow the Director, or an authorized representative, upon the presentation of proper credentials and other documents as may be required by law to:

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

C. BYPASS AND UPSET

1. Bypass

- a. Any bypass is prohibited except as provided in b. and c. below:
- b. A bypass is not prohibited if:
 - (1) It does not cause any discharge limitation specified in Provision I. A. of this permit to be exceeded;
 - (2) It enters the same receiving stream as the permitted outfall; and
 - (3) It is necessary for essential maintenance of a treatment or control facility or system to assure efficient operation of such facility or system.
- c. A bypass is not prohibited and need not meet the discharge limitations specified in Provision I. A. of this permit if:
 - (1) It is unavoidable to prevent loss of life, personal injury, or severe property damage;

- (2) There are no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime (this condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance); and
 - (3) The Permittee submits a written request for authorization to bypass to the Director at least ten (10) days prior to the anticipated bypass (if possible), the Permittee is granted such authorization, and the Permittee complies with any conditions imposed by the Director to minimize any adverse impact on human health or the environment resulting from the bypass.
- d. The Permittee has the burden of establishing that each of the conditions of Provision II. C. 1. b. or c. have been met to qualify for an exception to the general prohibition against bypassing contained in a. and an exemption, where applicable, from the discharge limitations specified in Provision I. A. of this permit.
2. Upset
- a. A discharge which results from an upset need not meet the discharge limitations specified in Provision I. A. of this permit if:
 - (1) No later than 24-hours after becoming aware of the occurrence of the upset, the Permittee orally reports the occurrence and circumstances of the upset to the Director or his designee; and
 - (2) No later than five (5) days after becoming aware of the occurrence of the upset, the Permittee furnishes the Director with evidence, including properly signed, contemporaneous operating logs, or other relevant evidence, demonstrating that:
 - (i) An upset occurred;
 - (ii) The Permittee can identify the specific cause(s) of the upset;
 - (iii) The Permittee's facility was being properly operated at the time of the upset; and
 - (iv) The Permittee promptly took all reasonable steps to minimize any adverse impact on human health or the environment resulting from the upset.
 - b. The Permittee has the burden of establishing that each of the conditions of Provision II C. 2. a. of this permit have been met to qualify for an exemption from the discharge limitations specified in Provision I. A. of this permit.

D. DUTY TO COMPLY WITH PERMIT, RULES, AND STATUTES

1. Duty to Comply

- a. The Permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the AWPCA and the FWPCA and is grounds for enforcement action, for permit termination, revocation and reissuance, suspension, modification, or denial of a permit renewal application.
- b. The necessity to halt or reduce production or other activities in order to maintain compliance with the conditions of the permit shall not be a defense for a Permittee in an enforcement action.
- c. The discharge of a pollutant from a source not specifically identified in the permit application for this permit and not specifically included in the description of an outfall in this permit is not authorized and shall constitute noncompliance with this permit.
- d. The Permittee shall take all reasonable steps, including cessation of production or other activities, to minimize or prevent any violation of this permit or to minimize or prevent any adverse impact of any permit violation.
- e. Nothing in this permit shall be construed to preclude or negate the Permittee's responsibility to apply for, obtain, or comply with other Federal, State, or Local Government permits, certifications, or licenses or to preclude from obtaining other federal, state, or local approvals, including those applicable to other ADEM programs and regulations.

2. Removed Substances

Solids, sludges, filter backwash, or any other pollutant or other waste removed in the course of treatment or control of wastewaters shall be disposed of in a manner that complies with all applicable Department Rules.

3. Loss or Failure of Treatment Facilities

Upon the loss or failure of any treatment facilities, including but not limited to the loss or failure of the primary source of power of the treatment facility, the Permittee shall, where necessary to maintain compliance with the discharge limitations specified in Provision I. A. of this permit, or any other terms or conditions of this permit, cease, reduce, or otherwise control production and/or all discharges until treatment is restored. If control of discharge during loss or failure of the

primary source of power is to be accomplished by means of alternate power sources, standby generators, or retention of inadequately treated effluent, the Permittee must furnish to the Director within six months a certification that such control mechanisms have been installed.

4. Compliance With Statutes and Rules

- a. This permit has been issued under ADEM Administrative Code, Chapter 335-6-6. All provisions of this chapter, that are applicable to this permit, are hereby made a part of this permit. A copy of this chapter may be obtained for a small charge from the Office of General Counsel, Alabama Department of Environmental Management, 1400 Coliseum Boulevard Montgomery, Alabama 36110-2059.
- b. This permit does not authorize the noncompliance with or violation of any Laws of the State of Alabama or the United States of America or any regulations or rules implementing such laws. FWPCA, 33 U.S.C. Section 1319, and Code of Alabama 1975, Section 22-22-14.

E. PERMIT TRANSFER, MODIFICATION, SUSPENSION, REVOCATION, AND REISSUANCE

1. Duty to Reapply or Notify of Intent to Cease Discharge

- a. If the Permittee intends to continue to discharge beyond the expiration date of this permit, the Permittee shall file a complete permit application for reissuance of this permit at least 180 days prior to its expiration. If the Permittee does not intend to continue discharge beyond the expiration of this permit, the Permittee shall submit written notification of this intent which shall be signed by an individual meeting the signatory requirements for a permit application as set forth in ADEM Administrative Code Rule 335-6-6-.09.
- b. Failure of the Permittee to apply for reissuance at least 180 days prior to permit expiration will void the automatic continuation of the expiring permit provided by ADEM Administrative Code Rule 335-6-6-.06 and should the permit not be reissued for any reason any discharge after expiration of this permit will be an unpermitted discharge.

2. Change in Discharge

Prior to any facility expansion, process modification or any significant change in the method of operation of the Permittee's treatment works, the Permittee shall provide the Director with information concerning the planned expansion, modification or change. The Permittee shall apply for a permit modification at least 180 days prior to any facility expansion, process modification, any significant change in the method of operation of the Permittee's treatment works or other actions that could result in the discharge of additional pollutants or increase the quantity of a discharged pollutant or could result in an additional discharge point. This condition applies to pollutants that are or that are not subject to discharge limitations in this permit. No new or increased discharge may begin until the Director has authorized it by issuance of a permit modification or a reissued permit.

3. Transfer of Permit

This permit may not be transferred or the name of the Permittee changed without notice to the Director and subsequent modification or revocation and reissuance of the permit to identify the new Permittee and to incorporate any other changes as may be required under the FWPCA or AWPCA. In the case of a change in name, ownership or control of the Permittee's premises only, a request for permit modification in a format acceptable to the Director is required at least 30 days prior to the change. In the case of a change in name, ownership or control of the Permittee's premises accompanied by a change or proposed change in effluent characteristics, a complete permit application is required to be submitted to the Director at least 180 days prior to the change. Whenever the Director is notified of a change in name, ownership or control, he may decide not to modify the existing permit and require the submission of a new permit application.

4. Permit Modification and Revocation

- a. This permit may be modified or revoked and reissued, in whole or in part, during its term for cause, including but not limited to, the following:
 - (1) If cause for termination under Provision II. E. 5. of this permit exists, the Director may choose to revoke and reissue this permit instead of terminating the permit;
 - (2) If a request to transfer this permit has been received, the Director may decide to revoke and reissue or to modify the permit; or
 - (3) If modification or revocation and reissuance is requested by the Permittee and cause exists, the Director may grant the request.
- b. This permit may be modified during its term for cause, including but not limited to, the following:
 - (1) If cause for termination under Provision II. E. 5. of this permit exists, the Director may choose to modify this permit instead of terminating this permit;

- (2) There are material and substantial alterations or additions to the facility or activity generating wastewater which occurred after permit issuance which justify the application of permit conditions that are different or absent in the existing permit;
- (3) The Director has received new information that was not available at the time of permit issuance and that would have justified the application of different permit conditions at the time of issuance;
- (4) A new or revised requirement(s) of any applicable standard or limitation is promulgated under Sections 301(b)(2)(C), (D), (E), and (F), and 307(a)(2) of the FWPCA;
- (5) Errors in calculation of discharge limitations or typographical or clerical errors were made;
- (6) To the extent allowed by ADEM Administrative Code, Rule 335-6-6-.17, when the standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision after the permit was issued;
- (7) To the extent allowed by ADEM Administrative Code, Rule 335-6-6-.17, permits may be modified to change compliance schedules;
- (8) To agree with a granted variance under 301(c), 301(g), 301(h), 301(k), or 316(a) of the FWPCA or for fundamentally different factors;
- (9) To incorporate an applicable 307(a) FWPCA toxic effluent standard or prohibition;
- (10) When required by the reopener conditions in this permit;
- (11) When required under 40 CFR 403.8(e) (compliance schedule for development of pretreatment program);
- (12) Upon failure of the state to notify, as required by Section 402(b)(3) of the FWPCA, another state whose waters may be affected by a discharge permitted by this permit;
- (13) When required to correct technical mistakes, such as errors in calculation, or mistaken interpretations of law made in determining permit conditions; or
- (14) When requested by the Permittee and the Director determines that the modification has cause and will not result in a violation of federal or state law, regulations or rules.

5. Termination

This permit may be terminated during its term for cause, including but not limited to, the following:

- a. Violation of any term or condition of this permit;
- b. The Permittee's misrepresentation or failure to disclose fully all relevant facts in the permit application or during the permit issuance process or the Permittee's misrepresentation of any relevant facts at any time;
- c. Materially false or inaccurate statements or information in the permit application or the permit;
- d. A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge;
- e. The Permittee's discharge threatens human life or welfare or the maintenance of water quality standards;
- f. Permanent closure of the facility generating the wastewater permitted to be discharged by this permit or permanent cessation of wastewater discharge;
- g. New or revised requirements of any applicable standard or limitation that is promulgated under Sections 301(b)(2)(C), (D), (E), and (F), and 307(a)(2) of the FWPCA that the Director determines cannot be complied with by the Permittee; or
- h. Any other cause allowed by the ADEM Administrative Code, Chapter 335-6-6.

6. Suspension

This permit may be suspended during its term for noncompliance until the Permittee has taken action(s) necessary to achieve compliance.

7. Stay

The filing of a request by the Permittee for modification, suspension or revocation of this permit, in whole or in part, does not stay any permit term or condition.

F. COMPLIANCE WITH TOXIC POLLUTANT STANDARD OR PROHIBITION

If any applicable effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the FWPCA, 33 U.S.C. Section 1317(a), for a toxic pollutant discharged by the Permittee, and such standard or prohibition is more stringent than any discharge limitation on the pollutant specified in Provision I. A. of this permit or controls a pollutant not limited in Provision I. A. of this permit, this permit shall be modified to conform to the toxic pollutant effluent standard or prohibition, and the Permittee shall be notified of such modification. If this permit has not been modified to conform to the toxic pollutant effluent standard or prohibition before the effective date of such standard or prohibition, the Permittee shall attain compliance with the requirements of the standard or prohibition within the time period required by the standard or prohibition and shall continue to comply with the standard or prohibition until this permit is modified or reissued.

G. NOTICE TO DIRECTOR OF INDUSTRIAL USERS

1. The Permittee shall not allow the introduction of wastewater, other than domestic wastewater, from a new direct discharger prior to approval and permitting, if applicable, of the discharge by the Department.
2. The Permittee shall not allow an existing indirect discharger to increase the quantity or change the character of its wastewater, other than domestic wastewater, prior to approval and permitting, if applicable, of the increased discharge by the Department.
3. The Permittee shall report to the Department any adverse impact caused or believed to be caused by an indirect discharger on the treatment process, quality of discharged water, or quality of sludge. Such report shall be submitted within seven days of the Permittee becoming aware of the adverse impacts.

H. PROHIBITIONS

The Permittee shall not allow, and shall take effective enforcement action to prevent and terminate, the introduction of any of the following into its treatment works by industrial users:

1. Pollutants which create a fire or explosion hazard in the treatment works;
2. Pollutants which will cause corrosive structural damage to the treatment works, or dischargers with a pH lower than 5.0 s.u., unless the works are specifically designed to accommodate such discharges;
3. Solid or viscous pollutants in amounts which will cause obstruction of flow in sewers, or other interference with the treatment works;
4. Pollutants, including oxygen demanding pollutants, released in a discharge of such volume or strength as to cause interference in the treatment works;
5. Heat in amounts which will inhibit biological activity in the treatment plant resulting in interference or in such quantities that the temperature of the treatment plant influent exceeds 40°C (104° F) unless the treatment plant is designed to accommodate such heat; and
6. Pollutants in amounts which exceed any applicable pretreatment standard under Section 307 of FWPCA or any approved revisions thereof.

PART III ADDITIONAL REQUIREMENTS, CONDITIONS, AND LIMITATIONS

A. CIVIL AND CRIMINAL LIABILITY

1. Tampering

Any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained or performed under the permit shall, upon conviction, be subject to penalties as provided by the AWPCA.

2. False Statements

Any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be subject to penalties as provided by the AWPCA.

3. Permit Enforcement

- a. Any NPDES permit issued or reissued by the Department is a permit for the purpose of the AWPCA and the FWPCA, and as such, any terms, conditions, or limitations of the permit are enforceable under state and federal law.
- b. Any person required to have a NPDES permit pursuant to ADEM Administrative Code Chapter 335-6-6 and who discharges pollutants without said permit, who violates the conditions of said permit, who discharges pollutants in a manner not authorized by the permit, or who violates applicable orders of the Department or any applicable rule or standard of the Department, is subject to any one or combination of the following enforcement actions under applicable state statutes:
 - (1) An administrative order requiring abatement, compliance, mitigation, cessation, clean-up, and/or penalties;
 - (2) An action for damages;
 - (3) An action for injunctive relief; or
 - (4) An action for penalties.
- c. If the Permittee is not in compliance with the conditions of an expiring or expired permit the Director may choose to do any or all of the following provided the Permittee has made a timely and complete application for reissuance of the permit:
 - (1) Initiate enforcement action based upon the permit which has been continued;
 - (2) Issue a notice of intent to deny the permit reissuance. If the permit is denied, the owner or operator would then be required to cease the activities authorized by the continued permit or be subject to enforcement action for operating without a permit;
 - (3) Reissue the new permit with appropriate conditions; or
 - (4) Take other actions authorized by these rules and AWPCA.

4. Relief from Liability

Except as provided in Provision II. C. 1. (Bypass) and Provision II. C. 2. (Upset), nothing in this permit shall be construed to relieve the Permittee of civil or criminal liability under the AWPCA or FWPCA for noncompliance with any term or condition of this permit.

B. 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 FWPCA, 33 U.S.C. Section 1321.

C. PROPERTY AND OTHER RIGHTS

This permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to persons or property or invasion of other private rights, or any infringement of federal, state, or local laws or regulations, nor does it authorize or approve the construction of any physical structures or facilities or the undertaking of any work in any waters of the state or of the United States.

D. AVAILABILITY OF REPORTS

Except for data determined to be confidential under Code of Alabama 1975, Section 22-22-9(c), all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department. Effluent data shall not be considered confidential.

E. EXPIRATION OF PERMITS FOR NEW OR INCREASED DISCHARGES

1. If this permit was issued for a new discharger or new source, this permit shall expire eighteen months after the issuance date if construction of the facility has not begun during the eighteen-month period.
2. If this permit was issued or modified to allow the discharge of increased quantities of pollutants to accommodate the modification of an existing facility and if construction of this modification has not begun during the eighteen month period after issuance of this permit or permit modification, this permit shall be modified to reduce the quantities of pollutants allowed to be discharged to those levels that would have been allowed if the modification of the facility had not been planned.
3. Construction has begun when the owner or operator has:
 - a. Begun, or caused to begin as part of a continuous on-site construction program:
 - (1) Any placement, assembly, or installation of facilities or equipment; or
 - (2) Significant site preparation work including clearing, excavation, or removal of existing buildings, structures, or facilities which are necessary for the placement, assembly, or installation of new source facilities or equipment; or
 - b. Entered into a binding contractual obligation for the purpose of placement, assembly, or installation of facilities or equipment which are intended to be used in its operation within a reasonable time. Options to purchase or contracts which can be terminated or modified without substantial loss, and contracts for feasibility, engineering, and design studies do not constitute a contractual obligation under this paragraph.
4. Final plans and specifications for a waste treatment facility at a new source or new discharger, or a modification to an existing waste treatment facility must be submitted to and examined by the Department prior to initiating construction of such treatment facility by the Permittee.
5. Upon completion of construction of waste treatment facilities and prior to operation of such facilities, the Permittee shall submit to the Department a certification from a registered professional engineer, licensed to practice in the State of Alabama, that the treatment facilities have been built according to plans and specifications submitted to and examined by the Department.

F. COMPLIANCE WITH WATER QUALITY STANDARDS

1. On the basis of the Permittee's application, plans, or other available information, the Department has determined that compliance with the terms and conditions of this permit should assure compliance with the applicable water quality standards.
2. Compliance with permit terms and conditions notwithstanding, if the Permittee's discharge(s) from point sources identified in Provision I. A. of this permit cause or contribute to a condition in contravention of state water quality standards, the Department may require abatement action to be taken by the Permittee in emergency situations or modify the permit pursuant to the Department's Rules, or both.
3. If the Department determines, on the basis of a notice provided pursuant to this permit or any investigation, inspection or sampling, that a modification of this permit is necessary to assure maintenance of water quality standards or compliance with other provisions of the AWPCA or FWPCA, the Department may require such modification, and, in cases of emergency, the Director may prohibit the discharge until the permit has been modified.

G. GROUNDWATER

Unless specifically authorized under this permit, this permit does not authorize the discharge of pollutants to groundwater. Should a threat of groundwater contamination occur, the Director may require groundwater monitoring to properly assess the degree of the problem, and the Director may require that the Permittee undertake measures to abate any such discharge and/or contamination.

H. DEFINITIONS

1. Average monthly discharge limitation – means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month (zero discharge days shall not be included in the number of "daily discharges" measured and a less than detectable test result shall be treated as a concentration of zero if the most sensitive EPA approved method was used).
2. Average weekly discharge limitation - means the highest allowable average of "daily discharges" over a calendar week, calculated as the sum of all "daily discharges" measured during a calendar week divided by the number of "daily discharges" measured during that week (zero discharge days shall not be included in the number of "daily discharges" measured and a less than detectable test result shall be treated as a concentration of zero if the most sensitive EPA approved method was used).

3. Arithmetic Mean – means the summation of the individual values of any set of values divided by the number of individual values.
4. AWPCA – means the Alabama Water Pollution Control Act.
5. BOD – means the five-day measure of the pollutant parameter biochemical oxygen demand.
6. Bypass – means the intentional diversion of waste streams from any portion of a treatment facility.
7. CBOD – means the five-day measure of the pollutant parameter carbonaceous biochemical oxygen demand.
8. Daily discharge – means the discharge of a pollutant measured during any consecutive 24-hour period in accordance with the sample type and analytical methodology specified by the discharge permit.
9. Daily maximum – means the highest value of any individual sample result obtained during a day.
10. Daily minimum – means the lowest value of any individual sample result obtained during a day.
11. Day – means any consecutive 24-hour period.
12. Department – means the Alabama Department of Environmental Management.
13. Director – means the Director of the Department.
14. Discharge – means "[t]he addition, introduction, leaking, spilling or emitting of any sewage, industrial waste, pollutant or other waste into waters of the state". Code of Alabama 1975, Section 22-22-1(b)(9).
15. Discharge Monitoring Report (DMR) – means the form approved by the Director to accomplish reporting requirements of an NPDES permit.
16. DO – means dissolved oxygen.
17. 8HC – means 8-hour composite sample, including any of the following:
 - a. The mixing of at least 8 equal volume samples collected at constant time intervals of not more than 1 hour over a period of not less than 8 hours between the hours of 6:00 a.m. and 6:00 p.m. If the sampling period exceeds 8 hours, sampling may be conducted beyond the 6:00 a.m. to 6:00 p.m. period.
 - b. A sample continuously collected at a constant rate over period of not less than 8 hours between the hours of 6:00 a.m. and 6:00 p.m. If the sampling period exceeds 8 hours, sampling may be conducted beyond the 6:00 a.m. to 6:00 p.m. period.
18. EPA – means the United States Environmental Protection Agency.
19. FC – means the pollutant parameter fecal coliform.
20. Flow – means the total volume of discharge in a 24-hour period.
21. FWPCA – means the Federal Water Pollution Control Act.
22. Geometric Mean – means the Nth root of the product of the individual values of any set of values where N is equal to the number of individual values. The geometric mean is equivalent to the antilog of the arithmetic mean of the logarithms of the individual values. For purposes of calculating the geometric mean, values of zero (0) shall be considered one (1).
23. Grab Sample – means a single influent or effluent portion which is not a composite sample. The sample(s) shall be collected at the period(s) most representative of the discharge.
24. Indirect Discharger – means a nondomestic discharger who discharges pollutants to a publicly owned treatment works or a privately owned treatment facility operated by another person.
25. Industrial User – means those industries identified in the Standard Industrial Classification manual, Bureau of the Budget 1967, as amended and supplemented, under the category "Division D – Manufacturing" and such other classes of significant waste producers as, by regulation, the Director deems appropriate.
26. MGD – means million gallons per day.
27. Monthly Average – means the arithmetic mean of all the composite or grab samples taken for the daily discharges collected in one month period. The monthly average for flow is the arithmetic mean of all flow measurements taken in a one month period.
28. New Discharger – means a person, owning or operating any building, structure, facility or installation:
 - a. From which there is or may be a discharge of pollutants;
 - b. From which the discharge of pollutants did not commence prior to August 13, 1979, and which is not a new source; and

- c. Which has never received a final effective NPDES permit for dischargers at that site.
29. NH₃-N – means the pollutant parameter ammonia, measured as nitrogen.
30. Notifiable sanitary sewer overflow – means an overflow, spill, release or diversion of wastewater from a sanitary sewer system that:
- Reaches a surface water of the State; or
 - May imminently and substantially endanger human health based on potential for public exposure including but not limited to close proximity to public or private water supply wells or in areas where human contact would be likely to occur.
31. Permit application – means forms and additional information that is required by ADEM Administrative Code Rule 335-6-6-.08 and applicable permit fees.
32. Point source – means "any discernible, confined and discrete conveyance, including but not limited to any pipe, channel, ditch, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, . . . from which pollutants are or may be discharged." Section 502(14) of the FWPCA, 33 U.S.C. Section 1362(14).
33. Pollutant – includes for purposes of this permit, but is not limited to, those pollutants specified in Code of Alabama 1975, Section 22-22-1(b)(3) and those effluent characteristics specified in Provision I. A. of this permit.
34. Privately Owned Treatment Works – means any devices or system which is used to treat wastes from any facility whose operator is not the operator of the treatment works, and which is not a "POTW".
35. Publicly Owned Treatment Works – means a wastewater collection and treatment facility owned by the State, municipality, regional entity composed of two or more municipalities, or another entity created by the State or local authority for the purpose of collecting and treating municipal wastewater.
36. Receiving Stream – means the "waters" receiving a "discharge" from a "point source".
37. Severe property damage – means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
38. Significant Source – means a source which discharges 0.025 MGD or more to a POTW or greater than five percent of the treatment work's capacity, or a source which is a primary industry as defined by the U.S. EPA or which discharges a priority or toxic pollutant.
39. TKN – means the pollutant parameter Total Kjeldahl Nitrogen.
40. TON – means the pollutant parameter Total Organic Nitrogen.
41. TRC – means Total Residual Chlorine.
42. TSS – means the pollutant parameter Total Suspended Solids.
43. 24HC – means 24-hour composite sample, including any of the following:
- The mixing of at least 8 equal volume samples collected at constant time intervals of not more than 2 hours over a period of 24 hours;
 - A sample collected over a consecutive 24-hour period using an automatic sampler composite to one sample. As a minimum, samples shall be collected hourly and each shall be no more than one twenty-fourth (1/24) of the total sample volume collected; or
 - A sample collected over a consecutive 24-hour period using an automatic composite sampler composited proportional to flow.
44. Upset – means an exceptional incident in which there is an unintentional and temporary noncompliance with technology-based permit discharge limitations because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
45. Waters – means "[a]ll waters of any river, stream, watercourse, pond, lake, coastal, ground, or surface water, wholly or partially within the state, natural or artificial. This does not include waters which are entirely confined and retained completely upon the property of a single individual, partnership, or corporation unless such waters are used in interstate commerce." Code of Alabama 1975, Section 22-22-1(b)(2). Waters "include all navigable waters" as defined in Section 502(7) of the FWPCA, 22 U.S.C. Section 1362(7), which are within the State of Alabama.
46. Week – means the period beginning at twelve midnight Saturday and ending at twelve midnight the following Saturday.

47. Weekly (7-day and calendar week) Average – is the arithmetic mean of all samples collected during a consecutive 7-day period or calendar week, whichever is applicable. The calendar week is defined as beginning on Sunday and ending on Saturday. Weekly averages shall be calculated for all calendar weeks with Saturdays in the month. If a calendar week overlaps two months (i.e., the Sunday is in one month and the Saturday in the following month), the weekly average calculated for the calendar week shall be included in the data for the month that contains the Saturday.

I. SEVERABILITY

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

PART IV SPECIFIC REQUIREMENTS, CONDITIONS, AND LIMITATIONS

A. SLUDGE MANAGEMENT PRACTICES

1. Applicability
 - a. Provisions of Provision IV.A. apply to a sewage sludge generated or treated in treatment works that is applied to agricultural and non-agricultural land, or that is otherwise distributed, marketed, incinerated, or disposed in landfills or surface disposal sites.
 - b. Provisions of Provision IV.A. do not apply to:
 - (1) Sewage sludge generated or treated in a privately owned treatment works operated in conjunction with industrial manufacturing and processing facilities and which receive no domestic wastewater.
 - (2) Sewage sludge that is stored in surface impoundments located at the treatment works prior to ultimate disposal.
2. Submitting Information
 - a. If applicable, the Permittee must submit annually with its Municipal Water Pollution Prevention (MWPP) report the following:
 - (1) Type of sludge stabilization/digestion method;
 - (2) Daily or annual sludge production (dry weight basis);
 - (3) Ultimate sludge disposal practice(s).
 - b. The Permittee shall provide sludge inventory data to the Director as requested. These data may include, but are not limited to, sludge quantity and quality reported in Provision IV.A.2.a as well as other specific analyses required to comply with State and Federal laws regarding solid and hazardous waste disposal.
 - c. The Permittee shall give prior notice to the Director of at least 30 days of any change planned in the Permittee's sludge disposal practices.
3. Reopener or Modification
 - a. Upon review of information provided by the Permittee as required by Provision IV.A.2. or, based on the results of an on-site inspection, the permit shall be subject to modification to incorporate appropriate requirements.
 - b. If an applicable "acceptable management practice" or if a numerical limitation for a pollutant in sewage sludge promulgated under Section 405 of FWPCA is more stringent than the sludge pollutant limit or acceptable management practice in this permit. This permit shall be modified or revoked or reissued to conform to requirements promulgated under Section 405. The Permittee shall comply with the limitations no later than the compliance deadline specified in applicable regulations as required by Section 405 of FWPCA.

B. TOTAL RESIDUAL CHLORINE (TRC) REQUIREMENTS

1. If chlorine is not utilized for disinfection purposes, TRC monitoring under Part I of this Permit is not required. If TRC monitoring is not required, "NODI = 9" (conditional monitoring) should be reported on the DMR forms.
2. Testing for TRC shall be conducted according to either the amperometric titration method or the DPD colorimetric method as specified in Section 408(C) or (E), Standards Methods for the Examination of Water and Wastewater, 18th edition. If chlorine is not detected prior to actual discharge to the receiving stream using one of these methods (i.e., the analytical result is less than the detection level), the Permittee shall report on the DMR form "NODI = B" or "0". The Permittee shall then be considered to be in compliance with the daily maximum concentration limit for TRC.
3. This permit contains a maximum allowable TRC level in the effluent. The Permittee is responsible for determining the minimum TRC level needed in the chlorine contact chamber to comply with E.coli limits. The effluent shall be dechlorinated if necessary to meet the maximum allowable effluent TRC level.
4. The sample collection point for effluent TRC shall be at a point downstream of the chlorine contact chamber (downstream of dechlorination if applicable). The exact location is to be approved by the Director.

C. PLANT CLASSIFICATION

The Permittee shall report to the Director within 30 days of the effective date of this permit, the name, address and operator number of the certified wastewater operator in responsible charge of the facility. Unless specified elsewhere in this permit, this facility shall be classified in accordance with ADEM Admin. Code R. 335-10-1-.03.

D. POLLUTANT SCANS

The Permittee shall sample and analyze for the pollutants listed in 40 CFR 122 Appendix J Table 2. The Permittee shall provide data from a minimum of three samples collected within the four and one half years prior to submitting a permit application. Samples must be representative of the seasonal variation in the discharge from each outfall.

E. HYDROGRAPH CONTROL RELEASE SPECIAL REQUIREMENTS

1. Monitoring Frequency

- a. The monitoring frequency for effluent samples, except as otherwise noted, shall be once per discharge incidence, not to exceed twice per month. Results should be recorded for each discharge incidence on the daily DMR forms provided by ADEM. Summary data should be submitted on the monthly DMR forms provided by ADEM.
- b. The monitoring frequency for influent samples shall be twice per month. Summary data should be submitted on the monthly DMR forms provided by ADEM.
- c. Influent flow shall be recorded continuously. This flow data is subject to the records retention requirements of this permit. Summary data should be reported on the monthly DMR forms provided by the Department.

2. Discharge Requirements

- a. There shall be no discharge to Sycamore Creek when the stream flow is less than 1.0 cubic feet per second.
- b. The allowable waste discharge shall be calculated using the following formulas:

$$\text{Waste flow (MGD) summer} = (\text{streamflow (cfs)} \times 0.1312) - 0.0847$$

$$\text{Wasteflow (MGD) winter} = (\text{streamflow (cfs)} \times 0.2086) - 0.1396$$

- c. Effluent flow to Sycamore Creek shall be recorded instantaneously and reported for each day's discharge incidence on daily DMR forms provided by ADEM. Summary data should be submitted on the monthly DMR forms provided by ADEM.
- d. The Permittee shall maintain a United States Geological Survey (USGS) stream gauging station upstream of the facility's discharge location, unless an alternate stream gauging station is approved by the Department in writing. If a non-USGS stream gauge is approved, the stream gauging station shall be calibrated a minimum of once per year for the duration of the permit and the measurements from each calibration shall be submitted to ADEM's Municipal Section no later than 60 days after the date of the calibration, unless an alternate date is approved by the Department.
- e. The daily stream flow, as measured by the gauging station, should be recorded for each day's discharge incidence on daily DMR forms provided by ADEM. Summary data should be reported on the monthly DMR forms provided by ADEM.

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 WATER DIVISION – INDUSTRIAL AND MUNICIPAL SECTIONS
NONCOMPLIANCE NOTIFICATION FORM

PERMITTEE NAME: _____ PERMIT NO: _____

FACILITY LOCATION: _____

DMR REPORTING PERIOD: _____

1. DESCRIPTION OF DISCHARGE: (Include outfall number (s))

2. DESCRIPTION OF NON-COMPLIANCE: (Attach additional pages if necessary):

LIST EFFLUENT VIOLATIONS (If applicable)			
Outfall Number (s)	NONCOMPLIANCE PARAMETER(S)	Result Reported (Include units)	Permit Limit (Include units)
LIST MONITORING / REPORTING VIOLATIONS (If applicable)			
Outfall Number (s)	NONCOMPLIANCE PARAMETER(S)	Monitoring / Reporting Violation (Provide description)	

3. CAUSE OF NON-COMPLIANCE (Attach additional pages if necessary):

4. PERIOD OF NONCOMPLIANCE: (Include exact date(s) and time(s) or, if not corrected, the anticipated time the noncompliance is expected to continue):

5. DESCRIPTION OF STEPS TAKEN AND/OR BEING TAKEN TO REDUCE OR ELIMINATE THE NONCOMPLYING DISCHARGE AND TO PREVENT ITS RECURRENCE (attach additional pages if necessary):

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

 NAME AND TITLE OF RESPONSIBLE OFFICIAL (type or print)

 SIGNATURE OF RESPONSIBLE OFFICIAL / DATE SIGNED

Alabama Department of Environmental Management Daily Discharge Monitoring Report (DMR)

Permittee Name: Utilities Board of the City of Linden
Mailing Address: 211 North Main Street
 Linden AL, 36748

Permit Number: AL0045683 (Minor)
County: Marengo
Monitoring Point: 0011

Facility Name: City of Linden HCR Lagoon
Facility Location: Caroline Street
Receiving Stream: Sycamore Creek

Month: _____
No Discharges During this Month: _____

HCR Equations: Waste flow (MGD) summer= [Stream flow (cfs) x 0.1312] - 0.0847
 Wasteflow (MGD) winter= [Streamflow (cfs) x 0.2086] - 0.1396

PARAM	Flow Rate Receiving Stream	Flow Rate Discharge to Receiving Stream	Calculated Discharge Flow Rate
Parameter Code	0058 Z 0 0	50050 1 0 0	
MIN	1	-----	
MAX	-----		See HCR eqn.
FREQ	daily for each discharge incidence	daily for each discharge incidence	
UNITS	cfs	MGD	MGD
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			
MAX			
MO.AVG			

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons 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.

Signature of Responsible Official _____

Date _____

Printed Name & Title of Responsible Official _____

NPDES PERMIT RATIONALE

NPDES Permit No: **AL0045683** Date: March 11, 2016
Revision Date: October 4, 2016

Permit Applicant: Utilities Board of the City of Linden
211 North Main Street
Linden, Alabama 36748

Location: City of Linden HCR Lagoon
Caroline Street
Linden, Alabama 36748

Draft Permit is: Initial Issuance:
Reissuance due to expiration: X
Modification of existing permit:
Revocation and Reissuance:

Basis for Limitations: Water Quality Model: DO, CBOD₅, NH₃-N, instream flow rate
Reissuance with no modification: DO, TSS, NH₃-N (summer & winter),
E. coli, CBOD₅, pH, CBOD₅ %
Removal, & TSS % Removal
Instream calculation at 7Q10: 15%
Toxicity based: TRC
Secondary Treatment Levels: CBOD₅, CBOD₅ % Removal
Other (described below): E. coli, TSS, TSS % Removal, pH

Design Flow in Million Gallons per Day: 0.45 MGD

Major: No

Description of Discharge: Outfall Number 001;
Effluent discharge to Sycamore Creek, which is
classified as Fish & Wildlife.

Discussion: Outfall 0011

This is a reissuance due to expiration. The limits for Five Day Carbonaceous Biochemical Oxygen Demand (CBOD₅), Total Ammonia as Nitrogen (NH₃-N), and Dissolved Oxygen (DO) are based on the Waste Load Allocation (WLA) model that was completed by ADEM's Water Quality Branch on September 30, 2016. The monthly average limit for CBOD₅ is 25.0 mg/l. The monthly average limits for NH₃-N are 5.0 mg/l (summer) and 10 mg/l (winter). The limit for daily minimum DO is 2.0 mg/L.

Since this is a Hydrograph Controlled Release (HCR) lagoon, the allowable discharge flow to Sycamore Creek is limited by the stream flow. The allowable discharge flow to the stream is given by the following equations developed by the Department's Water Quality Branch:

Wasteflow (MGD) summer= (streamflow (cfs) x 0.1312) - 0.0847

Wasteflow (MGD) winter= (streamflow (cfs) x 0.2086) - 0.1396

No discharge to Sycamore Creek is allowed when the stream flow is less than 1.0 cfs.

The pH daily minimum and daily maximum limits of 6.0 to 9.0 s.u., respectively, were developed to be supportive of the water-use classification of the receiving stream.

The imposed E. coli limits were determined based on the water-use classification of the receiving stream. Since Sycamore Creek is classified as Fish & Wildlife, the limits for June through September are 126 col/100ml (monthly average) and 487 col/100ml (daily maximum). The limits for October through May are 548 col/100ml (monthly average) and 2507 col/100ml (daily maximum).

The monthly average and daily maximum Total Residual Chlorine (TRC) limits of 0.056 mg/l and 0.096 mg/l, respectively, are based on calculations to ensure that the acute and chronic toxic concentrations of TRC in the receiving stream are not exceeded. If monitoring is not applicable during the monitoring period, enter "NODI=9" or *9 on the monthly DMR.

The limit for CBOD₅ % removal is 85% in accordance with 40 CFR part 133.102 regarding Secondary Treatment. The limits for TSS and TSS % Removal are 90 mg/l and 65% respectively, in accordance with 40 CFR Part 133.105.

This permit imposes monitoring during the summer season (April-October) for the following nutrient-related parameters: Total Kjeldahl Nitrogen (TKN), Nitrite plus Nitrate as Nitrogen (NO₂+NO₃-N), and Total Phosphorus (TP). Monitoring for these nutrient-related parameters is imposed so that sufficient information will be available regarding the nutrient contribution from this point source, should it be necessary at some later time to impose nutrient limits on this discharge.

Because this is a minor facility (design capacity less than 1 MGD) treating only domestic wastewater with no industrial wastewater contributions, no potential toxicity concerns are anticipated and thus there is no need to impose chronic or acute bioassay testing under this permit.

The monitoring frequency for most parameters is once per discharge not to exceed twice per month. Percent removals of CBOD₅ and TSS will be calculated once per month. Monitoring for nutrient-related parameters will be once per month during the summer season. Influent flow will be monitored continuously, 7 days per week. Effluent flow will be monitored instantaneously, on days when discharges occur. Stream flow will be monitored instantaneously on days when discharges occur.

The segment of Sycamore Creek, containing the discharge, is classified as a Tier I stream and is not on the most recent 303(d). There are no TMDLs affecting this discharge.

ADEM Administrative Code R. 335-6-10-.12 requires applicants for new or expanded discharges to Tier II waters demonstrate that the proposed discharge is necessary for important economic or social development in the area in which the waters are located. The application submitted by the facility is not for a new or expanded discharge to a Tier II water, so the applicant is not required to demonstrate that the discharge is necessary for economic and social development.

Prepared by: Donald Brown

Revision Date: October 4, 2016

The Permittee requested that a seasonal WLA be continued. Therefore, updated parameters of NH₃-N and flow calculations now include winter limitations above.

TOXICITY AND DISINFECTION RATIONALE

Facility Name:	City of Linden HCR Lagoon	
NPDES Permit Number:	AL0045683	
Receiving Stream:	Sycamore Creek (summer)	
Facility Design Flow (Q _w):	0.450 MGD	
Receiving Stream 7Q ₁₀ :	4.100 cfs	(Minimum Stream Flow Required for Discharge)
Receiving Stream 1Q ₁₀ :	4.100 cfs	(Minimum Stream Flow Required for Discharge)
Winter Headwater Flow (WHF):	4.10 cfs	(Minimum Stream Flow Required for Discharge)
Summer Temperature for CCC:	30 deg. Celsius	
Winter Temperature for CCC:	20 deg. Celsius	
Headwater Background NH ₃ -N Level:	0.11 mg/l	
Receiving Stream pH:	7.0 s.u.	
Headwater Background FC Level (summer):	N/A.	(Only applicable for facilities with diffusers.)
(winter):	N/A.	

The Stream Dilution Ratio (SDR) is calculated using the 7Q₁₀ for all stream classifications.

$$\text{Stream Dilution Ratio (SDR)} = \frac{Q_w}{7Q_{10} + Q_w} = 14.52\%$$

AMMONIA TOXICITY LIMITATIONS

Toxicity-based ammonia limits are calculated in accordance with the *Ammonia Toxicity Protocol* and the *General Guidance for Writing Water Quality Based Toxicity Permits*.

If the Limiting Dilution is less than 1%, the waterbody is considered stream-dominated and the CMC applies.

If the Limiting Dilution is greater than 1%, the waterbody is considered effluent-dominated and the CCC applies.

$$\begin{aligned} \text{Limiting Dilution} &= \frac{Q_w}{7Q_{10} + Q_w} \\ &= 14.52\% \quad \text{Effluent-Dominated, CCC Applies} \end{aligned}$$

$$\begin{aligned} \text{Criterion Maximum Concentration (CMC):} & \quad \text{CMC} = 0.411 / (1 + 10^{(7.204 - \text{pH})}) + 58.4 / (1 + 10^{(\text{pH} - 7.204)}) \\ \text{Criterion Continuous Concentration (CCC):} & \quad \text{CCC} = [0.0577 / (1 + 10^{(7.688 - \text{pH})}) + 2.487 / (1 + 10^{(\text{pH} - 7.688)})] * \text{Min}[2.85, 1.45 * 10^{(0.028 * (25 - T))}] \end{aligned}$$

	<u>CMC</u>	<u>CCC</u>
Allowable Summer Instream NH ₃ -N:	36.09 mg/l	2.18 mg/l
Allowable Winter Instream NH ₃ -N:	36.09 mg/l	4.15 mg/l

$$\begin{aligned} \text{Summer NH}_3\text{-N Toxicity Limit} &= \frac{[(\text{Allowable Instream NH}_3\text{-N}) * (7Q_{10} + Q_w)] - [(\text{Headwater NH}_3\text{-N}) * (7Q_{10})]}{Q_w} \\ &= 14.4 \text{ mg/l NH}_3\text{-N at 7Q}_{10} \end{aligned}$$

$$\begin{aligned} \text{Winter NH}_3\text{-N Toxicity Limit} &= \frac{[(\text{Allowable Instream NH}_3\text{-N}) * (\text{WHF} + Q_w)] - [(\text{Headwater NH}_3\text{-N}) * (\text{WHF})]}{Q_w} \\ &= \text{N/A.} \end{aligned}$$

The ammonia limits established in the permit will be the lesser of the DO-based ammonia limit (from the wasteload allocation model) or the toxicity limits calculated above.

	<u>DO-based NH₃-N limit</u>	<u>Toxicity-based NH₃-N limit</u>
Summer	5.00 mg/l NH ₃ -N	14.40 mg/l NH ₃ -N
Winter	N/A.	N/A.

Summer: The DO based limit of 5.00 mg/l NH₃-N applies.

TOXICITY TESTING REQUIREMENTS (REFERENCE: MUNICIPAL BRANCH TOXICITY PERMITTING STRATEGY)

The following factors trigger toxicity testing requirements:

1. Facility design flow is equal to or greater than 1.0 MGD (major facility).
2. There are significant industrial contributors (SID permits).

Acute toxicity testing is specified for A&I receiving streams, or for stream dilution ratios of 1% or less. Chronic toxicity testing is specified for all other situations requiring toxicity testing.

This is a minor facility (Qw < 1.0 MGD) with no SID permits. No toxicity testing is required.

Instream Waste Concentration (IWC) = $\frac{Q_w}{7Q_{10} + Q_w} = 14.52\%$ Note: This number will be rounded up for toxicity testing purposes.

DISINFECTION REQUIREMENTS

Bacteria limits are required, and will be the water quality limit for the receiving stream, except where diffusers are used the limit may be adjusted for the dilution provided by the diffuser.

See the attached Disinfection Guidance for applicable stream standards.

(Non-coastal limits apply)

Applicable Stream Classification: **Fish & Wildlife**

Disinfection Type: **Chlorination**

Limit calculation method: **Limits based on meeting stream standards at the point of discharge.**

	Stream Standard (colonies/100ml)	Effluent Limit (colonies/100ml)
<u>E. Coli (applies to Non-coastal and Shellfish Harvesting Coastal)</u>		
Monthly limit as monthly average (October through May):	548	548
Monthly limit as monthly average (June through September):	126	126
Daily Max (October through May):	2507	2507
Daily Max (June through September):	487	487
<u>Enterococci (applies to Coastal)</u>		
Monthly limit as geometric mean (October through May):	Not applicable	Not applicable
Monthly limit as geometric mean (June through September):	Not applicable	Not applicable
Daily Max (October through May):	Not applicable	Not applicable
Daily Max (June through September):	Not applicable	Not applicable

MAXIMUM ALLOWABLE CHLORINATION LIMITS

Toxicity-based chlorine limits are calculated in accordance with the General Guidance for Writing Water Quality Based Toxicity Permits.

Chlorine has been shown to be acutely toxic at 0.019 mg/l and chronically toxic at 0.011 mg/l.

Maximum allowable TRC in effluent:	0.076 mg/l (chronic)	(0.011)/(SDR)
Maximum allowable TRC in effluent:	0.131 mg/l (acute)	(0.019)/(SDR)

NOTE: A maximum chlorine limit will be imposed such that the instream concentration will not exceed acutely toxic concentrations in A & I streams and chronically toxic concentrations in all other streams, but may not exceed 1.0 mg/l.

Prepared By: Donald K. Brown Date: 10/21/2016

TOXICITY AND DISINFECTION RATIONALE

Facility Name:	City of Linden HCR Lagoon	
NPDES Permit Number:	AL0045683	
Receiving Stream:	Sycamore Creek (winter)	
Facility Design Flow (Q _w):	0.450 MGD	
Receiving Stream 7Q ₁₀ :	2.820 cfs	(Minimum Stream Flow Required for Discharge)
Receiving Stream 1Q ₁₀ :	2.820 cfs	(Minimum Stream Flow Required for Discharge)
Winter Headwater Flow (WHF):	2.82 cfs	(Minimum Stream Flow Required for Discharge)
Summer Temperature for CCC:	30 deg. Celsius	
Winter Temperature for CCC:	20 deg. Celsius	
Headwater Background NH ₃ -N Level:	0.11 mg/l	
Receiving Stream pH:	7.0 s.u.	
Headwater Background FC Level (summer):	N/A.	(Only applicable for facilities with diffusers.)
(winter):	N/A.	

The Stream Dilution Ratio (SDR) is calculated using the 7Q₁₀ for all stream classifications.

$$\text{Stream Dilution Ratio (SDR)} = \frac{Q_w}{7Q_{10} + Q_w} = 19.80\%$$

AMMONIA TOXICITY LIMITATIONS

Toxicity-based ammonia limits are calculated in accordance with the *Ammonia Toxicity Protocol* and the *General Guidance for Writing Water Quality Based Toxicity Permits*.

If the Limiting Dilution is less than 1%, the waterbody is considered stream-dominated and the CMC applies.
 If the Limiting Dilution is greater than 1%, the waterbody is considered effluent-dominated and the CCC applies.

$$\text{Limiting Dilution} = \frac{Q_w}{7Q_{10} + Q_w} = 19.80\% \quad \text{Effluent-Dominated, CCC Applies}$$

Criterion Maximum Concentration (CMC): $CMC = 0.411 / (1 + 10^{(7.204 - pH)}) + 58.4 / (1 + 10^{(pH - 7.204)})$
 Criterion Continuous Concentration (CCC): $CCC = [0.0577 / (1 + 10^{(7.688 - pH)}) + 2.487 / (1 + 10^{(pH - 7.688)})] * \text{Min}[2.85, 1.45 * 10^{(0.028 * (25 - T))}]$

	<u>CMC</u>	<u>CCC</u>
Allowable Summer Instream NH ₃ -N:	36.09 mg/l	2.18 mg/l
Allowable Winter Instream NH ₃ -N:	36.09 mg/l	4.15 mg/l

$$\text{Summer NH}_3\text{-N Toxicity Limit} = \frac{[(\text{Allowable Instream NH}_3\text{-N}) * (7Q_{10} + Q_w)] - [(\text{Headwater NH}_3\text{-N}) * (7Q_{10})]}{Q_w} = \text{N/A.}$$

$$\text{Winter NH}_3\text{-N Toxicity Limit} = \frac{[(\text{Allowable Instream NH}_3\text{-N}) * (\text{WHF} + Q_w)] - [(\text{Headwater NH}_3\text{-N}) * (\text{WHF})]}{Q_w} = 20.6 \text{ mg/l NH}_3\text{-N at Winter Flow}$$

The ammonia limits established in the permit will be the lesser of the DO-based ammonia limit (from the wasteload allocation model) or the toxicity limits calculated above.

	<u>DO-based NH₃-N limit</u>	<u>Toxicity-based NH₃-N limit</u>
Summer	N/A.	N/A.
Winter	10.00 mg/l NH ₃ -N	20.60 mg/l NH ₃ -N

Winter: The DO based limit of 10.00 mg/l NH₃-N applies.

TOXICITY TESTING REQUIREMENTS (REFERENCE: MUNICIPAL BRANCH TOXICITY PERMITTING STRATEGY)

The following factors trigger toxicity testing requirements:

1. Facility design flow is equal to or greater than 1.0 MGD (major facility).
2. There are significant industrial contributors (SID permits).

Acute toxicity testing is specified for A&I receiving streams, or for stream dilution ratios of 1% or less. Chronic toxicity testing is specified for all other situations requiring toxicity testing.

This is a minor facility (Qw < 1.0 MGD) with no SID permits. No toxicity testing is required.

$$\text{Instream Waste Concentration (IWC)} = \frac{Q_w}{7Q_{10} + Q_w} = 19.80\%$$

Note: This number will be rounded up for toxicity testing purposes.

DISINFECTION REQUIREMENTS

Bacteria limits are required, and will be the water quality limit for the receiving stream, except where diffusers are used the limit may be adjusted for the dilution provided by the diffuser.

See the attached Disinfection Guidance for applicable stream standards.

(Non-coastal limits apply)

Applicable Stream Classification: **Fish & Wildlife**

Disinfection Type: **Chlorination**

Limit calculation method: **Limits based on meeting stream standards at the point of discharge.**

	Stream Standard (colonies/100ml)	Effluent Limit (colonies/100ml)
<u>E. Coli (applies to Non-coastal and Shellfish Harvesting Coastal)</u>		
Monthly limit as monthly average (October through May):	548	548
Monthly limit as monthly average (June through September):	126	126
Daily Max (October through May):	2507	2507
Daily Max (June through September):	487	487
<u>Enterococci (applies to Coastal)</u>		
Monthly limit as geometric mean (October through May):	Not applicable	Not applicable
Monthly limit as geometric mean (June through September):	Not applicable	Not applicable
Daily Max (October through May):	Not applicable	Not applicable
Daily Max (June through September):	Not applicable	Not applicable

MAXIMUM ALLOWABLE CHLORINATION LIMITS

Toxicity-based chlorine limits are calculated in accordance with the General Guidance for Writing Water Quality Based Toxicity Permits.

Chlorine has been shown to be acutely toxic at 0.019 mg/l and chronically toxic at 0.011 mg/l.

Maximum allowable TRC in effluent:	0.056 mg/l (chronic)	(0.011)/(SDR)
Maximum allowable TRC in effluent:	0.096 mg/l (acute)	(0.019)/(SDR)

NOTE: A maximum chlorine limit will be imposed such that the instream concentration will not exceed acutely toxic concentrations in A & I streams and chronically toxic concentrations in all other streams, but may not exceed 1.0 mg/l.

Prepared By: Donald K. Brown Date: 10/21/2016

TOXICITY AND DISINFECTION RATIONALE

Facility Name:	City of Linden HCR Lagoon	
NPDES Permit Number:	AL0045683	
Receiving Stream:	Sycamore Creek (summer)	
Facility Design Flow (Q _w):	0.047 MGD	
Receiving Stream 7Q ₁₀ :	1.000 cfs	(Minimum Stream Flow Required for Discharge)
Receiving Stream 1Q ₁₀ :	1.000 cfs	(Minimum Stream Flow Required for Discharge)
Winter Headwater Flow (WHF):	1.00 cfs	(Minimum Stream Flow Required for Discharge)
Summer Temperature for CCC:	30 deg. Celsius	
Winter Temperature for CCC:	20 deg. Celsius	
Headwater Background NH ₃ -N Level:	0.11 mg/l	
Receiving Stream pH:	7.0 s.u.	
Headwater Background FC Level (summer):	N/A.	(Only applicable for facilities with diffusers.)
(winter):	N/A.	

The Stream Dilution Ratio (SDR) is calculated using the 7Q₁₀ for all stream classifications.

$$\text{Stream Dilution Ratio (SDR)} = \frac{Q_w}{7Q_{10} + Q_w} = 6.71\%$$

AMMONIA TOXICITY LIMITATIONS

Toxicity-based ammonia limits are calculated in accordance with the *Ammonia Toxicity Protocol* and the *General Guidance for Writing Water Quality Based Toxicity Permits*.

If the Limiting Dilution is less than 1%, the waterbody is considered stream-dominated and the CMC applies.
 If the Limiting Dilution is greater than 1%, the waterbody is considered effluent-dominated and the CCC applies.

$$\text{Limiting Dilution} = \frac{Q_w}{7Q_{10} + Q_w} = 6.71\% \quad \text{Effluent-Dominated, CCC Applies}$$

Criterion Maximum Concentration (CMC): $CMC = 0.411 / (1 + 10^{(7.204 - pH)}) + 58.4 / (1 + 10^{(pH - 7.204)})$
 Criterion Continuous Concentration (CCC): $CCC = [0.0577 / (1 + 10^{(7.688 - pH)}) + 2.487 / (1 + 10^{(pH - 7.688)})] * \text{Min}[2.85, 1.45 * 10^{(0.028 * (25 - T))}]$

	<u>CMC</u>	<u>CCC</u>
Allowable Summer Instream NH ₃ -N:	36.09 mg/l	2.18 mg/l
Allowable Winter Instream NH ₃ -N:	36.09 mg/l	4.15 mg/l

$$\text{Summer NH}_3\text{-N Toxicity Limit} = \frac{[(\text{Allowable Instream NH}_3\text{-N}) * (7Q_{10} + Q_w)] - [(\text{Headwater NH}_3\text{-N}) * (7Q_{10})]}{Q_w} = 31.0 \text{ mg/l NH}_3\text{-N at } 7Q_{10}$$

$$\text{Winter NH}_3\text{-N Toxicity Limit} = \frac{[(\text{Allowable Instream NH}_3\text{-N}) * (\text{WHF} + Q_w)] - [(\text{Headwater NH}_3\text{-N}) * (\text{WHF})]}{Q_w} = \text{N/A.}$$

The ammonia limits established in the permit will be the lesser of the DO-based ammonia limit (from the wasteload allocation model) or the toxicity limits calculated above.

	<u>DO-based NH₃-N limit</u>	<u>Toxicity-based NH₃-N limit</u>
Summer	5.00 mg/l NH ₃ -N	31.00 mg/l NH ₃ -N
Winter	N/A.	N/A.

Summer: The DO based limit of 5.00 mg/l NH₃-N applies.

TOXICITY TESTING REQUIREMENTS (REFERENCE: MUNICIPAL BRANCH TOXICITY PERMITTING STRATEGY)

The following factors trigger toxicity testing requirements:

1. Facility design flow is equal to or greater than 1.0 MGD (major facility).
2. There are significant industrial contributors (SID permits).

Acute toxicity testing is specified for A&I receiving streams, or for stream dilution ratios of 1% or less. Chronic toxicity testing is specified for all other situations requiring toxicity testing.

This is a minor facility (Qw < 1.0 MGD) with no SID permits. No toxicity testing is required.

$$\text{Instream Waste Concentration (IWC)} = \frac{Q_w}{7Q_{10} + Q_w} = 6.71\% \quad \text{Note: This number will be rounded up for toxicity testing purposes.}$$

DISINFECTION REQUIREMENTS

Bacteria limits are required, and will be the water quality limit for the receiving stream, except where diffusers are used the limit may be adjusted for the dilution provided by the diffuser.

See the attached Disinfection Guidance for applicable stream standards.

(Non-coastal limits apply)

Applicable Stream Classification: **Fish & Wildlife**

Disinfection Type: **Chlorination**

Limit calculation method: **Limits based on meeting stream standards at the point of discharge.**

	Stream Standard (colonies/100ml)	Effluent Limit (colonies/100ml)
<u>E. Coli (applies to Non-coastal and Shellfish Harvesting Coastal)</u>		
Monthly limit as monthly average (October through May):	548	548
Monthly limit as monthly average (June through September):	126	126
Daily Max (October through May):	2507	2507
Daily Max (June through September):	487	487
<u>Enterococci (applies to Coastal)</u>		
Monthly limit as geometric mean (October through May):	Not applicable	Not applicable
Monthly limit as geometric mean (June through September):	Not applicable	Not applicable
Daily Max (October through May):	Not applicable	Not applicable
Daily Max (June through September):	Not applicable	Not applicable

MAXIMUM ALLOWABLE CHLORINATION LIMITS

Toxicity-based chlorine limits are calculated in accordance with the General Guidance for Writing Water Quality Based Toxicity Permits.

Chlorine has been shown to be acutely toxic at 0.019 mg/l and chronically toxic at 0.011 mg/l.

Maximum allowable TRC in effluent:	0.164 mg/l (chronic)	(0.011)/(SDR)
Maximum allowable TRC in effluent:	0.283 mg/l (acute)	(0.019)/(SDR)

NOTE: A maximum chlorine limit will be imposed such that the instream concentration will not exceed acutely toxic concentrations in A & I streams and chronically toxic concentrations in all other streams, but may not exceed 1.0 mg/l.

Prepared By: Donald K. Brown Date: 10/21/2016

TOXICITY AND DISINFECTION RATIONALE

Facility Name:	City of Linden HCR Lagoon	
NPDES Permit Number:	AL0045683	
Receiving Stream:	Sycamore Creek (winter)	
Facility Design Flow (Q _w):	0.069 MGD	Allowable Wasteflow at 1.0 cfs
Receiving Stream 7Q ₁₀ :	1.000 cfs	(Minimum Stream Flow Required for Discharge)
Receiving Stream 1Q ₁₀ :	1.000 cfs	(Minimum Stream Flow Required for Discharge)
Winter Headwater Flow (WHF):	1.00 cfs	(Minimum Stream Flow Required for Discharge)
Summer Temperature for CCC:	30 deg. Celsius	
Winter Temperature for CCC:	20 deg. Celsius	
Headwater Background NH ₃ -N Level:	0.11 mg/l	
Receiving Stream pH:	7.0 s.u.	
Headwater Background FC Level (summer):	N/A.	(Only applicable for facilities with diffusers.)
(winter):	N/A.	

The Stream Dilution Ratio (SDR) is calculated using the 7Q₁₀ for all stream classifications.

$$\text{Stream Dilution Ratio (SDR)} = \frac{Q_w}{7Q_{10} + Q_w} = 9.65\%$$

AMMONIA TOXICITY LIMITATIONS

Toxicity-based ammonia limits are calculated in accordance with the *Ammonia Toxicity Protocol* and the *General Guidance for Writing Water Quality Based Toxicity Permits*.

If the Limiting Dilution is less than 1%, the waterbody is considered stream-dominated and the CMC applies.

If the Limiting Dilution is greater than 1%, the waterbody is considered effluent-dominated and the CCC applies.

$$\begin{aligned} \text{Limiting Dilution} &= \frac{Q_w}{7Q_{10} + Q_w} \\ &= 9.65\% \quad \text{Effluent-Dominated, CCC Applies} \end{aligned}$$

Criterion Maximum Concentration (CMC): $CMC = 0.411 / (1 + 10^{(7.204 - pH)}) + 58.4 / (1 + 10^{(pH - 7.204)})$

Criterion Continuous Concentration (CCC): $CCC = [0.0577 / (1 + 10^{(7.688 - pH)}) + 2.487 / (1 + 10^{(pH - 7.688)})] * \text{Min}[2.85, 1.45 * 10^{(0.028 * (25 - T))}]$

	<u>CMC</u>	<u>CCC</u>
Allowable Summer Instream NH ₃ -N:	36.09 mg/l	2.18 mg/l
Allowable Winter Instream NH ₃ -N:	36.09 mg/l	4.15 mg/l

$$\begin{aligned} \text{Summer NH}_3\text{-N Toxicity Limit} &= \frac{[(\text{Allowable Instream NH}_3\text{-N}) * (7Q_{10} + Q_w)] - [(\text{Headwater NH}_3\text{-N}) * (7Q_{10})]}{Q_w} \\ &= \text{N/A.} \end{aligned}$$

$$\begin{aligned} \text{Winter NH}_3\text{-N Toxicity Limit} &= \frac{[(\text{Allowable Instream NH}_3\text{-N}) * (\text{WHF} + Q_w)] - [(\text{Headwater NH}_3\text{-N}) * (\text{WHF})]}{Q_w} \\ &= 42.0 \text{ mg/l NH}_3\text{-N at Winter Flow} \end{aligned}$$

The ammonia limits established in the permit will be the lesser of the DO-based ammonia limit (from the wasteload allocation model) or the toxicity limits calculated above.

	<u>DO-based NH₃-N limit</u>	<u>Toxicity-based NH₃-N limit</u>
Summer	N/A.	N/A.
Winter	10.00 mg/l NH ₃ -N	42.00 mg/l NH ₃ -N

Winter: The DO based limit of 10.00 mg/l NH₃-N applies.

TOXICITY TESTING REQUIREMENTS (REFERENCE: MUNICIPAL BRANCH TOXICITY PERMITTING STRATEGY)

The following factors trigger toxicity testing requirements:

1. Facility design flow is equal to or greater than 1.0 MGD (major facility).
2. There are significant industrial contributors (SID permits).

Acute toxicity testing is specified for A&I receiving streams, or for stream dilution ratios of 1% or less. Chronic toxicity testing is specified for all other situations requiring toxicity testing.

This is a minor facility (Qw < 1.0 MGD) with no SID permits. No toxicity testing is required.

Instream Waste Concentration (IWC) = $\frac{Q_w}{7Q_{10} + Q_w}$ = **9.65%** Note: This number will be rounded up for toxicity testing purposes.

DISINFECTION REQUIREMENTS

Bacteria limits are required, and will be the water quality limit for the receiving stream, except where diffusers are used the limit may be adjusted for the dilution provided by the diffuser.

See the attached Disinfection Guidance for applicable stream standards.

(Non-coastal limits apply)

Applicable Stream Classification: **Fish & Wildlife**

Disinfection Type: **Chlorination**

Limit calculation method: **Limits based on meeting stream standards at the point of discharge.**

	Stream Standard (colonies/100ml)	Effluent Limit (colonies/100ml)
<u>E. Coli (applies to Non-coastal and Shellfish Harvesting Coastal)</u>		
Monthly limit as monthly average (October through May):	548	548
Monthly limit as monthly aveage (June through September):	126	126
Daily Max (October through May):	2507	2507
Daily Max (June through September):	487	487
<u>Enterococci (applies to Coastal)</u>		
Monthly limit as geometric mean (October through May):	Not applicable	Not applicable
Monthly limit as geometric mean (June through September):	Not applicable	Not applicable
Daily Max (October through May):	Not applicable	Not applicable
Daily Max (June through September):	Not applicable	Not applicable

MAXIMUM ALLOWABLE CHLORINATION LIMITS

Toxicity-based chlorine limits are calculated in accordance with the General Guidance for Writing Water Quality Based Toxicity Permits.

Chlorine has been shown to be acutely toxic at 0.019 mg/l and chronically toxic at 0.011 mg/l.

Maximum allowable TRC in effluent:	0.114 mg/l (chronic)	(0.011)/(SDR)
Maximum allowable TRC in effluent:	0.197 mg/l (acute)	(0.019)/(SDR)

NOTE: A maximum chlorine limit will be imposed such that the instream concentration will not exceed acutely toxic concentrations in A & I streams and chronically toxic concentrations in all other streams, but may not exceed 1.0 mg/l.

Prepared By: Donald K. Brown Date: 10/21/2016

Waste Load Allocation Summary

REQUEST INFORMATION

Request Number: 3344

From:	Donald Brown	In Branch/Section	Municipal		
Date Submitted	7/8/2016	Date Required	8/8/2016	FUND Code	605
Receiving Waterbody	Sycamore Creek	Date Permit application received by NPDES program	4/6/2015		
Previous Stream Name					
Facility Name	Linden HCR Lagoon	(Name of Discharger-WQ will use to file)			
		Previous Discharger Name			
River Basin	Lower Tombigbee	Outfall Latitude	32.29412 (decimal degrees)		
*County	Marengo	Outfall Longitude	-87.8109 (decimal degrees)		
Permit Number	AL0045683	Permit Type	Permit Reissuance		
		Permit Status	Active		
		Type of Discharger	MUNICIPAL		

Do other discharges exist that may impact the model? Yes No

If yes, impacting dischargers names.

Impacting dischargers permit numbers.

Existing Discharge Design Flow	0.45	MGD	Note: The flow rates given should be those requested for modeling.
Proposed Discharge Design Flow		MGD	

Comments included

Yes No

Information Verified By: BCH

Year File Was Created: 2004

Response ID Number: 1560

Lat/Long Method: GPS

12 Digit HUC Code: 031602010108

Use Classification: F&W

Site Visit Completed? Yes No

Date of Site Visit: 12/16/2015

Waterbody Impaired? Yes No

Date of WLA Response: 9/30/2016

Antidegradation Yes No

Approved TMDL?

Yes No

Waterbody Tier Level: Tier I

Use Support Category: 3

Approval Date of TMDL:

Waste Load Allocation Information

Modeled Reach Length: 9.77 Miles

Date of Allocation: 9/30/2016

Name of Model Used: SWQM

Allocation Type: Annual

Model Completed by: Brian Haigler

Type of Model Used: Desk-top

Allocation Developed by: Water Quality Branch

Waste Load Allocation Summary

Annual Effluent Limits	Conventional Parameters				Other Parameters						
	Qw	0.45	MGD		Qw	0.45	MGD		Qw	MGD	Qw
Season	Summer		Season	Winter		Season			Season		
From	Apr		From	Nov		From			From		
Through	Oct		Through	Mar		Through			Through		
CBOD5	25	mg/L	CBOD5	25	mg/L	TP			TP		
NH3-N	5	mg/L	NH3-N	10	mg/L	TN			TN		
TKN			TKN			TSS			TSS		
D.O.	2	mg/L	D.O.	2	mg/L						

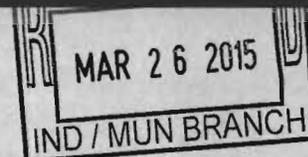
"Monitor Only" Parameters for Effluent:				
Parameter	Frequency	Parameter	Frequency	
TP	Monthly (Apr-Oct)			
NO2+NO3-N	Monthly (Apr-Oct)			
TKN	Monthly (Apr-Oct)			

Water Quality Characteristics Immediately Upstream of Discharge				
Parameter	Summer		Winter	
CBODu	2	mg/l	2	mg/l
NH3-N	0.11	mg/l	0.11	mg/l
Temperature	30	°C	20	°C
pH	7	su	7	su

Hydrology at Discharge Location				Method Used to Calculate	
Drainage Area Qualifier	Drainage Area	10.1	sq mi	ADEM Estimate w/USGS Gage Data	
Exact	Stream 7Q10	0	cfs	75% of 7Q10	
	Stream 1Q10	0	cfs	ADEM Estimate w/USGS Gage Data	
	Stream 7Q2	0	cfs	ADEM Estimate w/USGS Gage Data	
	Annual Average	13.7	cfs	ADEM Estimate w/USGS Gage Data	

Comments and/or Notations This response is for a request for winter limits and HCR equation. Summer Model was completed in March 2016.
 Allowable Wasteflow (mgd) summer = $[0.1312 \times \text{Streamflow (cfs)}] - 0.0847$ (1.0 cfs minimum streamflow)
 Allowable Wasteflow (mgd) winter = $[0.2086 \times \text{Streamflow (cfs)}] - 0.1396$ (1.0 cfs minimum streamflow)

FORM 1 GENERAL 		U.S. ENVIRONMENTAL PROTECTION AGENCY GENERAL INFORMATION <i>Consolidated Permits Program</i> <i>(Read the "General Instructions" before starting.)</i>			I. EPA I.D. NUMBER S F AL 0045683 T/A C D 1 2 13 14 15																			
LABEL ITEMS I. EPA I.D. NUMBER III. FACILITY NAME V. FACILITY MAILING LIST VI. FACILITY LOCATION		PLEASE PLACE LABEL IN THIS SPACE			GENERAL INSTRUCTIONS If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent (the area to the left of the label space lists the information that should appear), please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete items I, III, V, and VI (except VI-B which must be completed regardless). Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorization under which this data is collected.																			
II. POLLUTANT CHARACTERISTICS INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms.																								
SPECIFIC QUESTIONS		MARK "X" YES NO FORM ATTACHED			SPECIFIC QUESTIONS		MARK "X" YES NO FORM ATTACHED																	
A. Is this facility a publicly owned treatment works which results in a discharge to waters of the U.S.? (FORM 2A)		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	B. Does or will this facility (either existing or proposed) include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the U.S.? (FORM 2B)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>															
C. Is this facility which currently results in discharges to waters of the U.S. other than those described in A or B above? (FORM 2C)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	D. Is this proposal facility (other than those described in A or B above) which will result in a discharge to waters of the U.S.? (FORM 2D)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>															
E. Does or will this facility treat, store, or dispose of hazardous wastes? (FORM 3)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>															
G. Do you or will you inject at this facility any produced water other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>															
I. Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	J. Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>															
III. NAME OF FACILITY							C 1 SKIP City of Linden HCR Lagoon 15 16-29 30 69																	
IV. FACILITY CONTACT							A. NAME & TITLE (last, first, & title) C 2 Terry Tyson, Public Works Director 15 16 45			B. PHONE (area code & no.) 334 295 8011 46 48 49 51 52 55														
V. FACILITY MAILING ADDRESS							A. STREET OR P.O. BOX C 3 211 North Main Street 15 16 45			B. CITY OR TOWN C 4 Linden 15 16 40			C. STATE AL 41 42			D. ZIP CODE 36748 47 51								
VI. FACILITY LOCATION							A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER C 5 Caroline Street 15 16 45			B. COUNTY NAME Marengo 46 70			C. CITY OR TOWN C 6 Linden 15 16 40			D. STATE AL 41 42			E. ZIP CODE 36748 47 51			F. COUNTY CODE 52 54		



VII. SIC CODES (4-digit, in order of priority)

A. FIRST				B. SECOND			
C	7	15	17	7	15	16	19
	4952	<i>(specify)</i> Wastewater Treatment			<i>(specify)</i>		
C. THIRD				D. FOURTH			
C	7	15	17	7	15	16	19
		<i>(specify)</i>			<i>(specify)</i>		

VIII. OPERATOR INFORMATION

A. NAME						B. Is the name listed in item VIII-A also the owner?						
C	8	18	19	55		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO						
Utilities Board of the City of Linden												
C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box; if "Other," specify.)						D. PHONE (area code & no.)						
F = FEDERAL	M = PUBLIC (other than federal or state)	M		<i>(specify)</i>		C	334	295	8011			
S = STATE	O = OTHER (specify)					A						
P = PRIVATE		56				15	16	18	19	21	22	25

E. STREET OR PO BOX					
211 North Main Street					
26					

F. CITY OR TOWN			G. STATE		H. ZIP CODE		IX. INDIAN LAND			
C	B	15	16	40	42	42	47	51	Is the facility located on Indian lands?	
Linden			AL		36748		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES (Discharges to Surface Water)						D. PSD (Air Emissions from Proposed Sources)													
C	T	I	9	N	15	16	17	18	30	C	T	8	9	P	15	16	17	18	30
AL0045683																			
B. UIC (Underground Injection of Fluids)						E. OTHER (specify)													
C	T	I	9	U	15	16	17	18	30	C	T	8	9		15	16	17	18	30
						<i>(Specify)</i>													
C. RCRA (Hazardous Wastes)						E. OTHER (specify)													
C	T	I	9	R	15	16	17	18	30	C	T	8	9		15	16	17	18	30
						<i>(Specify)</i>													

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS (provide a brief description)

The Linden HCR Lagoon provides sewer and treatment services for the City of Linden, Alabama. The lagoons are designed to handle a flow of 0.45 MGD.

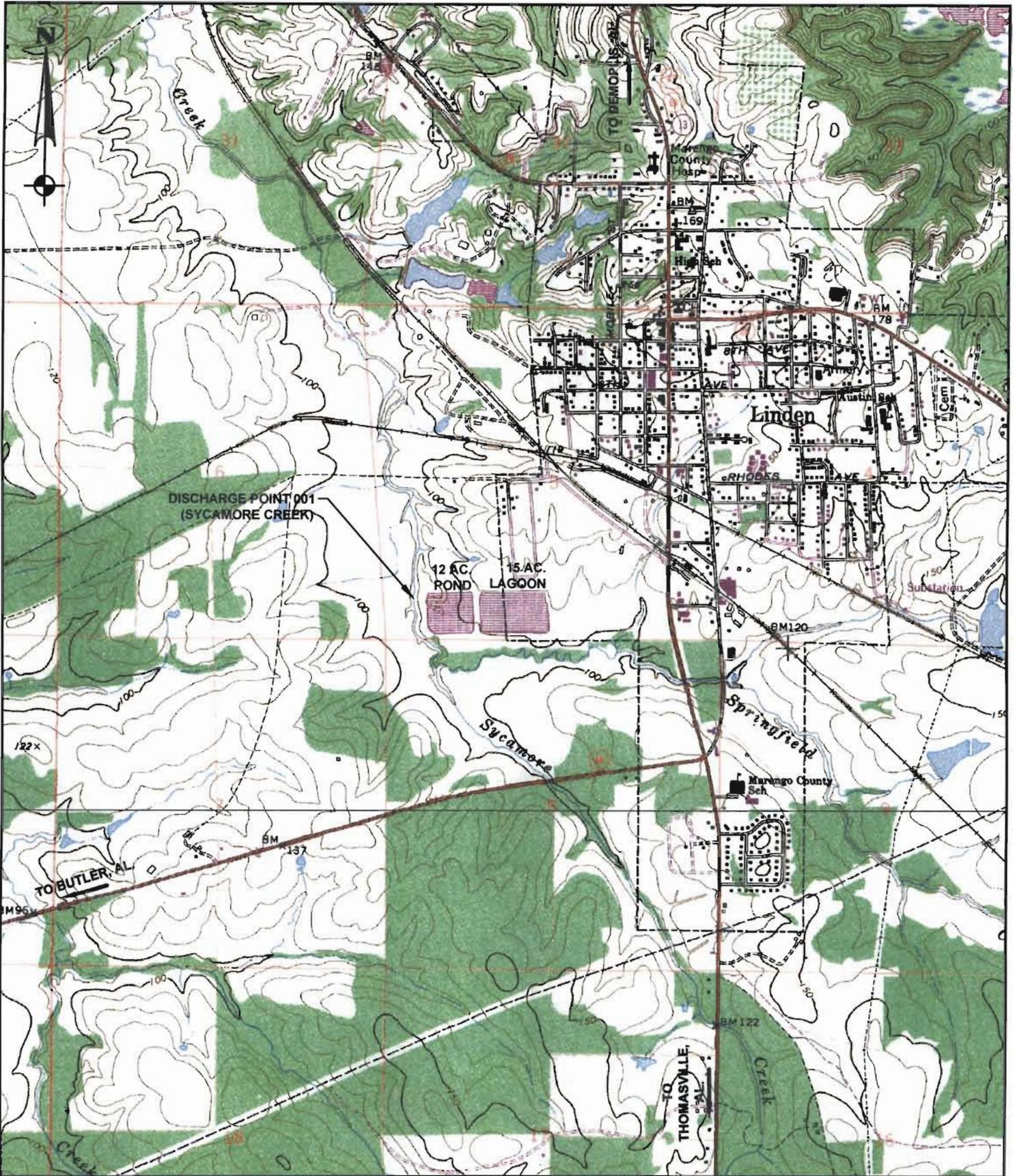
XIII. CERTIFICATION (see instructions)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE (type or print)		B. SIGNATURE		C. DATE SIGNED	
Terry Tyson, Public Works Director				03/11/2015	

COMMENTS FOR OFFICIAL USE ONLY

C	15	16	55
C			



LINDEN HCR LAGOON
 Utilities Board of the City of Linden
 Marengo County, Alabama

Quadrangle map
 Linden, AL
 T-15, R-3E, Sec. 8

DESIGNED	DAWNN
CHECKED	GBB
SCALE	1" = 2000'
DATE	8.4.2009
PROJECT	

GOODWYN, MILLS AND CAWOOD, INC.

ARCHITECTURE LANDSCAPE ARCHITECTURE PLANNING SERVICES

MEMPHIS, TENNESSEE 3800 East Chase Lane Montgomery, Alabama 36117 ANDALSSIA FL. WALTON BRANCH, FLORIDA
 Phone: (904) 571-0000 Fax: (904) 570-1000

SHT 1 OF 1

FACILITY NAME AND PERMIT NUMBER:

City of Linden HCR Lagoon; AL 0045683

Form Approved 1/14/99
OMB Number 2040-0086

FORM
2A
NPDES

NPDES FORM 2A APPLICATION OVERVIEW

APPLICATION OVERVIEW

Form 2A has been developed in a modular format and consists of a "Basic Application Information" packet and a "Supplemental Application Information" packet. The Basic Application Information packet is divided into two parts. All applicants must complete Parts A and C. Applicants with a design flow greater than or equal to 0.1 mgd must also complete Part B. Some applicants must also complete the Supplemental Application Information packet. The following items explain which parts of Form 2A you must complete.

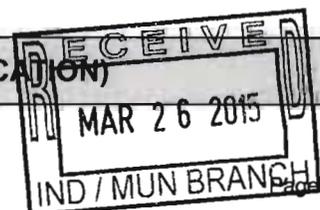
BASIC APPLICATION INFORMATION:

- A. **Basic Application Information for all Applicants.** All applicants must complete questions A.1 through A.8. A treatment works that discharges effluent to surface waters of the United States must also answer questions A.9 through A.12.
- B. **Additional Application Information for Applicants with a Design Flow ≥ 0.1 mgd.** All treatment works that have design flows greater than or equal to 0.1 million gallons per day must complete questions B.1 through B.6.
- C. **Certification.** All applicants must complete Part C (Certification).

SUPPLEMENTAL APPLICATION INFORMATION:

- D. **Expanded Effluent Testing Data.** A treatment works that discharges effluent to surface waters of the United States and meets one or more of the following criteria must complete Part D (Expanded Effluent Testing Data):
 - 1. Has a design flow rate greater than or equal to 1mgd,
 - 2. Is required to have a pretreatment program (or has one in place), or
 - 3. Is otherwise required by the permitting authority to provide the information.
- E. **Toxicity Testing Data.** A treatment works that meets one or more of the following criteria must complete Part E (Toxicity Testing Data):
 - 1. Has a design flow rate greater than or equal to 1 mgd,
 - 2. Is required to have a pretreatment program (or has one in place), or
 - 3. Is otherwise required by the permitting authority to submit results of toxicity testing.
- F. **Industrial User Discharges and RCRA/CERCLA Wastes.** A treatment works that accepts process wastewater from any significant industrial users (SIUs) or receives RCRA or CERCLA wastes must complete Part F (Industrial User Discharges and RCRA/CERCLA Wastes). SIUs are defined as:
 - 1. All industrial users subject to Categorical Pretreatment Standards under 40 Code of Federal Regulations (CFR) 403.6 and 40 CFR Chapter I, Subchapter N (see instructions); and
 - 2. Any other industrial user that:
 - a. Discharges an average of 25,000 gallons per day or more of process wastewater to the treatment works (with certain exclusions); or
 - b. Contributes a process wastestream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the treatment plant; or
 - c. Is designated as an SIU by the control authority.
- G. **Combined Sewer Systems.** A treatment works that has a combined sewer system must complete Part G (Combined Sewer Systems).

ALL APPLICANTS MUST COMPLETE PART C (CERTIFICATION)



FACILITY NAME AND PERMIT NUMBER:

City of Linden HCR Lagoon; AL 0045683

Form Approved 1/14/99
OMB Number 2040-0086

BASIC APPLICATION INFORMATION

PART A. BASIC APPLICATION INFORMATION FOR ALL APPLICANTS:

All treatment works must complete questions A.1 through A.8 of this Basic Application Information Packet.

A.1. Facility Information.

Facility Name City of Linden HCR Lagoon; AL 0045683

Mailing Address 211 North Main Street
Linden, Alabama 36748

Contact Person Terry Tyson

Title Public Works Director

Telephone Number (334) 295-8011

Facility Address (not P.O. Box) Caroline Street
Linden, AL 36748

A.2. Applicant Information. If the applicant is different from the above, provide the following:

Applicant Name Utilities Board of the City of Linden

Mailing Address 211 North Main Street
Linden, AL 36748

Contact Person Terry Tyson

Title Public Works Director

Telephone Number (334) 295-8011

Is the applicant the owner or operator (or both) of the treatment works?

owner operator

Indicate whether correspondence regarding this permit should be directed to the facility or the applicant.

facility applicant

A.3. Existing Environmental Permits. Provide the permit number of any existing environmental permits that have been issued to the treatment works (include state-issued permits).

NPDES	<u>AL0045683</u>	PSD	_____
UIC	_____	Other	_____
RCRA	_____	Other	_____

A.4. Collection System Information. Provide information on municipalities and areas served by the facility. Provide the name and population of each entity and, if known, provide information on the type of collection system (combined vs. separate) and its ownership (municipal, private, etc.).

Name	Population Served	Type of Collection System	Ownership
<u>Linden</u>	<u>2424</u>	<u>Separate</u>	<u>Utilities Board of Linden</u>
_____	_____	_____	_____
_____	_____	_____	_____
Total population served		<u>2424</u>	

FACILITY NAME AND PERMIT NUMBER:

City of Linden HCR Lagoon; AL 0045683

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A.5. Indian Country.

- a. Is the treatment works located in Indian Country?
 Yes No
- b. Does the treatment works discharge to a receiving water that is either in Indian Country or that is upstream from (and eventually flows through) Indian Country?
 Yes No

A.6. Flow. Indicate the design flow rate of the treatment plant (i.e., the wastewater flow rate that the plant was built to handle). Also provide the average daily flow rate and maximum daily flow rate for each of the last three years. Each year's data must be based on a 12-month time period with the 12th month of "this year" occurring no more than three months prior to this application submittal.

a. Design flow rate 0.45 mgd

	<u>Two Years Ago</u>	<u>Last Year</u>	<u>This Year</u>
b. Annual average daily flow rate	<u>0.35</u>	<u>0.45</u>	<u>0.27</u>
c. Maximum daily flow rate	<u>20.42</u>	<u>10.26</u>	<u>10.63</u>

A.7. Collection System. Indicate the type(s) of collection system(s) used by the treatment plant. Check all that apply. Also estimate the percent contribution (by miles) of each.

- Separate sanitary sewer 100 %
- Combined storm and sanitary sewer _____ %

A.8. Discharges and Other Disposal Methods.

- a. Does the treatment works discharge effluent to waters of the U.S.? Yes No
- If yes, list how many of each of the following types of discharge points the treatment works uses:
- i. Discharges of treated effluent 001
 - ii. Discharges of untreated or partially treated effluent _____
 - iii. Combined sewer overflow points _____
 - iv. Constructed emergency overflows (prior to the headworks) _____
 - v. Other _____
- b. Does the treatment works discharge effluent to basins, ponds, or other surface impoundments that do not have outlets for discharge to waters of the U.S.? Yes No
- If yes, provide the following for each surface impoundment:
- Location: _____
- Annual average daily volume discharge to surface impoundment(s) _____ mgd
- Is discharge continuous or intermittent?
- c. Does the treatment works land-apply treated wastewater? Yes No
- If yes, provide the following for each land application site:
- Location: _____
- Number of acres: _____
- Annual average daily volume applied to site: _____ mgd
- Is land application continuous or intermittent?
- d. Does the treatment works discharge or transport treated or untreated wastewater to another treatment works? Yes No

Empty rectangular box at the top of the page.

FACILITY NAME AND PERMIT NUMBER:

City of Linden HCR Lagoon; AL 0045683

Form Approved 1/14/99
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If yes, describe the mean(s) by which the wastewater from the treatment works is discharged or transported to the other treatment works (e.g., tank truck, pipe).

If transport is by a party other than the applicant, provide:

Transporter Name _____

Mailing Address _____

Contact Person _____

Title _____

Telephone Number (____) _____

For each treatment works that receives this discharge, provide the following:

Name _____

Mailing Address _____

Contact Person _____

Title _____

Telephone Number (____) _____

If known, provide the NPDES permit number of the treatment works that receives this discharge _____

Provide the average daily flow rate from the treatment works into the receiving facility. _____ mgd

- e. Does the treatment works discharge or dispose of its wastewater in a manner not included in A.8. through A.8.d above (e.g., underground percolation, well injection): Yes No

If yes, provide the following for each disposal method:

Description of method (including location and size of site(s) if applicable):

Annual daily volume disposed by this method: _____

Is disposal through this method continuous or intermittent?

FACILITY NAME AND PERMIT NUMBER:

City of Linden HCR Lagoon; AL 0045683

Form Approved 1/14/99
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WASTEWATER DISCHARGES:

If you answered "yes" to question A.8.a, complete questions A.9 through A.12 once for each outfall (including bypass points) through which effluent is discharged. Do not include information on combined sewer overflows in this section. If you answered "no" to question A.8.a, go to Part B, "Additional Application Information for Applicants with a Design Flow Greater than or Equal to 0.1 mgd."

A.9. Description of Outfall.

- a. Outfall number 001
- b. Location Linden 36748
(City or town, if applicable) (Zip Code)
Marengo Alabama
(County) (State)
32 deg. 17 min 30 sec 87 deg 47 min 45 sec
(Latitude) (Longitude)
- c. Distance from shore (if applicable) N/A ft.
- d. Depth below surface (if applicable) N/A ft.
- e. Average daily flow rate 0.27 mgd
- f. Does this outfall have either an intermittent or a periodic discharge?
 Yes No (go to A.9.g.)
If yes, provide the following information:
Number of times per year discharge occurs: 5-9
Average duration of each discharge: 3 days
Average flow per discharge: 0.66 mgd
Months in which discharge occurs: September-June
- g. Is outfall equipped with a diffuser? Yes No

A.10. Description of Receiving Waters.

- a. Name of receiving water Sycamore Creek
- b. Name of watershed (if known) _____
United States Soil Conservation Service 14-digit watershed code (if known): _____
- c. Name of State Management/River Basin (if known): _____
United States Geological Survey 8-digit hydrologic cataloging unit code (if known): _____
- d. Critical low flow of receiving stream (if applicable)
acute _____ cfs chronic _____ cfs
- e. Total hardness of receiving stream at critical low flow (if applicable): _____ mg/l of CaCO₃

FACILITY NAME AND PERMIT NUMBER:

City of Linden HCR Lagoon; AL 0045683

Form Approved 1/14/99
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A.11. Description of Treatment

a. What levels of treatment are provided? Check all that apply.

- Primary Secondary
 Advanced Other. Describe: _____

b. Indicate the following removal rates (as applicable):

Design BOD5 removal or Design CBOD5 removal 85 _____ %
 Design SS removal 65 _____ %
 Design P removal _____ %
 Design N removal _____ %
 Other _____ %

c. What type of disinfection is used for the effluent from this outfall? If disinfection varies by season, please describe:

Chlorination & dechlorination

If disinfection is by chlorination is dechlorination used for this outfall? Yes No

d. Does the treatment plant have post aeration? Yes No

A.12 Effluent Testing Information. All Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three samples and must be no more than four and one-half years apart.

Outfall number: 001

PARAMETER	MAXIMUM DAILY VALUE		AVERAGE DAILY VALUE		
	Value	Units	Value	Units	Number of Samples
pH (Minimum)	7.11	s.u.			
pH (Maximum)	7.35	s.u.			
Flow Rate	10.63	MGD	0.273	MGD	5
Temperature (Winter)					
Temperature (Summer)					

* For pH please report a minimum and a maximum daily value

POLLUTANT	MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML/MDL
	Conc.	Units	Conc.	Units	Number of Samples		

CONVENTIONAL AND NON CONVENTIONAL COMPOUNDS

BIOCHEMICAL OXYGEN DEMAND (Report one)	BOD5		mg/l		mg/l		
	CBOD5	2.7	Mg/l	2.5	Mg/l	3	
FECAL COLIFORM	261	CFU/100 ml	159	CFU/100 ml	3		
TOTAL SUSPENDED SOLIDS (TSS)	3	mg/l	1	mg/l	3		

**END OF PART A.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM
2A YOU MUST COMPLETE**

FACILITY NAME AND PERMIT NUMBER:

City of Linden HCR Lagoon; AL 0045683

Form Approved 1/14/99
OMB Number 2040-0086

BASIC APPLICATION INFORMATION

PART B. ADDITIONAL APPLICATION INFORMATION FOR APPLICANTS WITH A DESIGN FLOW GREATER THAN OR EQUAL TO 0.1 MGD (100,000 gallons per day).

All applicants with a design flow rate ≥ 0.1 mgd must answer questions B.1 through B.6. All others go to Part C (Certification).

B.1. Inflow and Infiltration. Estimate the average number of gallons per day that flow into the treatment works from inflow and/or infiltration.

<75,000 gpd

Briefly explain any steps underway or planned to minimize inflow and infiltration.

Evaluate the existing sanitary sewer system and repair any damaged sewer mains

B.2. Topographic Map. Attach to this application a topographic map of the area extending at least one mile beyond facility property boundaries. This map must show the outline of the facility and the following information. (You may submit more than one map if one map does not show the entire area.)

- a. The area surrounding the treatment plant, including all unit processes.
- b. The major pipes or other structures through which wastewater enters the treatment works and the pipes or other structures through which treated wastewater is discharged from the treatment plant. Include outfalls from bypass piping, if applicable.
- c. Each well where wastewater from the treatment plant is injected underground.
- d. Wells, springs, other surface water bodies, and drinking water wells that are: 1) within $\frac{1}{4}$ mile of the property boundaries of the treatment works, and 2) listed in public record or otherwise known to the applicant.
- e. Any areas where the sewage sludge produced by the treatment works is stored, treated, or disposed.
- f. If the treatment works receives waste that is classified as hazardous under the Resource Conservation and Recovery Act (RCRA) by truck, rail, or special pipe, show on the map where the hazardous waste enters the treatment works and where it is treated, stored, and/or disposed.

B.3. Process Flow Diagram or Schematic. Provide a diagram showing the processes of the treatment plant, including all bypass piping and all backup power sources or redundancy in the system. Also provide a water balance showing all treatment units, including disinfection (e.g., chlorination and dechlorination). The water balance must show daily average flow rates at influent and discharge points and approximate daily flow rates between treatment units. Include a brief narrative description of the diagram.

B.4. Operation/Maintenance Performed by Contractor(s).

Are any operational or maintenance aspects (related to wastewater treatment and effluent quality) of the treatment works the responsibility of a contractor? Yes No

If yes, list the name, address, telephone number, and status of each contractor and describe the contractor's responsibilities (attach additional pages if necessary).

Name: _____

Mailing Address: _____

Telephone Number: () _____

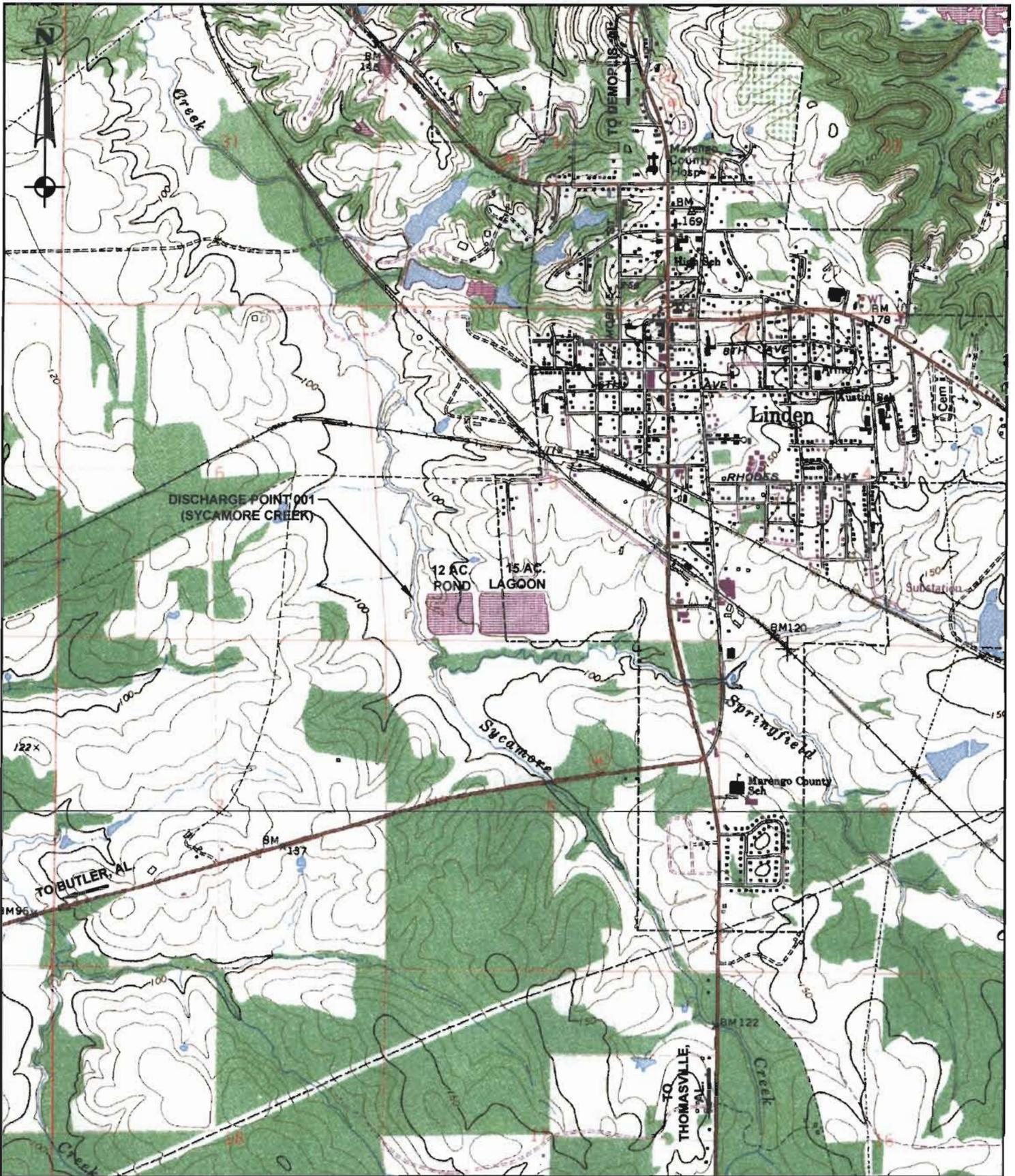
Responsibilities of Contractor: _____

B.5. Scheduled improvements and Schedules of Implementation. Provide information on any uncompleted implementation schedule or uncompleted plans for improvements that will affect the wastewater treatment, effluent quality, or design capacity of the treatment works. If the treatment works has several different implementation schedules or is planning several improvements, submit separate responses to question B.5 for each. (If none, go to question B.6.)

a. List the outfall number (assigned in question A.9) for each outfall that is covered by this implementation schedule.

b. Indicate whether the planned improvements or implementation schedule are required by local, State, or Federal agencies.

Yes No



LINDEN HCR LAGOON
 Utilities Board of the City of Linden
 Marengo County, Alabama

Quadrangle map
 Linden, AL
 T-15, R-3E, Sec. 8

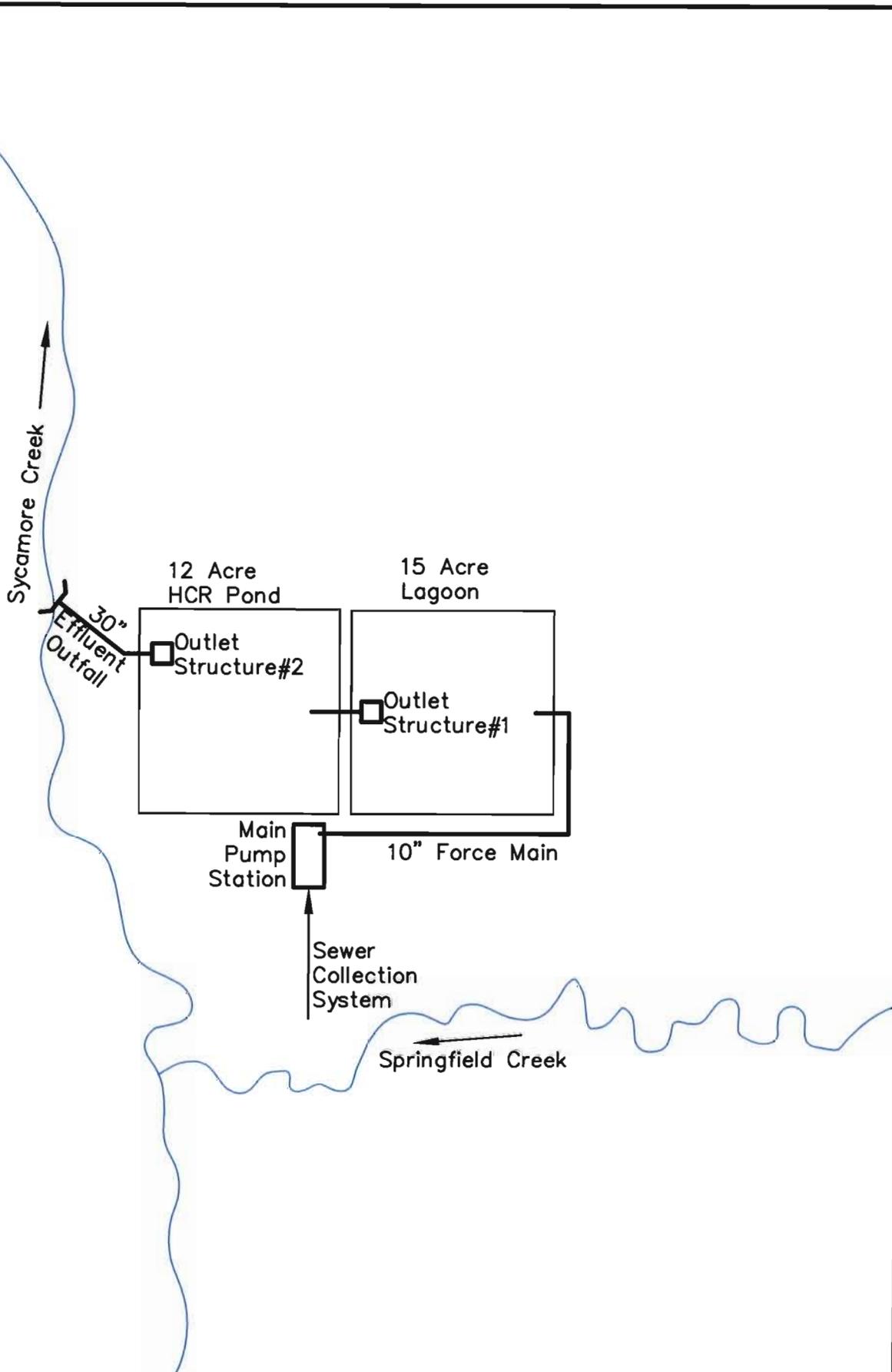
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DATE	PROJECT
8.4.2009	

GOODWIN, MILLS AND CAWOOD, INC.

ARCHITECTURE, ENGINEERING, LANDSCAPE ARCHITECTURE, PLANNING

MEMPHIS, TENNESSEE 38002
 2000 North Chase Lane Montgomery, Alabama 36117
 Phone: (904) 571-0200 Fax: (904) 579-1000

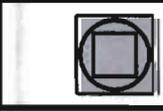
SHT 1 OF 1



APPLICANT NAME
 Utilities Board of the City of Linden, Alabama
FACILITY NAME
 Linden HCR Lagoon

PROCESS FLOW SCHEMATIC

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CHECKED	EAF
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DATE: 2 JULY 04	
PROJECT	



GOODWYN, MILLS & CAWOOD, INC.
ENGINEERING ARCHITECTURE LANDSCAPE ARCHITECTURE PLANNING
2660 Eastchase Lane, Suite 200, Montgomery, Alabama 36117 Phone: (334) 271-3200 Fax: (334) 272-1566
 2701 1st Ave. S., SUITE 100, Birmingham, Alabama 35233 Phone: (205) 879-4462 Fax: (205) 879-4463
 41 West I-65 Service Road North, Suite 400, Cahoonville, Central Mobile, Alabama 36608 Phone: (251) 460-4000 Fax: (251) 460-4423
 213-C Church Street, Anniston, Alabama 36420 Phone: (334) 222-2699 Fax: (334) 222-3573

SHT. 1 OF 1

FACILITY NAME AND PERMIT NUMBER:

City of Linden HCR Lagoon; AL 0045683

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c. If the answer to B.5.b is "Yes," briefly describe, including new maximum daily inflow rate (if applicable).

d. Provide dates imposed by any compliance schedule or any actual dates of completion for the implementation steps listed below, as applicable. For improvements planned independently of local, State, or Federal agencies, indicate planned or actual completion dates, as applicable. Indicate dates as accurately as possible.

Implementation Stage	Schedule	Actual Completion
	MM/DD/YYYY	MM/DD/YYYY
- Begin Construction	<u> / / </u>	<u> / / </u>
- End Construction	<u> / / </u>	<u> / / </u>
- Begin Discharge	<u> / / </u>	<u> / / </u>
- Attain Operational Level	<u> / / </u>	<u> / / </u>

e. Have appropriate permits/clearances concerning other Federal/State requirements been obtained? Yes No

Describe briefly: _____

B.6. EFFLUENT TESTING DATA (GREATER THAN 0.1 MGD ONLY).

Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide effluent testing for the following listed parameters and those required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum effluent testing data must be based on at least three pollutant scans, preferably represent several seasons, and must be no more than four and on-half years old.

Outfall Number: 001

POLLUTANT	MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML/MDL
	Conc.	Units	Conc.	Units	Number of Samples		
CONVENTIONAL AND NON CONVENTIONAL COMPOUNDS							
AMMONIA (as N)	12.3	mg/l	10.7	mg/l	3		
CHLORINE (TOTAL RESIDUAL, TRC)	0.04	mg/l	0.027	mg/l	3		
DISSOLVED OXYGEN	7.5	mg/l	6.1	mg/l	3		
TOTAL KJELDAHL NITROGEN (TKN)	15.6	mg/l	13.33	mg/l	3		
NITRATE PLUS NITRITE NITROGEN	<0.1	mg/l	<0.1	mg/l	3		
OIL and GREASE	2.2	Mg/l	1.83	Mg/l	3		
PHOSPHORUS (Total)	2.8	mg/l	2.58	mg/l	3		
TOTAL DISSOLVED SOLIDS (TDS)	284	mg/l	277	mg/l	3		
OTHER							

**END OF PART B.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE**

FACILITY NAME AND PERMIT NUMBER:

City of Linden HCR Lagoon; AL 0045683

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OMB Number 2040-0086

BASIC APPLICATION INFORMATION

PART C. CERTIFICATION

All applicants must complete the Certification Section. Refer to instructions to determine who is an officer for the purposes of this certification. All applicants must complete all applicable sections of Form 2A, as explained in the Application Overview. Indicate below which parts of Form 2A you have completed and are submitting. By signing this certification statement, applicants confirm that they have reviewed Form 2A and have completed all sections that apply to the facility for which this application is submitted.

Indicate which parts of Form 2A you have completed and are submitting:

Basic Application Information packet

Supplemental Application Information packet:

Part D (Expanded Effluent Testing Data)

Part E (Toxicity Testing: Biomonitoring Data)

Part F (Industrial User Discharges and RCRA/CERCLA Wastes)

Part G (Combined Sewer Systems)

ALL APPLICANTS MUST COMPLETE THE FOLLOWING CERTIFICATION.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information 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.

Name and official title Terry Tyson, Public Works Director

Signature 

Telephone number (334) 295-8011

Date signed _____

Upon request of the permitting authority, you must submit any other information necessary to assure wastewater treatment practices at the treatment works or identify appropriate permitting requirements.

SEND COMPLETED FORMS TO:

FACILITY NAME AND PERMIT NUMBER:

City of Linden HCR Lagoon; AL 0045683

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OMB Number 2040-0086

SUPPLEMENTAL APPLICATION INFORMATION

PART D. EXPANDED EFFLUENT TESTING DATA

Refer to the directions on the cover page to determine whether this section applies to the treatment works.

Effluent Testing: 1.0 mgd and Pretreatment Works. If the treatment works has a design flow greater than or equal to 1.0 mgd or it has (or is required to have) a pretreatment program, or is otherwise required by the permitting authority to provide the data, then provide effluent testing data for the following pollutants. Provide the indicated effluent testing information and any other information required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analyses conducted using 40 CFR Part 136 methods. In addition, these data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. Indicate in the blank rows provided below any data you may have on pollutants not specifically listed in this form. At a minimum, effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old.

Outfall number: _____ (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		

METALS (TOTAL RECOVERABLE), CYANIDE, PHENOLS, AND HARDNESS.

ANTIMONY												
ARSENIC												
BERYLLIUM												
CADMIUM												
CHROMIUM												
COPPER												
LEAD												
MERCURY												
NICKEL												
SELENIUM												
SILVER												
THALLIUM												
ZINC												
CYANIDE												
TOTAL PHENOLIC COMPOUNDS												
HARDNESS (AS CaCO3)												

Use this space (or a separate sheet) to provide information on other metals requested by the permit writer

FACILITY NAME AND PERMIT NUMBER:

City of Linden HCR Lagoon; AL 0045683

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Outfall number: _____ (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
VOLATILE ORGANIC COMPOUNDS											
ACROLEIN											
ACRYLONITRILE											
BENZENE											
BROMOFORM											
CARBON TETRACHLORIDE											
COLORBENZENE											
CHLOROBIBROMO-METHANE											
CHLOROETHANE											
2-CHLORO-ETHYL VINYL ETHER											
CHOLOROFORM											
DICHLOROBROMO-METHANE											
1,1-DICHLOROETHANE											
TRANS-1,2-DICHLORO-ETHYLENE											
1,1-DICHLOROPROPANE											
ETHYLBENZENE											
METHYL BROMIDE											
METHYL CHLORIDE											
METHYLENE CHLORIDE											
1,1,2,2-TETRACHLORO-ETHANE											
TETRACHLORO-ETHYLENE											
TOLUENE											

FACILITY NAME AND PERMIT NUMBER:

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OMB Number 2040-0086

Outfall number: _____ (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/MDL	
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples			
1,1,1-TRICHLOROETHANE												
1,1,2-TRICHLOROETHANE												
TRICHLOROETHYLENE												
VINYL CHLORIDE												

Use this space (or a separate sheet) to provide information on other metals requested by the permit writer

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ACID-EXTRACTABLE COMPOUNDS

P-CHLORO-M-CRESOL												
2-CHLOROPHENOL												
2,4-DIMETHYLPHENOL												
4,6-DINITRO-O-CRESOL												
2,4-DINITROPHENOL												
2-NITROPHENOL												
4-NITROPHENOL												
PENTA CHLOROPHENOL												
PHENOL												
2,4,6-TRICHLORO PHENOL												

Use this space (or a separate sheet) to provide information on other metals requested by the permit writer

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BASE-NEUTRAL COMPOUNDS

ACENAPHTHENE												
ACENAPHTYLENE												
ANTHRACENE												
BENZIDINE												
BENZO(A) ANTHRACENE												
BENZO(A)PYRENE												

FACILITY NAME AND PERMIT NUMBER:

City of Linden HCR Lagoon; AL 0045683

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Outfall number: _____ (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
3,4 BENZO-FLUORANTHENE											
BENZO(GH)PERYLENE											
BENZO(K)FLUORANTHENE											
BIS (2-CHLOROETHOXY) METHANE											
BIS (2-CHLOROETHYL)-ETHER											
BIS (2-CHLOROISOPROPYL) ETHER											
BIS (2-ETHYLHEXYL) PHTHALATE											
4-BROMOPHENYL PHENYL ETHER											
BUTYL BENZYL PHTHALATE											
2-CHLORO NAPHTHALENE											
4-CHLOROPHENYL PHENYL ETHER											
CHRYSENE											
DI-N-BUTYL PHTHALATE											
DI-N-OCTYL PHTHALATE											
DIBENZO(A,H) ANTHRACENE											
1,2-DICHLORO BENZENE											
1,3-DICHLORO BENZENE											
1,4-DICHLORO BENZENE											
3,3-DICHLORO BENZIDINE											
DIETHYL PHTHALATE											
DIMETHYL PHTHALATE											
2,4-DINITROTOLUENE											
2,6-DINITROTOLUENE											
1,2-DIPHENYLHYDRAZINE											

FACILITY NAME AND PERMIT NUMBER:

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Outfall number: _____ (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
FLUORANTHENE											
FLUORENE											
HEXACHLORO BENZENE											
HEXACHLOROBUT ADIENE											
HEXACHLOROCYCLO-PENTADIENE											
HEXA CHLOROETHANE											
INDENO(1,2,3-CD) PYRENE											
ISOPHORONE											
NAPHTHALENE											
NITROBENZENE											
N-NITROSODI-N-PROPYLAMINE											
N-NITROSODI-METHYLAMINE											
N-NITROSODI-PHENYLAMINE											
PHENANTHRENE											
PYRENE											
1,2,4-TRICHLOROBENZENE											

Use this space (or a separate sheet) to provide information on other metals requested by the permit writer

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Use this space (or a separate sheet) to provide information on other metals requested by the permit writer

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**END OF PART D.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE**

FACILITY NAME AND PERMIT NUMBER:

City of Linden HCR Lagoon; AL 0045683

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SUPPLEMENTAL APPLICATION INFORMATION

PART E. TOXICITY TESTING DATA

POTWs meeting one or more of the following criteria must provide the results of whole effluent toxicity tests for acute or chronic toxicity for each of the facility's discharge points: 1) POTWs with a design flow rate greater than or equal to 1.0 mgd; 2) POTWs with a pretreatment program (or those that are required to have one under 40 CFR Part 403); or 3) POTWs required by the permitting authority to submit data for these parameters.

- At a minimum, these results must include quarterly testing for a 12-month period within the past 1 year using multiple species (minimum of two species), or the results from four tests performed at least annually in the four and one-half years prior to the application, provided the results show no appreciable toxicity, and testing for acute and/or chronic toxicity, depending on the range of receiving water dilution. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136.
- In addition, submit the results of any other whole effluent toxicity tests from the past four and one-half years. If a whole effluent toxicity test conducted during the past four and one-half years revealed toxicity, provide any information on the cause of the toxicity or any results of a toxicity reduction evaluation, if one was conducted.
- If you have already submitted any of the information requested in Part E, you need not submit it again. Rather, provide the information requested in question E.4 for previously submitted information. If EPA methods were not used, report the reasons for using alternate methods. If test summaries are available that contain all of the information requested below, they may be submitted in place of Part E.

If no biomonitoring data is required, do not complete Part E. Refer to the Application Overview for directions on which other sections of the form to complete.

E.1. Required Tests.

Indicate the number of whole effluent toxicity tests conducted in the past four and one-half years.

chronic acute

E.2. Individual Test Data. Complete the following chart for each whole effluent toxicity test conducted in the last four and one-half years. Allow one column per test (where each species constitutes a test). Copy this page if more than three tests are being reported.

Test number: _____ Test number: _____ Test number: _____

a. Test information.

Test Species & test method number			
Age at initiation of test			
Outfall number			
Dates sample collected			
Date test started			
Duration			

b. Give toxicity test methods followed.

Manual title			
Edition number and year of publication			
Page number(s)			

c. Give the sample collection method(s) used. For multiple grab samples, indicate the number of grab samples used.

24-Hour composite			
Grab			

d. Indicate where the sample was taken in relation to disinfection. (Check all that apply for each.)

Before disinfection			
After disinfection			
After dechlorination			

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Test number: _____		Test number: _____		Test number: _____	
e. Describe the point in the treatment process at which the sample was collected.					
Sample was collected:					
f. For each test, include whether the test was intended to assess chronic toxicity, acute toxicity, or both					
Chronic toxicity					
Acute toxicity					
g. Provide the type of test performed.					
Static					
Static-renewal					
Flow-through					
h. Source of dilution water. If laboratory water, specify type; if receiving water, specify source.					
Laboratory water					
Receiving water					
i. Type of dilution water. If salt water, specify "natural" or type of artificial sea salts or brine used.					
Fresh water					
Salt water					
j. Give the percentage effluent used for all concentrations in the test series.					
k. Parameters measured during the test. (State whether parameter meets test method specifications)					
pH					
Salinity					
Temperature					
Ammonia					
Dissolved oxygen					
l. Test Results.					
Acute:					
Percent survival in 100% effluent		%		%	%
LC ₅₀					
95% C.I.		%		%	%
Control percent survival		%		%	%
Other (describe)					

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Chronic:

NOEC	%	%	%
IC ₂₅	%	%	%
Control percent survival	%	%	%
Other (describe)			

m. Quality Control/Quality Assurance.

Is reference toxicant data available?			
Was reference toxicant test within acceptable bounds?			
What date was reference toxicant test run (MM/DD/YYYY)?	/ /	/ /	/ /
Other (describe)			

E.3. Toxicity Reduction Evaluation. Is the treatment works involved in a Toxicity Reduction Evaluation?

Yes No If yes, describe: _____

E.4. Summary of Submitted Biomonitoring Test Information. If you have submitted biomonitoring test information, or information regarding the cause of toxicity, within the past four and one-half years, provide the dates the information was submitted to the permitting authority and a summary of the results.

Date submitted: / / (MM/DD/YYYY)

Summary of results: (see instructions)

END OF PART E.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE.

FACILITY NAME AND PERMIT NUMBER:

City of Linden HCR Lagoon; AL 0045683

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SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete part F.

GENERAL INFORMATION:

F.1. Pretreatment program. Does the treatment works have, or is subject to, an approved pretreatment program?

Yes No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. _____

b. Number of CIUs. _____

SIGNIFICANT INDUSTRIAL USER INFORMATION::

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. Significant Industrial User Information. Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: _____

Mailing Address: _____

F.4. Industrial Processes. Describe all the industrial processes that affect or contribute to the SIU's discharge.

F.5. Principal Product(s) and Raw Material(s). Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): _____

Raw material(s): _____

F.6. Flow Rate.

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharge into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

_____ gpd (_____ continuous or _____ intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

_____ gpd (_____ continuous or _____ intermittent)

F.7. Pretreatment Standards. Indicate whether the SIU is subject to the following:

a. Local limits Yes No

b. Categorical pretreatment standards Yes No

If subject to categorical pretreatment standards, which category and subcategory?

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F.8. Problems at the Treatment Works Attributed to Waste Discharge by the SIU. Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

Yes No

If yes, describe each episode.

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. RCRA Waste. Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail or dedicated pipe?

Yes No (go to F.12)

F.10 Waste transport. Method by which RCRA waste is received (check all that apply):

Truck Rail Dedicated Pipe

F.11 Waste Description. Give EPA hazardous waste number and amount (volume or mass, specify units).

<u>EPA Hazardous Waste Number</u>	<u>Amount</u>	<u>Units</u>
<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12 Remediation Waste. Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

Yes (complete F.13 through F.15.) No

F.13 Waste Origin. Describe the site and type of facility at which the CERCLA/RCRA/other remedial waste originates (or is expected to originate in the next five years).

F.14 Pollutants. List the hazardous constituents that are received (or are expected to be received). Include data on volume and concentration, if known. (Attach additional sheets if necessary.)

F.15 Waste Treatment.

a. Is this waste treated (or will be treated) prior to entering the treatment works?

Yes No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

Continuous Intermittent

If intermittent, describe discharge schedule.

**END OF PART F.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM
2A YOU MUST COMPLETE**

FACILITY NAME AND PERMIT NUMBER:

City of Linden HCR Lagoon; AL 0045683

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SUPPLEMENTAL APPLICATION INFORMATION

PART G. COMBINED SEWER SYSTEMS

If the treatment works has a combined sewer system, complete Part G.

G.1. System Map. Provide a map indicating the following: (may be included with Basic Application Information)

- All CSO discharge points.
- Sensitive use areas potentially affected by CSOs (e.g., beaches, drinking water supplies, shellfish beds, sensitive aquatic ecosystems, and outstanding natural resource waters).
- Waters that support threatened and endangered species potentially affected by CSOs.

G.2. System Diagram. Provide a diagram, either in the map provided in G.1 or on a separate drawing, of the combined sewer collection system that includes the following information.

- Location of major sewer trunk lines, both combined and separate sanitary.
- Locations of points where separate sanitary sewers feed into the combined sewer system.
- Locations of in-line and off-line storage structures.
- Locations of flow-regulating devices.
- Locations of pump stations.

CSO OUTFALLS:

Complete questions G.3 through G.6 once for each CSO discharge point.

G.3 Description of Outfall.

- Outfall number _____
- Location _____
(city or town, if applicable) (Zip Code) _____

(County) (State) _____

(Latitude) (Longitude) _____
- Distance from shore (if applicable) _____ ft.
- Depth below surface (if applicable) _____ ft.
- Which of the following were monitored during the last year for this CSO?
 Rainfall CSO pollutant concentrations CSO frequency
 CSO flow volume Receiving water quality
- How many storm events were monitored during the last year? _____

G.4. CSO Events.

- Give the number of CSO events in the last year.
_____ events (actual or approx.)
- Give the average duration per CSO event.
_____ hours (actual or approx.)

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- c. Give the average volume per CSO event.
_____ million gallons (actual or approx.)
- d. Give the minimum rainfall that caused a CSO event in the last year
_____ Inches of rainfall

G.5. Description of Receiving Waters.

- a. Name of receiving water: _____
- b. Name of watershed/river/stream system: _____
United State Soil Conservation Service 14-digit watershed code (if known): _____
- c. Name of State Management/River Basin: _____
United States Geological Survey 8-digit hydrologic cataloging unit code (if known): _____

G.6. CSO Operations.

Describe any known water quality impacts on the receiving water caused by this CSO (e.g., permanent or intermittent beach closings, permanent or intermittent shell fish bed closings, fish kills, fish advisories, other recreational loss, or violation of any applicable State water quality standard).

**END OF PART G.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM
2A YOU MUST COMPLETE.**

Additional information, if provided, will appear on the following pages.

SUPPLEMENTARY INFORMATION
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
PERMIT APPLICATION FORM 188- Municipal, Semi-Public & Private Facilities

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
WATER DIVISION – MUNICIPAL SECTION
POST OFFICE BOX 301463
MONTGOMERY, ALABAMA 36130-1463

INSTRUCTIONS: APPLICATIONS SHOULD BE TYPED OR PRINTED IN INK AND SUBMITTED TO THE DEPARTMENT IN DUPLICATE. PLEASE CONTINUE ON AN ATTACHED SHEET OF PAPER IF INSUFFICIENT SPACE IS AVAILABLE TO ADDRESS ANY ITEM BELOW. PLEASE MARK N/A IN THE APPROPRIATE BOX WHEN AN ITEM IS NON-APPLICABLE TO THE APPLICANT.

PURPOSE OF THIS APPLICATION

INITIAL PERMIT APPLICATION FOR NEW FACILITY INITIAL PERMIT APPLICATION FOR EXISTING FACILITY
 MODIFICATION OF EXISTING PERMIT REISSUANCE OF EXISTING PERMIT
 REVOCATION & REISSUANCE OF EXISTING PERMIT

1. Facility Name: City of Linden HCR Lagoon

a. Operator Name: Utilities Board of the City of Linden

b. Is the operator identified in 1.a, the owner of the facility? Yes X No _____
If no, provide the name and address of the operator and submit information indicating the operator's scope of responsibility for the facility.

2. NPDES Permit Number AL 0045683

3. Facility Location: (Attach a map with location marked; street, route no. or other specific identifier)

Street: Caroline Street

City: Linden County: Marengo State: Alabama Zip: 36748

4. Facility Mailing Address (Street or Post Office Box): 211 N. Main Street

City: Linden County: Marengo State: Alabama Zip: 36748

5. Responsible Official (as described on page 7 of this application):

Name and Title: Charles Moore, Mayor

Address: 211 North Main Street

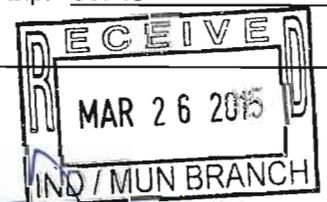
City: Linden State: Alabama Zip: 36748

Phone Number: (334) 295-5051

6. Designated Facility Contact:

Name and Title: Terry Tyson, Public Works Director

Phone Number: (334) 295-8011



7. Please complete this section if the Applicant's business entity is a Proprietorship or limited liability Corporation with a responsible official not listed in Item 5. **NOT APPLICABLE**

a) Proprietor:

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

8. Permit numbers for Applicant's previously issued NPDES Permits and identification of any other State Environmental Permits presently held by the Applicant within the State of Alabama:

<u>Permit Name</u>	<u>Permit Number</u>	<u>Held by</u>
<u>Linden HCR Lagoon</u>	<u>AL0045683</u>	<u>Utilities Board of the City of Linden</u>
_____	_____	_____
_____	_____	_____

9. Identify all Administrative Complaints, Notices of Violation, Directives, or Administrative Orders, Consent Decrees, or Litigation concerning water pollution or other permit violations, if any against the Applicant within the State of Alabama in the past five years (attach additional sheets if necessary):

<u>Facility Name</u>	<u>Permit Number</u>	<u>Type of Action</u>	<u>Date of Action</u>
_____	_____	_____	_____

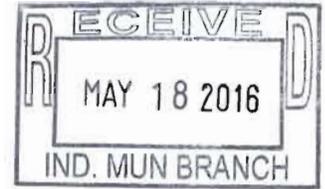
SECTION A- WASTEWATER DISCHARGE INFORMATION

1. List the following historical monthly flow rates recorded for the past five years for each outfall:

<u>Outfall Number</u>	<u>Highest in Last 12 Months MGD</u>	<u>Highest Daily Flow MGD</u>	<u>Average Flow MGD</u>
<u>001</u>	<u>10.63</u>	<u>23.059</u>	<u>0.283</u>
_____	_____	_____	_____
_____	_____	_____	_____

- 2. Attached a process flow schematic of the treatment process, including the size of each unit operation.
- 3. Do you have, or plan to have, automatic sampling equipment or continuous wastewater flow metering equipment at this facility?

Current:	Flow Metering	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
	Sampling Equipment	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	N/A	<input type="checkbox"/>
Planned:	Flow Metering	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	N/A	<input type="checkbox"/>
	Sampling Equipment	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	N/A	<input type="checkbox"/>



If so, please attach a schematic diagram of the sewer system indicating the present or future location of this equipment and describe the equipment below:

4. Are any wastewater collection or treatment modifications or expansions planned during the next three years that could alter wastewater volumes or characteristics? Yes No

Briefly describe these changes and any potential or anticipated effects on the wastewater quality and quantity. (Attach additional sheets if needed.)

SECTION B - WASTE STORAGE AND DISPOSAL INFORMATION

Describe the location of all sites used for the storage of solids or liquids that have any potential for accidental discharge to a water of the state, either directly or indirectly via storm sewer, municipal sewer, municipal wastewater treatment plants, or other collection or distribution systems that are located at or operated by the subject existing or proposed NPDES-permitted facility. Indicate the location of any potential release areas and provide a map or detailed narrative description of the areas of concern as an attachment to this application:

Description of Waste Sludge solids	Description of Storage Location Sludge in Lagoon
<hr/>	<hr/>

Describe the location of any sites used for the ultimate disposal of solid or liquid waste materials or residuals (e.g. sludges) generated by any wastewater treatment system located at the facility.

Description of Waste	Quantity (lbs/day)	Disposal Method*
Sludge in Lagoon	498	None
<hr/>	<hr/>	<hr/>

*Indicate any wastes disposed at an off-site treatment facility and any wastes that are disposed on-site

SECTION C - INDUSTRIAL INDIRECT DISCHARGE CONTRIBUTORS

1. List the existing and proposed industrial source wastewater contributions to the municipal wastewater treatment system (Attach other sheets if necessary)

Company Name	Description of Industrial Wastewater	Existing or Proposed	Flow (MGD)	Subject to SID Permit? Y/N
NONE				

2. Are industrial wastewater contributions regulated via a locally approved sewer use ordinance [Y/N]? If so, please attach a copy of the ordinance.

SECTION D – COASTAL ZONE INFORMATION

Is the discharge(s) located within the 10-foot elevation contour and within the limits of Mobile or Baldwin County?
 Yes [] No [x] If yes, then complete items A through M below:

	YES	NO
A. Does the project require new construction?	_____	_____
B. Will the project be a source of new air emissions?	_____	_____
C. Does the project involve dredging and/or filling of a wetland area or water way?	_____	_____
Has the Corps of Engineers (COE) permit been issued?	_____	_____
Corps Project Number _____		
D. Does the project involve wetlands and/or submersed grassbeds?	_____	_____
E. Are oyster reefs located near the project site? (Include a map showing project and discharge location with respect to oyster reefs)	_____	_____
F. Does the project involve the site development, construction and operation of an energy facility as defined in ADEM Admin. Code R. 335-8-1-.02(bb)?	_____	_____
G. Does the project involve mitigation of shoreline or costal area erosion?	_____	_____
H. Does the project involve construction on beaches or dunes areas?	_____	_____
I. Will the project interfere with public access to coastal waters?	_____	_____
J. Does the project lie within the 100-year floodplain?	_____	_____
K. Does the project involve the registration, sale, use, or application of pesticides?	_____	_____
L. Does the project propose or require construction of a new well or to alter an existing groundwater well to pump more than 50 gallons per day (GPD)?	_____	_____
M. Has the applicable permit for groundwater recovery or for groundwater well installation been obtained?	_____	_____

SECTION E– ANTI-DEGRADATION EVALUATION

It is the applicant's responsibility to demonstrate the social and economic importance of the proposed activity, if subject to antidegradation requirements. In accordance with 40 CFR 131.12 and Section 335-6-10-.04 of the Alabama Department

of Environmental Management Administrative Code, the following information must be provided, if applicable. If further information is required to make this demonstration, attach additional sheets to the application.

1. Is this a new or increased discharge that began after April 3, 1991? Yes No [].
If "yes", complete question 2 below. If "no", do not complete this section.

2. Has an Anti-Degradation Analysis been previously conducted and submitted to the Department for the new or increased discharge referenced in question 1? Yes No [].

If "no", complete questions A through F below and also ADEM forms 311 and 312 or 313, whichever is applicable, (attached). Form 312 or 313, whichever is applicable, must be provided for each treatment discharge alternative considered technically viable. If "yes", do not complete this section.

Information required for new or increased discharges to high quality waters:

- A. What environmental or public health problem will the discharger be correcting?
- B. Explain if and to what degree the discharger will be increasing employment as a result of the proposed discharge, either at its existing facility or as the result of the start-up of a related new facility or industry.
- C. Explain if and to what degree the discharge will prevent employment reductions?
- D. Describe any additional state or local taxes that the prospective discharger will be paying.
- E. Describe any public service the discharger will be providing to the community.
- F. Describe the economic or social benefit the discharger will be providing to the community.

SECTION F – EPA Application Forms

All Applicants must submit certain EPA permit application forms. More than one application form may be required from a municipal facility depending on the number and types of discharges or outfalls. The EPA application forms are found on the Department's website at <http://www.adem.state.al.us/> and are also listed in Attachment 4. The EPA application forms must be submitted to ADEM in duplicate.

SECTION G– ENGINEERING REPORT/BMP PLAN REQUIREMENTS

Any Engineering Report or Best Management Practice (BMP) Plans required to be submitted to ADEM by the applicant must be in accordance with ADEM 335-6-6-.08(i) & (j).

SECTION H– APPLICATION CERTIFICATION

THE INFORMATION CONTAINED IN THIS FORM MUST BE CERTIFIED BY A RESPONSIBLE OFFICIAL AS DEFINED IN ADEM ADMINISTRATIVE RULE 335-6-6-.09 "SIGNATORY REQUIREMENTS FOR PERMIT APPLICATIONS" (SEE BELOW).

"I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS."

"I FURTHER CERTIFY UNDER PENALTY OF LAW THAT THE RESULTS OF ANY ANALYSES REPORTED AS LESS THAN DETECTABLE IN THIS APPLICATION OR IN ATTACHMENTS THERETO WERE PERFORMED USING THE EPA APPROVED TEST METHOD HAVING THE LOWEST DETECTION LIMIT READILY ACHIEVABLE FOR THE SUBSTANCE TESTED."

SIGNATURE OF RESPONSIBLE OFFICIAL: Charles Moore DATE SIGNED: 03/11/2015

(TYPE OR PRINT)

NAME OF RESPONSIBLE OFFICIAL: Charles Moore

OFFICIAL TITLE OF RESPONSIBLE OFFICIAL: Mayor

MAILING ADDRESS: 211 North Main Street
Linden, Alabama 36748

AREA CODE & PHONE NUMBER: (334) 289-5051

SIGNATORY REQUIREMENTS FOR PERMIT APPLICATIONS

Responsible official is defined as follows:

1. In the case of a municipal, state, federal, or other public facility, the responsible official is either a principal executive officer or a ranking elected official of the municipality or other public entity.
2. In the case of a private or semi-public facility, the responsible official is either a principal executive officer or the owner of the corporation or other entity.

Attachment 1 to Supplementary Form ADEM Form 311

Alternatives Analysis

Applicant/Project: Linden HCR Lagoon

All new or expanded discharges (except discharges eligible for coverage under general permits) covered by the NPDES permitting program are subject to the provisions of ADEM's antidegradation policy. Applicants for such discharges to Tier 2 waters are required to demonstrate "... that the proposed discharge is necessary for important economic or social development." As a part of this demonstration, the applicant must complete an evaluation of the discharge alternatives listed below, including a calculation of the total annualized project costs for each technically feasible alternative (using ADEM Form 312 for public-sector projects and ADEM Form 313 for private-sector projects). Alternatives with total annualized project costs that are less than 110% of the total annualized project costs for the Tier 2 discharge proposal are considered viable alternatives.

Alternative	Viable	Non-Viable	Comment
1 Land Application		X	
2 Pretreatment/Discharge to POTW		X	
3 Relocation of Discharge		X	
4 Reuse/Recycle		X	
5 Process/Treatment Alternatives		X	
6 On-site/Sub-surface Disposal		X	
<i>(other project-specific alternatives considered by the applicant; attach additional sheets if necessary)</i>			
7 HCR Lagoon	X		No capital costs required.
8			
9			

<p>Pursuant to ADEM Administrative Code Rule 335-6-3-.04, I certify on behalf of the applicant that I have completed an evaluation of the discharge alternatives identified above, and reached the conclusions indicated.</p>	<p>Signature: <u></u> (Professional Engineer)</p> <p>Date: <u>3-1-15</u></p>
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(Supporting documentation to be attached, referenced, or otherwise handled as appropriate.)

Attachment 2 to Supplementary Form

Calculation of Total Annualized Project Costs for Public-Sector Projects (Land Application)

A. Capital Costs

Capital Cost of Project	\$ <u>3,765,520.00</u>
Other One-Time Costs of Project (Please List, if any):	
_____	\$ _____
_____	\$ _____
_____	\$ _____
Total Capital Costs (Sum column)	\$ <u>3,765,520.00 (1)</u>
 Portion of Capital Costs to be Paid for with Grant Monies	 \$ <u>0 (2)</u>
 Capital Costs to be Financed [Calculate: (1) – (2)]	 \$ <u>3,765,520.00 (3)</u>
 Type of Financing (e.g., G.O. bond, revenue bond, bank loan)	 <u>bank</u>
 Interest Rate for Financing (expressed as decimal)	 <u>5 (i)</u>
 Time Period of Financing (in years)	 <u>20 (n)</u>
 Annualization Factor = $\frac{i}{(1+i)^n - 1} + i$	 <u>0.0802 (4)</u>
 Annualized Capital Cost [Calculate: (3) x (4)]	 \$ <u>302,155.07 (5)</u>

B. Operating and Maintenance Costs

Annual Costs of Operation and Maintenance (including but not limited to: monitoring, inspection, permitting fees, waste disposal charges, repair, administration and replacement.) (Please list below.)

<u>Utilities</u>	\$ <u>10,000</u>
<u>Labor</u>	\$ <u>6,000</u>
_____	\$ _____
_____	\$ _____
 Total Annual O & M Costs (Sum column)	 \$ <u>16,000 (6)</u>

C. Total Annual Cost of Pollution Control Project

Total Annual Cost of Pollution Control Project [(5) + (6)]

\$ 318,155.07 (7)

ADEM Form 312 3/02

(Supporting documentation to be attached, referenced, or otherwise handled as appropriate.)

ADEM Form 311 3/02

Attachment 2 to Supplementary Form

Calculation of Total Annualized Project Costs for Public-Sector Projects (Pretreatment & Dispose to POTW)

D. Capital Costs

Capital Cost of Project	\$ 5,966,268
Other One-Time Costs of Project (Please List, if any):	
_____	\$ _____
_____	\$ _____
_____	\$ _____
Total Capital Costs (Sum column)	\$ 5,966,268 (1)
Portion of Capital Costs to be Paid for with Grant Monies	\$ 0 (2)
Capital Costs to be Financed [Calculate: (1) – (2)]	\$ 5,966,268 (3)
Type of Financing (e.g., G.O. bond, revenue bond, bank loan)	bank
Interest Rate for Financing (expressed as decimal)	5 (i)
Time Period of Financing (in years)	20 (n)
Annualization Factor = $\frac{i}{(1+i)^n - 1} + i$	0.0802 (4)
Annualized Capital Cost [Calculate: (3) x (4)]	\$ 478,748.78 (5)

E. Operating and Maintenance Costs

Annual Costs of Operation and Maintenance (including but not limited to: monitoring, inspection, permitting fees, waste disposal charges, repair, administration and replacement.) (Please list below.)

<u>Utilities</u>	<u>\$ 10,000</u>
<u>Labor</u>	<u>\$ 6,000</u>
_____	<u>\$ _____</u>
_____	<u>\$ _____</u>
Total Annual O & M Costs (Sum column)	<u>\$ 16,000 (6)</u>

F. Total Annual Cost of Pollution Control Project

Total Annual Cost of Pollution Control Project [(5) + (6)]

\$ 494,748.78 (7)

ADEM Form 312 3/02

(Supporting documentation to be attached, referenced, or otherwise handled as appropriate.)

ADEM Form 311 3/02

Attachment 2 to Supplementary Form

Calculation of Total Annualized Project Costs for Public-Sector Projects (Relocation of Discharge)

G. Capital Costs

Capital Cost of Project	<u>\$ 1,210,000</u>
Other One-Time Costs of Project (Please List, if any):	
_____	<u>\$ _____</u>
_____	<u>\$ _____</u>
_____	<u>\$ _____</u>
Total Capital Costs (Sum column)	<u>\$ 1,210,000 (1)</u>
Portion of Capital Costs to be Paid for with Grant Monies	<u>\$ 0 (2)</u>
Capital Costs to be Financed [Calculate: (1) – (2)]	<u>\$ 1,210,000 (3)</u>
Type of Financing (e.g., G.O. bond, revenue bond, bank loan)	<u>bank</u>

_____	\$ _____
_____	\$ _____
Total Capital Costs (Sum column)	\$ 2,120,283.00
(1)	
Portion of Capital Costs to be Paid for with Grant Monies	\$ 0 (2)
Capital Costs to be Financed [Calculate: (1) – (2)]	\$ 2,120,283.00 (3)
Type of Financing (e.g., G.O. bond, revenue bond, bank loan)	bank
Interest Rate for Financing (expressed as decimal)	5 (i)
Time Period of Financing (in years)	20 (n)
Annualization Factor = $\frac{i}{(1+i)^n - 1} + i$	0.0802 (4)
Annualized Capital Cost [Calculate: (3) x (4)]	\$ 107,046.70 (5)

K. Operating and Maintenance Costs

Annual Costs of Operation and Maintenance (including but not limited to: monitoring, inspection, permitting fees, waste disposal charges, repair, administration and replacement.) (Please list below.)

_____ Utilities _____	\$ 10,000 _____
_____ Labor _____	\$ 6,000 _____
_____	\$ _____
_____	\$ _____
Total Annual O & M Costs (Sum column)	\$ 16,000 (6)

L. Total Annual Cost of Pollution Control Project

Total Annual Cost of Pollution Control Project [(5) + (6)]

\$ 186,046.70 (7)

(Supporting documentation to be attached, referenced, or otherwise handled as appropriate.)

ADEM Form 311 3/02

Attachment 2 to Supplementary Form

Calculation of Total Annualized Project Costs for Public-Sector Projects (Process/Treatment Alternatives)

M. Capital Costs

Capital Cost of Project	\$ 3,614,270
Other One-Time Costs of Project (Please List, if any):	
_____	\$ _____
_____	\$ _____
_____	\$ _____
Total Capital Costs (Sum column)	\$ 3,614,270 (1)
Portion of Capital Costs to be Paid for with Grant Monies	\$ 0 (2)
Capital Costs to be Financed [Calculate: (1) – (2)]	\$ 3,614,270 (3)
Type of Financing (e.g., G.O. bond, revenue bond, bank loan)	bank
Interest Rate for Financing (expressed as decimal)	5 (i)
Time Period of Financing (in years)	20 (n)
Annualization Factor = $\frac{i}{(1+i)^n - 1} + i$	0.0802 (4)
Annualized Capital Cost [Calculate: (3) x (4)]	\$ 290,018.38 (5)

N. Operating and Maintenance Costs

Annual Costs of Operation and Maintenance (including but not limited to: monitoring, inspection, permitting fees, waste disposal charges, repair, administration and replacement.) (Please list below.)

Utilities	\$ 6,000
Labor	\$ 4,000
_____	\$ _____

\$ _____

Total Annual O & M Costs (Sum column)

\$ 10,000 (6)

O. Total Annual Cost of Pollution Control Project

Total Annual Cost of Pollution Control Project [(5) + (6)]

\$ 300,018.38
(7)

ADEM Form 312 3/02

(Supporting documentation to be attached, referenced, or otherwise handled as appropriate.)

ADEM Form 311 3/02

Attachment 2 to Supplementary Form

Calculation of Total Annualized Project Costs for Public-Sector Projects (On Site/Subsurface Disposal)

P. Capital Costs

Capital Cost of Project

\$ 3,547,720.00

Other One-Time Costs of Project (Please List, if any):

\$ _____

\$ _____

\$ _____

Total Capital Costs (Sum column)

\$ 3,547,720.00 (1)

Portion of Capital Costs to be Paid for with Grant Monies

\$ 0 (2)

Capital Costs to be Financed [Calculate: (1) – (2)]

\$ 3,547,720.00 (3)

Type of Financing (e.g., G.O. bond, revenue bond, bank loan)

bank

Interest Rate for Financing (expressed as decimal)

5 (i)

Time Period of Financing (in years)

20 (n)

Annualization Factor = $\frac{i}{(1+i)^n - 1} + i$

0.0802 (4)

Annualized Capital Cost [Calculate: (3) x (4)]

\$ 284,678.23 (5)

Q. Operating and Maintenance Costs

Annual Costs of Operation and Maintenance (including but not limited to: monitoring, inspection, permitting fees, waste disposal charges, repair, administration and replacement.) (Please list below.)

<u>Utilities</u>	\$ 15,000
<u>Labor</u>	\$ 10,000
_____	\$ _____
_____	\$ _____
Total Annual O & M Costs (Sum column)	\$ 25,000 (6)

R. Total Annual Cost of Pollution Control Project

Total Annual Cost of Pollution Control Project [(5) + (6)]

\$ 309,678.23
(7)

ADEM Form 312 3/02

**Attachment 3 to Supplementary Form
ADEM Form 313**

**Calculation of Total Annualized Project Costs
for Private-Sector Projects**

Capital Costs to be Financed (Supplied by applicant)	\$ _____ (1)
Interest rate for Financing (Expressed as a decimal)	_____ (i)
Time Period of Financing (Assume 10 years*)	10 years (n)
Annualization Factor = $\frac{i}{(1+i)^{10} - 1} + i$	_____ (2)
Annualized Capital Cost [Calculate: (1) x (2)]	\$ _____ (3)
Annual Cost of Operation and Maintenance (including but not limited to monitoring, inspection, permitting fees, waste disposal charges, repair, administration and replacement)**	\$ _____ (4)
Total Annual Cost of Pollution Control Project [(3) + (4)]	\$ _____ (5)

* While actual payback schedules may differ across projects and companies, assume equal annual payments over a 10-year period for consistency in comparing projects.

** For recurring costs that occur less frequently than once a year, pro rate the cost over the relevant number of years (e.g., for pumps replaced once every three years, include one-third of the cost in each year).

ADEM Form 313 3/02

Attachment 4 to Supplementary Form

NPDES PROGRAM PERMIT APPLICATION FORMS ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

TYPE DISCHARGE	ADEM FORMS	EPA FORMS
New or existing once through non-contact cooling water and/or cooling tower blowdown, and/or sanitary wastewater (non-process wastewater only). Note: POTWs must use Form 2A.	Supplemental Information Form 187 – (Industrial) or Form 188 (Municipal)	Forms 1 and 2E
Existing discharges of process wastewater	Supplemental Information Form 187 – (Industrial) or Form 188 (Municipal)	Forms 1 and 2C
New discharges of process wastewater	Supplemental Information Form 187 – (Industrial) or Form 188 (Municipal)	Forms 1 and 2D
New or existing discharges composed entirely of stormwater meeting the EPA definition of stormwater associated with industrial activity	Supplemental Information Form 187 – (Industrial) or Form 188 (Municipal)	Forms 1 and 2F
New or existing discharges composed of stormwater meeting the EPA definition of stormwater associated with industrial activity, and any other non-stormwater discharges.	Supplemental Information Form 187 – (Industrial) or Form 188 (Municipal)	Forms 1 and 2F and, as appropriate, Forms 2E, 2C, and/or 2D
New or existing Publicly-Owned Treatment Works (POTWs) and Privately-Owned Treatment Works composed of sanitary wastewater	Supplemental Information Form 187 – (Industrial) or Form 188 (Municipal)	Forms 1 and 2A

New or existing land application of process wastewater. Form 2F is required for stormwater runoff from the land application site, if the site is not completely bermed to prevent runoff.	Supplemental Information Form 187	Forms 1, 2F, and 2C or 2D, as appropriate
New or existing land application of sanitary wastewater. Form 2F is required for stormwater runoff from the land application site, if the site is not completely bermed to prevent runoff.	Supplemental Information Form 187 – (Industrial) or Form 188 (Municipal)	Forms 1, 2F, and 2A or 2E, as appropriate

Testing requirements: Test procedures for all analyses shall conform to 40 CFR Part 136. If more than one method of analysis is approved, then the method having the lowest detection level shall be used. Any facilities discharging to mercury impaired surface waters identified by EPA or ADEM [as identified on the latest §303(d) List] and any facility with a discharge that has reasonable potential to cause in-stream exceedence of a Water Quality Based Effluent Limit (WQBEL) shall be required to use EPA Method 1631E.