RHODE ISLAND
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
235 Promenade Street, Providence, Rhode Island 02908

November 16, 2021

CERTIFIED MAIL

Mr. Jeffrey A. Laramee, President
Strawberry Field Estates, Inc.
445 Warwick Industrial Drive
Warwick, RI 02886

RE: Strawberry Field Estates, Inc. Final Permit
RIPDES Application No. RI0023604

Dear Mr. Laramee:

Enclosed is your final Rhode Island Pollutant Discharge Elimination System (RIPDES) Permit issued pursuant to the referenced application. State regulations, promulgated under Chapter 46-12 of the Rhode Island General Laws of 1956, as amended, require this permit to become effective on the date specified in the permit.

Also enclosed is information relative to hearing requests and stays of RIPDES Permits.

We appreciate your cooperation throughout the development of this permit. Should you have any questions concerning this permit, feel free to contact Max Maher of the State Permits Staff at (401) 222-4700, extension 2777201.

Sincerely,

Joseph B. Haberek, P.E.
Acting Administrator of Surface Water Protection

Enclosures

cc: Richard Mandile, SAGE Environmental (Electronic Copy)
Tom Saccoccio, SAGE Environmental (Electronic Copy)
Cathy Racine, SAGE Environmental (Electronic Copy)
Jeff Crawford, DEM/OLRSMM (Electronic Copy)
Kelly Owens, DEM/OLRSMM (Electronic Copy)

RESPONSE TO COMMENTS

NO SIGNIFICANT COMMENTS WERE RECEIVED ON THE DRAFT PERMIT FOR THIS FACILITY; THEREFORE, NO RESPONSE WAS PREPARED.

HEARING REQUESTS

If you wish to contest any of the provisions of this permit, you must request a formal hearing within thirty (30) days of receipt of this letter. The request should be submitted to the Administrative Adjudication Division at the following address:

Mary Dalton, Clerk
Department of Environmental Management
Office of Administrative Adjudication
235 Promenade Street
3rd Floor, Rm 350
Providence, RI 02908

Any request for a formal hearing must conform to the requirements of §1.50 of the Regulations for the Rhode Island Pollutant Discharge Elimination System (RI Code of Regulations; 250-RICR-150-10-1.50).

STAYS OF RIPDES PERMITS

Should the Department receive and grant a request for a formal hearing, the contested conditions of the permit will not automatically be stayed. However, the permittee, in accordance with §1.51 of the Regulations for the Rhode Island Pollutant Discharge Elimination System (RI Code of Regulations; 250-RICR-150-10-1.51), may request a temporary stay for the duration of adjudicatory hearing proceedings. Requests for stays of permit conditions should be submitted to the Office of Water Resources at the following address:

Joseph Haberek, P.E.
Acting Administrator of Surface Water Protection
Office of Water Resources
235 Promenade Street
Providence, Rhode Island 02908

All uncontested conditions of the permit will be effective and enforceable in accordance with the provisions of §1.50 of the Regulations for the Rhode Island Pollutant Discharge Elimination System (RI Code of Regulations; 250-RICR-150-10-1.50).

AUTHORIZATION TO DISCHARGE UNDER THE
RHODE ISLAND POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of Chapter 46-12 of the Rhode Island General Laws, as amended,

Strawberry Field Estates, Inc.
445 Warwick Industrial Drive
Warwick, RI 02886

is authorized to discharge from a facility located at

333 Strawberry Field Road
Warwick, RI 02886

to receiving waters named

Tuscatucket Brook
(Waterbody ID: RI0007025R-05)

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

This permit shall become effective on December 1, 2021.

This permit and the authorization to discharge expire at midnight, five (5) years from the effective date.

This permit supersedes the permit issued on December 21, 2015.

This permit consists of eight (8) pages in Part I including effluent limitations, monitoring requirements, etc. and ten (10) pages in Part II including General Conditions.

Signed this 16th day of November, 2021.

Joseph B. Haberek, P.E., Acting Administrator of Surface Water Protection
Office of Water Resources
Rhode Island Department of Environmental Management
Providence, Rhode Island

A. **EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

1. During the period beginning on the effective date and lasting through permit expiration, the permittee is authorized to discharge from outfall serial number(s) 001A. Such discharges shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations					Monitoring Requirement	
	Quantity - lbs./day		Concentration - specify units				
	Average Monthly	Maximum Daily	Average Monthly	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type
Flow			--- gpm		40 gpm	Continuous	Totalizer
1,1-Dichloroethane			5.0 ug/l		5.0 ug/l	1/ 2-Weeks	Grab
1,1-Dichloroethene			0.57 ug/l		5.0 ug/l	1/ 2-Weeks	Grab
Cis-1,2-Dichloroethene			5.0 ug/l		5.0 ug/l	1/ 2-Weeks	Grab
Trans-1,2-Dichloroethene			5.0 ug/l		5.0 ug/l	1/ 2-Weeks	Grab
Tetrachloroethene			4.24 ug/l		5.0 ug/l	1/ 2-Weeks	Grab
1,1,1-Trichloroethane			5.0 ug/l		5.0 ug/l	1/ 2-Weeks	Grab
1,1,2-Trichloroethane			5.0 ug/l		5.0 ug/l	1/ 2-Weeks	Grab
Trichloroethene			5.0 ug/l		5.0 ug/l	1/ 2-Weeks	Grab
Vinyl Chloride			1.92 ug/l		5.0 ug/l	1/ 2-Weeks	Grab
Chloroethane			5.0 ug/l		5.0 ug/l	1/ 2-Weeks	Grab

--- Signifies a parameter which must be monitored and data must be reported; no limit has been established at this time.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: Outfall 001A (Effluent from the Groundwater Extraction and Treatment System)

Midpoint (between the 1st and 2nd carbon vessels) and effluent (after the final carbon vessel) samples shall be taken a minimum of once every two (2) calendar weeks. Influent samples shall be taken a minimum of once per month. Reporting shall only be required for effluent samples as required in Part I.C of the permit

2. Groundwater Extraction and Treatment System (GWETS):

a. The permittee shall treat all contaminated groundwater using a treatment system (designed to meet the effluent limitations listed in Part I.A.1) which consists of particulate bag filters, an air stripper, and (3) 1,000-pound granular activated carbon (GAC) vessels in series (as described in Part IV of the attached Statement of Basis) or using a treatment system otherwise approved by the Office of Water Resources (OWR). The treatment system shall not be modified without approval from the OWR.

b. Monitoring for the presence of volatile organic compounds (VOCs) at the effluent sample location, after the final GAC unit, shall be performed a minimum of once for each two (2) week period of discharge. Monitoring for the presence of VOCs at the midfluent sample locations, between the 1st and 2nd GAC units, shall be performed a minimum of once for each two- (2) week period of discharge. These locations shall be sampled for the parameters listed in Part I.A.1 of the permit.

c. Monitoring for the presence of VOCs at the influent sample location, prior to the 1st GAC unit, shall be performed a minimum of once per month. The influent sample location shall be sampled for the parameters listed in Part I.A.1 of the permit.

d. When the presence of VOCs is detected at the midpoint sample location (between the 2nd and final GAC units), changeout of the primary and secondary carbon vessels shall be performed within five (5) days of detecting breakthrough.

e. A flow log that includes the rate and duration of flow including the time(s) of day when the flow commences and ceases and a summary of total flow, operations and maintenance activities, and a description of all air stripper cleaning/carbon replacement activities performed during the monitoring period must be submitted with the Discharge Monitoring Reports required under Part I.C.2 of the permit.

f. The treatment system shall be inspected at a minimum of twice per month to assure the system is operating efficiently. As a result of these or any other inspections, appropriate actions shall be taken, as soon as practicable, to resolve any problems discovered during the inspection. Records documenting the inspections and any actions taken shall be retained and made available to the Office of Water Resources upon request.

g. Discharge shall cease and the OWR shall be notified immediately if any of the contaminants listed, are found in the effluent above the limits listed in Part I.A.1 of the permit. At a minimum, the notification shall include a summary of total flow, operation and maintenance activities, and any laboratory results from the last time the carbon filters were replaced to the present. Also, the notification shall include a description of the steps that have or will be taken to prevent future violations, as well as justification as to the appropriateness of such steps. Written documentation of the immediate notification required above shall be submitted to the Office within five (5) days. The discharge may recommence once steps have been taken to ensure the limits will not be exceeded again, and following approval by DEM. At a minimum, these steps shall include cleaning of the air stripper and replacement of the first activated carbon filter.

h. The permittee shall extract all contaminated groundwater according to the site's Order of Approval issued by the DEM's Office of Land Revitalization and Sustainable Materials Management (OLRSMM). This permit authorizes the discharge of groundwater (extracted according to the above-referenced Order of Approval from OLRSMM) treated using the treatment system described in Part IV of the attached Statement of Basis or using a treatment system otherwise approved by the OWR.

3. a. The pH of the effluent shall not be less than 6.5 nor greater than 9.0 standard units at any time, unless these values are exceeded due to natural causes or as a result of the approved treatment processes.

b. The discharge shall not cause visible discoloration of the receiving waters.

c. The effluent shall contain neither a visible oil sheen, foam, nor floating solids at any time.

4. All existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe:

a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

(1) One hundred micrograms per liter (100 ug/l);

(2) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4, 6-dinitro-phenol; and one milligram per liter (1 mg/l) for antimony;

(3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R. §122.21 (g)(7); or

(4) Any other notification level established by the Director in accordance with 40 C.F.R. §122.44(f) and Rhode Island Regulations.

b. That any activity has occurred or will occur which would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

(1) Five hundred micrograms per liter (500 ug/l);

(2) One milligram per liter (1 mg/l) for antimony;

(3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R. §122.21(g)(7); or

(4) Any other notification level established by the Director in accordance with 40 C.F.R. §122.44(f) and Rhode Island Regulations.

c. That they have begun or expect to begin to use or manufacture as an intermediate or final product or by-product any toxic pollutant which was not reported in the permit application.

5. This permit serves as the State's water quality certification for the discharges described herein.

B. DETECTION LIMITS

All analyses of parameters under this permit must comply with the *National Pollutant Discharge Elimination System (NPDES): Use of Sufficiently Sensitive Test Methods for Permit Applications and Reporting* rule. Only sufficiently sensitive test methods may be used for analyses of parameters under this permit. The permittee shall assure that all testing required by this permit, is performed in conformance with methods listed in 40 CFR 136. In accordance with 40 CFR 136, EPA approved analysis techniques, quality assurance procedures and quality control procedures shall be followed for all reports required to be submitted under the Rhode Island Pollutant Discharge Elimination System (RIPDES) program. These procedures are described in "Methods for the Determination of Metals in Environmental Samples" (EPA/600/4-91/010) and "Methods for Chemical Analysis of Water and Wastes" (EPA/600/4-79/020).

If after conducting the complete Method of Standard Additions analysis, the laboratory is unable to determine a valid result, the laboratory shall report "could not be analyzed". Documentation supporting this claim shall be submitted along with the monitoring report. If valid analytical results are repeatedly unobtainable, DEM may require that the permittee determine a method detection limit (MDL) for their effluent or sludge as outlined in 40 CFR 136, Appendix B.

When calculating sample averages for reporting on discharge monitoring reports (DMRs):

1. "could not be analyzed" data shall be excluded, and shall not be considered as failure to comply with the permit sampling requirements;

2. results reported as less than the MDL shall be included as zeros in accordance with the DEM's DMR Instructions, provided that all appropriate EPA approved methods were followed.

Therefore, all sample results shall be reported as: an actual value, "could not be analyzed", or zero. The effluent or sludge specific MDL must be calculated using the methods outlined in 40 CFR 136, Appendix B. Samples which have been diluted to ensure that the sample concentration will be within the linear dynamic range shall not be diluted to the extent that the analyte is not detected. If this should occur the analysis shall be repeated using a lower degree of dilution.

LIST OF TOXIC POLLUTANTS

The following list of toxic pollutants has been designated pursuant to Section 307(a)(1) of the Clean Water Act. The Method Detection Limits (MDLs) represent the required Rhode Island MDLs.

Volatiles		MDL ug/l (ppb)
1V	acrolein	10.0
2V	acrylonitrile	5.0
3V	benzene	1.0
5V	bromoform	1.0
6V	carbon tetrachloride	1.0
7V	chlorobenzene	1.0
8V	chlorodibromomethane	1.0
9V	chloroethane	1.0
10V	2-chloroethylvinyl ether	5.0
11V	chloroform	1.0
12V	dichlorobromomethane	1.0
14V	1,1-dichloroethane	1.0
15V	1,2-dichloroethane	1.0
16V	1,1-dichloroethylene	1.0
17V	1,2-dichloropropane	1.0
18V	1,3-dichloropropylene	1.0
19V	ethylbenzene	1.0
20V	methyl bromide	1.0
21V	methyl chloride	1.0
22V	methylene chloride	1.0
23V	1,1,2,2-tetrachloroethane	1.0
24V	tetrachloroethylene	1.0
25V	toluene	1.0
26V	1,2-trans-dichloroethylene	1.0
27V	1,1,1-trichloroethane	1.0
28V	1,1,2-trichloroethane	1.0
29V	trichloroethylene	1.0
31V	vinyl chloride	1.0

Acid Compounds		MDL ug/l (ppb)
1A	2-chlorophenol	1.0
2A	2,4-dichlorophenol	1.0
3A	2,4-dimethylphenol	1.0
4A	4,6-dinitro-o-cresol	1.0
5A	2,4-dinitrophenol	2.0
6A	2-nitrophenol	1.0
7A	4-nitrophenol	1.0
8A	p-chloro-m-cresol	2.0
9A	pentachlorophenol	1.0
10A	phenol	1.0
11A	2,4,6-trichlorophenol	1.0

Pesticides		MDL ug/l (ppb)
1P	aldrin	0.059
2P	alpha-BHC	0.058
3P	beta-BHC	0.043
4P	gamma-BHC	0.048
5P	delta-BHC	0.034
6P	chlordane	0.211
7P	4,4 ' -DDT	0.251
8P	4,4 ' -DDE	0.049
9P	4,4 ' -DDD	0.139
10P	dieldrin	0.082
11P	alpha-endosulfan	0.031
12P	beta-endosulfan	0.036
13P	endosulfan sulfate	0.109
14P	endrin	0.050
15P	endrin aldehyde	0.062
16P	heptachlor	0.029
17P	heptachlor epoxide	0.040

Pesticides		MDL ug/l (ppb)
18P	PCB-1242	0.289
19P	PCB-1254	0.298
20P	PCB-1221	0.723
21P	PCB-1232	0.387
22P	PCB-1248	0.283
23P	PCB-1260	0.222
24P	PCB-1016	0.494
25P	toxaphene	1.670

Base/Neutral		MDL ug/l (ppb)
1B	acenaphthene*	1.0
2B	acenaphthylene*	1.0
3B	anthracene*	1.0
4B	benzidine	4.0
5B	benzo(a)anthracene*	0.013
6B	benzo(a)pyrene*	0.023
7B	3,4-benzofluoranthene*	0.018
8B	benzo(ghi)perylene*	2.0
9B	benzo(k)fluoranthene*	0.017
10B	bis(2-chloroethoxy)methane	2.0
11B	bis(2-chloroethyl)ether	1.0
12B	bis(2-chloroisopropyl)ether	1.0
13B	bis(2-ethylhexyl)phthalate	1.0
14B	4-bromophenyl phenyl ether	1.0
15B	butylbenzyl phthalate	1.0
16B	2-chloronaphthalene	1.0
17B	4-chlorophenyl phenyl ether	1.0
18B	chrysene*	0.15
19B	dibenzo (a,h)anthracene*	0.03
20B	1,2-dichlorobenzene	1.0
21B	1,3-dichlorobenzene	1.0
22B	1,4-dichlorobenzene	1.0
23B	3,3 ' -dichlorobenzidine	2.0
24B	diethyl phthalate	1.0
25B	dimethyl phthalate	1.0
26B	di-n-butyl phthalate	1.0
27B	2,4-dinitrotoluene	2.0
28B	2,6-dinitrotoluene	2.0
29B	di-n-octyl phthalate	1.0
30B	1,2-diphenylhydrazine (as azobenzene)	1.0
31B	fluoranthene*	1.0
32B	fluorene*	1.0
33B	hexachlorobenzene	1.0
34B	hexachlorobutadiene	1.0
35B	hexachlorocyclopentadiene	2.0
36B	hexachloroethane	1.0
37B	indeno(1,2,3-cd)pyrene*	0.043
38B	isophorone	1.0
39B	naphthalene*	1.0
40B	nitrobenzene	1.0
41B	N-nitrosodimethylamine	1.0
42B	N-nitrosodi-n-propylamine	1.0
43B	N-nitrosodiphenylamine	1.0
44B	phenanthrene*	1.0
45B	pyrene*	1.0
46B	1,2,4-trichlorobenzene	1.0

OTHER TOXIC POLLUTANTS

	MDL ug/l (ppb)
Antimony, Total	3.0
Arsenic, Total	1.0
Beryllium, Total	0.2
Cadmium, Total	0.1
Chromium, Total	1.0
Chromium, Hexavalent	20.0
Copper, Total	1.0
Lead, Total	1.0
Mercury, Total	0.2
Nickel, Total	1.0
Selenium, Total	2.0
Silver, Total	0.5
Thallium, Total	1.0
Zinc, Total	5.0
Asbestos	**
Cyanide, Total	10.0
Phenols, Total	50.0
TCDD	**
MTBE (Methyl Tert Butyl Ether)	1.0
Total Xylene	0.5
Ethanol	2.0 mg/l

*Polynuclear Aromatic Hydrocarbons
**No Rhode Island Department of Environmental Management (RIDEM) MDL

NOTE:

The MDL for a given analyte may vary with the type of sample. MDLs which are determined in reagent water may be lower than those determined in wastewater due to fewer matrix interferences. Wastewater is variable in composition and may therefore contain substances (interferents) that could affect MDLs for some analytes of interest. Variability in instrument performance can also lead to inconsistencies in determinations of MDLs.

C. MONITORING AND REPORTING

1. Monitoring

All monitoring required by this permit shall be done in accordance with sampling and analytical testing procedures specified in Federal Regulations 40 CFR 136.

2. Submittal of DMRs Using NetDMR

Monitoring results obtained during the previous month shall be summarized and reported to DEM in discharge monitoring reports (DMRs) submitted electronically using the NetDMR reporting tool (https://netdmr.epa.gov) no later than the 15th day of the month following the completed reporting period. When the permittee submits DMRs using NetDMR, it is not required to submit hard copies of DMRs to DEM.

3. Submittal of Reports as NetDMR Attachments

Unless otherwise specified in this permit, the permittee must submit electronic copies of documents in NetDMR that are directly related to the DMR. These include the following:

- DMR Cover Letters
- Below Detection Limit summary tables
- Flow logs required under Part I.A.2.e of the permit

All other reports should be submitted to DEM as a hard copy via regular US mail (see Part I.C.4 below).

4. Submittal of Requests and Reports to DEM

The following requests, reports, and information described in this permit shall be submitted as hard copy to the DEM.

A. Transfer of Permit notice
B. Request for changes in sampling location
C. Request for reduction in testing frequency
D. Requests for changes to the approved treatment system
E. Written notifications required under Part II
F. Notice of unauthorized discharges

These reports, information, and requests shall be submitted to DEM by hard copy mail to the following address:

Rhode Island Department of Environmental Management
RIPDES Program
235 Promenade Street
Providence, RI 02908

5. Verbal Reports and Verbal Notifications

Any verbal reports or verbal notifications, if required in Parts I and/or II of this permit, shall be made to the DEM. This includes verbal reports and notifications required under Part II(l)(5) General Requirements. Verbal reports and verbal notifications shall be made to DEM at (401) 222-4700 or (401) 222-3070 at night.

PART II
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DEFINITIONS

GENERAL REQUIREMENTS

(a) Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of Chapter 46-12 of the Rhode Island General Laws and the Clean Water Act (CWA) and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

(1) The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

(2) The CWA provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the CWA is subject to a civil penalty not to exceed $10,000 per day of such violation. Any person who willfully or negligently violates permit conditions implementing Sections 301, 302, 306, 307 or 308 of the Act is subject to a fine of not less than $2,500 nor more than $25,000 per day of violation, or by imprisonment of not more than 1 year, or both.

(3) Chapter 46-12 of the Rhode Island General Laws provides that any person who violates a permit condition is subject to a civil penalty of not more than $5,000 per day of such violation. Any person who willfully or negligently violates a permit condition is subject to a criminal penalty of not more than $10,000 per day of such violation and imprisonment for not more than 30 days, or both. Any person who knowingly makes any false statement in connection with the permit is subject to a criminal penalty of not more than $5,000 for each instance of violation or by imprisonment for not more than 30 days, or both.

(b) Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The permittee shall submit a new application at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Director. (The Director shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)

(c) Need to Halt or Reduce Not a Defense

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

(d) Duty to Mitigate

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

(e) Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures, and, where applicable, compliance with DEM "Rules and Regulations Pertaining to the Operation and Maintenance of Wastewater Treatment Facilities" and "Rules and Regulations Pertaining to the Disposal and Utilization of Wastewater Treatment Facility Sludge." This provision requires the operation of back-up or auxiliary facilities or similar systems only when the operation is necessary to achieve compliance with the conditions of the permit.

(f) Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause, including but not limited to: (1) Violation of any terms or conditions of this permit; (2) Obtaining this permit by misrepresentation or failure to disclose all relevant facts; or (3) A change in any conditions that requires either a temporary or permanent reduction or elimination of the authorized discharge. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

(g) Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege.

(h) Duty to Provide Information

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

(i) Inspection and Entry

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

(1) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

(2) Have access to and copy, at reasonable times any records that must be kept under the conditions of this permit;

(3) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this permit; and

(4) Sample or monitor any substances or parameters at any location, at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the CWA or Rhode Island law.

(j) Monitoring and Records

(1) Samples and measurements taken for the purpose of monitoring shall be representative of the volume and nature of the discharge over the sampling and reporting period.

(2) The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings from continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 5 years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time.

(3) Records of monitoring information shall include:

(i) The date, exact place, and time of sampling or measurements;

(ii) The individual(s) who performed the sampling or measurements;

(iii) The date(s) analyses were performed;

(iv) The individual(s) who performed the analyses;

(v) The analytical techniques or methods used; and

(vi) The results of such analyses.

(4) Monitoring must be conducted according to test procedures approved under 40 CFR Part 136 and applicable Rhode Island regulations, unless other test procedures have been specified in this permit.

(5) The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall upon conviction, be punished by a fine of not more than $10,000 per violation or by imprisonment for not more than 6 months per violation or by both. Chapter 46-12 of the Rhode Island General Laws also provides that such acts are subject to a fine of not more than $5,000 per violation, or by imprisonment for not more than 30 days per violation, or by both.

(6) Monitoring results must be reported on a Discharge Monitoring Report (DMR).

(7) If the permittee monitors any pollutant more frequently than required by the permit, using test procedures approved under 40 CFR Part 136, applicable State regulations, or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.

(k) Signatory Requirement

All applications, reports, or information submitted to the Director shall be signed and certified in accordance with 250-RICR-150-10-1.12 of the Rhode Island Pollutant Discharge Elimination System (RIPDES) Regulations. Rhode Island General Laws, Chapter 46-12 provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than $5,000 per violation, or by imprisonment for not more than 30 days per violation, or by both.

(l) Reporting Requirements

(1) Planned changes. The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility.

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

(3) Transfers. This permit is not transferable to any person except after written notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under State and Federal law.

(4) Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this permit.

(5) Twenty-four hour reporting. The permittee shall immediately report any noncompliance which may endanger health or the environment by calling DEM at (401) 222-4700 or (401) 222-3070 at night.

A written submission shall also be provided within five (5) days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

The following information must be reported immediately:

(i) Any unanticipated bypass which causes a violation of any effluent limitation in the permit; or

(ii) Any upset which causes a violation of any effluent limitation in the permit; or

(iii) Any violation of a maximum daily discharge limitation for any of the pollutants specifically listed by the Director in the permit.

The Director may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

(6) Other noncompliance. The permittee shall report all instances of noncompliance not reported under paragraphs (1), (2), and (5), of this section, at the time monitoring reports are submitted. The reports shall contain the information required in paragraph (l)(5) of the section.

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

(m) Bypass

"Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.

(1) Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (2) and (3) of this section.

(2) Notice.

(i) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten (10) days before the date of the bypass.

(ii) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in 250-RICR-150-10-1.14(R) of the RIPDES Regulations.

(3) Prohibition of bypass.

(i) Bypass is prohibited, and the Director may take enforcement action against a permittee for bypass, unless:

(A) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage, where "severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production;

(B) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

(C) The permittee submitted notices as required under paragraph (2) of this section.

(ii) The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in paragraph (3)(i) of this section.

(n) Upset

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

(1) Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of paragraph (2) of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

(2) Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

(a) An upset occurred and that the permittee can identify the cause(s) of the upset;

(b) The permitted facility was at the time being properly operated;

(c) The permittee submitted notice of the upset as required in 250-RICR-150-10-1.14(R) of the RIPDES Regulations; and

(d) The permittee complied with any remedial measures required under 250-RICR-150-10-1.14(E) of the RIPDES Regulations.

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

(o) Change in Discharge

All discharges authorized herein shall be consistent with the terms and conditions of this permit. Discharges which cause a violation of water quality standards are prohibited. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit. Any anticipated facility expansions, production increases, or process modifications which will result in new, different or increased discharges of pollutants must be reported by submission of a new NPDES application at least 180 days prior to commencement of such discharges, or if such changes will not violate the effluent limitations specified in this permit, by notice, in writing, to the Director of such changes. Following such notice, the permit may be modified to specify and limit any pollutants not previously limited.

Until such modification is effective, any new or increased discharge in excess of permit limits or not specifically authorized by the permit constitutes a violation.

(p) Removed Substances

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner consistent with applicable Federal and State laws and regulations including, but not limited to the CWA and the Federal Resource Conservation and Recovery Act, 42 U.S.C. §§6901 et seq., Rhode Island General Laws, Chapters 46-12, 23-19.1 and regulations promulgated thereunder.

(q) Power Failures

In order to maintain compliance with the effluent limitation and prohibitions of this permit, the permittee shall either:

> In accordance with the Schedule of Compliance contained in Part I, provide an alternative power source sufficient to operate the wastewater control facilities;

or if such alternative power source is not in existence, and no date for its implementation appears in Part I,

> Halt reduce or otherwise control production and/or all discharges upon the reduction, loss, or failure of the primary source of power to the wastewater control facilities.

(r) Availability of Reports

Except for data determined to be confidential under paragraph (w) below, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the DEM, 235 Promenade Street, Providence, Rhode Island 02908. As required by the CWA, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the CWA and under Section 46-12-14 of the Rhode Island General Laws.

(s) State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law.

(t) Other Laws

The issuance of a permit does not authorize any injury to persons or property or invasion of other private rights, nor does it relieve the permittee of its obligation to comply with any other applicable Federal, State, and local laws and regulations.

(u) 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.

(v) Reopener Clause

The Director reserves the right to make appropriate revisions to this permit in order to incorporate any appropriate effluent limitations, schedules of compliance, or other provisions which may be authorized under the CWA or State law. In accordance with 250-RICR-150-10-1.16 and 250-RICR-150-10-1.24 of the RIPDES Regulations, if any effluent standard or prohibition, or water quality standard is promulgated under the CWA or under State law which is more stringent than any limitation on the pollutant in the permit, or controls a pollutant not limited in the permit, then the Director may promptly reopen the permit and modify or revoke and reissue the permit to conform to the applicable standard.

(w) Confidentiality of Information

(1) Any information submitted to DEM pursuant to these regulations may be claimed as confidential by the submitter. Any such claim must be asserted at the time of submission in the manner prescribed on the application form or instructions or, in the case of other submissions, by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, DEM may make the information available to the pubic without further notice.

(2) Claims of confidentiality for the following information will be denied:

(i) The name and address of any permit applicant or permittee;

(ii) Permit applications, permits and any attachments thereto; and

(iii) NPDES effluent data.

(x) Best Management Practices

The permittee shall adopt Best Management Practices (BMP) to control or abate the discharge of toxic pollutants and hazardous substances associated with or ancillary to the industrial manufacturing or treatment process and the Director may request the submission of a BMP plan where the Director determines that a permittee's practices may contribute significant amounts of such pollutants to waters of the State.

(y) Right of Appeal

Within thirty (30) days of receipt of notice of a final permit decision, the permittee or any interested person may submit a request to the Director for an adjudicatory hearing to reconsider or contest that decision. The request for a hearing must conform to the requirements of 250-RICR-150-10-1.50 of the RIPDES Regulations.

DEFINITIONS

1. For purposes of this permit, those definitions contained in the RIPDES Regulations and the Rhode Island Pretreatment Regulations shall apply.

2. The following abbreviations, when used, are defined below.

cu. M/day or M^3/day	cubic meters per day
mg/l	milligrams per liter
ug/l	micrograms per liter
lbs/day	pounds per day
kg/day	kilograms per day
Temp. ^oC	temperature in degrees Centigrade
Temp. ^oF	temperature in degrees Fahrenheit
Turb.	turbidity measured by the Nephelometric Method (NTU)
TNFR or TSS	total nonfilterable residue or total suspended solids
DO	dissolved oxygen
BOD	five-day biochemical oxygen demand unless otherwise specified
TKN	total Kjeldahl nitrogen as nitrogen
Total N	total nitrogen
NH_3-N	ammonia nitrogen as nitrogen
Total P	total phosphorus
COD	chemical oxygen demand
TOC	total organic carbon
Surfactant	surface-active agent
pH	a measure of the hydrogen ion concentration
PCB	polychlorinated biphenyl
CFS	cubic feet per second
MGD	million gallons per day
Oil & Grease	Freon extractable material
Total Coliform	total coliform bacteria
Fecal Coliform	total fecal coliform bacteria
ml/l	milliliter(s) per liter
NO_3-N	nitrate nitrogen as nitrogen
NO_2-N	nitrite nitrogen as nitrogen
NO_3-NO_2	combined nitrate and nitrite nitrogen as nitrogen
$C1_2$	total residual chlorine

RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
235 PROMENADE STREET
PROVIDENCE, RHODE ISLAND 02908

STATEMENT OF BASIS

RHODE ISLAND POLLUTANT DISCHARGE ELIMINATION SYSTEM (RIPDES) PERMIT TO DISCHARGE TO WATERS OF THE STATE

RIPDES PERMIT NO: **RI0023604**

NAME AND ADDRESS OF APPLICANT:

Strawberry Field Estates, Inc.
445 Warwick Industrial Drive
Warwick, RI 02886

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

Strawberry Field Estates, Inc.
333 Strawberry Field Road
Warwick, RI

RECEIVING WATER: **Tuscatucket Brook**
WBID: RI0007025R-05

CLASSIFICATION: **A**

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I. Proposed Action, Type of Facility, and Discharge Location

The above-named applicant has applied to the Rhode Island Department of Environmental Management for reissuance of a RIPDES Permit to discharge into the designated receiving water. The applicant's discharge consists of effluent from a groundwater extraction and treatment system (primary components include four (4) submersible extraction pumps (3 located in wells, 1 located in the extraction trench), a particulate filter, an air stripper, and three (3) 1,000-pound granular activated carbon (GAC) vessels aligned in series). The discharge is to a catch basin located on Strawberry Field Road, which discharges to Tuscatucket Brook. A Site layout and piping and instrumentation diagram of the treatment system are shown in Attachments B and C.

II. Description of Discharge

Strawberry Field Estates, Inc. is the owner of the property at 333 Strawberry Field Road, Warwick, Rhode Island and leases the property. This permit authorizes the discharge of treated groundwater to Tuscatucket Brook from a groundwater extraction and treatment system installed and operated under an Order of Approval issued by the DEM Office of Land Revitalization and Sustainable Materials Management (OLRSMM), formerly known as the Office of Waste Management (OWM). The system is designed to restrict the off-site migration of groundwater impacted with volatile organic compounds and protect down gradient residential properties from the plume of impacted groundwater. Any other discharges are not authorized under this permit.

Discharges of treated groundwater from the Groundwater Extraction and Treatment System are regulated by the conditions in the permit for Outfall 001A. All discharges will be treated by an approved treatment system prior to discharge. A quantitative description of the discharge from Outfall 001 in terms of significant effluent parameters based on Discharge Monitoring Report Data for the past five (5) years is shown in Attachment A. Attachment B includes a site location map and Attachment C includes a piping and instrumentation diagram displaying the components and controls of the above-mentioned treatment system.

III. Permit Limitations and Conditions

The final effluent limitations and monitoring requirements may be found in the permit.

IV. Permit Basis and Explanation of Effluent Limitation Derivation

Variances, Alternatives, and Justifications for Waivers of Application Requirements

No variances or alternatives to required standards were requested or granted.

No waivers were requested or granted for any application requirements per 40 CFR §122.21(j) or (q).

Description of the Facility

The main building at the Site located at 333 Strawberry Field Road in Warwick, Rhode Island was constructed in 1960 for Leesona Corporation with additions constructed throughout the 1960's and also in 1982. Prior to 1960, the property was used as a strawberry farm. The property was used by the Leesona Corporation from 1960 to 1983 for the manufacturing of textile machinery. Operations within the building included machinery manufacturing, metals finishing, steam cleaning, industrial painting, rust proofing, heat treatment of metals, storage, and office space. In 1983, The Lares Group purchased the property and the main building was subdivided into separate tenant spaces. Leesona Corporation continued to operate in a portion of the building until 1985. Due to the presence of VOCs (specifically TCE and 1,1 DCE) in groundwater along the property boundary, the Rhode Island Department of Environmental Management was notified in writing by Strawberry Field Estates, Inc. about the potential off-site migration of groundwater impacted above the Rhode Island Department of Environmental Management (RIDEM) Site

Remediation Regulations GB Groundwater Objectives. Strawberry Field Estates, Inc., proposed to install a Groundwater Extraction and Treatment System (GWETS) as an immediate response to maintain hydraulic control near the Site boundary along Strawberry Field Road and minimize the potential for additional offsite migration of contaminated groundwater. Operation of the GWETS began and was authorized to discharge remediated groundwater under RIDEM RIPDES Order of Approval No. RIO-323 on May 23, 2002. On February 17, 2004 a RIPDES Permit was issued authorizing the discharge from the GWETS at an average monthly flowrate of 10 gpm with a maximum daily flow limit of 20 gpm.

On May 4, 2004, the RIPDES program issued a minor modification to increase the system sampling frequency from 2/month to 1/week in response to the potential for increased flow rates and influent concentrations being passed through the granular activated carbon treatment system as a result of the addition of a groundwater extraction trench. At the time the minor modification was issued, DEM made Strawberry Field Estates, Inc. aware that anticipated changes in flow due to the addition of the extraction trench may also warrant the need for a major permit modification to increase the permitted system flow rate. In response to this recommendation, on July 29, 2004, Strawberry Field Estates, Inc. submitted a request to formally modify the existing RIPDES permit. The request involved an increase in the monthly average flowrate from 10 gpm to 20 gpm, with an increase in the maximum daily flowrate from 20 gpm to 30 gpm. In order to maintain the recommended sixty (60) days of breakthrough time through the carbon treatment system, Strawberry Field Estates, Inc. also proposed to increase the carbon capacity on site from two (2) 1000-pound carbon vessels to three (3) 2000lb carbon vessels aligned in series. As a result of the system changes, the groundwater extraction and treatment system primary components were upgraded to include four (4) submersible extraction pumps (3 located in wells, 1 located in the extraction trench), a particulate filter, and three (3) 2,000 pound granular activated carbon (GAC) vessels aligned in series. On February 2, 2005, the RIPDES program issued a major modification to the discharge permit that increased the permitted flow rates to 20 gpm (monthly average) and 30 gpm (daily maximum). In addition, because the breakthrough time was estimated to be approximately 58 days, the monitoring frequency was reduced from 1/week to once every two (2) calendar weeks. No other permit conditions, including pollutant effluent limitations were changed in the permit modification.

On January 8th and January 29, 2009, Sage Environmental, Inc., on behalf of Strawberry Field Estates, Inc., requested, as part of the permit renewal application, a further increase in the treatment system flow rate from 20 gpm monthly average and 30 gpm daily maximum to 30 gpm monthly average and 40 gpm daily maximum. The increased flow was necessary in order to maximize the extraction rates from the groundwater extraction wells and trench located at the site to ensure that there is no offsite migration of contaminated groundwater. RIDEM's Office of Waste Management agreed that the increased flow was necessary. Therefore, Sage Environmental, Inc. compiled maximum concentrations of contaminants of concern treated by the groundwater extraction and treatment system for a two-year period (December 2006 through December 2008). This data was generated from the treatment system influent concentrations reported on past Discharge Monitoring Reports for this period. Using the maximum concentrations detected for each pollutant in the influent over the two-year period, Sage Environmental, Inc. performed a revised carbon consumption estimate for the three (3) 2,000 lb carbon vessels at the proposed maximum flow rate of 40 gpm. Based on the results of the carbon consumption calculations, carbon breakthrough was estimated to be 68 days at the proposed maximum flow rate of 40 gpm. This design estimate of 68 days exceeds the 60-day minimum breakthrough requirement for RIPDES permitted carbon treatment systems. Based on this information, the RIPDES Program had determined that an increase in the permitted discharge flow rates through the treatment system was acceptable.

In October 2014, the RIPDES Program performed a compliance evaluation inspection of the GWETS as part of the permit reissuance process. As noted during the inspection the GWETS was being operated with one of the 2,000-pound activated carbon vessels replaced with a carbon drum due to corrosion issues with the steel carbon vessel. On-site representatives noted that system flow rates had been significantly lower than the design flows and that upgrading of the

steel vessels to fiberglass vessels would be necessary and that the system may be downsized due to low yields being generated from the extraction wells. Following the inspection a letter was sent to Sage Environmental (Sage) and Strawberry Field Estates requiring either replacement of the carbon drum with a 2,000 pound vessel per the existing permit, or to attain Office of Waste Management (OWM) approval to modify the system and amend the NPDES application and provide a complete description of the revised GWETS. On December 22, 2014 Sage submitted a GWETS modification request to OWM for the replacement of the three (3) steel carbon vessels with (3) 1,000-pound fiberglass units capable of 20 gpm flow and treatment rates. Though the GWETS was designed to pump and treat 40 gpm, hydraulic control has been demonstrated at a much lower flow rate with the addition of the trench recovery well. OWM approved the proposed changes to the GWETS on December 29, 2014. Following OWM approval Sage submitted an updated NPDES Form 2C to the RIPDES Program on March 11, 2015 that included a revised Form 2C, process diagram, manufacturer specification sheet for the 1,000 pound carbon units, carbon breakthrough design calculations, and updated groundwater influent data for the past year (February 2014 – January 2015). Upon review of the March 11th updated NPDES Form 2C submittal, it was noted in a March 26, 2015 comment letter from the RIPDES Program that the breakthrough time for the 3,000 pounds of carbon was 65.6 days for a design flow rate of 8 gpm. However, the December 22nd GWETS modification letter identified the (3) 1,000-pound units were capable of 20 gpm treatment and flow rates. RIPDES requested Sage to either propose a revised maximum/design flow rate for the GWETS or increase the quantity of activated carbon in order to meet the 60-day breakthrough time required by the DEM for activated carbon treatment systems. In an April 9, 2015 comment response letter from Sage, it was noted that the overall flow rate of the system would not exceed 10 gpm based on current conditions, and operational history with just the recovery trench has shown flow rates no greater than 8 gpm. Sage re-evaluated the system carbon usage based upon a 10 gpm maximum continual flow rate and using that rate and the highest detected analyte concentrations from February 2014 through January 2015 a breakthrough time of 52.5 days was calculated. Upon consulting with the OWM regarding the decrease in maximum system capacity to 10 gpm, the OWM concurred that the 10 gpm flow rate would be adequate to maintain hydraulic control of the site based on groundwater data from the site utilizing just the recovery trench. Due to the compromised state of the existing activated carbon vessels and need to maintain hydraulic control of the site, on April 15, 2015 the RIPDES Program authorized Sage to replace the three (3) steel vessels with (3) 1,000 pound fiberglass units with the intent that the system will be operated within the 10 gpm proposed maximum flow rate. Based on the above information, the RIPDES Program decreased the permitted flow rates to monitor only (monthly average) and 10 gpm (daily maximum). No pollutant effluent limitations were changed in the permit.

In April 2021, Sage requested several process changes from RIPDES and OLRSMM based on increased migration of contaminants from the site. CVOCs had migrated offsite above RIDEM Method 1 GB Groundwater Objectives. Sage requested piloting the addition of an air stripper in the treatment system before the carbon vessels. The purpose of this pilot was to evaluate the cost of operation of an air stripper versus increased costs associated with more frequent carbon changeouts and offsite shipment of the spent carbon for regeneration. Sage also requested an increase in the maximum daily permitted flow rate and to reauthorize the use of the 3 vertical extraction wells (EX-1 through EX-3) to control migration of CVOCs and to increase hydraulic control of the site.

Monitoring of the treatment system at the midpoint and effluent monitoring locations will continue to be required at a frequency of twice per month and monthly for the influent. Reporting shall only be required for effluent samples.

Strawberry Field Estates' most recent RIPDES permit, authorizing discharges from the above-mentioned facility, was issued on December 21, 2015. This permit became effective on January 1, 2016 and expired on January 1, 2021. The facility submitted an application for permit reissuance to the DEM on July 31, 2020. On August 7, 2020, the DEM issued an application complete letter to the facility. In accordance with 250-RICR-150-10-1 §13 of the Regulations for the Rhode Island Pollutant Discharge Elimination System, the facility's January 1, 2016 permit remains in effect since

the DEM has determined that a timely and complete permit application was submitted. Once this permit is reissued, it will supersede the January 1, 2016 permit. The facility does not have an industrial pretreatment program.

Receiving Water Description

Outfall 001 discharges to Tuscatucket Brook in the segment defined as water body ID number RI0007025R-05. This segment is described as Tuscatucket Brook in the City of Warwick. This segment is located in Warwick and is classified as a Class A water body according to the RI Water Quality Regulations with a warm water fishery designation. Class A waters are designated for primary and secondary contact recreational activities and for fish and wildlife habitat. They shall be suitable for compatible industrial processes and cooling, hydropower, aquacultural uses, navigation, and irrigation and other agricultural uses. These waters shall have excellent aesthetic value. Freshwater rivers and streams, and lakes and ponds are designated cold water, warm water or unassessed based upon the potential for the presence of brook trout by evaluating current and historical presence/absence information, habitat, water quality and physical characteristics data. Currently, this water body is not listed as being impaired.

General Requirements

The requirements set forth in this permit are from the State's Water Quality Regulations and the State's Regulations for the Rhode Island Pollutant Discharge Elimination System, both filed pursuant to RIGL Chapter 46-12, as amended. DEM's primary authority over the permit comes from EPA's delegation of the program in September 1984 under the Federal Clean Water Act.

Under Section 301 (b)(1)(C) of the CWA, discharges are subject to effluent limitations based on water quality standards. The Rhode Island Water Quality Standards include a narrative statement that prohibits the discharge of any pollutant or combination of pollutants in quantities that would be toxic or injurious to aquatic life. In addition, the State has adopted EPA's numerical criteria for specific toxic pollutants and toxicity criteria as published in the EPA Quality Criteria for Water, 1986, (EPA 440/5-86-001) as amended.

The effluent monitoring requirements have been specified in accordance with RIPDES regulations as well as 40 CFR 122.41 (j), 122.44 (I), and 122.48 to yield data representative of the discharge.

The remaining general and specific conditions of the permit are based on the RIPDES regulations as well as 40 CFR Parts 122 through 125 and consist primarily of management requirements common to all permits.

Explanation of Effluent Limitation Derivation and Conditions

Development of RIPDES permit limitations is a multi-step process consisting of the following steps: identifying applicable technology-based limits; calculating allowable water-quality based discharge levels based on in-stream criteria, background data and available dilution; establishing Best Professional Judgement (BPJ) limits in accordance with Section 402 of the CWA; and assigning the most stringent as the final discharge limitations.

Water quality criteria are comprised of numeric and narrative criteria. Numeric criteria are scientifically derived ambient concentrations developed by EPA or States for various pollutants of concern to protect human health and aquatic life. Narrative criteria are statements that describe the desired water quality goal. A technology-based limit is a numeric limit, which is determined by examining the capability of a treatment process to reduce or eliminate pollutants.

The draft RIDES permit for Strawberry Field Estates, Inc., authorizing the discharge of treated effluent from the Groundwater Extraction and Treatment System, includes numeric effluent limitations and requires the implementation of proper operation and maintenance procedures and

inspection protocols for additional protection of the environment. The effluent parameters in the draft permit are discussed in more detail below following the effluent limitation derivation for the one Outfall being regulated by this permit.

Flow Limits

The facility's maximum daily flow limit of 40 gpm is based on the increased pumping rate needed to control offsite migration of contaminants consistent with RIDEM Method 1 GB Groundwater Objectives.

Water Quality Based Permit Limitations

The Rhode Island Water Quality Regulations at 250-RICR-150-05-1.18(N)(1) require in-stream concentrations of discharged pollutants to be determined by specific formulas, or other methods which may be found to be acceptable. These formulas require the use of the seven-day, 10 year, low flow of the receiving stream immediately upstream of the discharge to be used in calculating the concentrations of discharged pollutants for the purpose of developing RIPDES permit conditions. This 7Q10 value is protective of water quality standards under critical flow conditions. Since the discharge from the groundwater treatment system enters Tuscatucket Brook and there no dilution data available for the point of discharge, a dilution factor of one (1) was used in the determination of applicable water quality-based discharge limitations.

Allowable water quality-based effluent limitations were established based on the Class A freshwater acute and chronic aquatic life criteria and human health criteria specified in §1.26(J) of the Rhode Island Water Quality Regulations, using 80% allocation when no background data is available and 90% allocation when background data is available. There is no background data available, therefore, the allowable water quality-based discharge levels were calculated as follows:

$$Limit_1 = (DF)^* (Criteria)^*(80\%)$$

In accordance with 40 CFR 122.44(d)(1)(iii), water quality-based effluent limitations are only required for those pollutants in the discharge that have the reasonable potential to cause or contribute to the exceedence of in-stream criteria. In order to evaluate the need for permit limits, the allowable monthly average (chronic) and allowable maximum daily (acute) discharge concentrations are compared to the monthly average and maximum daily Discharge Monitoring Report (DMR) data for the site. Due to the nature of the contaminated groundwater and treatment system, DEM has previously determined that the discharge has a reasonable potential to cause or contribute to an excursion above the State water quality criteria for: 1,1-Dichloroethylene, Tetrachloroethylene, 1,2-Trans-Dichloroethylene, 1,1,1-Trichloroethane, 1,1,2-Trichlorethane, Trichloroethylene, and Vinyl Chloride. Accordingly, the permit must establish effluent limits for these parameters. Water quality-based "Monthly Average" limits were assigned for tetrachloroethylene and vinyl chloride. A comparison of the remaining calculated water quality-based limits and the BPJ-based effluent limits established in previous permits shows that the BPJ-based limits are more stringent. Therefore, for the remaining parameters (i.e. the Tetrachloroethylene and Vinyl Chloride "Maximum Daily" and the 1,1-Dichloroethylene, 1,2-Trans-Dichloroethylene, 1,1,1-Trichloroethane, 1,1,2-Trichlorethane, and Trichloroethylene "Monthly Average" and "Daily Maximum"), the BPJ-based limits described below were established. Clean Water Act section 402(o)(1) prohibits the relaxation of technology-based effluent limits that are established on a case-by-case basis using BPJ. The water quality-based effluent limit calculations and a comparison of the DMR and permit application data to determine reasonable potential are included in Attachments D and E.

The "Maximum" and "Minimum" pH limitations are based upon §1.10(D)(1), Class-Specific Criteria – Fresh Waters of the Rhode Island Water Quality Regulations, adopted in accordance with Chapter 42-35 pursuant to Chapters 46-12 and 42-17.1 of the Rhode Island General Laws of 1956, as amended.

Technology Based Permit Limitations

DEM is required to consider technology and water quality requirements when developing permit effluent limits. Technology based treatment requirements represent the minimum level of control that must be imposed under Section 402 and 301(b) of the Act (see 40 CFR 125 Subpart A) to meet Best Practicable Control Technology Currently Available (BPT), Best Conventional Control Technology (BCT) for conventional pollutants, and Best Available Technology Economically Achievable (BAT) for toxic pollutants. In the absence of technology-based guidelines, DEM is authorized to use Best Professional Judgement (BPJ) to establish effluent limitations, in accordance with Section 402(a)(1) of the CWA. Since the Environmental Protection Agency has not promulgated technology-based standards for this discharge, DEM developed BPJ limits.

BPJ Based Permit Limitations

The selected granular activated carbon technology is proven to be able to remove VOCs and CVOCs to a concentration below the Method Detection Limit (MDL). However, experience with systems of mixed contaminants has shown that intermittent slugs of more easily retained contaminants may enter the system and displace less easily adsorbed contaminants like CVOCs. Also, laboratory and field contamination or instrument noise could cause false positives at the method detection limit (MDL). As a result, BPJ limits of five (5) times the MDLs for the CVOC pollutants of concern have been assigned. The limits are achievable by using the proposed groundwater treatment system.

WET Testing

The biomonitoring requirements are set forth in 40 CFR 131.11 and in the State's Water Quality Regulations, containing narrative conditions at 250-RICR-150-05-1.10(B) that state, at a minimum, all waters shall be free of pollutants in concentrations or combinations or from anthropogenic activities subject to these regulations that: adversely affect the composition of fish and wildlife; adversely affect the physical, chemical, or biological integrity of the habitat; interfere with the propagation of fish and wildlife; adversely alter the life cycle functions, uses, processes, and activities of fish and wildlife; or adversely affect human health. DEM has determined that limits to ensure that the above water quality criteria are met are appropriately captured in the BPJ-Based Limitations on VOCs and CVOCs. Therefore, Whole Effluent Toxicity (WET) limits were not established in the permit.

Final Permit Limitations

BPJ limits are the most stringent limitations, when compared to water quality or technology-based limits. As a result, BPJ limits have been assigned to all pollutants of concern. The only exceptions to the use of BPJ based effluent limitations are in the cases of the following pollutants of concern: Vinyl Chloride, Tetrachloroethene, and 1,1 Dichloroethylene. In the case of these three pollutants water quality-based limitations were more stringent than the technology-based limit of 5 ug/l assigned to the other pollutants of concern. The water quality-based limit for vinyl chloride, calculated using the previously mentioned equation, is 1.92 ug/l for the monthly average. No criterion exists for the daily maximum or acute criteria. As a result, a combination of water quality and technology-based limitations have been assigned in the permit for Vinyl Chloride. The resulting limits for Vinyl Chloride are 1.92 ug/l monthly average and 5.0 ug/l daily maximum. The water quality-based limits applicable to tetrachloroethene are 4.24 ug/l for the monthly average and 192 ug/l for the daily maximum or acute criteria. As a result, a combination of water quality and technology-based limitations have been assigned in the permit for tetrachloroethene. The resulting limits for tetrachloroethene are 4.24 ug/l monthly average and 5.0 ug/l daily maximum. Monthly Average limitations assigned for 1,1 Dichloroethylene are also more stringent than BPJ based limitations and have been carried forward from the previous permit in order to comply with antibacksliding requirements. The applicable limitations assigned for 1,1 Dichloroethylene are 0.57 ug/l monthly average and 5.0 ug/l daily maximum. The pH limits were set equal to the water quality-based pH limits previously mentioned.

Antibacksliding/Antidegradation

EPA's antibacksliding provision at 40 CFR §122.44(l) prohibit the relaxation of permit limits, standards, and conditions unless the circumstances on which previous permit was based have materially and substantially changed since the time the permit was issued.

The limits in the draft permit are no less stringent than what are in the previous permit. Therefore, since all the permit limits are at least as stringent as those from the previous permit, this permit satisfies the antibacksliding provisions at 40 CFR §122.44(l).

The permit authorizes a higher maximum daily flow rate (40 gpm) than the 2015 permit issuance (10 gpm). Given that this also authorizes a higher mass loading of pollutants from the discharge into Tuscatucket Brook, DEM evaluated the applicability of the Rhode Island Antidegradation Policy to the increased permitted flow rate. The State Antidegradation Policy is set out in the Rhode Island Water Quality Regulations at §1.27. §1.27(C)(1) states that when reviewing an activity for consistency with the Antidegradation Policy, DEM must first determine is the proposed activity is a new or increased activity. §1.27(C)(1)(b)(2) states that for discharges covered by existing RIPDES permits, "an evaluation of an increased loading shall constitute a comparison of the present permit limit with the newly calculated permit limit. If the new permit limit is less than or equal to the old limit, it would not be considered an increased activity. If the comparison indicates that the new permit limit is greater than the old limit, it would be considered an increased activity." Since there is an increased activity according to the Rhode Island Water Quality Regulations, the limit needs to be reviewed for consistency with the Antidegradation Implementation Policy.

Rhode Island's Antidegradation Policy is set out in DEM's "Policy on the Implementation of the Antidegradation Provisions of the Rhode Island Water Quality Regulations July 2006" (the Policy), which establishes four tiers of water quality protection:

Tier 1. In all surface waters, existing uses and the level of water quality necessary to protect the existing uses shall be maintained and protected.

Tier 2. In waters where the existing water quality criteria exceeds the levels necessary to support the propagation of fish and wildlife and recreation in and on the water, that quality shall be maintained and protected except for insignificant changes in water quality as determined by the Director and in accordance with the Antidegradation Implementation Policy, as amended. In addition, the Director may allow significant degradation, which is determined to be necessary to achieve important economic or social benefits to the State in accordance with the Antidegradation Policy.

Tier 2½. Where high quality waters constitute Special Resource Protection Waters SRPWs, there shall be no measurable degradation of the existing water quality necessary to protect the characteristics which cause the waterbody to be designated a SRPW. Notwithstanding that all public drinking water supplies are SRPWs, public drinking water suppliers may undertake temporary and short-term activities within the boundary perimeter of a public drinking water supply impoundment for essential maintenance or to address emergency conditions in order to prevent adverse effect on public health or safety. These activities must comply with the requirements set forth in Tier 1 and Tier 2.

Tier 3. Where high quality waters constitute an Outstanding Natural Resource ONRWs, that water quality shall be maintained and protected. The State may allow some limited activities that result in temporary or short-term changes in the water quality of an ONRW. Such activities must not permanently degrade water quality or result in water quality lower than necessary to protect the existing uses in the ONRW.

The formulas previously presented ensure that permit limitations are based upon water quality criteria and methodologies established to ensure that all designated uses will be met.

In terms of the applicability of Tier 2 of the Policy, a water body is assessed as being high quality on a parameter-by-parameter basis. In accordance with Part II of the Policy, "Antidegradation applies to all new or increased projects or activities which may lower water quality or affect existing water uses, including but not limited to all 401 Water Quality Certification reviews and any new, reissued, or modified RIPDES permits." Part VI.A of the Policy indicates that it is not applicable to activities which result in insignificant (i.e., short-term minor) changes in water quality and that significant changes in water quality will only be allowed if it is necessary to accommodate important economic and social development in the area in which the receiving waters are located (important benefits demonstration). Part VI.B.4 of the Policy states that: "Theoretically, any new or increased discharge or activity could lower existing water quality and thus require the important benefits demonstration. However, DEM will: 1) evaluate applications on a case-by-case basis, using BPJ and all pertinent and available facts, including scientific and technical data and calculations as provided by the applicant; and 2) determine whether the incremental loss is significant enough to require the important benefits demonstration described below. [If not then as a general rule DEM will allocate no more than 20%.] Some of the considerations which will be made to determine if an impact is significant in each site specific decision are: 1) percent change in water quality parameter value and their temporal distribution; 2) quality and value of the resource; 3) cumulative impact of discharges and activities on water quality to date; 4) measurability of the change; 5) visibility of the change; 6) impact on fish and wildlife habitat; and 7) impact on potential and existing uses. As a general guide, any discharge or activity which consumes greater than 20% of the remaining assimilative capacity may be deemed significant and invoke full requirements to demonstrate important economic or social benefits."

DEM has determined that allowing the increase in activity (i.e. the higher flow limit) is consistent with the State's Antidegradation Policy. As of April 2021, CVOCs have migrated offsite above RIDEM Method 1 GB Groundwater Objectives. Allowing a higher flow rate will help control offsite migration and ensure that more contaminated groundwater, which can impact surface water quality through groundwater seepage, receives treatment. Therefore, although the permitted flow rate of treated groundwater is increased under the permit, this increased permitted flow rate enables DEM to control the flow of untreated groundwater into Tuscatucket Brook, resulting in an overall decrease of pollutants discharge to surface waters and, as a result, the permit is consistent with the State's Antidegradation Policy.

V. Comment Period, Hearing Requests, and Procedures for Final Decisions

All persons, including applicants, who believe any condition of the draft permit is inappropriate must raise all issues and submit all available arguments and all supporting material for their arguments in full by close of the public comment period, to the Rhode Island Department of Environmental Management, Office of Water Resources, 235 Promenade Street, Providence, Rhode Island, 02908-5767. Any person, prior to such date, may submit a request in writing for a public hearing to consider the draft permit to the Rhode Island Department of Environmental Management. Such requests shall state the nature of the issues proposed to be raised in the hearing. A public hearing may be held after at least thirty (30) days public notice whenever the Director finds that the response to this notice indicates significant public interest. In reaching a final decision on the draft permit the Director will respond to all significant comments and make these responses available to the public at DEM's Providence Office.

Following the close of the comment period, and after a public hearing, if such hearing is held, the Director will issue a final permit decision and forward a copy of the final decision to the applicant and each person who has submitted written comments or requested notice. Within thirty (30) days following the notice of the final permit decision any interested person may submit a request for a formal hearing to reconsider or contest the final decision. Requests for formal hearings must satisfy the requirements of 250-RICR-150-10-1.50 of the Regulations for the Rhode Island Pollutant Discharge Elimination System.

VI. DEM Contact

Additional information concerning the permit may be obtained between the hours of 8:30 a.m. and 4:00 p.m., Monday through Friday, excluding holidays, from:

Max Maher, Environmental Engineer I
Department of Environmental Management/Office of Water Resources
235 Promenade Street
Providence, Rhode Island 02908
Telephone: (401) 222-4700, ext. 2777201
Email: maximilian.maher@dem.ri.gov

9/20/2021
Date

Joseph B. Haberek, P.E.
Environmental Engineer IV
RIPDES Permitting Section
Office of Water Resources
Department of Environmental Management

ATTACHMENTS

ATTACHMENT A

DESCRIPTION OF DISCHARGES: Treated Groundwater

DISCHARGE: 001A – Effluent from Groundwater Extraction and Treatment System

AVERAGE EFFLUENT CHARACTERISTICS AT POINT OF DISCHARGE:

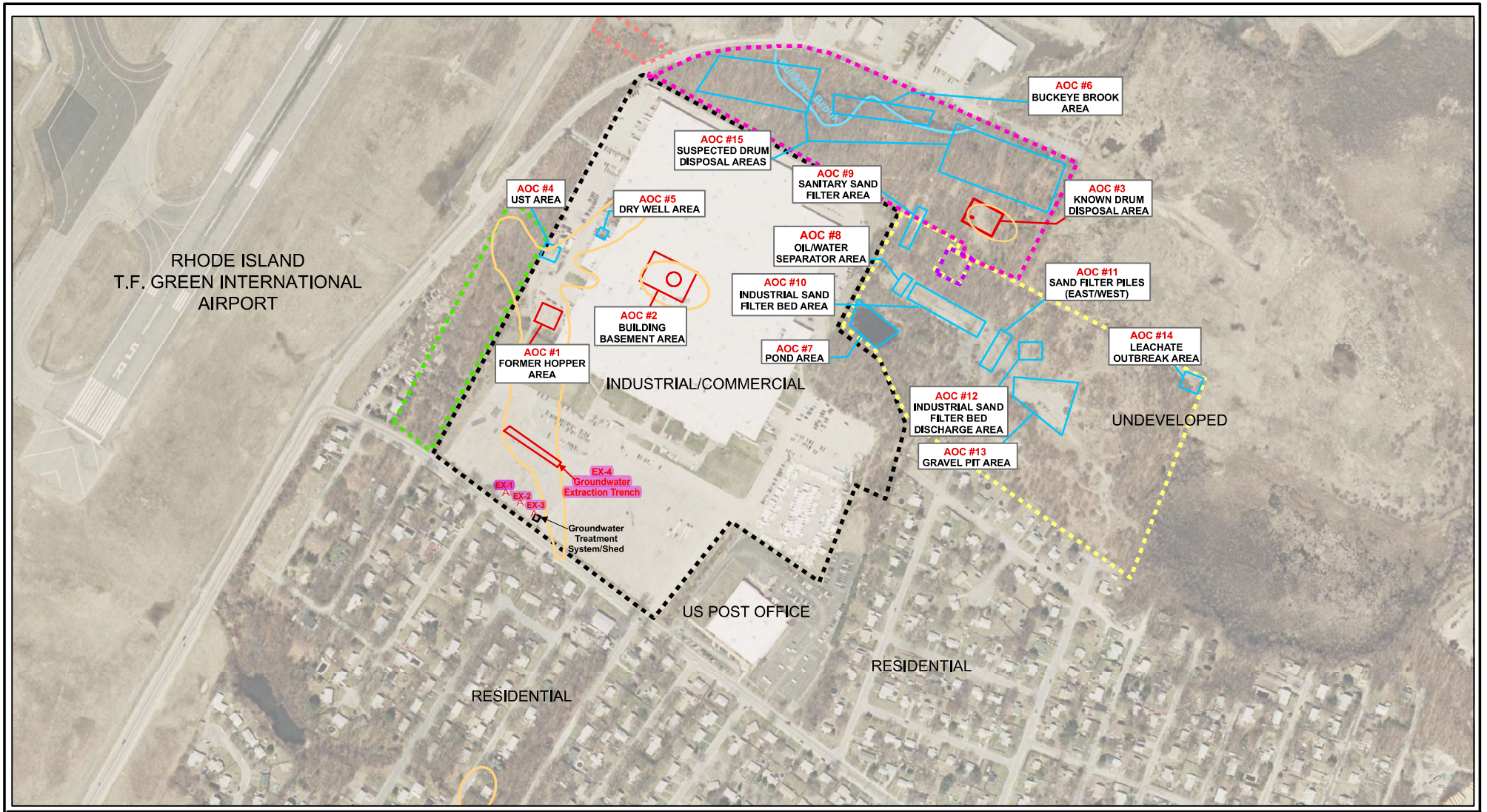
PARAMETER	**AVERAGE[1]**	**MAXIMUM[2]**
FLOW (GPM)	6.48 GPM	6.96 GPM
1,1-Dichloroethane	0.16 ug/l	0.23 ug/l
1,1-Dichloroethene	0.00 ug/l	0.00 ug/l
Cis-1,2-Dichloroethene	0.03 ug/l	0.04 ug/l
Trans-1,2-Dichloroethene	0.00 ug/l	0.00 ug/l
Tetrachloroethene	0.00 ug/l	0.00 ug/l
1,1,1-Trichloroethane	0.00 ug/l	0.00 ug/l
1,1,2-Trichloroethane	0.00 ug/l	0.00 ug/l
Trichloroethene	0.00 ug/l	0.00 ug/l
Vinyl Chloride	0.00 ug/l	0.00 ug/l
Chloroethane	0.01 ug/l	0.01 ug/l

[1]Data represents the mean of the monthly average data from January 2016 through April 2021.
[2]Data represents the mean of the daily maximum data from January 2016 through April 2021.

ATTACHMENT B

STRAWBERRY FIELD ESTATES, INC.

SITE LOCATION MAP



SAGE Environmental, Inc

Figure 2

Site Location

Not to Scale

Active Area of Concern
Inactive Area of Concern
Groundwater above GB Criteria (Plume)

Approximate Plat/Lot Boundaries

Plat/Lot/Unit	Address	AOCs
32500220000	Warwick Industrial Drive	None
32500150000	461 Strawberry Field Road	1, 2 & 5 (has impacted GW)
34204300000	Strawberry Field Road	Cemetary Lot
34204330000	322 Strawberry Field Road	7, 8, 9, 10, 11, 12, 13 & 14
34200040001	333 Strawberry Field Road	***1***, ***2***, 4 & 5
34204340000	Industrial Drive	***3***, 6, 9 & 15

AOCs and Assessor's Map
333 Strawberry Field Road
Warwick, Rhode Island

DATE:	09/17/08	JOB#:	R041
CREATED BY:	DAK	FILENAME:	AOC and Assessor Map.mxd

GIS Scale 1:3,800

Courtesy of RIGIS

ATTACHMENT C

STRAWBERRY FIELD ESTATES, INC.

PIPING AND INSTRUMENTATION DIAGRAM

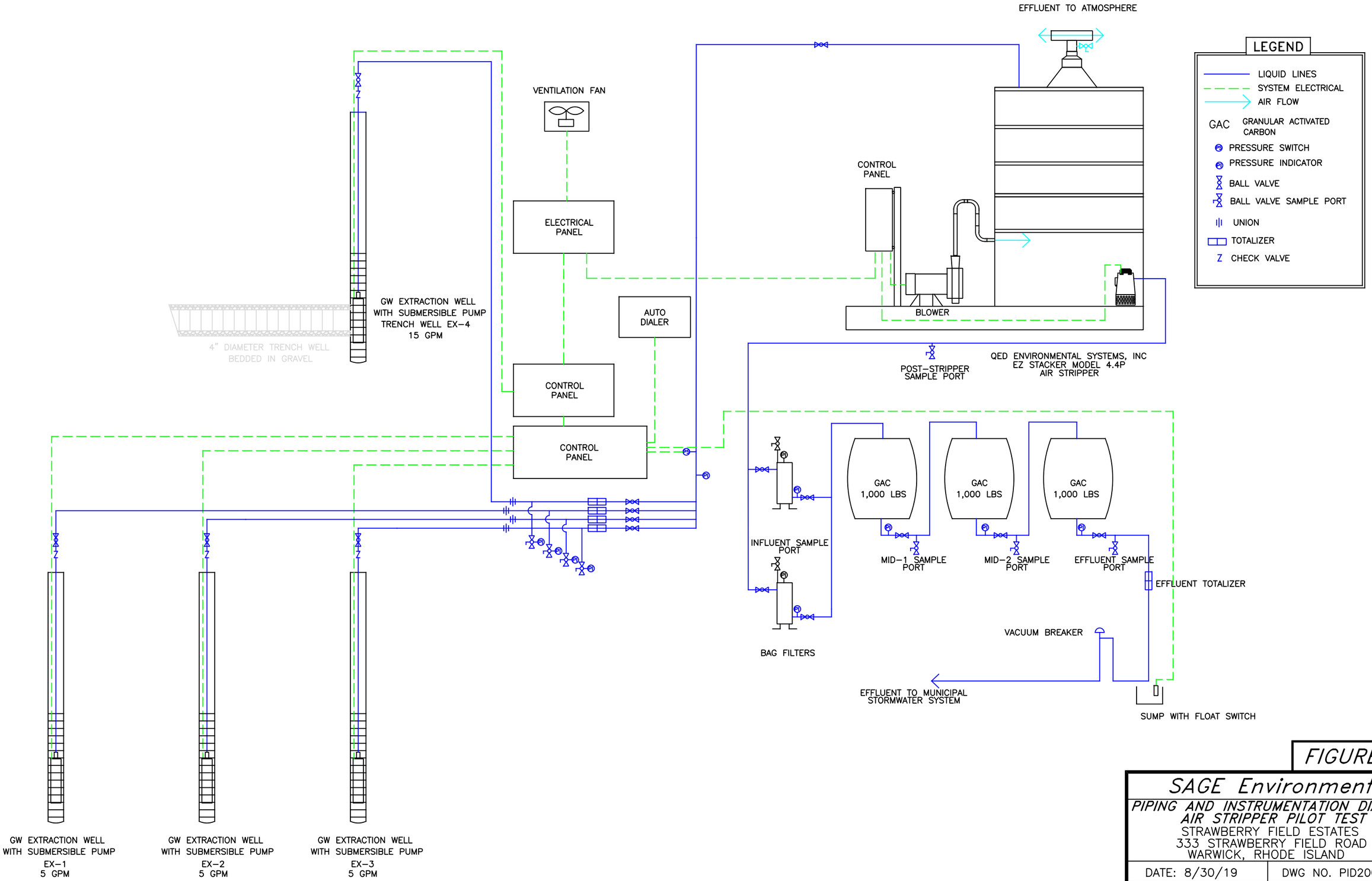


FIGURE 1

SAGE Environmental

PIPING AND INSTRUMENTATION DIAGRAM
AIR STRIPPER PILOT TEST
STRAWBERRY FIELD ESTATES
333 STRAWBERRY FIELD ROAD
WARWICK, RHODE ISLAND

DATE: 8/30/19	DWG NO. PID2009
DRAWN BY: TCS	JOB NO. R041

ATTACHMENT D

STRAWBERRY FIELD ESTATES, INC.

SUMMARY OF APPLICABLE WATER QUALITY-BASED EFFLUENT LIMITS

CALCULATION OF WATER QUALITY BASED NON-CLASS AA FRESHWATER DISCHARGE LIMITS

FACILITY SPECIFIC DATA INPUT SHEET

NOTE: LIMITS BASED ON RI WATER QUALITY CRITERIA DATED JULY 2006

FACILITY NAME: **Strawberry Field Estates, Inc.**

RIPDES PERMIT #: **RI0023604**

	DISSOLVED BACKGROUND DATA (ug/L)	ACUTE METAL TRANSLATOR	CHRONIC METAL TRANSLATOR
ALUMINUM	NA	NA	NA
ARSENIC	NA	1	1
CADMIUM	NA	1.002000673	0.967000673
CHROMIUM III	NA	0.316	0.86
CHROMIUM VI	NA	0.982	0.962
COPPER	NA	0.96	0.96
LEAD	NA	0.993001166	0.993001166
MERCURY	NA	0.85	0.85
NICKEL	NA	0.998	0.997
SELENIUM	NA	NA	NA
SILVER	NA	0.85	NA
ZINC	NA	0.978	0.986
AMMONIA (as N)	NA		

USE NA WHEN NO DATA IS AVAILABLE

NOTE 1: METAL TRANSLATORS FROM RI WATER QUALITY REGS.

pH =	7.5 S.U.
HARDNESS =	25.0 (mg/L as CaCO3)

FLOW DATA		
DESIGN FLOW =	0.058	MGD
=	0.089	CFS
7Q10 FLOW =	0.000	CFS
7Q10 (JUNE-OCT) =	0.000	CFS
7Q10 (NOV-MAY) =	0.000	CFS
HARMONIC FLOW =	0.000	CFS
HARMONIC FLOW =	0.000	CFS

DILUTION FACTORS	
ACUTE =	1.000
CHRONIC =	1.000
(MAY-OCT) =	1.000
(NOV-APR) =	1.000
30Q5 FLOW =	1.000
HARMONIC FLOW =	1.000

WATER QUALITY BASED EFFLUENT LIMITS - FRESHWATER

CALCULATION OF WATER QUALITY BASED NON-CLASS AA FRESHWATER DISCHARGE LIMITS

FACILITY NAME: Strawberry Field Estates, Inc. RIPDES PERMIT #: RI0023604

Month	Upper 90th% pH	Acute Criteria* mg/L as N	Chronic Criteria* mg/L as N
May	**7.9**	**10.1**	**1.46**
Jun	**7.9**	**10.1**	**1.46**
Jul	**7.9**	**10.1**	**1.46**
Aug	**7.9**	**10.1**	**1.46**
Sep	**7.9**	**10.1**	**1.46**
Oct	**7.9**	**10.1**	**1.46**
Nov	**7.9**	**10.1**	**1.46**
Dec	**7.9**	**10.1**	**1.46**
Jan	**7.9**	**10.1**	**1.46**
Feb	**7.9**	**10.1**	**1.46**
Mar	**7.9**	**10.1**	**1.46**
Apr	**7.9**	**10.1**	**1.46**

**NOTE: Criteria from Appendix B of the RI Water Quality Regs., July 2006.*

CALCULATION OF WATER QUALITY BASED NON-CLASS AA FRESHWATER DISCHARGE LIMITS

FACILITY NAME: Strawberry Field Estates, Inc. RIPDES PERMIT #: RI0023604

NOTE: METALS CRITERIA ARE EXPRESSED AS DISSOLVED, METALS LIMITS ARE EXPRESSED AS TOTAL

CHEMICAL NAME	CAS #	BACKGROUND CONCENTRATION (ug/L)	FRESHWATER CRITERIA ACUTE (ug/L)	DAILY MAX LIMIT (ug/L)	FRESHWATER CRITERIA CHRONIC (ug/L)	HUMAN HEALTH NON-CLASS A CRITERIA (ug/L)	MONTHLY AVE LIMIT (ug/L)
PRIORITY POLLUTANTS:							
TOXIC METALS AND CYANIDE							
ANTIMONY	7440360		450	360	10	640	8
ARSENIC (limits are total recoverable)	7440382	NA	340	272	150	1.4	1.12
ASBESTOS	1332214			No Criteria			No Criteria
BERYLLIUM	7440417		7.5	6	0.17		0.136
CADMIUM (limits are total recoverable)	7440439	NA	0.522206507	0.416931063	0.093696824		0.077515416
CHROMIUM III (limits are total recoverable)	16065831	NA	183.0659069	463.4579922	23.81311337		22.15173337
CHROMIUM VI (limits are total recoverable)	18540299	NA	16	13.03462322	11		9.147609148
COPPER (limits are total recoverable)	7440508	NA	3.640069619	3.033391349	2.739313654		2.282761378
CYANIDE	57125		22	17.6	5.2	140	4.16
LEAD (limits are total recoverable)	7439921	NA	13.88217279	11.18401329	0.540968344		0.435824942
MERCURY (limits are total recoverable)	7439976	NA	1.4	1.317647059	0.77	0.15	0.141176471
NICKEL (limits are total recoverable)	7440020	NA	144.9178377	116.1666034	16.09589771	4600	12.91546456
SELENIUM (limits are total recoverable)	7782492	NA	20	16	5	4200	4
SILVER (limits are total recoverable)	7440224	NA	0.31788916	0.299189798	NA		No Criteria
THALLIUM	7440280		46	36.8	1	0.47	0.376
ZINC (limits are total recoverable)	7440666	NA	36.20176511	29.61289579	36.49789406	26000	29.61289579
VOLATILE ORGANIC COMPOUNDS							
ACROLEIN	107028		2.9	2.32	0.06	290	0.048
ACRYLONITRILE	107131		378	302.4	8.4	2.5	2
BENZENE	71432		265	212	5.9	510	4.72
BROMOFORM	75252		1465	1172	33	1400	26.4
CARBON TETRACHLORIDE	56235		1365	1092	30	16	12.8
CHLOROBENZENE	108907		795	636	18	1600	14.4
CHLORODIBROMOMETHANE	124481			No Criteria		130	104
CHLOROFORM	67663		1445	1156	32	4700	25.6
DICHLOROBROMOMETHANE	75274			No Criteria		170	136
1,2DICHLOROETHANE	107062		5900	4720	131	370	104.8
1,1DICHLOROETHYLENE	75354		580	464	13	7100	10.4
1,2DICHLOROPROPANE	78875		2625	2100	58	150	46.4
1,3DICHLOROPROPYLENE	542756			No Criteria		21	16.8
ETHYLBENZENE	100414		1600	1280	36	2100	28.8
BROMOMETHANE (methyl bromide)	74839			No Criteria		1500	1200
CHLOROMETHANE (methyl chloride)	74873			No Criteria			No Criteria
METHYLENE CHLORIDE	75092		9650	7720	214	5900	171.2

CALCULATION OF WATER QUALITY BASED NON-CLASS AA FRESHWATER DISCHARGE LIMITS

FACILITY NAME: Strawberry Field Estates, Inc. RIPDES PERMIT #: RI0023604

NOTE: METALS CRITERIA ARE EXPRESSED AS DISSOLVED, METALS LIMITS ARE EXPRESSED AS TOTAL

CHEMICAL NAME	CAS #	BACKGROUND CONCENTRATION (ug/L)	FRESHWATER CRITERIA ACUTE (ug/L)	DAILY MAX LIMIT (ug/L)	FRESHWATER CRITERIA CHRONIC (ug/L)	HUMAN HEALTH NON-CLASS A CRITERIA (ug/L)	MONTHLY AVE LIMIT (ug/L)
1,1,2,2TETRACHLOROETHANE	79345		466	372.8	10	40	8
TETRACHLOROETHYLENE	127184		240	192	5.3	33	4.24
TOLUENE	108883		635	508	14	15000	11.2
1,2TRANSDICHLOROETHYLENE	156605			No Criteria		10000	8000
1,1,1TRICHLOROETHANE	71556			No Criteria			No Criteria
1,1,2TRICHLOROETHANE	79005		900	720	20	160	16
TRICHLOROETHYLENE	79016		1950	1560	43	300	34.4
VINYL CHLORIDE	75014			No Criteria		2.4	1.92
ACID ORGANIC COMPOUNDS							
2CHLOROPHENOL	95578		129	103.2	2.9	150	2.32
2,4DICHLOROPHENOL	120832		101	80.8	2.2	290	1.76
2,4DIMETHYLPHENOL	105679		106	84.8	2.4	850	1.92
4,6DINITRO2METHYL PHENOL	534521			No Criteria		280	224
2,4DINITROPHENOL	51285		31	24.8	0.69	5300	0.552
4NITROPHENOL	88755			No Criteria			No Criteria
PENTACHLOROPHENOL	87865		0.058191123	0.046552898	0.044644576	30	0.035715661
PHENOL	108952		251	200.8	5.6	1700000	4.48
2,4,6TRICHLOROPHENOL	88062		16	12.8	0.36	24	0.288
BASE NEUTRAL COMPUNDS							
ACENAPHTHENE	83329		85	68	1.9	990	1.52
ANTHRACENE	120127			No Criteria		40000	32000
BENZIDINE	92875			No Criteria		0.002	0.0016
POLYCYCLIC AROMATIC HYDROCARBONS				No Criteria		0.18	0.144
BIS(2CHLOROETHYL)ETHER	111444			No Criteria		5.3	4.24
BIS(2CHLOROISOPROPYL)ETHER	108601			No Criteria		65000	52000
BIS(2ETHYLHEXYL)PHTHALATE	117817		555	444	12	22	9.6
BUTYL BENZYL PHTHALATE	85687		85	68	1.9	1900	1.52
2CHLORONAPHTHALENE	91587			No Criteria		1600	1280
1,2DICHLOROBENZENE	95501		79	63.2	1.8	1300	1.44
1,3DICHLOROBENZENE	541731		390	312	8.7	960	6.96
1,4DICHLOROBENZENE	106467		56	44.8	1.2	190	0.96
3,3DICHLOROBENZIDENE	91941			No Criteria		0.28	0.224
DIETHYL PHTHALATE	84662		2605	2084	58	44000	46.4
DIMETHYL PHTHALATE	131113		1650	1320	37	1100000	29.6
DI-n-BUTYL PHTHALATE	84742			No Criteria		4500	3600
2,4DINITROTOLUENE	121142		1550	1240	34	34	27.2

CALCULATION OF WATER QUALITY BASED NON-CLASS AA FRESHWATER DISCHARGE LIMITS

FACILITY NAME: Strawberry Field Estates, Inc. RIPDES PERMIT #: RI0023604

NOTE: METALS CRITERIA ARE EXPRESSED AS DISSOLVED, METALS LIMITS ARE EXPRESSED AS TOTAL

CHEMICAL NAME	CAS #	BACKGROUND CONCENTRATION (ug/L)	FRESHWATER CRITERIA ACUTE (ug/L)	DAILY MAX LIMIT (ug/L)	FRESHWATER CRITERIA CHRONIC (ug/L)	HUMAN HEALTH NON-CLASS A CRITERIA (ug/L)	MONTHLY AVE LIMIT (ug/L)
1,2DIPHENYLHYDRAZINE	122667		14	11.2	0.31	2	0.248
FLUORANTHENE	206440		199	159.2	4.4	140	3.52
FLUORENE	86737			No Criteria		5300	4240
HEXACHLOROBENZENE	118741			No Criteria		0.0029	0.00232
HEXACHLOROBUTADIENE	87683			No Criteria		180	144
HEXACHLOROCYCLOPENTADIENE	77474		0.35	0.28	0.008	1100	0.0064
HEXACHLOROETHANE	67721		49	39.2	1.1	33	0.88
ISOPHORONE	78591		5850	4680	130	9600	104
NAPHTHALENE	91203		115	92	2.6		2.08
NITROBENZENE	98953		1350	1080	30	690	24
N-NITROSODIMETHYLAMINE	62759			No Criteria		30	24
N-NITROSODI-N-PROPYLAMINE	621647			No Criteria		5.1	4.08
N-NITROSODIPHENYLAMINE	86306		293	234.4	6.5	60	5.2
PYRENE	129000			No Criteria		4000	3200
1,2,4trichlorobenzene	120821		75	60	1.7	70	1.36
PESTICIDES/PCBs							
ALDRIN	309002		3	2.4		0.0005	0.0004
Alpha BHC	319846			No Criteria		0.049	0.0392
Beta BHC	319857			No Criteria		0.17	0.136
Gamma BHC (Lindane)	58899		0.95	0.76		1.8	1.44
CHLORDANE	57749		2.4	1.92	0.0043	0.0081	0.00344
4,4DDT	50293		1.1	0.88	0.001	0.0022	0.0008
4,4DDE	72559			No Criteria		0.0022	0.00176
4,4DDD	72548			No Criteria		0.0031	0.00248
DIELDRIN	60571		0.24	0.192	0.056	0.00054	0.000432
ENDOSULFAN (alpha)	959988		0.22	0.176	0.056	89	0.0448
ENDOSULFAN (beta)	33213659		0.22	0.176	0.056	89	0.0448
ENDOSULFAN (sulfate)	1031078			No Criteria		89	71.2
ENDRIN	72208		0.086	0.0688	0.036	0.06	0.0288
ENDRIN ALDEHYDE	7421934			No Criteria		0.3	0.24
HEPTACHLOR	76448		0.52	0.416	0.0038	0.00079	0.000632
HEPTACHLOR EPOXIDE	1024573		0.52	0.416	0.0038	0.00039	0.000312
POLYCHLORINATED BIPHENYLS3	1336363			No Criteria	0.014	0.00064	0.000512
2,3,7,8TCDD (Dioxin)	1746016			No Criteria		0.000000051	4.08E-08
TOXAPHENE	8001352		0.73	0.584	0.0002	0.0028	0.00016
TRIBUTYLTIN			0.46	0.368	0.072		0.0576

CALCULATION OF WATER QUALITY BASED NON-CLASS AA FRESHWATER DISCHARGE LIMITS

FACILITY NAME: Strawberry Field Estates, Inc. RIPDES PERMIT #: RI0023604

NOTE: METALS CRITERIA ARE EXPRESSED AS DISSOLVED, METALS LIMITS ARE EXPRESSED AS TOTAL

CHEMICAL NAME	CAS #	BACKGROUND CONCENTRATION (ug/L)	FRESHWATER CRITERIA ACUTE (ug/L)	DAILY MAX LIMIT (ug/L)	FRESHWATER CRITERIA CHRONIC (ug/L)	HUMAN HEALTH NON-CLASS A CRITERIA (ug/L)	MONTHLY AVE LIMIT (ug/L)
NON PRIORITY POLLUTANTS:							
OTHER SUBSTANCES							
ALUMINUM (limits are total recoverable)	7429905	NA	750	600	87		69.6
AMMONIA as N(winter/summer)	7664417		10.1 | 10.1	8080 | 8080	1.46 | 1.46		1168 | 1168
4BROMOPHENYL PHENYL ETHER			18	14.4	0.4		0.32
CHLORIDE	16887006		860000	688000	230000		184000
CHLORINE	7782505		19	19	11		11
4CHLORO2METHYLPHENOL			15	12	0.32		0.256
1CHLORONAPHTHALENE			80	64	1.8		1.44
4CHLOROPHENOL	106489		192	153.6	4.3		3.44
2,4DICHLORO6METHYLPHENOL			22	17.6	0.48		0.384
1,1DICHLOROPROPANE			1150	920	26		20.8
1,3DICHLOROPROPANE	142289		303	242.4	6.7		5.36
2,3DINITROTOLUENE			17	13.6	0.37		0.296
2,4DINITRO6METHYL PHENOL			12	9.6	0.26		0.208
IRON	7439896			No Criteria	1000		800
pentachlorobenzene	608935		13	10.4	0.28		0.224
PENTACHLOROETHANE			362	289.6	8		6.4
1,2,3,5tetrachlorobenzene			321	256.8	7.1		5.68
1,1,1,2TETRACHLOROETHANE	630206		980	784	22		17.6
2,3,4,6TETRACHLOROPHENOL	58902		7	5.6	0.16		0.128
2,3,5,6TETRACHLOROPHENOL			8.5	6.8	0.19		0.152
2,4,5TRICHLOROPHENOL	95954		23	18.4	0.51		0.408
2,4,6TRINITROPHENOL	88062		4235	3388	94		75.2
XYLENE	1330207		133	106.4	3		2.4

CALCULATION OF WATER QUALITY BASED NON-CLASS AA FRESHWATER DISCHARGE LIMITS

FACILITY NAME: Strawberry Field Estates, Inc. RIPDES PERMIT #: RI0023604

CHEMICAL NAME	CAS#	DAILY MAX LIMIT (ug/L)	MONTHLY AVE LIMIT (ug/L)
PRIORITY POLLUTANTS:			
TOXIC METALS AND CYANIDE			
ANTIMONY	7440360	360.00	8.00
ARSENIC, TOTAL	7440382	272.00	1.12
ASBESTOS	1332214	No Criteria	0.00000
BERYLLIUM	7440417	6.00	0.14
CADMIUM, TOTAL	7440439	0.42	0.07752
CHROMIUM III, TOTAL	16065831	463.46	22.15
CHROMIUM VI, TOTAL	18540299	13.03	9.15
COPPER, TOTAL	7440508	3.03	2.28
CYANIDE	57125	17.60	4.16
LEAD, TOTAL	7439921	11.18	0.44
MERCURY, TOTAL	7439976	1.32	0.14
NICKEL, TOTAL	7440020	116.17	12.92
SELENIUM, TOTAL	7782492	16.00	4.00
SILVER, TOTAL	7440224	0.30	No Criteria
THALLIUM	7440280	36.80	0.38
ZINC, TOTAL	7440666	29.61	29.61
VOLATILE ORGANIC COMPOUNDS			
ACROLEIN	107028	2.32	0.04800
ACRYLONITRILE	107131	302.40	2.00
BENZENE	71432	212.00	4.72
BROMOFORM	75252	1172.00	26.40
CARBON TETRACHLORIDE	56235	1092.00	12.80
CHLOROBENZENE	108907	636.00	14.40
CHLORODIBROMOMETHANE	124481	No Criteria	104.00
CHLOROFORM	67663	1156.00	25.60
DICHLOROBROMOMETHANE	75274	No Criteria	136.00
1,2DICHLOROETHANE	107062	4720.00	104.80
1,1DICHLOROETHYLENE	75354	464.00	10.40
1,2DICHLOROPROPANE	78875	2100.00	46.40
1,3DICHLOROPROPYLENE	542756	No Criteria	16.80
ETHYLBENZENE	100414	1280.00	28.80
BROMOMETHANE (methyl bromide)	74839	No Criteria	1200.00
CHLOROMETHANE (methyl chloride)	74873	No Criteria	0.00000
METHYLENE CHLORIDE	75092	7720.00	171.20
1,1,2,2TETRACHLOROETHANE	79345	372.80	8.00
TETRACHLOROETHYLENE	127184	192.00	4.24
TOLUENE	108883	508.00	11.20
1,2TRANSDICHLOROETHYLENE	156605	No Criteria	8000.00
1,1,1TRICHLOROETHANE	71556	No Criteria	0.00000
1,1,2TRICHLOROETHANE	79005	720.00	16.00
TRICHLOROETHYLENE	79016	1560.00	34.40
VINYL CHLORIDE	75014	No Criteria	1.92
ACID ORGANIC COMPOUNDS			
2CHLOROPHENOL	95578	103.20	2.32
2,4DICHLOROPHENOL	120832	80.80	1.76
2,4DIMETHYLPHENOL	105679	84.80	1.92
4,6DINITRO2METHYL PHENOL	534521	No Criteria	224.00
2,4DINITROPHENOL	51285	24.80	0.55
4NITROPHENOL	88755	No Criteria	0.00000
PENTACHLOROPHENOL	87865	0.05	0.03572
PHENOL	108952	200.80	4.48
2,4,6TRICHLOROPHENOL	88062	12.80	0.29
BASE NEUTRAL COMPUNDS			
ACENAPHTHENE	83329	68.00	1.52
ANTHRACENE	120127	No Criteria	32000.00
BENZIDINE	92875	No Criteria	0.00160
PAHs		No Criteria	0.14
BIS(2CHLOROETHYL)ETHER	111444	No Criteria	4.24
BIS(2CHLOROISOPROPYL)ETHER	108601	No Criteria	52000.00
BIS(2ETHYLHEXYL)PHTHALATE	117817	444.00	9.60
BUTYL BENZYL PHTHALATE	85687	68.00	1.52
2CHLORONAPHTHALENE	91587	No Criteria	1280.00
1,2DICHLOROBENZENE	95501	63.20	1.44
1,3DICHLOROBENZENE	541731	312.00	6.96
1,4DICHLOROBENZENE	106467	44.80	0.96
3,3DICHLOROBENZIDENE	91941	No Criteria	0.22
DIETHYL PHTHALATE	84662	2084.00	46.40
DIMETHYL PHTHALATE	131113	1320.00	29.60
DI-n-BUTYL PHTHALATE	84742	No Criteria	3600.00
2,4DINITROTOLUENE	121142	1240.00	27.20
1,2DIPHENYLHYDRAZINE	122667	11.20	0.25
FLUORANTHENE	206440	159.20	3.52

CALCULATION OF WATER QUALITY BASED NON-CLASS AA FRESHWATER DISCHARGE LIMITS

FACILITY NAME: Strawberry Field Estates, Inc. RIPDES PERMIT #: RI0023604

CHEMICAL NAME	CAS#	DAILY MAX LIMIT (ug/L)	MONTHLY AVE LIMIT (ug/L)
FLUORENE	86737	No Criteria	4240.00
HEXACHLOROBENZENE	118741	No Criteria	0.00232
HEXACHLOROBUTADIENE	87683	No Criteria	144.00
HEXACHLOROCYCLOPENTADIENE	77474	0.28	0.00640
HEXACHLOROETHANE	67721	39.20	0.88
ISOPHORONE	78591	4680.00	104.00
NAPHTHALENE	91203	92.00	2.08
NITROBENZENE	98953	1080.00	24.00
N-NITROSODIMETHYLAMINE	62759	No Criteria	24.00
N-NITROSODI-N-PROPYLAMINE	621647	No Criteria	4.08
N-NITROSODIPHENYLAMINE	86306	234.40	5.20
PYRENE	129000	No Criteria	3200.00
1,2,4trichlorobenzene	120821	60.00	1.36
PESTICIDES/PCBs			
ALDRIN	309002	2.40	0.00040
Alpha BHC	319846	No Criteria	0.04
Beta BHC	319857	No Criteria	0.14
Gamma BHC (Lindane)	58899	0.76	0.76
CHLORDANE	57749	1.92	0.00344
4,4DDT	50293	0.88	0.00080
4,4DDE	72559	No Criteria	0.00176
4,4DDD	72548	No Criteria	0.00248
DIELDRIN	60571	0.19	0.00043
ENDOSULFAN (alpha)	959988	0.18	0.04480
ENDOSULFAN (beta)	33213659	0.18	0.04480
ENDOSULFAN (sulfate)	1031078	No Criteria	71.20
ENDRIN	72208	0.07	0.03
ENDRIN ALDEHYDE	7421934	No Criteria	0.24
HEPTACHLOR	76448	0.42	0.00
HEPTACHLOR EPOXIDE	1024573	0.42	0.00
POLYCHLORINATED BIPHENYLS3	1336363	No Criteria	0.00
2,3,7,8TCDD (Dioxin)	1746016	No Criteria	0.00
TOXAPHENE	8001352	0.58	0.00
TRIBUTYLTIN		0.37	0.06

CHEMICAL NAME	CAS#	DAILY MAX LIMIT (ug/L)	MONTHLY AVE LIMIT (ug/L)
NON PRIORITY POLLUTANTS:			
OTHER SUBSTANCES			
ALUMINUM, TOTAL	7429905	600.00	69.60
AMMONIA (as N), WINTER (NOV-API	7664417	8080.00	1168.00
AMMONIA (as N), SUMMER (MAY-OC	7664417	8080.00	1168.00
4BROMOPHENYL PHENYL ETHER		14.40	0.32
CHLORIDE	16887006	688000.00	184000.00
CHLORINE	7782505	19.00	11.00
4CHLORO2METHYLPHENOL		12.00	0.26
1CHLORONAPHTHALENE		64.00	1.44
4CHLOROPHENOL	106489	153.60	3.44
2,4DICHLORO6METHYLPHENOL		17.60	0.38
1,1DICHLOROPROPANE		920.00	20.80
1,3DICHLOROPROPANE	142289	242.40	5.36
2,3DINITROTOLUENE		13.60	0.30
2,4DINITRO6METHYL PHENOL		9.60	0.21
IRON	7439896	No Criteria	800.00
pentachlorobenzene	608935	10.40	0.22
PENTACHLOROETHANE		289.60	6.40
1,2,3,5tetrachlorobenzene		256.80	5.68
1,1,1,2TETRACHLOROETHANE	630206	784.00	17.60
2,3,4,6TETRACHLOROPHENOL	58902	5.60	0.13
2,3,5,6TETRACHLOROPHENOL		6.80	0.15
2,4,5TRICHLOROPHENOL	95954	18.40	0.41
2,4,6TRINITROPHENOL	88062	3388.00	75.20
XYLENE	1330207	106.40	2.40

ATTACHMENT E

STRAWBERRY FIELD ESTATES, INC.
COMPARISON OF ALLOWABLE LIMITS WITH DISCHARGE MONITORING REPORT AND APPLICATION DATA

Facility Name: ***Strawberry Field Estates, Inc.***

RIPDES Permit #: ***RI0023604***

Outfall #: ***001A***

NOTE: METALS LIMITS ARE TOTAL METALS

Parameter	CAS #	Concentration Limits (ug/L) Based on WQ Criteria		Antideg. Limits (ug/L)	Avg. Application Data (ug/L) 1/16-4/21		Avg. DMR Data (ug/L) 1/16-4/21		Potential Permit Limits (ug/L)		Reasonable Potential?
		Daily Max	Monthly Ave	Monthly Ave	Max	Ave	Daily Max	Monthly Ave	Daily Max	Monthly Ave	(Y/N)
PRIORITY POLLUTANTS											
TOXIC METALS AND CYANIDE											
ANTIMONY	7440360	360.00	8.00	---	---	---	---	---	360.00	8.00	No
ARSENIC (limits are total recoverable)	7440382	272.00	1.12	---	---	---	---	---	272.00	1.12	No
ASBESTOS	1332214	No Criteria	0.00	---	---	---	---	---	---	0.00	No
BERYLLIUM	7440417	6.00	0.14	---	---	---	---	---	6.00	0.14	No
CADMIUM (limits are total recoverable)	7440439	0.42	0.08	---	---	---	---	---	0.42	0.08	No
CHROMIUM III (limits are total recoverable)	16065831	463.46	22.15	---	---	---	---	---	463.46	22.15	No
CHROMIUM VI (limits are total recoverable)	18540299	13.03	9.15	---	---	---	---	---	13.03	9.15	No
COPPER (limits are total recoverable)	7440508	3.03	2.28	---	---	---	---	---	3.03	2.28	No
CYANIDE	57125	17.60	4.16	---	---	---	---	---	17.60	4.16	No
LEAD (limits are total recoverable)	7439921	11.18	0.44	---	---	---	---	---	11.18	0.44	No
MERCURY (limits are total recoverable)	7439976	1.32	0.14	---	---	---	---	---	1.32	0.14	No
NICKEL (limits are total recoverable)	7440020	116.17	12.92	---	---	---	---	---	116.17	12.92	No
SELENIUM (limits are total recoverable)	7782492	16.00	4.00	---	---	---	---	---	16.00	4.00	No
SILVER (limits are total recoverable)	7440224	0.30	No Criteria	---	---	---	---	---	0.30	0.30	No
THALLIUM	7440280	36.80	0.38	---	---	---	---	---	36.80	0.38	No
ZINC (limits are total recoverable)	7440666	29.61	29.61	---	---	---	---	---	29.61	29.61	No
VOLATILE ORGANIC COMPOUNDS											
ACROLEIN	107028	2.32	0.05	---	---	---	---	---	2.32	0.05	No
ACRYLONITRILE	107131	302.40	2.00	---	---	---	---	---	302.40	2.00	No
BENZENE	71432	212.00	4.72	---	---	---	---	---	212.00	4.72	No
BROMOFORM	75252	1172.00	26.40	---	---	---	---	---	1172.00	26.40	No
CARBON TETRACHLORIDE	56235	1092.00	12.80	---	---	---	---	---	1092.00	12.80	No
CHLOROBENZENE	108907	636.00	14.40	---	---	---	---	---	636.00	14.40	No
CHLORODIBROMOMETHANE	124481	No Criteria	104.00	---	---	---	---	---	---	104.00	No
CHLOROFORM	67663	1156.00	25.60	---	---	---	---	---	1156.00	25.60	No
DICHLOROBROMOMETHANE	75274	No Criteria	136.00	---	---	---	---	---	---	136.00	No
1,2DICHLOROETHANE	107062	4720.00	104.80	---	---	---	---	---	4720.00	104.80	No
1,1DICHLOROETHYLENE	75354	464.00	10.40	---	<0.5	<0.002	0	0	464.00	10.40	YES
1,2DICHLOROPROPANE	78875	2100.00	46.40	---	---	---	---	---	2100.00	46.40	No
1,3DICHLOROPROPYLENE	542756	No Criteria	16.80	---	---	---	---	---	---	16.80	No
ETHYLBENZENE	100414	1280.00	28.80	---	---	---	---	---	1280.00	28.80	No
BROMOMETHANE (methyl bromide)	74839	No Criteria	1200.00	---	---	---	---	---	---	1200.00	No
CHLOROMETHANE (methyl chloride)	74873	No Criteria	0.00	---	---	---	---	---	---	0.00	No
METHYLENE CHLORIDE	75092	7720.00	171.20	---	---	---	---	---	7720.00	171.20	No
1,1,2,2TETRACHLOROETHANE	79345	372.80	8.00	---	---	---	---	---	372.80	8.00	No

Facility Name: ***Strawberry Field Estates, Inc.***

RIPDES Permit #: ***RI0023604***

Outfall #: ***001A***

NOTE: METALS LIMITS ARE TOTAL METALS

Parameter	CAS #	Concentration Limits (ug/L) Based on WQ Criteria		Antideg. Limits (ug/L)	Avg. Application Data (ug/L) 1/16-4/21		Avg. DMR Data (ug/L) 1/16-4/21		Potential Permit Limits (ug/L)		Reasonable Potential?
		Daily Max	Monthly Ave	Monthly Ave	Max	Ave	Daily Max	Monthly Ave	Daily Max	Monthly Ave	(Y/N)
TETRACHLOROETHYLENE	127184	192.00	4.24	---	<0.5	<0.002	0	0	192.00	4.24	YES
TOLUENE	108883	508.00	11.20	---	---	---	---	---	508.00	11.20	No
1,2TRANSDICHLOROETHYLENE	156605	No Criteria	8000.00	---	<0.5	<0.002	0	0	---	8000.00	YES
1,1,1TRICHLOROETHANE	71556	No Criteria	0.00	---	<0.5	<0.002	0	0	---	0.00	No
1,1,2TRICHLOROETHANE	79005	720.00	16.00	---	<0.5	<0.002	0	0	720.00	16.00	YES
TRICHLOROETHYLENE	79016	1560.00	34.40	---	<0.5	<0.002	0	0	1560.00	34.40	YES
VINYL CHLORIDE	75014	No Criteria	1.92	---	<0.5	<0.002	0	0	---	1.92	YES
2CHLOROPHENOL	95578	103.20	2.32	---	---	---	---	---	103.20	2.32	No
2,4DICHLOROPHENOL	120832	80.80	1.76	---	---	---	---	---	80.80	1.76	No
2,4DIMETHYLPHENOL	105679	84.80	1.92	---	---	---	---	---	84.80	1.92	No
4,6DINITRO2METHYL PHENOL	534521	No Criteria	224.00	---	---	---	---	---	---	224.00	No
2,4DINITROPHENOL	51285	24.80	0.55	---	---	---	---	---	24.80	0.55	No
4NITROPHENOL	88755	No Criteria	0.00	---	---	---	---	---	---	0.00	No
PENTACHLOROPHENOL	87865	0.05	0.04	---	---	---	---	---	0.05	0.04	No
PHENOL	108952	200.80	4.48	---	---	---	---	---	200.80	4.48	No
2,4,6TRICHLOROPHENOL	88062	12.80	0.29	---	---	---	---	---	12.80	0.29	No
ACENAPHTHENE	83329	68.00	1.52	---	---	---	---	---	68.00	1.52	No
ANTHRACENE	120127	No Criteria	32000.00	---	---	---	---	---	---	32000.00	No
BENZIDINE	92875	No Criteria	0.00	---	---	---	---	---	---	0.00	No
POLYCYCLIC AROMATIC HYDROCARBONS		No Criteria	0.14	---	---	---	---	---	---	0.14	No
BIS(2CHLOROETHYL)ETHER	111444	No Criteria	4.24	---	---	---	---	---	---	4.24	No
BIS(2CHLOROISOPROPYL)ETHER	108601	No Criteria	52000.00	---	---	---	---	---	---	52000.00	No
BIS(2ETHYLHEXYL)PHTHALATE	117817	444.00	9.60	---	---	---	---	---	444.00	9.60	No
BUTYL BENZYL PHTHALATE	85687	68.00	1.52	---	---	---	---	---	68.00	1.52	No
2CHLORONAPHTHALENE	91587	No Criteria	1280.00	---	---	---	---	---	---	1280.00	No
1,2DICHLOROBENZENE	95501	63.20	1.44	---	---	---	---	---	63.20	1.44	No
1,3DICHLOROBENZENE	541731	312.00	6.96	---	---	---	---	---	312.00	6.96	No
1,4DICHLOROBENZENE	106467	44.80	0.96	---	---	---	---	---	44.80	0.96	No
3,3DICHLOROBENZIDENE	91941	No Criteria	0.22	---	---	---	---	---	---	0.22	No
DIETHYL PHTHALATE	84662	2084.00	46.40	---	---	---	---	---	2084.00	46.40	No
DIMETHYL PHTHALATE	131113	1320.00	29.60	---	---	---	---	---	1320.00	29.60	No
DInBUTYL PHTHALATE	84742	No Criteria	3600.00	---	---	---	---	---	---	3600.00	No
2,4DINITROTOLUENE	121142	1240.00	27.20	---	---	---	---	---	1240.00	27.20	No
1,2DIPHENYLHYDRAZINE	122667	11.20	0.25	---	---	---	---	---	11.20	0.25	No
FLUORANTHENE	206440	159.20	3.52	---	---	---	---	---	159.20	3.52	No

Facility Name: ***Strawberry Field Estates, Inc.***

RIPDES Permit #: ***RI0023604***

Outfall #: ***001A***

NOTE: METALS LIMITS ARE TOTAL METALS

Parameter	CAS #	Concentration Limits (ug/L) Based on WQ Criteria		Antideg. Limits (ug/L)	Avg. Application Data (ug/L) 1/16-4/21		Avg. DMR Data (ug/L) 1/16-4/21		Potential Permit Limits (ug/L)		Reasonable Potential?
		Daily Max	Monthly Ave	Monthly Ave	Max	Ave	Daily Max	Monthly Ave	Daily Max	Monthly Ave	(Y/N)
FLUORENE	86737	No Criteria	4240.00	---	---	---	---	---	---	4240.00	No
HEXACHLOROBENZENE	118741	No Criteria	0.00	---	---	---	---	---	---	0.00	No
HEXACHLOROBUTADIENE	87683	No Criteria	144.00	---	---	---	---	---	---	144.00	No
HEXACHLOROCYCLOPENTADIENE	77474	0.28	0.01	---	---	---	---	---	0.28	0.01	No
HEXACHLOROETHANE	67721	39.20	0.88	---	---	---	---	---	39.20	0.88	No
ISOPHORONE	78591	4680.00	104.00	---	---	---	---	---	4680.00	104.00	No
NAPHTHALENE	91203	92.00	2.08	---	---	---	---	---	92.00	2.08	No
NITROBENZENE	98953	1080.00	24.00	---	---	---	---	---	1080.00	24.00	No
NNITROSODIMETHYLAMINE	62759	No Criteria	24.00	---	---	---	---	---	---	24.00	No
NNITROSODINPROPYLAMINE	621647	No Criteria	4.08	---	---	---	---	---	---	4.08	No
NNITROSODIPHENYLAMINE	86306	234.40	5.20	---	---	---	---	---	234.40	5.20	No
PYRENE	129000	No Criteria	3200.00	---	---	---	---	---	---	3200.00	No
1,2,4trichlorobenzene	120821	60.00	1.36	---	---	---	---	---	60.00	1.36	No
PESTICIDES/PCBs											No
ALDRIN	309002	2.40	0.00	---	---	---	---	---	2.40	0.00	No
Alpha BHC	319846	No Criteria	0.04	---	---	---	---	---	---	0.04	No
Beta BHC	319857	No Criteria	0.14	---	---	---	---	---	---	0.14	No
Gamma BHC (Lindane)	58899	0.76	0.76	---	---	---	---	---	0.76	0.76	No
CHLORDANE	57749	1.92	0.00	---	---	---	---	---	1.92	0.00	No
4,4DDT	50293	0.88	0.00	---	---	---	---	---	0.88	0.00	No
4,4DDE	72559	No Criteria	0.00	---	---	---	---	---	---	0.00	No
4,4DDD	72548	No Criteria	0.00	---	---	---	---	---	---	0.00	No
DIELDRIN	60571	0.19	0.00	---	---	---	---	---	0.19	0.00	No
ENDOSULFAN (alpha)	959988	0.18	0.04	---	---	---	---	---	0.18	0.04	No
ENDOSULFAN (beta)	33213659	0.18	0.04	---	---	---	---	---	0.18	0.04	No
ENDOSULFAN (sulfate)	1031078	No Criteria	71.20	---	---	---	---	---	---	71.20	No
ENDRIN	72208	0.07	0.03	---	---	---	---	---	0.07	0.03	No
ENDRIN ALDEHYDE	7421934	No Criteria	0.24	---	---	---	---	---	---	0.24	No
HEPTACHLOR	76448	0.42	0.00	---	---	---	---	---	0.42	0.00	No
HEPTACHLOR EPOXIDE	1024573	0.42	0.00	---	---	---	---	---	0.42	0.00	No
POLYCHLORINATED BIPHENYLS3	1336363	No Criteria	0.00	---	---	---	---	---	---	0.00	No
2,3,7,8TCDD (Dioxin)	1746016	No Criteria	0.00	---	---	---	---	---	---	0.00	No
TOXAPHENE	8001352	0.58	0.00	---	---	---	---	---	0.58	0.00	No
TRIBUTYLTIN		0.37	0.06	---	---	---	---		0.37	0.06	No
NON PRIORITY POLLUTANTS:											
OTHER SUBSTANCES											
ALUMINUM (limits are total recoverable)	7429905	600.00	69.60	---	---	---	---	---	600.00	69.60	No

Facility Name: ***Strawberry Field Estates, Inc.***

RIPDES Permit #: ***RI0023604***

Outfall #: ***001A***

NOTE: METALS LIMITS ARE TOTAL METALS

Parameter	CAS #	Concentration Limits (ug/L) Based on WQ Criteria		Antideg. Limits (ug/L)	Avg. Application Data (ug/L) 1/16-4/21		Avg. DMR Data (ug/L) 1/16-4/21		Potential Permit Limits (ug/L)		Reasonable Potential?
		Daily Max	Monthly Ave	Monthly Ave	Max	Ave	Daily Max	Monthly Ave	Daily Max	Monthly Ave	(Y/N)
AMMONIA (winter)	7664417	8080.00	1168.00	---	---	---	---	---	8080.00	1168.00	No
AMMONIA (summer)		8080.00	1168.00	---	---	---	---	---	8080.00	1168.00	No
4BROMOPHENYL PHENYL ETHER	16887006	14.40	0.32	---	---	---	---	---	14.40	0.32	No
CHLORIDE	7782505	688000.00	184000.00	---	---		---	---	688000.00	184000.00	No
CHLORINE		19.00	11.00	---	---	---	---	---	19.00	11.00	No
4CHLORO2METHYLPHENOL		12.00	0.26	---	---	---	---	---	12.00	0.26	No
1CHLORONAPHTHALENE	106489	64.00	1.44	---	---	---	---	---	64.00	1.44	No
4CHLOROPHENOL		153.60	3.44	---	---	---	---	---	153.60	3.44	No
2,4DICHLORO6METHYLPHENOL		17.60	0.38	---	---	---	---	---	17.60	0.38	No
1,1DICHLOROPROPANE	142289	920.00	20.80	---	---	---	---	---	920.00	20.80	No
1,3DICHLOROPROPANE		242.40	5.36	---	---	---	---	---	242.40	5.36	No
2,3DINITROTOLUENE		13.60	0.30	---	---	---	---	---	13.60	0.30	No
2,4DINITRO6METHYL PHENOL	7439896	9.60	0.21	---	---	---	---	---	9.60	0.21	No
IRON	608935	No Criteria	800.00	---	---		---	---	---	800.00	No
pentachlorobenzene		10.40	0.22	---	---	---	---	---	10.40	0.22	No
PENTACHLOROETHANE		289.60	6.40	---	---	---	---	---	289.60	6.40	No
1,2,3,5tetrachlorobenzene	630206	256.80	5.68	---	---	---	---	---	256.80	5.68	No
1,1,1,2TETRACHLOROETHANE	58902	784.00	17.60	---	---	---	---	---	784.00	17.60	No
2,3,4,6TETRACHLOROPHENOL		5.60	0.13	---	---	---	---	---	5.60	0.13	No
2,3,5,6TETRACHLOROPHENOL	95954	6.80	0.15	---	---	---	---	---	6.80	0.15	No
2,4,5TRICHLOROPHENOL	88062	18.40	0.41	---	---	---	---	---	18.40	0.41	No
2,4,6TRINITROPHENOL	1330207	3388.00	75.20	---	---	---	---	---	3388.00	75.20	No
XYLENE		106.40	2.40	---	---	---	---	---	106.40	2.40	No