

**AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM**

In compliance with the provisions of the Federal Clean Water Act as amended, (33 U.S.C. §§1251 et seq.; the "CWA"), and the Massachusetts Clean Waters Act, as amended, (M.G.L. Chap. 21, §§26-53),

Veryfine Products, Inc.

is authorized to discharge from the facility located at

**20 Harvard Road
Littleton, MA 01460**

to the receiving water named **Reedy Meadow Brook**, a Class B water, in accordance with effluent limitations, monitoring requirements, and other conditions set forth herein.

This permit shall become effective on the first day of the calendar month following sixty (60) days after signature if comments are received. If no comments are received, this permit shall become effective upon the date of signature.

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

This permit supersedes the permit issued on September 1, 2006.

This permit consists of 15 pages in Part I including effluent limitations, monitoring requirements, and state permit conditions, Attachment A – Freshwater Chronic Toxicity Test Protocol (May 2007), and 25 pages in Part II, Standard Conditions.

Signed this day of , 2013.

Stephen S. Perkins, Director
Office of Ecosystem Protection
Environmental Protection Agency
Boston, MA

David Ferris, Director
Massachusetts Wastewater Management Program
Department of Environmental Protection
Commonwealth of Massachusetts
Boston, MA

PART I.A. Effluent Limitations and Monitoring Requirements

1. During the period beginning on the effective date and lasting through the expiration date the permittee is authorized to discharge, reverse osmosis system (RO) reject water, RO backwash water, contact cooling water, non-contract cooling water and beverage product wastewater¹ from outfall serial number **001** to Reedy Meadow Brook. Such discharges shall be limited and monitored by the permittee as specified below:

<u>EFFLUENT CHARACTERISTIC</u>		<u>EFFLUENT LIMITS</u>		<u>MONITORING REQUIREMENTS</u>
<u>PARAMETER</u>	<u>AVERAGE MONTHLY</u>	<u>MAXIMUM DAILY</u>	<u>MEASUREMENT FREQUENCY</u>	<u>SAMPLE TYPE</u> ²
Flow	0.55 MGD	0.75 MGD	Continuous	Recorder ³
Dissolved Oxygen	7.0 mg/l as a minimum		1/Week	Grab
pH Range	6.5 – 8.3 s.u.		1/Day	Grab
Total Suspended Solids	10 mg/l	20 mg/l	1/Week	24-Hour Composite ⁴
Biochemical Oxygen Demand, 5 day	10 mg/l	20 mg/l	1/Week	24-Hour Composite ⁴
Total Recoverable Aluminum	0.1 mg/l	Report mg/l	1/Month	24-Hour Composite ⁴
Temperature	*****	83 °F	1/Week	Grab
Total Residual Chlorine ⁵	12 ug/l	21 ug/l	1/Week	Grab
Total Phosphorus, April 1 – Oct. 31 ⁶	0.23 lbs/day Report mg/l	1.25 lbs/day Report mg/l	1/Week	24-Hour Composite ⁴
Total Phosphorus, Nov. 1 – March 31 ⁶	0.46 lbs/day Report mg/l	1.25 lbs/day Report mg/l	1/Week	24-Hour Composite ⁴
Total Ammonia Nitrogen	Report mg/l & lbs/day	Report mg/l & lbs/day	1/Month	24-Hour Composite ⁴
Oil & Grease	*****	15 mg/l	1/Quarter	Grab

Footnotes are listed on Page 4 and 5.

<u>EFFLUENT CHARACTERISTIC</u>		<u>EFFLUENT LIMITS</u>		<u>MONITORING REQUIREMENTS</u>	
<u>PARAMETER</u>	<u>AVERAGE MONTHLY</u>	<u>MAXIMUM DAILY</u>	<u>MEASUREMENT FREQUENCY</u>	<u>SAMPLE TYPE¹</u>	
Fecal <i>Streptococcus</i> , Apr. 1- Oct. 31 ⁷	Report cfu/100 ml	Report cfu/100 ml	1/Month	Grab	
<i>Escherichia coli</i> , Apr. 1- Oct. 31 ⁷	Report cfu/100 ml	Report cfu/100 ml	1/Month	Grab	
Priority Pollutant Scan ⁸	Report ug/l	Report ug/l	1/Year	24-Hour Composite ⁴	
Whole Effluent Toxicity ^{9,10,11}	LC ₅₀ ≥ 100% ; C-NOEC ≥91%		1/Quarter	24-Hour Composite ⁴	
Total Recoverable Aluminum ¹²	*****	Report ug/l	1/Quarter	24-Hour Composite ⁴	
Total Recoverable Cadmium ¹²	*****	Report ug/l	1/Quarter	24-Hour Composite ⁴	
Total Recoverable Copper ¹²	*****	Report ug/l	1/Quarter	24-Hour Composite ⁴	
Total Recoverable Lead ¹²	*****	Report ug/l	1/Quarter	24-Hour Composite ⁴	
Total Recoverable Nickel ¹²	*****	Report ug/l	1/Quarter	24-Hour Composite ⁴	
Total Recoverable Zinc ¹²	*****	Report ug/l	1/Quarter	24-Hour Composite ⁴	

- a. The discharge shall not cause a violation of the water quality standards of the receiving waters.
- b. The pH of the effluent shall be in the range of 6.5 to 8.3 standard units and not more than 0.5 s.u. outside of the natural background range. There shall be no change from natural background conditions that would impair any use assigned to this Class.
- c. The discharge shall not cause objectionable discoloration of the receiving waters.
- d. The effluent shall contain neither a visible oil sheen, foam, nor floating solids at any time.
- e. The results of sampling for any parameter above its required frequency must also be reported.

Footnotes:

1. This beverage wastewater includes beverage wastewater from three local manufacturers. See Part I.D. of this permit for the provision which allows for the use of such wastewater in the permittee's biological treatment system and the procedure which the permittee needs to follow to receive approval for the use of beverage wastewater from another facility during this permit term. The permittee shall report the total amount of off-site beverage wastewater that it uses in its treatment system for each month in its Discharge Monitoring Report (DMR) cover letter.
2. Samples taken in compliance with the monitoring requirements specified above shall be taken after ultraviolet (UV) disinfection and prior to mixing with any other stream. A routine sampling program shall be developed in which samples are taken at the same location, approximately the same time, and the same days of every month, whenever feasible. Any deviations from the routine sampling program shall be documented in correspondence appended to the applicable discharge monitoring report that is submitted to EPA. In addition, all samples shall be analyzed using the analytical methods found in 40 CFR §136, or alternative methods approved by EPA in accordance with the procedures in 40 CFR §136.
3. For flow, the maximum and minimum daily rates and total flow for each operating date shall be reported. This data shall be attached to each DMR. The permittee shall also estimate and report the monthly usage of all off-site beverage wastewater that is used in its treatment plant.
4. Composite samples shall be comprised of at least 24 flow-weighted individual samples taken throughout one full operational day (e.g., 0700 Monday to 0700 Tuesday).
5. The minimum level (ML) for Total Residual Chlorine (TRC) is defined as 20 ug/l using EPA approved methods found in the most currently approved version of Standard Methods for the Examination of Water and Wastewater, Method 4500 CL-E and G, or USEPA Methods for Chemical Analysis of Water and Wastes, Method 330.5. One of these methods must be used to determine TRC concentration. The ML is not the minimum level of detection, but rather the level at which the entire analytical system shall give recognizable signal and calibration points for a particular TRC method. If EPA approves a more sensitive method of analysis for TRC, the permit may be reopened to require the use of the new method with a corresponding lower ML. When reporting sample data below the ML, see the latest EPA Region NPDES Permit Program Instructions for the Discharge Monitoring Report Forms (DMRs) for guidance.
6. The year round, daily maximum limit for phosphorus of 1.25 pounds per day is based on the concentration level of 0.2 mg/l and the maximum daily flow limit of 0.75 MGD. The monthly average phosphorus limit of 0.46 pounds per day for the period of November 1 through March 31 is based on

the concentration level of 0.1 mg/l and the monthly average flow limit of 0.55 MGD. For the period of April 1 through October 31, the monthly average phosphorus limit of 0.23 pounds per day is based on the concentration level of 0.05 mg/l and the monthly average flow of 0.55 MGD. In addition, this limit is expressed as a sixty (60) day rolling average limit. Beginning on the 60th day after April 1, the 60 day average value shall be calculated for each week that sampling is conducted and the highest 60 day average value for that month must be reported on the monthly discharge monitoring report (DMR). For the months of April and May, the monthly average total phosphorus shall be reported. Consistent with Section B.1 of Part II of the Permit, the Permittee shall properly operate and maintain the phosphorus removal facilities in order to obtain the lowest effluent concentration possible. The minimum level (ML) for phosphorus is defined as 10 micrograms per liter (ug/l). This value is the minimum level for phosphorus using EPA approved methods found in the most currently approved versions of Standard Methods for the Examination of Water and Wastewater. One of these methods must be used to determine total phosphorus. Sample results of less than 10 µg/l shall be reported as zero on the DMR.

7. *E.coli* and fecal *Streptococci* shall be monitored seasonally, between April 1 and October 31 of each year.
8. A priority pollutant scan shall be conducted once per year during the second calendar quarter of the year (April through June) and during a period when any approved, off-site beverage wastewater is being used in the permittee's treatment system. The results of this scan shall be submitted with the June DMR. These submittals shall include all test results. The list of parameters to be tested is from EPA's Form 2C application, although there are some portions of the pollutant list that are not required to be analyzed. The permittee shall analyze for parameters 1M through 13M, and parameters 1V through 31V of the Form 2C application, as well as for ethanol.
9. The permittee shall conduct chronic whole effluent toxicity (WET) tests on samples collected during the second week of January, April, July and October of each year. The permittee shall test the fathead minnow, *Pimephales promelas*, only. Toxicity testing reporting is due the last day of the month following the month of the test. For example, the January toxicity test result shall be submitted no later than February 28th. The testing schedule is summarized in the table below. The test must be performed in accordance with test procedures and protocols specified in **Attachment A** of this permit and conducted during normal operating conditions.

Test Dates: Second Week in	Submit Results by:	Test Species	LC ₅₀ Limit	Chronic Limit: C-NOEC
January April July October	February 28 th May 31 st August 31 st November 30 th	<u><i>Pimephales promelas</i></u> (Fathead Minnow)	≥ 100 %	≥ 91 %

10. LC₅₀ is the concentration of the effluent which causes mortality to 50% of the test organisms. Therefore, a 100% limit means that a sample of 100%

effluent (no dilution) shall cause no more than a 50% mortality rate in the test species. The C-NOEC (chronic-no observed effect concentration) is defined as the highest concentration of toxicant or effluent to which organisms are exposed in a life cycle or partial life cycle test which causes no adverse effect on growth, survival, or reproduction at a specific time of observation as determined from hypothesis testing where the test results exhibit a linear dose-response relationship. However, where the test results do not exhibit a linear dose-response relationship, the permittee must report the lowest concentration where there is no observable effect. The permit limit of "91% or greater" is defined as a sample which is composed of 91% or greater effluent, the remainder being dilution water. This limit is derived as a percentage of the inverse of the dilution factor of 1.1.

11. For the purpose of conducting the toxicity tests on the fathead minnow, *Pimephales promelas*, alternate dilution water (ADW) may be used. For ADW, the permittee may use laboratory water as diluent and such diluent shall have characteristics such as hardness, pH, conductivity, alkalinity, organic carbon, and total suspended solids that are similar to those of the receiving water and that shall not illicit a toxic response. ADW tests must be run with a minimum of two controls: a receiving water (Reedy Meadow Brook) control and a toxicity-free alternate dilution water control. Chemical data of the receiving water control, including data for all metals listed in the protocol, must be included in the WET report.
12. For each WET test, the permittee shall report on the appropriate DMR, the concentrations of the total recoverable aluminum, cadmium, copper, lead, nickel, and zinc detected in a 100 % effluent sample. All these aforementioned chemical parameters shall be determined to at least the minimum quantification levels shown in **Attachment A** on page 4 of 7, or as amended. The permittee should note that all chemical parameter results must still be reported in the appropriate WET test report.

Part I.A. (continued):

2. During the period beginning on the effective date and lasting through the expiration date, the permittee is authorized to discharge stormwater from internal outfall serial number 002 , which discharges to Outfall 001. Such discharges shall be limited and monitored as specified below.			
<u>EFFLUENT CHARACTERISTIC</u>	<u>EFFLUENT LIMITS</u>	<u>MONITORING REQUIREMENTS</u>	
<u>PARAMETER</u>	<u>MAXIMUM DAILY</u>	<u>MEASUREMENT FREQUENCY</u>	<u>SAMPLE TYPE</u> ^{1,2}
Flow	Report MGD	1/Month	Recorder
Total Suspended Solids	100 mg/l	1/Month	Grab
Oil and Grease	15 mg/l	1/Quarter	Grab
pH RANGE	See part I.A.2.b. below	3/Quarter	Grab
Total Phosphorus	Report mg/l	1/Month	Grab

Part I.A.2. (Continued)

- a. The discharge shall not cause a violation of the water quality standards of the receiving waters.
- b. The range of 3 grab samples taken each quarter for pH shall be reported.
- c. The discharge shall not cause objectionable discoloration of the receiving waters.
- d. The effluent shall contain neither a visible oil sheen, foam, nor floating solids at any time.
- e. The results of sampling for any parameter above its required frequency must also be reported.

Footnotes:

1. Sampling for all parameters shall be conducted at the point that the detention basin discharges into the vault marked "S/N 002 monitoring point." Any change in sampling location must be reviewed and approved in writing by EPA and MassDEP. All samples shall be tested using the analytical methods found in 40 CFR 136, or alternative methods approved by EPA in accordance with the procedures in 40 CFR 136.

2. A representative storm event grab sample shall be collected from the discharge resulting from a storm event that is greater than 0.1 inches in magnitude and that occurs at least seventy two (72) hours after a previously measurable (greater than 0.1 inches) storm event. Grab samples shall be collected within sixty (60) minutes after the initiation of such storm event. If there is no storm event that meets this definition for a particular month, the permittee shall report the "no discharge" (NODI) code of "9" on its DMR for that month.

Part I.A. (continued):

3. Toxics Control

- a. The permittee shall not discharge any pollutant or combination of pollutants in toxic amounts.
- b. Any toxic components of the effluent shall not result in any demonstrable harm to aquatic life or violate any state or federal water quality standard which has been or may be promulgated. Upon promulgation of any such standard, this permit may be revised or amended in accordance with such standards.

4. Numerical Effluent Limitations for Toxicants

EPA or MassDEP may use the results of the chemical analyses conducted pursuant to this permit, as well as national water quality criteria developed pursuant to Section 304(a)(1) of the Clean Water Act (CWA), state water quality criteria, and any other appropriate information or data, to develop numerical effluent limitations for any pollutants, including but not limited to those pollutants listed in Appendix D of 40 CFR Part 122.

5. Notice of Significant Change in Product Mix or Treatment System

The permittee shall notify EPA and MassDEP whenever it is planning to make a significant change to its raw ingredients or final product mix, or when it is planning to undergo a change or addition to its treatment system that may alter the quality or composition of its discharges. Upon such notification, EPA and MassDEP will review the information and make a determination regarding whether or not any permit modification is necessary to address any such changes. This notification should be made as far enough in advance as possible in order for the agencies to have ample time to consider it and make the appropriate determination.

6. 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-dinitrophenol, 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 CFR §122.21(g)(7); or
 - (4) Any other notification level established by the Director in accordance with 40 CFR §122.44(f).
- b. That any activity has occurred or will occur which could 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 CFR §122.21(g)(7); or
 - (4) Any other notification level established by the Director in accordance with 40 CFR §122.44(f).
- c. That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the permit application.

B. UNAUTHORIZED DISCHARGES

The permittee is authorized to discharge only in accordance with the terms and conditions of this permit and only from the outfalls listed in Parts I A.1 and I.A.2 of this permit. Discharges of wastewater from any other point sources not authorized by this permit shall be reported in accordance with Part II Standard Conditions Section D.1.e.(1) of this permit (Twenty-four hour reporting).

C. STORMWATER POLLUTION PREVENTION PLAN

1. The permittee shall continue to implement and maintain a Stormwater Pollution Prevention Plan (SWPPP) designed to reduce, or prevent, the discharge of pollutants in stormwater to the receiving waters identified in this permit. The SWPPP shall be a written document that is consistent with the terms of this permit. Additionally, the SWPPP shall serve as a tool to document the permittee’s compliance with the terms of this permit. Development guidance and a recommended format for the SWPPP are available on the EPA website for the Multi-Sector General Permit (MSGP) for Stormwater Discharges Associated with Industrial Activities (<http://cfpub.epa.gov/npdes/stormwater/msgp.cfm>).
2. The SWPPP shall be updated and certified by the permittee within ninety (90) days after the effective date of this permit. The permittee shall certify that its SWPPP has been updated

and shall be signed in accordance with the requirements identified in 40 CFR §122.22. A copy of this certification shall be sent to EPA and MassDEP within one hundred and twenty (120) days of the effective date of this permit.

3. The SWPPP shall be prepared in accordance with good engineering practices and shall be consistent with the general provisions for SWPPPs included in the most current version of the MSGP. In the current MSGP (effective May 27, 2009), the general SWPPP provisions are included in Part 5. Specifically, the SWPPP shall document the selection, design, and installation of control measures and contain the elements listed below:
 - a. A pollution prevention team with collective and individual responsibilities for developing, implementing, maintaining, revising and ensuring compliance with the SWPPP.
 - b. A site description which includes the activities at the facility; a general location map showing the facility, receiving waters, and outfall locations; and a site map showing the extent of significant structures and impervious surfaces, directions of stormwater flows, and locations of all existing structural control measures, stormwater conveyances, pollutant sources (identified in Part 3.c. below), stormwater monitoring points, stormwater inlets and outlets, and industrial activities exposed to precipitation such as, materials storage, disposal, and material handling.
 - c. A summary of all pollutant sources which includes a list of activities exposed to stormwater, the pollutants associated with these activities, a description of where spills have occurred or could occur, a description of non-stormwater discharges, and a summary of any existing stormwater discharge sampling data.
 - d. A description of all stormwater controls, both structural and non-structural.
 - e. A schedule and procedure for implementation and maintenance of the control measures described above and for the quarterly inspections and best management practices (BMPs) described below.
4. The SWPPP shall document the appropriate best management practices (BMPs) implemented or to be implemented at the facility to minimize the discharge of pollutants in stormwater to waters of the United States and to satisfy any non-numeric technology-based effluent limitations included in this permit. At a minimum, these BMPs shall be consistent with the control measures described in the most current version of the MSGP. In the current MSGP (effective May 27, 2009), these control measures are described in Part 2.1.2. Specifically, BMPs must be selected and implemented to satisfy the following non-numeric technology-based effluent limitations:
 - a. Minimizing exposure of manufacturing, processing, and material storage areas to stormwater discharges.
 - b. Good housekeeping measures designed to maintain areas that are potential sources of pollutants.
 - c. Preventative maintenance programs to avoid leaks, spills, and other releases of pollutants in stormwater discharged to receiving waters.
 - d. Spill prevention and response procedures to ensure effective response to spills and leaks if or when they occur.

- e. Erosion and sediment controls designed to stabilize exposed areas and contain runoff using structural and/or non-structural control measures to minimize onsite erosion and sedimentation, and the resulting discharge of pollutants.
 - f. Runoff management practices to divert, infiltrate, reuse, contain, or otherwise reduce stormwater runoff.
 - g. Proper handling procedures for salt or materials containing chlorides that are used for snow and ice control.
5. All areas with industrial materials or activities exposed to stormwater and all structural controls used to comply with effluent limits in this permit shall be inspected, at least once per quarter, by qualified personnel with one or more members of the stormwater pollution prevention team. Inspections shall begin during the 1st full calendar quarter after the effective date of this permit. EPA considers calendar quarters as follows: January to March; April to June; July to September; and October to December. Each inspection must include a visual assessment of stormwater samples (from each outfall), which shall be collected within the first thirty (30) minutes of discharge from a storm event, stored in a clean, clear glass or plastic container, and examined in a well-lit area for the following water quality characteristics: color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of pollution. The permittee shall document the following information for each inspection and maintain the records along with the SWPPP:
- a. The date and time of the inspection and at which any samples were collected;
 - b. The name(s) and signature(s) of the inspector(s)/sample collector(s);
 - c. If applicable, why it was not possible to take samples within the first 30 minutes;
 - d. Weather information and a description of any discharges occurring at the time of the inspection;
 - e. Results of observations of stormwater discharges, including any observed discharges of pollutants and the probable sources of those pollutants;
 - f. Any control measures needing maintenance, repairs or replacement; and,
 - g. Any additional control measures needed to comply with the permit requirements.
6. The permittee shall amend and update the SWPPP within fourteen (14) days of any changes at the facility that result in a significant effect on the potential for the discharge of pollutants to the waters of the United States. Changes which may affect the SWPPP include, but are not limited to, the following activities: a change in design, construction, operation, or maintenance, which has a significant effect on the potential for the discharge of pollutants to the waters of the United States; a release of a reportable quantity of pollutants as described in 40 CFR §302; or a determination by the permittee or EPA that the SWPPP appears to be ineffective in achieving the general objectives of controlling pollutants in stormwater discharges associated with industrial activity.
7. Any amended, modified, or new version of the SWPPP shall be re-certified and signed by the permittee in accordance with the requirements identified in 40 CFR §122.22. The permittee shall also certify, at least annually, that the previous year's inspections and maintenance activities were conducted, results recorded, records maintained, and that the facility is in compliance with this permit. If the facility is not in compliance with any aspect of this

permit, the annual certification shall state the non-compliance and the remedies which are being undertaken. Such annual certifications also shall be signed in accordance with the requirements identified in 40 CFR §122.22. The permittee shall maintain at the facility a copy of its current SWPPP and all SWPPP certifications (the initial certification, re-certifications, and annual certifications) signed during the effective period of this permit, and shall make these available for inspection by EPA and MassDEP. In addition, the permittee shall document in the SWPPP any violation of numerical or non-numerical stormwater effluent limits with a date and description of the corrective actions taken.

D. PROVISIONS FOR THE USE AND APPROVAL OF OTHER BEVERAGE FACILITY WASTEWATERS

The permittee is authorized to accept and store wastewater from three local beverage manufacturing facilities and to periodically add this wastewater to its biological wastewater treatment system, only as needed, in order to effectively provide the optimal conditions for treatment. The current providers of this wastewater are Epic Enterprises, Inc., Cpf, Inc, and Tate & Lyle. Upon accepting this water at its facility, this water becomes the responsibility of the permittee. In order to use wastewater from any other beverage manufacturer in its treatment system during this permit term, the permittee must provide to EPA and MassDEP information about the source of such water in advance including the name of the company, the range of its products, what type of tanker will be used to transfer such product, and any other uses for this tanker. The permittee shall also provide a priority pollutant scan of a sample of the beverage wastewater for which it is requesting approval for use in its treatment plant. At a minimum, this priority pollutant scan shall analyze for parameters 1M through 13M, and parameters 1V through 31V of the EPA's Form 2C application, as well as for ethanol and the permittee shall include all test results with its submittal.

The permittee shall not introduce such wastewater into its treatment system before getting written approval by the EPA and MassDEP. Upon written approval of accepting such wastewater, the permittee may use this water in its treatment plant and assure that the combination of all beverage wastewaters used in the treatment plant does not cause or contribute to any permit limits violations. Only beverage wastewater shall be used from each approved facility and such water shall not be commingled with any other wastewater from each approved facility. An annual priority pollutant scan requirement is established in this permit to assess whether any parameters that were detected in any of the off-site beverage wastewater sources are detected in the effluent. This would allow EPA and MassDEP to determine whether any such pollutants would cause or contribute to any violation of instream WQS. The sampling for this scan shall be conducted during the period of April through June of each year and during a period when the facility is using any off-site beverage wastewater in its treatment system. The permittee is also required to record how much off-site beverage wastewater was used each calendar month and this amount shall be reported in each DMR.

E. REOPENER CLAUSE

1. This permit shall be modified, or alternately, revoked and reissued, to comply with any applicable standard or limitation promulgated or approved under sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a)(2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
 - a. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
 - b. Controls any pollutants not limited in the permit.

F. MONITORING AND REPORTING

1. **For a period of one year from the effective date of the permit**, the permittee may either submit monitoring data and other reports to EPA in hard copy form or report electronically using NetDMR, a web-based tool that allows permittees to electronically submit discharge monitoring reports (DMRs) and other required reports via a secure internet connection. **Beginning no later than one year after the effective date of the permit**, the permittee shall begin reporting using NetDMR, unless the facility is able to demonstrate a reasonable basis that precludes the use of NetDMR for submitting DMRs and reports. Specific requirements regarding submittal of data and reports in hard copy form and for submittal using NetDMR are described below:

- a. Submittal of Reports Using NetDMR

NetDMR is accessed from: <http://www.epa.gov/netdmr>. **Within one year of the effective date of this permit**, the permittee shall begin submitting DMRs and reports required under this permit electronically to EPA using NetDMR, unless the facility is able to demonstrate a reasonable basis, such as technical or administrative infeasibility, that precludes the use of NetDMR for submitting DMRs and reports (“opt-out request”).

DMRs shall be submitted electronically to EPA no later than the 15th day of the month following the completed reporting period. All reports required under the permit shall be submitted to EPA as electronic attachments to the DMRs. Once a permittee begins submitting reports using NetDMR, it will no longer be required to submit hard copies of DMRs or other reports to EPA and will no longer be required to submit hard copies of DMRs to MassDEP. However, permittees shall continue to send hard copies of reports other than DMRs to MassDEP until further notice from MassDEP.

- b. Submittal of NetDMR Opt-Out Requests

Opt-out requests must be submitted in writing to EPA for written approval at least sixty (60) days prior to the date a facility would be required under this permit to begin using NetDMR. This demonstration shall be valid for twelve (12) months from the

date of EPA approval and shall thereupon expire. At such time, DMRs and reports shall be submitted electronically to EPA unless the permittee submits a renewed opt-out request and such request is approved by EPA. All opt-out requests should be sent to the following addresses:

Attn: NetDMR Coordinator
U.S. Environmental Protection Agency, Water Technical Unit
5 Post Office Square, Suite 100 (OES04-1)
Boston, MA 02109-3912

and

Massachusetts Department of Environmental Protection
Surface Water Discharge Permit Program
627 Main Street, 2nd Floor
Worcester, Massachusetts 01608

c. Submittal of Reports in Hard Copy Form

Monitoring results shall be summarized for each calendar month and reported on separate hard copy Discharge Monitoring Report Form(s) (DMRs) postmarked no later than the 15th day of the month following the completed reporting period. All reports required under this permit shall be submitted as an attachment to the DMRs. Signed and dated originals of the DMRs, and all other reports or notifications required herein or in Part II shall be submitted to the Director at the following address:

U.S. Environmental Protection Agency
Water Technical Unit (OES04-SMR)
5 Post Office Square - Suite 100
Boston, MA 02109-3912

Duplicate signed copies of all reports or notifications required above (including those in Part I.D) shall be submitted to the State at the following address:

Massachusetts Department of Environmental Protection
Central Regional Office
Bureau of Waste Prevention (Industrial)
627 Main Street
Worcester, MA 01608

Duplicate signed copies of all reports or notifications required above, with the exception of DMRs, shall be submitted to the State at the following address:

Massachusetts Department of Environmental Protection
Division of Watershed Management
Surface Water Discharge Permit Program
627 Main Street, 2nd Floor
Worcester, Massachusetts 01608

Any verbal reports, if required in Parts I and/or II of this permit, shall be made to both EPA-New England and to MassDEP.

G. STATE PERMIT CONDITIONS

1. This authorization to discharge includes two separate and independent permit authorizations. The two permit authorizations are (i) a federal National Pollutant Discharge Elimination System permit issued by the U.S. Environmental Protection Agency (EPA) pursuant to the Federal Clean Water Act, 33 U.S.C. §§1251 et seq.; and (ii) an identical state surface water discharge permit issued by the Commissioner of the Massachusetts Department of Environmental Protection (MassDEP) pursuant to the Massachusetts Clean Waters Act, M.G.L. c. 21, §§ 26-53, and 314 C.M.R. 3.00. All of the requirements contained in this authorization, as well as the standard conditions contained in 314 CMR 3.19, are hereby incorporated by reference into this state surface water discharge permit.
2. This authorization also incorporates the state water quality certification issued by MassDEP under § 401(a) of the Federal Clean Water Act, 40 C.F.R. 124.53, M.G.L. c. 21, § 27 and 314 CMR 3.07. All of the requirements (if any) contained in MassDEP's water quality certification for the permit are hereby incorporated by reference into this state surface water discharge permit as special conditions pursuant to 314 CMR 3.11.
3. Each Agency shall have the independent right to enforce the terms and conditions of this permit. Any modification, suspension or revocation of this permit shall be effective only with respect to the Agency taking such action, and shall not affect the validity or status of this permit as issued by the other Agency, unless and until each Agency has concurred in writing with such modification, suspension or revocation. In the event any portion of this permit is declared, invalid, illegal or otherwise issued in violation of State law such permit shall remain in full force and effect under Federal law as an NPDES permit issued by the U.S. Environmental Protection Agency. In the event this permit is declared invalid, illegal or otherwise issued in violation of Federal law, this permit shall remain in full force and effect under State law as a permit issued by the Commonwealth of Massachusetts.

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND - REGION I
5 POST OFFICE SQUARE, SUITE 100
BOSTON, MASSACHUSETTS 02109-3912**

FACT SHEET

**DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
PERMIT TO DISCHARGE TO WATERS OF THE UNITED STATES PURSUANT TO
THE CLEAN WATER ACT (CWA)**

NPDES PERMIT NO. MA0004936

DATE OF PUBLIC NOTICE: December 7, 2012 – January 5, 2013

NAME AND ADDRESS OF APPLICANT:

Veryfine Products, Inc.
20 Harvard Road
Littleton, MA 01460

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

Veryfine Products, Inc.
20 Harvard Road
Littleton, MA 01460

RECEIVING WATER: Reedy Meadow Brook (Segment MA84B-01)

RECEIVING WATER CLASSIFICATION: Class B (Warm Water Fishery)

LATITUDE: 42E 32' 25" N **LONGITUDE:** 71E 30' 55" W

SIC CODE: 2086 – Water, flavored, manufacturing; Beverages, fruit and vegetable drinks, cocktails, and ades, manufacturing

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Table 1 - Outfall 001 Discharge Monitoring Report Data

Table 2 - Outfall 001 Discharge Monitoring Report Data Summary

Table 3 - Outfall 002 Discharge Monitoring Report Data Summary

Figure 1 - Facility Location

Figure 2 - Location of Outfalls

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Figure 4 - Wastewater Treatment Plant Schematic

Figure 5 - Water Pre-Treatment and Reverse Osmosis Filtration System

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

Veryfine Products, Inc., the “Permittee”, is a wholly owned subsidiary of Sunny Delight Beverages Company and is engaged in the manufacture of flavored water, fruit-based juices, and other beverages. The company also co-manufactures flavored waters and juices for its customers. The facility produces roughly 5 million cases of flavored water products and about 6 million cases of fruit juice and tea products annually.

The permittee has applied to the U.S. Environmental Protection Agency (EPA) for reissuance of its National Pollutant Discharge Elimination System (NPDES) permit to discharge treated process wastewater, reverse osmosis (RO) reject water, RO system backwash water, RO system cleaning rinse water, non-contact cooling, and contact cooling water to Reedy Meadow Brook, via Outfall 001. The permittee is also authorized to discharge storm water from an on-site retention pond to Outfall 002, an internal outfall, which combines to Outfall 001 prior to discharge to Reedy Meadow Brook. See Figure 1 for a map of the facility location and Figure 2 for the location of the outfalls.

The current permit (“2006 Permit”) was issued on September 1, 2006 and expired five years from the effective date, on November 1, 2011. EPA received a completed permit renewal application from the applicant dated March 30, 2011, with supplemental information submitted on June 21, 2011. Since the permit renewal application was deemed timely and complete by EPA, the permit has been administratively continued pursuant to 40 CFR § 122.6.

II. Description of Treatment System and Discharges

This facility historically processed fresh apples and fresh and frozen cranberries into juice products. All fruit based juices are now made with fruit concentrates and no processing of fresh fruits occurs on the premises. During the last few years, this plant has increased its production of flavored water and tea products, which has led to a decline of fruit juice production. As of February 2012, this facility’s product mix is roughly 55% juice products and 45% flavored water products. The facility has noted that this product mix is evaluated periodically and changes slightly over time. As required by Part I.A.5 of the permit, the permittee shall notify EPA and MassDEP when it is planning to make a significant change to its product mix or when it is planning to undergo a change or addition to its treatment system that may alter the quality of the effluent. This will allow the agencies the time to determine whether or not such changes would result in changes to effluent quality which would necessitate a permit modification.

The facility employs several bottling lines for its products. Fruit juice products typically undergo a pasteurization step which heats the products up to 195⁰F. There are also bottle washing operations and non-contact cooling waters from heat exchangers that are routed to the wastewater treatment plant (WWTP). As proportionately less fruit juice is being produced at the plant, there has been a reduction in heated waters from the bottling lines and a reduction in the Biochemical

Oxygen Demand (BOD) content of these waters, which is typically high in the fruit juice wastewater. The floor drains in the bottling and canning operations collect washdown water and any spills and send them to the WWTP. The cans of juices that undergo pasteurization are cooled with contact cooling water which is returned to rooftop cooling towers for heat removal and periodically discharged to the treatment plant. Each bottling line has a semi-closed loop cooling water recycle system, consisting of recirculating pumps and chiller systems located on the roofs of its building. See Figure 3 for a process flow diagram of the bottling and canning operations at the facility.

In 1993, Veryfine completed the construction of a new biological treatment system for its process wastewater and the permit issued in 1993 included extensive monitoring due to water quality concerns and also to get sufficient operating data for this plant, which at the time represented relatively new treatment technology. The plant treats high strength (high BOD) wastewater, low strength (low BOD) wastewater, non-contact cooling water (NCCW), and Reverse Osmosis reject (ROR) water and water associated with backwashing the RO units. See Figure 4 for a schematic of Veryfine's WWTP.

As the permittee has transitioned from juice products to flavored waters and teas, the amount of oxygen demand to its biological treatment system has been reduced considerably, essentially starving the treatment system's biomass. Biological treatment relies on bacterial biomass to break down organic matter which cannot survive without a steady stream of organic matter. Therefore, during the last permit term, the permittee received approval from the MassDEP to accept so-called "high strength wastewater" (high in COD) from other beverage manufacturing facilities after a pilot study showed that adding these high strength waters to its treatment system would greatly improve the WWTP's efficiency. The permittee expects to need to continue using such high strength wastewater in its treatment system due to its product mix in order to be able to meet this permit's BOD and TSS limits. Currently, Veryfine accepts water from three local beverage manufacturers which it stores on site, and which is referred to as "off-site beverage wastewater".

This water is metered into the treatment plant as needed and comprises up to 3% of the total water treated, or up to 17,000 gallons per day compared to the limited monthly flow of 550,000 gpd (0.55 MGD). During the permit application process, the EPA and MassDEP requested and the permittee provided, a priority pollutant scan for each source of wastewater that it was accepting at its facility. The results of these scans are shown below.

Pollutant	Vendor #1	Vendor #2	Vendor #3
Aluminum, mg/l	0.74	3.1	1.9
Arsenic, mg/l	0.014	0.13	0.94
Copper, mg/l	0.023	0.23	0.19
Lead, mg/l	0.003	0.014	0.13
Nickel, mg/l	0.011	0.062	0.019
Selenium, mg/l	0.015	Not detected	0.084
Zinc, mg/l	0.014	0.83	0.68

Phosphorus, mg/l	12	17	0.13
TSS, mg/l	133	2595	178
Oil & Grease, mg/l	3	43	13
Ethanol, mg/l	118,000	14,600	82,000
Chloroform, mg/l	15.8	Not detected	Not detected
Phenols, mg/l	Not detected	0.2	0.04

Based on these sampling results and the high degree of dilution that the off-site beverage wastewater will experience through the treatment plant, EPA and MassDEP authorize the continued use of this wastewater in the permittee's wastewater treatment system. Most of these parameters are either monitored as part of the WET testing requirement or are limited in the draft permit, with the exception of ethanol, chloroform, and phenols. The addition of this wastewater shall not cause or contribute to any violations of the permit's limits or conditions. Part I.D. of the draft permit has set forth the necessary steps that the permittee must take in order to gain approval from EPA and MassDEP to use beverage wastewater from any other manufacturer in its treatment system. The permittee will need to report how much of this off-site beverage wastewater it uses in its WWTP each month. In addition, in order to assess whether any of the parameters present in these beverage wastewaters are present in Veryfine's effluent, there has been an annual priority pollutant scan requirement continued in this permit. Sampling for this scan shall be conducted during the second calendar quarter of the year (April through June) and during a period when the off-site beverage wastewater is being used in the WWTP.

Veryfine's wastewater treatment plant (WWTP) employs pretreatment with screening and grit removal. The high strength flow is treated in an upflow anaerobic sludge blanket (UASB) reactor. An activated sludge system is then used to treat the UASB effluent along with the low strength water, NCCW, and ROR water. These flows are then sent through a reactor clarifier with alum to remove phosphorus. This is followed by automatic backwash variety sand filters for removal of suspended solids. This is followed by post aeration and ultraviolet disinfection. Flow is measured by a Parshall flume after the UV unit and this is where the effluent sampling is conducted. Sludge is collected via a filter press operation and taken by truck to a facility operated by Mass Natural Fertilizer Company in Westminister, Massachusetts where it is composted for use as fertilizer.

The permittee treats municipal water with a reverse osmosis (RO) system for its flavored water products. This RO process results in the ROR water, which was authorized as a portion of the effluent for the 2006 permit. This reject water contributes about 38,000 gallons per day to the waste stream, which is treated in the biological treatment system. The RO system is shown in Figure 5. Since the ROR water was a new wastewater source to this treatment plant, the 2006 permit required a priority pollutant scan of the effluent be conducted quarterly for the first calendar year of the reissued permit term. Sampling for this 24 hour composite scan was conducted during a period of RO system use and at least 2 of the 4 quarterly samples were conducted during a period of RO system cleaning. All four PP scans showed that there were no

detectable levels of any of the pollutants analyzed. As already noted, an annual PP scan requirement has been maintained in the draft permit.

This RO system is backflushed on a regular basis and this water enters the treatment system with the cooling water flow prior to the SBRs, at about 50,000 gallons per week. This backwash is based on run time of the system. The RO filters are replaced as necessary, with the old filters taken off site and not cleaned at the facility.

Veryfine has an internal storm water outfall (#002) which is comprised of storm water from building roofs and parking lot drains. These flows are directed to a retention basin, prior to being combined with Outfall 001 flows for eventual discharge to Reedy Meadow Brook. There are oil/water separators for each storm water catch basin leading to the retention basin and a separator in the discharge line to the basin itself.

A summary of recent Discharge Monitoring Reports (DMRs) data may be found in Tables 1, 2 and 3. These data comprise the period between January 2009 and September 2012, which is referred to as the “monitoring period” in this fact sheet.

III. Receiving Water Description

Outfalls 001 and 002 discharge to Reedy Meadow Brook (RMB), which is in the Merrimack River watershed. RMB is classified by the Massachusetts Department of Environmental Protection (MassDEP) as Segment MA84B-01, originates at an impoundment upstream of Bruce Street in Littleton, and travels a distance of 1.5 miles before entering Mill Pond. This segment is classified as Class B (warm water fishery)¹, by the MassDEP under the Commonwealth of Massachusetts Surface Water Quality Standards (SWQS).²

Class B waters are described in the SWQS (314 CMR 4.05(3)(b)) as “designated as a habitat for fish, other aquatic life, and wildlife, including for their reproduction, migration, growth and other critical functions, and for primary and secondary contact recreation. Where designated in 314 CMR 4.06, they shall be suitable as a source of public water supply with appropriate treatment (“Treated Water Supply”). Class B waters shall be suitable for irrigation and other agricultural uses and for compatible industrial cooling and process uses. These waters shall have consistently good aesthetic value.”

Warm water fisheries are defined in the MA SWQS as “waters in which the maximum mean monthly temperature generally exceeds 68°F during the summer months and are not capable of sustaining a year-round population of cold water stenothermal aquatic life” (314 CMR §4.02).²

¹ <http://www.mass.gov/dep/water/laws/tblfig.pdf>

² <http://www.mass.gov/dep/service/regulations/314cmr04.pdf>

According to the *Merrimack River Watershed 2004 Water Quality Assessment Report*, <http://www.mass.gov/dep/water/resources/84wqar09.pdf>, there were insufficient data available to determine whether this segment was meeting its designated uses as identified in the WQS. However, the aquatic life designated use was put on “alert” status. It was noted that water samples collected upstream of the permittee’s discharge for use as a site control for the facility’s whole effluent toxicity (WET) testing between January 2001 and April 2009 resulted in survival of the test species *Pimephales promelas* (fathead minnow) of less than 75% in 5 of the 34 test events. WET test protocol requires that this species have at least an 80% survival for the test to be valid. Due to this toxicity in the receiving water, the 2005 permit allowed the permittee to use an alternate dilution water for its WET testing and this permit will allow for the continuation of this practice.

Sections 305(b) and 303(d) of the CWA require that States complete a water quality inventory and develop a list of impaired waters. Section 303(d) of the CWA requires States to identify those water bodies that are not expected to meet surface water quality standards after the implementation of technology-based controls, and as such, require the development of a Total Maximum Daily Load (TMDL) for each pollutant that is prohibiting a designated use(s) from being attained. In Massachusetts, these two evaluations have been combined into an Integrated List of Waters. The integrated list format provides the status of all assessed waters in a single, multi-part list.

Reedy Meadow Brook is listed on the *Final Massachusetts Year 2010 Integrated List of Waters*³ and also in the *Proposed Massachusetts Year 2012 Integrated List of Waters*⁴ as a Category 5 waterbody: “Waters requiring a TMDL for fecal coliform.”

MassDEP is required under the CWA to develop a TMDL for a waterbody once it is identified as impaired. A TMDL is essentially a pollution budget designed to restore the health of a water body. A TMDL first identifies the source(s) of the pollutant from direct and indirect discharges in order to next determine the maximum amount of pollutant (including a margin of safety) that can be discharged to a specific water body while maintaining water quality standards for designated uses. It then outlines a plan to meet the goal. No TMDLs have been drafted or finalized for Reedy Meadow Brook.

IV. Limitations and Conditions

The effluent limitations and all other requirements described herein may be found in the draft permit. The basis for the limits and other permit requirements are described below.

³ <http://www.mass.gov/dep/water/resources/10list6.pdf>

⁴ <http://www.mass.gov/dep/water/resources/12list2.pdf>

V. Permit Basis: Statutory and Regulatory Authority

General Requirements

The Clean Water Act (CWA) prohibits the discharge of pollutants to waters of the United States without a National Pollutant Discharge Elimination System (NPDES) permit unless such a discharge is otherwise authorized by the CWA. The NPDES permit is the mechanism used to implement technology and water quality-based effluent limitations and other requirements including monitoring and reporting. This draft NPDES permit was developed in accordance with various statutory and regulatory requirements established pursuant to the CWA and any applicable State regulations. The regulations governing the EPA NPDES permit program are generally found at 40 CFR Parts 122, 124, 125, and 136.

When developing permit limits, EPA must consider the most recent technology-based treatment and water quality-based requirements. Subpart A of 40 CFR Part 125 establishes criteria and standards for the imposition of technology-based treatment requirements in permits under Section 301(b) of the CWA, including the application of EPA-promulgated effluent limitations and case-by-case determinations of effluent limitations under Section 402(a)(1) of the CWA. EPA is required to consider technology and water quality-based requirements as well as all limitations and requirements in the existing permit when developing permit limits.

Technology-Based Requirements

Technology-based treatment requirements represent the minimum level of control that must be imposed under Sections 301(b) and 402 of the CWA (see 40 CFR §125 Subpart A) to meet best practicable control technology currently available (BPT) for conventional pollutants and some metals, best conventional control technology (BCT) for conventional pollutants, and best available technology economically achievable (BAT) for toxic and non-conventional pollutants.

EPA established minimum control technology requirements for apple processing in the form of effluent guidelines promulgated under *40 CFR 407 – Canned and Preserved Fruits and Vegetables Point Source Category*. The permittee's operations are most closely categorized by 40 CFR 407, Subpart A – "Apple Juice Subcategory". However, since the permittee no longer processes apples into fruit juice or other products, which is how the operations in this subcategory are defined, these Effluent Limitation Guidelines (ELGs) do not apply to this facility at this time. As noted earlier, the permittee had previously processed apples at its facility but currently does not and does not have plans to do so in the future.

In general, the statutory deadline for non-POTW, technology-based effluent limitations must be complied with as expeditiously as practicable but in no case later than three years after the date such limitations are established and in no case later than March 31, 1989 (see 40 CFR §125.3(a)(2)). Compliance schedules and deadlines not in accordance with the statutory provisions of the CWA cannot be authorized by a NPDES permit.

In the absence of published technology-based effluent guidelines, the permit writer is authorized under Section 402(a)(1)(B) of the CWA to establish effluent limitations on a case-by-case basis using best professional judgment (BPJ).

The effluent monitoring requirements have been established to yield data representative of the discharges under the authority of Section 308(a) of the CWA, according to regulations set forth at 40 CFR § 122.41(j), 122.44(i) and 122.48. The monitoring program in the permit specifies routine sampling and analysis which will provide continuous information on the reliability and effectiveness of the installed pollution abatement equipment. The approved analytical procedures are to be found in 40 CFR §136 unless other procedures are explicitly required in the permit.

Water Quality-Based Requirements

Water quality-based limitations are required in NPDES permits when EPA and the State determine that effluent limits more stringent than technology-based limits are necessary to maintain or achieve state or federal water quality standards (WQS). See Section 301(b)(1)(C) of the CWA.

Receiving water requirements are established according to numerical and narrative standards adopted under state law for each water quality classification. When using chemical-specific numeric criteria to develop permit limits, both the acute and chronic aquatic-life criteria, expressed in terms of maximum allowable in-stream pollutant concentration, are used. Acute aquatic-life criteria are considered applicable to daily time periods (maximum daily limit) and chronic aquatic-life criteria are considered applicable to monthly time periods (average monthly limit). Chemical-specific limits are allowed under 40 CFR § 122.44(d)(1) and are implemented under 40 CFR § 122.45(d).

A facility's design flow is used when deriving constituent limits for daily and monthly time periods as well as weekly periods where appropriate. Also, the dilution provided by the receiving water is factored into this process where appropriate. Narrative criteria from the state's water quality standards are often used to limit toxicity in discharges where (a) a specific pollutant can be identified as causing or contributing to the toxicity but the state has no numeric standard; or (b) toxicity cannot be traced to a specific pollutant.

EPA regulations require NPDES permits to contain effluent limits more stringent than technology-based limits where more stringent limits are necessary to maintain or achieve state or federal WQS. The permit must address any pollutant or pollutant parameter (conventional, non-conventional, toxic and whole effluent toxicity) that is or may be discharged at a level that causes or has "reasonable potential" to cause or contribute to an excursion above any water quality criterion. See 40 CFR §122.44(d)(1). An excursion occurs if the projected or actual in-stream concentration exceeds the applicable criterion. In determining reasonable potential, EPA

considers (a) existing controls on point and non-point sources of pollution; (b) pollutant concentration and variability in the effluent and receiving water as determined from the permit application, monthly Discharge Monitoring Reports (DMRs), and State and Federal Water Quality Reports; (c) sensitivity of the species to toxicity testing; (d) known water quality impacts of processes on wastewater; and, where appropriate, (e) dilution of the effluent in the receiving water.

WQS consist of three parts: (a) beneficial designated uses for a water body or a segment of a water body; (b) numeric and/or narrative water quality criteria sufficient to protect the assigned designated use(s); and (c) antidegradation requirements to ensure that once a use is attained it will not be degraded. The MA SWQS, found at 314 CMR 4.00, include these elements. The state will limit or prohibit discharges of pollutants to surface waters to assure that surface water quality standards of the receiving waters are protected and maintained or attained. These standards also include requirements for the regulation and control of toxic constituents and require that EPA criteria, established pursuant to Section 304(a) of the CWA, shall be used unless a site-specific criterion is established. The conditions of the permit reflect the goal of the CWA and EPA to achieve and then to maintain WQS.

Antibacksliding

A permit may not be renewed, reissued or modified with less stringent limitations or conditions than those contained in the previous permit unless in compliance with the antibacksliding requirements of the CWA [see Sections 402(o) and 303(d)(4) of the CWA and 40 CFR §122.44(l)(1 and 2)]. EPA's antibacksliding provisions prohibit the relaxation of permit limits, standards, and conditions except under certain circumstances. Effluent limits based on BPJ, water quality, and state certification requirements must also meet the antibacksliding provisions found at Section 402(o) and 303(d)(4) of the CWA. The monitoring frequencies for BOD, TSS, fecal streptococcus, *Escherichia coli*, dissolved oxygen, and oil & grease have been reduced in this draft permit based on past monitoring results. The monitoring for total copper has been eliminated in this draft permit based on past monitoring results. These changes are consistent with the "new information" provision of the antibacksliding regulations. The monitoring requirement for instream temperature has been eliminated as the past monitoring results indicate that the instream temperature standard is being met. The effluent temperature limit, which is set at the instream temperature standard, has remained and this will serve as an indicator of whether the instream temperature standard is met since the downstream flow is composed primarily of wastewater effluent from this facility. This change is also consistent with the "new information" provision of the antibacksliding regulations.

Antidegradation

Federal regulations found at 40 CFR §131.12 require states to develop and adopt a statewide antidegradation policy which maintains and protects existing instream water uses and the level of water quality necessary to protect the existing uses, and maintains the quality of waters which

exceed levels necessary to support propagation of fish, shellfish, and wildlife and to support recreation in and on the water. The Massachusetts Antidegradation Regulations are found at Title 314 CMR 4.04. There are no new or increased discharges being proposed with this permit reissuance. Therefore, EPA does not believe that the MassDEP is required to conduct an antidegradation review regarding this permit reissuance.

State Certification

Under Section 401 of the CWA, EPA is required to obtain certification from the state in which the discharge is located that all water quality standards or other applicable requirements of state law, in accordance with Section 301(b)(1)(C) of the CWA, are satisfied. EPA permits are to include any conditions required in the state's certification as being necessary to ensure compliance with state water quality standards or other applicable requirements of state law. See CWA Section 401(a) and 40 CFR §124.53(e). Regulations governing state certification are set out at 40 CFR §124.53 and §124.55. EPA regulations pertaining to permit limits based upon water quality standards and state requirements are contained in 40 CFR §122.44(d).

VI. Explanation of Permit's Effluent Limitations

Outfall 001

Flow and Dilution Factor

Water quality-based effluent limitations are established based on a calculated dilution factor derived from the available dilution in the receiving water at the point of discharge. Massachusetts SWQS require that the available effluent dilution be calculated based upon the 7Q10 flow of the receiving water [314 CMR 4.03(3)(a)]. The 7Q10 flow is the statistical mean low flow over seven consecutive days, to be expected once in ten years. Use of the 7Q10 flow allows for the calculation of the available dilution under critical flow (worst-case) conditions, which in turn results in the derivation of conservative water quality-based effluent limitations.

The permitted monthly average and daily maximum flow limits of 0.55 million gallons per day (MGD) and 0.75 MGD, respectively, will be used to calculate the dilution factors for this permit. The previous estimate of instream 7Q10 flow for Reedy Meadow Brook of 0.065 MGD is still believed to be appropriate. Therefore, the dilution factors using the permitted flows are both 1.1 and are calculated as follows:

Flow Dilution @ Maximum Daily Flow and Monthly Average Flows

$$\frac{0.065 \text{ MGD} + 0.75 \text{ MGD}}{0.75 \text{ MGD}} = 1.1 \qquad \frac{0.065 \text{ MGD} + 0.55 \text{ MGD}}{0.55 \text{ MGD}} = 1.1$$

BOD and TSS

The current permit limits for both BOD and TSS are 10 mg/l for a monthly average and 20 mg/l for daily maximum. These limits were established prior to the current permit and were based on a wasteload allocation (WLA) which was established for this receiving water by the MassDEP in 1990 and which was attached to a letter from Peter Dore of the MassDEP to Paul Hogan of the MassDEP on September 21, 1990. EPA and MassDEP believe that this allocation is still appropriate based on the low flow and prior impairments of the receiving water.

The average effluent BOD value during the monitoring period (January 2009 to August 2011) was 0.65 mg/l with a high reading of 7.4 mg/l with no violations. The average effluent TSS value during the monitoring period was 2.0 mg/l with a high reading of 16.1 mg/l with no violations.

The permittee has requested reducing the monitoring frequency for BOD and TSS from twice per week to once per week. Since the monitoring results show that the permittee can consistently meet and remain well below the WQB-limits, the monitoring frequency for both of these parameters has been reduced to once per week.

Temperature

The MA SWQS stipulate that the temperature for Class B warm water fisheries shall not exceed 83 °F and that the rise in temperature due to a discharge shall not exceed 5 °F. In order for the sequencing batch reactors (SBRs) of the biological treatment system to operate effectively, the permittee needs to raise the temperature of the wastewater entering these units to between 85 and 90 °F. The effluent temperature during the monitoring period has ranged from 61 – 83 °F. In order to determine whether the temperature standard is being met, the effluent temperature limit of 83 °F will be continued in this permit with a weekly monitoring frequency. The 2005 permit had established a monthly instream temperature monitoring requirement. As explained in the antibacksliding discussion, this requirement has been eliminated since past results show that the instream temperature standard has routinely been met. In addition, since this effluent makes up the majority of downstream flow, maintaining the effluent temperature limit at the instream WQS for temperature will assure that this standard is being met.

Total Phosphorus

Mill Pond, to which Reedy Meadow Brook discharges, is classified by the Mass DEP as a hypereutrophic waterbody (*Merrimack River Basin 1999 Water Quality Assessment Report*, November 2001). Mill Pond was listed as impaired due to the presence of aquatic noxious plants. The Army Corps of Engineers (ACOE) is currently conducting a study of Mill Pond and

its tributaries on behalf of the City of Littleton to investigate alternatives to restore the ecology and health of Mill Pond (*Update Report for Massachusetts*, October 31, 2012, ACOE-New England District). An estimated volume of 200,000 cubic yards of sediment is believed to have accumulated in the pond, reducing its depth and encouraging the extensive growth of noxious weeds and degraded fish habitat due to excessive nutrient concentrations. The current shallowness of the pond and excessive nutrient concentrations contribute to extensive growth of aquatic weeds and degraded fish habitat. The objectives of the restoration study are to address methods to remove and dispose of accumulated sediment from the pond to reduce the recycling of phosphorous, reduce nutrient influx, and increase water depth. The Corps is assessing the environmental benefits and costs of several restoration alternatives to determine the most cost-effective and acceptable solution. In addition, the town of Littleton is documenting basin-wide best management practices (BMPs) that are in place and that may be implemented to reduce nutrient loadings to the pond. The ACOE plans to complete a draft Detailed Project Report by incorporating the results of the town's study and additional sediment analysis, and issue a public notice when sufficient funding becomes available.

The impacts of high levels of phosphorus include violations of the minimum dissolved oxygen criteria, high levels of chlorophyll *a*, and high levels of macrophyte and periphyton growth. The relationship between high levels of phosphorus and eutrophication, as measured by chlorophyll *a*, periphyton, macrophyte, and dissolved oxygen levels is well documented in scientific literature, including in guidance developed by EPA to address nutrient over-enrichment. See *Nutrient Criteria Technical Guidance Manual – Rivers and Streams*, July 2000 (EPA-822-B-00-002).

The MA SWQS at 314 CMR § 4.00 do not contain numerical criteria for total phosphorus. They include a narrative criterion for nutrients at 314 CMR 4.05(5)(c), which provides that nutrients “[s]hall not exceed the site specific limits necessary to control accelerated or cultural eutrophication.” They also include a requirement that “[a]ny existing point source discharges containing nutrients in concentrations that would cause or contribute to cultural eutrophication, including the excessive growth of aquatic plants or algae ... shall be provided with the most appropriate treatment as determined by the Department, including, where necessary, highest and best practicable treatment ... to remove such nutrients.” MassDEP has interpreted the “highest and best practicable treatment (HBPT)” requirement in its standards as requiring an effluent limit of 0.2 mg/l (200 ug/l) for phosphorus.

In 2001, EPA released Ecoregional Nutrient Criteria, established as part of an effort to reduce problems associated with excess nutrients in water bodies in specific areas of the country. The published ecoregion-specific criteria represent conditions in waters minimally impacted by human activities, and are thus representative of water without cultural eutrophication. This facility is within Ecoregion VIII, classified as “Nutrient Poor, Largely Glaciated Upper Midwest and Northeast”. Recommended criteria for this ecoregion is found in *Ambient Water Quality Criteria Recommendations, Information Supporting the Development of State and Tribal Nutrient Criteria, Rivers and Streams in Nutrient Ecoregion VIII*, (December, 2001, EPA 822-B-01-015). The recommended aggregate total phosphorus criterion for this ecoregion is 10 ug/l.

In the absence of a numeric criterion for phosphorus, EPA looks to nationally recommended criteria and other technical guidance documents. See 40 CFR 122.44(d)(1)(vi)(B). EPA has produced several guidance documents which contain recommended total phosphorus criteria for receiving waters. The *1986 Quality Criteria for Water* (“Gold Book”) recommends that, in order to control eutrophication, instream phosphorus concentrations are no greater than 50 ug/l in any stream entering a lake or reservoir, 100 ug/l for any stream not discharging directly to lakes or impoundments, and 25 ug/l within a lake or reservoir. In the 2006 permit, it was determined that the effluent phosphorus levels should be based on the instream target guidance level of 50 ug/l (0.05 mg/l), which applies to any stream entering a lake or reservoir, since RMB travels a short distance before it empties into Mill Brook, a hypereutrophic reservoir.

In order to determine whether this permittee’s discharge of total phosphorus is contributing to the water quality impairment, EPA will continue to apply the Gold Book criteria 50 ug/l because it was developed from an effects-based approach rather than the reference conditions-based approach used in the derivation of the ecoregional criteria. The effects-based approach is preferred in this case because it is more directly associated with an impairment of a designated use (i.e., recreation). The effects-based approach provides a threshold value above which water quality impairments are likely to occur. It applies empirical observations of a causal variable (i.e., phosphorus) and a response variable (i.e., algal growth) associated with impairment of designated uses. Reference-based values are statistically derived from a comparison within a population of rivers in the same ecoregional class. They are a quantitative set of river characteristics (physical, chemical, and biological) that represent minimally impacted conditions.

Limits based on the State’s HBPT limit and EPA’s ecoregion criteria are not being established at this time. Since RMB travels a short distance before it empties into Mill Pond, a hypereutrophic reservoir, EPA believes that it is appropriate for the permit limit to be based on the instream target guidance level of 0.05 mg/l, which applies to any stream entering a lake or reservoir.

The 2006 permit established seasonal phosphorus limits. For the winter period, between November 1 and March 31, the limits were based on the instream target of 0.1 mg/l for the monthly average and established at 0.46 lbs/day, whereas the daily maximum limit was established at 1.25 lbs/day and was based on meeting the instream target of 0.2 mg/l. A higher phosphorus limit in the winter period is appropriate because the expected predominant form of phosphorus, the dissolved fraction, lacking plant growth to absorb it during the winter, will likely remain dissolved and flow out of the system. Imposing a limit on phosphorus during the cold weather months is, however, necessary to ensure that phosphorus discharged during the cold weather months does not result in the accumulation of phosphorus in the sediments, and subsequent release during the warm weather growing season.

For the summer period of April 1 through October 31, it was determined that the monthly average limit should be based on the instream target of 0.05 mg/l for phosphorus, since RMB travels for a short distance before entering Mill Pond. This limit was established at 0.23 lbs/day

and expressed as a 60 day rolling average. The daily maximum limit was based on the 0.2 mg/l instream target and was established at 1.25 lbs/day. Since it was determined that the permittee would not be able to consistently meet this more stringent phosphorus limit by the effective date of the 2006 permit, the EPA issued a compliance order to the permittee during which time the permittee would investigate methods to achieve this lower limit that was based on the instream target of 0.05 mg/l. The interim limit was set at the level of 0.46 lbs/day and was in effect for 5 years, or for the duration of the 2006 permit. During the last permit term, the permittee optimized its existing treatment plant and determined that it could meet the final monthly average seasonal P limit of 0.23 lbs/day without incurring major expense or treatment plant modifications.

During the monitoring period, the winter period effluent phosphorus averaged 0.036 lbs/day with a high value of 0.12 lbs/day. For the summer period, effluent phosphorus averaged 0.06 lbs/day with a high value of 0.3 lbs/day. There were no permit violations during this period.

The calculations for the phosphorus limits are shown below.

Mass-based effluent phosphorus limits:

Monthly average (April 1 to October 31) :

$$(0.55 \text{ MGD}) (0.05 \text{ mg/l}) [(8.35) \text{ conversion factor}] = \mathbf{0.23 \text{ lbs/day}}$$

Monthly average (November 1 to March 31):

$$(0.55 \text{ MGD}) (0.1 \text{ mg/l}) [(8.35) \text{ conversion factor}] = \mathbf{0.46 \text{ lbs/day}}$$

$$\text{Daily maximum – year round: } (0.75 \text{ MGD}) (0.2 \text{ mg/l}) (8.35) = \mathbf{1.25 \text{ lbs/day}}$$

Nitrogen

Recorded ammonia nitrogen levels ranged from 0.01 to 4.35 mg/l during the monitoring period with an average of 0.16 mg/l. A potential source of ammonia in the effluent was from the cleaning procedures for the RO system. Although the permittee had previously conducted cleaned its RO units on site, it has indicated that the units are no longer cleaned on site, but rather its components are replaced (March 5, 2012 e-mail from Martha Wik of Veryfine to George Papadopoulos of EPA). Although most of the readings were low, the minimal dilution available to the effluent leaves Reedy Meadow Brook (RMB) susceptible to nutrient enrichment from even low levels of additional nutrients. As noted earlier, Mill Pond, to which RMB discharges, is impaired for nutrients. Therefore, the monthly monitor only requirement for nitrogen will remain in the reissued permit.

pH

During the monitoring period, the effluent pH has ranged from 6.4 to 8.45 standard units (S.U.) with 3 violations of the permitted range in the MA SWQS. Therefore, the pH range of 6.5 – 8.3 S.U. will remain in this draft permit with a daily monitoring requirement as it is a state certification requirement and consistent with the MA SWQS.

Dissolved Oxygen

Since the receiving water has previously been listed as impaired for low dissolved oxygen, a minimum level of effluent DO of 7.0 mg/l was established in the 2006 permit, which was more stringent than the minimum requirement of 6.0 mg/l in the MA SWQS. During the monitoring period, the DO level has ranged from 7.1 to 12.1 m/l, with no violations of the minimum level of 7.0 mg/l. The permittee employs a post-aeration step in the treatment process to meet the permit limit and EPA believes that this minimum level continues to be appropriate for this discharge. Therefore, the minimum level for DO of 7.0 mg/l has been maintained in the draft permit and the monitoring frequency has been reduced from twice per week to once per week due to the ongoing compliance with the limit.

Oil & Grease

The daily maximum oil and grease limit of 15 mg/l was not exceeded during the monitoring period and only detected three times, with a high value of 6.7 mg/l. The oil and grease maximum daily limit of 15 mg/l is derived from the narrative water quality criteria in the MA SWQS [see 314 CMR 4.05(3)(b)(7)]. For discharges to Class B waters in Massachusetts, the narrative criteria require, among other things, that no oil and grease is present that would produce a visible film on the surface of the receiving water. MassDEP interprets this narrative criterion as prohibiting a discharge to these waters that would cause an oil sheen. EPA has maintained the oil and grease limit of 15 mg/l for this draft permit based on the MassDEP's long standing use of the 15 mg/l standard to represent the concentration at which a visible oil sheen is likely to occur. This limit will ensure the narrative water quality standard for oil and grease is protected. The monitoring frequency has been changed from monthly to quarterly based on recent monitoring results.

Aluminum

Aluminum compounds are used in the wastewater treatment process, primarily for the removal of phosphorus, and aluminum is routinely detected in the effluent sampling that has been conducted as part of the whole effluent toxicity (WET) testing requirement of this permit. During the years 2009 to 2012, the effluent aluminum level from the WET test results ranged from 0.079 to 0.571 mg/l, with an average of 0.21 mg/l.

The chronic water quality criterion for aluminum is 87 ug/l and the acute criterion is 750 ug/l as listed in *National Recommended Water Quality Criteria: 2002* (EPA-822-R-02-047). The applicable water quality based limits are derived as follows based on the dilution factors that were calculated earlier:

Chronic limit: $0.087 * 1.1 = \mathbf{0.1 \text{ mg/l}}$ Acute limit: $0.750 * 1.1 = \mathbf{0.83 \text{ mg/l}}$

In most cases, the WET test data exceeded this chronic value, whereas no data points exceeded the acute value. The aluminum data indicate that there is a reasonable potential to violate the chronic, but not the acute, instream WQS for aluminum. Therefore, a new monthly average aluminum limit of 0.1 mg/l has been established with a monthly monitoring frequency. The effluent sampling conducted for the WET tests may be used to satisfy that month's aluminum monitoring requirement.

Copper

The 2006 permit required monthly monitoring for total copper. During the monitoring period, the results have shown total copper to be consistently not detected in the effluent. Therefore, this monthly monitoring requirement has been eliminated from this draft permit. Since the WET testing requirement will continue in this permit, we will continue to have quarterly total copper data associated with the testing's chemical data of the effluent and the next permit will reassess the need to have additional copper monitoring or limits at that time.

Total Residual Chlorine

The facility has reported the continued presence of total residual chlorine in its discharge as it uses a product containing chlorine in cleaning operations at the facility. Chlorine can be extremely toxic to aquatic life. Effluent limits are based on water quality criteria for total residual chlorine (TRC) which are specified in EPA water quality criteria established pursuant to Section 304(a) of the Clean Water Act. The most recent EPA recommended criteria are found in *National Recommended Water Quality Criteria: 2002* (EPA-822-R-02-047). The fresh water aquatic life criteria for TRC are 11 ug/l for protection from chronic toxicity and 19 ug/l for protection from acute toxicity. The 7Q10 dilution multiplied by the chronic and acute criteria provides the appropriate TRC limits as shown below:

Chronic limit: $11 \text{ ug/l} * 1.1 = \mathbf{12 \text{ ug/l}}$ Acute limit: $19 \text{ ug/l} * 1.1 = \mathbf{21 \text{ ug/l}}$

During the current permit term, the permittee was required only to monitor for TRC in the effluent. For the DMR reporting period, TRC has averaged 44 ug/l, with high values of 130 and 150 ug/l. The recent monitoring data for TRC would indicate that there is a reasonable potential to violate the chronic and acute instream WQS. Therefore, the weekly TRC monitoring requirement has been maintained in the draft permit and new TRC limits have been established as calculated above.

Bacteria

Monitoring for *Escherichia coli* and fecal *Streptococcus* were required in the 2006 permit. The rationale for this monitoring was due to the fact that raw fruits, primarily apples, had previously been processed at the facility. Due to the nature of fruit harvesting areas, there was the potential for animal fecal matter to contaminate portions of the crop and therefore be introduced into the treatment plant and not adequately be treated prior to discharge. The production of fruit juices is now currently about 45% by volume of total production and all of the fruit juice products are made with fruit concentrates rather than raw fruits. Fruit processing no longer occurs at the facility. The 2006 permit required twice monthly monitoring during the period of April through October for these two bacteria parameters, consistent with the period required by the MA SWQS. During the monitoring period, the majority of samples detected neither parameter, and those that were detected were low. The facility's ultraviolet disinfection system is designed to treat for these bacteria parameters. The monitoring requirement for both parameters will be reduced from a frequency of twice per month to once per month during the months of April through October.

Whole Effluent Toxicity

Whole effluent toxicity (WET) testing is conducted to assess whether certain effluents are discharged in a combination which produces a toxic amount of pollutants in a receiving water. Toxicity testing is used in conjunction with pollutant specific control procedures to control the discharge of toxic pollutants.

Sections 402(a)(2) and 308(a) of the CWA provide EPA and the States the legal basis for establishing toxicity testing requirements and toxicity-based permit limits in NPDES permits. Section 308 specifically describes biological monitoring methods as techniques which may be used to carry out the objectives of the Act. Under certain narrative State water quality standards and Sections 301, 303, and 402 of the Clean Water Act, EPA and the States may establish toxicity-based limits to implement the narrative "no toxics in toxic amounts".

The regulations at 40 CFR Part 122.44(d)(ii) state, "When determining whether a discharge causes, has the reasonable potential to cause, or contribute to an instream excursion above a narrative or numeric criteria within a State water quality standard, the permitting authority shall use procedures which account for existing controls on point and nonpoint sources of pollution ... (including) the sensitivity of the species to toxicity testing ..." The EPA and MassDEP believe that the complexity of the wastewater from this discharge is such that toxicity testing and limitations are required to evaluate and address any water quality impacts.

During the monitoring period, the LC50 limit of 100% has been achieved in all occasions for the fathead minnow, *Pimephales promelas*. A previous permit had determined that this species was more sensitive to the effluent, which resulted in the species *Ceriodaphnia* to be removed from the WET testing requirement. For the chronic no observed effect concentration (C-NOEC), which has a limit of 91% or greater, the values have been mostly 100% with the exception of 2

results with values of 12.5 and 25%. The quarterly WET testing requirement will remain with the LC50 limit of 100% along with the C-NOEC limit of 91% or greater due to the past results and due to the variability of the discharge, which periodically contains RO system backwash waters and off-site beverage wastewater that is metered into the treatment system. In addition, the permittee is authorized to use an alternate dilution water (ADW) for its WET testing due to the unreliability of the receiving water for testing purposes.

Outfall 002 - Stormwater

Outfall 002 discharges storm water from building roofs and parking lot drains, which includes storm water associated with materials storage, materials processing and handling, blending and loading/unloading of product, and lawn maintenance. These flows are directed to a retention basin, prior to being combined with Outfall 001 flows for eventual discharge to Reedy Meadow Brook. There are oil/water separators for each of the stormwater catch basins leading to the retention basin and a separator in the discharge line to the basin itself. At the outlet of the retention basin, there is an earthen berm and a filter fabric to provide some filtration prior to discharge. The flow rate out of the basin can be controlled manually by the permittee. Thus, the basin can retain storm water during rainstorms and then gradually meter it out after the storm has passed if necessary. The storm water discharge flow is measured by meter after passing through this filtration fabric in a vault labeled "S/N 002 monitoring point" and prior to being combined with the Outfall 001 discharge. Monitoring for this outfall has been conducted for temperature, pH, TSS, oil & grease, total phosphorus and flow. During the monitoring period, the following ranges of effluent values have been recorded at Outfall 002:

Oil & grease: Not detected (ND) - 4 mg/l

Flow: 0.02 - 0.68 MGD

pH: 6.12 – 8.46 standard units

Phosphorus, Total: ND - 0.27 mg/l

TSS: ND - 51 mg/l

The TSS monitoring has shown varying results, from not detected to 51 mg/l, with an average value of 14 mg/l. This monitoring serves as an indicator of how well catch basins are being maintained, as well as the filtration prior to discharge. Since Outfall 002 joins up with Outfall 001 prior to eventual discharge, we believe it is important to assure that TSS levels in the Outfall 002 discharge are controlled, as they have been shown to be variable. Therefore, the daily maximum TSS limit of 100 mg/l has been maintained with a monthly monitoring requirement. It is acknowledged in the multi-sector general permit for storm water, last issued in 2009, that 100 mg/l for TSS is a benchmark which should not be exceeded for a storm water discharge if a facility has a properly implemented storm water pollution prevention plan (SWPPP). As explained below, the existing permit has a SWPPP requirement.

The pH range of 6.12 – 8.46 is typical of pH levels associated with precipitation. This quarterly monitoring requirement will remain, with the permittee required to report the range of at least three (3) grab samples taken every quarter. Monitoring the pH of the storm water may not provide an indication of the effectiveness of the SWPPP because of the influences of factors

other than the facility's industrial activities on the pH of the discharge, such as lower pH precipitation.

Oil & grease has generally not been detected during the monitoring period, with the exception of one reading of 4.0 mg/l. EPA believes that this requirement must be maintained to assure that the catch basins and oil/water separators are being properly operated and maintained. The State WQS limit O&G discharges to less than 15 mg/l (see Outfall 001 discussion above). Since there are some outfall samples with detectable levels of this parameter, EPA has maintained this limit and quarterly sampling requirement.

Phosphorus results for the last two years have shown levels ranging from ND to 0.27 mg/l. Since Outfall 001 has phosphorus limits and the receiving water was previously impaired for nutrients as discussed earlier, the monitor only requirement for Outfall 002 will be maintained at a monthly monitoring frequency. The SWPPP discussed below shall specifically identify the potential sources of phosphorus in this discharge, such as facility grounds fertilization practices, and implement BMPs to reduce phosphorus levels that are discharged to Outfall 002 and eventually to Reedy Meadow Brook.

Stormwater Pollution Prevention Plan

The Veryfine facility stores and handles numerous chemicals on its property which could result in the discharge of pollutants to Reedy Meadow Brook either directly or indirectly through storm water runoff. Operations include one or more of the following activities from which there is or could be site runoff: materials storage, materials processing and handling, blending and loading/unloading of product, and lawn maintenance. To control these and other activities and operations which could contribute pollutants to waters of the United States, potentially violating the MA SWQS, the Draft Permit continues the existing permit's requirement to implement and maintain a SWPPP containing best management practices (BMPs) appropriate for this facility (See Sections 304(e) and 402(a)(1) of the CWA and 40 CFR §125.103(b)).

The goal of the SWPPP is to reduce, or prevent, the discharge of pollutants through the storm water drainage system. The SWPPP requirements in the Draft Permit are intended to provide a systematic approach by which the permittee shall at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of the permit. The SWPPP shall be prepared in accordance with good engineering practices and identify potential sources of pollutants, which may reasonably be expected to affect the quality of stormwater discharges associated with industrial activity from the facility. The SWPPP is a supporting element to any numerical effluent limitations in the Permit and is an enforceable element of this permit. Implementation of the SWPPP involves the following four main steps:

- (1) Forming a team of qualified facility personnel who will be responsible for developing and updating the SWPPP and assisting the plant manager in its implementation;

- (2) Assessing the potential storm water pollution sources;
- (3) Selecting and implementing appropriate management practices and controls for these potential pollution sources; and
- (4) Periodically re-evaluating the effectiveness of the SWPPP in preventing storm water contamination and in complying with the various terms and conditions of the Permit.

To minimize preparation time of the SWPPP, the permittee may, for example, reflect requirements for Spill Prevention Control and Countermeasure (SPCC) plans [under Section 311 of the CWA and 40 CFR Part 112], Corporate Management Practices, etc.; and may incorporate any part of such plans into the SWPPP by reference. Provided these references address specific pollution prevention requirements and the goals of the SWPPP, they can be attached to the SWPPP for review and inspection by EPA and MassDEP personnel. Although relevant portions of other environmental plans, as appropriate, can be built into the SWPPP, ultimately however, it is important to note that the SWPPP should be a comprehensive, stand-alone document.

Pursuant to Section 304(e) of the CWA and 40 CFR §125.103(b), best management practices (BMP) may be expressly incorporated into a permit on a case-by-case basis where necessary to carry out Section 402(a)(1) of the CWA.

To control these activities or operations, which could contribute pollutants to waters of the United States via storm water discharges at this facility, the 2006 permit required this facility to develop a Stormwater Pollution Prevention Plan (SWPPP) containing BMPs appropriate for this facility.

Generally, BMPs should include processes, procedures, schedules of activities, prohibitions on practices, and other management practices that prevent or reduce the discharge of pollutants in storm water runoff. A copy of the most recent SWPPP shall be kept at the facility and be available for inspection by EPA and MassDEP. The draft permit requires the permittee to continue to implement the current SWPPP and revise it as necessary no later than ninety (90) days after the permit's effective date. The SWPPP is a supporting element to any numerical effluent limitations which minimizes the discharge of pollutants through the proper operation of the facility. Consequently, the SWPPP is as equally enforceable as the numerical limits and other requirements of this permit. See **Part I.C.** of the permit for specific SWPPP requirements.

VII. Essential Fish Habitat Determination (EFH)

“Under the 1996 Amendments (PL 104-267) to the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. § 1801 et seq. (1998)), EPA is required to consult with the National Marine Fisheries Service (NMFS) if EPA’s actions or proposed actions that it funds, permits, or undertakes, may adversely impact any essential fish habitat, such as: waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity (16 U.S.C. § 1802(10)). “Adversely impact” means any impact which reduces the quality and/or quantity of EFH (50 C.F.R. § 600.910(a)). Adverse effects may include direct (e.g., contamination or physical

disruption), indirect (e.g., loss of prey, reduction in species' fecundity), site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions.

Essential fish habitat is only designated for species for which federal fisheries management plans exist (16 U.S.C. §1855(b)(1)(A)). EFH designations for New England were approved by the U.S. Department of Commerce on March 3, 1999. Reedy Meadow Brook and Mill Pond, to which it discharges, are not covered by the EFH designation for riverine systems and thus EPA has determined that EFH consultation with NMFS is not required.

VIII. Endangered Species Act (ESA)

Section 7(a) of the Endangered Species Act (ESA) of 1973, as amended grants authority to and imposes requirements upon Federal agencies regarding endangered or threatened species of fish, wildlife, or plants ("listed species") and habitat of such species that has been designated as critical (a "critical habitat"). The ESA requires every Federal agency, in consultation with and with the assistance of the Secretary of Interior, to insure that any action it authorizes, funds, or carries out, in the United States or upon the high seas, is not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of critical habitat. The United States Fish and Wildlife Service (USFWS) typically administers Section 7 consultations for bird, terrestrial, and freshwater aquatic species. NMFS typically administers Section 7 consultations for marine species and anadromous fish.

EPA has reviewed the listing of federal endangered or threatened species of fish, wildlife, and plants to see if any such listed species might potentially be impacted by the reissuance of this NPDES permit and has not found any such listed species. Therefore, EPA does not need to formally consult with NMFS or USFWS in regard to the provisions of the ESA. During the public comment period, EPA has provided a copy of the Draft Permit and Fact Sheet to both NMFS and USFWS.

IX. Monitoring and Reporting

The permit's monitoring requirements have been established to yield data representative of the facility's pollutant discharges under the authority of Sections 308(a) and 402(a)(2) of the CWA and consistent with 40 C.F.R. §§ 122.41 (j), 122.43(a), 122.44(i) and 122.48. The monitoring program in the permit specifies routine sampling and analysis which will provide ongoing, representative information on the levels of regulated constituents in the wastewater discharge streams. The approved analytical procedures are found in 40 C.F.R. Part 136 unless other procedures are explicitly required in the permit.

The Permittee is obligated to monitor and report sampling results to EPA and the MassDEP within the time specified within the permit. Timely reporting is essential for the regulatory agencies to expeditiously assess compliance with permit conditions.

The Draft Permit includes new provisions related to DMR submittals to EPA and the State. The Draft Permit requires that, no later than one year after the effective date of the permit, the Permittee submit all monitoring data and other reports required by the permit to EPA using NetDMR, unless the Permittee is able to demonstrate a reasonable basis, such as technical or administrative infeasibility, that precludes the use of NetDMR for submitting DMRs and reports (“opt-out request”). In the interim (until one year from the effective date of the permit), the Permittee may either submit monitoring data and other reports to EPA in hard copy form, or report electronically using NetDMR.

NetDMR is a national web-based tool for regulated Clean Water Act permittees to submit DMRs electronically via a secure Internet application to U.S. EPA through the Environmental Information Exchange Network. NetDMR allows participants to discontinue mailing in hard copy forms under 40 C.F.R. § 122.41 and § 403.12. NetDMR is accessed from the following url: <http://www.epa.gov/netdmr>. Further information about NetDMR, including contacts for EPA Region 1, is provided on this website.

EPA currently conducts free training on the use of NetDMR, and anticipates that the availability of this training will continue to assist permittees with the transition to use of NetDMR. To participate in upcoming trainings, visit <http://www.epa.gov/netdmr> for contact information for Massachusetts.

The Draft Permit requires the Permittee to report monitoring results obtained during each calendar month using NetDMR, no later than the 15th day of the month following the completed reporting period. All reports required under the permit shall be submitted to EPA as an electronic attachment to the DMR. Once a permittee begins submitting reports using NetDMR, it will no longer be required to submit hard copies of DMRs or other reports to EPA and will no longer be required to submit hard copies of DMRs to MassDEP. However, permittees must continue to send hard copies of reports other than DMRs to MassDEP until further notice from MassDEP.

The Draft Permit also includes an “opt-out” request process. Permittees who believe they cannot use NetDMR due to technical or administrative infeasibilities, or other logical reasons, must demonstrate the reasonable basis that precludes the use of NetDMR. These permittees must submit the justification, in writing to EPA, at least sixty (60) days prior to the date the facility would have otherwise been required to begin using NetDMR. Opt-outs become effective upon the date of written approval by EPA and are valid for twelve (12) months. The opt-outs expire at the end of this twelve (12) month period. Upon expiration, the permittee must submit DMRs and reports to EPA using NetDMR, unless the permittee submits a renewed opt-out request sixty (60) days prior to expiration of its opt-out, and such a request is approved by EPA.

Until electronic reporting using NetDMR begins, or for those permittees that receive written approval from EPA to continue to submit hard copies of DMRs, the Draft Permit requires that

submittal of DMRs and other reports required by the permit continue in hard copy format. Hard copies of DMRs must be postmarked no later than the 15th day of the month following the completed reporting period.

X. State Certification Requirements

EPA may not issue a permit unless the Massachusetts Department of Environmental Protection (MassDEP) certifies that the effluent limitations included in the permit are stringent enough to assure that the discharge will not cause the receiving water to violate State Water Quality Standards. The MA DEP has reviewed the draft permit and advised EPA that the limitations are adequate to protect water quality. EPA has requested permit certification by the State pursuant to 40 CFR §124.53 and expects the draft permit will be certified.

XI. Public Comment Period, Public Hearing, and Procedures the Final Decision

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 the close of the public comment period, to George Papadopoulos, U.S. EPA, Office of Ecosystem Protection, Industrial Permits Branch, Mailcode OEP 06-1, 5 Post Office Square, Suite 100, Boston, Massachusetts 02109-3912. Any person, prior to such date, may submit a request in writing for a public hearing to consider the Draft Permit to EPA and the State Agency. Such requests shall state the nature of the issues proposed to be raised in the hearing. A public meeting may be held if the criteria stated in 40 C.F.R. §124.12 are satisfied. In reaching a final decision on the Draft Permit, the EPA will respond to all significant comments and make these responses available to the public at EPA's Boston office.

Following the close of the comment period, and after any public hearings, if such hearings are held, the EPA 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 30 days following the notice of the Final Permit decision, any interested person may submit a petition for review of the permit to EPA's Environmental Appeals Board consistent with 40 C.F.R. § 124.19.

XII. EPA and MassDEP Contacts

Additional information concerning the draft permit may be obtained between the hours of 9:00 a.m. and 5:00 p.m., Monday through Friday, excluding holidays, from the EPA and MassDEP contacts below:

George Papadopoulos, Industrial Permits Section
5 Post Office Square - Suite 100 - Mailcode OEP 06-1
Boston, MA 02109-3912
Telephone: (617) 918-1579 FAX: (617) 918-0579

Cathy Vakalopoulos, Massachusetts Department of Environmental Protection
Surface Water Discharge Permit Program
1 Winter Street, Boston, Massachusetts 02108
catherine.vakalopoulos@state.ma.us
Telephone: (617) 348-4026; FAX: (617) 292-5696

November 30, 2012

Date

Stephen S. Perkins, Director
Office of Ecosystem Protection
U.S. Environmental Protection Agency

Table 1 - Discharge Monitoring Report Results – Outfall 001
Year: 2009

MONTH	Flow, MGD MA/DM ¹	BOD, mg/l MA/DM	TSS, mg/l MA/DM	Temp, Effluent, °F, DM	Temp, Instream, °F, DM	pH, s.u. Range	DO, mg/l minimum	Fecal Strep., #/100 ml MA/DM	E.Coli, #/100 ml MA/DM
January	.24/.27	.75/1.87	1.1/5.5	61	57	6.6 – 8	10.6	-----	-----
February	.27/.31	.72/0.94	1.4/2	62	60	7.4 - 7.8	10.2	-----	-----
March	.26/.3	.91/1.32	1.3/5	65	65	7.3 – 7.8	9.4	-----	-----
April	.25/.28	.71/1.15	.39/.93	69	69	7.3 – 7.6	8.6	1/2	ND
May	.27/.33	.62/0.75	.88/3.2	74	71	7 – 7.6	8.8	ND	ND
June	.27/.43	.78/1.22	.85/2	78	72	7.1 – 7.5	8.1	ND	ND
July	.26/.38	.58/7.4	1.3/7.2	82	77	7 – 7.4	7.1	ND	ND
August	.25/.32	.65/1.15	.67/1.1	81	72	6.9 -7.7	7.5	1/2	1/2
September	.2/.29	.36/0.64	.71/1.3	75	72	6.9 – 7.2	8.3	ND	ND
October	.17/.25	.58/1.09	.53/.87	71	61	6.7 -7.1	8.6	ND	ND
November	.17/.27	.51/1.53	.7/1.9	69	65	6.7 -7.6	8.7	-----	-----
December	.22/.32	1.32/4.34	1.6/7.5	67	58	6.6 -7.1	8.8	-----	-----

1. MA = monthly average, DM = daily maximum

Table 1 Discharge Monitoring Report Results – Outfall 001**Year: 2010**

MONTH	Flow, MGD MA/DM	BOD, mg/l MA/DM	TSS, mg/l MA/DM	Temp, Effluent, °F, DM	Temp, Instream, °F, DM	pH, s.u., Range	DO, mg/l minimum	Fecal Strep., #/100 ml MA/DM	E. Coli, #/100 ml MA/DM
January	.24/.32	.34/0.63	1.2/2.3	68	56	6.4 – 7.0	8.4	-----	-----
February	.24/.31	.51/0.76	3.2/12.3	65	59	6.4 – 7.4	8.4	-----	-----
March	.26/.33	1.46/5.38	3.9/16	68	70	6.8 -8	8.4	-----	-----
April	.26/.33	.66/0.86	.77/1.4	73	70	6.8 -7.4	9.1	ND	ND
May	.27/.4	.77/1.03	1.6/2.6	80	78	6.8 – 7.5	8.3	ND	ND
June	.27/.38	.69/1.48	4/9.2	78	73	6.5 -7.1	7.8	0.5/1	ND
July	.31/.44	.5/0.82	2.6/8	83	82	6.6 -7.4	7.2	ND	1.5/2
August	.38/.49	.64/1.06	3.2/6.9	83	76	6.9 - 8.1	8.3	ND	ND
September	.34/.43	.26/0.51	2.9/9.1	82	72	6.5 – 7.3	8.3	ND	ND
October	.32/.44	.23/0.44	2.6/4.1	75	70	6.6 -7.1	9	7.5/13	ND
November	.29/.38	.26/0.6	1.8/4.9	68	65	6.6 – 7.5	8.9	-----	-----
December	.31/.38	.56/1.46	2.7/5.5	65	59	6.5 – 7.9	8.6	-----	-----

Table 1 Discharge Monitoring Report Results – Outfall 001**Year: 2011**

MONTH	Flow, MGD MA/DM	BOD, mg/l MA/DM	TSS, mg/l MA/DM	Temp, Effluent, °F, DM	Temp, Instream, °F, DM	pH, s.u., Range	DO, mg/l minimum	Fecal Strep. #/100ml MA/DM	E. Coli, #/100 ml MA/DM
January	.32/.42	.93/1.69	2.0/3.5	64	60	6.5 – 7.1	9.6	-----	-----
February	.34/.42	1.06/4.47	6.5/3.9	63	59	6.5 – 7.1	8.7	-----	-----
March	.35/.43	.7/1.58	2.4/5.5	64	61	6.5 – 7.4	10	-----	-----
April	.35/.43	.33/0.78	2.1/8.2	68	66	6.5 – 7.2	9.4	ND	ND
May	.36/.55	.67/1.19	1.7/2.3	74	71	6.9 – 7.7	9.5	4/6	6.5/11
June	.39/.46	.8/1.71	3.6/8.5	80	79	7.1 – 7.6	8.8	0.5/1	0.5/1
July	.39/.47	.52/0.8	1.8/2.9	80	74	6.8 – 7.6	9.4	ND	ND
August	.39/.5	.68/1.05	1.6/3.1	80	74	6.8 – 8.2	9.6	5/10	ND
September	.40/.51	.38/.61	2.7/4.3	77	78	7.1-8.3	8.9	ND	ND
October	.38/.49	.61/.90	2.2/4.5	73	73	7.4-8.2	8.7	1/2	1/2
November	.36/.44	.51/.76	1.5/3.9	71	71	7.1-7.8	8.6	-----	-----
December	.35/.47	1.01/2.52	2.0/4.6	66	66	6.5-7.4	8.2	-----	-----

Table 1 Discharge Monitoring Report Results – Outfall 001**Year: 2012**

MONTH	Flow,MGD MA/DM	BOD, mg/l MA/DM	TSS, mg/l MA/DM	Temp, Effluent, °F, DM	Temp, Instream, °F, DM	pH, s.u., Range	DO, mg/l minimum	Fecal Strep, #/100ml MA/DM	E. Coli, #/100 ml MA/DM
January	.32/.42	0.53/1	2.7/5.9	66	58	6.6 – 8.2	12.1	-----	-----
February	.33/.42	.64/1.09	2.4/4.2	66	58	7.1 - 8.1	9.8	-----	-----
March	.35/.67	1.32/1.95	2.6/12.7	74	71	7.2 - 8.0	11.2	-----	-----
April	.36/.51	.81/1.63	1.2/2.1	75	71	7.0 - 7.9	10.4	0.5/1	ND
May	0.38/0.49	.85/1.32	1.8/4.3	78	76	7.1 - 8.4	9.46	ND	ND
June	0.36/0.42	1.04/1.46	1.9/2.9	78	70	7.1 - 8.0	9.5	0.5/1	ND
July	0.36/0.56	1.15/1.63	1.6/2.9	82	77	7.0 - 8.1	9.1	3/6	ND
August	0.38/0.63	0.74/1	2.7/6.1	82.5	78	7.1 - 7.8	8.65	0.5/ND	ND
September	0.35/0.70	.82/2.33	2.5/7.8	81	74	7.3 - 7.8	8.99	2/4	<1/<2

Table 1 Discharge Monitoring Report Results – Outfall 001**Year: 2009**

MONTH	Oil & Grease, mg/l, DM	TRC, ug/l DM	Phosphorus, Total, mg/l MA/DM	NH3, mg/l MA/DM	Copper ug/l, DM	WET- LC50,%	WET- NOEC,%
January	ND	20	.03/.06	0.08/0.11	2.4	100	100
February	ND	17	.01/.02	0.93/2.03	5.9	-----	-----
March	ND-	26	.03/.06	1.23/3.25	5.1	-----	-----
April	ND	36	.04/.08	0.24/0.44	ND	100	100
May	ND	22	.05/.09	0.05/0.08	ND	-----	-----
June	ND	29	.04/.07	0.1/0.31	6.6	-----	-----
July	3.3	27	.06/.16	0.07/0.16	6.4	100	100
August	ND	22	.12/.26	0.11/0.31	2.7	-----	-----
September	6.7	18	.08/.25	0.06/0.07	10	-----	-----
October	ND	19	.06/.08	0.05/0.07	9	100	25
November	ND	24	.02/.06	0.06/0.07	ND	-----	-----
December	ND	13	.02/.05	0.21/0.56	12.7	-----	-----

Table 1 Discharge Monitoring Report Results – Outfall 001**Year: 2010**

MONTH	Oil & Grease, mg/l, DM	TRC, ug/l, DM	Phosphorus Total, mg/l MA/DM	NH3, mg/l MA/DM	Copper, ug/l, DM	WET – LC50,%	WET – NOEC,%
January	ND	17	.05/.07	1.7/4.35	ND	100	12.5
February	ND	26	.01/.02	0.12/0.29	ND	-----	-----
March	ND	21	.04/.06	0.06/0.13	ND	-----	-----
April	ND	19	.04/.06	0.06/0.09	ND	100	100
May	ND	70	.05/.07	0.14/0.32	ND	-----	-----
June	ND	50	.04/.07	0.06/0.13	ND	-----	-----
July	ND	80	.04/.08	0.05/0.07	ND	100	100
August	ND	100	.05/.11	0.05/0.09	ND	-----	-----
September	ND	130	.05/.09	0.11/0.32	ND	-----	-----
October	ND	40	.04/.07	0.14/0.44	ND	100	100
November	ND	30	.05/.09	0.05/0.11	ND	-----	-----
December	ND	70	.05/.12	0.31/0.38	ND	-----	-----

Table 1 Discharge Monitoring Report Results – Outfall 001**Year: 2011**

MONTH	Oil & Grease, mg/l, DM	TRC, ug/l, DM	Phosphorus Total, mg/l MA/DM	NH3, mg/l MA/DM	Copper, ug/l, DM	WET – LC50,%	WET – NOEC%
January	ND	50	.05/.08	0.52/1.15	ND	100	100
February	ND	30	.03/.1	0.06/0.1	ND	-----	-----
March	ND	50	.03/.06	0.05/0.08	ND	-----	-----
April	ND	50	.15/.3	0.06/0.12	ND	100	100
May	ND	60	.06/.11	0.1/0.38	ND	-----	-----
June	ND	50	.09/.11	0.02/0.02	ND	-----	-----
July	ND	50	.06/.1	0.02/0.03	ND	100	100
August	ND	40	.1/.14	0.13/0.37	ND	-----	-----
September	ND	70	.05/.07	.02/.02	ND	-----	-----
October	ND	150	.05/.08	.06/.19	ND	100	100
November	3.6	40	.03/.06	.05/.12	ND	-----	-----
December	ND	70	.03/.06	.02/.04	ND	-----	-----

Table 1 Discharge Monitoring Report Results – Outfall 001**Year: 2012**

MONTH	Oil & Grease, mg/l, DM	TRC, ug/l DM	Phosphorus Total, mg/l MA/DM	NH3, mg/l MA/DM	Copper, ug/l, DM	WET – LC50,%	WET – NOEC,%
January	ND	40	.05/.08	0.026/0.046	ND	100	100
February	4.4	20	.03/.05	0.039/0.064	ND	-----	-----
March	ND	20	.08/.11	0.016/0.02	ND	-----	-----
April	ND	40	.11/.17	0.014/0.022	ND	100	100
May	ND	70	.05/.14	0.01/0.013	ND	-----	-----
June	ND	40	.07/.11	0.317/1.22	ND	-----	-----
July	ND	30	.08/ 0.2	0.168/0.783	ND	100	100
August	ND	40	.06 /0.1	0.018/0.029	ND	-----	-----
September	ND	40	0.1 / .14	0.013/0.018	ND	-----	-----

TABLE 2
DMR Data Summary ¹ – Outfall 001

Parameter	Average ²	Maximum ³	Permit Violations ⁴
Flow, Range, MGD	0.17 – 0.55	-----	0
BOD, mg/l	0.70	5.4, 7.4	0
TSS, mg/l	2.0	12.3, 16.1	0
Temp, Effluent, Range, °F	61 - 83	-----	0
Temp, Instream, Range, °F	56 - 82	-----	-----
pH, Range, S.U.	6.4 – 8.45	-----	3
Dissolved Oxygen, Range, mg/l	7.1 – 12.1	-----	0
Fecal <i>Streptococci</i>, #/100 ml	1.0	10, 13	-----
<i>E.Coli</i>, #/100 ml	0.5	6.5, 11	-----
Oil & Grease, mg/l	0.6	3.6, 6.7	
TRC, ug/l	44	130, 150	-----
Phosphorus, Nov. – Mar., lbs/day	0.036	0.10, 0.12	0
Phosphorus, Apr. – Oct., lbs/day	0.06	0.26, 0.3	0
NH³, as N, mg/l	0.16	3.25, 4.35	-----
Copper, Total, ug/l	ND	10, 12.7	-----
WET – LC50, %	100	100	0
WET – NOEC, %	87	12.5, 25 ⁵	2

1. Data is from Discharge Monitoring Reports for the period of January 2009 to September 2012.
2. This value is the average of the monthly averages during the reporting period.
3. These are the two highest values during the reporting period.
4. Value provided only if parameter was limited in the permit.
5. These are the two lowest values during the reporting period.

TABLE 3
DMR Data Summary ¹ – Outfall 002

Parameter	Average ²	Maximum ³	Permit Violations ⁴
Flow, Range, MGD	0.02 - 0.68	-----	-----
TSS, mg/l	13.3	37, 51	0
pH, S.U., Range	6.12 – 8.46	-----	-----
Oil & Grease, mg/l	ND	4	0
Phosphorus , Total, mg/l	0.12 mg/l	0.25, 0.27	-----

1. Data is from Discharge Monitoring Reports for the period of January 2009 to September 2012.
2. This value is the average of the monthly averages during the reporting period.
3. These are the highest values during the reporting period.
4. Value provided only if parameter was limited in the permit.

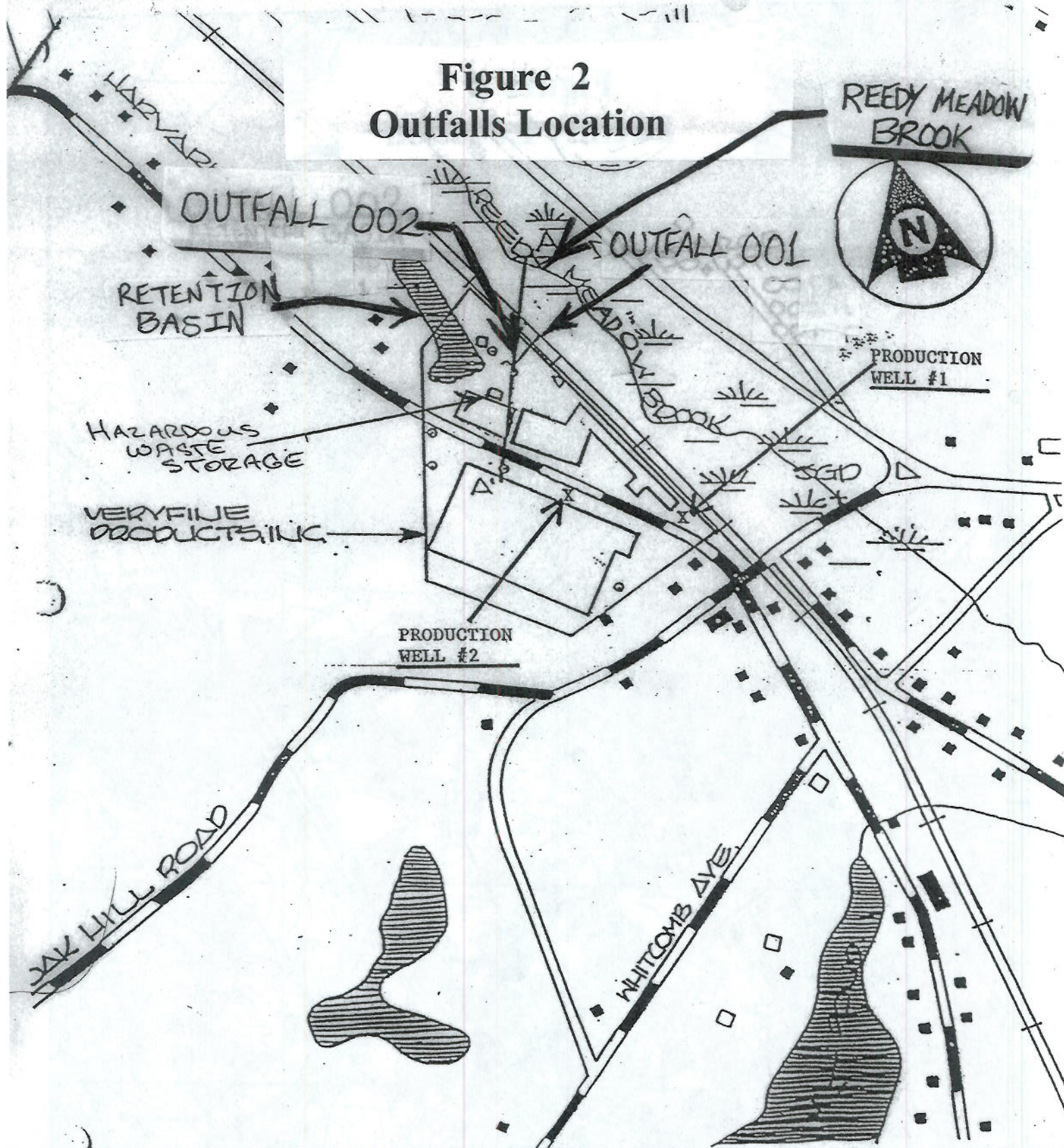
Figure 1 Facility Location



Name: AYER
Date: 8/10/2004
Scale: 1 inch equals 2000 feet

Location: 042° 32' 19.9" N 071° 30' 55.6" W
Caption: FIGURE 1 - Site Location
20 Harvard Road
Littleton, Massachusetts

Figure 2
Outfalls Location



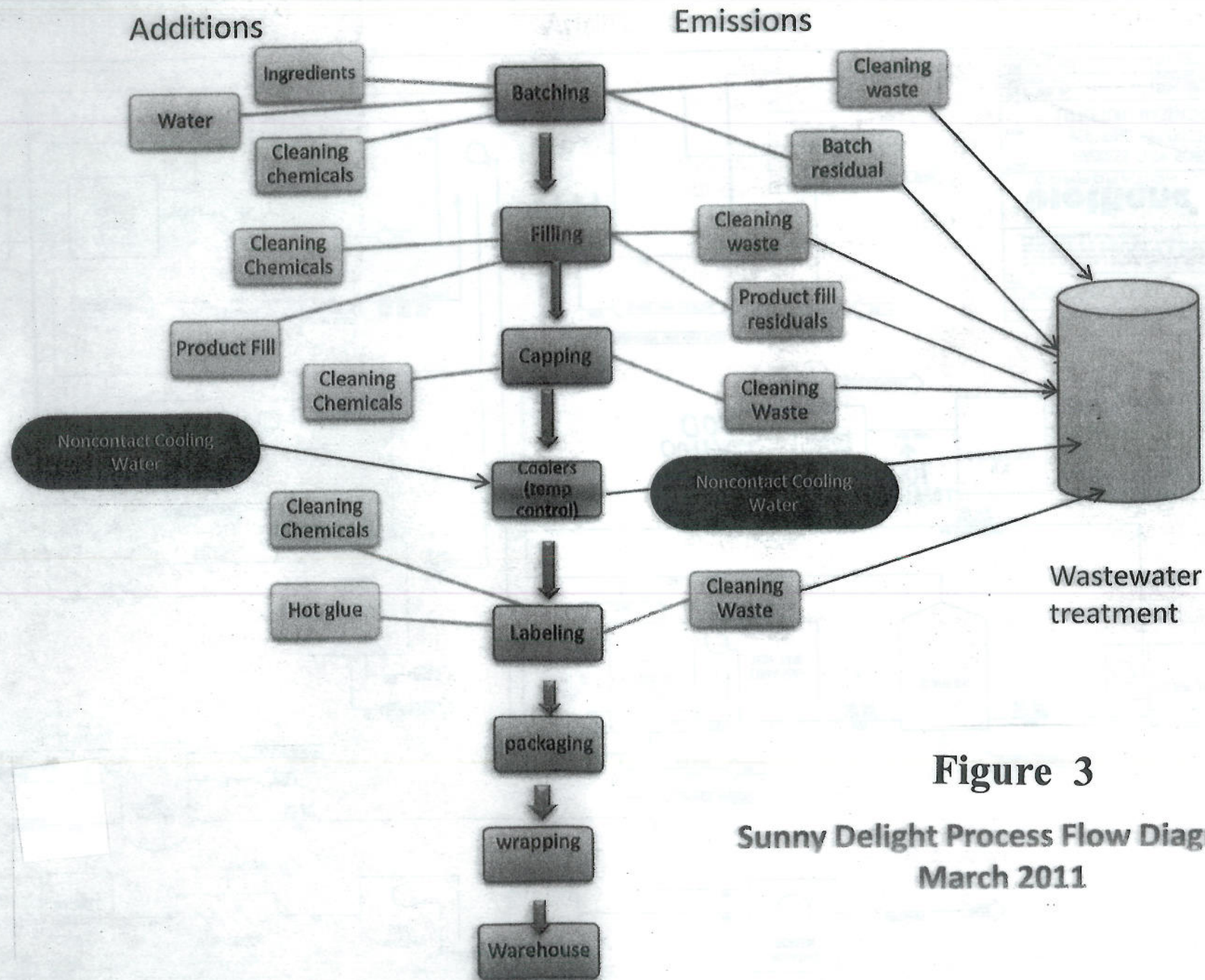
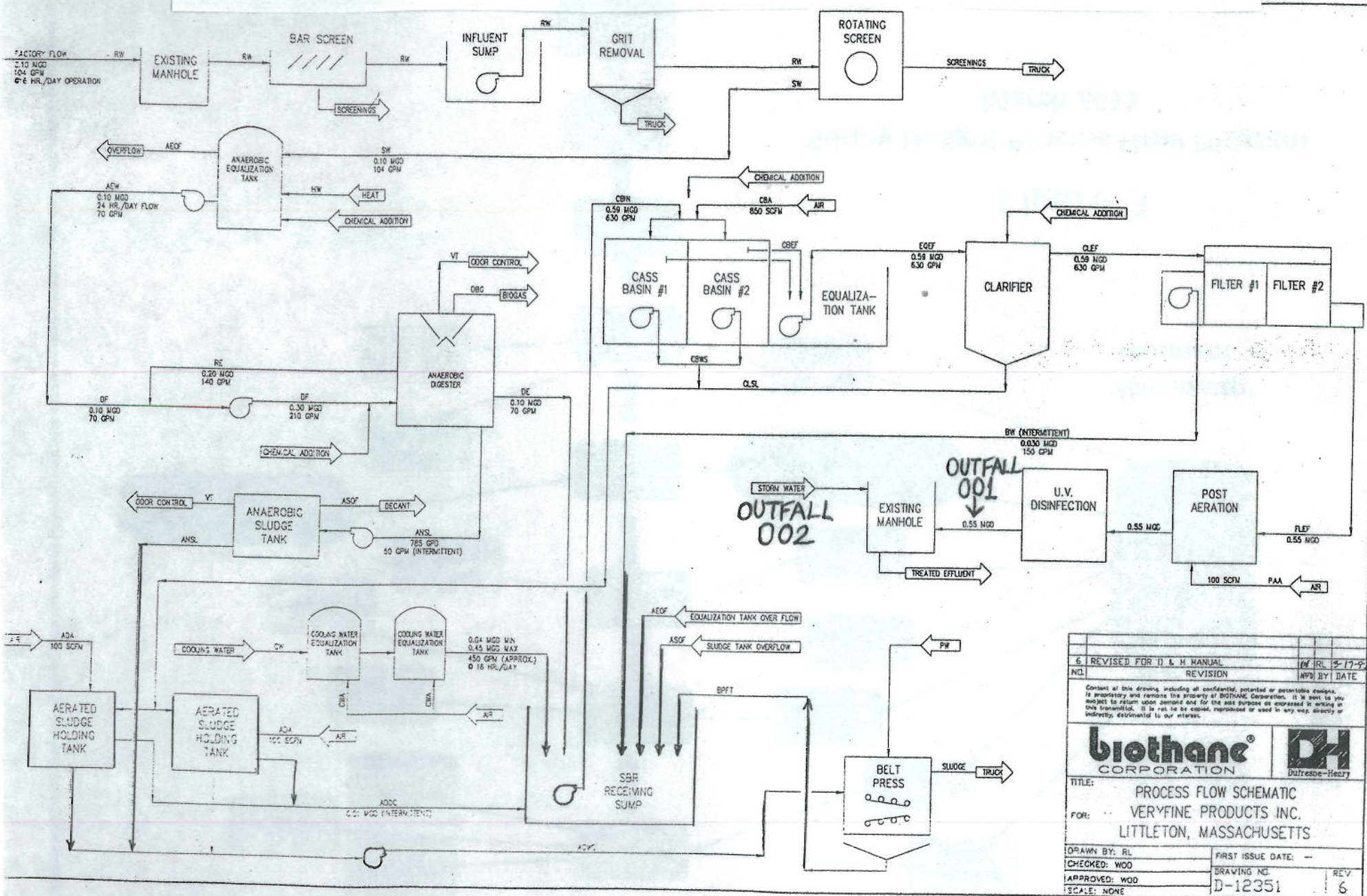


Figure 3

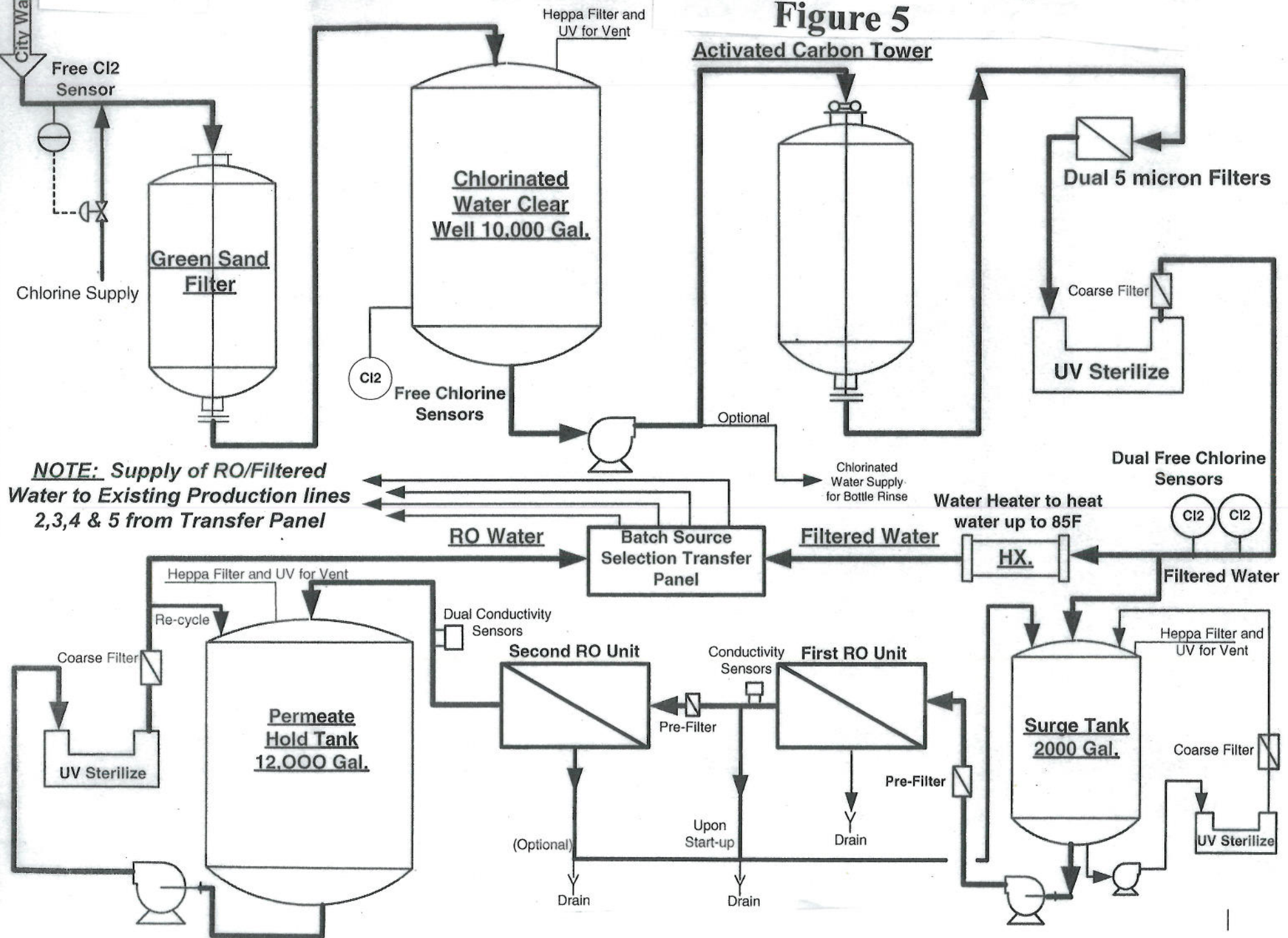
Sunny Delight Process Flow Diagram
March 2011

Figure 4 - Wastewater Treatment Plant Schematic



Water Pre-Treatment and Double RO Filtration System - Littleton

Figure 5



MASSACHUSETTS DEPARTMENT OF
ENVIRONMENTAL PROTECTION
COMMONWEALTH OF MASSACHUSETTS
1 WINTER STREET
BOSTON, MASSACHUSETTS 02108

UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY
OFFICE OF ECOSYSTEM PROTECTION
REGION I
BOSTON, MASSACHUSETTS 02109

JOINT PUBLIC NOTICE OF A DRAFT NATIONAL POLLUTANT DISCHARGE
ELIMINATION SYSTEM (NPDES) PERMIT TO DISCHARGE INTO THE WATERS
OF THE UNITED STATES UNDER SECTION 301 AND 402 OF THE CLEAN
WATER ACT (THE "ACT"), AS AMENDED, AND REQUEST FOR STATE
CERTIFICATION UNDER SECTION 401 OF THE ACT.

DATE OF NOTICE: December 7, 2012

PERMIT NUMBER: **MA0004936**

PUBLIC NOTICE NUMBER: MA001-13

NAME AND MAILING ADDRESS OF PERMITTEE:

**Sunny Delight Beverages
20 Harvard Road
Littleton, MA 01460**

NAME AND ADDRESS OF THE FACILITY WHERE DISCHARGE OCCURS:

**Veryfine Products, Inc.
20 Harvard Road
Littleton, MA 01460**

RECEIVING WATER: **Reedy Meadow Brook**
{Merrimack River Watershed (Segment MA84B-01)}

PREPARATION OF THE DRAFT PERMIT:

The U.S. Environmental Protection Agency, (EPA) and the Massachusetts Department of Environmental Protection (MassDEP) have cooperated in the development of a permit for the above identified facility. The effluent limits and permit conditions imposed have been drafted to assure that State Water Quality Standards and provisions of the Clean Water Act will be met. EPA has formally requested that the State certify this draft permit pursuant to Section 401 of the Clean Water Act and expects that the draft permit will be certified.

INFORMATION ABOUT THE DRAFT PERMIT:

A fact sheet or a statement of basis (describing the type of facility; type and quantities of wastes; a brief summary of the basis for the draft permit conditions; and significant factual, legal and policy questions considered in preparing this draft permit) and the draft permit may be obtained at no cost at: http://www.epa.gov/region1/npdes/draft_permits_listing_ma.html or by writing or calling EPA's contact person named below:

George Papadopoulos, US EPA
5 Post Office Square
Suite 100 (OEP 06-1)
Boston, MA 02109-3912
Telephone: (617) 918-1579

The administrative record containing all documents relating to this draft permit is on file and may be inspected at the EPA Boston office mentioned above between 9:00 a.m. and 5:00 p.m., Monday through Friday, except holidays.

PUBLIC COMMENT AND REQUEST FOR PUBLIC HEARING:

All persons, including applicants, who believe any condition of this draft permit is inappropriate, must raise all issues and submit all available arguments and all supporting material for their arguments in full by **January 5, 2013**, to the U.S. EPA, George Papadopoulos, 5 Post Office Square, Suite 100, Mailcode OEP 06-1, Boston, Massachusetts 02109-3912. Any person, prior to such date, may submit a request in writing to EPA and the MassDEP for a public hearing to consider this draft permit. 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 forty five days public notice whenever the Regional Administrator finds that response to this notice indicates significant public interest. In reaching a final decision on this draft permit the Regional Administrator will respond to all significant comments and make the responses available to the public at EPA's Boston office.

FINAL PERMIT DECISION AND APPEALS:

Following the close of the comment period, and after a public hearing, if such hearing is held, the Regional Administrator 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 30 days following the notice of the final permit decision any interested person may submit petition to the Environmental Appeals Board to reconsider or contest the final decision.

David Ferris, Director
MASSACHUSETTS WASTE WATER
PROGRAM
MASSACHUSETTS DEPARTMENT OF
ENVIRONMENTAL PROTECTION

Stephen S. Perkins, Director
OFFICE OF ECOSYSTEM PROTECTION
ENVIRONMENTAL PROTECTION
AGENCY