AGENCY OF NATURAL RESOURCES
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
WATERSHED MANAGEMENT DIVISION
ONE NATIONAL LIFE DRIVE, MAIN BUILDING, 2nd FLOOR
MONTPELIER, VT 05620-3522

Permit No.: 3-1225
PIN: NS93-0043
NPDES No.: VT0101010

Name of Applicant: Town of Hartford
173 Airport Road
White River Junction, VT 05001

Expiration Date: March 31, 2023

DISCHARGE PERMIT

In compliance with the provisions of the Vermont Water Pollution Control Act as amended (10 V.S.A. Chapter 47), the Vermont Water Pollution Control Permit Regulations as amended (Environmental Protection Rules, Chapter 13), and the federal Clean Water Act as amended (33 U.S.C. § 1251 *et seq*.), and implementing federal regulations, the Town of Hartford, Vermont (hereinafter referred to as the "Permittee") is authorized by the Secretary of the Agency of Natural Resources (Secretary) to discharge from the White River Junction Wastewater Treatment Facility (WWTF) to the Connecticut River in accordance with the following conditions.

This permit shall become effective on April 1, 2018

Emily Boedecker, Commissioner
Department of Environmental Conservation

By: Jessica Bulova Date: March 21, 2018

Jessica Bulova, Wastewater Section Supervisor
Watershed Management Division

I. SPECIAL CONDITIONS

A. EFFLUENT LIMITS

1. During the term of this permit, the Permittee is authorized to discharge from outfall serial number S/N 001 of the White River Junction WWTF to the Connecticut River, an effluent for which the characteristics shall not exceed the values listed below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS							
	Annual Average	Monthly Average	Weekly Average	Maximum Day	Monthly Average	Weekly Average	Maximum Day	Instantaneous Maximum
		Mass (**lbs/day**)			Concentration (**mg/L**)			
Flow	1.450 MGD	Monitor only						
Biochemical Oxygen Demand (5-day, 20° C) (BOD_5) [1]		304	456		30	45	50	
Total Suspended Solids (TSS)		304	456		30	45	50	
Total Phosphorus (TP)				Monitor only			Monitor only	
Total Nitrogen (TN) [2,3]	126 lbs/day (See Section I.B)			Monitor only			Monitor only	
Total Kjeldahl Nitrogen (TKN)							Monitor only	
Nitrate/Nitrite Nitrogen (NO_x)							Monitor only	
Settleable Solids								1.0 mg/L
Escherichia coli								77/100ml
pH					Between 6.5-8.5 Standard Units			

[1] The Permittee shall comply with the mass limitations or the concentration limits, whichever is more restrictive.
[2] TN = TKN + NO_x
[3] See Total Nitrogen Form WR-43-TN

2. The effluent shall not have concentrations or combinations of contaminants including oil, grease, scum, foam, or floating solids which would cause a violation of the Vermont Water Quality Standards.

3. The effluent shall not cause visible discoloration of the receiving waters.

4. The monthly average concentrations of Biochemical Oxygen Demand (BOD_5) and Total Suspended Solids (TSS) in the effluent shall not exceed 15 percent of the monthly average concentrations of BOD_5 and TSS in the influent into the Permittee's WWTF. For the purposes of determining whether the Permittee is in compliance with this condition, samples from the effluent and the influent shall be taken with appropriate allowance for detention times.

5. If the effluent discharged for a period of 90 consecutive days exceeds 80 percent of the permitted flow limitation, the Permittee shall submit to the Secretary projected loadings and a program for maintaining satisfactory treatment levels consistent with approved water quality management plans.

6. The Permittee shall clean the quartz sleeves of the ultraviolet light disinfection system at a frequency that assures that effective disinfection is maintained and the Permittee shall replace the ultraviolet light disinfection system lamps as necessary to maintain compliance with the *E. coli* bacteria limitation.

7. Any action on the part of the Secretary in reviewing, commenting upon or approving plans and specifications for the construction of WWTFs shall not relieve the Permittee from the responsibility to achieve effluent limitations set forth in this permit and shall not constitute a waiver of, or act of estoppel against any remedy available to the Secretary, the State of Vermont, or the federal government for failure to meet any requirement set forth in this permit or imposed by state or federal law.

B. TOTAL NITROGEN

1. Optimization Plan

By **July 31, 2018** the Permittee shall develop and submit to the Secretary for review and approval a Nitrogen Removal Optimization Evaluation Plan for the evaluation of alternative methods of operating the existing WWTF to optimize the removal of nitrogen. The methods to be evaluated include: operational, process, equipment changes designed to enhance nitrification and denitrification (seasonal and year-round); incorporation of anoxic zones; septage receiving policies and procedures; and side stream management. The Permittee shall implement these recommended operational changes to maintain a mass discharge of total nitrogen (TN) lower than the existing mass loading of TN. The baseline annual average daily TN load discharge from this facility is estimated to be **approximately 126 lbs/day**.

This plan shall be developed by a qualified professional with experience in the operation and/or design of municipal wastewater treatment facilities in conjunction with the Chief Operator of the facility.

This plan shall be provided to the Secretary for review and approval prior to implementation and shall be revised by the Permittee upon the Secretary's request to address equipment or operational changes.

Implementation of the plan shall commence within 30 days of its approval by the Secretary.

2. Plan Evaluation

After implementing the plan for one year, the Permittee shall evaluate the effectiveness of the plan. The evaluation shall be conducted by a qualified professional with experience in the operation and/or design of municipal wastewater treatment facilities in conjunction with the Chief Operator of the facility. The results of the evaluation shall be submitted to the Secretary for review and approval within one year and six months following the implementation of the plan and shall be revised at the Secretary's request. Actions to implement the approved nitrogen removal optimization practices, if any, shall be initiated within 90 days of the Secretary's approval.

3. Reporting

Annually, the Permittee shall submit a report to the Secretary as an attachment to the **December** Discharge Monitoring Report (DMR) form WR-43 that documents the annual average TN discharged (in pounds per day) from the facility, summarizes nitrogen removal optimization and efficiencies, and tracks trends relative to the previous year. **The first annual report shall include data collected during 2019 and shall be attached to the December 2019 DMR form WR-43.**

TN = Total Kjeldahl Nitrogen (TKN) + Nitrite/Nitrate (NO_x).

TN pounds per day, annual average, shall be calculated as follows:

1. Calculate the pounds of TN discharged on each sample date:

TN (lbs/day) = TN (mg/L) × volume discharged (million gallons) on day of sample × 8.34

2. Calculate the TN, pounds per day, annual average:

TN (lbs/day, annual average) = (Sum of all TN [lbs/day])/(count of TN samples)

4. Wasteload Allocation

The Secretary reserves the right to reopen and amend this permit, pursuant to Section II.B.4 of this permit, to include an alternate TN limitation and/or additional monitoring requirements based on the monitoring data, the results of nitrogen optimization activities, or a formal Wasteload Allocation promulgated under Vermont's Wasteload Allocation Rule for Total Nitrogen in the Connecticut River Watershed based on the Long Island Sound Total Nitrogen Total Maximum Daily Load.

C. WASTE MANAGEMENT ZONE

In accordance with 10 V.S.A. § 1252, this permit hereby establishes a waste management zone that extends from the outfall of the White River Junction WWTF in the Connecticut River downstream 1 mile.

D. REAPPLICATION

If the Permittee desires to continue to discharge after the expiration of this permit, the Permittee shall reapply on the application forms then in use at least 180 days before this permit expires.

Reapply for a Discharge Permit by: **September 30, 2022**

E. OPERATING FEES

This discharge is subject to operating fees as required by 3 V.S.A. § 2822.

F. TOXICITY TESTING

1. Whole Effluent Toxicity (WET) Testing

a. During **August or September 2018 and 2020**, the Permittee shall conduct two-species (*Pimephales promelas* and *Ceriodaphnia dubia*) modified acute/chronic WET tests (48-hour acute endpoints within a 7-day chronic test) on a composite effluent sample collected from S/N 001. The results shall be submitted to the Secretary by **December 31, 2018 and December 31, 2020**.

b. During **January or February 2019 and 2021**, the Permittee shall conduct two-species (*Pimephales promelas* and *Ceriodaphnia dubia*) modified acute/chronic WET tests (48-hour acute endpoints within a 7-day chronic test) on a composite effluent sample collected from S/N 001. The results shall be submitted to the Secretary by **June 30, 2019 and June 30, 2021**.

The WET tests shall be conducted according to the procedures and guidelines specified in "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms" and "Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms" (both documents U.S. EPA October 2002 or, if a newer edition is available, the most recent edition).

2. Toxic Pollutant Scan

By December 31, 2018, December 31, 2019, and September 30, 2020, the Permittee shall conduct an effluent analysis of S/N 001 for the pollutants included in Appendix J, Table 2 of 40 C.F.R. Part 122 (see Attachment A) and submit the results to the Secretary.

Based upon the results of these tests or any other toxicity tests conducted, the Secretary reserves the right to reopen and amend this permit, pursuant to Section II.B.4 of this permit, to require additional WET testing or a Toxicity Reduction Evaluation be conducted.

G. MONITORING AND REPORTING

1. Sampling and Analysis

The sampling, preservation, handling, and analytical methods used shall conform to the test procedures published in 40 C.F.R. Part 136.

The permittee shall use sufficiently sensitive test procedures (i.e., methods) approved under 40 C.F.R. Part 136 for the analysis of the pollutants or pollutant parameters specified in Condition I.A. above.

Samples shall be representative of the volume and quality of effluent discharged over the sampling and reporting period. All samples are to be taken during normal operating hours. The Permittee shall identify the effluent sampling location used for each discharge.

2. Effluent Monitoring

During the term of this permit, the Permittee shall monitor and record the quality and quantity of discharge(s) at outfall serial number S/N 001 of the White River Junction WWTF, according to the following schedule and other provisions:

PARAMETER	MINIMUM FREQUENCY OF ANALYSIS	SAMPLE TYPE
Flow	Continuous	Daily Total, Max., Min.
Biochemical Oxygen Demand (BOD_5)	1 × week	composite[1]
Total Suspended Solids (TSS)	1 × week	composite[1]
Total Phosphorus (TP)	1 × month	composite[1]
Total Nitrogen (TN)	1 × week	[calculated[2,3]]
Total Kjeldahl Nitrogen (TKN)	1 × week	composite[1,3]
Nitrate/Nitrite Nitrogen (NO_x)	1 × week	composite[1,3]
Settleable Solids	1 × day	grab[4,6]
Escherichia coli	1 × week	grab[6]
pH	1 × day	grab[6]
Temperature	1 × year	grab[6]
Ammonia (as N)	1 × year	grab[6]
Dissolved Oxygen	1 × year	grab[6]
Oil & Grease	1 × year	grab[6]
Total Dissolved Solids	1 × year	composite[1]

Samples collected in compliance with the monitoring requirements specified above shall be collected at the end of the old chlorine contact tank.

[1] Composite samples for BOD_5, TSS, TP, TKN, and NO_x shall, at a minimum, be taken during the hours 6:00 AM to 6:00 PM, unless otherwise specified. Eight hours is the minimum period for the composite.
[2] TN = TKN + NO_x
[3] Submit results each month on Total Nitrogen Monitoring Report Form WR-43-TN.
[4] Settleable Solids samples shall be collected between 10:00 AM and 2:00 PM or during the period of peak flow.
[5] The weekly *E. coli* sample shall be collected between the hours of 6:00 AM and 6:00 PM.
[6] Grab samples shall be collected in an alternating manner to be representative of each SBR cell discharge (for example, on Monday, the sample shall be collected as Cell #1 discharges; on Tuesday, the sample shall be collected as Cell #2 discharges; etc.).

3. **Annually, by December 31**, the Permittee shall monitor S/N 001 and submit the results, including units of measurement, as an attachment to the DMR form WR-43 for the month in which the samples were taken for the following parameters:

    Temperature
    Ammonia (as N)
    Dissolved Oxygen
    Oil & Grease
    Total Dissolved Solids

    Grab samples shall be used for Temperature, Ammonia, Dissolved Oxygen, and Oil & Grease; a composite sample shall be used for Total Dissolved Solids. Samples shall be representative of the seasonal variation in the discharge.

    The season in which samples are taken shall change chronologically from year to year. The sampling seasons are as follows: winter (January 1 – March 31), spring (April 1 – June 30), summer (July 1 – September 30), and fall (October 1 – December 31). The first samples under this permit shall be taken during the **summer** season, the second samples shall be taken during the **fall**, and so forth in chronological order. For easy reference regarding the season in which you must sample, please refer to the "Guidance for Annual Constituent Monitoring."

4. **Influent Monitoring**

    The Permittee shall monitor the quality of the influent according to the following schedule and provisions.

PARAMETER	MINIMUM FREQUENCY OF ANALYSIS	SAMPLE TYPE
Influent Flow	1x day	daily Total, min/max
Biochemical Oxygen Demand (BOD_5)	1 × month	composite[1]
Total Suspended Solids (TSS)	1 × month	composite[1]
Septage received	1 × day	total volume received
Total Nitrogen (TN)	1 × quarter	[calculated[2,3]]
Total Kjeldahl Nitrogen (TKN)	1 × quarter	composite[1,3,4]
Nitrate/Nitrite Nitrogen (NO_x)	1 × quarter	composite[1,3,4]

[1] Composite samples for BOD_5, TSS, TKN, and NO_x shall, at a minimum, be taken during the hours 6:00 AM to 6:00 PM, unless otherwise specified. Eight hours is the minimum period for the composite, 24 hours is the maximum for a composite.
[2] TN = TKN + NO_x
[3] Submit results each month on Total Nitrogen Monitoring Report Form WR-43-TN.
[4] The influent TKN and NO_x sample shall be collected on the same day as an effluent TKN and NO_x sample.

5. Reporting

The Permittee is required to submit monthly reports of monitoring results on DMR form WR-43 and WR-43-TN. Reports are due on the 15th day of each month, beginning with the month following the issuance date of this permit.

The Permittee shall electronically submit its DMRs via Vermont's on-line electronic reporting system. The Permittee shall electronically submit additional compliance monitoring data and reports specified by the Secretary. When the Permittee submits DMRs using an electronic system designated by the Secretary it is not required to submit hard copies of DMRs. The link below shall be used for electronic submittals.

https://anronline.vermont.gov/

If, in any reporting period, there has been no discharge, the Permittee must submit that information by the report due date.

All reports shall be signed:

a) In the case of corporations, by a principal executive officer of at least the level of vice president, or his/her duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge described in the permit form originates and the authorization is made in writing and submitted to the Secretary;

b) In the case of a partnership, by a general partner;

c) In the case of a sole proprietorship, by the proprietor; or

d) In the case of a municipal, State, or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.

In addition to the monitoring and reporting requirements given above, daily monitoring of certain parameters for operational control shall be submitted to the Secretary on the DMR form WR-43. Operations reports shall be submitted monthly.

6. Recording of Results

The Permittee shall maintain records of all information resulting from any monitoring activities required, including:

a) The exact place, date, and time of sampling or measurement;

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

c) The dates and times the analyses were performed;

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

e) The analytical techniques and methods used including sample collection handling and preservation techniques;

f) The results of such analyses;

g) The records of monitoring activities and results, including all instrumentation and calibration and maintenance records;

h) The original calculation and data bench sheets of the operator who performed analysis of the influent or effluent pursuant to requirements of Section I.A of this permit; and

i) For analyses performed by contract laboratories:

a. The detection level reported by the laboratory for each sample; and

b. The laboratory analytical report including documentation of the QA/QC and analytical procedures.

The results of monitoring requirements shall be reported (in the units specified) on the DMR form WR-43 or other forms approved by the Secretary.

When "non-detects" are recorded, the method detection limit shall be reported and used in calculating any time-period averaging for reporting on DMRs.

7. Additional Monitoring

If the Permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the DMR form WR-43. Such increased frequency shall also be indicated.

H. DRY WEATHER FLOWS

Dry weather flows of untreated municipal wastewater from any sanitary or combined sewers are not authorized by this permit and are specifically prohibited by state and federal laws and regulations. If for any reason there is a discharge to waters of the State of dry weather flows of untreated municipal wastewater from any sanitary or combined sewer, the operator of the facility or the operator's delegate shall comply with the notice requirements outlined in Condition II.A.2 of this permit.

I. OPERATION, MANAGEMENT, AND EMERGENCY RESPONSE PLANS

1. The Permittee shall implement the Operation, Management, and Emergency Response Plan for the treatment facility, sewage pumping stations, and sewer line stream crossings as approved by the Secretary on January 28, 2010.

2. The Permittee shall implement the Operation, Management, and Emergency Response Plan for the sewage collection system as approved by the Secretary on September 24, 2010.

The Permittee shall revise these plans upon the Secretary's request or on its own motion to reflect equipment or operational changes.

J. EMERGENCY ACTION - ELECTRIC POWER FAILURE

The Permittee shall indicate in writing to the Secretary **within 90 days after the effective date of this permit** that in the event the primary source of electric power to the WWTF (including pump stations) fails, the Permittee shall either provide an alternative source of power for the operation of its WWTF, or demonstrate that the treatment facility has the capacity to store the wastewater volume that would be generated over the duration of the longest power failure that would have affected the facility in the last five years, excluding catastrophic events.

The alternative power supply, whether from a generating unit located at the WWTF or purchased from an independent source of electricity, must be separate from the existing power source used to operate the WWTF. If a separate unit located at the WWTF is to be used, the Permittee shall certify in writing to the Secretary when the unit is completed and prepared to generate power.

The determination of treatment system storage capacity shall be submitted to the Secretary upon completion.

K. COMBINED SEWER OVERFLOWS

All combined sewer overflows (CSOs) listed in Attachment B shall comply with the Vermont Water Quality Standards. The municipality shall implement the minimum technology-based requirements below, known as the "Minimum Controls," which are designed to maximize pollutant capture and minimize impacts to water quality:

1. Proper operation and regular maintenance programs for collection systems and CSO outfalls;

2. Maximum use of the collection system for storage without endangering public health or property, or causing solids deposition problems;

3. Review and modification of pretreatment requirements to assure that CSO impacts are minimized;

4. Maximization of flow to the treatment plant for treatment consistent with an evaluation of alternative treatment options;

5. Prohibition of CSOs during dry weather;

6. Control of solid and floatable materials in CSOs;

7. Establishment of pollution prevention programs to minimize contaminants in CSOs;

8. Public notification to ensure that the public receives adequate notification of CSOs and CSO impacts, which shall, at a minimum, comply with § 34-404 of the Combined Sewer

Overflow Rule (Environmental Protection Rule, Chapter 34);

9. Monitoring to effectively characterize CSO impacts and the efficacy of CSO controls, which shall include at a minimum:

a) The municipality shall define through monitoring, modeling, and other means, as appropriate, the sewer system, the response of the system to a range of precipitation events that encompasses the 5-year design storm, the characteristics of the overflows, and the water quality impacts that result from CSOs. To comply with the foregoing requirement, the municipality shall, at a minimum:

i. Establish and maintain a precipitation monitoring system. The system must provide unique precipitation amounts specific to individual CSO subcatchments. Such a system does not necessarily demand a precipitation recording device for each CSO outfall. Precipitation measurements shall be to the nearest 0.01 inches, continuous at a five-minute interval over the duration of a storm event, and indexed to time and date. If establishing a physical precipitation monitoring system, the municipality shall work to minimize impacts of wind and surrounding trees and buildings that may hinder the accuracy of precipitation recording devices. If a municipality proposes to use a system other than a physical precipitation monitoring system, the municipality shall get prior approval from the Secretary.

ii. Establish a CSO flow monitoring system for the outfalls listed in Attachment B. At a minimum, the municipality shall install a tell-tale block in each overflow structure and check the block after every precipitation/runoff event.

b) The municipality shall submit to the Secretary, **by no later than January 31st of each year**, a report on CSO control project(s) of the previous calendar year. The Secretary will use the information from the report to monitor the progress on implementation of CSO control project(s). The municipality shall report progress on:

i. Compliance with the Minimum Controls;

ii. The condition and operation of the CSS;

iii. The frequency, duration, and magnitude of the precipitation events leading to CSOs from the system in the past year and a comparison to prior years;

iv. The frequency, duration, and magnitude of all CSOs from the system in the past year and a comparison to prior years;

v. The overall status of the Long Term Control Plan (LTCP); and

vi. Key CSO control accomplishments, highlighting those that reduced the frequency and magnitude of CSOs; projects under design; and construction that occurred in the previous year.

L. SEWER ORDINANCE

The Permittee shall have in effect a sewer use ordinance acceptable to the Secretary which, at a minimum, shall:

1. Prohibit the introduction by any person into the Permittee's sewerage system or WWTF of any pollutant which:

a) Is a toxic pollutant in toxic amounts as defined in standards issued from time to time under Section 307(a) of the Clean Water Act;

b) Creates a fire or explosion hazard in the Permittee's treatment works;

c) Causes corrosive structural damage to the Permittee's treatment works, including all wastes with a pH lower than 5.0;

d) Contains solid or viscous substances in amounts which would cause obstruction to the flow in sewers or other interference with proper operation of the Permittee's treatment works; or

e) In the case of a major contributing industry, as defined in this permit, contains an incompatible pollutant, as defined in this permit, in an amount or concentration in excess of that allowed under standards or guidelines issued from time to time pursuant to Sections 304, 306, and/or 307 of the Clean Water Act.

2. Require 45 days prior notification to the Permittee by any person or persons of a:

a) Proposed substantial change in volume or character of pollutants over that being discharged into the Permittee's treatment works at the time of issuance of this permit;

b) Proposed new discharge into the Permittee's treatment works of pollutants from any source which would be a new source as defined in Section 306 of the Clean Water Act if such source were discharging pollutants; or

c) Proposed new discharge into the Permittee's treatment works of pollutants from any source which would be subject to Section 301 of the Clean Water Act if it were discharging such pollutants.

3. Require any industry discharging into the Permittee's treatment works to perform such monitoring of its discharge as the Permittee may reasonably require, including the installation, use, and maintenance of monitoring equipment and monitoring methods, keeping records of the results of such monitoring, and reporting the results of such monitoring to the Permittee. Such records shall be made available by the Permittee to the Secretary upon request.

4. Authorize the Permittee's authorized representatives to enter into, upon, or through the premises of any industry discharging into the Permittee's treatment works to have access to and copy any records, to inspect any monitoring equipment or method required under subsection 3 above, and to sample any discharge into the Permittee's treatment works.

II. GENERAL CONDITIONS

A. MANAGEMENT REQUIREMENTS

1. Facility Modification / Change in Discharge

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant more frequently than, or at a level in excess of, that identified and authorized by this permit shall constitute a violation of the terms and conditions of this permit. Such a violation may result in the imposition of civil and/or criminal penalties pursuant to 10 V.S.A. Chapters 47, 201, and/or 211. Any anticipated facility alterations or expansions or process modifications which will result in new, different, or increased discharges of any pollutants must be reported by submission of a new permit application or, if such changes will not violate the effluent limitations specified in this permit, by notice to the Secretary of such changes. Following such notice, the permit may be modified, pursuant to Condition II.B.4 of this permit, to specify and limit any pollutants not previously limited.

In addition, the Permittee, within 30 days of the of the date on which the Permittee is notified of such discharge, shall provide notice to the Secretary of the following:

a) Any new introduction of pollutants into the treatment works from a source which would be a new source as defined in Section 306 of the Clean Water Act if such source were discharging pollutants;

b) Except for such categories and classes of point sources or discharges specified by the Secretary, any new introduction of pollutants into the treatment works from a source which would be subject to Section 301 of the Clean Water Act if such source were discharging pollutants; and

c) Any substantial change in volume or character of pollutants being introduced into the treatment works by a source introducing pollutants into such works at the time of issuance of the permit.

The notice shall include:

i. The quality and quantity of the discharge to be introduced into the system, and

ii. The anticipated impact of such change in the quality or quantity of the effluent to be discharged from the WWTF.

2. Noncompliance Notification

a) The Permittee shall give advance notice to the Secretary of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

b) In the event the Permittee is unable to comply with any of the conditions of this permit due, among other reasons, to:

i. Breakdown or maintenance of waste treatment equipment (biological and physical-chemical systems including all pipes, transfer pumps, compressors, collection ponds or tanks for the segregation of treated or untreated wastes, ion exchange columns, or carbon absorption units);

ii. Accidents caused by human error or negligence;

iii. Any unanticipated bypass or upset which exceeds any effluent limitation in the permit;

iv. Violation of a maximum day discharge limitation for any of the pollutants listed by the Secretary in this permit; or

v. Other causes such as acts of nature,

the Permittee shall provide notice as specified in subdivisions (c) and (d) of this subsection.

c) Pursuant to 10 V.S.A. § 1295, notice for "untreated discharges," as defined.

i. Public notice. For "untreated discharges" an operator of a WWTF or the operator's delegate shall as soon as possible, but no longer than one hour from discovery of an untreated discharge from the WWTF, post on a publicly accessible electronic network, mobile application, or other electronic media designated by the Secretary an alert informing the public of the untreated discharge and its location, except that if the operator or his or her delegate does not have telephone or Internet service at the location where he or she is working to control or stop the untreated discharge, the operator or his or her delegate may delay posting the alert until the time that the untreated discharge is controlled or stopped, provided that the alert shall be posted no later than four hours from discovery of the untreated discharge.

ii. Secretary notification. For "untreated discharges" an operator of a WWTF shall within 12 hours from discovery of an untreated discharge from the WWTF notify the Secretary and the local health officer of the municipality where the facility is located of the untreated discharge. The operator shall notify the Secretary through use of the Department of Environmental Conservation's online event reporting system. If, for any reason, the online event reporting system is not operable, the operator shall notify the Secretary via telephone or e-mail. The notification shall include:

(1) The specific location of each untreated discharge, including the body of water affected. For combined sewer overflows, the specific location of each untreated discharge means each outfall that has discharges during the wet weather storm event.

(2) Except for discharges from a WWTF to a separate storm sewer system, the date and approximate time the untreated discharge began.

(3) The date and approximate time the untreated discharge ended. If the untreated discharge is still ongoing at the time of reporting, the entity reporting the untreated discharge shall amend the report with the date and approximate time the untreated discharge ended within three business days of the untreated discharge ending.

(4) Except for discharges from a WWTF to a separate storm sewer system, the approximate total volume of sewage and, if applicable, stormwater that was released. If the approximate total volume is unknown at the time of reporting, the entity reporting the untreated discharge shall amend the report with the approximate total volume within three business days.

(5) The cause of the untreated discharge and a brief description of the noncompliance, including the type of event and the type of sewer structure involved.

(6) The person reporting the untreated discharge.

For any non-compliance not covered under Condition II.A.2.c. of this permit, an operator of a WWTF or the operator's delegate shall notify the Secretary within 24 hours of becoming aware of such condition and shall provide the Secretary with the following information, in writing, within five days:

i. Cause of non-compliance;

ii. A description of the non-complying discharge including its impact upon the receiving water;

iii. Anticipated time the condition of non-compliance is expected to continue or, if such condition has been corrected, the duration of the period of non-compliance;

iv. Steps taken by the Permittee to reduce and eliminate the non-complying discharge; and

v. Steps to be taken by the Permittee to prevent recurrence of the condition of non-compliance.

3. Operation and Maintenance

All waste collection, control, treatment, and disposal facilities shall be operated in a manner consistent with the following:

a) The Permittee shall, at all times, maintain in good working order and operate as efficiently as possible all treatment and control facilities and systems (and related appurtenances) installed or used by the Permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by the Permittee only when the operation is necessary to achieve compliance with the conditions of this permit.

b) The Permittee shall provide an adequate operating staff which is duly qualified to carry out the operation, maintenance, and testing functions required to ensure compliance with the conditions of this permit; and

c) The operation and maintenance of this facility shall be performed only by qualified personnel who are licensed as required by Secretary and the Director of the Vermont Office of Professional Regulation.

4. Quality Control

The Permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at regular intervals to ensure accuracy of measurements, or shall ensure that both activities will be conducted.

The Permittee shall keep records of these activities and shall provide such records upon request of the Secretary.

The Permittee shall demonstrate the accuracy of the effluent flow measurement device weekly and report the results on the monthly report forms. The acceptable limit of error is ± 10%.

For purposes of demonstrating compliance with the requirements of Condition II.A.3.a of this permit regarding adequate laboratory controls and appropriate quality assurance procedures, the Permittee shall conduct an annual laboratory proficiency test, via an accredited laboratory, for the analysis of all pollutant parameters performed within their facility laboratory and reported as required by this permit. This can be carried out as part of an EPA DMR-QA study. Results shall be submitted to the Secretary **annually by December 31**.

5. Bypass

The bypass of facilities (including pump stations) is prohibited, except where authorized under the terms and conditions of an Emergency Pollution Permit issued pursuant to 10 V.S.A. § 1268. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the activity in order to maintain compliance with the conditions of this permit.

6. Duty to Mitigate

The Permittee shall take all reasonable steps to minimize or prevent any adverse impact to waters of the State, the environment, or human health resulting from non-compliance with any condition specified in this permit, including accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge.

7. Records Retention

All records and information resulting from the monitoring activities required by this permit including all records of analyses performed, all calibration and maintenance of instrumentation records and all original chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit shall be retained for a minimum of three years, and shall be submitted to the Secretary upon request. This period shall be extended during the course of unresolved litigation regarding the discharge of pollutants or when requested by the Secretary.

8. Solids Management

Collected screenings, sludges, and other solids removed in the course of treatment and control of wastewaters shall be stored, treated, and disposed of in accordance with 10 V.S.A. Chapter 159 and with the terms and conditions of any certification, interim or final, transitional

operation authorization, or order issued pursuant to 10 V.S.A. Chapter 159 that is in effect on the issuance date of this permit or is issued during the term of this permit.

9. Emergency Pollution Permits

Maintenance activities, or emergencies resulting from equipment failure or malfunction, including power outages, which result in an effluent which exceeds the effluent limitations specified herein, shall be considered a violation of the conditions of this permit, unless the Permittee's discharge is covered under an emergency pollution permit under the provisions of 10 V.S.A. § 1268. The Permittee shall notify the Secretary of the emergency situation by the next working day, unless notice is required sooner under Section II.A.2.

10 V.S.A. § 1268 reads as follows:

When a discharge permit holder finds that pollution abatement facilities require repairs, replacement or other corrective action in order for them to continue to meet standards specified in the permit, he may apply in the manner specified by the secretary for an emergency pollution permit for a term sufficient to effect repairs, replacements or other corrective action. The Secretary shall proceed in accordance with chapter 170 of this title. No emergency pollution permit shall be issued unless the applicant certifies, and the secretary finds that:

(1) there is no present, reasonable alternative means of disposing of the waste other than by discharging it into the waters of the state during the limited period of time of the emergency;

(2) the denial of an emergency pollution permit would work an extreme hardship upon the applicant;

(3) the granting of an emergency pollution permit will result in some public benefit;

(4) the discharge will not be unreasonably harmful to the quality of the receiving waters;

(5) the cause or reason for the emergency is not due to willful or intended acts or omissions of the applicant.

Application shall be made to the Secretary at the following address: Agency of Natural Resources, Department of Environmental Conservation, One National Life Drive, Main Building, 2nd Floor, Montpelier VT 05620-3522.

B. RESPONSIBILITIES

1. Right of Entry

The Permittee shall allow the Secretary or authorized representative, upon the presentation of proper credentials:

a) To enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

b) To have access to and copy, at reasonable times, any records required to be kept under the terms and conditions of this permit;

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

d) To sample or monitor, at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

2. Transfer of Ownership or Control

This permit is not transferable without prior written approval of the Secretary. All application and operating fees must be paid in full prior to transfer of this permit. In the event of any change in control or ownership of facilities from which the authorized discharges emanate, the Permittee shall provide a copy of this permit to the succeeding owner or controller and shall send written notification of the change in ownership or control to the Secretary **at least 30 days in advance of the proposed transfer date**. The notice to the Secretary shall include a written agreement between the existing and new Permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them. The Permittee shall also inform the prospective owner or operator of their responsibility to make an application for transfer of this permit.

This request for transfer application must include as a minimum:

a) A properly completed application form provided by the Secretary and the applicable processing fee.

b) A written statement from the prospective owner or operator certifying:

i. The conditions of the operation that contribute to, or affect, the discharge will not be materially different under the new ownership;

ii. The prospective owner or operator has read and is familiar with the terms of the permit and agrees to comply with all terms and conditions of the permit; and

iii. The prospective owner or operator has adequate funding to operate and maintain the treatment system and remain in compliance with the terms and conditions of the permit.

c) The date of the sale or transfer.

The Secretary may require additional information dependent upon the current status of the facility operation, maintenance, and permit compliance.

3. Confidentiality

Pursuant to 10 V.S.A. § 1259(b):

Any records or information obtained under this permit program that constitutes trade secrets under 1 V.S.A. § 317(c)(9) shall be kept confidential, except that such records or information may be disclosed to authorized representatives of the State and the United States when relevant to any proceedings under this chapter.

Claims for confidentiality for the following information will be denied:

a) The name and address of any permit applicant or Permittee.

b) Permit applications, permits, and effluent data.

c) Information required by application forms, including information submitted on the forms themselves and any attachments used to supply information required by the forms.

4. Permit Modification, Suspension, and Revocation

After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including the following:

a) Violation of any terms or conditions of this permit;

b) Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts;

c) Development of an integrated WWTF and stormwater runoff NPDES permit; or

d) A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge.

The filing of a request by the Permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance shall not stay any permit condition.

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

5. Toxic Effluent Standards

If a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under section 307(a) of the Clean Water Act for a toxic pollutant which is present in the Permittee's discharge and such standard or prohibition is more stringent than any limitation upon such pollutant in this permit, then this permit shall be modified or revoked and reissued, pursuant to Condition II.B.4 of this permit, in accordance with the toxic effluent standard or prohibition and the Permittee so notified.

6. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of legal action or relieve the Permittee from any responsibilities, liabilities, or penalties to which the Permittee is or may be subject under 10 V.S.A. § 1281.

7. Other Materials

Other materials ordinarily produced or used in the operation of this facility, which have been specifically identified in the application, may be discharged at the maximum frequency and maximum level identified in the application, provided:

a) They are not:

i. Designated as toxic or hazardous under provisions of Sections 307 and 311, respectively, of the Clean Water Act, or

ii. Known to be hazardous or toxic by the Permittee,

except that such materials indicated in (i) and (ii) above may be discharged in certain limited amounts with the written approval of, and under special conditions established by, the Secretary or his/her designated representative, if the substances will not pose any imminent hazard to the public health or safety;

b) The discharge of such materials will not violate the Vermont Water Quality Standards; and

c) The Permittee is not notified by the Secretary to eliminate or reduce the quantity of such materials entering the water.

8. Navigable Waters

This permit does not authorize or approve the construction of any onshore or offshore physical structures or facilities or the undertaking of any work in any navigable waters.

9. Civil and Criminal Liability

The Permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Except as provided in "Bypass" (Condition II.A.5) and "Emergency Pollution Permits" (Condition II.A.9), nothing in this permit shall be construed to relieve the Permittee from civil or criminal penalties for noncompliance. Civil and criminal penalties for non-compliance are provided for in 10 V.S.A. Chapters 47, 201, and 211.

10. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by Section 510 of the Clean Water Act.

11. Property Rights

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

12. Other Information

If the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Secretary, it shall promptly submit such facts or information.

13. Severability

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

14. Authority

This permit is issued under authority of 10 V.S.A. §§ 1258 and 1259 of the Vermont Water Pollution Control Act, the Vermont Water Pollution Control Permit Regulation, and Section 402 of the Clean Water Act, as amended.

15. Definitions

For purposes of this permit, the following definitions shall apply.

Agency – means the Vermont Agency of Natural Resources.

Annual Average - means the highest allowable average of daily discharges calculated as the sum of all daily discharges (mg/L, lbs or gallons) measured during a calendar year divided by the number of daily discharges measured during that year.

Average - means the arithmetic means of values taken at the frequency required for each parameter over the specified period.

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

The Clean Water Act - means the federal Clean Water Act, as amended (33 U.S.C. § 1251, *et seq*.).

Composite Sample - means a sample consisting of a minimum of one grab sample per hour collected during a 24-hour period (or lesser period as specified in the section on Monitoring and Reporting) and combined proportionally to flow over that same time period.

Daily Discharge - means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling.

For pollutants with limitations expressed in pounds the daily discharge is calculated as the total pounds of pollutants discharged over the day.

For pollutants with limitations expressed in mg/L the daily discharge is calculated as the average measurement of the pollutant over the day.

Discharge – means the placing, depositing, or emission of any wastes, directly or indirectly, into an injection well or into the waters of the State.

Grab Sample – means an individual sample collected in a period of less than 15 minutes.

Incompatible Substance – means any waste being discharged into the treatment works which interferes with, passes through without treatment, or is otherwise incompatible with said works or would have a substantial adverse effect on the works or on water quality. This includes all pollutants required to be regulated under the Clean Water Act.

Instantaneous Maximum - means a value not to be exceeded in any grab sample.

Major Contributing Industry – means one that: (1) has a flow of 50,000 gallons or more per average work day; (2) has a flow greater than five percent of the flow carried by the municipal system receiving the waste; (3) has in its wastes a toxic pollutant in toxic amounts as defined in standards issued under Section 307(a) of the Clean Water Act; or (4) has a significant impact, either singly or in combination with other contributing industries, on a treatment works or on the quality of effluent from that treatment works.

Maximum Day (maximum daily discharge limitation) – means the highest allowable "daily discharge" (mg/L, lbs or gallons).

Mean - is the arithmetic mean.

Monthly Average (average monthly discharge limitation) – means the highest allowable average of daily discharges (mg/L, lbs or gallons) over a calendar month, calculated as the sum of all daily discharges (mg/L, lbs or gallons) measured during a calendar month divided by the number of daily discharges measured during that month.

NPDES – means the National Pollutant Discharge Elimination System.

Secretary – means the Secretary of the Agency of Natural Resources or the Secretary's duly authorized representative.

Septage – means the liquid and solid material pumped from a septic tank, cesspool, or similar domestic sewage treatment system, or a holding tank when the system is cleaned or maintained.

Untreated Discharge – means (1) combined sewer overflows from a WWTF; (2) overflows from sanitary sewers and combined sewer systems that are part of a WWTF during dry weather flows, which result in a discharge to waters of the State; (3) upsets or bypasses around or within

a WWTF during dry or wet weather conditions that are due to factors unrelated to a wet weather storm event and that result in a discharge of sewage that has not been fully treated to waters of the State; and (4) discharges from a WWTF to separate storm sewer systems.

Waste – means effluent, sewage or any substance or material, liquid, gaseous, solid, or radioactive, including heated liquids, whether or not harmful or deleterious to waters.

Waste Management Zone – means a specific reach of Class B waters designated by a permit to accept the discharge of properly treated wastes that prior to treatment contained organisms pathogenic to human beings. Throughout the receiving waters, water quality criteria must be achieved but increased health risks exist in a waste management zone due to the authorized discharge.

Waters includes all rivers, streams, creeks, brooks, reservoirs, ponds, lakes, springs, and all bodies of surface waters, artificial or natural, which are contained within, flow through, or border upon the State or any portion of it.

Weekly average - (average weekly discharge limitation) – means the highest allowable average of daily discharges (mg/L, lbs or gallons) over a calendar week, calculated as the sum of all daily discharges (mg/L, lbs or gallons) measured during a calendar week divided by the number of daily discharges measured during that week.

Whole Effluent Toxicity (WET) – Means the aggregate toxic effect of an effluent measured directly by a toxicity test.

WWTF or wastewater treatment facility shall have the same meaning as “pollution abatement facilities,” as defined under 10 V.S.A. § 1251, which means municipal sewage treatment plants, pumping stations, interceptor and outfall sewers, and attendant facilities as prescribed by the Department to abate pollution of the waters of the State.

ATTACHMENT A

Hardness (of receiving water, upstream of outfall)

Metals (total recoverable), cyanide and total phenols:
Antimony
Arsenic
Beryllium
Cadmium
Copper
Lead
Mercury
Nickel
Selenium
Silver
Thallium
Zinc
Cyanide
Total phenolic compounds

Volatile organic compounds:
acrolein
acrylonitrile
benzene
bromoform
carbon tetrachloride
chlorobenzene
chlorodibromomethane
chloroethane
2-chloroethylvinyl ether
chloroform
dichlorobromomethane
1,1-dichloroethane
1,2-dichloroethane
Trans-1,2-dichloroethylene
1,1-dichloroethylene
1,2-dichloropropane
1,3-dichloropropylene
ethylbenzene
methyl bromide
methyl chloride
methylene chloride
1,1,2,2-tetrachloroethane
tetrachloroethylene
toluene
1,1,1-trichloroethane
1,1,2-trichloroethane
trichloroethylene
vinyl chloride

Acid-extractable compounds:
p-chloro-m-cresol
2-chlorophenol2,4-dichlorophenol
2,4-dimethylphenol
4,6-dinitro-o-cresol
2,4-dinitrophenol
2-nitrophenol
4-nitrophenol
pentachlorophenol
phenol
2,4,6-trichlorophenol

Base-neutral compounds:
acenaphthene
acenaphthylene
anthracene
benzidine
benzo(a)anthracene
benzo(a)pyrene
3,4-benzofluoranthene
benzo(ghi)perylene
benzo(k)fluoranthene
bis(2-chloroethoxy)methane
bis(2-chloroethyl)ether
bis(2-chloroisopropyl)ether
bis(2-ethylhexyl)phthalate
4-bromophenyl phenyl ether
butyl benzyl phthalate
2-chloronaphthalene
4-chlorophenyl phenyl ether
chrysene
di-n-butyl phthalate
di-n-octyl phthalate
dibenzo(a,h)anthracene
1,2-dichlorobenzene
1,3-dichlorobenzene
1,4-dichlorobenzene
3,3'-dichlorobenzidine
diethyl phthalate
dimethyl phthalate
2,4-dinitrotoluene
2,6-dinitrotoluene
1,2-diphenylhydrazine
fluroranthene
fluorene
hexachlorobenzene
hexachlorobutadiene
hexachlorocyclo-pentadiene
hexachloroethane
indeno(1,2,3-cd)pyrene
isophorone
naphthalene nitrobenzene
N-nitrosodi-n-propylamine
N-nitrosodimethylamine
N-nitrosodiphenylamine
phenanthrene
pyrene
1,2,4-trichlorobenzene

[65 FR 42469, August 4, 1999]

ATTACHMENT B

Serial # (S/N)	CSO #	Location	Receiving Water
002	003	Pump Station on Passumpsic Street	Connecticut River
003	004	Wilder Pump Station, 200' from Wilder Dam	
004	005	Approximately 415' south of Nutt Lane	
005	006	**ELIMINATED JUNE 1998**	
006	007	Behind Municipal Building, 450' from confluence of White & Connecticut Rivers	
007	010	Maple Street	

STATE OF VERMONT
AGENCY OF NATURAL RESOURCES
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
1 NATIONAL LIFE DRIVE, MAIN 2
MONTPELIER, VT 05620-3522

1272 ORDER - Discharge Permit No. 3-1225

IN THE MATTER OF:

Town of Hartford
171 Bridge Street
White River Junction, VT 05001

In accordance with the provisions of 10 V.S.A. § 1272 and the Combined Sewer Overflow Rule (Environmental Protection Rule, Chapter 34), the Secretary (Secretary) of the Vermont Agency of Natural Resources (Agency) makes the following findings of fact. The definitions in Vermont's Combined Sewer Overflow Rule shall apply to this Order.

FINDINGS OF FACT

(1) The Town of Hartford (Hartford) owns and operates the Hartford-White River Junction Wastewater Treatment Facility (WWTF), which collects and treats both sewage and stormwater.

(2) The WWTF is authorized to discharge treated and disinfected wastewater into the Connecticut River under the terms and conditions of Discharge Permit No. 3-1225.

(3) Discharge Permit No. 3-1225, Attachment B, contains a list of combined sewer overflow (CSO) outfalls within the collection system. During certain storm events, these CSO outfalls discharge untreated sewage to the Connecticut River. Such discharges adversely affect the quality of waters of the State and create public health concerns.

(4) The discharges from these CSO outfalls violate 10 V.S.A. Chapter 47, the Vermont Water Quality Standards (VWQS), and Discharge Permit No. 3-1225.

(5) In 1988 Hartford had six CSO outfalls. The outfalls included: S/N 002, S/N 003, S/N 004, S/N 005, S/N 006, and S/N 007.

(6) On May 26, 1988, the Agency issued 1272 Order No. 3-1225 to Hartford. The Order required Hartford to conduct a preliminary engineering study for eliminating the CSOs and to submit the results to the Agency by April 1, 1989.

(7) On November 28, 1988, Hartford submitted a preliminary engineering study to the Agency that identified sewer separation as the most feasible alternative for eliminating

the CSOs. Specifically, the study proposed a four-phased sewer separation project consisting of construction of the following:

Phase I: 8,530 linear feet of storm sewer in Wilder.

Phase II: 3,620 linear feet of storm sewer in White River Junction south of the White River.

Phase III: 2,890 linear feet of storm sewer in Hartford Village.

Phase IV: 8,190 linear feet of storm sewer in White River Junction north of the White River.

(8) On May 6, 1993, the Agency issued Amended 1272 Order No. 3-1225 to Hartford. The Order specified a schedule to complete the four-phased CSO elimination project. The Order required that Phase I of the project be completed by December 31, 1993, Phase II and Phase III be completed by December 31, 1994, and Phase IV be completed by December 31, 1995.

(9) Hartford completed Phases I through III of the CSO elimination project as required. CSO S/N 005 was eliminated in June 1998.

(10) Phase IV of the CSO elimination project was not completed as required. A major contributor of stormwater to the CSOs proposed for elimination in Phase IV was the Agency of Transportation (AOT) drainage system associated with Route 5. The schedule for conducting this phase of the CSO elimination project was planned to match the AOT's planned highway work for this segment of road. The scheduled highway work on this road segment was repeatedly delayed.

(11) On February 11, 2002, the Agency issued Amended 1272 Order No. 3-1225 to Hartford. The Order specified a schedule to complete Phase IV of CSO elimination project by December 31, 2003.

(12) During the summer of 2003, the Agency received correspondence from Hartford indicating that Phase IV of the CSO project would not be completed on time due to delays in the Route 5 highway work. Therefore, Phase IV of the CSO project was not completed by December 31, 2003.

(13) On July 12, 2004, the Agency issued a NOAV to Hartford for failure to complete Phase IV of the CSO elimination project by December 31, 2003.

(14) During the summer of 2004, discussions were held between the Town of Hartford and the Agency regarding the remaining CSO project and the contributions of stormwater to the sewer collection system from AOT's drainage system along Route 5.

(15) An Emergency Order was issued on December 7, 2005 requiring the Town to complete construction of the "Tafts Flat" section of the Phase IV CSO elimination project to eliminate overflows from CSOs S/N 006 and S/N 007 generated by a 24 hour, 2.5-inch rainfall event in accordance with the Vermont Combined Sewer Overflow Control Policy, June 30, 1990.

(16) The December 7, 2005 Emergency Order required the submittal of an effectiveness study for CSOs S/N 002, S/N 003, and S/N 004 by December 31, 2008 and for CSOs S/N 006 and S/N 007 by December 31, 2010.

(17) The December 2008 effectiveness study for CSOs S/N 002, S/N 003, and S/N 004 found the Passumpsic Avenue Pump Station (S/N 002) to be in compliance with the 1990 CSO Control Policy and recommended that monitoring be discontinued. However, due to overflows that occurred during the monitoring period, the Wilder Pump Station (S/N 003) and Nutt Lane (S/N 004) overflow locations did not meet compliance with the 1990 CSO Control Policy. The effectiveness study recommended that the Town evaluate alternatives for abatement of CSO events at S/N 003.

(18) The December 31, 2010 effectiveness study indicated that overflows were greatly reduced due to the completion of the Tafts Flat project. The Town also discovered an 8" flow restrictor in the sewer line and evaluated options to modify this structure. In a letter, dated March 8, 2011, the State allowed the Town to remove the restriction, monitor the overflows, and provide results of the additional monitoring by September 12, 2012. The State granted the Town an extension until September 30, 2013 due to a lack of storm events to correlate rainfall and overflow events.

(19) An updated effectiveness study for the Wilder pump station (S/N 003) and Nutt Lane (S/N 004) was received by the Agency on August 24, 2010. This study suggested the Town continue to monitor both of these overflow locations.

(20) An updated effectiveness study for CSO S/N 006 and S/N 007 was received by the Agency on September 30, 2013. This study suggested the Town continue to monitor both overflow locations.

(21) On January 9, 2014, the Town was informed the September 2013 effectiveness study indicated that while the "storm-size" criteria mandated in the 1990 CSO Control Policy had been met, the "storm intensity" criteria had not been. Therefore, per Condition I.A.5.b of Discharge Permit 3-1225, the Agency could not grant the increased flows requested by the Town.

(22) The Town submitted a letter dated October 2, 2015 providing additional information to make a final determination of S/Ns 006 and 007 compliance with the 1990 CSO Control Policy.

(23) On October 6, 2015, the Agency determined S/Ns 006 and 007 were complaint with the

1990 CSO Control Policy and the Hartford - White River Junction Wastewater Treatment Facility upgrade and expansion was considered complete and the effluent limits specified in Condition I.A.2 became effective. Specifically, the annual discharge flow was increased from 1.215 MGD to 1.450 MGD.

(24) In June 2016, a Combined Sewer Overflow Effectiveness Study Update S/Ns 006 and 007 was submitted to the Agency. This study concluded that no overflows were recorded at either location in the past two years and the separation work completed by the Town and the resulting flow removed for the design storm event should be sufficient to abate the overflows for up to the design storm event, bringing both of these overflows into compliance with the 1990 CSO Control Policy.

(25) Notwithstanding any prior determinations that S/Ns 002, 006, and 007 were in compliance with the 1990 CSO Control Policy, which was superseded by the Combined Sewer Overflow Rule, all discharges from CSO outfalls must be in compliance with the Combined Sewer Overflow Rule, 10 V.S.A. Chapter 47, the Vermont Water Quality Standards (VWQS), and Discharge Permit No. 3-1225.

(26) Without the implementation of the requirements set forth in this Order, it can reasonably be expected that the overflows from Hartford's remaining CSO outfalls S/N 002, S/N 003, S/N 004, S/N 006, and S/N 007 to the Connecticut River will continue to create or cause a discharge of untreated sewage to waters of the State in violation of 10 V.S.A. Chapter 47, the VWQS, and Discharge Permit No. 3-1225.

ORDER

Based on the foregoing findings of fact, the Secretary issues the following Order, under 10 V.S.A. § 1272 and the Combined Sewer Overflow Rule (Environmental Protection Rule, Chapter 34), to ensure all remaining CSOs in Hartford are brought into compliance with the applicable requirements of state and federal law, including the VWQS.

(I) **Initial Assessment.** The municipality shall conduct an assessment of the CSO outfalls listed in Discharge Permit No. 3-1225 and submit a report of this assessment to the Secretary **within 60 days of the date of this Order**, including at a minimum:

(1) A list of all CSO outfalls, including their latitude and longitude and current status (active or closed),

(2) For any closed CSOs, the date and method of closure,

(3) The date of the most recent overflow event for each CSO,

(4) The type of CSO monitoring used and protocol for checking CSOs following a storm event, and

(5) Current or planned projects at CSO outfalls.

(II) **Minimum Controls**. The municipality shall implement the minimum technology-based requirements below, known as the "Minimum Controls," which are designed to maximize pollutant capture and minimize impacts to water quality:

(1) Proper operation and regular maintenance programs for collection systems and CSO outfalls;

(2) Maximum use of the collection system for storage without endangering public health or property, or causing solids deposition problems;

(3) Review and modification of pretreatment requirements to assure that CSO impacts are minimized;

(4) Maximization of flow to the treatment plant for treatment consistent with an evaluation of alternative treatment options;

(5) Prohibition of CSOs during dry weather;

(6) Control of solid and floatable materials in CSOs;

(7) Establishment of pollution prevention programs to minimize contaminants in CSOs;

(8) Public notification to ensure that the public receives adequate notification of CSOs and CSO impacts, which shall, at a minimum, comply with § 34-404 of the Combined Sewer Overflow Rule (Environmental Protection Rule, Chapter 34);

(9) Monitoring to effectively characterize CSO impacts and the efficacy of CSO controls, which shall include at a minimum:

(A) The municipality shall define through monitoring, modeling, and other means, as appropriate, the sewer system, the response of the system to a range of precipitation events that encompasses the 5-year design storm, the characteristics of the overflows, and the water quality impacts that result from CSOs. To comply with the foregoing requirement, the municipality shall, at a minimum:

(i) Establish and maintain a precipitation monitoring system. The system must provide unique precipitation amounts specific to individual CSO subcatchments. Such a system does not necessarily demand a precipitation recording device for each CSO outfall. Precipitation measurements shall be to the nearest 0.01 inches, continuous at a five-minute interval over the duration of a storm event and indexed to time and date. If establishing a physical precipitation monitoring system, the municipality shall work to minimize impacts of wind and surrounding trees and buildings that may hinder the accuracy of precipitation recording devices. If a municipality proposes to use a system other than a physical precipitation monitoring system, the municipality shall get prior approval from the Secretary.

(ii) Establish a CSO flow monitoring system. At a minimum, the municipality shall install a tell-tale block in each overflow structure and check the block after every precipitation/runoff event.

(B) The municipality shall submit to the Secretary, by no later than January 31st of each year, a report on CSO control project(s) of the previous calendar year. The Secretary will

use the information from the report to monitor the progress on implementation of CSO control project(s). The municipality shall report progress on:

(i) Compliance with the Minimum Controls;

(ii) The condition and operation of the CSS;

(iii) The frequency, duration, and magnitude of the precipitation events leading to CSOs from the system in the past year and a comparison to prior years;

(iv) The frequency, duration, and magnitude of all CSOs from the system in the past year and a comparison to prior years;

(v) The overall status of the Long Term Control Plan (LTCP); and

(vi) Key CSO control accomplishments, highlighting those that reduced the frequency and magnitude of CSOs; projects under design; and construction that occurred in the previous year.

(III) **Long Term Control Plan.** The municipality shall create a Long Term Control Plan (LTCP)[1] and submit it to the Secretary **within 18 months of the date of this Order.** In developing a LTCP, the municipality shall employ a public participation process that actively involves the affected public in the decision-making to develop and select the long-term CSO controls. The affected public includes rate payers, industrial users of the sewer system, persons who reside downstream from the CSO outfalls, persons who use and enjoy the downstream waters, and any other interested persons. The LTCP shall, at a minimum, include:

(1) An alternatives analysis that shall evaluate the costs and performance of multiple CSO control alternatives, such as:

- installing a flow metering system for each CSO outfall;
- reducing stormwater flows through the separation of combined stormwater and sanitary sewer lines;
- adding storage tanks or retention basins to hold overflow during storm events;
- expanding the treatment plant capacity;
- adding screening and disinfection facilities for the overflow;
- incorporating green stormwater infrastructure to reduce stormwater flow into CSSs to the greatest extent feasible and practical; and
- providing for disinfection of CSOs at the outfall.

(2) A detailed list of the selected CSO control projects necessary to bring the CSOs into compliance with the VWQS and a timeline for implementing the projects. Projects shall be prioritized based on the relative importance of adverse impacts upon water quality, including impacts on designated and existing uses. The municipality shall give the highest priority to bringing overflows to "sensitive areas" into compliance with the VWQS.

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[1] If the municipality wishes to apply for funding from the State to assist in the creation or implementation of its LTCP, the municipality shall draft all reports, including associated planning documents, according to the PER format.

"Sensitive areas" means designated Outstanding Resource Waters, designated National Marine Sanctuaries, waters with threatened or endangered species and their habitat, waters where primary contact recreation occurs, public drinking water intakes or their designated protection areas, and shellfish beds.

(3) A strategy to ensure that new sources of stormwater and wastewater to the CSS do not increase the volume, frequency, or duration of CSO events through implementation of control measures, such as making reductions in existing sources of stormwater or wastewater to the CSS, creating or increasing storage capacity within the collection system, or other measures approved by the Secretary.

(4) Measures to address and prevent any documented, recurrent instances of sewage backups or discharges of raw sewage onto the ground surface.

(5) A financing plan to design and implement the CSO control projects identified pursuant to subsection (III)(2) of this Order.

(6) Green stormwater infrastructure for stormwater runoff and sewer overflow management to the greatest extent possible.

(7) A proposed schedule to bring the municipality's CSOs into compliance with the Vermont Water Quality Standards. The Agency recognizes CSO abatement and control is a costly process and anticipates plans will take an iterative approach to lessen the number and quantity of CSO events and improve their quality. As such, the schedule may include interim CSO controls as a step in the process of bringing CSOs into compliance with the VWQS. Interim CSO controls should be evaluated and designed based on storms with a theoretical 5-year recurrence interval (also known as the 5- year design storm). The 24-hour and 1-hour extreme precipitation depths at the 5- year recurrence interval for each CSO municipality are listed in Appendix A of the Combined Sewer Overflow Rule (Environmental Protection Rule, Chapter 34).

(IV) **General Conditions.**

(1) The plans and information required by this Order shall be submitted in electronic format to **Amy Polaczyk, Environmental Analyst, at amy.polaczyk@vermont.gov**.

(2) The Secretary reserves the right to amend this Order at any time as necessary to protect water quality and to comply with state and federal law.

(3) The State of Vermont and the Secretary reserve continuing jurisdiction to ensure future compliance with all statutes, rules, and regulations applicable to the facts and violations set forth above.

(4) Nothing in this Order shall be construed as having relieved, modified, or in any manner affected the municipality's on-going obligation to comply with all other federal, state, or local statutes nor does it relieve the municipality of the obligation to obtain all necessary federal,

state, and local permits.

(5) This Order does not grant any exclusive rights or privileges, which would impair any rights possessed by riparian or littoral owners of the State of Vermont. It does not grant any right, title, or easement to or over any land, nor does it authorize any damage to private property or invasion of private rights or the violation of federal, state, or local laws or regulations.

(6) The Secretary, in issuing this Order, accepts no legal responsibility for any damage, direct or indirect of whatever nature and by whoever suffered, arising out of the activities described.

(7) This Order is not a resolution of any enforcement action that may be pending, contemplated, or initiated in this matter.

(8) The municipality shall allow access to Agency representatives, upon the presentation of proper credentials, to inspect the subject site and sample any discharge or receiving waters as necessary to assess compliance with this Order and applicable state laws related to water quality.

(9) Pursuant to 10 V.S.A. Chapter 220, any appeal of this Order must be filed with the clerk of the Environmental Division of the Superior Court within 30 days of the date of this Order. For further information, see the Vermont Rules for Environmental Court Proceedings, available online at www.vermontjudiciary.org. The address of the Environmental Court is Vermont Superior Court, Environmental Division, 32 Cherry Street, 2nd Floor, Suite 303, Burlington, VT 05401 (Tel # (802) 951-1740). The filing of an appeal does not stay this Order. The Notice of Appeal must specify the parties taking the appeal and the statutory provisions under which each party claims party status; must state the act or decision appealed from; must name the Environmental Division; and must be signed by the appellant or their attorney. In addition, the appeal must give the address or location and description of the property, project, or facility which the appeal is concerned and the name of the applicant or any permit involved in the appeal. The appellant must also serve a copy of the Notice of Appeal in accordance with Rule 5(b)(4)(B) of the Vermont Rules for Environmental Court Proceedings.

(10) This Order shall be effective upon the date of signing and shall remain in effect until such time as the activities governed under this Order are completed or until such time as the Agency rescinds this Order or issues a subsequent Order, whichever occurs first.

Emily Boedecker, Commissioner
Department of Environmental Conservation

By: Mary L Borg
Mary Borg, Deputy Director
Watershed Management Division

Date: 3/21/18

AGENCY OF NATURAL RESOURCES
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
WATERSHED MANAGEMENT DIVISION
ONE NATIONAL LIFE DRIVE, MAIN BUILDING, 2ND FLOOR
MONTPELIER, VT 05620-3522

FACT SHEET
(December 2017)

DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT TO DISCHARGE TO WATERS OF THE STATE:

PERMIT NO: 3-1225
PIN: NS93-0043
NPDES NO: VT0101010

NAME AND ADDRESS OF APPLICANT:

Town of Hartford
173 Airport Rd.
White River Junction, VT 05001

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

White River Junction Wastewater Treatment Facility
319 Latham Works Lane
White River Junction, Vermont

RECEIVING WATER: Connecticut River

CLASSIFICATION OF USES OF RECEIVING WATER: All uses Class B(2) with a waste management zone. Class B(2) waters are suitable for swimming and other primary contact recreation; irrigation and agricultural uses; aquatic biota and aquatic habitat; good aesthetic value; boating, fishing, and other recreational uses and suitable for public water source with filtration and disinfection or other required treatment. A waste management zone is a specific reach of Class B(1) or B(2) waters designated by a permit to accept the discharge of properly treated wastes that prior to treatment contained organisms pathogenic to human beings.

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

The Secretary of the Vermont Agency of Natural Resources (Secretary) received a renewal application for the permit to discharge into the Connecticut River from the Town of Hartford on July 6, 2016. The Town's previous permit was issued on April 12, 2012. The previous permit (hereafter referred to as the "current permit") has been administratively continued, pursuant to 3 V.S.A. § 814, as the applicant filed a complete application for permit reissuance within the prescribed time period as per the Vermont Water Pollution Control Permit Regulations

(VWPCPR) § 13.5(b). At this time, the Secretary has made a tentative decision to reissue the discharge permit.

The facility is engaged in the treatment of municipal wastewater including domestic, commercial, and industrial wastewaters. The discharge is from the outfall of the White River Junction Wastewater Treatment Facility (WWTF) to the Connecticut River. The WWTF uses sequencing batch reactor technology. The design flow of the facility is 1.450 million gallons per day (MGD) and design BOD loading is 225 mg/l (2,270 lbs/day). The average flow out of the facility over the last 20 years is approximately 0.8725 MGD.

A map showing the location of facility, outfalls, and the receiving water is provided in the Reasonable Potential Determination (RPD) (see Attachment A).

II. Description of Discharge

The facility is engaged in the treatment of municipal wastewater including domestic, commercial, and industrial wastewaters. There are no pretreaters permitted under the NPDES program discharging to the collection system. The WWTF maintains a constant discharge to the Connecticut River.

III. Limitations and Monitoring Requirements

The draft permit contains limitations for effluent flow, biochemical oxygen demand, total suspended solids, settleable solids, Escherichia coli, pH, and total nitrogen. It also contains monitoring requirements for Total Phosphorus, Total Kjeldahl Nitrogen, and nitrate/nitrite. The effluent limitations and monitoring requirements of the draft permit, may be found on the following pages of the draft permit:

Effluent Limitations:	Page 2-3 of 26
Monitoring Requirements:	Pages 5-8 of 26

IV. Statutory and Regulatory Authority

A. Clean Water Act and NPDES Background

Congress enacted the Clean Water Act (CWA or Act), "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." CWA § 101(a). To achieve this objective, the CWA makes it unlawful for any person to discharge any pollutant into the waters of the United States from any point source, except as authorized by specified permitting sections of the Act, one of which is Section 402. CWA §§ 301(a), 402(a). Section 402 establishes one of the CWA's principal permitting programs, the National Pollutant Discharge Elimination System (NPDES). Under this section of the Act, the U.S. Environmental Protection Agency (EPA) may "issue a permit for the discharge of any pollutant, or combination of pollutants" in accordance with certain conditions. CWA § 402(a). The State of Vermont has been approved by the EPA to administer the NPDES Program in Vermont. NPDES permits generally contain discharge limitations and establish related monitoring and reporting requirements. CWA § 402(a)(1) - (2).

Section 301 of the CWA provides for two types of effluent limitations to be included in NPDES

permits: "technology-based" limitations and "water quality-based" limitations. CWA §§ 301, 303, 304(b); 40 C.F.R. Parts 122, 125, 131. Technology-based limitations, generally developed on an industry-by-industry basis, reflect a specified level of pollutant-reducing technology available and economically achievable for the type of facility being permitted. CWA § 301(b). As a class, WWTFs must meet performance-based requirements based on available wastewater treatment technology. CWA § 301(b)(1)(B). The performance level for WWTFs is referred to as "secondary treatment." Secondary treatment is comprised of technology-based requirements expressed in terms of BOD_5, TSS, and pH. 40 C.F.R. Part 133.

Water quality-based effluent limits, on the other hand, are designed to ensure that state water quality standards are achieved, irrespective of the technological or economic considerations that inform technology-based limits. Under the CWA, states must develop water quality standards for all water bodies within the state. CWA § 303. These standards have three parts: (1) one or more "designated uses" for each water body or water body segment in the state; (2) water quality "criteria," consisting of numerical concentration levels and/or narrative statements specifying the amounts of various pollutants that may be present in each water body without impairing the designated uses of that water body; and (3) an antidegradation provision, focused on protecting high quality waters and protecting and maintaining water quality necessary to protect existing uses. CWA § 303(c)(2)(A); 40 C.F.R. § 131.12. The applicable water quality standards for this permit are the 2017 Vermont Water Quality Standards (Environmental Protection Rule, Chapter 29a).

A permit must include limits for 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 standard, including narrative water quality criteria. See 40 C.F.R. § 122.44(d)(1). An excursion occurs if the projected or actual in-stream concentration exceeds the applicable criterion. A NPDES permit must contain effluent limitations and conditions in order to ensure that the discharge does not cause or contribute to water quality standard violations.

Receiving stream requirements are established according to numerical and narrative standards adopted under state law for each stream classification. When using chemical-specific numeric criteria from the State's water quality standards to develop permit limits, both the acute and chronic aquatic life criteria are used and expressed in terms of maximum allowable in stream pollutant concentrations. Acute aquatic life criteria are generally implemented through maximum daily limits and chronic aquatic life criteria are generally implemented through average monthly limits.

Where a state has not established a numeric water quality criterion for a specific chemical pollutant that is present in the effluent in a concentration that causes or has a reasonable potential to cause a violation of narrative water quality standards, the permitting authority must establish effluent limits in one of three ways: based on a "calculated numeric criterion for the pollutant which the permitting authority demonstrates will attain and maintain applicable narrative water quality criteria and fully protect the designated use"; on a "case-by-case basis" using CWA Section 304(a) recommended water quality criteria, supplemented as necessary by other relevant information; or, in certain circumstances, based on an "indicator parameter." 40 C.F.R. § 122.44(d)(1)(vi)(A-C).

The state rules governing Vermont's NPDES permit program are found in the Vermont Water Pollution Control Permit Regulations (Environmental Protection Rule, Chapter 13).

1. Reasonable Potential Determination

In determining whether this permit has the reasonable potential to cause or contribute to an impairment, Vermont has considered:

1) Existing controls on point and non-point sources of pollution as evidenced by the Vermont surface water assessment database;

2) Pollutant concentration and variability in the effluent as determined from the permit application materials, monthly discharge monitoring reports (DMRs), or other facility reports;

3) Receiving water quality based on targeted water quality and biological assessments of receiving waters, as applicable, or other State or Federal water quality reports;

4) Toxicity testing results based on the Vermont Toxic Discharge Control Strategy, and compelled as a condition of prior permits;

5) Available dilution of the effluent in the receiving water, expressed as the instream waste concentration. In accordance with the applicable Vermont Water Quality Standards, available dilution for rivers and streams is based on a known or estimated value of the lowest average flow which occurs for seven (7) consecutive days with a recurrence interval of once in ten (10) years (7Q10) for aquatic life and human health criteria for non-carcinogens, or at all flows for human health (carcinogens only) in the receiving water. For nutrients, available dilution for stream and river discharges is assessed using the low median monthly flow computed as the median flow of the month containing the lowest annual flow. Available dilution for lakes is based on mixing zones of no more than 200 feet in diameter, in any direction, from the effluent discharge point, including as applicable the length of a diffuser apparatus.

6) All effluent limitations, monitoring requirements, and other conditions of the proposed draft permit.

The Reasonable Potential Determination for this facility is attached to this Fact Sheet as Attachment A.

B. Anti-Backsliding

Section 402(o) of the CWA provides that certain effluent limitations of a renewed, reissued, or modified permit must be at least as stringent as the comparable effluent limitations in the current permit. EPA has also promulgated anti-backsliding regulations which are found at 40 C.F.R. § 122.44(l). Unless applicable anti-backsliding exemptions are met, the limits and conditions in the reissued permit must be at least as stringent as those in the current permit.

V. Description of Receiving Water

The receiving water for this discharge is the Connecticut River, a designated Cold-Water Fish Habitat. At the point of discharge, the river has a contributing drainage area of 4092 square miles. The summer 7Q10 flow of the river is estimated to be 912.9 cubic feet per second (CFS) and the summer Low Median Monthly flow is estimated to be 2440 CFS. The instream waste concentration at the summer 7Q10 flow is 0.002 (0.2%) and the instream waste concentration at the summer Low Median Monthly flow is 0.001 (0.1%).

In addition, the Connecticut River drains into the Long Island Sound, which is impaired for nitrogen and is subject to a Total Maximum Daily Load (TMDL) for nitrogen. This is discussed further in Section VII.C.1. of this Fact Sheet.

VI. Facility History and Background

The Town of Hartford owns and operates the White River Junction WWTF. The facility services the communities of White River Junction and Wilder within the Town of Hartford. The secondary facility was completed in 1998 and an upgrade/expansion to sequential batch reactor (SBR) technology was completed in 2014.

The Town also owns and operates a combined sewer collection system which collects both stormwater and sewage and conveys it to the wastewater treatment facility. During certain precipitation/runoff events the volume of combined wastewater exceeds the capacity of the existing collection system causing untreated combined wastewater to overflow to the Connecticut River. There are currently five such overflow points within the Town's combined sewer system (see Appendix A of the permit). In response to compliance schedules issued by the Secretary, the Town has completed several construction projects designed to eliminate combined sewer overflow events. This has included significant sewer separation projects during the 1990s and more recently in 2008. (See also discussion of Combined Sewer Overflows below.)

On May 28, 2009, the Town of Hartford submitted an application to amend their discharge permit to reflect the proposed upgrade and expansion of the White River Junction WWTF. The Secretary issued Discharge Permit #3-1225 on November 6, 2009 for the White River Junction WWTF. EPA formally objected to the discharge permit *"Because the permit modification does not prevent nitrogen load increases, [and therefore] does not comply with 40 C.F.R. §§ 122.4(d) and 122.44(d)"* via letter dated February 12, 2010. Following a public hearing and discussions between the Secretary and the EPA, the Secretary modified the previous permit to include an interim Total Nitrogen limit of 181 lbs/day to address EPA's concerns.

The current permit incorporates the newest language and requirements to support the State of Vermont's compliance with the Long Island Sound TMDL.

VII. Permit Basis and Explanation of Effluent Limitation Derivation

A. Flow

The draft permit maintains the annual average flow limitation of 1.450 MGD. This facility maintains a constant discharge. Continuous flow monitoring is required.

B. Conventional Pollutants

1. Biochemical Oxygen Demand (BOD_5)

The effluent limitations for BOD_5 remain unchanged from the current permit. The monthly average (30 mg/L) and weekly average (45 mg/L) reflect the minimum level of effluent quality specified for secondary treatment in 40 C.F.R. § 133.102. In addition, the draft permit contains a 50 mg/L maximum day BOD_5 limitation, which is the standard applied to all such discharges pursuant to Section 13.4(c) of the Vermont Water Pollution Control Permit Regulations. The Secretary implements the limit to supplement the federal technology-based limitations to prevent a gross one-day permit effluent violation to be offset by multiple weekly and monthly sampling events which would enable a discharger to comply with the weekly average and monthly average permit limitations. Mass limits (304 lbs/day, monthly average and 456 lbs/day, weekly average) are calculated using the concentration limits outlined above, and the permitted flow prior to the facility upgrade and expansion (1.215 MGD) completed in 2014. The permitted mass limits are being held to prevent degradation of the receiving water body that may occur based on a larger volume of permitted flow from this facility. The BOD_5 weekly monitoring requirement is unchanged from the current permit.

2. Total Suspended Solids (TSS)

The effluent limitations for TSS remain unchanged from the current permit. The monthly average (30 mg/L) and weekly average (45 mg/L) reflect the minimum level of effluent quality specified for secondary treatment in 40 C.F.R. § 133.102. In addition, the draft permit contains a 50 mg/L, maximum day, TSS limitation, which is the standard applied to all such discharges pursuant to Section 13.4(c) of the Vermont Water Pollution Control Permit Regulations. The Secretary implements the limit to supplement the federal technology-based limitations to prevent a gross one-day permit effluent violation to be offset by multiple weekly and monthly sampling events which would enable a discharger to comply with the weekly average and monthly average permit limitations. Mass limits (304 lbs/day, monthly average and 456 lbs/day, weekly average) are calculated using the concentration limits outlined above, and the permitted flow prior to the facility upgrade and expansion (1.215 MGD) completed in 2014. The permitted mass limits are calculated using the pre-upgrade permitted flow to prevent degradation of the receiving water body that could occur based on a larger volume of permitted flow from this facility. The TSS weekly monitoring requirement is unchanged from the current permit.

3. Escherichia coli

The *E. coli* limitation is 77/100ml, instantaneous maximum, based upon the limitation in the current permit and the anti-backsliding provisions of Section 402(o) of the CWA. As in the current permit, weekly monitoring is required.

4. pH

The pH limitation remains at 6.5 - 8.5 Standard Units as specified in Section 29A-303(6) in the Vermont Water Quality Standards. Monitoring remains at daily.

C. Non-Conventional and Toxics

1. Total Nitrogen (TN)

On November 10, 2011, a letter from the EPA (Region I) to the Secretary indicated that Vermont must establish TN limitations in permits such that the TN load from all facilities in the Connecticut River watershed is consistent with the requirements of the Long Island Sound Total Maximum Daily Load (LIS TMDL). Interim caps for Nitrogen discharges from VT WWTFs were calculated by the Secretary and presented in the "Vermont Long Island Sound TMDL Monitoring and Permitting Plan" dated July 30, 2013. The Hartford-WRJ WWTF was assigned a cap of 126 lbs/day, a limit which, according to monitoring data from the last 5 years, the facility should meet easily.

Section I.B in this draft permit requires the Permittee have a qualified consultant develop and submit a Nitrogen Removal Optimization Plan by **July 31, 2018**. The plan shall be provided to the Secretary before implementation and shall document the pounds of TN discharged as well as removal optimization and efficiencies. In addition, this Condition contains a clause that allows the Secretary to reopen the permit to include an alternate TN limitation if a wasteload allocation is established for this facility based on the LIS TMDL.

TN is a calculated value based on Total Kjeldahl Nitrogen (TKN) and Nitrate/Nitrite (NO_x) Nitrogen. The sum of TKN and NO_x shall be used to derive TN:

TN (mg/L) = TKN (mg/L) + NO_x (mg/L)

As in the current permit, weekly monitoring is required.

2. Total Phosphorus (TP)

In light of the adoption of numeric water quality criteria for phosphorus in the revised Vermont Water Quality Standards (effective January 15, 2017), the Secretary is including requirements in discharge permits to monitor for discharges of TP. For future permit reissuance, the criteria will be used to determine the potential of discharges to cause or contribute to eutrophication and to adversely impact the aquatic biota downstream of the discharge. To gather data on the amount of TP in this discharge and its potential impact on the receiving water, a monthly monitoring requirement has been included in the draft permit.

3. Settleable Solids

The settleable solids limitation of 1.0 mg/L instantaneous maximum and daily monitoring remain unchanged from the current permit. This numeric limit was established in support of the narrative standard in Section 29A-303(2) of the Vermont Water Quality Standards. The daily monitoring requirement remains unchanged from the current permit.

4. Toxicity Testing

40 C.F.R. § 122.44(d)(1) and 122.21(j) require the Secretary to assess whether the discharge causes, or has the reasonable potential to cause or contribute to an excursion above any narrative or numeric water quality criteria. In accordance with 40 C.F.R. § 122.44(d)(1), Condition I.F.1. of the draft permit requires the facility to collect two-species 48-hour acute and 7-day chronic WET tests in August or September of 2018, January or February of 2019, August or September of 2020, and January or February of 2021. In accordance with 40 C.F.R. § 122.21(j), Condition I.F.2. of the draft permit includes a requirement to conduct three toxic pollutant scans on the effluent of outfall S/N 001 for the pollutants listed in Appendix J, Table 2 of 40 C.F.R. Part 122 in 2018, 2019, and 2020.

If the results of these tests indicate a reasonable potential to cause an instream toxic impact, the Secretary may require additional WET testing, establish a WET limit, or require a Toxicity Reduction Evaluation.

5. Annual Monitoring

For all facilities with a design flow of greater than 0.1 MGD, 40 CFR § 122.21(j) requires the submittal of effluent monitoring data for those parameters identified in Section I.G.3 of the draft permit. Samples must be collected once annually such that by the end of the term of the permit, all quarters have been sampled at least once, and the results will be submitted by December 31 of each year. Sampling in 2018 should be taken in summer (July 1 – September 30). For subsequent sampling, the "Guidance for Annual Constituent Monitoring" document should be referred to determine the season in which samples should be taken each year.

D. Special Conditions

1. Combined Sewer Overflows (CSOs)

The collection system for the White River Junction WWTF is a combined sewer system that collects both stormwater and sanitary sewage and conveys it to the WWTF. During certain precipitation/runoff events the combined flow of stormwater and sewage exceeds the capacity of the collection system resulting in the overflow of untreated combined wastewater to the Connecticut River. There are currently five such overflow points (i.e. combined sewer overflows) within the Town's collection system. See Attachment B of the permit for a description of the location of the overflow points.

The recently adopted Combined Sewer Overflow Rule (CSO Rule) (Environmental Protection Rule, Chapter 34), which became effective in September 2016, superseded the 1990 CSO Control Policy. The CSO Rule codifies, updates, and clarifies the technology-based and water quality-based requirements applicable to CSOs. The technology-based controls for CSOs are referred to as the "Minimum Controls" and are included in this draft permit under Condition I.K. To ensure the remaining CSOs are brought into compliance with the Vermont Water Quality Standards, the Secretary, concurrent with issuance of this final permit, will issue a 1272 Order to the Permittee, requiring the creation of a Long-Term Control Plan that complies with the requirements of the CSO Rule.

Monitoring requirements required during the term of the permit include:

- Implementation of a precipitation monitoring system,
- Continued monitoring and reporting of overflow events utilizing tell-tales, at a minimum,
- Notification of wet-weather overflows though public alert within one hour of discovery, and submit to the Secretary specified information regarding the discharge within 12 hours of discovery,
- A report on CSO control project(s) of the previous calendar year, due by January 31 of each year.

2. Waste Management Zone (WMZ)

As defined under 10 V.S.A. § 1251(16), a WMZ is "a specific reach of Class B waters designated by a permit to accept the discharge of properly treated wastes that prior to treatment contained organisms pathogenic to human beings. Throughout the receiving waters, water quality criteria must be achieved but increased health risks exist due to the authorized discharge."

The proposed permit retains the existing waste management zone (WMZ) that extends downstream from the outfall for approximately one mile in the Connecticut River.

3. Laboratory Proficiency Testing

To ensure there are adequate laboratory controls and appropriate quality assurance procedures, the permittee shall conduct an annual laboratory proficiency test for the analysis of all pollutant parameters performed within their facility laboratory and reported as required by their NPDES permit. This requirement may be completed as part of an EPA DMR-QA study. Proficiency test samples must be obtained from an accredited laboratory. Results shall be submitted to the Secretary by December 31, annually.

4. Operation, Management, and Emergency Response Plans

As required by the revisions to 10 V.S.A. § 1278, promulgated in the 2006 legislative session, Section I.I has been included in the draft permit. This condition requires that the Permittee implement the Operation, Management, and Emergency Response Plans for the WWTF, sewage pump/ejector stations, and stream crossings as approved by the Secretary on January 28, 2010; and for the collection system as approved by the Secretary on September 24, 2010.

5. Electric Power Failure

Within 90 days of the effective date of the permit, the Permittee must submit to the Secretary updated documentation addressing how the discharge will be handled in the event of an electric power outage.

6. Electronic Reporting

The EPA recently promulgated a final rule to modernize the Clean Water Act reporting for municipalities, industries, and other facilities by converting to an electronic data reporting

system. The final rule requires the inclusion of electronic reporting requirements in NPDES permits that become effective after December 21, 2015. The rule requires that NPDES regulated entities that are required to submit discharge monitoring reports (DMRs), including majors and nonmajors, individually permitted or covered by a general permit, must do so electronically after December 2016. The Secretary has created an electronic reporting system for DMRs and has recently trained facilities in its use. As of December 2020, these NPDES facilities will also be expected to submit additional information electronically as specified in Appendix A in 40 C.F.R. Part 127.

7. Noncompliance Notification

As required by the passage of 10 V.S.A. § 1295, promulgated in the 2016 legislative session, Section II.A.2 has been included in the proposed permit. Section 1295 requires the permittee to provide public notification of untreated discharges from wastewater facilities. The permittee is required to post a public alert within one hour of discovery, and submit to the Secretary specified information regarding the discharge within 12 hours of discovery.

8. Reopener

This draft permit includes a reopener whereby the Secretary reserves the right to reopen and amend the permit to implement an integrated plan to address multiple Clean Water Act obligations.

E. Reasonable Potential Analysis

The Secretary has conducted a reasonable potential analysis, which is attached to this Fact Sheet as Attachment A. Based on this analysis, the Secretary has determined the available data indicate the total phosphorus and other constituents attributable to the facility is minor, and that this discharge does not cause, have a reasonable potential to cause, or contribute to an instream toxic impact or instream excursion above the water quality criteria. As such, the development of WQBELs is not necessary.

VIII. Procedures for Formulation of Final Determinations

The public comment period for receiving comments on this draft permit was from **December 12, 2017 through January 12, 2018**. No comments were received during the public notice period.

Attachment A

Agency of Natural Resources
Department of Environmental Conservation

Watershed Management Division
1 National Life Drive 2 Main
802-828-1535

MEMORANDUM

To: Amy Polaczyk, Wastewater Program (WWP)

From: Rick Levey, Monitoring, Assessment and Planning Program (MAPP)

Cc: Pete LaFlamme, Director, WSMD
Jessica Bulova, Manager, WWP

Date: August 1, 2017

Subject: MAPP Reasonable Potential Determination for the Hartford-White River Junction Wastewater Treatment Facility (WWTF).

MAPP has evaluated the draft permit limits for the Hartford-White River Junction WWTF in Hartford, Vermont pursuant to the 2012 procedure outlining WWM-WSMD roles and responsibilities. This memo provides MAPP's concurrence with the permit limits set forth by the draft permit for Hartford-WRJ WWTF prepared by the Wastewater Program (WWP).

Facility:
Hartford-White River Junction Wastewater Treatment Facility
Permit No. 3-1225
NPDES No. VT0101010

Hydrology for Hartford-WRJ WWTF used in this evaluation:
Design Flow: 1.45 MGD = 2.24 CFS
7Q10 = 912.9 CFS
LMM = 2440 CFS
IWC-7Q10 =0.002 (IWC < 1%)
IWC-LMM= 0.001 (IWC < 1%)

Receiving Water:
Connecticut River, Hartford, VT
Facility Location: 43.64599, -72.315289 (NAD 83)

The Connecticut River downstream of the Hartford-WRJ WWTF is classified as Class B2 for all designated uses and is also designated a Cold-Water Fish Habitat. At the point of discharge, the river has a contributing drainage area of 4092 square miles. The proposed permit retains the existing waste management zone (WMZ) in the Connecticut River beginning at the outfall of this WWTF and extending approximately 1.0 mile downstream (Figure 1). There are several permitted discharges upstream of this facility. Wastewater Treatment Facilities discharging upstream of this site in Vermont include the Bethel

and Royalton WWTF on the White River and the Hanover, NH WWTF on the Connecticut River. There are other facilities that discharge to the Connecticut River above the Hartford-WRJ WWTF but they are not proximal.

General Assessment – VTDEC Assessment Database:
MAPP maintains the VTDEC assessment database, an EPA-required database which describes the conditions of Vermont's surface waters with respect to their attainment of VWQS. For the Connecticut River segment to which this facility discharges, the database indicates full support of all designated uses.

Ambient Chemistry Data for the Connecticut River above and below the Hartford-WRJ WWTF:
There is ambient chemistry data available from NHDES collected by Interstate 89, approx. 1.3 miles below the White River Junction (WRJ) WWTF. TP values from 6/21/2000 and 8/18/2000 were 9 µg/L and 8 µg/L respectively. This location is also below the West Lebanon, NH WWTF and below the confluence of the Mascoma River, which is the receiving water for the Lebanon NH WWTF.

USGS data provides ambient chemistry data collected by the West Lebanon, NH gage station number 01144500. This station is located approx. 200 meters above the WRJ WWTF outfall. The most recent data available from 2007 includes TP and TN. Excluding very high spring flow events, TP values ranged (n=5) from 8.9 µg/L to 11 µg/L. TN values ranged (n=6) from 0.38 mg/L to 0.54 mg/L.

Although some of this data is more than 15 years old, it is supported by nutrient concentrations that have been recently measured in this section of the Connecticut River. Samplepalloza (large multi-state water quality sampling effort) results from 2015 in Hanover, Vermont (above Hartford-WRJ) were 11.9 µg/L-TP and 0.31 mg/L-TN. Results from Hartland, Vermont (approx. 9 miles below Hartford-WRJ) were 14.3 µg/L-TP and 0.33 mg/L-TN. TP values not associated with rain events and high flows within this section of the Connecticut River generally are in the 10 -15 µg/L-TP range.

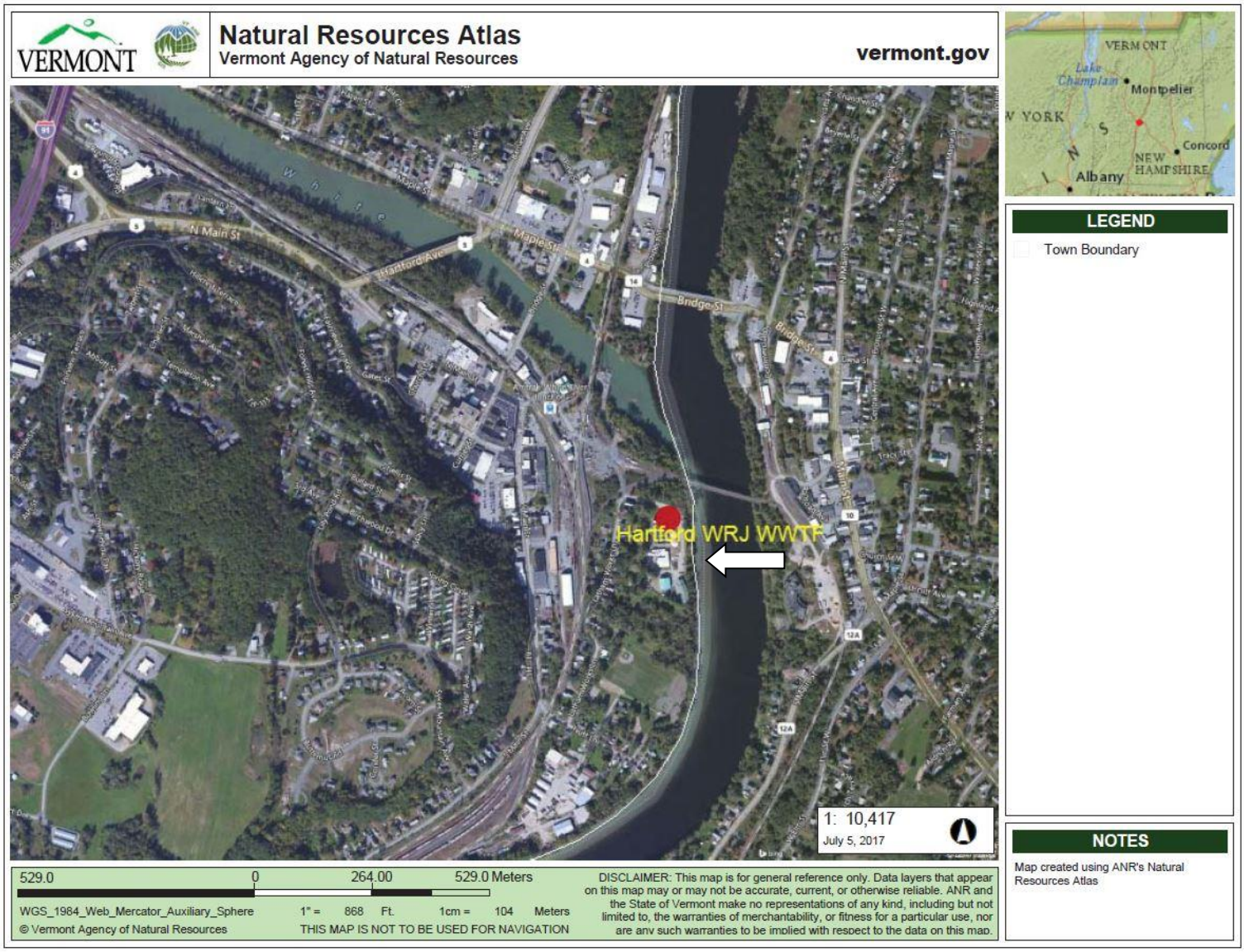

Figure 1. Connecticut River in the vicinity of the Hartford-WRJ WWTF, showing location of WWTF and confluence of White River upstream of facility. Arrow indicates outfall location. Figure taken from the Vermont Integrated Watershed Assessment System on the VTANR Atlas (https://anrweb.vt.gov/DEC/IWIS/).

Biological Assessments:

The receiving waters of this warm water moderate gradient reach are non-wadeable; as such biological assessments have not been conducted above or below the outfall. An historical biological assessment (macroinvertebrate) at the closest reach with appropriate riffle habitat was conducted approx. 2.0 miles below the outfall at river mile 213.0 in 1992.

The sample was collected to evaluate the biological integrity within this reach of river which is below the WRJ WWTF, the West Lebanon, NH WWTF and below the confluence of the Mascoma River, which is the receiving water for the Lebanon NH WWTF. The assessment showed an overall good macroinvertebrate community. The community shows a moderate change from reference condition due to an elevated Biotic Index value, this shows that a shift in community composition to taxa moderately tolerant of nutrient/organic enrichment is present in this reach.

Total Nitrogen:
Total Nitrogen - EPA, in a November 10, 2011 letter to the Agency indicated that Vermont must establish total nitrogen limitations in permits such that the total nitrogen load from all facilities in the Connecticut River watershed is consistent with the requirements of the Long Island Sound Total Maximum Daily Load (TMDL). We note and support the requirement for an optimization study to address controllable nitrogen discharges which will indicate options for the facility compliance with the Long Island Sound TMDL Wasteload Allocation. These beneficial provisions will ensure that receiving waters remain fully compliant with Vermont Water Quality Standards. Further, weekly monitoring will be required for Total Kjeldahl Nitrogen and Nitrate/Nitrite (NOx) Nitrogen. The sum of TKN and NOx shall be calculated to determine Total Nitrogen (TN). Monthly effluent monitoring for nitrogen conducted at the facility from 2012 – 2017 (n= 55) indicates concentrations ranged from 0.1 – 24.0 mg/L-TN; with an average concentration of 6.2 mg/L-TN.

Total Phosphorus:
Instream phosphorus concentrations were calculated using the low monthly median flow (LMM) of 2440 CFS at design flow of 2.24 CFS (1.45 MGD) and using the effluent phosphorus concentration of 1.6 mg/L which was the average concentration overserved during 2012 – 2017 (n=52) from monthly effluent monitoring data. The calculated phosphorus concentration at these conditions attributable to the discharge was 0.0016 mg/L (1.6 µg/L). Facility flow records indicate the average flow for 2012 – 2017 was 0.66 MGD, less than ½ the design flow used for the above calculations. Phosphorus concentrations at these conditions attributable to the discharge would be 0.80 µg/L-TP; less than a 1 microgram TP, a very minor nutrient addition that is within the analytical error of phosphorus analyses conducted for surface waters between 10 and 15 µg/L-TP.

The potential impacts of phosphorus discharges from this facility to the receiving water have been assessed in relation to the narrative criteria in §29A-302(2)(A) of the 2017 VWQS, which states:

> *In all waters, total phosphorous loadings shall be limited so that they will not contribute to the acceleration of eutrophication or the stimulation of the growth of aquatic biota in a manner that prevents the full support of uses.*

To interpret this standard, MAPP typically relies on a framework which examines TP concentrations in relation to existing response criteria in the water quality standards, for streams that can be assessed using macroinvertebrate biocriteria. Under the framework, MAPP can make a positive finding of compliance with the narrative standard when specific nutrient response variables; pH, Turbidity, Dissolved Oxygen, and aquatic life use, all display compliance with their respective criteria in the Water Quality Standards.

However, as the receiving water is non-wadeable and thus not amenable to assessment using the VTDEC biocriteria for macroinvertebrates, the standard assessment framework should not be used, and with respect to phosphorus discharge, this Determination relies instead on calculated instream concentrations.

The observed increase in phosphorus attributable to the facility is 1.6 µg/L, a very minor increase, with limited to no expected impact on the parameters listed in Table 1. Current facility operation at approximately ½ design flow indicates the TP concentration attributable to the facility is less than 1 µg/L-TP, further limiting any potential impact on parameters listed in Table 1.

As such MAPP does not recommend biomonitoring or additional water quality monitoring be included in the permit, MAPP does support effluent monitoring detailed in the draft permit.

Table 1. Assessment of phosphorus response variables for Hartford-WRJ WWTF. The relevant target values are referenced to the appropriate section of the VWQS.

Response variable (VWQS reference)	Target Value	28-CNT (Upstream) (7/09//2003)	24 -CNT (Downstream) (8/23/2004)
pH (§3-01.B.9)	<8.5 s.u.	7.4	7.32
Turbidity (§3-04.B.1)	< 10 NTU at low mean annual flow	1.3	1.15
Dissolved Oxygen (min) (§3-04.B.2)	>6 mg/L and 70% saturation	9.1	8.5
Aquatic biota, based on macroinvertebrates, (§3-04-B.4), also see Table 2.	Attaining an assessment of good, or better.	NA	NA

Whole Effluent Toxicity (WET) and Priority Pollutant Testing:
40 CFR Part 122.44(d)(1) requires the Agency to assess whether the discharge causes, or has the reasonable potential to cause or contribute to an excursion above any narrative or numeric water quality criteria. The goal of the Vermont Toxic Discharge Control Strategy is to assure that the state water quality standards and receiving water classification criteria are maintained. As required in the 2012 permit issued, a two-species WET test was conducted in 2013 and 2015. Review of the 2013 and 2015 WET test results indicate there was no effluent toxicity. The draft permit includes a requirement to conduct a two-species 48-hour acute and 96-hour chronic WET test in August or September of 2019 and 2021 and March or April 2018 and 2020. If the results of this test indicate a reasonable potential to cause an instream toxic impact, the Department may require additional WET testing, establish a WET limit, or require a Toxicity Reduction Evaluation.

Ammonia Monitoring:
Review of the Hartford-WRJ WWTF effluent ammonia records from 2012 - 2016, indicate effluent ammonia concentrations ranged from < 0.5 mg – 3.9 mg TAN/L. Using the highest effluent ammonia concentration of 3.9 mg/L TAN observed in 2012, the receiving water concentration (RWC) at 7Q10 instream waste concentration (IWC) of 0.2% used for implementing the acute criteria would be 0.010 mg TAN/L (7Q10 IWC .002 X 3.9 mg TAN/L). This value is below both the chronic and acute ammonia criteria, illustrating that there is not a reasonable potential for VWQS excursion. MAPP supports the ammonia monitoring be continued to provide additional data for evaluation.

Sediment, Hardness, and Metals:
Instream total suspended solids were calculated using the 7Q10 of 912 CFS at design flow of 2.24 CFS (1.45 MGD), assuming the maximum permitted daily concentration of 50 mg/L. The calculated suspended sediment concentration at these conditions was 0.10 mg/L, indicating a very minor augmentation of instream ambient suspended sediment concentrations in receiving waters.

The hardness of the Connecticut River below the Hartford WRJ WWTF was recorded to be 85 mg/L CaCO3 on 7/25/2012. Hardness data is utilized to determine compliance with Vermont's aquatic biota based metals criteria as specified in § 29A-303(7) and Appendix C of the Vermont Water Quality Standards. Review of the 2012 Priority Pollutant Screening (Appendix J) indicated that all metals were

below water quality standards, in fact all were below detection with the exception of lead and zinc which were detected at .002 mg/L-Pb and 0.092 mg/L-Zn. At 7Q10 conditions, the instream concentration of lead and zinc would be 0.005 µg/L-Pb and 0.23 µg/L-Zn. These concentrations are below detection limits and significantly lower than Water Quality Standards, illustrating that due to the significant dilution of the receiving water and the domestic nature of this discharge there are no concerns for metals exceeding criteria.

Recommended Biological and Water Quality Monitoring:

MAPP does not recommend biomonitoring or additional water quality monitoring be included in the permit. MAPP supports the effluent monitoring detailed in the permit which includes requirements for weekly effluent monitoring of Total Phosphorus and Total Nitrogen.

Conclusion:

Despite the absence of biological data and proximal data below the Hartford-WRJ WWTF, calculations indicate that the total phosphorus and other constituents attributable to the facility is minor, and that this discharge does not cause, have a reasonable potential to cause, or contribute to an instream toxic impact or instream excursion above the water quality criteria. As such, the development of a WQBEL's will not be necessary.

Responsiveness Summary to Hartford – White River Junction 1272 Order Comments

Comment from Town:

Our concern with the new Cso rules are the are not reasonable and would put a financial burden on the Town of Hartford. We have a Cso in the middle of route 14,could you see us digging up Rt-14 to install a holding tank. As you know flow meters cost anywhere from 1000.00 to 7000.00.you start buying 5 or 6 of these it can get pretty pricey. We have not had any issues in many years, especially since we took that 2.5 acres of storm drain off our system. In our opinion the cost does not justify the end benefit. Thank you for your time.

Secretary's response:

The Combined Sewer Overflow Rule (Environmental Protection Rule, Chapter 34, effective September 15, 2016) (CSO Rule) requires facilities to abate and control CSOs and bring them into compliance with the Vermont Water Quality Standards. As a rule adopted in accordance with the requirements of state law (3 V.S.A. Chapter 25), the CSO Rule has the full force of law and is valid and binding on those municipalities to which the Rule applies.

The Agency of Natural Resources (henceforth referred to as "the Agency") recognizes that CSO abatement and control is an iterative and costly process and that it will take time to bring CSOs into compliance with the VWQS.

The Town of Hartford's concerns are valid and best addressed through the thoughtful drafting of a reasonable Long-Term Control Plan (LTCP). The LTCP is required within 18 months of the date of issuance of the 1272 Order and must address CSO control alternatives, with examples of these listed in Condition III of the 1272 Order. This is not an exhaustive list and no one particular technology is specifically prescribed or required to be installed. Moreover, the Agency encourages municipalities to evaluate and implement green stormwater infrastructure for stormwater runoff and sewer overflow management to the greatest extent possible when developing their LTCPs.

It is important to point out the drafting of a LTCP is Phase I of a two-Phase process. Once the Agency has approved a municipality's LTCP, the second Phase entails the Agency issuing a compliance schedule by which the municipality shall implement the CSO controls identified in its Agency-approved LTCP. Compliance schedules shall reflect the shortest *reasonable* time to bring the CSO(s) into compliance. Phase II may span several NPDES permit cycles until all CSO controls in the LTCP have been constructed and implemented.

In summary, the Agency is aware of the significant cost that abatement of CSOs can entail and has every intent to work with municipalities to implement reasonable control plans that protect water quality as well as the vitality of CSO communities.