

**VILLAGE OF ESSEX JUNCTION  
TRUSTEES  
REGULAR MEETING AGENDA**

Online  
Essex Junction, VT 05452  
**Wednesday, April 14, 2021**  
**6:30 PM**

E-mail: [manager@essexjunction.org](mailto:manager@essexjunction.org)

[www.essexjunction.org](http://www.essexjunction.org)

Phone: (802) 878-6951

*Due to the Covid-19 pandemic, **this meeting will be held remotely**. Available options to watch or join the meeting:*

- **WATCH:** the meeting will be live-streamed on [Town Meeting TV](#).
- **JOIN ONLINE:** [Join Microsoft Teams Meeting](#). Depending on your browser, you may need to call in for audio (below).
- **JOIN CALLING:** Join via conference call (*audio only*): (802) 377-3784 | Conference ID: 867 136 104#
- **PROVIDE FULL NAME:** For minutes, please provide your full name whenever prompted.
- **CHAT DURING MEETING:** Please use “Chat” to request to speak, only. **Please do not use for comments.**
- **RAISE YOUR HAND:** Click on the hand in Teams to speak or use the “Chat” feature to request to speak.
- **MUTE YOUR MIC:** When not speaking, please mute your microphone on your computer/phone.

1. **CALL TO ORDER** [6:30 PM]
2. **REORGANIZATION**
  - a. Election of President, Vice President
3. **AGENDA ADDITIONS/CHANGES**
4. **APPROVE AGENDA**
5. **PUBLIC TO BE HEARD**
  - a. Comments from Public on Items Not on Agenda
6. **BUSINESS ITEMS**
  - a. \*Interview and possible appointment: Evan Lawrence, Bike/Walk Advisory Committee
  - b. Presentation on “Across the Dotted Line: Community Connections in Essex” – Gabrielle Smith from Heart and Soul of Essex
  - c. Consider appointment of Trustees member to Cannabis Study Committee
  - d. Consider approval of street markings on north side of Maple Street
  - e. Consider approval of grant applications for culvert crossing replacements at Densmore Drive and Brickyard Road
  - f. Discuss Annual Meeting outcomes
  - g. Discussion and potential action on Merger Alternatives Committee
  - h. \*\*Discussion of legal counsel recommendations on options and next steps regarding merger and/or separation of Village of Essex Junction from Town of Essex
  - i. \*\*Discussion of Draft Wastewater Facility Discharge Permit
7. **CONSENT ITEMS**
  - a. Consider reconstitution of the Town/Village Storm Water Coordinating Committee and appointment of Trustees member to the Committee
  - b. Approve minutes: March 16, 2021; March 22, 2021 - Joint board
  - c. Check Warrants: 17244 – 3/26/21; 17245 – 4/2/21
8. **READING FILE**
  - a. Board member comments
  - b. Resignation letter from Bruce L. Murdough re: resignation from Zoning Board of Adjustment
  - c. Memo from Renae Marshall, Colchester Deputy Town Manager, Aaron Frank, Colchester Town Manager, Robert Vickery, Colchester Town Assessor and Julie Graeter, Colchester Town Clerk/Treasurer re: Act 175 Vermont Education Property Tax Transition Study

**VILLAGE OF ESSEX JUNCTION BOARD OF TRUSTEES**  
**MEETING AGENDA – APRIL 14, 2021**

- d. Chittenden County Regional Planning Commission March Newsletter
  - e. Letter from VTRANS re: Essex Junction Crosswalk Beacons – Lincoln/Central, Main/Pleasant, and Main/Church
  - f. Memo from Annie Costandi, Chelsea Mandigo, Dennis Lutz, and James Jutras re: Information on Stormwater Phosphorus Control Plan Submittal
  - g. Memo from Robin Pierce re: Crescent Connector Update
  - h. Colchester-Essex VT-15 Multi-Use Path Project
  - i. New meeting schedule for 2021-2022
9. **EXECUTIVE SESSION**
- a. \* An executive session may be requested to discuss the appointment(s) of a public official
  - b. \*\*An executive session is anticipated to discuss legal matters.
10. **ADJOURN**

*This agenda is available in alternative formats upon request. Meetings of the Trustees, like all programs and activities of the Village of Essex Junction, are accessible to people with disabilities. For information on accessibility or this agenda, call the Unified Manager's office at 878-6951.*

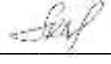
Certification:

4/9/2021  
Date Posted


  
Initials

**VILLAGE OF ESSEX JUNCTION BOARD OF TRUSTEES  
MEETING AGENDA – APRIL 14, 2021**

*This agenda is available in alternative formats upon request. Meetings of the Trustees, like all programs and activities of the Village of Essex Junction, are accessible to people with disabilities. For information on accessibility or this agenda, call the Unified Manager's office at 878-6951.*

Certification: 4/9/2021   
Date Posted Initials

# Memorandum

**To:** Village Trustees, Evan Teich, Unified Manager  
**From:** Linda Mahns, Administrative Assistant   
**Re:** Appointment of volunteer to the Bike/Walk Advisory Committee  
**Date:** April 9, 2021

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## Issue

The issue is whether the Trustees will interview and appoint a volunteer to the Bike/Walk Advisory Committee (BWAC).

## Discussion

Evan Lawrence has stepped forward for consideration to join the Essex Junction Bike/Walk Advisory Committee and his letter of interest has been combined with this memo.

For reference, the following seats are vacant on the Bike/Walk Advisory Committee:

<b><i>Committee/Board</i></b>	<b><i>Open seats</i></b>	<b><i>Term(s) ending</i></b>	<b><i>Status</i></b>
Bike/Walk Advisory Committee	2	June 30, 2023	Advertised as of 2/27/20

The appointment of public officials can be a protected discussion during the interview, provided that the Trustees make a final decision to appoint a public official in an open meeting and shall explain the reasons for its final decision during the open meeting.

## Cost

None.

## Recommendation

It is recommended the Trustees interview Evan Lawrence and consider appointment to the Bike/Walk Advisory Committee.

If the Trustees wish to enter executive session, the following motion is recommended:

"I move that the Trustees enter into executive session to discuss the proposed public official appointment(s) in accordance with 1 V.S.A. Section 313(a)(3) and to include the Unified Manager, the Assistant Manager and the candidate."



# Evan Lawrence

[REDACTED]  
Essex Junction, VT 05452  
[REDACTED]

Village Essex Junction Trustees  
Bike-Walk Committee

April 4, 2021

Dear Board of Trustees,

As a lifelong and passionate cyclist, I am excited to see that the Village is looking for a volunteer for the Bike-Walk Committee. Although I am new to the community, we recently purchased a home on South Summit Street, and I have been fond of Essex Junction and the surrounding area for quite some time. I am proud to call this community home and hope to promote its beauty and give back as much as I can. I see this position as a great fit because it combines my desire to build a safe, sustainable community while promoting my passion for making Essex a welcome place to walk and bike.

I have many years of community volunteer experience that I am eager to put to good use on behalf of Essex Junction. I have previously been a board member for outreach and event planning for bike advocacy groups, as well as volunteered for a multi-use trail building crew and committee.

I would be grateful for the opportunity to help our community continue to thrive and grow through our pedestrian walkways and paths that add value and character to this unique community. I believe that having a safe, accessible, and sustainable way for neighbors to walk and bike not only promotes health for the individual but for the town as a whole. I look forward to a deeper discussion about this role and how I might be able to have a meaningful impact on Essex Junction.

Best regards,

Evan Lawrence

April 1, 2021

TO: Evan Teich, Unified Manager, Town of Essex and Village of Essex Junction  
Greg Duggan, Deputy Town Manager

FROM: Gabrielle Ratté Smith, Board member, Heart & Soul of Essex

RE: *Across the Dotted Line*, a photo story project

The board of the Heart & Soul of Essex is announcing a new project. *Across the Dotted Line: Community Connections in Essex* is a photo story initiative. Residents of Essex are invited to submit a photo of friends, families, or any relationship between people who live on either side of the “dotted line” of the border of the Village within the Town. This community is in the midst of a very difficult and divisive revote on a plan to merge the two municipalities. The Village of Essex Junction has received a petition from Village residents to pursue separation from the Town should merger not pass. This initiative is designed to highlight the many relationships across the community that bind all of us together. These relationships connect our community together, no matter what the outcome of the votes on April 13 and the decisions that follow.

A bit of background: Between 2012 and 2014, The Heart & Soul of Essex project directly engaged with over 1,000 residents who live in the Town of Essex and Village of Essex Junction. People who live and work in Essex gathered in living rooms, answered surveys, attended forums, held pop-up coffee shops, students created a community wide art project, and several in person celebrations brought our community together. Many other activities and events were held. As a result of this work, the community identified six core values: Local economy, health and recreation, community connections, education, thoughtful growth, and safety. The values were central content for Essex’s award winning town plan. Each of these values have detailed descriptions based on community input and are backed up by extensive data. Visit [www.heartandsoulofessex.org](http://www.heartandsoulofessex.org) to find reports, history of the project, and more information.

Whether these two municipalities merge, separate, or find another way forward, their past and future are intertwined. Through photos and short stories of relationships across the “dotted line,” residents will share inspiring stories and images of friendships and families with deep connections to Essex, Essex Junction and to each other. The Heart & Soul of Essex sought to ensure that as Essex continues to grow and change, we hold onto what is special about our community and that decisions reflect what matters to the people who live and work here. The photos will help to remind us of the relationships, people, and community that matter to us as we come to an important vote that will shape how we grow and change.

Henry Wu, EHS Class of 2020 (and Harvard University Class of 2025!), is working with me on this project. He has done almost all of the technical work on our webpage, Facebook, and Instagram for this project. We are requesting the ability for Henry to screen share from his computer so he can briefly show the Board the look of the website and the photo story submissions we have received so far.

Thank you.

**Memorandum**

**To:** Selectboard; Board of Trustees; Evan Teich, Unified Manager; Greg Duggan, Deputy Manager  
**Cc:** Marguerite Ladd, Assistant Manager  
**From:** Robin Pierce, Village Community Development Director  
Owiso Makuku, Town Interim Community Development Director  
**Re:** Update on Cannabis  
**Date:** April 5, 2021

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**Issue**

This is an update for the Selectboard and Trustees to inform them of Town and Village progress in creating a Cannabis Committee, and for the Selectboard/Trustees to appoint a member to serve on the Cannabis Committee.

**Discussion**

The plan is to form an internal board/committee to research cannabis, do outreach and make recommendations. The board is proposed to consist of a Selectboard member, a Trustee, a Police officer or representative, someone from the Economic Development Commission, someone from each of the Planning Commissions, each of the Zoning Boards of Adjustment, both Community Development Directors and either Evan Teich, Unified Manager, or Greg Duggan, Deputy Manager.

We are doing outreach to each of the above-named groups and are asking both the Selectboard (on April 5) and the Trustees (at their April 14 meeting) to nominate/appoint someone from each of their respective ranks to the committee.

**Cost**

None

**Recommendation**

Staff recommends the Selectboard/Trustees appoint a member to the Cannabis Committee.



Community Development Department

2 Lincoln Street  
Essex Junction, VT 05452  
[www.essexjunction.org](http://www.essexjunction.org)

Office: (802) 878-6944  
Fax: (802) 878-6946

## **MEMORANDUM**

**TO:** Evan Teich, Unified Manager, Trustees  
**FROM:** Robin Pierce, Community Development Director *RJP*  
**DATE:** April 13<sup>th</sup> 2021  
**SUBJECT:** Hash Marks for Parking Access behind the Firebird Café.

The issue is whether the Trustees wish to approve hash marks on Maple Street to ensure traffic does not block the access to and from the Public Parking behind the Firebird Cafe.

### **Discussion**

Currently there are no hash marks on the access closest to the Public Parking behind the Firebird Cafe. With the increased use of this parking area there is a need to ensure legal access to the parking is available as often as possible. Drivers are sometimes not mindful of the fact that the access to the parking is in close proximity when they are in heavy traffic. The hash marks will be a visual clue and make it easier for drivers to be aware of the need to leave the area open. This is also a safety issue as it can be difficult for cars exiting the driveways to see if there is traffic on the opposite side of the road. The hash marks will increase the visibility distance. It also enables traffic coming from the west to access the parking area more easily and reduces the possibility of cars blocking access from the Five Corners to Maple Street as they wait for clearance to turn left into the Public Parking. Please see the attached Site Plan for the location of the hash marks. This is the same as the hash marks that were painted on Lincoln Street at the access drive for the Village Parking areas behind the Village office and the Library a few years ago. It may be prudent to revisit this if the hash marks do not provide desired outcome of freeing up access to the parking and consider installing a sign that says 'Do Not Block Access' or some similar wording.

### **Cost**

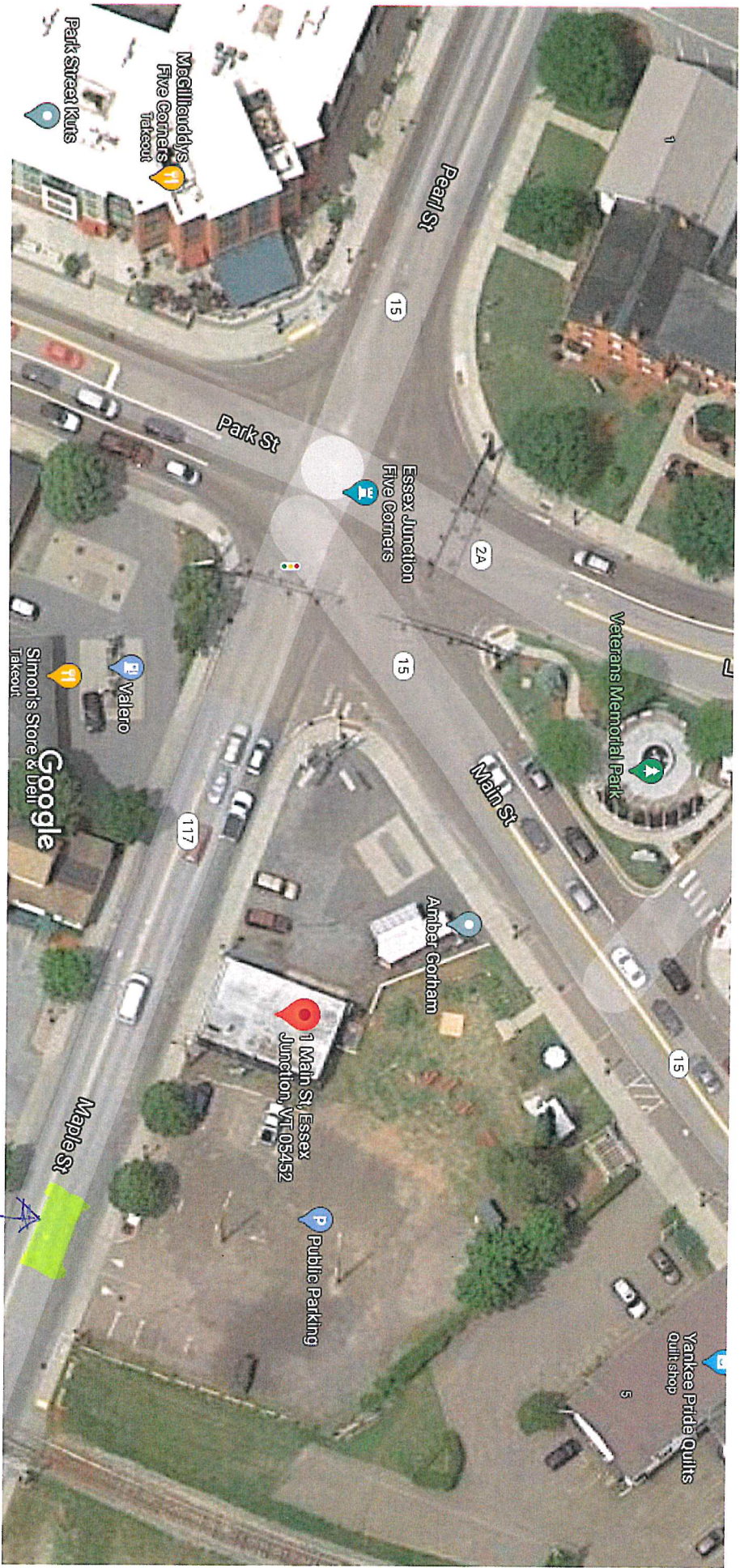
This is a very low cost solution using white marking paint. The estimate is \$20 plus staff time to paint the lines.

### **Recommendation**

It is recommended that the Trustees approve this proposal and authorize Staff to implement the changes to improve access, visibility, and safety at this location by painting hash marks on the northern side of the Maple Street drive lanes at the entrance to the Public Parking.



Google Maps 1 Main St



HAST MARK LOCATION



## **MEMORANDUM**

TO: Village of Essex Junction Trustees  
FROM: Chelsea Mandigo, Stormwater Coordinator/Wastewater Operator  
Jim Jutras, Water quality Superintendent  
cc: Evan Teich, Unified Municipal Manager,  
Gregory Duggan, Deputy Manager,  
Sarah Macy, Finance Director,  
Ricky Jones, Public Works Superintendent  
DATE: April 7, 2021  
SUBJECT: Densmore Dr. culvert crossing #2 & Brickyard Rd culvert crossing replacements

**Issue:** Culvert crossings at Densmore Dr. & Brickyard Rd both have a life expectancy remaining of less than 3 and 3-5 years respectively. Seeking maximum grant funding for replacement project of each.

**Discussion:** Indian Brook passes under Brickyard Rd. and Densmore Dr. via three metal culverts. Densmore Dr. culvert crossing #1 (Crossing #1) near Main St encountered a catastrophic failure during the FEMA declared event storm on 10/31/2019. The road remains closed with final installation to be completed Spring/Summer 2021. During the site investigation of the failure of Crossing #1, culverts immediately upstream were evaluated as part of the hydraulic design analysis. The analysis indicated that the Densmore Dr. culvert crossing #2 (Crossing #2) towards Brickyard Rd. and the Brickyard Rd culvert crossing (Brickyard crossing) upstream of Densmore Dr intersection are both undersized for today's weather patterns/development and in poor physical condition.

Having a catastrophic failure at either crossing #2 or Brickyard crossing would cause substantial disruption to a large portion of Village residents. Lengthy detours would be required. Crossing #2 has an estimated life expectancy of 3 years or less and Brickyard crossing has 3-5 years. With this information, staff proactively hired the same design firm used for Crossing #1 to design a replacement for Crossing #2. They had already completed much of the field work and hydraulic study reducing Village engineering costs on the upstream projects. In addition, Staff met with the Capital Committee regarding Crossing #2 replacement which includes partial waterline replacement and the project ranking exercise moved the project to the top of the FY22 list of projects.

Staff is actively pursuing all grant avenues for the best project price reduction. There is currently significant chance for large sums of infrastructure grant money coming to Vermont in the form of Covid Relief funds. Currently, Crossing #2 is essentially "shovel ready" and two grant application are being submitted.

Staff seeks approval to move forward on designing a replacement structure at Brickyard crossing to increase our competitiveness when other grant opportunities are released. We do not have specifics on how grant money would be applied, and the level of match required. Staff will work with the Managers to maximize the grant potential for each project. We will report back with the best financial opportunities.


**Costs:** Crossing #2 design and constructed including water line replacement is estimated to be \$850,000. The VTRANS FY'22 structure grant request is the maximum amount of \$175,000 and requires a 10% match (\$17,500).

The grant request for the community project through Congressmen Welch (federal money) was for the full project cost of \$850,000 and a match was not specified but said may be required. Match funding for this project would come from the money allocated towards this project in the Capital Fund.

Brickyard Rd culvert crossing design and construction (including replacement of water and sewer line) estimates are still being prepared but it is anticipated the costs will be like those of the Densmore Drive culvert crossings #1 and #2. Staff is estimating a total project cost around \$1,000,000 +/- with design being about \$125,000 of the total project cost.

**Recommendation:** Staff recommends that the Trustees grant permission to proceed along parallel grant application tracks to maximize outside resources for the Densmore Crossing #2 and Brickyard crossing culvert projects. Understanding that matches will be required, we will report back to the Trustees for final approval for any grant acceptance and required matching.

## Memorandum

**To:** Board of Trustees; Evan Teich, Unified Manager  
**From:** Marguerite Ladd, Assistant Manager   
**Re:** Annual meeting outcomes  
**Date:** April 7, 2021

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### Issue

Designated time to discuss the outcome of Annual Meeting

### Discussion

There will likely be topics that need to be discussed due to the outcome of voting on April 13<sup>th</sup>. This provides a space and time for those topics and/or questions on next steps to be considered.

### Cost

N/A

### Recommendation

This is for informational purposes only.



# Memorandum

**To:** Marguerite Ladd, Assistant Manager  
**Cc:** Linda Mahns, Administrative Assistant  
**From:** Tammy Getchell, Assistant to the Manager & Marguerite Ladd, Assistant Manager  
**Re:** Setting up a new committee  
**Date:** April 6, 2021

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## Issue

To to continue the conversation on the topic of creating a committee to study merger alternatives. We have answered some questions, but there remain quite a few unanswered. The desire is to be ready to go ASAP as necessary.

From the minutes of the March 15<sup>th</sup> meeting:

*"The Trustees discussed next steps for forming a Merger Alternatives Study Committee. Mr. Brown agreed to summarize the discussion and create a new draft of his memo, incorporating the Trustees' suggestions. Mr. Chawla said selecting members for the committee should be deliberate and include a diverse cross-section of the community. Mr. Brown said selection should be through the standard process. Mr. Kerin wondered if anyone should be involved from outside of the Village and Mr. Brown suggested it should be formed of people who reside in the Village. Mr. Teich stressed the importance of the Trustees determining what would be unacceptable and being clear about what parts of the community they have no intention of changing."*

Below you will find a list of tasks or items that still need your attention and answers in order to properly set up a new committee and start recruiting members.

## Discussion

Upon your request, I am providing a bullet list of steps to establish a new committee.

- What is the committee's purpose?
- What are the specific tasks assigned?
- Define type of committee (ad hoc, permanent, fact-finding)
- Timeframe for completion (if ad hoc); should the committee report back to the board and if so, when or how often?
- Determine committee composition (number of seats, terms, stipends)
- Define requirements of committee members (such as if resumes are required, residency)
- Determine staff resources (representative to facilitate meeting set up, research, liaison between the board and the committee, authorize legal, etc.)
  - Decide if staff members will be voting/non-voting

Once the committee has been approved by the Trustees, staff will begin recruitment on the website, Facebook, posting in buildings, library, etc. Typically, thirty days is a sufficient amount of time for advertising before scheduling interviews for available seats.


**Cost**

There is typically no cost involved with recruitment, unless published advertising is desired.

**Recommendation**

It is recommended that the board vote to officially form the committee.

## Memorandum

**To:** Board of Trustees; Evan Teich, Unified Manager  
**Cc:** Greg Duggan, Deputy Manager  
**From:** Marguerite Ladd, Assistant Manager   
**Re:** Exec session, legal services  
**Date:** April 7, 2021

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### Issue

The issue is whether the Trustees enter into executive session to discuss confidential attorney-client communications made for the purpose of providing professional legal services to the body.

### Discussion

In order to have a complete and thorough discussion about this topic, it would appear that an executive session would be necessary because the premature disclosure of the information may put the Trustees and the Village at a substantial disadvantage. Confidential attorney-client communications made for the purpose of providing professional legal services to the body can be a protected discussion.

### Cost

N/A

### Recommendation

If the Trustees wish to enter executive session, the following motions are recommended:

#### Motion #1

"I move that the Trustees make the specific finding that general public knowledge of confidential attorney-client communications made for the purpose of providing professional legal services to the body would place the Village at a substantial disadvantage."

#### Motion #2

"I move that the Trustees enter into executive session to discuss confidential attorney-client communications made for the purpose of providing professional legal services to the body, pursuant to 1 V.S.A. § 313(a)(1)(F) to include the Village Attorney (*and, if desired*, Unified Manager and Assistant Manager)."

**Memorandum**

**To:** Trustees; Evan Teich, Unified Manager  
**Cc:** Marguerite Ladd, Assistant Manager; James Jutras, Water Quality Superintendent  
**From:** Greg Duggan, Deputy Manager  
**Re:** Executive session for pending or probable litigation  
**Date:** April 8, 2021

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**Issue**

The issue is whether the Trustees enter into executive session to discuss pending or probable civil litigation, to which the public body is or may be a party.

**Discussion**

In order to have a complete and thorough discussion about this topic, it would appear that an executive session would be necessary because the premature disclosure of the information may put the Selectboard and the Town at a substantial disadvantage. Pending or probable litigation, to which the public body is or may be a party, can be a protected discussion.

**Cost**

N/A

**Recommendation**

If the Trustees wish to enter executive session, the following motions are recommended:

**Motion #1**

"I move that the Trustees make the specific finding that general public knowledge of pending or probable civil litigation, to which the public body is or may be a party, would place the Village at a substantial disadvantage."

**Motion #2**

"I move that the Trustees enter into executive session to discuss pending or probable civil litigation, to which the public body is or may be a party, pursuant to 1 V.S.A. § 313(a)(1)(E), to include the Unified Manager, Assistant Manager, and Water Quality Superintendent (and, if necessary, the Village Attorney)."

AGENCY OF NATURAL RESOURCES  
DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
WATERSHED MANAGEMENT DIVISION  
1 NATIONAL LIFE DRIVE – DAVIS 3  
MONTPELIER, VERMONT 05620-3522

NOTICE: DRAFT DISCHARGE PERMIT

PUBLIC NOTICE NUMBER: 3-1254

PUBLIC COMMENT PERIOD: **April 7, 2021 to May 7, 2021**

**PERMITTEE INFORMATION**

PERMITTEE NAME: **Village of Essex Junction**  
PERMITTEE ADDRESS: **39 Cascade St**  
**Essex Junction, VT 05452**

CO-PERMITTEE NAME: **Town of Essex**  
PERMITTEE ADDRESS: **81 Main Street**  
**Essex, VT 05452**

CO-PERMITTEE NAME: **Town of Williston**  
PERMITTEE ADDRESS: **722 Williston Road**  
**Williston, VT 05495**

PERMIT NUMBER: 3-1254

PROJECT ID NUMBER: EJ93-0004

**DISCHARGE INFORMATION**

NATURE: Treated and Disinfected Municipal Wastewater

VOLUME: 3.3 MGD, Annual Average

RECEIVING WATER: Winooski River

EXPIRATION DATE: March 31, 2026

DESCRIPTION: This is a draft discharge permit proposed for issuance to the Village of Essex Junction, Town of Essex Junction and the Town of Williston for the discharge of treated and disinfected municipal wastewater from the Village of Essex Junction Wastewater Treatment Facility located at 39 Cascade Street, Essex Junction, VT 05452 to the Winooski River.

**TENTATIVE DETERMINATIONS**

Tentative determinations regarding effluent limitations and other conditions to be imposed on the pending Vermont permit have been made by the State of Vermont Agency of Natural Resources (VANR). The limitations imposed will assure that the Vermont Water Quality Standards and applicable provisions of the Federal Clean Water Act, PL 92-500, as amended, will be met.

**FURTHER INFORMATION**

The complete application, proposed permit, and other information are on file and may be inspected by appointment on the 3<sup>rd</sup> floor of the Davis Building at 1 National Life Drive, Montpelier, Vermont. Copies, obtained by calling 802-828-1115 from 7:45 AM to 4:30 PM Monday through Friday, will be made at a cost based upon the current Secretary of State Official Fee Schedule for Copying Public Records. The draft permit and fact sheet may also be viewed on the Division's website:

<https://anrweb.vt.gov/DEC/IWIS/ReportViewer2.aspx?Report=WWPublicNotices&ViewParms=False>.

**PUBLIC COMMENTS/PUBLIC HEARINGS**

Written public comments on the proposed permit are invited and must be received on or before the close of the business day (4:30 pm) on **May 7, 2021** to the Agency of Natural Resources, Department of Environmental Conservation, Watershed Management Division, 1 National Life Drive – Davis 3, Vermont 05620-3522. Comments may also be submitted by e-mail using the e-mail comment provisions included at

<https://anrweb.vt.gov/DEC/IWIS/ReportViewer2.aspx?Report=WWPublicNotices&ViewParms=False>.

All comments received by the above date will be considered in formulation of the final determinations.

During the notice period, any person may submit a written request to this office for a public meeting to consider the proposed permit. The request must state the interest of the party filing such request and the reasons why a meeting is warranted. A meeting will be held if there is a significant public interest (including the filing of requests or petitions for such meeting) in holding such a meeting.

**FINAL ACTION/RIGHTS TO APPEAL TO THE ENVIRONMENTAL COURT**

At the conclusion of the public notice period and after consideration of additional information received during the public notice period, VANR will make a final determination to issue or to deny the permit. Pursuant to 10 V.S.A. Chapter 220, any appeal of this decision must be filed with the clerk of the Environmental Court within 30 days of the date of the decision. The appellant must submit the Notice of Appeal and include the applicable filing fee, payable to the state of Vermont.

The Notice of Appeal must specify the parties taking the appeal and the statutory provision under which each party claims party status; must designate the act or decision appealed from; must name the Environmental Court; and must be signed by the appellant or their attorney. In addition, the appeal must give the address or location and the description of the property, project or facility with 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.

The address for the Vermont Environmental Court is: Vermont Superior Court, Environmental Division, 32 Cherry Street, 2<sup>nd</sup> Floor, Suite 303, Burlington VT 05401 (Tel. (802) 951-1740. For further information, see the Vermont Rules for Environmental Court Proceedings, available online at [www.vermontjudiciary.org](http://www.vermontjudiciary.org).

Peter Walke, Commissioner  
Department of Environmental Conservation

AGENCY OF NATURAL RESOURCES  
DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
WATERSHED MANAGEMENT DIVISION  
ONE NATIONAL LIFE DRIVE, DAVIS BUILDING, 3rd FLOOR  
MONTPELIER, VT 05620-3522

Permit Number: **3-1254**

PIN: **EJ93-0004**

NPDES Number: **VT0100111**

Facility Name: **Essex Junction WWTF**  
Facility Address: **39 Cascade St**  
**Essex Junction VT 05452**  
Coordinates: Lat: **44.4810** Long: **-73.1209**  
Facility Classification: **5 Domestic Major**  
Permittee Name: **Village of Essex Junction**  
Permittee Address: **2 Lincoln Street**  
**Essex Junction, VT 05452**

Co-Permittee Name: **Town of Williston**  
Co-Permittee Address: **722 Williston Road**  
**Williston, VT 05495**

Co-Permittee Name: **Town of Essex**  
Co-Permittee Address: **81 Main Street**  
**Essex, VT 05452**

Expiration Date: **March 31, 2026**  
Reapplication Date: **September 30, 2025**

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 Permittee, the Village of Essex Junction, and Co-Permittees, the Town of Williston, the Town of Essex (hereinafter referred to as the “Permittee and Co-Permittees” or “Permittees”) is authorized by the Secretary of the Agency of Natural Resources (hereinafter referred to as the “Secretary”) to discharge from the Essex Junction Wastewater Treatment Facility (hereinafter referred to as the “WWTF”) to the, Winooski River, in accordance with the following conditions.

This permit shall be effective on **6/1/2021**.

Peter Walke, Commissioner  
Department of Environmental Conservation

By:

Date

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Amy Polaczyk, Wastewater Program Manager  
Watershed Management Division



**I. PERMIT SPECIAL CONDITIONS****A. EFFLUENT LIMITS AND MONITORING REQUIREMENTS**

**1. Discharge Point S/N 001, Lat. 44.47932, Long. -73.12040:** During the term of this permit, the Permittee is authorized to discharge from outfall S/N 001 of the Essex Junction WWTF to the Winooski River, an effluent for which the characteristics shall not exceed the values listed below:

<b>Discharge Monitoring</b>						
<b>Constituent; Sampling Point and Sample Type</b>	<b>Season and Sampling Frequency</b>	<b>Quantity</b>	<b>Quantity</b>	<b>Conc.</b>	<b>Conc.</b>	<b>Conc.</b>
<b>Flow; Effluent; Continuous</b>	<b>Year Round Daily</b>	<b>Monitor mgd Monthly Avg</b>				
<b>BOD, 5-Day; Effluent; 8 Hour Comp</b>	<b>Year Round Weekly</b>	<b>688 lbs/day Monthly Avg</b>	<b>1032 lbs/day Weekly Avg</b>	<b>30 mg/l Monthly Avg</b>	<b>45 mg/l Weekly Avg</b>	<b>50 mg/l Daily Max</b>
<b>BOD, 5-Day; Influent; 8 Hour Comp</b>	<b>Year Round Monthly</b>			<b>Monitor mg/l Monthly Avg</b>		
<b>Chlorine, Total Residual; Effluent; Grab</b>	<b>Year Round Daily</b>					<b>0.1 mg/l Instant Max</b>
<b>Copper, Total; Effluent; 8 Hour Comp</b>	<b>Year Round Monthly</b>		<b>Monitor lbs/day Daily Max</b>			<b>Monitor mg/l Daily Max</b>
<b>Copper, Total; Influent; 8 Hour Comp</b>	<b>01/01 - 03/31 Quarterly</b>		<b>Monitor lbs/day Daily Max</b>			<b>Monitor mg/l Daily Max</b>
<b>Copper, Total; Influent; 8 Hour Comp</b>	<b>04/01 - 06/30 Quarterly</b>		<b>Monitor lbs/day Daily Max</b>			<b>Monitor mg/l Daily Max</b>
<b>Copper, Total; Influent; 8 Hour Comp</b>	<b>07/01 - 09/30 Quarterly</b>		<b>Monitor lbs/day Daily Max</b>			<b>Monitor mg/l Daily Max</b>
<b>Copper, Total; Influent; 8 Hour Comp</b>	<b>10/01 - 12/31 Quarterly</b>		<b>Monitor lbs/day Daily Max</b>			<b>Monitor mg/l Daily Max</b>

Discharge Monitoring Continued						
Constituent; Sampling Point and Sample Type	Season and Sampling Frequency	Quantity	Quantity	Conc.	Conc.	Conc.
E. Coli; Effluent; Grab	Year Round Weekly					77 #/100 ml Instant Max
Nitrite Plus Nitrate Total; Effluent; 8 Hour Comp	11/01 - 05/31 Monthly		Monitor lbs/day Daily Max			Monitor mg/l Daily Max
Nitrite Plus Nitrate Total; Effluent; 8 Hour Comp	06/01 - 10/31 Weekly	Monitor lbs/day Monthly Avg	Monitor lbs/day Weekly Max	Monitor mg/l Monthly Avg	Monitor mg/l Weekly Max	
Nitrogen, Kjeldahl Total; Effluent; 8 Hour Comp	11/01 - 05/31 Monthly		Monitor lbs/day Daily Max			Monitor mg/l Daily Max
Nitrogen, Kjeldahl Total; Effluent; 8 Hour Comp	06/01 - 10/31 Weekly	Monitor lbs/day Monthly Avg	Monitor lbs/day Weekly Max	Monitor mg/l Monthly Avg	Monitor mg/l Weekly Max	
Nitrogen, Total; Effluent; Calculated	11/01 - 05/31 Monthly		Monitor lbs/day Daily Max			Monitor mg/l Daily Max
Nitrogen, Total; Effluent; Calculated	06/01 - 10/31 Weekly	Monitor lbs/day Monthly Avg	Monitor lbs/day Weekly Max	Monitor mg/l Monthly Avg	Monitor mg/l Weekly Max	
pH; Effluent; Grab	Year Round Daily			6.5 s.u. Min		8.5 s.u. Max
Phosphorus, Total; Effluent; Calculated	Year Round Monthly	Monitor lbs Annual Total	Monitor lbs Monthly Total	Monitor % Monthly Total		
Phosphorus, Total; Effluent; 8 Hour Comp	Year Round Weekly			0.8 mg/l Monthly Avg		
Septage Received; Influent; Recorder Total	Year Round Daily		Monitor gallons Monthly Total			

Discharge Monitoring Continued						
Constituent; Sampling Point and Sample Type	Season and Sampling Frequency	Quantity	Quantity	Conc.	Conc.	Conc.
Settleable Solids; Effluent; Grab	Year Round Daily					1 ml/l Instant Max
Suspended Solids, Total; Effluent; 8 Hour Comp	Year Round Weekly	688 lbs/day Monthly Avg	1032 lbs/day Weekly Avg	30 mg/l Monthly Avg	45 mg/l Weekly Avg	50 mg/l Daily Max
Suspended Solids, Total; Influent; 8 Hour Comp	Year Round Monthly			Monitor mg/l Monthly Avg		
Ultimate Oxygen Demand; Effluent; Calculated	06/01 - 10/31 Weekly		1820 lbs/day Daily Max			
Zinc; Effluent; 8 Hour Comp	Year Round Monthly		Monitor lbs/day Daily Max			Monitor mg/l Daily Max
Additional Monitoring						
Constituent; Sampling Point and Sample Type	Season and Sampling Frequency	Quantity	Quantity	Conc.	Conc.	Conc.
Flow; Annual Average; Calculated	12/01 - 12/31 Annual	3.3 mgd Annual Avg				
BOD, 5-Day (%R); Percent Removal; Calculated	Year Round Monthly			85 % Monthly Min		
Phosphorus, Total; Annual Average; Calculated	12/01 - 12/31 Annual	2008 lbs/yr Annual Total				
Suspended Solids, Total (%R); Percent Removal; Calculated	Year Round Monthly			85 % Monthly Min		

## 2. Discharge Sampling Points

- a) Effluent sampling: The effluent sampling shall be taken after the weir following the dechlorination contact tank before discharging to the Winooski River at River Mile 17-2 on the northerly bank.
- b) Influent sampling: The influent sample shall be taken in the headworks within the widest opening of the influent channel and after the fine screen, but before the first Equalization Tank (EQ).

## 3. Discharge Special Conditions

- a) The Ultimate Oxygen Demand (UOD) limitation is only effective from June 1 through October 31 annually. UOD shall be calculated using the Total Kjeldahl Nitrogen (TKN) load by the following formula:  $\text{UOD lbs.} = ((\text{BOD lbs.} \times 1.43) + (\text{TKN lbs.} \times 4.57))$
- b) The Permittee shall operate the facility to meet the concentration limitations or pounds limitation, whichever is more restrictive.
- c) The monthly average concentrations of Biochemical Oxygen Demand (BOD5) and Total Suspended Solids (TSS) in the effluent shall not exceed 15 percent of the monthly average concentrations of BOD5 and TSS in the influent into the WWTF.
- d) Total Annual Pounds of Phosphorus discharged shall be defined as the sum of all the Total Monthly Pounds of Phosphorus discharged for the calendar year. Total Monthly Pounds of Phosphorus discharged shall be calculated as follows:  
 $(\text{Monthly Average Phosphorus Concentration}) \times (\text{Total Monthly Flow}) \times 8.34$   
(See Total Phosphorus monitoring report form WR43-TP to report monthly totals)
- e) Total Nitrogen (TN) shall be monitored and reported as pounds, via a CWA approved method. An example would be using the sum of Nitrate/Nitrite (NOx) and TKN concentrations to find TN, which would be calculated as:  
 $\text{Average TN (mg/L)} \times \text{Total Daily Flow (MGD)} \times 8.34;$   
where,  $\text{TN (mg/L)} = \text{TKN (mg/L)} + \text{NOx (mg/L)};$   
and where,  $\text{NOx (mg/L)} = \text{NO}_3 \text{ (mg/L)} + \text{NO}_2 \text{ (mg/L)}$
- f) The Permittee (Village of Essex Junction) shall be solely responsible for the proper operation and maintenance of the Permittee's pump stations and collection system, the enforcement of Permittee's sewer use ordinance, and the proper operation and maintenance of the Village of Essex Junction Wastewater Treatment Facility.

The Co-Permittee, Town of Essex, shall be solely responsible for the proper operation and maintenance of that Town's pump stations and collection system, and for the enforcement of that Town's sewer use ordinance.

The Co-Permittee, Town of Williston, shall be solely responsible for the proper operation and maintenance of that Town's pump stations and collection system, and for the enforcement of that Town's sewer use ordinance.

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

h) The discharge shall be free from substances of any kind or quantity that settle to form harmful benthic deposits; float as foam, debris, scum or other visible substances; produce odor, color, taste or turbidity that is not naturally occurring and would render the surface water unsuitable for its designated uses; result in the dominance of nuisance species; or interfere with recreational activities; or which would cause a violation of the Vermont Water Quality Standards.

i) 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.

j) 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 and Co-Permittees 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.

k) Composite samples for BOD<sub>5</sub>, Total Suspended Solids (TSS), Total Phosphorus, TKN, NO<sub>x</sub>, Total Copper, and Total Zinc shall be taken during the hours 6:00 a.m. to 6:00 p.m., unless otherwise specified. Eight hours is the minimum and 24 hours is the maximum period for the composite.

l) Settleable Solids samples shall be collected during the period of peak flow.

m) *Escherichia coli* (*E. coli*) grab samples shall be collected between the hours of 6:00 a.m. to 6:00 p.m.. *E. Coli* sampling shall coincide with TRC sampling.

n) For the purposes of compliance with this permit, Total Residual Chlorine (TRC) analysis must be completed using a test method in 40 C.F.R. § 136 that achieves a minimum level (ML) no greater than 0.05 mg/L. The compliance level for TRC is 0.05 mg/L.

TRC monitoring is required whenever chlorine is added to the treatment process and shall be monitored and recorded both prior to and following dechlorination. If there are months when chlorine is not added to the treatment system, a no data indicator (NODI) of C shall be reported on the monthly discharge monitoring report.

o) 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  $\pm 10\%$ .

p) Monthly average flow shall be calculated by summing the daily effluent flow for each day in the given month and dividing the sum by the number of days of discharge in that month.

q) The Permittee and Co-Permittees shall maintain processing capacity for use only in receiving and processing septage for the useful life of the facility. Such septage shall be accepted from any Vermont municipality, and shall not be restricted to specific municipalities. The rate or rates charged for acceptance by the plant of septage from sources other than the users for whom the plant is designed primarily to serve, shall be equal to the rate or rates charged the primary users, and shall not subsidize the primary users.

r) The discharge shall not result in toxic substances or chemical constituents in concentrations or combinations in the receiving water that injure or are inimical to plants, animals, humans or aquatic life; or persist in the environment or accumulate in aquatic organisms to levels that result in harmful concentrations in edible portions of fish, shellfish, other aquatic life, or wildlife that might consume aquatic life.

## **B. 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 WWTF in the Winooski River downstream 1.00 mile(s).

## **C. ANNUAL CONSTITUENT MONITORING**

1. Unless monitoring more frequently than annually, the Permittee shall monitor outfall serial number 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:

Ammonia (as N)  
Chlorine (total residual, TRC)  
Dissolved oxygen  
Nitrate/Nitrite  
Kjeldahl nitrogen  
Oil and grease  
Phosphorus  
Total dissolved solids

2. Monitoring for parameters in Part I shall be coordinated to comply with ACM schedules and requirements.

3. Grab samples shall be used for Temperature, Ammonia, Dissolved Oxygen, and Oil & Grease; all other parameters shall be composite samples. Samples shall be representative of the seasonal variation in the discharge.

4. In the event this permit is administratively continued per 3 V.S.A. § 814, the permittee shall continue annual monitoring of the parameters using a schedule that assures samples are representative of the seasonal variation in the discharge.

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5. The Permittee shall sample and report according to the following table:

Due Date	Event Description
1/15/2022	The Permittee shall submit the results from Annual Constituent Monitoring for the previous year.
1/15/2023	The Permittee shall submit the results from Annual Constituent Monitoring for the previous year.
1/15/2024	The Permittee shall submit the results from Annual Constituent Monitoring for the previous year.
1/15/2025	The Permittee shall submit the results from Annual Constituent Monitoring for the previous year.
1/15/2026	The Permittee shall submit the results from Annual Constituent Monitoring for the previous year.

#### **D. COPPER ASSESSMENT**

Effluent monitoring data indicate cumulative loading of copper (Cu) to the Lower Winooski River may approach the assimilative capacity of the section of the river downstream of the Essex19 Dam. To address this issue, the Secretary requires municipal WWTFs discharging to this section of river to collect influent and effluent copper data using a more sensitive method to better assess the scope of the issue and to conduct an Industrial Waste Survey.

1. To assure self-reported data accurately quantifies the amount of copper discharged, effluent copper analyses shall be carried out using a method that assures a Method Detection Limit (MDL) of 0.006 mg/L or lower. This level of detection may be achieved using EPA methods 200.7 and 200.8 listed in 40 C.F.R. Part 136 which have estimated detection limits of 0.0054 mg/L and 0.004 mg/L, respectively.
  2. Influent copper shall be measured on a quarterly basis to assess the Cu loading from the collection system as well as hauled wastes received. Sufficiently sensitive test methods shall be employed to assure the influent data collected are quantifiable above the MDL of the test method used.
  3. The Permittee and Co-Permittees shall identify industrial users connected to the collection system that may contribute copper above the background level found in domestic wastewater through completion of the Industrial Waste Survey. Within 2 years of the effective date of this permit, the permittee shall submit to the Secretary a tabular report that, at a minimum, includes the following:
    - a. Background copper concentration expected in the drinking water based on the drinking water utility reports.
    - b. A list of industrial users, including waste haulers and root treatment specialists, with the potential to introduce copper to the collection system. For each source include:
      - i. business name, address, and primary contact details;
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- ii. listing of environmental permits, if applicable;
- iii. wastewater allocations, as applicable;
- iv. description of business activities performed, including a description of products manufactured and services performed and of raw materials and process additives used.
- v. description of the industrial user's process wastewater discharge, including:
  - 1. Description of process wastewater including average daily and max daily volume of process wastewater discharged;
  - 2. Description of wastewater management practices, such as wastewater treatment, waste management procedures, pH adjustment, pollution prevention practices, waste minimization practices, Slug/spill prevention procedures, etc.;
- vi. estimation of potential for Cu to be present in the waste stream, where High is approximately > 10lbs/yr , Moderate is <10lbs/yr but greater than 1 lb/yr, and Low < 1lb/yr.
- vii. listing and description of potential and confirmed Cu sources.
- viii. a list of additional pollutants of concern associated with the industrial user's discharge.
- 4. If a new industry that may contribute significant amounts of copper connects to the system, or an existing industry proposes an expansion which has the potential to contribute copper to their discharge, the Permittee and Co-Permittees shall notify the Secretary prior to its connection as required in Condition II.D.2 of this permit.
- 5. The Permittee and Co-Permittees shall report according to the following table:

Due Date	Event Description
6/1/2023	The Permittee and Co-Permittees shall submit results of Industrial Waste Survey.

## **E. EMERGENCY POWER FAILURE PLAN**

The Permittee, the Village of Essex, and Co-Permittees, the Town of Essex, and the Town of Williston, submitted Emergency Power Failure Plans for jurisdictional sewage collection system, pump stations, and the treatment facility to the Secretary on November 19, 2004. Condition I.A.3.f. specifies each permittee's jurisdictional coverage under this permit. The Permittee and Co-Permittees shall revise and submit these plans within 90 days of the permit effective date.

- 1. The Permittee and Co-Permittees shall indicate in writing to the Secretary that in the event the primary source of electric power to the WWTF (including pump stations) fails, the Permittee and Co-Permittees 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 and Co-Permittees shall certify in writing to the Secretary when the unit is completed and prepared to generate power.

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

3. These Plans may be combined and completed in unison with the requirements of Condition I.F for the Operation, Management, and Emergency Response Plan, such that one Plan covers both Conditions I.E and I.F.

4. The Permittee and Co-Permittees shall report according to the following table:

Due Date	Event Description
11/28/2021	The Permittee and Co-Permittees shall submit the revised EPFP within 180 days of the permit effective date.

## **F. OPERATIONS MANAGEMENT EMERGENCY RESPONSE PLAN (OMERP)**

1. On July 29, 2010, the Secretary approved the Operation, Management, and Emergency Response Plan (OMERP) for the wastewater treatment facility, jurisdictional sewage pumping stations, sewer line stream crossings and sewage collection system submitted by the Permittee, the Village of Essex.

2. On December 3, 2010, the Secretary approved the OMERP for jurisdictional sewage pumping stations, sewer line stream crossings and sewage collection system submitted by the Co-Permittee, the Town of Essex.

3. On July 2, 2010, the Co-Permittee, the Town of Williston submitted an OMERP for their sewage pumping stations, sewer line stream crossings and sewage collection system. On August 26, 2010 the Secretary provided review comments to the Town detailing the insufficiencies in this Plan that must be corrected before it could be approved. The Town of Williston must complete and submit this Plan in accordance to the schedule below.

4. These Plans may be combined and completed in unison with the requirements of Condition I.E for Emergency Power Failure Plan, such that one Plan covers both Conditions I.E and I.F.

Upon approval by the Secretary, these Plans shall be implemented. These plans shall comply with the provisions of 10 V.S.A. § 1278, which require:

a) Identification of those elements of the facility, including collection systems that are determined to be prone to failure based on installation, age, design, or other relevant factors.

- b) Identification of those elements of the facility identified under subdivision (a) of this subsection which, if one or more failed, would result in a significant release of untreated or partially treated sewage to surface waters of the State.
- c) The elements identified in subdivision (b) of this subsection shall be inspected in accordance with a schedule approved by the Secretary.
- d) An emergency contingency plan to reduce the volume of a detected spill and to mitigate the effect of such a spill on public health and the environment.

2. The Permittee and Co-Permittees shall report according to the following table:

Due Date	Event Description
8/30/2021	The Town of Williston shall submit their revised OMERP 3 months from the permit effective date.
11/28/2021	The Permittee and Co-Permittees shall submit the OMERP within 180 days of the permit effective date.

## G. PHOSPHORUS OPTIMIZATION PLAN

### 1. Wasteload Allocation for Phosphorus

This permit includes a total phosphorus (TP) water quality based effluent limitation of consistent with the waste load allocation (WLA) for TP, established by the U.S. Environmental Protection Agency (U.S. EPA) in the 2016 “Phosphorus TMDLs for Vermont Segments of Lake Champlain” (LC TMDL). The Secretary reserves the right to reopen and amend this permit to include an alternate TP limitation or additional monitoring requirements based on the monitoring data, the results of phosphorus optimization activities, or a reallocation of phosphorus wasteload allocations between the Permittee and another WWTF pursuant to the requirements of TMDL and Vermont’s “Wasteload Allocation Process” Rule (Environmental Protection Rule, Chapter 17).

### 2. Total Phosphorus Calculations and Reporting

Total Phosphorus shall be reported monthly, via electronic Discharge Monitoring Report, in the following ways:

- a) Monthly Average Phosphorus Concentration = The average concentration of phosphorus discharged this monitoring period. (sum of all daily discharges (mg/l) measured during the month divided by the number of daily discharges measured during the month)
- b) Total Monthly Pounds Phosphorus = The total pounds of phosphorus discharged this monitoring period. ((Monthly Average Phosphorus Concentration) x (Total Monthly Flows) x 8.34)
- c) Running Total Annual Pounds = The 12-month running annual TP load. (Sum the Total Monthly Pounds results for the immediately preceding 12 months)
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d) Comparison (%) of Running Total Annual Pounds to Annual Permit Limitation = The percentage of the Running Total Annual Pounds to the Annual TP Limitation. The comparison shall be calculated as:  
$$\% = \text{Running Total Annual Pounds} / \text{Annual TP Permit Limit} \times 100$$

### 3. Phosphorus Optimization Plan

a) The Permittee shall develop or update (as appropriate) and submit to the Secretary a Phosphorus Optimization Plan (POP) to increase the WWTF's phosphorus removal efficiency by implementing optimization techniques that achieve phosphorus reductions using primarily existing facilities and equipment. The POP shall:

(i) Be developed by a qualified professional with experience in the operation and/or design of WWTFs in consultation with the WWTF;

(ii) Evaluate alternative methods of operating the existing WWTF, including operational, process, and equipment changes designed to enhance phosphorus removal. The techniques to be evaluated may include operational process changes to enhance biological and/or chemical phosphorous removal, incorporation of anoxic/anaerobic zones, septage receiving policies and procedures, and side stream management;

(iii) Determine which alternative methods of operating the existing WWTF, including operational, process, and equipment changes will be most effective at increasing phosphorus removal; and

(iv) Include a proposed implementation schedule for those methods of operating the WWTF determined to be most effective at increasing phosphorus removal.

b) The Secretary shall review the POP. The Permittee shall commence implementation of the POP 60 days after submittal to the Secretary, unless the Secretary rejects the POP prior to that date.

c) The Permittee shall annually submit a report to the Secretary as an attachment to the monthly electronic Discharge Monitoring Reporting (DMR) form WR-43 that documents:

(i) The optimization techniques implemented under the POP during the previous year.

(ii) Whether the techniques are performing as expected.

(iii) The phosphorus discharge trends relative to the previous year.

### 4. Phosphorus Reduction and Elimination Plan (PERP)

a) The WWTF shall have 12 months from the permit effective date to optimize removal of TP.

b) If, after the optimization period, the WWTF's actual, TP loads reach or exceed 80% of the annual mass limit for the WWTF, based on the WWTF's 12-month running annual load calculated using the Running Total Annual Pounds Calculation, the Permittee shall, within 90 days of reaching or exceeding 80% of the annual mass limit for the WWTF, develop and submit to the Secretary a projection based on the WWTF's current operations and expected future loadings of whether it will exceed its annual mass

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limit during the permit term.

c) If the WWTF is not projected to exceed its annual mass limit within the permit term, the WWTF shall reassess when it is projected to reach its annual mass limit prior to permit renewal and submit that information with its next permit application.

d) If the WWTF is projected to exceed its annual mass limit during the permit term, the Permittee shall submit a Phosphorus Elimination/Reduction Plan (PERP) within 6 months from the date of submittal of the projection submitted under Part 2 of this Section. The PERP shall be submitted to the Secretary to ensure the WWTF continues to comply with its annual mass limit.

e) The PERP shall be treated as an application to amend the permit, and therefore, shall be subject to all public notice, hearing, and comment provisions, in place at the time the plan is submitted, that are applicable to permit amendments. The Permittee shall revise the PERP, if required by the Secretary.

f) The PERP shall be developed by qualified professionals in consultation with the WWTF operator. The PERP shall include:

(i) An evaluation of alternatives to ensure the WWTF's compliance with its annual mass limit;

(ii) An identification of the chosen alternative or alternatives to ensure the WWTF's compliance with its annual mass limit;

(iii) A proposed schedule, including an engineer approved design and construction schedule and, if the chosen alternative or alternatives require a pilot study, a schedule for testing, that shall ensure the WWTF's compliance with its annual mass limit as soon as possible; and

(iv) A financing plan that estimates the costs for implementing the PERP and describes a strategy for financing the project.

g) The Permittee shall report according to the following table:

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Due Date	Event Description
9/29/2021	The Permittee shall submit a POP and implement optimization techniques to achieve reductions in TP.
12/6/2021	The Permittee shall commence implementation of the POP 60 days after submitting to the Secretary.
1/31/2022	The Permittee shall submit an annual report that documents TP trends and optimization techniques for the previous year.
1/31/2023	The Permittee shall submit an annual report that documents TP trends and optimization techniques for the previous year.
1/31/2024	The Permittee shall submit an annual report that documents TP trends and optimization techniques for the previous year.
1/31/2025	The Permittee shall submit an annual report that documents TP trends and optimization techniques for the previous year.
1/31/2026	The Permittee shall submit an annual report that documents TP trends and optimization techniques for the previous year.

#### **H. POLLUTANT SCAN (GREATER THAN 1 MGD)**

1. The Permittee shall conduct an effluent analysis of outfall serial number S/N 001 for the pollutants included in Appendix J, Table 2 of 40 CFR Part 122 (see Attachment A) and submit the results to the Secretary.
2. Sampling for Pollutant Scans shall coincide with WET Testing when these occur.
3. In the event this permit is administratively continued pursuant to 3 V.S.A. § 814, the Permittee shall include the results of this effluent analysis with each WET test conducted.
4. The Permittee shall sample and report according to the following table:

Due Date	Event Description
6/30/2022	The Permittee shall submit results for January/February Toxic Pollutants Scan.
12/31/2023	The Permittee shall submit results of the August-October Toxic Pollutants Scan.
6/30/2024	The Permittee shall submit results for January/February Toxic Pollutants Scan.

#### **I. QUALITY ASSURANCE REPORT / PROFICIENCY TESTING**

1. In accordance with 10 V.S.A. § 1263.d.2, the Secretary may require a laboratory quality assurance sample program to ensure qualification of laboratory analysts. For purposes of demonstrating compliance with the requirements of this permit regarding adequate laboratory controls and appropriate quality assurance procedures, the Permittee shall conduct and pass 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.

2. In the event this permit is administratively continued pursuant to 3 V.S.A. § 814, the Permittee shall continue to complete annual proficiency tests and report by December 31 each year.

3. The Permittee shall report on quality assurance according to the following table:

Due Date	Event Description
12/31/2021	The Permittee shall submit a passing Laboratory Proficiency Test annually.
12/31/2022	The Permittee shall submit a passing Laboratory Proficiency Test annually.
12/31/2023	The Permittee shall submit a passing Laboratory Proficiency Test annually.
12/31/2024	The Permittee shall submit a passing Laboratory Proficiency Test annually.
12/31/2025	The Permittee shall submit a passing Laboratory Proficiency Test annually.

## **J. WHOLE EFFLUENT TOXICITY (WET) TESTING ACUTE/CHRONIC**

1. 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 outfall serial number S/N 001. Total Ammonia or Total Kjeldahl Nitrogen shall be measured in the highest concentration of test solution at the beginning of the test. If chlorine is used in the WWTF's system, Total Residual Chlorine shall be measured in the highest concentration of test solution at the beginning of the test.

2. 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).

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

4. Permittees may request the use of lab water for controls and dilution if:

- a) acquiring receiving water is hazardous due to weather or topography
- b) previous WET tests have shown that receiving water has and poor performance in the lab controls or dilution
- c) requested by permittee and approved by the Secretary

5. In the event this permit is administratively continued pursuant to 3 V.S.A. § 814, the Permittee shall maintain the WET testing frequency established in subsection 6 during such continuance if any of the

following apply:

- a) this permit contains a WET limit;
  - b) the permitted facility is classified as a major NPDES discharge; or
  - c) WET tests conducted during the permit term indicated any acute or chronic toxicity.
6. The Permittee shall sample and report according to the following table:

Due Date	Event Description
6/30/2022	The Permittee shall submit results of the January/February WET Test.
12/31/2023	The Permittee shall submit results of the August - October WET Test.
6/30/2024	The Permittee shall submit results of the January/February WET Test
12/31/2025	The Permittee shall submit results of the August - October WET Test.

## **II. GENERAL CONDITIONS**

### **A. GENERAL REQUIREMENTS**

#### **1. 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 (Environmental Protection Rule, Chapter 13), and § 402 of the Clean Water Act, as amended.

#### **2. Operating Fees**

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

#### **3. Duty to Comply**

The Permittee and Co-Permittees 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.B.5) and “Emergency Pollution Permits” (Condition II.B.8), nothing in this permit shall be construed to relieve the Permittee from civil or criminal penalties for noncompliance.

#### **4. Civil and Criminal Liability**

Civil and criminal penalties for non-compliance are provided for in 40 C.F.R. § 122.41(a)(2)-(3) and 10 V.S.A. Chapters 47, 201, and 211. As of the effective date of this permit, the Vermont statutory penalties, which are subject to change, are as follows:

- a.** Pursuant to 10 V.S.A. Chapter 47, a civil penalty not to exceed \$10,000.00 a day for each day of violation.
- b.** Pursuant to 10 V.S.A. Chapter 47, a fine not to exceed \$25,000.00 or imprisonment for not more than six months, or both.
- c.** Pursuant to 10 V.S.A. Chapter 47, any person who knowingly makes any false statement, representation or certification in any application, record, report, plan, or other document filed or required to be maintained by this permit, or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained by this permit, shall upon conviction, be punished by a fine of not more than \$10,000.00 or by imprisonment for not more than six months, or by both.
- d.** Pursuant to 10 V.S.A. Chapter 201, a penalty of not more than \$42,500.00 for each determination of a separate violation. In addition, if the Secretary determines that a violation is continuing, the Secretary may assess a penalty of not more than \$17,000.00 for each day the violation continues. The maximum amount of penalty assessed under this provision shall not exceed \$170,000.00.



e. Pursuant to 10 V.S.A. Chapter 211, a civil penalty of not more than \$85,000.00 for each violation. In addition, in the case of a continuing violation, a penalty of not more than \$42,500.00 may be imposed for each day the violation continues.

## **5. Reopener Clause**

In accordance with 40 C.F.R. § 122.44(c), this permit may be reopened and modified during the life of the permit to incorporate any applicable standard for sewage sludge use or disposal promulgated under section 405(d) of the Clean Water Act. The Secretary may promptly modify or revoke and reissue this permit if the standard for sewage sludge use or disposal is more stringent than any requirements for sludge use or disposal in the permit, or controls a pollutant or practice not limited in the permit.

## **6. 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. Reallocation of WLA under the LC TMDL;
- d. Development of an integrated WWTF and stormwater runoff NPDES permit; or
- e. 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.

## **7. 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 § 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.A.6 of this permit, in accordance with the toxic effluent standard or prohibition and the Permittee so notified.

## **8. 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 their 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.

## **9. Removed Substances**

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 effective date of this permit or is issued during the term of this permit.

## **10. 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.

## **11. Duty to Provide Information**

The Permittee and Co-Permittees 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.

## **12. Other Information**

If the Permittee and Co-Permittees 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. 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.

#### **14. 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 10 V.S.A. Chapter 47.

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.

#### **15. 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.

#### **16. 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.

#### **17. Duty to Reapply**

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

#### **18. Other 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.

## **B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS**

### **1. Proper Operation and Maintenance**

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

- a.** The Permittee and Co-Permittees shall at all times properly operate and maintain in good working order all facilities and systems of treatment and control (and related appurtenances) installed or used by the Permittee and Co-Permittees 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 and Co-Permittees only when the operation is necessary to achieve compliance with the conditions of this permit.
- b.** The Permittee shall provide an adequate operating staff, consistent with the Operator Rule (Environmental Protection Rule, Chapter 4), 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 the WWTF shall be performed only by a person or persons holding a valid license to engage in the practice of pollution abatement facility operation.

### **2. Need to Halt or Reduce Activity not a Defense**

It shall not be a defense for the Permittee and Co-Permittees 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.

### **3. Duty to Mitigate**

The Permittee and Co-Permittees shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. The Permittee and Co-Permittees shall also 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.

### **4. 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 WWTF or the operator's delegate shall comply with the notice requirements outlined in this permit.

## **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.

In addition to § 1268 findings, such bypass must meet the following three conditions:

- a.** Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
- b.** There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
- c.** The Permittee and Co-Permittees submitted notices as required under 40 C.F.R. § 122.41(m)(3):
  - (i) Anticipated bypass. If the Permittee and Co-Permittees knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.
  - (ii) Unanticipated bypass. The Permittee and Co-Permittees shall submit notice of an unanticipated bypass as required in Condition II.D.3 (24-hour notice).

## **6. Upset**

- a.** Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of Condition II.B.6.b of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
- b.** Conditions necessary for a demonstration of upset. A Permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
  - (i) An upset occurred and that the Permittee can identify the cause(s) of the upset;
  - (ii) The permitted facility was at the time being properly operated; and
  - (iii) The Permittee submitted notice of the upset as required in condition II.D.3 (24-hour notice).
  - (iv) The Permittee complied with any remedial measures required under Condition II.B.3.
- c.** Burden of proof. In any enforcement proceeding the Permittee seeking to establish the occurrence of an upset has the burden of proof.

## 7. Sewer Ordinance

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

**a.** prohibit the introduction by any person into the Permittee and Co-Permittees' sewerage system or WWTF of any pollutant which:

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

(ii) Creates a fire or explosion hazard in the Permittee and Co-Permittees' treatment works;

(iii) Causes corrosive structural damage to the Permittee and Co-Permittees' treatment works, including all wastes with a pH lower than 5.0;

(iv) 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 and Co-Permittees' treatment works;  
or

(v) 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.

**b.** Require 45 days prior notification to the Permittee and Co-Permittees by any person or persons of a:

(i) Proposed substantial change in volume or character of pollutants over that being discharged into the Permittee and Co-Permittees' treatment works at the time of issuance of this permit;

(ii) Proposed new discharge into the Permittee and Co-Permittees' treatment works of pollutants from any source which would be a new source as defined in § 306 of the Clean Water Act if such source were discharging pollutants; or

(iii) Proposed new discharge into the Permittee and Co-Permittees' treatment works of pollutants from any source which would be subject to § 301 of the Clean Water Act if it were discharging such pollutants.

**c.** Require any industry discharging into the Permittee and Co-Permittees' 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.

**d.** Authorize the Permittee and Co-Permittees' authorized representatives to enter into, upon, or through the premises of any industry discharging into the Permittee and Co-Permittees' treatment works to have

access to and copy any records, to inspect any monitoring equipment or method required by this permit, and to sample any discharge into the Permittee's treatment works.

## **8. Emergency Pollution Permits**

**a.** 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 and Co-Permittees' discharge is covered under an emergency pollution permit under the provisions of 10 V.S.A. § 1268. The Permittee and Co-Permittees' shall notify the Secretary of the emergency situation by the next working day, unless notice is required sooner under Condition II.D.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, the holder 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:

- (i) 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;
- (ii) the denial of an emergency pollution permit would work an extreme hardship upon the applicant;
- (iii) the granting of an emergency pollution permit will result in some public benefit;
- (iv) the discharge will not be unreasonably harmful to the quality of the receiving waters; and
- (v) the cause or reason for the emergency is not due to willful or intended acts or omissions of the applicant.

**b.** Application shall be made to the Secretary at the following address: Agency of Natural Resources, Department of Environmental Conservation, One National Life Drive, Davis 3, Montpelier VT 05620-3522.

## **C. MONITORING REQUIREMENTS**

### **1. Monitoring and Records**

**a.** Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

**b.** Except for records of monitoring information required by this permit related to the Permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least 5 years (or longer as required by 40 C.F.R. § 503), the Permittee shall retain records of all monitoring information,

including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period shall be extended during the course of unresolved litigation and may be extended by request of the Secretary at any time.

**c. Records of monitoring information shall include:**

- (i) The date, exact place, and time of sampling or measurements;
- (ii) The individual(s) who performed the sampling or measurements;
- (iii) The date(s) analyses were performed;
- (iv) The individual(s) who performed the analyses;
- (v) The analytical techniques or methods used; and
- (vi) The results of such analyses.
- (vii) The records of monitoring activities and results, including all instrumentation and calibration and maintenance records;
- (viii) The original calculation and data bench sheets of the operator who performed analysis of the influent or effluent pursuant to requirements of this permit; and
- (ix) 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.
- (x) When “non-detects” are recorded, the method detection limit shall be reported and used in calculating any time-period averaging for reporting on DMRs.

**d. Monitoring must be conducted according to test procedures approved under 40 C.F.R. § 136 unless another method is required under 40 C.F.R. Subchapters N or O.**

**2. Quality Control**

**a.** 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.

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



### **3. Right of Entry**

The Permittee and Co-Permittees' shall allow the Secretary, or an authorized representative (including an authorized contractor acting as a representative of the Administrator), upon presentation of credentials and other documents as may be required by law, to:

- a.** To enter upon the Permittee and Co-Permittees' 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.

### **D. REPORTING 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 advance notice to the Secretary of such changes. This notification applies to pollutants which are subject neither to effluent limitations in this permit, nor to notification requirements for toxic pollutants under 40 C.F.R. § 122.42(a)(1). Following such notice, the permit may be modified, pursuant to Condition II.A.6 of this permit, to specify and limit any pollutants not previously limited.

#### **2. Change in Introduction of Pollutants to WWTF**

- a.** The Permittee and Co-Permittees, within 30 days of the date on which the Permittee and Co-Permittees are notified of such discharge, shall provide notice to the Secretary of the following:
  - (i) Any new introduction of pollutants into the treatment works from a source which would be a new source as defined in § 306 of the Clean Water Act if such source were discharging pollutants;
  - (ii) 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 § 301 of the Clean Water Act if such source were discharging pollutants; and

(iii) 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.

**b.** 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.

### **3. Noncompliance Notification**

**a.** The Permittee and Co-Permittees 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 and Co-Permittees 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 in section III.

(i) Public notice. For “untreated discharges” an operator of the 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 the 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:

(a) 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.

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

(c) 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.

(d) Except for discharges from the 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.

(e) 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.

(f) The person reporting the untreated discharge.

**d.** For any non-compliance not covered under Condition II.D.3.c of this permit, an operator of the 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 of becoming aware of such condition:

(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 and Co-Permittees to reduce and eliminate the non-complying discharge; and

(v) Steps to be taken by the Permittee and Co-Permittees to prevent recurrence of the condition of non-compliance.

**e.** For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports must include the data described above (with the exception of time of discovery) as

well as the type of event (combined sewer overflows, sanitary sewer overflows, or bypass events), type of sewer overflow structure (e.g., manhole, combined sewer overflow outfall), discharge volumes untreated by the treatment works treating domestic sewage, types of human health and environmental impacts of the sewer overflow event, and whether the noncompliance was related to wet weather.

#### **4. Planned Changes**

**a.** The Permittee and Co-Permittees shall give notice to the Secretary as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

(i) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 C.F.R. § 122.29(b); or

(ii) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements at 40 C.F.R. § 122.42(a)(1).

(iii) The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

#### **5. 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.

## **6. Monthly Reporting**

a. The Permittee is required to submit monthly reports of monitoring results and operational parameters on Discharge Monitoring Report (DMR) form WR-43 or through an electronic reporting system made available by the Secretary. Reports are due on the 15th day of each month, beginning with the month following the effective date of this permit.

b. Unless waived by the Secretary, 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, which requires attachment of scanned DMRs in PDF format, it is not required to submit hard copies of DMRs. The electronic submittals are submitted through the State of Vermont Agency of Natural Resources' Online Services Portal, or its replacement.

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

## **7. Signature Requirements**

a. All reports shall be signed:

(i) For a corporation. By a responsible corporate officer or a duly authorized representative of that person. For the purpose of this section, a responsible corporate officer means: (1) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (2) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

(ii) For a partnership or sole proprietorship. By a general partner or the proprietor, respectively; or

(iii) For a municipality, state, or other public agency. By either a principal executive officer or ranking elected official, or a duly authorized representative of that person.

**b.** For the purposes of subdivision (d) of this subsection, a person is a duly authorized representative only if:

- (i) The authorization is made in writing by a person described in subdivision (d) of this subsection;
- (ii) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, or an individual or position having overall responsibility for environmental matters for the company; and
- (iii) The written authorization is submitted to the Secretary.

**c.** Changes to authorization. If an authorization under subdivision (b) of this subsection is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of subdivision (b) of this subsection must be submitted to the Secretary prior to or together with any reports, information, or applications to be signed by an authorized representative.

**d.** Certification. Any person signing a document under subdivisions (a) or (b) of this subsection shall make the following certification:

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

## **8. 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.

## **III. 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 § 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 or Maximum Daily Discharge Limitation** – means the highest allowable “daily discharge” (mg/L, lbs or gallons).

**Mean** – means the arithmetic mean.

**Monthly Average or 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** – means 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 or 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.

**Wastewater Treatment Facility (WWTF)** – means a treatment plant, collection system, pump station, and attendant facilities permitted by the Secretary for the purpose of treating domestic, commercial, or industrial wastewater.



<b>IV. TABLE OF PERMITTED DISCHARGE POINTS</b>					
Discharge ID	Discharge Activity	Discharge Status	Receiving Water	Latitude	Longitude
001	Sanitary Waste Outfall	A	WINOOSKI RIVER	44.47932	-73.12040

ATTACHMENT A

**Appendix J to Part 122 - NPDES Permit Testing Requirements  
for Publicly Owned Treatment Works (§ 122.21(J))**

**TABLE 1A - EFFLUENT PARAMETERS FOR ALL POTWS**

Biochemical oxygen demand (BOD-5 or CBOD-5)  
Fecal coliform  
Design Flow Rate  
pH  
Temperature  
Total suspended solids

**TABLE 1 - EFFLUENT PARAMETERS FOR ALL POTWS WITH A FLOW EQUAL TO OR GREATER  
THAN 0.1 MGD**

Ammonia (as N)  
Chlorine (total residual, TRC)  
Dissolved oxygen  
Nitrate/Nitrite  
Kjeldahl nitrogen  
Oil and grease  
Phosphorus  
Total dissolved solids

**TABLE 2 - EFFLUENT PARAMETERS FOR SELECTED POTWS**

Hardness  
*Metals (total recoverable), cyanide and total phenols*  
Antimony  
Arsenic  
Beryllium  
Cadmium  
Chromium  
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-creso  
2-chlorophenol  
2,4-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  
Fluoranthene  
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

AGENCY OF NATURAL RESOURCES  
DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
WATERSHED MANAGEMENT DIVISION  
ONE NATIONAL LIFE DRIVE, DAVIS BUILDING, 3RD FLOOR  
MONTPELIER, VT 05620-3522

**FACT SHEET FOR DRAFT PERMIT  
(April 2021)**

Permit Number: 3-1254

PIN: EJ93-0004

NPDES Number: VT0100111

Facility Name: Essex Junction  
Facility Address: 39 Cascade St  
Essex Junction, VT 05452  
Facility Coordinates: Lat: 44.4810 Long: -73.1209  
Receiving Water: Winooski River

**CLASSIFICATION:** All uses Class B(2) with a waste management zone. Class B 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. Facility and Proposed Action**

Applicant's wastewater treatment facility ("facility" or "WWTF") is engaged in the treatment of municipal wastewater in Essex Junction, Vermont. A map of facility location, outfalls, and receiving water is provided in Attachment A.

On December 22, 2008, the Secretary of the Vermont Agency of Natural Resources (the "Secretary") received Applicant's renewal application for the permit to discharge into the designated receiving water. The facility's previous permit was issued on March 16, 2004.

The previous permit (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 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 and is classified as a Grade V Domestic Major NPDES Wastewater Treatment Facility (WWTF). A map showing the location of the facility, outfalls, and the receiving water is provided in the Reasonable Potential Determination (Attachment A).

## **II. Statutory and Regulatory Authority**

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 § 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 BOD5, 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.

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 instream 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 instream 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 § 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).

### **III. Permit Limit and Condition Formulation**

#### **A. Reasonable Potential Determination**

In determining whether this permit has the reasonable potential to cause or contribute to an impairment, the Secretary 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 (Environmental Protection Rule, Chapter 29A), 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; and
- 6) All effluent limitations, monitoring requirements, and other conditions of the 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.

## **IV. Facility Information**

### **A. Facility History**

The wastewater treatment facility (WWTF) provides wastewater treatment capacity for residential and commercial properties in the Village of Essex Junction, the Town of Essex, and the Town of Williston. On March 13, 2004, the Secretary issued Discharge Permit No. 3-1254 to the Village and Towns. Each entity, or Permittee and Co-Permittees, are responsible for the system within their jurisdiction, which is also specified by Condition I.A.3.k. of the draft permit:

- The Permittee, Village of Essex Junction, shall be solely responsible for the proper operation and maintenance of the Permittee's pump stations and collection system, the enforcement of Permittee's sewer use ordinance, and the proper operation and maintenance of the Village of Essex Junction Wastewater Treatment Facility.
- The Co-Permittee, Town of Essex, shall be solely responsible for the proper operation and maintenance of that Town's pump stations and collection system, and for the enforcement of that Town's sewer use ordinance.
- The Co-Permittee, the Town of Williston, shall be solely responsible for the proper operation and maintenance of that Town's pump stations and collection system, and for the enforcement of that Town's sewer use ordinance.

In 1999, the WWTF was authorized by the Secretary to complete a phased upgrade and expansion from 2.75 MGD to 3.3 MGD. On March 26, 2001, the Department authorized the Phase I of expansion of the WWTF which consisted of flow equalization and increased the permitted flow from the WWTF to 3.1 MGD. A 20-year engineering evaluation was completed in 2012, which resulted a major upgrade: the replacement of all mechanical equipment in all clarifiers, construction of a third clarifier, and refurbishment of the digesters. Phase II of the WWTF upgrade and expansion was completed in 2019 which consisted of sludge thickening improvements and increased design capacity to 3.3 MGD.

The Village and Towns submitted the renewal application on December 22, 2008. Having completed review of the application, the Secretary determined to renew the discharge permit for the WWTF discharge. Following is a discussion of the specific factors considered in the renewal of this permit.



## **B. Pretreaters**

There are no pretreatment facilities permitted under the NPDES Pretreatment Program that discharge to the facility. However, the WWTF does receive high strength waste from breweries and/or other manufacturers. The facility does accept septage, primarily from portable potty units and leachate from the Chittenden Solid Waste District. There are currently no permitted pretreatment facilities discharging to the collection system, however there are several high strength users on the system including several breweries and a personal care manufacturing facility.

## **C. Receiving Water Classification - Winooski River**

All uses Class B with a waste management zone. Class B 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.

## **D. Receiving Water Description**

The Winooski River downstream of the Essex Junction WWTF discharge is a Class B (2) water and is designated as Warm Water Fish Habitat. At the point of discharge, the river has a contributing drainage area of 1008 square miles. The facility discharges to a segment of the Winooski River, from mouth up to Alder Brook, which is stressed due to impacts from sediment, nutrients, temperature, stormwater and toxic compound pollutants. The existing permitted waste management zone (WMZ) begins at the outfall of the WWTF and extends downstream approximately 1 mile pursuant to 10 V.S.A., Section 1252.

### **Hydrology:**

Facility Design Flow: 3.300 MGD = 5.106 CFS

Estimated 7Q10 = 141.1 CFS

Estimated LMM = 463.0 CFS

Estimated MAF = 1206.9 CFS

Instream Waste Concentration at 7Q10 Flow (IWC-7Q10) = 0.035 (>1%)

Instream Waste Concentration at Low Median Monthly Flow (IWC-LMM) = 0.011 (>1%)

Streamflow in the lower portion of the Winooski River, especially below Essex 19 hydroelectric project, is influenced by artificial flow regulation. In this instance section § 29A-202 Flow Values Used to Evaluate Compliance with Applicable Numeric Criteria for Rivers, Streams, Brooks, Creeks, and Riverine Impoundments of the Vermont Water Quality Standards applies: Where there is a Minimum Flow Agreement or requirement. For waters where the natural flow regime is altered by a human-made structure and where a minimum flow agreement or requirement has been established under 10 V.S.A. § 1003 or pursuant to a Section 401 Water Quality Certification, issued pursuant to the “Vermont Water Pollution Control Permit Regulations”, compliance with the applicable numeric water quality criteria shall be calculated on the basis of the 7Q10 flow value or at the agreed/required minimum flow, whichever is less, unless an alternative flow statistic is specified in § 29A-304 of these rules.

As specified in a 1995 amendment to the current Water Quality Certification for Essex No. 19 Hydropower Project, the agreed upon minimum flow below this dam is 450 cfs June 16th – March 31st (the period within 7Q10 streamflow conditions are most likely to occur). The estimated natural 7Q10 flow for the location of discharge in the Winooski River is 141 cfs, calculated by multiplying the site-specific drainage area in square miles by 0.140 cfs/sq. mi. which is the statewide average 7Q10 for all unregulated USGS streamflow gages with watershed areas greater than 50 square miles. This method is applied where no appropriate, unregulated streamflow data exist on or near the site of interest. This estimated natural 7Q10 flow value is less than the agreed upon minimum flow and thus was applied to the RPD process for this facility at this time.

It should be noted that a statewide re-analysis of streamflow statistics was conducted by VTDEC in 2019 using additional observed streamflow data collected at USGS gaging stations across the state through 2017. Previous flow statistics used for purposes of RPDs were calculated using data only through 2012. Therefore, in some instances estimates of a receiving water's population streamflow statistic, such as 7Q10 or low monthly median, will change over time due to varying sample sizes (i.e., years of record in the dataset). Estimated low-flow values for receiving waters at other discharge locations are not relevant to this determination, as specific estimated flow values will vary based on the drainage area at the point of discharge under consideration and/or the length of streamflow record(s) available at the time of assessment.

#### **E. Waste Management and Mixing Zones**

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

The Secretary may establish a WMZ as part of the issuance of a discharge permit as described in 10 V.S.A. § 1252. The model used to determine the WMZ is based upon three precepts of domestic wastewater treatment facility discharges: 1) the use of coliform bacteria as an indicator of pathogenic organisms; 2) despite proper operation and maintenance disinfection failures may occur; and 3) a reasonably sized waste management segment provides a "buffer zone" downstream of the wastewater discharge in which contact recreation is not recommended. If a disinfection failure should occur at the WWTF, the time of travel through this zone will provide time during which some pathogen die-off will occur and may also allow time for public notification. A WMZ is not a Mixing Zone.

This facility currently has a 1.00 mile WMZ.

**Mixing Zone.** A Mixing Zone is a length or area within Class B waters required for the dispersion and dilution of waste discharges adequately treated to meet federal and state treatment requirements and within which it is recognized that specific water uses or water quality criteria associated with the assigned classification for such waters may not be realized. A mixing zone shall not extend more than 200 feet from the point of discharge and must meet the terms of 10 V.S.A. § 29A-204. For a mixing zone to be applicable to a discharge it must be authorized within the discharge permit. The Secretary has made the determination that conditions due to discharges of waste within any mixing zone shall:

- a. not result in a significant increase in public health risk when evaluated using reasonable assumptions about exposure pathways;
- b. not constitute a barrier to the passage or movement of fish or prevent the full support of aquatic biota, wildlife, and aquatic habitat uses in the receiving waters outside the mixing zone;
- c. not kill organisms passing through;
- d. protect and maintain the existing uses of the waters;
- e. be free from materials in concentrations that settle to form objectionable deposits;
- f. be free from floating debris, oil, scum, and other material in concentrations that form nuisances;
- g. be free from substances in concentrations that produce objectionable color, odor, taste, or turbidity; and
- h. be free from substances in concentrations that produce undesirable aquatic life or result in a dominance of nuisance species. (Vermont Water Quality Standards § 29A-204(a)).

## **V. Monitoring**

### **A. Flow Monitoring at Discharge Point 001**

#### **1. Flow**

The draft permit maintains the annual average flow limitation of 3.3 MGD. This facility maintains a constant discharge and continuous flow monitoring is required.

### **B. Conventional Pollutants Monitoring at Discharge Point 001**

#### **1. BOD, 5-Day**

The effluent limitations for BOD5 remain unchanged from the current permit. The monthly and weekly averages reflect the minimum level of effluent quality specified for secondary treatment in 40 C.F.R. Part 133.102. In addition, the draft permit contains a maximum day, BOD5 limitation pursuant to Vermont Water Pollution Control Permit Regulations § 13.4.c. The Secretary implements the limitation to supplement the federal technology-based limitations. This is designed to prevent a gross one-day permit effluent violation from being 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 are calculated using the concentration limits outlined in Condition I.A.1 of the permit.

The Permittee shall monitor, a minimum of an 8-hour composite, for BOD5 in the influent monthly.

Composite samples for BOD5 shall be taken during the hours of 6:00 a.m. to 6:00 p.m..

## **2. BOD, 5-Day (% REMOVAL)**

The BOD5 monthly average percent removal shall not be less than 85 percent as specified in 40 C.F.R. § 133.102(a)(iii). This limit is a Technology-Based Effluent Limitation (TBEL) established by the Clean Water Act that requires WWTFs to achieve a minimum level of effluent quality. TBELs are based on available technologies to reduce discharges of pollutants into waters of the United States and are developed independently of the potential impact of a discharge on the receiving water. This condition is unchanged from the current permit.

## **3. Chlorine, Total Residual**

The existing effluent limit of 0.1 mg/L will ensure that the instream water quality criteria for chlorine of 0.019 mg/L (acute) and 0.011 mg/L (chronic) of the Vermont Water Quality Standards is met. The effluent compliance limitation of 0.1 mg/L for daily TRC monitoring remains unchanged from the current permit. The TRC instantaneous maximum limit is set in accordance with the Policy for the protection of aquatic biota and ensures compliance with the Vermont Water Quality Standards. Additionally, this facility utilizes dichlorination and has a dilution of greater than 9:1, ensuring this limitation will be met.

The draft permit specifies a minimum level (ML) for total residual chlorine of 50 ug/l. The minimum level for chlorine is dependent on the EPA approved methods found in the current version of Standard Methods for the Examination of Water and Wastewater, Method 4500 CL-E and G. The Permittee shall select one of these methods to determine total residual chlorine.

Chlorination and dechlorination systems should have an alarm system to indicate interruptions or malfunctions that will result in levels of chlorine that were inadequate for achieving effective disinfection or result in excessive levels of chlorine in the final effluent. If an alarm system is currently in place or is installed in the future, please send us a description of the system and how it will notify operators of problems with the disinfection system. Once installed, explanations for TRC limit violations should detail if the incident was detected by the alarm system on the monthly DMR, applicable to the month the violation was observed.

## **4. E. Coli**

The instantaneous maximum E. coli limitation remains unchanged from the current permit and is based upon the limitation in the current permit and the anti-backsliding provisions of Section 402(o) of the CWA.

## **5. pH**

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

## 6. Settleable Solids

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

## 7. Suspended Solids, Total (% Removal)

As required in the current permit, the TSS monthly average percent removal shall not be less than 85 percent as specified by 40 C.F.R. §133.102(b)(3). This limit is a Technology-Based Effluent Limitation (TBEL) established by the Clean Water Act that requires WWTFs to achieve a minimum level of effluent quality. TBELs are based on available technologies to reduce discharges of pollutants into waters of the United States and are developed independently of the potential impact of a discharge on the receiving water. This condition is unchanged from the current permit.

## 8. Suspended Solids, Total

The effluent limitations for TSS remain unchanged from the current permit. The monthly and weekly averages reflect the minimum level of effluent quality specified for secondary treatment in 40 C.F.R. Part 133.102. In addition, the draft permit contains a maximum day TSS limitation pursuant to Vermont Water Pollution Control Permit Regulations § 13.4 c. The maximum day limitation supplements the federal technology-based limitations to prevent a gross one-day permit effluent violation from being offset by multiple weekly and monthly sampling events to achieve the weekly and monthly averages. The mass limits are calculated using the concentration limits outlined above.

The Permittee shall monitor, a minimum of an 8-hour composite, for TSS in the influent monthly.

Composite samples for TSS shall be taken during the hours of 6:00 a.m. to 6:00 p.m..

## 9. Ultimate Oxygen Demand

On the basis of assimilative capacity modeling completed on the receiving water, an effluent UOD limit is included in the draft permit in order to ensure compliance with the dissolved oxygen water quality criteria during critical summertime instream conditions.

UOD is dependent on the quantity of Biochemical Oxygen Demand (BOD5) and Total Kjeldahl Nitrogen (TKN) in a discharge, as specified in the following equation:

$$\text{UOD (lbs/day)} = [(\text{BOD5 (lbs/day)} \times 1.43) + (\text{TKN (lbs/day)} \times 4.57)]$$

Calculation of the UOD concentration in the discharge is required weekly from the period of June 1 through October 31. The sampling frequency is unchanged from the current permit. The BOD and TKN analyses used to calculate UOD must be conducted on the same effluent sample. Since receiving waters are the most sensitive

to oxygen depleting wastes during periods of high water temperature and low flow, the UOD limitation is in effect from June 1 through October 31 of each year.

UOD limitation ensures compliance with the dissolved oxygen criteria during this period as specified in the Vermont Water Quality Standards. During the other months of the year, the Biological Oxygen Demand limitation is adequate to ensure compliance with the dissolved oxygen criteria.

## **C. Nutrients Monitoring at Discharge Point 001**

### **1. Nitrite Plus Nitrate Total 1 Det.**

Nitrite Plus Nitrate as Nitrogen (NO<sub>x</sub>) – Nitrite (NO<sub>2</sub><sup>-</sup>) and Nitrate (NO<sub>3</sub><sup>-</sup>) are oxidized forms of Nitrogen. NO<sub>x</sub> is needed to calculate Total Nitrogen (TN). To gather data on the amount of Total Nitrogen in this discharge, Nitrite (NO<sub>2</sub><sup>-</sup>) plus Nitrate (NO<sub>3</sub><sup>-</sup>) monitoring is proposed in the renewed permit. The proposed monitoring is once per weekly for the summer and once per monthly during the winter.

The sum of Nitrite (NO<sub>2</sub><sup>-</sup>) and Nitrate (NO<sub>3</sub><sup>-</sup>) is represented as NO<sub>x</sub> to simplify the notation in wastewater chemistry. The x represents the number of Oxygen atoms (2 or 3) and the negative charge notation (-) is dropped. This notation is also used in atmospheric chemistry where other oxidation states are possible.



Test results are reported in terms of Nitrogen (N) because water quality standards are generally expressed in terms of Nitrogen for simplicity and consistency. This constituent (NO<sub>x</sub>) is sometimes also shown as (NO<sub>2</sub>/NO<sub>3</sub>), Nox, NOX, Nitrate/Nitrite Nitrogen, and Nitrite Plus Nitrate Total 1 Det. (As N).

Nitrate/Nitrite monitoring is proposed to be "monitor only", on a weekly basis from June through October and monthly from November through May, for this facility. Weekly monitoring shall be reported as a monthly average and weekly maximum for both mass quantity and concentration results. Monthly monitoring shall be reported as daily maximum for both mass quantity and concentration results for NO<sub>x</sub>.

As applicable, results shall be used to calculate values for Total Nitrogen.

### **2. Nitrogen, Kjeldahl Total**

TKN is the sum of nitrogen in the forms of ammonia (un-ionized (NH<sub>3</sub>) and ionized (NH<sub>4</sub><sup>+</sup>)), soluble organic nitrogen, and particulate organic nitrogen. To gather data on the amount of TKN in this discharge and its potential impact on the receiving water, a seasonal "monitor only" sampling requirement is included in the draft permit.

This requirement has changed from the current permit, where the monitoring frequency was weekly from June through October and values reported as a monthly average, weekly average, and daily maximum for both load and concentration results. Seasonal weekly monitoring is proposed to be reported as a weekly maximum and monthly average for both load and concentration results for TKN. Reported values should be more reflective of the monitoring frequency.

Additionally, the draft permit proposes monthly TKN monitoring to be "monitor only" from November through May. Monthly monitoring shall be reported as daily maximum for both mass quantity and concentration results. Results shall be used to calculate values for Total Nitrogen.

As applicable, results shall be used to calculate values for Total Nitrogen.

### 3. Nitrogen, Total

TN is the sum of nitrate, nitrite, ammonia, soluble organic nitrogen, and particulate organic nitrogen. To gather data on the amount of Total Nitrogen (TN) in this discharge and its potential impact on the receiving water, a "monitor only" requirement for TN has been included in this permit. TN is a calculated value based on the sum of NO<sub>x</sub> and TKN, and, shall be reported as pounds per a CWA approved method, and example being calculated as:

$$\text{Average TN (mg/L)} \times \text{Total Daily Flow} \times 8.34$$

where,  $\text{TN (mg/L)} = \text{TKN (mg/L)} + \text{NO}_x \text{ (mg/L)}$

Per EPA excess nitrogen (N) and phosphorus (P) are the leading cause of water quality degradation in the United States. Historically, nutrient management focused on limiting a single nutrient—phosphorus or nitrogen—based on assumptions that production is usually phosphorus limited in freshwater and nitrogen limited in marine waters. Scientific research demonstrates this is an overly simplistic model. The evidence clearly indicates management of both phosphorus and nitrogen is necessary to protect water quality. The literature shows that aquatic flora and fauna have differing nutrient needs: some are P dependent, others N dependent and others are co-dependent on these two nutrients.

Like P, N promotes noxious aquatic plant and algal growth. High concentrations of P and N together cause greater growth of algae than P alone. The relative abundance of these nutrients also influences the type of species within the community. Furthermore, a high N-to-P ratio may exacerbate the growth of cyanobacteria, while elevated levels of nitrogen increase toxicity in some cyanobacteria species. Given the dynamic nature of all aquatic ecosystems, for the State to fully understand the degradation to water quality it is necessary to limit P and monitor bioavailable N (including nitrate, ammonium, and certain dissolved organic nitrogen compounds).

Facilities with design flow greater than 1 MGD will complete monthly monitoring unless more frequent sampling is already required by the current permit. Facilities with design flows less than 1 MGD will complete quarterly monitoring unless more frequent sampling is already required by the current permit. In this case, the current permit includes a TKN "monitor only" requirement for weekly sampling from June through October. TN monitoring is proposed to align with this existing condition and newly proposed TKN monitoring frequency.

Total Nitrogen monitoring is proposed to be "monitor only", on a weekly basis from June through October and monthly from November through May, for this facility. Weekly monitoring shall be reported as a monthly average and weekly maximum for both mass quantity and concentration results. Monthly monitoring shall be reported as daily maximum for both mass quantity and concentration results for TN.

#### 4. Phosphorus, Total

##### Background:

Excess phosphorus entering Lake Champlain (the Lake) from a variety of sources has impaired the Lake's water quality. The Lake Champlain Total Maximum Daily Load (LC TMDL), places a cap on the maximum amount of phosphorus from point and non-point sources that is allowed to flow into the Lake while still meeting Vermont's water quality standards. The EPA developed phosphorus TMDLs for the twelve Vermont segments of Lake Champlain in collaboration with the Vermont Agency of Natural Resources, Department of Environmental Conservation and the Vermont Agency of Agriculture, Food, and Markets, and released the document titled "Phosphorus TMDLs for Vermont Segments of Lake Champlain" (June 2016). The 2016 LC TMDL specifies allowable phosphorus loads, or waste load allocations (WLA), expressed as metric tons per year (mt/yr), for each of the 59 WWTFs that discharge to the Lake's watershed. The Secretary will issue wastewater discharge (NPDES) permits in accordance with the permit issuance schedule in the Lake Champlain TMDL Phase 1 Implementation Plan (Chapter 3, page 46). The Secretary will follow this schedule unless special circumstances are raised by the facility that warrant the issuance of the permit sooner (e.g., planned facility upgrades) and the Wastewater Management Program has sufficient staff capacity to handle the request.

Reductions in WLAs are targeted only to WWTFs in those lake segment watersheds where the currently permitted wastewater load represents a significant (defined as being 10% or greater) portion of the total phosphorus load to that segment from all sources (Main Lake, Shelburne Bay, Burlington Bay, St. Albans Bay) or where wastewater upgrades would meaningfully reduce the phosphorus reduction burden placed on non-wastewater (non-point) sources (Missisquoi Bay). Therefore, WWTFs discharging to the Port Henry, Otter Creek, Mallets Bay, Northeast Arm, Isle LaMotte, and the South Lake A/B lake segments were not assigned a new waste load allocation. The EPA also determined that wastewater facilities with a design flow of < 0.1 million gallons per day (MGD) would be given the same allocations as in the 2002 TMDLs due to their minor contribution of phosphorus loading.

The LC TMDL establishes new annual WLAs for WWTFs with a design flow capacity of above 0.1 MGD that discharge to the Main Lake, Shelburne Bay, Burlington Bay, St. Albans Bay, and Missisquoi Bay lake segments. Specifically, WWTFs with a design flow capacity of 0.1 to 0.2 MGD were assigned WLAs based on a 0.8 mg/L effluent phosphorus concentration at permitted flow while WWTFs with design capacity of > 0.2 MGD were assigned WLAs based on a 0.2 mg/L effluent phosphorus concentration at permitted flow.

In the LC TMDL, EPA acknowledged and supported the Secretary's commitment to employ flexible approaches to implementing the WWTF WLAs including "providing a period of time for optimization to be pursued and the corresponding load reduction results to be realized, and then commencement of the process to upgrade phosphorus treatment facilities will be required when actual phosphorus loads reach 80% of the LC TMDL limits." The Wastewater Management Program maintains a tracking system for phosphorus loading from Vermont WWTFs so facilities approaching or over the 80% threshold can be identified. The 80% phosphorus load threshold is calculated by comparing the individual WWTF phosphorus WLA established in the LC TMDL to the actual phosphorus discharge load from the WWTF over last 12 months:

$$\text{WWTF Annual TP Load} / \text{LC TMDL WLA} \times 100$$



There are currently WWTFs in the Lake Champlain watershed with existing discharged loads of phosphorus already at, or above, 80% of allowable loads. To ensure facilities are operating as efficiently as possible, all reissued wastewater discharge (NPDES) permits under the LC TMDL will specify a period of 12 months for optimization to be pursued and the corresponding load reduction results to be realized, prior to evaluating where a facility ranks relative to the 80% trigger. Discharge permits will specify that after the optimization period, when an existing facility reaches 80% of its WLA for phosphorus (evaluated as a rolling, 12-month load), the Permittee will have to develop and submit a projection of whether the facility will exceed its WLA during the permit term and if it is projected to do so, then the facility will be required to develop a Phosphorus Elimination/Reduction Plan (PERP) that will ensure the facility continues to comply with its WLA.

Effluent TP limits in permits are expressed as:

- (1) total annual mass loads, and
- (2) for facilities that currently have an existing monthly effluent concentration limit for TP in their NPDES permit, as monthly effluent concentration limits.

#### Phosphorus Limit in Draft Permit:

The current permit includes a mass-based effluent limit of 5663 lbs/year. This annual mass limitation was based on an allocation that was established in the 2002 Lake Champlain Phosphorus TMDL ("LC TMDL"). The current permit also contains an effluent TP concentration limit of 0.8 mg/L, monthly average, consistent with the annual load limit. The concentration effluent limitation is based on the requirements of 10 V.S.A. § 1266a and is unchanged from the current permit.

The new, annual WLA represents a 64% reduction (-3656 pounds) from the current permit and is equivalent to setting the effluent TP limit at 0.8 mg/L at the design capacity of the WWTF (3.3 MGD).

To convert units of the WLA from metric tons to pounds for the annual, mass-based TP permit limit, the following equation was used and the resulting WLA rounded down to the nearest pound:

$$0.911 \text{ mt/yr} * 2204.623 \text{ lbs/mt} = 2008 \text{ lbs/yr}$$

The LC TMDL includes WLAs for WWTFs expressed as total annual mass loads. Compliance with the annual limit will be calculated each month using the Running Total Annual Pounds Calculation, rather than once at the end of the calendar year. The LC TMDL does not include monthly average concentration effluent limits for WWTFs. State law (10 V.S.A. § 1266a) requires that, "No person directly discharging into the drainage basins of Lake Champlain or Lake Memphremagog shall discharge any waste that contains a phosphorus concentration in excess of 0.80 milligrams per liter on a monthly average basis. Discharges of less than 200,000 gallons per day, permitted on or before July 1, 1991, shall not be subject to the requirements of this subsection." Therefore, in addition to the annual mass load effluent limitation required by the LC TMDL, the permit must also include a monthly average concentration limit for phosphorus. While the WLA in the LC TMDL was calculated based on a TP effluent concentration of 0.80 mg/L, the permit does not include 0.80 mg/L as the concentration effluent limitation because a Permittee may not need to achieve 0.80 mg/L to ensure compliance with the WLA established in the LC TMDL. Rather the permit includes a monthly average concentration limit for phosphorus of 0.80 mg/L to ensure compliance with state law and to recognize seasonal variations in the facility's discharge. It is important to note that because the annual mass load and average

monthly concentration limits are not mathematically consistent in the permit, meeting a 0.8 mg/L concentration limit at design flows will not result in meeting the annual mass limit.

The Permittee must comply with both limitations and, as required by the permit, must operate the facility to meet the more restrictive limitation, which may vary depending upon discharge flows at the facility. If the facility is operating at design flows, the annual mass load limitation will be the more restrictive limitation. However, if the facility is operating at low flows, the monthly average concentration limit may be the more restrictive limitation.

This draft permit requires the submission of monitoring reports to the Secretary specific to tracking TP in the discharge. A report that documents the annual TP discharged from the facility, summarizes phosphorus removal optimization and efficiencies, and tracks trends relative to the previous year shall be attached to the December WR-43 form. The annual and monthly TP loads discharged from the facility shall also be reported electronically with other required parameters.

#### Analysis in Support of Phosphorus Limit:

The Secretary is using the WLA from the LC TMDL (Available at: [https://ofmpub.epa.gov/waters10/attains\\_impaired\\_waters.show\\_tmdl\\_document?p\\_tmdl\\_doc\\_blobs\\_id=79000](https://ofmpub.epa.gov/waters10/attains_impaired_waters.show_tmdl_document?p_tmdl_doc_blobs_id=79000)) as the water quality based effluent limitation (WQBEL) for phosphorus for this permit. Because this is the first permit issued to this facility under the new LC TMDL and the TMDL is less than five years old (The LC TMDL was issued June 17, 2016), an analysis of the assumptions underlying the TMDL is not required. In re Montpelier WWTF Discharge Permit, 2009 WL 4396740, 6, 9-10 (Vt. Env'tl. Ct. June 30, 2009) (stating that it “probably would have been meaningless to engage in further analysis” of the 2002 Lake Champlain TMDL a mere year and a half after its adoption, while also holding that when issuing a permit more than five years after the adoption of a TMDL, ANR must assess whether the past assumptions upon which the WLA was based upon “continue to have a basis of reliability”). Notwithstanding the fact that an analysis is not required, the Agency provides the following.

Using the WLA from the LC TMDL as the phosphorus WQBEL in the permit is appropriate because the State is making significant progress toward meeting the assumptions upon which the WLA is based.

First, the State has largely met the milestones in the LC TMDL Accountability Framework (For the Accountability Framework, see pages 54-59 of the LC TMDL) and is actively working to meet those that are still outstanding. For 2016, EPA gave Vermont an “excellent” report card for meeting milestones by December 30, 2016 (see below). For 2017, as outlined in the 2018 Vermont Lake Champlain Phosphorus Total Maximum Daily Loads Accountability Framework Report (<http://dec.vermont.gov/sites/dec/files/wsm/erp/docs/2018VermontLakeChamplainPhosphorusTMDLAccountabilityFrameworkReport.pdf>), the State has completed a majority of the milestones in the LC TMDL Accountability Framework due by December 30, 2017 and is actively working to complete those that are still outstanding. While not every milestone was completed by December 30, 2017, this is not sufficient to undermine the assumption that reductions in other sectors will occur in the future. For example, while the “Developed Lands General Permit” has not yet been issued, the State is actively working to adopt the rules necessary to issue and implement this permit, and the date by which applicants must apply for coverage under the permit – October 1, 2023 – has not changed. Thus, despite a delay in issuance of this permit, it is still

appropriate to assume that reductions will be achieved in this sector based upon the timeframe envisioned when the LC TMDL was issued.

Second, the EPA's assessment of the State's progress under the LC TMDL has found that the State is making satisfactory progress. EPA's "overall assessment is that Vermont has made excellent progress in achieving the milestones in the [LC TMDL] Accountability Framework" through December 30, 2016 (Letter dated February 15, 2017 from EPA Acting Regional Administrator Deborah A. Szaro to Secretary of Natural Resources Julie Moore and Secretary of Agriculture, Food and Markets Anson Tebbetts). EPA's next "report card" is expected within a couple months. If EPA finds that the State's progress is not satisfactory, EPA may, amongst other things, revise the TMDLs to reallocate additional load reductions from nonpoint to point sources (i.e. create more stringent WLAs). EPA has taken no such actions, but rather, has thus far provided positive assessment of the State's compliance with the LC TMDL Accountability Framework. Therefore, the State has nothing from EPA indicating that the assumptions upon which the WLA was developed are no longer reliable.

Since less than five years have passed since the adoption of the LC TMDL, with the State having completed or working to complete milestones, and with positive reports thus far from EPA, there is no reason to believe that the assumptions upon which the WLA was developed – including that discharges in other sectors will be reduced in the future – are no longer valid. Therefore, it is appropriate to establish the phosphorus WQBEL for this facility based upon its WLA in the LC TMDL.

#### **D. Toxic Pollutants Monitoring at Discharge Point 001**

##### **1. Copper, Total**

Influent Total Copper monitoring on a quarterly basis is proposed in the draft permit, for daily maximum mass quantity and concentration. This condition is intended to compliment Condition I.D of the draft permit where the Permittee and Co-Permittees shall conduct an Industrial Waste Survey for Total Copper within the Village and Towns collection systems prior to treatment at the WWTF. Collection of this data will allow the Secretary to further assess the impacts of Copper on the WWTF and the Lower Winooski River.

The draft permit includes a new monthly "monitor only" condition, for daily max concentration and mass quantity of Total Copper from composite samples. This was previously a quarterly "monitor only" condition for monthly average, weekly average, and daily maximum mass quantity and concentrations of Total Copper. Monthly DMRs typically reported results from a single sample collected within a quarter, such that the values reported for daily maximum, weekly average, and monthly average were the same. For this reason, the monthly and weekly average monitoring requirements were removed from the draft permit.

Copper data collected the over the next permit term will be used to further assess the impacts of the facility's discharge of Copper to the Lower Winooski River, for the next permit renewal.

As stated in Condition I.D of the draft permit: copper analyses shall be carried out using a method that assures a Method Detection Limit (MDL) of 0.006 mg/L or lower. This level of detection may be achieved using EPA methods 200.7 and 200.8 listed in 40 C.F.R. Part 136 which have estimated detection limits of 0.0054 mg/L and 0.004 mg/L, respectively.

##### **2. Zinc**

The draft permit includes a new monthly "monitor only" condition, for daily max concentration and mass quantity of Total Zinc from composite samples. This was previously a quarterly "monitor only" condition for monthly average, weekly average, and daily maximum mass quantity and concentrations of Total Zinc. Monthly DMRs typically reported results from a single sample collected within a quarter, such that the values reported for daily maximum, weekly average, and monthly average were the same. For this reason, the monthly and weekly average monitoring requirements were removed from the draft permit.

## **F. Non-Conventional Pollutants Monitoring at Discharge Point 001**

### **1. Septage Received**

A daily "monitor only" requirement for the monthly total gallons of septage received has been included in the draft permit. This condition is changed from the current permit where daily total volumes were required to be reported on monthly DMRs.

### **3. Discharge Special Conditions**

- a) The Permittee shall continue to monitor and calculate Ultimate Oxygen Demand (UOD) from June 1 - October 31 on an annual basis to comply with the limitations in the draft permit. Methods and limits are unchanged from the draft permit.
- b) The Permittee shall continue to operate the facility to meet the concentration limitations or pounds limitation, whichever is more restrictive.
- c) The Permittee shall continue to remove at least 85% of the monthly average concentrations of BOD5 and TSS in the influent into the 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.
- d) Total Phosphorus shall continue to be reported by the Permittee as Total Monthly Pounds, Running Total Annual Pounds, and Percentage of Running Total Annual Pounds to Annual Permit Limitation.
- e) Total Nitrogen (TN) shall be monitored and or calculated using a CWA approved method and reported as pounds on DMRs.

f) The Permittee (Village of Essex Junction) shall continue to be solely responsible for the proper operation and maintenance of the Permittee's pump stations and collection system, the enforcement of Permittee's sewer use ordinance, and the proper operation and maintenance of the Village of Essex Junction Wastewater Treatment Facility.

The Co-Permittee, Town of Essex, shall continue to be solely responsible for the proper operation and maintenance of that Town's pump stations and collection system, and for the enforcement of that Town's sewer use ordinance.

The Co-Permittee, Town of Williston, shall continue to be solely responsible for the proper operation and maintenance of that Town's pump stations and collection system, and for the enforcement of that Town's sewer use ordinance.

Each entity shall continue to be responsible for individual Emergency Power failure Plans and Operation, Maintenance, Emergency, and Response Plans for components specified and covered under the specified City and Town jurisdictions.

g) In no scenario, shall the Permittee cause visible discoloration of the receiving water(s). This condition is unchanged from the current permit.

h) The Permittee and Co- Permittees shall not discharge substances in any kind or quantity that settle to form harmful benthic deposits; float as foam, debris, scum or other visible substances; produce odor, color, or turbidity that is not naturally occurring and would render the surface water unsuitable for its designated uses; result in the dominance of nuisance species; or interfere with recreational activities; or which would cause a violation of the Vermont Water Quality Standards. This condition is unchanged from the current permit.

i) The permittee shall submit to the permitting authority projected loadings and a program for maintaining satisfactory treatment levels consistent with approved water quality management plans, only when the effluent discharged over 90 consecutive days exceeds 80% of the permitted flow.

j) The Permittee shall comply with all effluent limitations set forth in the draft permit as any action on the part of the Agency of Natural Resources in reviewing plans and specifications for construction of the wastewater treatment facility shall not relieve the Permittee from compliance responsibilities. This condition is unchanged from the current permit.

k) The Permittee shall sample for BOD5, Total Suspended Solids (TSS), Total Phosphorus, TKN, NOx, Total Copper, and Total Zinc composites during the hours 6:00 a.m. to 6:00 p.m., unless otherwise specified. Eight hours is the minimum and 24 hours is the maximum period for the composite.

l) The Permittee shall continue to sample for Settleable Solids during the period of peak flow.

m) The Permittee shall collect Escherichia coli (E. coli) grab samples between the hours of 6:00 a.m. to 6:00 p.m.. Total Residual Chlorine sampling should occur when E.coli sampling occurs. This condition is unchanged from the current permit.

- n) The Permittee shall continue to monitor for Total Residual Chlorine (TRC) when Chlorine is added to the treatment process. Limitations proposed in the permit apply year-round and are compliance effluent limits. In the event no Chlorine was added to treatment process during a month's reporting period, then the Permittee shall report as specified in permit Condition I.A.3.n.
- o) The Permittee shall continue to 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  $\pm 10\%$ .
- p) Monthly average flow shall continue to be calculated by summing the daily effluent flow for each day in the given month and dividing the sum by the number of days of discharge in that month.
- q) It is the Permittee and Co-Permittees responsibility to maintain processing capacity for receiving and processing septage for the useful life of the WWTF and to ensure the septage rate charges and servicing made available by the WWTF do not subsidize primary users, nor restrict specific municipalities.
- r) The permitted discharge shall not result in toxic substances or chemical constituents in concentrations or combinations in the receiving water that injure or are inimical to plants, animals, humans or aquatic life; or persist in the environment or accumulate in aquatic organisms to levels that result in harmful concentrations in edible portions of fish, shellfish, other aquatic life, or wildlife that might consume aquatic life.

## **Permit Schedule Items**

### **A. Annual Constituent Monitoring**

For all facilities with a design flow greater than 0.1 MGD, 40 CFR § 122.21(j) requires the submittal of effluent monitoring data for those parameters identified in 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.

The suggested 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). Monitoring for parameters in Part I of the draft permit shall be coordinated to comply with ACM schedules and requirements.

### **B. Copper Assessment**

In 2003 the effluent limits for metals were challenged during the public comment period for the IBM Corp (Now GLOBALFOUNDRIES, LLC or “Global Foundries”) permit for not considering the instream assimilative capacity, or otherwise contribution of metals, specifically Copper and Zinc from the six NPDES direct discharge permitted facilities downstream from Global Foundries, in the Lower Winooski: Essex Junction, South Burlington Airport Parkway, Winooski, Burlington East/Riverside, McNeil Generating Station, and Burlington North. The permit limits for Global Foundries were revised to account for copper loading from the six facilities by subtracting them from the load originally calculated for the facility. Due to the lack of data available in 2003 for each facility downstream, these six facilities received monitor only permit conditions for Copper and Zinc and IBM Corp received metals monitoring limits. This method was re-evaluated for the downstream facilities at permit renewal.

Based on permit monitoring data received, some downstream facilities appeared to be discharging more copper than estimated in 2003 and determined potential concern for the copper assimilative capacity in the Lower Winooski to exceed VWQS. The Secretary presented these findings to stakeholders from the above listed facilities on August 19th, 2020. After meeting, the stakeholders crosschecked facility laboratory bench sheets with the data used for analysis to confirm accuracy. Re-evaluation of the data showed the copper discharged was closer to the 2003 estimates than originally believed but the stretch of river is approaching the available assimilative capacity for copper. However, the data collected during this time was not always analyzed using a method with a sufficient Method Detection Limit (MDL) to assure the data collected was accurate enough to make a concrete finding of reasonable potential.

Given the data uncertainty, permit limits are not included for municipal facilities discharging downstream of Global Foundries. To continue to investigate the issue, the Condition I.D of the draft permit requires effluent copper analyses to be carried out using a method with a Method Detection Limit (MDL) of 0.006 mg/L or below. This level of detection is deemed to be reasonably achievable as EPA methods 200.7 and 200.8 listed in 40 C.F.R. Part 136 have estimated detection limits of 0.0054 mg/L and 0.004 mg/L, respectively. Influent copper monitoring is also required to quantify the amount of copper loading to the facility and estimate copper removal within the WWTF.

In addition, the Permittee and Co-Permittees are required to conduct and submit the results of an Industrial User Survey. This effort is intended for facilities to establish a list of connections where copper may enter the system from industrial users and categorize those dischargers. The list supports future efforts to characterize influent copper sources further, should they be necessary.

### **C. Emergency Power Failure Plan**

Condition I.E. of the draft permit applies to the Permittee, the Village of Essex, and Co-Permittees, the Town of Essex, and the Town of Williston. Condition I.A.3.f. of the draft permit specifies which each Permittee and Co-Permittees cover under the permit. The Permittee and Co-Permittees' responsibility under this condition remains unchanged from the current permit.

To ensure the facility can continue operations during the event of a power failure, all permittees are required to have Emergency Power Failure Plans on file. Within 90 days of the effective date of the permit, the Permittee and Co-Permittees must ensure this plan is up-to-date by submitting to the Secretary updated documentation addressing how the discharge will be handled in the event of an electric power outage.

Plans referenced in permit Conditions I.E and F may be combined for submittal.

### **E. Operations Management Emergency Response Plan (OMERP)**

Condition I.F. of the draft permit applies to the Permittee, the Village of Essex, and Co-Permittees, the Town of Essex, and the Town of Williston. Condition I.A.3.f. of the draft permit specifies which each Permittee and Co-Permittees cover under the permit. The Permittee and Co-Permittees responsibility under this condition is retained from the current permit.

As required by the revisions to 10 V.S.A. Section 1278 the Permittee and Co-Permittees shall implement the Operation, Management, and Emergency Response Plans on file. To ensure this plan remains up-to-date, the permittee shall prepare and submit to the Agency for review and approval an Operation, Management, and

Emergency Response Plan for the WWTF, sewage pump/ejector stations, stream crossings, and sewage collection system.

The Co-Permittee, the Town of Williston, OMERP was not approved by the Secretary during the current permit term. On August 26, 2010 the Secretary provided review comments to the Town detailing the insufficiencies in this Plan that must be corrected before it could be approved. The Town of Williston must complete and submit this Plan in accordance to the schedule in permit Condition I.F.

Plans referenced in permit Conditions I.E and F may be combined for submittal.

#### **F. Phosphorus Optimization Plan**

To ensure the facility is operating as efficiently as possible for purposes of phosphorus removal, the permit requires that within 120 days of the permit effective date, the Permittee shall develop or update (as appropriate), and submit to the Secretary, a Phosphorus Optimization Plan (POP) to increase the WWTF's phosphorus removal efficiency by implementing optimization techniques that achieve phosphorus reductions using primarily existing facilities and equipment. The techniques to be evaluated may include operational process changes to enhance biological and/or chemical phosphorous removal, incorporation of anaerobic/anoxic zones, septage receiving policies and procedures, and side stream management.

The facility shall have 12 months from the permit effective date to optimize removal of total phosphorus. If, after the 12-month optimization period, the WWTF's actual TP loads reach or exceed 80% of the LC TMDL WLA for the WWTF, based on the WWTF's 12-month running annual load calculated using the Phosphorus Load Calculation the Permittee shall, within 90 days of reaching or exceeding 80% of the LC TMDL WLA for the WWTF, develop and submit to the Secretary a projection based on the WWTF's current operations and expected future loadings of whether it will exceed its WLA during the permit term.

If the facility is not projected to exceed its WLA within the permit term, the WWTF shall reassess when it is projected to reach its WLA prior to permit renewal and submit that information with its next permit application. If the facility is projected to exceed its WLA during the permit term, the permittee shall submit a Phosphorus Elimination/Reduction Plan (PERP) within 6 months to the Secretary to ensure the WWTF continues to comply with its WLA. The PERP shall be treated as an application to amend the permit, and therefore, shall be subject to all public notice, hearing, and comment provisions, in place at the time the plan is submitted, that are applicable to permit amendments. The WWTF shall revise the PERP if required by the Secretary.

#### **G. Pollutant Scan (greater than 1 MGD)**

The Toxic Pollutants Scan is codified at 40 C.F.R. § 401.15, Table 1. This requires the Permittee to conduct an effluent analysis of S/N 001 for the pollutants included in Appendix J, Table 2 of 40 C.F.R. Part 122 and submit the results to the Secretary. Based on the results of these tests or any other toxicity tests conducted, the Secretary may require additional WET testing or a Toxicity Reduction Evaluation be conducted.

A monitoring condition for 40 CFR Part 122 Appendix J, Table 2 three times per permit cycle is proposed in the draft permit. Monitoring should coincide with WET testing when these tests occur.



## **H. Quality Assurance Report / 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. Proficiency Test samples must be obtained from an accredited laboratory or as part of an EPA DMR-QA study. Results shall be submitted to the Secretary by December 31, annually.

## **I. Whole Effluent Toxicity (WET) Testing Acute/Chronic**

40 C.F.R. Part 122.44(d)(1) requires 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. Per these federal requirements, the Permittee shall conduct WET testing and toxic pollutant analyses according to the schedule outlined in the draft permit. 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.

Four, two species (*Pimephales promelas* and *Ceriodaphnia dubia*), 48-hour acute and 96-hour chronic WET tests from composite effluent samples are recommended for the draft permit: two during the winter (January/February) and two during the summer (August/October). TKN and Pollutant Scan monitoring shall be conducted concurrently with the WET tests.

## **VIII. General Conditions**

### **A. Electronic Reporting**

The National Pollution Discharge Elimination System (NPDES) Electronic Reporting Rule (eRule) modernized Clean Water Act reporting for municipalities, industries, and other facilities by converting to an electronic data reporting system. The eRule 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 21, 2016. The Secretary has created an electronic reporting system for DMRs and has trained facilities in its use. As of December 21, 2020, these NPDES facilities must also submit additional information electronically as specified in Appendix A in 40 C.F.R. Part 127.

### **B. Noncompliance Notification -**

As required by 10 V.S.A. § 1295, a Noncompliance Notification has been included in the draft permit. Section 1295 requires the Permittee and Co-Permittees to provide public notification of untreated discharges from wastewater facilities. The Permittee and Co-Permittees are 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.

**C. Reopener** - The draft permit includes a reopener clause whereby the Secretary reserves the right to reopen and amend the permit to implement an integrated plan to address multiple Clean Water Act obligations.

**V. Final Determinations**

The public comment period for receiving comments on this draft permit is from **April 7, 2021 through May 7, 2021**, during which time interested persons may submit their written views on the draft permit. All written comments received by 4:30 PM on will be retained by the Secretary and considered in the formulation of the final determination to issue, deny or modify the draft permit. The period of comment may be extended at the discretion of the Secretary.

Written comments should be sent to:

Agency of Natural Resources  
Department of Environmental Conservation  
Watershed Management Division  
One National Life Drive, Davis Building, 3rd Floor  
Montpelier, VT 05620-3522

Comments may be submitted by e-mail to [ANR.WSMDWastewaterComments@vermont.gov](mailto:ANR.WSMDWastewaterComments@vermont.gov)

For additional information, contact Amy Polacyzk at 802-490-6185.

**OR**

Any interested person or groups of persons may request or petition for a public meeting with respect to this draft permit. Any such request or petition for a public meeting shall be filed within the public comment period described above and shall indicate the interest of the party filing such request and the reasons why a meeting is warranted.

The Agency will hold a meeting if there is significant public interest in holding such a meeting. Any public meeting brought in response to such a request or petition will be held in the geographical area of the proposed discharge or other appropriate area, at the discretion of the Agency and may, as appropriate, consider related groups of draft permits. Any person may submit oral or written statements and data concerning the draft permit at the public meeting. The Agency may establish reasonable limits on the time allowed for oral statements and may require the submission of statements in writing. All statements, comments, and data presented at the public meeting will be retained by the Agency and considered in the formulation of the final determination to issue, deny, or modify the draft permit.

The complete application, draft permit, and other information are on file and may be inspected by appointment on the 3rd floor of the Davis Building at One National Life Drive, Montpelier, Vermont. Copies may be obtained by calling 802-828-1115 from 7:45 AM to 4:30 PM Monday through Friday, and will be made at a cost based upon the current Secretary of State Official Fee Schedule for Copying Public Records. The draft permit and fact sheet may also be viewed on the Watershed Management Division's website at <https://anrweb.vt.gov/DEC/IWIS/ReportViewer2.aspx?Report=WWPublicNotices&ViewParms=False>



Vermont Agency of Natural Resources  
Department of Environmental Conservation  
Watershed Management Division  
1 National Life Drive, Davis 3  
802-828-1535

**MEMORANDUM**

Prepared by: Jamie Bates, Wastewater Program (WWP)



Cc: Amy Polaczyk, Manager, WWP  
Bethany Sargent, Manager, Monitoring and Assessment Program (MAP)  
Rick Levey, MAP

Date: **March 22, 2021**

Subject: Reasonable Potential Determination for the Essex Junction WWTF Facility

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***Facility Information:***

Essex Junction Wastewater Treatment Facility (WWTF)  
Essex Junction, VT  
Permit No. 3-1254  
NPDES No. VT0100111  
Facility Location: 44.4810, -73.1209 (NAD 83)  
Approximate Outfall Location: 44.47930, -73.12040 (NAD 83)

***Receiving water:*** Winooski River

***Hydrology:***

Facility Design Flow: 3.300 MGD = 5.106 CFS  
Estimated 7Q10<sup>1</sup> = 141.1 CFS  
Estimated LMM<sup>2</sup> = 463.0 CFS  
Estimated MAF<sup>3</sup> = 1206.9 CFS  
Instream Waste Concentration at 7Q10 Flow (IWC-7Q10) = 0.035 (>1%)  
Instream Waste Concentration at Low Median Monthly Flow (IWC-LMM) = 0.011 (>1%)

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<sup>1</sup> Using daily mean stream flows, the flow of the receiving water equal to the minimum mean flow for seven consecutive days, that has a 10% probability of occurring in any given year.

<sup>2</sup> “Low Median Monthly Flow”. Using daily mean stream flows, the median monthly flow of the receiving water for that month having the lowest median monthly flow.

<sup>3</sup> “Median annual flow”. Using the mean daily flow that is equaled or exceeded 50 percent of the time for the analysis period. Where statistically significant trends in annual median stream flows exist for long-term records, the analysis period is limited to the most recent 30-years.

The Village of Essex Junction owns and operates the Essex Junction Wastewater Treatment Facility which processes effluent by ways of conventional activated sludge with phosphorus removal, flow equalization, sand filtration, disinfection by chlorination, and dechlorination.

The Winooski River downstream of the Essex Junction WWTF discharge is a Class B (2) water and is designated as Warm Water Fish Habitat. At the point of discharge, the river has a contributing drainage area of 1008 square miles. The facility discharges to a segment of the Winooski River, from mouth up to Alder Brook. The existing permitted waste management zone (WMZ) begins at the outfall of the WWTF and extends downstream approximately 1 mile pursuant to 10 V.S.A., Section 1252.

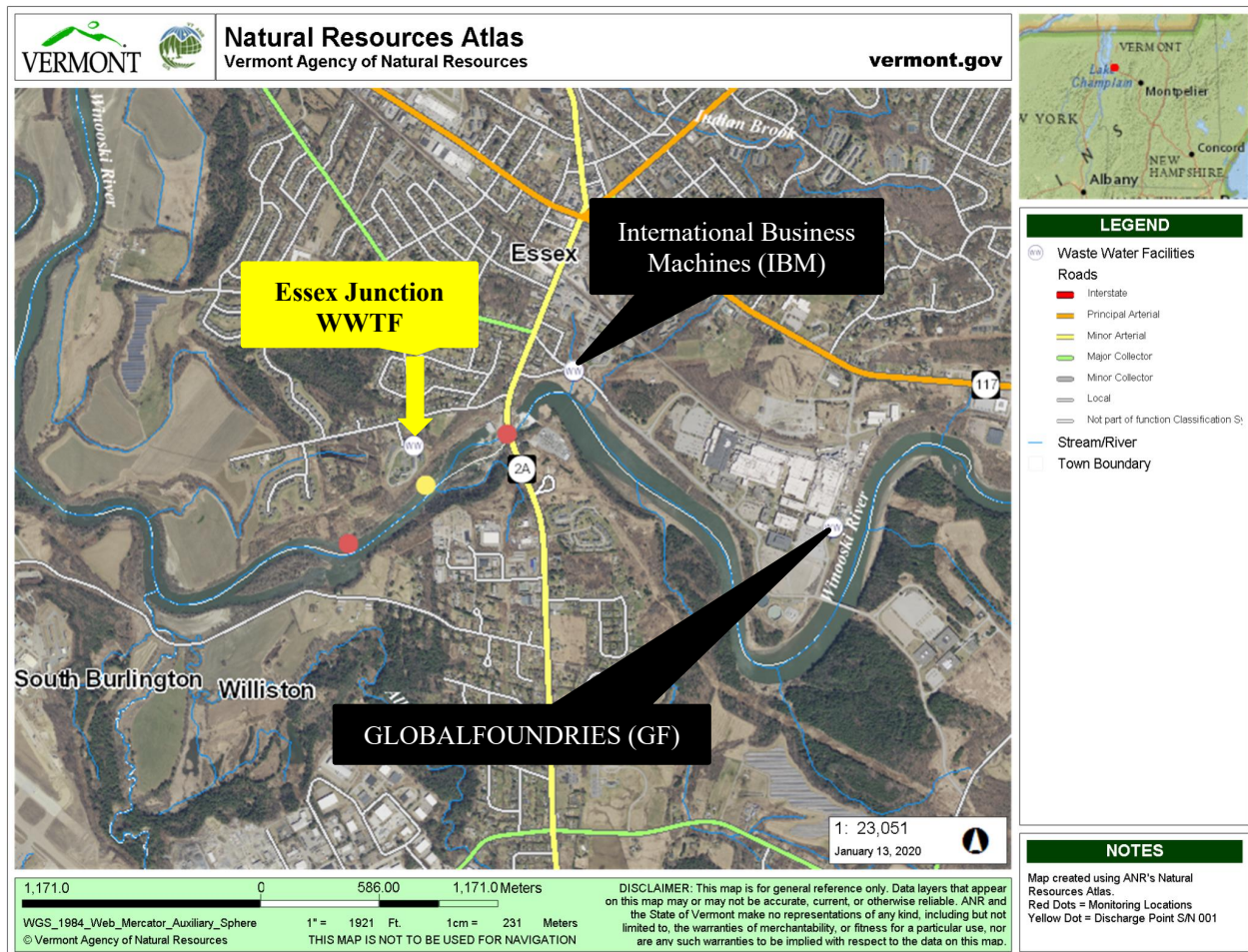


Figure 1. Winooski River near the Essex Junction WWTF. Facility location represented by white dot containing “WW” and a yellow arrow. The outfall location is depicted by a yellow dot, just below the “WW” symbol. The upstream sampling location at RM 16.7 (closest to Route 2A) and downstream sampling location at RM 16.3 (farthest point to the left) are shown by the red dots. International Business Machines (IBM) and GLOBALFOUNDRIES (GF), other NPDES Direct Discharge permitted facilities, are nearby and labeled in black boxes. Figure produced with the Vermont Integrated Watershed Assessment System on the Vermont Agency of Natural Resources Atlas (<https://anrweb.vt.gov/DEC/IWIS/>).

This memo is organized into the following sections for the Essex Junction WWTF:

- Summary of Effluent Data
- Summary of Instream Ambient Chemistry Data
- Biological Assessments upstream and downstream from the WWTF outfall
- Assessment of Reasonable Potential for effluent discharge to exceed Vermont Water Quality Standards (VWQSs)

***Effluent Data for the Essex Junction WWTF****Table 1. Effluent Data for the Essex Junction WWTF from 1/31/2015 to 11/30/2019.*

Parameter	Units	Current Permit Limit	Minimum Value	Average Value	Maximum Value	n
Annual Flow	MGD	3.3	1.436	1.8	2.528	59
Monthly Average BOD <sub>5</sub>	mg/L	30	1.8	3.36	9	59
Monthly Average BOD <sub>5</sub>	lbs./day	688	23	49.79	155	59
pH	s.u.	6.5-8.5	<b>6.4<sup>1</sup></b>	7.02	7.6	59
Monthly Average Total Suspended Solids	mg/L	30	1	3.93	18.75	59
Monthly Average Total Suspended Solids		688	11	58.76	351	59
Total Residual Chlorine	mg/L	0.1	0.01	0.09	<b>1.28<sup>2</sup></b>	59
Total Phosphorus	mg/L	0.8	0.07	0.22	0.65	59
Total Nitrogen	mg/L	Voluntary	1.51	28.5	51.506	57
Total Kjeldahl Nitrogen	mg/L	Monitor Only	0.03	1.31	3.9	81
Nitrate	mg/L	Voluntary	0.08	27.83	50	56
Nitrite	mg/L	Voluntary	<b>0.001<sup>3</sup></b>	0.022	0.15	55
Ammonia (as N) (summer ≈ June 1 - October 31)	mg/L	Voluntary	0.007	0.07	0.33	56
E. coli	CFU/100 ml	77	0	63.83	2420	59
Total Copper	mg/L	Monitor Only	<b>0.01<sup>3</sup></b>	0.01	0.02	14
Total Zinc	mg/L	Monitor Only	<b>0.05<sup>3</sup></b>	0.08	0.46	16
% Removal BOD	%	85	95	98.48	99	59
Settleable Solids	mg/L	1	0	0.017	1	59
% Removal Total Suspended Solids	mg/L	85	95	98.82	100	58
Ultimate Oxygen Demand	mg/L	1820	76.2	168.35	469	25
Septage Influent	lbs./day	Monitor Only	1130	6443.017	17700	59

<sup>1</sup>The minimum reported pH value of 6.4 s.u. was reported twice for Essex Junction, once for 9/30/2018 and again for 9/30/2019.

<sup>2</sup>The permit limit for Total Residual Chlorine was exceeded 4 times: 1.04 mg/L reported for 4/30/2015; 0.15 mg/L for 3/31/2016; 1.28 mg/L for 1/31/2019; and 0.65 mg/L for 9/30/2019.

<sup>3</sup>This value is the lowest concentration that was reported above 0.

***Whole Effluent Toxicity (WET) Data Summary:***

40 CFR Part 122.44(d)(1) requires 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. The current permit for the Essex Junction WWTF required a two-species acute winter and a summer WET test. Both species test results were expressed in terms of the acute no observed effect level (A-NOEL) percent concentration and of lethal concentration resulting in 50% mortality observed the sample (LC50).

For January 2006 and August 2007 acute WET tests for *Ceriodaphnia dubia* and the August 2005 acute WET test for *Pimephales promelas*, the laboratory observed there was no observed effect within a sample of 100% effluent concentration (50% mortality was not observed at 100% concentration). This resulted in 1 Toxicity Unit (TU) per test. For February 2008 acute WET tests, the laboratory observed no observed effect for *Pimephales promelas* at 25% effluent concentration and 50% mortality was observed at 37.5% effluent concentration. This test resulted in 2.67 TU.

The max observed results (2.67 TU) were used for calculating RP via the TSD method. The assessment assumed a multiplier of 6.2, from a CV of 0.6 and number of tests conducted ( $n=4$ ), resulting in 16.53 TU. This value divided by the LMM IWC to find the max TUs based on design flow ( $100 / 0.0109$  IWC = 9167.52 TU). This resulted in a Cr value of 0.0018; less than 0.3 the WET toxicity threshold. No toxicity concerns were observed from the four WET Tests.

No WET tests have been required since the 2012 upgrade and additional testing is recommended. To provide additional data for future assessments of WET reasonable potential, it is recommended that four, two species *Pimephales promelas* and *Ceriodaphnia dubia*, 48-hour acute and 96-hour chronic WET tests from composite effluent samples should be conducted in the upcoming permit cycle: during the winter (January/February) of odd years and during the summer (August/October) of even years. Total Ammonia Nitrogen and TRC monitoring should be conducted concurrently with the WET tests. Appendix J metals analysis should be analyzed concurrently with the first 3 WET tests of the permit term.

***Biological Assessments and Ambient Chemistry Data for the Winooski River above and below the Essex Junction WWTF***

MAP 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. This facility ultimately discharges to Lake Champlain and is subject to the 2016 Lake Champlain Phosphorus TMDL.

***Biological Assessments:***

Biological assessments were most recently conducted below (RM 16.3) the outfall by VTDEC on 9/21/2020. The biological assessment meets VWQS for aquatic biota and aquatic habitat uses for the Class B2 Warm Water, Medium Gradient stream type. Macroinvertebrate monitoring data is summarized in Table 2. Drought conditions for the summer and fall within 2020, could be partially responsible for Indeterminate macroinvertebrate assessment rating.



Table 2. Results of the Biological Monitoring for Macroinvertebrates on the Winooski River, (RM 16.3) below the Essex Junction WWTF outfall.

Macroinvertebrate Site Summary											
Date	Location	RM	Density	Richness	EPT Richness	PMA-O	B.I.	Oligo.	EPT/EPT + Chiro	PPCS-F	Community Assessment
10/12/1986	Below	16.3	1718	36.0	16.0	53.8	4.49	5.59	0.92	0.40	Meets VWQS
10/26/1987	Below	16.3	1492	34.0	16.5	59.7	4.75	7.03	0.86	0.59	Meets VWQS
8/13/1991	Below	16.3	2860	33.5	17.5	68.1	4.87	0.00	0.82	0.40	Meets VWQS
10/3/2005	Below	16.3	2280	42.0	24.0	62.0	4.68	0.35	0.90	0.53	Meets VWQS
10/13/2010	Below	16.3	5416	51.0	27.0	65.0	4.38	0.00	0.88	0.48	Meets VWQS
9/9/2015	Below	16.3	2536	43.0	24.0	77.7	4.99	2.84	0.95	0.42	Meets VWQS
9/21/2020	Below	16.3	5604	40.0	22.0	74.5	4.04	0.07	0.95	0.34	Indeterminate
Full Support			≥ 300	≥ 30	≥ 16	≥ 45	≤ 5.4	≤ 12	≥ 0.45	≥ 0.4	
Indeterminate			≥ 250	≥ 28	≥ 15	≥ 40	≤ 5.65	≤ 14.5	≥ 0.43	≥ 0.35	
Non-Support			< 250	< 28	< 15	< 40	> 5.65	> 14.5	< 0.43	< 0.35	

#### Ambient Chemistry Data:

The most recent ambient chemistry data available from VTDEC sampling is from 9/9/2015, when surface waters were sampled at River Mile (RM) 16.7 above the outfall and below the outfall at RM 16.3. (Figure 1).

Data representativeness are assessed by evaluating the observed flow conditions from field sheets, whether measured or qualitatively described, at which samples were collected. Other contemporaneous streamflow data, such as the U.S. Geological Survey stream gage network, are also taken into consideration where proximal and representative of the hydrologic conditions at the time (e.g., unimpacted by artificial flow regulation). The downstream sampling location at this site is the most sensitive location, and the sampling results are determined to be representative of low flow based on a review of available streamflow observations. Thus, the data presented below are relevant for inclusion in this analysis. Water chemistry measures of relevant parameters for this assessment are summarized in Table 3a and 3b.

Data used to evaluate in-stream chemistry is collected under low flow conditions (typically in August or September) when turbidity is low, and no precipitation has been observed for 3 days.



Visit Date	RM	Above or Below (A/ B)	Hardness	Water Temp (deg C)	pH	Alkalinity (mg/l)	Conductivity (umho/cm)	DO (%)	DO (mg/l)	Turbidity (NTU)	Total Color (PCU)	Total Chloride (mg/l)	Total Phosphorus (ug/l)	Total Dissolved Phosphorus (ug/l)	Total Nitrogen (mg/l)	Total Ammonia Nitrogen (mg/l)	Total Nitrate/ Nitrite Nitrogen (mg/l)	Sulfate (mg/l)	Dissolved Inorganic Carbon (mg/L)	Dissolved Organic Carbon (mg/L)
10/13/2010	16.3	B	61.40	10.13	7.38	50.70	169.00	93.60	10.42	3.19	17.50	14.80	20.60	11.60	0.45	-	0.31	7.9	-	-
8/19/2015	16.3	B	81.63	26.24	7.84	-	248.70	84.80	6.76	2.92	-	-	16.40	-	0.59	0.09	-	-	-	-
9/9/2015	16.3	B	96.73	25.00	-	74.00	-	-	-	2.52	45.00	37.38	15.60	-	0.88	0.07	0.68	15.2	-	-
9/9/2015	16.7	A	98.32	25.00	-	72.00	-	-	-	3.02	35.00	38.18	15.00	-	0.79	0.07	0.59	14.9	-	-
8/13/2020	16.3	B	66.30	26.46	7.64	55.00	237.10	99.90	8.01	5.40	26.00	30.00	18.30	-	0.00	0.06	0.33	13.1	12.1	2.6
9/21/2020	16.3	B	-	16.56	8.14	-	367.20	102.60	9.99	-	14.00	-	13.00	-	0.00	-	0.87	-	-	-

[illegible]

## ***Assessment of Reasonable Potential of the Essex Junction WWTF discharge to exceed Vermont Water Quality Standards***

### ***Methodology:***

A steady-state mass balance approach was used to assess reasonable potential for the potential pollutants of concern based on the methods described in the Technical Support Document for Water Quality-based Toxics Control (TSD; EPA/505/2-90-001). The expected receiving water concentrations (RWC;  $C_r$ ) of Total Ammonia Nitrogen during the summer and winter months, E. Coli, Total Nitrogen, Total Phosphorus, Priority Pollutant Metals, and Total Residual Chlorine were calculated according to Equation 1 at critical conditions. The expected resultant receiving water concentrations ( $C_r$ ) pollutants for the following pollutants was calculated using Equation 1 below. If the expected receiving water concentration determined exceeds the applicable Vermont Water Quality Standard, limits must be included in the permit. Tables 5, 6, 7, and 8 present this analysis for the Essex Junction WWTF.

$$\text{Equation 1. } C_r = \frac{(Q_e)(C_e) + (Q_s)(C_s)}{Q_r}$$

Where:

$C_r$  = resultant effluent pollutant concentration (mg/L or ug/L)

$Q_e$  = maximum permitted effluent flow (CFS).

$C_e$  = critical effluent pollutant concentration (mg/L or ug/L)

$Q_s$  = stream flow above point of discharge (CFS). Low Median Monthly flow for nutrients, 7Q10 for applying toxics criteria. When applicable, 30Q10 is used for chronic Total Ammonia Nitrogen assessments.

$C_s$  = critical background in-stream pollutant concentration (units dependent on parameter, typically mg/L or ug/L).

$Q_r = (Q_s + Q_e)$  = resultant in-stream flow, after discharge (CFS)

NPDES regulations at §122.44(d)(1)(ii) require that permit writers consider the variability of the pollutant in the effluent when determining the need for Water Quality-Based Effluent Limits (WQBELs). EPA guidance for permit writers on how to characterize effluent concentrations of certain types of pollutants using a limited data set and accounting for variability is detailed in the TSD. The current analysis uses the TSD procedure to project a critical effluent concentration ( $C_{etsd}$ ) of the 95th percentile of a lognormal distribution of observed effluent concentrations over 5 years. The 95th percentile is calculated from the effluent data set using the number of available effluent data points (n) for the measured concentration of the pollutant and the coefficient of variation (CV) of the data set to predict the critical pollutant concentration in the effluent. When less than 10 data points are available, the CV is set to 0.6. For less than 10 items of data, the uncertainty in the CV is too large to calculate a standard deviation or mean with sufficient confidence (TSD). The CV and n are used to determine the factor (TSD pg 54) that is multiplied by the maximum observed effluent concentration ( $C_e$ ) to determine  $C_{etsd}$ .

$$\text{Equation 2. } C_{etsd} = \text{TSD}_{\text{factor}} \times C_e$$

Where:

$C_{etsd}$  = Effluent concentration adjusted to 95th percentile value (mg/L or ug/L)

$\text{TSD}_{\text{factor}}$  = Factor based upon EPA TSD Table 3-2, pg 54

$C_e$  = critical (maximum observed) effluent pollutant concentration (mg/L or ug/L)

The Instream Waste Concentration (IWC) is a measure of the effluent dilution and is also used as an estimate of the facility's potential to cause or contribute to an excursion of the VWQS. The IWC equation is the simplification of the flow portion of the mass balance equation (Equation 1) and is shown below in Equation 3:

$$\text{Equation 3. } IWC = \frac{(Q_e)}{(Q_r)}$$

The critical effluent pollutant concentration ( $C_e$ ) can be multiplied by the IWC to approximate the expected receiving water concentrations ( $C_r$ ).

This analysis of reasonable potential used the following data and assumptions:

- Average values of observed upstream and downstream chemical data were used for most calculations; exceptions are described below.
- Upstream pollutant concentrations ( $C_s$ ) were set equal to half the Reporting Limit (RL) when data were censored at the Reporting Limit. The reporting limit (RL) is the minimum value reported as a detection according to the 2020 VAEL methods for constituent detection.
- Effluent concentrations ( $C_e$ ) were set equal to the RL when data was not available, or where the number of samples for metals did not exceed three test results, or where the number of samples for nutrients and non-metals did not exceed ten test results.
- Effluent pollutant concentrations ( $C_e$ ) were set to the maximum observed effluent concentrations \* TSD 95<sup>th</sup> percentile multiplier over the last 5 years of data collected. The symbol  $C_{etd}$  is used to represent this value.
- Seasonal TAN limits were calculated using the highest observed pH at assumed temperatures 25°C for samples collected in the summer (June 1- October 31) and 5°C for winter (November 1 – May 31) samples.
- No TAN data was available for the winter season; a worst-case scenario assumed effluent concentration of 25 mg/L was used to assess winter TAN effects on the receiving water.
- Hardness for determining hardness-dependent metal criteria is based upon the lowest observed downstream concentration.
- Chlorine analysis was conducted using the maximum weekly average concentration \* TSD 95<sup>th</sup> percentile multiplier.

The spreadsheet used for these calculations is part of the permit record and available upon request.

**Total Ammonia:**

Table 5. Mass Balance for Ammonia around the Essex Junction WWTF

Variables	Units	Total Ammonia Nitrogen - Summer	Total Ammonia Nitrogen - Winter	E. coli	Notes
<b>Qs</b>	CFS	141.12			Estimated 7Q10 flow
<b>Qe</b>	CFS	5.106			permitted effluent discharge
<b>Qr = Qs + Qe</b>	CFS	146.23			Qs+Qe
<b>7Q10 IWC</b>		0.035			Qe/(Qs+Qe)
<b>Cs</b>	mg/L	0.07	0.07	0	upstream pollutant concentration.
<b>Ce</b>	mg/L	0.33	25		max observed summer and assumed worst-case scenario winter effluent concentrations
<b>Cetsd</b>	mg/L	0.363		77	effluent pollutant concentration adjusted by TSD factor (permit limit for E. coli)
<b>Cr = (CsQs+CeQe)/Qr</b>	mg/L	0.079	0.94		calculated resultant pollutant concentration in receiving water based on the max observed effluent concentration
<b>Crtsd = (CsQs+CetsdQe)/Qr</b>	mg/L	0.080		2.69	calculated resultant downstream pollutant concentration using mass balance method from TSD adjusted effluent concentration
<b>Temp</b>	Deg. C	25.00	5.00		Values used in analysis.
<b>pH</b>	s.u.	8.14	8.14		Values used in analysis.
<b>Fish Habitat</b>		Seasonal: Winooski River from Green Mountain Power Corporation #19 in Essex/Williston to its confluence with Lake Champlain - June 1 - Sept 30 only.			Fishery Type
		Oncorhynchus (e.g., Rainbow trout) Present			Additional Fishery Information
<b>VWQS Criteria (2017)</b>					
<b>Primary Contact Recreation</b>	CFU/100 ml			235	
<b>Protection of Aquatic Biota - Acute</b>	mg/L	1.97	4.30		
<b>Protection of Aquatic Biota - Chronic</b>	mg/L	1.14	3.64		A 2.5 multiplier was applied to Chronic Criteria to adjust 30-day rolling average value to 4-day average
<b>Exceedance Calculated?</b>					
<b>Risk of Primary Contact Recreation</b>				NO	
<b>Protection of Aquatic Biota</b>	Acute	NO	NO		VWQS/EPA Aquatic Life Ambient Water Quality Criteria for Ammonia – Freshwater was updated in 2013.
	Chronic	NO	NO		

Table 5 presents the mass balance for Total Ammonia Nitrogen (“TAN” or “Ammonia”) and E. coli around the Essex Junction WWTF. The average instream TAN concentration (Cs) upstream of the Essex Junction WWTF was 0.07 mg/L. E. coli was not monitored within the receiving water.

No data was collected to characterize the effluent for TAN under winter conditions. Due to the lack of effluent data available ( $n \leq 10$ /season), the critical effluent concentration ( $C_e$ ) was assumed to be the worst-case discharge scenario, 25 mg/L of TAN for winter RP calculations.

A total of 56 samples characterized the effluent during summer conditions (see Table 1). Results were voluntarily submitted by the facility for summer nitrogen screenings. While these were not necessary for permit compliance, these were used for the analysis since this was the only data available.

Based on the IWC, the data available, and conservative assumptions for  $C_e$  were made only for the winter effluent concentration, this facility does not have Reasonable Potential to discharge Total Ammonia Nitrogen in amounts that would exceed the VWQS. This also proved true for estimates calculated using values reported for Total Kjeldahl Nitrogen (TKN) in lieu of the TAN data voluntarily submitted. For this reason, additional TKN monitoring is recommended in lieu of additional TAN monitoring for the permit; inclusive of a specific reopener permit condition. Monitoring Schedules shall coincide with proposed Total Nitrogen requirements described later in this document.

Water quality criteria and limit estimates were not explored using methods described in Chapters 4 and 5 of the TSD and the 2013 EPA Aquatic Life Ambient Water Quality Criteria for Ammonia - Freshwater (EPA 822-R-13-001).

### ***Metals***

The current permit includes a “monitor only” quarterly condition for Copper and Zinc. Each metal was assessed using Equation 1, presented in Table 6, to verify the effluent meets water quality standards.

Table 6. Mass Balance for Total Metals of Concern around the Essex Junction WWTF.

Variables	Units	Metal (Total)		
		Arsenic	Copper	Zinc
Hardness as CaCO <sub>3</sub>	mg/L	61.40		
Qe	CFS	5.11		
Qs (MAF)	CFS	1206.9	141.12	
Qs (7Q10)	CFS			
Ce (VAEL Reporting Limit)	ug/L	1	460	
Ce (Max)	ug/L			
Cetsd	ug/L	3.1	33.6	966.0
Cs (half VAEL Reporting Limit)	ug/L	0.5	2.5	5
Qr (7Q10)= Qs (7Q10) + Qe	CFS		146.23	
Qr (MAF)= Qs (MAF) + Qe	CFS	1212.0059	79	
Cr = (QeCe+QsCs)/Qr	ug/L	0.50		
Crtsd = (QeCetsd+QsCs)/Qr	ug/L	0.51		
VWQS Aquatic Biota Acute limit	ug/L		8.8	79
VWQS Aquatic Biota Chronic limit	ug/L		6.1	79
Exceedance?	Acute		NO	NO
	Chronic		NO	NO
VWQS Human Health, Consumption of water and organisms limit	ug/L	0.02		
VWQS Human Health, Consumption of organisms only limit	ug/L	1.5		
Exceedance?	Consumption of water and organisms limit	DETERMINED NO		
	Consumption of organisms only limit	NO		

Aluminum, Antimony, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, and Zinc did not show RP based on the assessment.

Insufficient data was available to determine concerns the discharge of Arsenic would exceed the Human Health thresholds. Assumptions were made for variables Ce to be equal to the VAEL reporting limit, and Cs equal to half the reporting limit. Table 3b shows instream sampling reported below the detection limit and no Arsenic samples had been collected from the effluent. The resulting Cr value for Arsenic (0.5 µg/L) exceeds the VWQS Human Health Consumption of water and organisms limit of 0.02 µg/L. This threshold applies to potable water compliance. The Winooski River is not a potable water source. Until more Arsenic data is collected or a VWQS criteria protective of aquatic biota is developed, concerns the facility discharge exceeds the human health toxicity threshold for consumption of water and organisms is unprecedented.

The next permit should include a monitoring condition for 40 CFR Part 122 Appendix J, Table 2 to be sampled three times within the next 5-year permit cycle. Monitoring should coincide with WET tests when they occur.

Further monitoring is necessary to assess pollutant assimilative capacity concerns for Total Zinc and Total Copper within the Winooski River. Both Total Copper and Total Zinc shall continue to be monitored to assess the assimilation capacity of metals in the Lower Winooski River. A monthly sampling frequency is proposed for both monthly average, weekly average, and daily maximum mass quantity and concentration for Total Copper and Zinc for the draft permit.

### ***Nutrients***

Per EPA excess nitrogen (N) and phosphorus (P) are the leading cause of water quality degradation in the United States. Historically nutrient management focused on limiting a single nutrient—phosphorus or nitrogen—based on assumptions that production is usually phosphorus limited in freshwater and nitrogen limited in marine waters. Scientific research demonstrates this is an overly simplistic model. The evidence clearly indicates management of both phosphorus and nitrogen is necessary to protect water quality. The literature shows that aquatic flora and fauna have differing nutrient needs, some are P dependent, others N dependent and others are co-dependent on these two nutrients.

Like P, N promotes noxious aquatic plant and algal growth. High concentrations of P and N together cause greater growth of algae than P alone. The relative abundance of these nutrients also influences the type of species within the community. Furthermore, a high N-to-P ratio may exacerbate the growth of cyanobacteria, while elevated levels of nitrogen increase toxicity in some cyanobacteria species. Given the dynamic nature of all aquatic ecosystems, for the State to fully understand the degradation to water quality it is necessary to limit P and monitor bioavailable N (including nitrate, ammonium, and certain dissolved organic nitrogen compounds).

The mass balance for Total Nitrogen and Total Phosphorus were calculated using Equation 1 are presented in Table 7.

Table 7. Mass Balance of Nutrients of Concern around the Essex Junction WWTF.

Variables	Units	Total Phosphorus	Total Nitrogen	Notes
Qs	CFS	467.57		Estimated LMM flow
Qe	CFS	5.106		permitted effluent discharge
Qr = Qs + Qe	CFS	472.67		Qs+Qe
LMM IWC		0.011		Qe/(Qs+Qe)
Cs	mg/L	0.015	0.790	upstream pollutant concentration (average)
Ce	mg/L	0.65	51.5	max observed effluent concentration
Cetsd	mg/L	0.913	56.66	effluent pollutant concentration (max observed) adjusted by TSD method.
Cr Cr = (CsQs+CeQe)/Qr	mg/L	0.022	1.34	calculated resultant downstream pollutant concentration using mass balance method from max observed effluent concentration
Cr Crtsd = (CsQs+CetsdQe)/Qr	mg/L	0.025	1.40	calculated resultant downstream pollutant concentration using mass balance method from TSD adjusted effluent concentration
Stream Type		B2 - Warm Water, Medium-Gradient		
Calculated Instream Contribution from Effluent	mg/L	0.0098	0.609	difference between observed upstream concentration and calculated resultant downstream concentration. Mass Balance Method
2017 VWQS Threshold value	mg/L	0.027	N/A for Streams and Rivers	
VWQS Exceeded?		No	No	

#### **Total Nitrogen:**

The current permit for Essex Junction WWTF includes a weekly “monitor only” requirement for Total Nitrogen, Kjeldahl (TKN) from June 1<sup>st</sup> to October 31<sup>st</sup>. This limitation was originally issued for calculating the Ultimate Oxygen Demand (UOD) as  $UOD \text{ lbs} = [(BOD \text{ lbs} \times 1.43) + (TKN \text{ lbs} \times 4.57)]$ .

Over the past five years, Essex Junction WWTF voluntarily submitted summer nitrogen effluent screening for TAN, TKN, Nitrate (NO<sub>3</sub>), and Nitrite (NO<sub>2</sub>). All monitoring results submitted were used for assessing potential pollutant concerns for Total Nitrogen (TN).

TN is the sum of nitrate, nitrite, ammonia, soluble organic nitrogen, and particulate organic nitrogen. TN was calculated based on the sum of NO<sub>x</sub> and TKN, and shall be reported as pounds, calculated as:

Average TN (mg/L) x Total Daily Flow (MGD) x 8.34 = Pounds TN/day

where, TN (mg/L) = TKN (mg/L) + NO<sub>x</sub> (mg/L)

where, NO<sub>x</sub> (mg/L) = NO<sub>3</sub> (mg/L) + NO<sub>2</sub> (mg/L)

0.609 mg/L was the calculated change for in-stream Total Nitrogen concentration attributable to the Essex Junction WWTF effluent. Currently, there is no VWQS Total Nitrogen threshold criteria for streams and rivers. However, all municipal wastewater treatment facilities with discharges exceeding 1 MGD are required to



monitor for Nitrogen monthly. The draft permit shall include a “monitor only” weekly sampling requirement from June 1<sup>st</sup> to October 31<sup>st</sup> and monthly monitoring from November 1<sup>st</sup> to May 31<sup>st</sup> for Nitrate/Nitrite and TKN. Results shall be used to calculate Total Nitrogen. TKN results shall continue to be used to calculate Ultimate Oxygen Demand (UOD), for weekly monitoring from June 1<sup>st</sup> to October 31<sup>st</sup>. As mentioned previously, data reported for TKN will be used to estimate TAN reasonable potential for the next permit.

#### ***Total Phosphorus:***

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, the Secretary relies on a framework which examines TP concentrations in relation to existing numeric phosphorus criteria and response criteria in §29A-306(a)(3)(c) of the VWQS, for streams that can be assessed using macroinvertebrate biocriteria. Under this framework, a positive finding of compliance with the narrative standard can be made when nutrient criteria are attained, or 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.

#### ***Total Phosphorus Numeric Analysis:***

The Total Phosphorus concentrations in the Winooski River have not exceeded the 2017 nutrient criteria threshold of 0.027 mg/L or 27 ug/L Total Phosphorus in a Warm Water, Medium Gradient, Class B stream. The calculated change, presented in Table 6, for the in-stream Total Phosphorus concentration attributable to the WWTF effluent is 9.7 ug/L (0.0097 mg/L).

#### ***Total Phosphorus Nutrient Response Conditions Analysis:***

The Combined Nutrient Response Criteria for Aquatic Biota and Wildlife in Rivers and Streams at RM 16.3 on 9/9/2015 meets VWQS for pH, Turbidity, Dissolved Oxygen, and Aquatic Biota as shown below in Table 8. Therefore, the narrative standard presented in §3-01.B.2 of the VWQS is supported and the receiving waters comply with VWQS for Total Phosphorus but may still be subject to limits prescribed by VSA 1266a or a Phosphorus TMDL.

*Table 8. Assessment of Phosphorus Response Variables around the Essex Junction WWTF*

Response variable (VWQS reference)	Target Value	River-mile: 16.7 (Upstream) 9/9/2015	River-mile: 16.3 (Downstream) 9/21/2020
pH (§3-01. B.9)	6.5-8.5 s.u.	<i>Not collected</i>	8.14
Turbidity (§3-04. B.1)	< 25 NTU at low mean annual flow	3.02	5.4 (8/13/2020)
Dissolved Oxygen (min) (§3-04. B.2)	>5 mg/L and 60% saturation	<i>Not collected</i>	9.99 (102.6%)
Aquatic biota based on macroinvertebrates.	Attaining an assessment of good, or better.	<i>Not collected</i>	Meets VWQS (9/21/2020)

**Total Phosphorus Reasonable Potential Determination:**

Calculations in Table 7 indicate the discharge of Total Phosphorus does not cause concern for concentrations in the receiving water, as the results were less than the numeric thresholds listed in the VWQS. The facility had sufficient instream and effluent data to assess reasonable potential for the facility for Total Phosphorus. Based on calculations for critical pollutant concentrations in the receiving water, the facility meets the VWQS Nutrient Criteria threshold. Additionally, the instream response variables and biota meet VWQS. This facility does not have reasonable potential to discharge TP in amounts that would exceed the VWQS. No additional monitoring is necessary.

The current permit contains a weekly TP monitoring requirement with a 0.8 mg/L monthly average limit per 10 V.S.A. 1266a., which reads:

*“No person directly discharging into the drainage basins of Lake Champlain or Lake Memphremagog shall discharge any waste that contains a phosphorus concentration in excess of 0.80 milligrams per liter on a monthly average basis. Discharges of less than 200,000 gallons per day, permitted on or before July 1, 1991, shall not be subject to the requirements of this subsection.”*

Additionally, this WWTF is subject to the Lake Champlain Phosphorus TMDL, so there is no need to develop a WQBEL limit for Total Phosphorus. An annual Waste Load Allocation (WLA) of 0.911 mt/yr (2008 lbs./year) was established for this facility. This differs from the existing permit limit of 5663 pounds of phosphorus annual load. The WLA is based upon the design flow of 3.3 MGD. Monthly, or more frequent, monitoring shall be required to demonstrate compliance with the Phosphorus TMDL.

For the next permit term, phosphorus sampling shall be completed weekly and comply with the 10 V.S.A. 1266a 0.8 mg/L monthly average limitation for Total Phosphorus. Per compliance with the TMDL, the annual phosphorus loading rate will be reduced to 2008 lbs./year. The monitoring frequency should not change from the current permit. The permit should also require that a Phosphorus Optimization Plan (POP) be prepared.

**Total Residual Chlorine**

Total Residual Chlorine (TRC) consists of the sum of free chlorine and combined chlorine. Chlorine is a toxic substance with strict acute and chronic criteria. Due to the nature of Cl, the impacts of concern would be nearest to the outfall. The existing TRC daily instantaneous maximum limit of 0.1 mg/L was assessed to identify whether VWQS are supported ( $0.1 \text{ mg/L-TRC limit} \times 0.035 \text{ 7Q10-IWC} = 3.5 \text{ } \mu\text{g/L-TRC}$ ). The assessment proved that the existing limit supports VWQS criteria as 3.5  $\mu\text{g/L-TRC}$  is below the more stringent chronic criteria of 11  $\mu\text{g/L-TRC}$ . No changes for TRC monitoring are proposed.

Monitoring history shows the compliance limit of 0.1 mg/L was exceeded four times in the past five years (Table 1). The maximum value reported was 1.28 mg/L for TRC sampled on 1/31/2019 which is four times the chronic criteria and two times the acute criteria at 7Q10 flow conditions. This was resulting a frozen chemical feed line which has since been repaired. Prevention of high chlorine discharges can be mitigated with the use of best management practices, routine inspections, and good housekeeping practices.

**Summary of Reasonable Potential Determinations****Recommended Biological and Water Quality Monitoring**

As biological monitoring results indicate attainment of all thresholds, the stream complies with VWQS for all identified response variables, and the narrative standard presented in §29A-302(2)(A) of the VWQS is supported (as shown in Table 8), it is not necessary to include biomonitoring in the draft permit.

**Recommended Effluent Monitoring:**

In addition to the monitoring required in the current permit, the following monitoring is suggested for inclusion in the renewed permit to provide additional data to support future Reasonable Potential Determinations:

- To provide additional data for future assessments of WET reasonable potential, it is recommended that four, two species *Pimephales promelas* and *Ceriodaphnia dubia*, 48-hour acute and 96-hour chronic WET tests from composite effluent samples should be conducted in the upcoming permit cycle: two during the winter (January/February) and two during the summer (August/October). TKN, TRC, and Appendix J monitoring should be conducted concurrently with the WET tests.
- The next permit should include a monitoring condition for 40 CFR Part 122 Appendix J, Table 2 three times per permit cycle. Monitoring should coincide with WET tests when they occur.
- Further monitoring is necessary to assess pollutant assimilative capacity concerns for Total Zinc and Total Copper within the Winooski River. Both Total Copper and Total Zinc shall continue to be monitored to assess the assimilation capacity of metals in the Lower Winooski River. A monthly sampling frequency is proposed for both monthly average, weekly average, and daily maximum mass quantity and concentration for Total Copper and Zinc for the draft permit.
- The draft permit shall include a “monitor only” weekly sampling requirement from June 1<sup>st</sup> to October 31<sup>st</sup> and monthly monitoring from November 1<sup>st</sup> to May 31<sup>st</sup> for Nitrate/Nitrite and TKN. Results shall be used to calculate Total Nitrogen. TKN results shall continue to be used to calculate Ultimate Oxygen Demand (UOD), for weekly monitoring from June 1<sup>st</sup> to October 31<sup>st</sup>. TKN monitoring is recommended in lieu of additional TAN monitoring for the permit; inclusive of a specific reopener permit condition. Conditions shall be sampled concurrently with WET Testing and ACM when it occurs.
- For the next permit term, phosphorus sampling shall be completed weekly and comply with the 10 V.S.A. 1266a 0.8 mg/L monthly average limitation. Per compliance with the TMDL, the annual phosphorus loading rate will be reduced to 2008 lbs./year. The monitoring frequency should not change from the current permit. The permit should also require that a Phosphorus Optimization Plan (POP) be prepared.
- Annual Constituent Monitoring (ACM) is required for all major municipal direct discharge facilities and needs to be included in the draft permit for the following parameters: Temperature, Ammonia, Nitrate/Nitrite, Kjeldahl Nitrogen, Phosphorus, Dissolved Oxygen, Total Residual Chlorine, Oil & Grease, Total Dissolved Solids. The season in which samples are collected shall change chronologically from year to year to represent the seasonal variation of effluent constituents. The suggested 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).

**Conclusion:**

After review of available information, it has been determined that there is not a reasonable potential for the discharge to cause or contribute to a water quality violation, and as such, the development of WQBELs, other than the Lake Champlain Phosphorus TMDL requirements, will not be necessary. The nutrient response narrative requirements for Total Phosphorus are met and therefore there is no reasonable potential for this discharge to cause or contribute to water quality violations and the development of a WQBEL for Total

Phosphorus is unnecessary. This discharge does not appear to cause, have a reasonable potential to cause, or contribute to an instream toxic impact or instream excursion above the water quality criteria.

**Definition(s):**

“**Priority Metals**” are total metals commonly observed within wastewater treatment processes. The list includes the thirteen Priority Pollutant Metals specified in 40 CFR Part 122 Appendix J, Table 2 - Effluent Parameters for Selected Publicly Owned Treatment Works (POTWs). The Wastewater Management Program has the authority to incorporate priority pollutant numeric criteria per 40 CFR 131.11(b). Metals and symbols are presented in the table below.

Total Metals	Chemical Symbol
Antimony	Sb
Arsenic	As
Beryllium	Be
Cadmium	Cd
Chromium	Cr
Copper	Cu
Lead	Pb
Mercury	Hg
Nickel	Ni
Selenium	Se
Silver	Ag
Thallium	Tl
Zinc	Zn

# Memorandum

TO: Evan Teich, Unified Manager

Town of Essex Selectboard

Village of Essex Junction Trustees

FROM: Dennis Lutz, PE, Public Works Director

Jim Jutras, Village Water Quality Superintendent

Ann Costandi, PE, Town Storm Water Program Coordinator/Staff Engineer

Chelsea Mandigo, Village Stormwater Coordinator/ Wastewater Operator

DATE: 22 March 2021

SUBJECT: Reconstitution of the Town/Village Storm Water Coordinating Committee

**ISSUE:** The issue is whether or not the Selectboard and Village Trustees will reconstitute the Joint Stormwater Coordinating Committee for the purpose of providing recommendations and guidance to the Selectboard and Trustees on issues relating to meeting the continuing requirements of the National Pollution Discharge Elimination System (NPDES) MS4 Phase 2 General Permit (3-9014) issued to both communities.

## **DISCUSSION:**

**General Background and Update:** Both boards established this Committee in 2013 for the primary purpose of meeting the Flow Restoration Plan (FRP) and other requirements placed on the Town and the Village in the NPDES Phase 2 Permit issued at that time. The Committee met on a number of occasions and helped develop the joint approach to meeting the FRP requirements and expired permits issues. Four major FRP projects were identified as part of an overall community plan and to date three have been constructed. The fourth is scheduled for construction in late 2022. Grant funding was obtained for all the projects, thereby reducing the local costs significantly. A copy of the memo requesting the establishment of the Committee in 2013 is attached as well as a policy that was adopted to guide the Committee and the Committee members.

Over the past two years, there has been little need for the Committee to hold meetings since the Committee had met its primary goal of compliance with the primary tasks outlined in the Policy. However, the NPDES Phase 2 permit was reissued in July 2018 with changes now directing the effort to requiring reduction in the amount of phosphorus discharged to Lake Champlain from each community. The Village obtained a grant to develop a joint Town-Village Phosphorus Reduction Plan in the amount of \$50,000 with a fund match of 80/20%. The consultant has recently provided a draft of the proposed plan and the draft is under review. Compliance with the permit and the reduction target will need to occur over the next twenty years and will be

costly. In very general terms, the work will include stabilization of gravel roads and drainage from those roads, outfall improvements in both communities, increased street sweeping and reconstruction of many existing stormwater facilities that do not meet the standards needed for phosphorus removal and flow reduction.

Staff is of the opinion that the committee needs to be reconstituted and repurposed. On the list of Committee members, Max Levy is willing to continue serving as the Town representative and Harris Abbott as the Village representative. George Tyler has agreed to serve as the Village Trustee representative. A new representative will be needed to represent the Selectboard, and the administrative representative should be changed to Evan Teich or a designated representative in his absence. It is important that a Selectboard member be appointed to help provide Selectboard input into the process, especially since one of the major issues will be how to fund the needed improvements. The Committee would meet periodically – on the order of about every six weeks (+ or -).

The tasks for the committee have changed since earlier issues have to a great degree been addressed. A revised Policy document has been prepared by staff and is attached.

**RECOMMENDATION:** It is recommended that the Selectboard appoint a member of the Selectboard to serve on Joint Stormwater Coordinating Committee and approve the revised Policy document for the Committee.

# **JOINT STORMWATER POLICY COORDINATION COMMITTEE**

## **PURPOSE:**

The purpose of the Committee is to study and make recommendations to the Selectboard and Trustees on policy relating to common interests in complying with the NPDES Phase 2 MS4 Stormwater permit (3-9014) requirements. Further, the Committee shall explore and make recommendations relating to joint/cooperative stormwater management, operations, and funding of stormwater activity in both jurisdictions.

## **NEED:**

The individual NPDES Phase 2 MS4 permit issued to each community requires that a single Flow Restoration Plan and Phosphorus Control Plan be developed and adopted in each community. Both communities share a common interest for clean-up of impacted watersheds for flow reduction and for water quality impacts on Lake Champlain. Some level of new or upgraded stormwater infrastructure will be required to be financed, built, and managed in each community. The complexity of the stormwater issues facing both entities requires significant time and effort that the elected bodies cannot provide in the required compliance time frames without study and input from a program management-oriented Stormwater Policy Coordinating Committee.

## **MEMBERSHIP:**

The Committee shall consist of the following members:

- 1) Unified Manager or designated representative
- 2) Selectboard Member appointed by the Selectboard
- 3) Trustee member appointed by the Village Trustees
- 4) Village Stormwater Staff - Water Quality Superintendent
- 5) Village Stormwater Staff - Stormwater Coordinator
- 6) Town Public Works Director
- 7) Town Stormwater Coordinator
- 8) Town Representative appointed by the Selectboard who has served previously on the Committee or who has experience with stormwater water quality issues and permits
- 9) Village Representative appointed by the Trustees who has served previously on the Committee or who has experience with stormwater water quality issues and permits

## TASKS

- 1) Continue monitoring the progress of the projects identified under the adopted Town and Village Flow Restoration Plan until such a time that implementation of the NPDES Phase 2 Permit FRP compliance is obtained.
- 2) Study and make recommendations relative to Phosphorus Control Plans (PCP) for each community prior to the adoption of the PCP by the Selectboard and Trustees, to include but not be limited to:
  - a) Make recommendations regarding the draft PCP
  - b) Review and make recommendations on projects proposed for implementation to meet the PCP required phosphorus reduction levels in each community
  - c) Make recommendation(s) regarding funding of the work required to meet the PCP
  - d) Make recommendations regarding stormwater controls/standards for new development to assist the communities in meeting the PCP
  - e) Study and make recommendation regarding a stormwater assessment for new development to assist the two communities in financially meeting the requirements of the PCP
- 3) Review the stormwater budget, stormwater management structure, and stormwater operations in each community and make recommendations where either greater efficiencies or reduced costs or both can be achieved through joint efforts. Perform the same review for stormwater planning and local regulation development as it relates to the appropriate requirements for review of these documents under the NPDES Phase 2 permit.
- 4) Other stormwater-related study elements as set forth by the Selectboard and Trustees or identified within the NPDES Phase 2 Permit for consideration.



## JOINT STORMWATER POLICY COORDINATION COMMITTEE MEMBERS

<b>Name</b>	<b>Representing</b>	<b>Phone Number</b>	<b>E-mail</b>
Patrick C. Scheidel	Town and Village	(802) 878-1341	pscheidel@essex.org
R. Michael Plageman	Essex Selectboard	(802) 879-1989	mikeppgd@comcast.net
George Tyler	Village Trustees	(802) 878-7785	gtyler@essexjunction.org
Jim Jutras	Village Staff	(802) 316-6132	jim@essexjunction.org
Chelsea Mandigo	Village Staff	(802) 878-6943	chelsea@essexjunction.org
Dennis Lutz	Town Staff	(802) 878-1344	dlutz@essex.org
Annie Costandi	Town staff	(802) 878-1344	acostandi@essex.org
Max Levy	Town permit Rep.	(802) 598-5029	Maxglevyinessex@aol.com
Harris Abbott	Village permit Rep.	(802) 878-4873	harris.abbott1@myfairpoint.net
			jabbott4111@myfairpoint.net

# Memorandum

TO: Patrick C. Scheidel, Town and Village Manager

Essex Selectboard

Essex Junction Trustees

FROM: Dennis E. Lutz, P.E., Essex Public Works Director

Jim Jutras, Village Water Quality Superintendent/Stormwater Coordinator

DATE: 18 July 2013

SUBJECT: Plan for Stormwater Permit Compliance Coordination between the Town and the Village

ISSUE: The issue is whether or not the Essex Selectboard and the Village Trustees will create a Joint Stormwater Policy Coordination Committee for the primary purpose of providing recommendations and guidance to the Selectboard and Trustees on issues relating to meeting the requirements of the National Pollution Discharge Elimination System (NPDES) MS4 Phase 2 General Permits (3-9014) recently issued to the Town and Village. If authorized by the respective Boards, the Committee's role could be expanded to development of other aspects of stormwater policy beyond the minimum permit requirements.

## DISCUSSION:

General Background and Update: Both elected Boards have been briefed by their respective staffs over the past few months on the referenced permit that was issued in December of 2012. It is not the intent of this memo to revisit the entire list of compliance requirements. Both the Village and the Town submitted their Notification of Intent and updated Stormwater Management Plans to the Vermont Agency of Natural Resources (VANR) by the required due date of 3 June 2013. Staff from the VANR is in the process of reviewing the documents and we anticipate being required to make some changes before final approval by VANR. Once the State approves the NOI's and Stormwater Management Plans, they will issue an Authorization to Discharge which sets in motion a number of time sensitive actions that must be taken by the permit holders.

Two important issues will need to be addressed very early in the timetable for compliance. The first is stream flow monitoring (due 3 months after the Authorization to Discharge is issued) and the second is the handling of expired permits in the impaired watersheds (due 6 months after the Authorization to Discharge is issued).

Stream Flow Monitoring: At this time, the two staffs are pursuing options on the stream flow monitoring issue. The Agency of Natural Resources did not follow through on commitments made earlier to the NPDES MS4 Phase 2 permit holders that the Agency would

determine a way to run the program if the permit holders picked up the cost. They took the issue to the Legislature but it never made it out of Committee. The permit holders never learned of this until well into the summer. A small group of permit holders is meeting to determine the feasibility of using a third party contractor to manage the required monitoring program. When the group asked the State to provide the parameters of what is involved (i.e., number of sites, locations, type of monitoring controls, number of tests to be taken), the State has yet to respond. We do not believe they have thought the process through and are only doing it now that the permit has been issued. Because of the costs involved and the need to share costs in the monitoring program, the Coordinating Committee should review and provide input regarding how the program can be developed with one “management system” for the two communities.

Expired Permits: This issue has both short –term and long term implications for both communities. Decisions made early in the process can have major ramifications later when the Stream Flow Restoration Plans are developed and major costs may be incurred by the two communities.

To better understand this issue, it is appropriate to look at the end of the permit process and work backward. Ultimately, the end game is to have the two impaired streams de-listed as impaired waterways with the effort obtained at least cost. The clean-up of both streams involve multiple partners. On Sunderland Brook, it is the Village and the Town and to a lesser degree VTRANS and Colchester that are the affected MS4 permit holders. On Indian Brook, it is the Town and Village and to a lesser degree VTRANS. It is highly likely that facilities to treat or detain stormwater will need to be built in each community. The Flow Restoration Plans developed later in the permit process will look at each of the watersheds and determine where the biggest gains can be made at lowest cost. The final solution may involve building some stormwater systems in one community that eliminate the need for building a similar system in the other community.

The list of currently undetermined projects will likely require long-term financing (bonds), since the improvements will be expensive and there is little likelihood of obtaining grant assistance. The political reality is that if the process is handled independently by each community, stormwater systems may be built that are duplicative. In addition, Village residents would have to pay for their own system upgrades and the Town residents (including the Village) would have to pay for new systems outside the Village. This is not a viable financial or political scenario. A better solution is one where the two elected Boards work together to arrive at some form of joint collaboration on stormwater compliance.

The purpose of this memo is not to determine how this will be accomplished but to set the process in motion for discussion of a future solution.

How does this relate to the expired permits? There are expired permits in both communities as well as discharges to these two streams that have no permits. For example, in the Town outside the Village there are 35 discharges into Sunderland Brook and 20 parcels with

expired permits. In many cases, the expired permits discharge stormwater into the public system catch basins in Town accepted streets. One example is expired permit #1-0896 which covers the commercial properties on David Drive (Pizza Hut, Oil and Go, etc.). There are large impervious areas on these lots that discharge into the Town storm system that starts on Susie Wilson Road and discharges over the bank off the cul-de-sac on David Drive. Another example is the residential development known as Shillingford Crossing off Pinecrest Drive. The residential house footprints and driveways contribute runoff to the Town street system. In both these cases, private stormwater is co-mingled with the public stormwater off the streets. Other discharges in the watershed go directly from private lands to the stream.

The prior paragraph only identifies the numbers from one of the Town watersheds. Indian Brook in the Town adds another 20 outfalls and 24 expired discharge permits. Some of the expired discharge permits comeingle and go to a single outfall, which explains why there are more expired discharge permits than outfalls. In the Village, there are similar numbers of expired permits. We have identified at least 11 potential types of system-permit combinations and so there is the potential for many alternative approaches.

The questions are these: If the Town or Village accepts the full responsibility for the expired permits now, do the Town or Village taxpayers or both later pay the entire bill for improvements that are necessary to meet the TMDL stream requirements? Additionally, what are the legal implications if the communities treat property owners differently (commercial or residential)? Should the communities “trade” permit responsibility for land on which to construct systems? What legal mechanisms do the communities have to “force” acceptance of joint permit responsibilities? Should the Boards just accept full responsibility for the stream clean-up and spread the costs for the clean-up over their respective jurisdictions?

These are all tough questions with no easy answers. Early decisions can drive later decisions that may not be palatable for the two communities. Also, if the ultimate solution may involve some form of one-party bonding, should the two Boards develop a consistent joint policy well before that decision has to be made?

Currently, the Town staffs are working with the State to get a better understanding and description of each expired permit. In the Town, the plan is to produce GIS maps that provide the overlays of the storm systems and property lines in each impaired watershed. This will then be overlaid, after meeting with the State, with the limits of the expired permits to give a visual description of what areas and properties are affected. We anticipate that this will be done within the next month. It is recommended that the Village prepare similar GIS maps or coordinate a similar mapping effort with the Town.

#### **BASIS FOR RECOMMENDATION:**

In my opinion, the appropriate way to proceed is for both the Village Trustees and the Town Selectboard to establish a Joint Stormwater Policy Coordination Committee to develop

recommendations for the two Boards to consider relative to meeting the requirements of the NPDES Phase 2 MS4 Permit. Further, the Committee should consist of the following:

- 1) Town/ Village Manager – ex officio member - Patrick C. Scheidel
- 2) Selectboard Member appointed by the Selectboard
- 3) Trustee Member appointed by the Trustees
- 4) Village Stormwater Staff- Jim Jutras with staff support (Chelsea Mandigo)
- 5) Town Public Works Staff- Dennis Lutz with staff support (Annie Constandi)
- 6) Town Representative appointed by the Town Selectboard who is a representative from one of the current, expired discharge permit holders
- 7) Village Representative appointed by the Village Trustees who is a representative from one of the current, expired discharge permit holders

From time to time, it may be necessary for the appointed group to informally involve other Town staff such as the respective Planning Department Heads, the Highway Superintendents or others.

As with any appointed committee, it is important to establish tasking, limits, timetables and end products. An attempt has been made to provide a first cut on an attachment to this memorandum. An important element of the Committees' work would be to provide guidance to the elected Boards prior to any decision that must be made on the expired permits. My best estimate of time frame is that the decision on the expired permits must be made probably well before 1 March 2014.

#### RECOMMENDATION:

It is recommended that the Essex Selectboard and the Village Trustees create a Joint Stormwater Policy Coordination Committee for the primary purpose of providing recommendations and guidance to the Selectboard and Trustees on issues relating to meeting the requirements of the National Pollution Discharge Elimination System (NPDES) MS4 Phase 2 General Permits (3-9014) recently issued to the Town and Village.

# **JOINT STORMWATER POLICY COORDINATION COMMITTEE**

## **PURPOSE:**

The purpose of the Committee is to study and make recommendations to the Selectboard and Trustees on policy relating to common interests in complying with the NPDES PHASE 2 MS4 Stormwater Permit (3-9014) requirements. Further, the Committee shall explore and make recommendations relating to joint /cooperative stormwater management, operations and funding of stormwater activity in both jurisdictions.

## **NEED:**

The individual NPDES PHASE 2 MS4 Permit issued to each community requires that a single Flow Restoration Plan be developed in each of the impaired waterways -- Indian and Sunderland Brooks. Both communities are the principle municipalities responsible for clean-up of these watersheds. Eventually, some level of new or upgraded stormwater infrastructure will be required to be financed, built and maintained in both municipalities. With the current political and financial governmental relationship, a joint and coordinated approach to some or all aspects of permit compliance has the potential to reduce costs and improve the efficiency of delivered services in both communities. The complexity of the stormwater issues facing both entities requires significant time and effort that the elected bodies cannot provide in the required compliance time frames without study and input from a program management-oriented Stormwater Policy Coordinating Committee.

## **MEMBERSHIP:**

The Committee shall consist of the following members:

- 1) Town/ Village Manager – ex officio member - Patrick C. Scheidel
- 2) Selectboard Member appointed by the Selectboard
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## TASKS:

- 1) Receive input from staff on the required stream flow monitoring program and recommendation(s) on the most appropriate way to proceed.
  - a. Make a recommendation to the Boards on management and funding of the required stream flow monitoring program.
  - b. Complete preliminary work on this issue prior to 1 January 2014 as a target date
- 2) Develop recommendations relative to municipal partial/ full /no acceptance of responsibility for expired permits in the impaired waterways.
  - a. Review all existing permits to better understand commonalities/differences
  - b. Review the VANR documentation relative to the implications of accepting partial or full or no expired permit responsibility
  - c. Develop pros/cons on potential recommendations with respect to the three approaches
  - d. Recommend an approach
  - e. Complete preliminary work on this issue prior to 1 January 2014 as a target date
- 3) Develop recommendations for joint development of the Flow Restoration Plans for both impaired waterways by spring 2014.
- 4) Review the stormwater budgets, stormwater management structure and stormwater operations in each community and make recommendations where either greater efficiencies or reduced costs or both can be achieved through joint or directed efforts. Perform the same review for stormwater planning and local regulation development as it relates to the appropriate requirements for review of these documents under the NPDES PHASE 2 permit (with no set time frame).
- 5) Participate in the development of the Flow Restoration Plans with recommendations for potential coordinated or joint funding, operation and maintenance of facilities (with no set time frame).
- 6) Other stormwater-related study elements as set forth by the Selectboard and Trustees.

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## TOWN OF ESSEX VERMONT

### MEMORANDUM OF AGREEMENT BETWEEN TOWN OF ESSEX AND VILLAGE OF ESSEX JUNCTION RE: STORM WATER PERMITTING AND MANAGEMENT SERVICES

This Memorandum of Agreement (Agreement) is entered into this 13<sup>th</sup> day of January 2015, by and between the Town of Essex ("Town") and Village of Essex Junction ("Village").

#### WITNESSETH:

WHEREAS, both the Village and the Town are authorized to discharge storm water within their respective municipal borders pursuant to an Authorization to Discharge Under Municipal Separate Storm Sewer System (MS4) General Permit 3-9014; and

WHEREAS, as MS4 permit holders, both the Village and the Town are subject to similar permit compliance obligations, including the payment of annual operating fees to the State of Vermont (State), the development of plans for addressing expired state storm water permits discharging into their respective MS4 systems, the filing of semi-annual and annual reports, and the development of a Flow Restoration Plan (FRP); and

WHEREAS, presently there are two designated impaired waterways located within the Town and the Village—Indian Brook and Sunderland Brook—which flow through both communities in shared watersheds; and

WHEREAS, the MS4 General Permit 3-9014 requires communities in shared watersheds to work collectively to develop watershed-based FRPs; and

WHEREAS, the Village and Town previously formed a Joint Storm Water Coordinating Committee (SWCC), which developed a common ordinance for handling expired permits in the impaired waterways for both municipalities and is presently developing a joint FRP; and

WHEREAS, proposed total maximum daily load (TMDL) requirements for phosphorous flowing into Lake Champlain will require the continued coordination of storm water planning and improvements by the Village and Town; and

WHEREAS, section 4901 of Title 24, Vermont Statutes Annotated, allows a municipality to contract with another municipality to perform any governmental service, activity or undertaking which each municipality is authorized by law to perform, provided the legislative body of each municipality approves the contract and the expenses for such governmental service are included in a municipal budget approved under 17 V.S.A. § 2664 or comparable charter provision; and

WHEREAS, the Village and the Town desire to continue their coordinated efforts with respect to storm water permit compliance and program management by creating one cost center within the Town's annual budget;

NOW THEREFORE, in consideration of the mutual covenants and agreements hereinafter set forth, the parties hereto agree as follows:

1. On or before January 15<sup>th</sup> of each year, the Village Board of Trustees shall provide the Town Selectboard with a budget amount for storm water permit compliance and program management within the Village for inclusion in the Town's annual budget. The costs to be included in the Village's budget amount shall be: (1) all salaries and benefits of Village employees involved in storm water permitting and management; (2) State storm water permit fees; (3) payments to the State for required stream flow monitoring; (4) GIS support for storm

water system mapping; (5) field data collection costs required under storm water permits; (6) consultant studies determined necessary by the SWCC; (7) employee storm water training and travel to effect permit compliance; and (8) minor storm water system design costs required for implementation of permit-required storm water system improvements.

Unless otherwise agreed by the Town and Village, the amounts submitted by the Village Board of Trustees for inclusion in the Town budget shall not include funds for the repair, maintenance or reconstruction of existing storm water system infrastructure in the Village, including catch basins, pipelines, outfalls, culverts and related structures, which shall continue to be a Village expense separate and apart from storm water permit compliance and program management costs.

2. The Town Selectboard shall include the storm water permit compliance and program management costs provided by the Village Board of Trustees pursuant to section 1, above in the Town's annual budget for approval by the legal voters of the Town at its annual meeting in March pursuant to 24 V.S.A. Appx. Ch. 117, § 303. In the event the voters do not approve a budget that includes the Village's storm water permit compliance and program management costs, then this Agreement shall be null and void and the Village shall remain responsible for raising such funds through the Village budgeting process.

3. The Town shall be responsible for paying all Town and Village storm water permit compliance and program management costs during each fiscal year that the voters approve the inclusion of the Village's costs in the Town budget, including costs associated with the proportionate salaries and benefits of the Village Water Quality Superintendent (33%) and the Village Environmental Technician (20%). The stated percentages are subject to change upon the mutual agreement of the Parties.

4. The SWCC shall continue in place to assist with the coordination of storm water activities within each municipality. The SWCC shall make recommendations to the Village Board of Trustees and the Town Selectboard for the inclusion of additional costs in the combined storm water budget for future budget years, including major storm water system design and construction costs as required by a State-approved FRP. The SWCC also shall make recommendations to the Village Board of Trustees and the Town Selectboard concerning development of a separate charge or fee for storm water permit compliance and program management separate and distinct from the Town General Fund if determined to be in each party's "best interests."

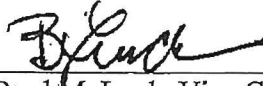
5. This Agreement may be modified only by a written amendment signed by the Parties. If any provision of this Agreement shall be found to be invalid, inoperative or unenforceable in law or equity, such finding shall not affect the validity of any other provisions of this Agreement, which shall be construed, reformed and enforced to effect the purposes of this Agreement to the fullest extent permitted by law. This Agreement shall be governed by and construed under the law of the State of Vermont, without application of principles of conflicts of laws, and constitutes the entire agreement of the Parties with respect to the subject matter hereof, superseding all prior oral and written communications, proposals, negotiations, representations, understandings, courses of dealing, agreements, contracts, and the like between the Parties in such respect.

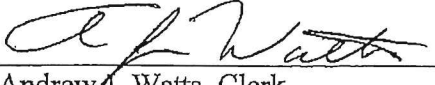
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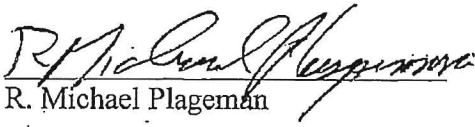
IN WITNESS WHEREOF, the parties hereto have set their hands the day and year first above written.

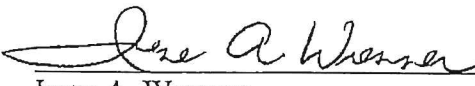
For the Town of Essex Selectboard

  
Max G. Levy, Chair

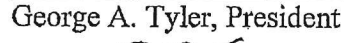
  
Brad M. Luck, Vice Chair


  
Andrew J. Watts, Clerk


  
R. Michael Plageman

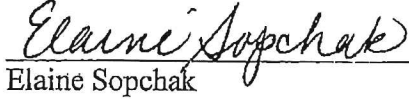
  
Irene A. Wrenner

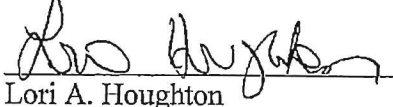
For the Village of Essex Junction Board of Trustees

  
George A. Tyler, President

  
Daniel S. Kerin, Vice President

  
Andrew Brown

  
Elaine Sopchak

  
Lori A. Houghton

VILLAGE OF ESSEX JUNCTION TRUSTEES  
REGULAR MEETING MINUTES  
March 16, 2021

**TRUSTEES:** Andrew Brown (President), George Tyler (Vice President), Dan Kerin, Amber Thibeault.

**ADMINISTRATION and STAFF:** Evan Teich, Unified Manager; Robin Pierce, Community Development Director.

**OTHERS PRESENT:** Kelly Fiske

**1. CALL TO ORDER**

Andrew Brown called the meeting of the Village of Essex Junction Trustees to order at 6:30 PM.

**2. AGENDA ADDITIONS/CHANGES**

None at this time.

**3. AGENDA APPROVAL**

Not needed at this time.

**4. PUBLIC TO BE HEARD**

**a. Comments from public on items not on agenda**

Ms. Fiske said she is interested in commenting on the changes that will take place on the Autumn Pond development. Mr. Pierce advised that members of the public interested in speaking on the Autumn Pond development attend the Planning Commission meeting on Thursday, March 18.

**5. BUSINESS ITEMS**

**a. Discussion and potential action on real estate purchase or lease**

George Tyler made a motion, and Dan Kerin seconded, that the Trustees approve the attached agreement, deed, and any associated documents with Mr. Kalanges, to enable the Connector road to move forward to bidding and construction and authorize the Village Manager to sign said agreement, subject to September, 2019 resolution.

**6. EXECUTIVE SESSION:**

**a. To discuss a real estate matter**

Andrew Brown made a motion, and George Tyler seconded, that the Trustees enter into executive session for the purpose of negotiating or securing of real estate purchase or lease options, pursuant to 1 V.S.A. § 313(a)(2), to include the Unified Manager, Village Engineer, Village Attorney, and Community Development Director. The motion passed 5-0 at 6:34 PM.

Dan Kerin made a motion, and Amber Thibeault seconded, to exit executive session. The motion passed 5-0 at HH:MM PM

**7. ADJOURN:**

Raj Chawla made a motion, and Dan Kerin seconded, to adjourn the meeting. The motion passed 5-0 at HH:MM PM.

Respectfully Submitted,

**VILLAGE TRUSTEES  
(DRAFT)**

**March 16, 2021**

49 Amy Coonradt  
50 Recording Secretary

51  
52 Approved this \_\_\_\_\_ day of \_\_\_\_\_, 2021

53  
54 **(see minutes of this day for corrections, if any)**

55  
56

DRAFT



**SELECTBOARD & TRUSTEES  
(DRAFT)**

**TOWN OF ESSEX SELECTBOARD  
VILLAGE OF ESSEX JUNCTION TRUSTEES  
DRAFT JOINT MEETING MINUTES  
Monday, March 22, 2021**

**SELECTBOARD:** Elaine Haney, Chair; Vince Franco; Dawn Hill-Fleury; Patrick Murray; Andy Watts

**TRUSTEES:** Andrew Brown, President; Raj Chawla; Dan Kerin; Amber Thibeault; George Tyler

**ADMINISTRATION and STAFF:** Evan Teich, Unified Manager; Greg Duggan, Deputy Manager; Jill Evans, Director of the Essex Community Justice Center; Ron Hoague, Chief of Police; Marguerite Ladd, Assistant Manager; Brad Luck, Essex Junction Recreation and Parks (EJRP) Director; Sarah Macy, Finance Director; Robin Pierce, Community Development Director; Allyson Vile, Parks & Recreation Director

**OTHERS PRESENT:** Wayne Beebe; Bob Burrows; Alise Certa; Heidi Clark; Diane Clemens; Annie Cooper; Tracey Delphia; Erin Dickinson; Betsy Dunn; Natalie Feilchenfeld; Rosy Gallo; Maureen Gillard; Rachael Lizotte; Erin Maguire; Edward Malina; Susan McCormack, Creative Discourse; Timothy Miller; Scott Moore; Sarah Nosek; Betty Poulin; Roseanne Prestipino; Ta-Tanisha Redditta; Rep. Marybeth Redmond; Brian Shelden; Ken Signorello; Margaret Smith; Gabrielle Smith; Saramichelle Stultz; Liz Subin; Mike Thorne; Ann Wadsworth; Phyllis Willey; Irene Wrenner; Tom Yandow; Johnson; Nicole; RM; Rob

**1. CALL TO ORDER**

Mr. Brown called the Village of Essex Junction Board of Trustees to order for the Joint meeting with the Essex Selectboard at 6:32 PM.

Ms. Haney called the Town of Essex Selectboard to order for the Joint meeting with the Village of Essex Junction Board of Trustees at 6:32 PM.

**2. AGENDA ADDITIONS/CHANGES**

There were no additions or changes to the agenda. Mr. Franco read "An Invitation to Civility" from the book *All Those in Favor* by Susan Clark and Frank Bryan.

**3. APPROVE AGENDA**

With no changes to the agenda, approval was not required.

**4. PUBLIC TO BE HEARD**

Mr. Signorello asked about the status of the Memorial Day parade. Mr. Teich said the parade will not take place in 2021, due to COVID restrictions.

**5. BUSINESS ITEMS**

**a. Presentation of racial equity work in Essex from Creative Discourse**

Ms. McCormack, founder of Creative Discourse, set context for Essex's Racial Equity efforts, including the pandemic, national racial violence and protests, and inequalities experienced by black, Indigenous, and people of color (BIPOC). She presented a slide deck of Essex's Safety, Policing & Racial Justice engagement process with Creative Discourse, which included data collected from surveys and listening sessions; outcomes of their process; and suggested next steps. She said they aimed to answer the following questions: How do people envision public safety? What are people's experiences with public safety and policing in Essex? How do people want to make Essex a safer place to live and work? Ms. McCormack provided information about the demographics of participants and described a shared vision for safety in Essex. She

illustrated people's different experiences in Essex, based on the identities they hold, and displayed rates and comparisons about how safe people feel living in Essex: if people have experienced or observed racism in Essex; people's overall experience with police anywhere; and people's experience with the Essex Police Department. She shared ideas they gathered from the process, including representative leadership; police reforms; and building community commitment to equity, inclusion, and racial justice. She provided an overview of action ideas for Essex, including community policing, and collaborative planning. She described the work of the Collaborative Planning Team, a multi-racial/ethnic group of youth and adults and community members. Ms. McCormack talked about current and emerging, equity, action-planning efforts with the Essex Westford School District (EWS), the municipality of Essex, the Community Justice Center, and the Police Department. She provided an outline of recommendations from Creative Discourse for moving forward with the work, including new priorities, action plans, and collaborations.

Mr. Chawla spoke positively about his experience on the Safety, Policing, and Racial Justice collaborative-planning team, calling it a good start to a longer process. He said greater diversity on staff and boards is a priority and that he appreciates the municipalities and schools working together.

Ms. Maguire also spoke positively about the process with Creative Discourse and the collaborative-planning team. As a school leader she appreciated Creative Discourse's process of involving school boards and leadership to trainings at the onset. She said diversifying the workforce and leadership in Essex is a priority.

Ms. Dunn said these efforts are moving in the right direction and talked about the work ahead, given the centuries of belief systems involved. She said it is essential to involve the Asian community, considering recent racist attacks. She thanked Ms. McCormack for her help.

**b. Presentation from Economic Development Commission about ongoing work**

Ms. Cooper, the Economic Development Commission (EDC) chair, discussed the EDC's ongoing work, including the 2021 work plan, strengthening business contacts, and coordinating online media. She described alignment of efforts between the Greater Burlington Industrial Corporation (GBIC), the Energy Committee, the Bike Walk Advisory Committee, the Tree Advisory Committee, and the Essex Junction Village Planning Commission. She said the EDC will also reach out to the Housing Commission and the Town of Essex Planning Commission. Ms. Cooper discussed the EDC's effort to build its contact list from 40 businesses last year to 1,500 businesses now. She said the EDC has been looking into a local option tax, building on conversations with the Selectboard and Trustees. She said the EDC will survey businesses, invite board members to share their thoughts, and gather feedback from the community on the possibility of the local option tax. She said the EDC will give the information they gather to the Selectboard and Trustees to determine whether to put a local option tax on a future ballot. She clarified that, at this time, nobody is deciding on the tax and that the public must vote before anything could be incorporated.

Mr. Teich and Mr. Brown said they looked forward to hosting more events like Out & About. Mr. Franco, Ms. Makuku, and Mr. Pierce commended staff, board members and the EDC team for the event's success. Mr. Brown suggested Board members email their thoughts on the local option tax to the EDC. Mr. Watts said he forwarded his comments about the local option tax to the EDC, because his change in jobs means he is no longer restricted by his former employer about commenting on the topic. Ms. Haney commended the EDC for bringing committees together to focus on shared work. She said the 1500 businesses listserv represents a strong business at foundation in Essex and she is looking forward to continued momentum.

Rep. Redmond expressed appreciation of the EDC's work and shared relevant news from the legislature. She described Friday's Senate-approved Covid recovery package, which could benefit Essex businesses.

Ms. Wrenner suggested that the boards consider only holding an advisory vote about whether the community wants to pursue a local option tax again, since it has failed in the past.

Ms. Dunn asked if the EDC would be working on Essex's plans for the marijuana legislation. Mr. Duggan said that staff will work on outreach to help boards make an informed decision.

c. **Presentation of changes at Indian Brook Park – Ally Vile**

Ms. Vile summarized the memo she provided regarding changes to Indian Brook Park access. She described the honor system previously in place and the costs incurred for park maintenance and upkeep. She described the new Indian Brook access process which requires new passes at the gate. She said the system is similar to what other parks do and described the differences between season and day passes. She explained vehicle passes, for individual vehicles; flex passes, used on multiple vehicles; and pedestrian passes, for bikers or pedestrians; and the option for a dog endorsement. She explained that the new changes will allow Essex Parks and Rec to better quantify park use by people and dogs. Ms. Vile said revising the park access was a collaborative process focused on customer service.

The board members asked questions about the changes. Ms. Thibeault asked for clarification on the transition of people with current passes and whether people could pay for passes at the park. Ms. Vile explained that everyone with a current pass will get a new pass for the season and then could buy new passes for the next season. She said people can buy the passes at the park, or at the Parks and Rec office during business hours. Mr. Watts wondered whether Parks and Rec connected with the Police Department about enforcing the new parking ordinance on Indian Brook Road. Ms. Vile said she would connect about this and said changes to the gatehouse may also help with parking. Mr. Chawla asked Ms. Vile how they justified the 60% increase for a two-year pass. Ms. Vile shared examples of how the previous structure was unrealistic to be able to keep up with management of the 700-acre park. Mr. Chawla talked with Ms. Vile about the lack of current data on park use which could be rectified by this new pass structure. Ms. Haney and Ms. Vile discussed a future goal for the park to become self-sustaining enterprise fund.

Ms. Margaret Smith hoped that the new dog passes could allow only a limited number of dogs per person and described her concerns about safety and waste when big packs of dogs access the park. She also wondered if Parks and Rec will verify residency for pass holders. She talked about the high usage of the park and asked if they would consider re-establishing senior rates.

Ms. Dunn asked for clarification on pass pricing and Mr. Duggan shared the flyer of rates.

Ms. Feilchenfeld, a former resident of Essex and 20-year, non-resident, park pass-holder, expressed concerns with the proposed changes that will affect non-resident passes. She said the cost increase to non-residents may also cause other communities to put up this type of barrier to people who want to use other parks.

Ms. Delphia wondered if it would be possible to purchase a dog endorsement with just the daily rate or if it is only offered with a flex pass. She also wanted to know if the changes would eliminate the current senior discount.

Mr. Signorello asked about the costs associated with the Indian Brook Dam's upkeep.

Ms. Wrenner said her family has expressed concern about dog waste at the park. She said she hopes the park staff will revoke passes when people do not abide by the waste rule for dogs.

In response to questions from the public, Ms. Vile said:

- Parks & Rec can consider dog number limits and the possibility of reinstating senior rates.
- Moving to daily pass purchases for non-residents is going in the right direction for Parks & Rec.
- A dog pass can be purchased with a day pass or a season pass.
- Indian Brook's municipal dam is considered a high priority for the state and makes it eligible for grants. She said it is inspected each year to determine repair requirements.
- Dog waste and behavior is a constant issue and when people have been identified, passes were, and will continue to be, revoked. However, there is not enough staff for constant enforcement of dog behaviors or people's behaviors related to dogs.
- When the fee structure was developed, the subgroup of non-residents who are dedicated to using the park, were not provided more privilege than any other non-residents.

**d. Discussion about potential merger and other scenarios for Village of Essex Junction and Town of Essex**

Ms. Haney talked about next steps for the petition-led ballot question in the Town. Mr. Brown talked about preparations for the Village Annual Meeting and talked about the petition-led, non-binding resolution which advises the Trustees to take steps toward separation if the revote does not pass. He clarified that Village residents will vote on both ballot questions. Ms. Haney said the Informational Hearing with the Selectboard about the reconsideration vote is scheduled for Thursday, March 25. Mr. Tyler explained what a non-binding resolution is and Mr. Brown said this resolution was presented to the Trustees with signatures from more than 400 residents. There were no public comments at this time.

**e. Consider approval of FAQs and postcard mailing about upcoming vote on reconsideration of merger**

Ms. Haney invited the Selectboard to consider approval of the FAQs and a postcard mailing about the upcoming vote on reconsideration of merger. Mr. Duggan clarified that the postcard and ballots are being mailed to all active, registered voters. Ms. Hill-Fleury suggested including wording on the postcard for people to look at both sides of the ballot. Mr. Watts said he would prefer to not put out new information generated for the FAQ without going through an entire drafting and revision process. He said he wanted to avoid any confusion that may be generated by including information about separation. Mr. Duggan and Mr. Teich said the information was included because staff are being asked the questions on a daily basis and people are posing the questions on social media. Mr. Murray said he supports including separation information on the FAQ document because people want to know the consequences of voting down the merger. He said it is important to give residents information as the Village considers the non-binding resolution ballot question.

Ms. Evans agreed with Mr. Murray. She said the merger is confusing so adding the information about separation helps people consider what may happen if there is no merger.

Ms. Wrenner said it is inappropriate for the Selectboard to put out information about separation on the web or on a postcard.

Mr. Signorello said he did not see information anywhere on the postcard about tax savings or increases with the merger and said this information is important and should be included.

Ms. Clemens said she feels represented when the Town provides objective information on the issues. She said it is offensive to say that something happening within the Town, even though it may be happening currently only in the Village, should not be communicated.

Mr. Shelden agreed with Ms. Clemens that neutral information about a common question people want to understand should be included: What are half of the Town residents voting on?

Ms. Stultz said she is concerned that if information does not go out to people in the Town, including the Village, people could criticize the board for not being transparent.

Ms. Smith said people are in various places of readiness to vote and are not sure where to go for accurate information because it is hard to weed out perspectives from residents who are entrenched in their opinions. She said information about the Village vote is important to include.

The Selectboard members and staff discussed how to proceed with the FAQ and the postcard. Mr. Duggan clarified that the FAQ would be posted on the GreaterEssex2020 and Town websites, so there could be time for a revision process, but the postcard needed to be addressed during this meeting. He said the FAQ questions and answers were based on questions staff have been hearing for months. Mr. Kerin said if the merger does not pass, even though the question on the Village ballot is a non-binding resolution, it is unlikely that the municipalities will return to status quo. Mr. Chawla said, as a Town resident, it is important for information to be shared because one half of the Town is talking about a serious potential consequence if merger does not pass. Mr. Watts restated that he wanted a drafting process for the FAQ. He wondered if a similar document were on the Village website, so they could make the FAQ comparable. Ms. Haney expressed concern with unintentional consequences that can come up when the Selectboard takes a stance in the majority, with Mr. Watts dissenting. Ms. Hill-Fleury approved of both documents, if the card includes a note saying that people can go to the website to learn more about the tax implications of merger. Mr. Murray said he would not mind splitting the vote to address the two items separately.

**PATRICK MURRAY made a motion, seconded by DAWN HILL-FLEURY, to approve sending the postcard to the active voters of the Town of Essex. The motion passed 5-0.**

**PATRICK MURRAY made a motion, seconded by VINCE FRANCO, that the Selectboard approve the web content to be placed online with the amendments that Ms. Hill-Fleury requested. The motion passed 4-1 by roll call, with Mr. Watts dissenting.**

**f. Discussion on future Strategic Planning Sessions**

Mr. Duggan invited the Trustees and Selectboard members to consider conducting a strategic planning session together to prioritize and set goals for the upcoming fiscal year. He suggested the session include planning for how to avoid having meetings multiple times during the weeks. He posed guiding questions for the discussion. Mr. Teich also brought up issues that the board members may want to address together.

The board members devised a plan to meet together for a strategic planning session. Mr. Brown said it is important for the boards to plan together but, depending on the vote results, the Trustees may need a separate strategic planning meeting as well. Mr. Tyler said the outcome of April vote will determine the strategic planning session's direction, but there will continue to be shared efforts that need to be planned. He said he is in favor of strategic planning with the Selectboard, regardless of the vote, but suggested holding off on hiring a facilitator until the topics are known. Mr. Franco proposed that the strategic planning session focus on what the municipalities need and what can be agreed upon. Ms. Haney thought that having a facilitator at the last strategic planning session contributed to the meeting's success and efficiency. The board

members agreed that they would prefer to hold the session in May on a Saturday. Mr. Watts wondered if there should be a “cooling off period” before the strategic planning session so board members and the community can consider how to heal. He liked the idea of hiring a facilitator for the meeting and encouraged everyone to bring positivity to move forward together. Chawla suggested that the strategic planning session could benefit Ms. Delphia as she starts on the Selectboard.

Mr. Teich suggested May 22 for the Strategic Planning Session but said he would poll the Trustees and Selectboard members. Mr. Tyler suggest the session be in person, socially distanced. Mr. Brown agreed and wondered if it could be held at Indian Brook.

**g. \*Discussion and potential action on evaluation of public official**

Discussion happened in executive session at the end of the meeting.

**6. CONSENT ITEMS**

- a. Approve minutes: March 11, 2021 – Selectboard only

**DAWN HILL-FLEURY made a motion, and VINCE FRANCO seconded, that the Selectboard approve the consent agenda as presented. The motion passed 5-0.**

**7. READING FILE**

- a. Board member comments  
There were no board member comments at this time.
- b. Email from Chris Moldovan re: Mitten Money from Senator Sanders fundraiser
- c. Email from Sharon Zukowski re: Submission to Selectboard re: Petition to Reconsider
- d. Upcoming meeting schedule

**8. EXECUTIVE SESSION**

- a. \*An executive session is anticipated for the evaluation of public official

**ANDY WATTS made a motion, seconded by DAWN HILL-FLEURY, that the Selectboard enter into executive session to discuss the evaluation of a public official in accordance with 1 V.S.A. Section 313(a)(3), to include the Trustees and HR Director. The motion passed 5-0 at 8:23 PM.**

**ANDREW BROWN made a motion, seconded by GEORGE TYLER, that the Trustees enter into executive session to discuss the evaluation of a public official in accordance with 1 V.S.A. Section 313(a)(3), to include the Selectboard and HR Director. The motion passed 5-0 at 8:25 PM.**

**GEORGE TYLER made a motion, seconded by AMBER THIBEAULT, that the Trustees exit executive session. The motion passed 5-0 at 9:13 PM.**

**DAWN HILL-FLEURY made a motion, seconded by VINCE FRANCO, that the Selectboard exit executive session. The motion passed 5-0 at 9:13 PM.**

**9. ADJOURN**

**RAJ CHAWLA made a motion, seconded by DAN KERIN, that the Trustees adjourn the meeting. The motion passed 5-0 at 9:14 PM.**

**DAWN HILL-FLEURY made a motion, seconded by VINCE FRANCO, that the Selectboard adjourn the meeting. The motion passed 5-0 at 9:14 PM.**

**SELECTBOARD & TRUSTEES  
(DRAFT)**

**March 22, 2021**

316 Respectfully Submitted,  
317 Cathy Ainsworth  
318 Recording Secretary  
319

03/26/21

## Town of Essex / Village of EJ Accounts Payable

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02:57 pm

Check Warrant Report # 17244 Current Prior Next FY Invoices For Fund (GENERAL FUND)

HPackard

For Check Acct 01 (GENERAL FUND) All check #s 03/26/21 To 03/26/21 &amp; Fund 2

Vendor		Invoice Date	Invoice Description Invoice Number	Account	Amount Paid	Check Number	Check Date
05290	ADVANCE AUTO PARTS	03/17/21	wax 552107654625	210-43110.610 SUPPLIES	15.63	33284	03/26/21
07465	BIBENS ACE HARDWARE INC	03/23/21	Supplies 40784	210-42220.610 SUPPLIES	36.56	33287	03/26/21
07465	BIBENS ACE HARDWARE INC	03/18/21	BATTERY 40787	210-43110.610 SUPPLIES	3.99	33287	03/26/21
00530	BRODART CO	03/01/21	Adult Fastips, Supplies B6101982	210-49345.000 LIBRARY DONATION EXPENDIT	15.66	33289	03/26/21
00530	BRODART CO	03/01/21	Adult Fastips, Supplies B6101982	210-45551.610 SUPPLIES	0.80	33289	03/26/21
00530	BRODART CO	03/11/21	Youth Replacement, Suppli B6111152	210-49346.002 JUVEN COLLECTION-PRNT & E	14.17	33289	03/26/21
00530	BRODART CO	03/11/21	Youth Replacement, Suppli B6111152	210-45551.610 SUPPLIES	0.80	33289	03/26/21
00530	BRODART CO	03/11/21	Youth Collection, Supplie B6111153	210-45551.641 JUVEN COLLECTION-PRNT & E	39.38	33289	03/26/21
00530	BRODART CO	03/11/21	Youth Collection, Supplie B6111153	210-45551.610 SUPPLIES	3.20	33289	03/26/21
00530	BRODART CO	03/11/21	Youth Collection, Supplie B6111342	210-45551.641 JUVEN COLLECTION-PRNT & E	47.96	33289	03/26/21
00530	BRODART CO	03/11/21	Youth Collection, Supplie B6111342	210-45551.610 SUPPLIES	4.00	33289	03/26/21
00530	BRODART CO	03/11/21	Youth Collection, Supplie B6111357	210-45551.641 JUVEN COLLECTION-PRNT & E	13.49	33289	03/26/21
00530	BRODART CO	03/11/21	Youth Collection, Supplie B6111357	210-45551.610 SUPPLIES	0.80	33289	03/26/21
00530	BRODART CO	03/16/21	Adult Fasttips: Foundatio B6116716	210-45551.610 SUPPLIES	0.80	33289	03/26/21
00530	BRODART CO	03/16/21	Adult Fasttips: Foundatio B6116716	210-49345.000 LIBRARY DONATION EXPENDIT	15.65	33289	03/26/21
00530	BRODART CO	03/16/21	Adult Fastips: Foundation B6116866	210-49345.000 LIBRARY DONATION EXPENDIT	15.66	33289	03/26/21
00530	BRODART CO	03/16/21	Adult Fastips: Foundation B6116866	210-45551.610 SUPPLIES	0.80	33289	03/26/21
00530	BRODART CO	03/16/21	Youth materials, Supplies B6116995	210-45551.641 JUVEN COLLECTION-PRNT & E	77.68	33289	03/26/21
00530	BRODART CO	03/16/21	Youth materials, Supplies B6116995	210-45551.610 SUPPLIES	5.60	33289	03/26/21
21120	CHAMPLAIN MEDICAL URGENT	03/17/21	Physical 0004350000	210-42220.566 PHYSICAL EXAMS	345.00	33295	03/26/21
04940	COMCAST	03/12/21	TV Internet 3/19 to 4/18 0091811 321	210-43110.610 SUPPLIES	179.50	33298	03/26/21
04940	COMCAST	03/12/21	TV Internet 3/19 to 4/18 0091811 321	210-43125.610 WINTER MAINTENANCE	60.99	33298	03/26/21
04940	COMCAST	02/19/21	Internet 2 Lincoln 2/26-3 0136343 0221	210-41945.020 Telephone - 2 Lincoln St	153.35	33301	03/26/21
04940	COMCAST	02/19/21	Internet 2 Lincoln 2/26-3 0136343 0221	210-33582.005 Town contribution other	-153.35	33301	03/26/21
04940	COMCAST	03/19/21	Internet 2 Lincoln 3/26/2 0136343 0321	210-41945.020 Telephone - 2 Lincoln St	153.35	33301	03/26/21



03/26/21

## Town of Essex / Village of EJ Accounts Payable

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02:57 pm

Check Warrant Report # 17244 Current Prior Next FY Invoices For Fund (GENERAL FUND)

HPackard

For Check Acct 01(GENERAL FUND) All check #s 03/26/21 To 03/26/21 &amp; Fund 2

Vendor		Invoice Date	Invoice Description Invoice Number	Account	Amount Paid	Check Number	Check Date
04940	COMCAST	03/19/21	Internet 2 Lincoln 3/26/2	210-33582.005	-153.35	33301	03/26/21
			0136343 0321	Town contribution other			
17025	COONRADT AMY	03/14/21	3/4/21 Recording Secretar	210-41320.530	106.60	33302	03/26/21
			#0051	COMMUNICATIONS			
05020	ESSEX JCT VILLAGE OF	03/15/21	MSP Bldg Water/Sewer 77	210-41941.026	543.98	33309	03/26/21
			202200631	W/S - Maple St Park			
05020	ESSEX JCT VILLAGE OF	03/15/21	Park St Water/Sewer	210-41941.023	297.05	33309	03/26/21
			202203841	W/S - Park St School			
05020	ESSEX JCT VILLAGE OF	03/15/21	Water Sewer EJFD	210-41941.022	146.82	33309	03/26/21
			202206661	W/S - Fire Station			
05020	ESSEX JCT VILLAGE OF	03/15/21	WATER/ SEWER: 6 Lincoln S	210-41941.021	194.77	33309	03/26/21
			202206701	W/S - Brownell			
05020	ESSEX JCT VILLAGE OF	03/15/21	Cascade Park Water/Sewer	210-41941.026	38.13	33309	03/26/21
			202220141	W/S - Maple St Park			
31875	ESSEX TOWN WATER DEPT	03/15/21	SEWER MSP	210-41941.026	44.86	33310	03/26/21
			121204651	W/S - Maple St Park			
21845	FIRST NATIONAL BANK OMAHA	03/18/21	Training, Vol Exp., Tech	210-45551.500	20.00	33315	03/26/21
			00170321	TRAINING, CONFERENCES, DU			
21845	FIRST NATIONAL BANK OMAHA	03/18/21	Training, Vol Exp., Tech	210-45551.574	260.00	33315	03/26/21
			00170321	VOLUNTEER EXPENSES			
21845	FIRST NATIONAL BANK OMAHA	03/18/21	Training, Vol Exp., Tech	210-45551.530	480.95	33315	03/26/21
			00170321	TECHNOLOGY ACCESS			
21845	FIRST NATIONAL BANK OMAHA	03/18/21	Training, Vol Exp., Tech	210-45551.640	11.99	33315	03/26/21
			00170321	ADULT COLLECTION-PRINT &			
21845	FIRST NATIONAL BANK OMAHA	03/18/21	Training, Vol Exp., Tech	210-45551.837	53.78	33315	03/26/21
			00170321	CHILDRENS PROGRAMS			
21845	FIRST NATIONAL BANK OMAHA	03/18/21	Training, Vol Exp., Tech	210-45551.536	45.30	33315	03/26/21
			00170321	POSTAGE/DELIVERY			
19005	FIRSTLIGHT FIBER	03/01/21	MSP Internet March	210-41945.026	360.00	33316	03/26/21
			8749891	Telephone - Maple St Park			
19005	FIRSTLIGHT FIBER	03/15/21	Phone svc 2/15-3/14/21	210-43110.530	35.54	33317	03/26/21
			8830811	Communications			
19005	FIRSTLIGHT FIBER	03/15/21	Telephone EJFD	210-41945.022	50.32	33318	03/26/21
			8830821	Telephone - Fire Station			
04035	GOT THAT RENTAL & SALES I	03/22/21	brooms	210-43110.610	73.96	33321	03/26/21
			83276	SUPPLIES			
07010	GREEN MOUNTAIN POWER CORP	03/09/21	MSP Power February	210-41947.026	267.76	33323	03/26/21
			030921 EJPD	Electricity - Maple St			
07010	GREEN MOUNTAIN POWER CORP	03/09/21	MSP Power February	210-41947.026	817.97	33324	03/26/21
			030921 ERPD	Electricity - Maple St			
06675	NATIONAL BUSINESS TECHNOL	03/19/21	Copier usages 2/18-3/17/2	210-45551.442	0.01	33341	03/26/21
			IN414012	Rental of Equipment			
06675	NATIONAL BUSINESS TECHNOL	03/19/21	Copier usages 2/18-3/17/2	210-45551.442	76.55	33341	03/26/21
			IN414012	Rental of Equipment			
06675	NATIONAL BUSINESS TECHNOL	03/19/21	Copier usages 2/18-3/17/2	210-43110.442	1.14	33341	03/26/21
			IN414012	EQUIPMENT RENTALS			
06675	NATIONAL BUSINESS TECHNOL	03/19/21	Copier usages 2/18-3/17/2	210-41320.442	15.00	33341	03/26/21
			IN414012	LEASED SERVICES			
13475	NEEDHAM ELECTRIC SUPPLY (	03/19/21	MSP Lights	210-45220.610	142.85	33342	03/26/21
			S5573064001	SUPPLIES			

Vendor		Invoice Date	Invoice Description Invoice Number	Account	Amount Paid	Check Number	Check Date
42565	SEVEN DAYS	03/17/21	public notice ads 210077	210-41320.550 PRINTING AND ADVERTISING	568.36	33356	03/26/21
12890	U S BANK	03/15/21	Bond Interest Payments 050121D	210-47216.000 CAPITAL IMP - INTEREST	32994.50	33362	03/26/21
36130	VERIZON WIRELESS	02/18/21	Verizon shared JN 19 - fe 9873602264	210-41970.535 TELEPHONE SERVICES	40.01	33363	03/26/21
36130	VERIZON WIRELESS	02/18/21	Verizon shared JN 19 - fe 9873602264	210-42220.535 TELEPHONE SERVICES	160.04	33363	03/26/21
23395	VILLAGE HARDWARE - WILLIS	03/12/21	trash pickers 512701	210-43110.610 SUPPLIES	49.38	33365	03/26/21
23395	VILLAGE HARDWARE - WILLIS	03/12/21	supplies credit 512703	210-43110.610 SUPPLIES	-24.69	33365	03/26/21
23395	VILLAGE HARDWARE - WILLIS	03/17/21	hose Y and hose end for s 512717	210-43110.610 SUPPLIES	19.93	33365	03/26/21
23395	VILLAGE HARDWARE - WILLIS	03/18/21	Filter Cartridge for swee 512718	210-43110.432 R&M Services - Vehicles	11.39	33365	03/26/21
21230	VISION SERVICE PLAN (CT)	03/19/21	Vision Prem Apr 21 Vill 040121V	210-41320.210 HEALTH INS & OTHER BENEFI	58.19	33366	03/26/21
21230	VISION SERVICE PLAN (CT)	03/19/21	Vision Prem Apr 21 Vill 040121V	210-41510.210 Group Insurance	13.61	33366	03/26/21
21230	VISION SERVICE PLAN (CT)	03/19/21	Vision Prem Apr 21 Vill 040121V	210-43110.210 HEALTH INS & OTHER BENEFI	67.93	33366	03/26/21
21230	VISION SERVICE PLAN (CT)	03/19/21	Vision Prem Apr 21 Vill 040121V	210-43151.210 HEALTH INS & OTHER BENEFI	10.00	33366	03/26/21
21230	VISION SERVICE PLAN (CT)	03/19/21	Vision Prem Apr 21 Vill 040121V	210-45551.210 HEALTH INS & OTHER BENEFI	90.55	33366	03/26/21
21230	VISION SERVICE PLAN (CT)	03/19/21	Vision Prem Apr 21 Vill 040121V	210-41970.210 HEALTH INS & OTHER BENEFI	18.76	33366	03/26/21
21230	VISION SERVICE PLAN (CT)	03/19/21	Vision Prem Apr 21 Vill 040121V	210-45110.210 HEALTH INS & OTHER BENEFI	86.81	33366	03/26/21
21230	VISION SERVICE PLAN (CT)	03/19/21	Vision Prem Apr 21 Vill 040121V	210-45220.210 HEALTH INS & OTHER BENEFI	22.99	33366	03/26/21
V2377	VLCT EMPLOYMENT RESOURCE	04/01/21	FY21Q4 Unemp REN031723Q2	210-41510.250 Unemployment Insurance	1281.38	33368	03/26/21
V2377	VLCT EMPLOYMENT RESOURCE	04/01/21	FY21Q4 Unemp REN031723Q2	210-43110.250 UNEMPLOYMENT INSURANCE	252.91	33368	03/26/21
V2377	VLCT EMPLOYMENT RESOURCE	04/01/21	FY21Q4 Unemp REN031723Q2	210-43151.250 UNEMPLOYMENT INSURANCE	25.29	33368	03/26/21
06675	NATIONAL BUSINESS TECHNOL	03/19/21	Copier usages 2/18-3/17/2 IN414012	225-45122.442 Rental of Equipment	29.76	33341	03/26/21
06675	NATIONAL BUSINESS TECHNOL	03/19/21	Copier usages 2/18-3/17/2 IN414012	226-45110.442 Equipment Rentals	186.58	33341	03/26/21
16020	POSTMASTER	03/16/21	Essex Rec Summer Brochure 031621D	226-45110.536 POSTAGE	809.88	33349	03/26/21
24830	REINHART FOODSERVICE	03/18/21	RK Fleming Snack 450222	226-45120.610 SUPPLIES	88.98	33352	03/26/21
24830	REINHART FOODSERVICE	03/22/21	RK Westford Snack 452037	226-45120.610 SUPPLIES	17.47	33352	03/26/21
24830	REINHART FOODSERVICE	03/22/21	RK EES Snack 452616	226-45120.610 SUPPLIES	154.67	33352	03/26/21

03/26/21

## Town of Essex / Village of EJ Accounts Payable

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02:57 pm

Check Warrant Report # 17244 Current Prior Next FY Invoices For Fund (GENERAL FUND)

HPackard

For Check Acct 01 (GENERAL FUND) All check #s 03/26/21 To 03/26/21 &amp; Fund 2

Vendor	Invoice Date	Invoice Description Invoice Number	Account	Amount Paid	Check Number	Check Date
24830	REINHART FOODSERVICE	03/23/21 RK Hiawatha Snack	226-45120.610	65.66	33352	03/26/21
		452785	SUPPLIES			
24830	REINHART FOODSERVICE	03/22/21 RK FMS Snack	226-45120.610	178.84	33352	03/26/21
		452858	SUPPLIES			
24830	REINHART FOODSERVICE	03/23/21 RK Summit Snack	226-45120.610	145.16	33352	03/26/21
		453029	SUPPLIES			
24830	REINHART FOODSERVICE	03/23/21 RK MSP Snack	226-45120.610	99.85	33352	03/26/21
		453871	SUPPLIES			
21230	VISION SERVICE PLAN (CT)	03/19/21 Vision Prem Apr 21 Vill	226-45120.210	75.04	33366	03/26/21
		040121V	HEALTH INS & OTHER BENEFIT			
21230	VISION SERVICE PLAN (CT)	03/19/21 Vision Prem Apr 21 Vill	226-45121.210	67.56	33366	03/26/21
		040121V	HEALTH INS & OTHER BENEFIT			
26395	CCRPC	01/31/21 Junction Storm Drainage A	230-46801.024	396.00	33294	03/26/21
		20200813	CCRPC UPWP Planning			
V9632	HOYLE, TANNER & ASSOC, IN	03/16/21 Densmore Drive over India	230-46801.022	961.00	33329	03/26/21
		0064409	Densmore Dr, FEMA			
V10568	KAMCO SUPPLY CORP	03/05/21 MSP Lobby Dutch Door	233-46801.010	1700.00	33334	03/26/21
		SI277970	BUILDING & FACILITIES			
03070	MINUTEMAN PRESS	03/22/21 Vill UB bills n insert	254-43200.536	561.48	33339	03/26/21
		52918	POSTAGE			
12890	U S BANK	03/15/21 Bond Interest Payments	254-43330.005	7291.83	33362	03/26/21
		050121D	SERIES 3 BOND INTEREST			
21230	VISION SERVICE PLAN (CT)	03/19/21 Vision Prem Apr 21 Vill	254-43200.210	48.71	33366	03/26/21
		040121V	HEALTH INS & OTHER BENEFIT			
V2377	VLCT EMPLOYMENT RESOURCE	04/01/21 FY21Q4 Unemp	254-43200.250	63.23	33368	03/26/21
		REN031723Q2	UNEMPLOYMENT INSURANCE			
05290	ADVANCE AUTO PARTS	03/24/21 Stabil	255-43200.626	12.87	33284	03/26/21
		552108355051	GAS, GREASE AND OIL			
31275	DON WESTON EXCAVATING INC	03/11/21 SC 1/2 Scum Line Repair	255-43200.570	10880.00	33304	03/26/21
		22	MAINTENANCE OTHER			
27445	DYNAMIC ORGANICS LLC	03/24/21 Niagara Server License fo	255-43330.018	2480.40	33307	03/26/21
		EssexWWTP01	Energy Conservation Measu			
05020	ESSEX JCT VILLAGE OF	03/15/21 WWTF multi water Sewer	255-43200.410	2896.59	33309	03/26/21
		031521D	WATER AND SEWER CHARGE			
20110	FAIRFIELD SVC CO OF IN LL	01/26/21 Inf Screen Brush	255-43200.570	569.44	33311	03/26/21
		8040393A	MAINTENANCE OTHER			
20110	FAIRFIELD SVC CO OF IN LL	03/04/21 Inf Screen welding credit	255-43200.570	-110.00	33311	03/26/21
		8040393AA	MAINTENANCE OTHER			
07010	GREEN MOUNTAIN POWER CORP	03/18/21 39 Cascade 2/17 to 3/18/	255-43200.622	8783.48	33322	03/26/21
		0132407 0321	ELECTRICAL SERVICE			
V9854	IDEXX DISTRIBUTION, INC.	03/18/21 MPN Trays and materials	255-43200.618	1231.96	33331	03/26/21
		3081208916	SUPPLIES - LABORATORY			
23980	INTERSTATE BATTERY OF VT	03/24/21 batteries	255-43200.610	34.40	33333	03/26/21
		903201014587	SUPPLIES			
06675	NATIONAL BUSINESS TECHNOL	03/19/21 Copier usages 2/18-3/17/2	255-43200.442	57.87	33341	03/26/21
		IN414012	Rental of Equipment			
03160	P & H SENESAC INC	01/25/21 POLYMER FOR DEWATERING	255-43200.619	6900.00	33345	03/26/21
		20246	CHEMICALS			
03160	P & H SENESAC INC	03/15/21 POLYMER FOR DEWATERING	255-43200.619	6900.00	33345	03/26/21
		20254	CHEMICALS			

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Check Warrant Report # 17244 Current Prior Next FY Invoices For Fund (GENERAL FUND)

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For Check Acct 01 (GENERAL FUND) All check #s 03/26/21 To 03/26/21 &amp; Fund 2

Vendor		Invoice Date	Invoice Description Invoice Number	Account	Amount Paid	Check Number	Check Date
12890	U S BANK	03/15/21	Bond Interest Payments	255-43330.001	20112.87	33362	03/26/21
			050121D	RZEDB Interest			
36130	VERIZON WIRELESS	02/18/21	Verizon shared JN 19 - fe	255-43200.535	55.82	33363	03/26/21
			9873602264	TELEPHONE SERVICES			
21230	VISION SERVICE PLAN (CT)	03/19/21	Vision Prem Apr 21 Vill	255-43200.210	96.98	33366	03/26/21
			040121V	HEALTH INS & OTHER BENEFIT			
V2377	VLCT EMPLOYMENT RESOURCE	04/01/21	FY21Q4 Unemp	255-43200.250	147.53	33368	03/26/21
			REN031723Q2	UNEMPLOYMENT INSURANCE			
05020	ESSEX JCT VILLAGE OF	03/15/21	WWTF multi water Sewer	256-43200.410	110.32	33309	03/26/21
			031521D	WATER AND SEWER CHARGE			
03070	MINUTEMAN PRESS	03/22/21	Vill UB bills n insert	256-43200.536	1122.96	33339	03/26/21
			52918	POSTAGE			
12160	PEOPLES UNITED BANK N A	03/11/21	PS Upgrade	256-22501.001	50868.19	33347	03/26/21
			RF1157FY212	PS Upgrd SRF Loan RF1-157			
21230	VISION SERVICE PLAN (CT)	03/19/21	Vision Prem Apr 21 Vill	256-43200.210	33.98	33366	03/26/21
			040121V	HEALTH INS & OTHER BENEFIT			
V2377	VLCT EMPLOYMENT RESOURCE	04/01/21	FY21Q4 Unemp	256-43200.250	71.66	33368	03/26/21
			REN031723Q2	UNEMPLOYMENT INSURANCE			
Report Total					166929.81		

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Check Warrant Report # 17245 Current Prior Next FY Invoices For Fund (GENERAL FUND)

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For Check Acct 01 (GENERAL FUND) All check #s 04/02/21 To 04/02/21 &amp; Fund 2

Vendor		Invoice Date	Invoice Description Invoice Number	Account	Amount Paid	Check Number	Check Date
14400	ABOVE AND BEYOND	03/19/21	CLEANING MAR 7-APR3 5895	210-41943.020 Contractual Svc - 2 Linco	600.00	33372	04/02/21
14400	ABOVE AND BEYOND	03/19/21	CLEANING MAR 7-APR3 5895	210-41943.021 Contractual Svcs - Browne	2212.75	33372	04/02/21
01005	ACME PAINT AND GLASS CO	03/11/21	Window Repairs - Vandalis 40126	210-45220.434 MAINTENANCE-BUILDINGS/GRO	1873.64	33373	04/02/21
05290	ADVANCE AUTO PARTS	03/18/21	wiper blades 552107736520	210-43110.432 R&M Services - Vehicles	40.18	33374	04/02/21
05290	ADVANCE AUTO PARTS	03/19/21	sweeper filters 552107836555	210-43110.432 R&M Services - Vehicles	200.87	33374	04/02/21
05290	ADVANCE AUTO PARTS	03/23/21	AIR FILTER 552108255001	210-43110.610 SUPPLIES	67.05	33374	04/02/21
05290	ADVANCE AUTO PARTS	03/29/21	QR Coupler 552108836827	210-43110.610 SUPPLIES	34.02	33374	04/02/21
05290	ADVANCE AUTO PARTS	03/30/21	grease guns 552108955405	210-43110.610 SUPPLIES	46.89	33374	04/02/21
05290	ADVANCE AUTO PARTS	03/30/21	grease 552108955408	210-43110.610 SUPPLIES	59.90	33374	04/02/21
02235	BOUND TREE MEDICAL LLC	03/09/21	Thermometer 83982038	210-42220.615 EMS SUPPLIES	176.94	33381	04/02/21
02235	BOUND TREE MEDICAL LLC	03/10/21	Dressing 83983798	210-42220.615 EMS SUPPLIES	10.74	33381	04/02/21
00530	BRODART CO	03/05/21	Adult Collection, Supplie B6106177	210-45551.610 SUPPLIES	0.80	33382	04/02/21
00530	BRODART CO	03/05/21	Adult Collection, Supplie B6106177	210-45551.640 ADULT COLLECTION-PRINT &	21.36	33382	04/02/21
00530	BRODART CO	03/05/21	Adult Collection, Supplie B6106205	210-45551.610 SUPPLIES	2.40	33382	04/02/21
00530	BRODART CO	03/05/21	Adult Collection, Supplie B6106205	210-45551.640 ADULT COLLECTION-PRINT &	17.97	33382	04/02/21
00530	BRODART CO	03/12/21	Adult collection, Supplie B6112334	210-45551.610 SUPPLIES	14.40	33382	04/02/21
00530	BRODART CO	03/12/21	Adult collection, Supplie B6112334	210-45551.640 ADULT COLLECTION-PRINT &	268.80	33382	04/02/21
00530	BRODART CO	03/12/21	Adult Collection, Supplie B6112764	210-45551.640 ADULT COLLECTION-PRINT &	36.64	33382	04/02/21
00530	BRODART CO	03/12/21	Adult Collection, Supplie B6112764	210-45551.610 SUPPLIES	1.60	33382	04/02/21
00530	BRODART CO	03/19/21	Adult FASTips, Supplies B6121997	210-45551.610 SUPPLIES	0.80	33382	04/02/21
00530	BRODART CO	03/19/21	Adult FASTips, Supplies B6121997	210-49345.000 LIBRARY DONATION EXPENDIT	15.12	33382	04/02/21
00530	BRODART CO	03/22/21	Adult Collection, Supplie B6124041	210-45551.610 SUPPLIES	9.60	33382	04/02/21
00530	BRODART CO	03/22/21	Adult Collection, Supplie B6124041	210-45551.640 ADULT COLLECTION-PRINT &	202.91	33382	04/02/21
00530	BRODART CO	03/22/21	Adult Collection, Supplie B6124051	210-45551.610 SUPPLIES	2.40	33382	04/02/21
00530	BRODART CO	03/22/21	Adult Collection, Supplie B6124051	210-45551.640 ADULT COLLECTION-PRINT &	54.45	33382	04/02/21

Vendor	Invoice Date	Invoice Description Invoice Number	Account	Amount Paid	Check Number	Check Date
00530	03/23/21	Adult FASTips, Supplies B6125745	210-49345.000 LIBRARY DONATION EXPENDIT	40.92	33382	04/02/21
00530	03/23/21	Adult FASTips, Supplies B6125745	210-45551.610 SUPPLIES	1.60	33382	04/02/21
00530	03/24/21	Youth Collection B6127737	210-45551.641 JUVEN COLLECTION-PRNT & E	3.59	33382	04/02/21
23455	03/24/21	used oil return 111002145	210-43110.626 Vehicle Fuels	25.00	33383	04/02/21
23525	03/29/21	truck service #7 67190	210-43110.432 R&M Services - Vehicles	2370.28	33384	04/02/21
04940	03/03/21	Cable 0207722 0321	210-41945.022 Telephone - Fire Station	16.00	33390	04/02/21
V10576	04/01/21	Web hosting 2926	210-41320.530 COMMUNICATIONS	129.00	33398	04/02/21
23215	03/22/21	BULB,FLASHING BEACON 107794580001	210-43110.610 SUPPLIES	32.52	33400	04/02/21
23215	03/24/21	STAKES,GRADE 107806730001	210-43110.610 SUPPLIES	12.35	33400	04/02/21
23215	03/27/21	Chain 107808170001	210-42220.610 SUPPLIES	173.22	33400	04/02/21
23215	03/27/21	Chain 107808170002	210-42220.610 SUPPLIES	-173.22	33400	04/02/21
05020	03/15/21	ST Water Sewer Invoices 1020 13121	210-43110.410 WATER AND SEWER CHARGE	934.15	33401	04/02/21
05020	03/15/21	ST Water Sewer Invoices 1020 13121	210-43117.000 Streetscape Maintenance	360.04	33401	04/02/21
05020	03/15/21	MSP Pool Water/Sewer 202200641	210-41941.026 W/S - Maple St Park	747.35	33401	04/02/21
05020	03/15/21	MSP Bldg Water/Sewer 202200651	210-41941.026 W/S - Maple St Park	50.01	33401	04/02/21
21150	03/31/21	Adult Collection 345913	210-45551.640 ADULT COLLECTION-PRINT &	884.86	33403	04/02/21
21150	03/31/21	Adult Collection 345917	210-45551.640 ADULT COLLECTION-PRINT &	123.73	33403	04/02/21
25390	03/18/21	EJRP CC March 4955 0321	210-45110.340 COMPUTER EXPENSES	234.00	33404	04/02/21
25390	03/18/21	EJRP CC March 4955 0321	210-45110.340 COMPUTER EXPENSES	160.00	33404	04/02/21
45400	03/18/21	Renewal Fee Landscape Arc R1610202	210-41970.500 TRAINING,CONF,DUES	340.00	33407	04/02/21
29500	03/18/21	bark mulch 111407 03/18	210-43120.610 Summer Const - Supplies	1260.00	33415	04/02/21
13000	01/08/21	Road service 60768	210-43110.432 R&M Services - Vehicles	546.40	33419	04/02/21
13475	03/22/21	MPR LED Light Project S5569352002	210-45220.434 MAINTENANCE-BUILDINGS/GRO	250.96	33423	04/02/21
V10729	03/03/21	Youth Collection 21083910	210-45551.641 JUVEN COLLECTION-PRNT & E	497.06	33426	04/02/21
01590	03/22/21	Replace broken Cascade Pa 1006	210-45220.330 OTHER PROFESSIONAL SVCS	1200.00	33427	04/02/21

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For Check Acct 01 (GENERAL FUND) All check #s 04/02/21 To 04/02/21 &amp; Fund 2

Vendor	Invoice Date	Invoice Description Invoice Number	Account	Amount Paid	Check Number	Check Date
23465	PITNEY BOWES, INC.	02/17/21 POSTAGE METER LEASE 3/20-	210-41320.442	209.97	33428	04/02/21
		3313015435	LEASED SERVICES			
23465	PITNEY BOWES, INC.	03/26/21 LATE FEE	210-41320.442	32.00	33428	04/02/21
		3313276090	LEASED SERVICES			
37965	S D IRELAND CONCRETE	03/24/21 sidewalk	210-43124.570	462.00	33432	04/02/21
		87845	Sidewalk and Curb Mainten			
03180	SAFETY SYSTEMS OF VT LLC	02/01/21 RM Building: Security Cam	210-41942.021	1965.49	33434	04/02/21
		20455	R&M Bldg - Brownell			
03180	SAFETY SYSTEMS OF VT LLC	02/12/21 RM Building: Security Cam	210-41942.021	1094.99	33434	04/02/21
		20504	R&M Bldg - Brownell			
09105	SECURE SHRED	03/23/21 EJRP Shred Service	210-45110.330	22.00	33438	04/02/21
		358737	OTHER PROFESSIONAL SVCS			
42565	SEVEN DAYS	03/24/21 PC Work Session Ad for 4-	210-41970.550	60.84	33439	04/02/21
		210242	PRINTING AND ADVERTISING			
29835	SHERWIN-WILLIAMS	03/23/21 Paint Supplies	210-45220.610	53.44	33440	04/02/21
		39610	SUPPLIES			
V10695	SUNSET TREE CARE	03/20/21 Stevens Park Tree Removal	210-45220.330	500.00	33447	04/02/21
		032021D	OTHER PROFESSIONAL SVCS			
36130	VERIZON WIRELESS	03/18/21 WIRELESS CELL SERVICE	210-43110.530	35.01	33451	04/02/21
		9875782061	Communications			
36130	VERIZON WIRELESS	03/19/21 cell phone 03/20 to 04/19	210-43110.530	192.82	33452	04/02/21
		9875823551	Communications			
11935	VIKING-CIVES USA	03/19/21 plow blades	210-43110.432	4075.12	33453	04/02/21
		4505785	R&M Services - Vehicles			
11935	VIKING-CIVES USA	03/22/21 JOHNSTON WIDE SWEEP BROOM	210-43110.610	922.83	33453	04/02/21
		4505809	SUPPLIES			
11935	VIKING-CIVES USA	03/24/21 filter	210-43110.432	249.94	33453	04/02/21
		4505924	R&M Services - Vehicles			
11935	VIKING-CIVES USA	03/26/21 pin	210-43110.432	17.62	33453	04/02/21
		4506020	R&M Services - Vehicles			
11935	VIKING-CIVES USA	03/26/21 backup camera	210-43110.432	113.65	33453	04/02/21
		4506025	R&M Services - Vehicles			
22070	VILLAGE COPY & PRINT INC.	03/24/21 Fold ballots for election	210-41320.820	195.00	33454	04/02/21
		8340	ELECTIONS			
23395	VILLAGE HARDWARE - WILLIS	03/22/21 NUTS-BOLTS-SCREWS	210-43110.610	28.30	33455	04/02/21
		512734	SUPPLIES			
29825	VT GAS SYSTEMS	03/22/21 MSP VT Gas March	210-41948.026	361.44	33459	04/02/21
		1578756 0321	Natural Gas - Maple St			
29825	VT GAS SYSTEMS	03/22/21 2/17-3/18/21	210-41948.022	603.69	33460	04/02/21
		20901	Natural Gas - Fire Statio			
29825	VT GAS SYSTEMS	03/22/21 2/17-3/18/21	210-41948.020	732.46	33460	04/02/21
		20901	Natural Gas - 2 Lincoln			
29825	VT GAS SYSTEMS	03/22/21 2/17-3/18/21	210-43110.623	477.64	33460	04/02/21
		20901	HEATING/NATURAL GAS			
29825	VT GAS SYSTEMS	03/22/21 2/17-3/18/21	210-41948.021	954.82	33460	04/02/21
		20901	Natural Gas - Brownell			
29825	VT GAS SYSTEMS	03/22/21 2/17-3/18/21	210-41948.023	396.75	33460	04/02/21
		20901	Natural Gas - Park St Sch			
29825	VT GAS SYSTEMS	03/22/21 MSP VT Gas March	210-41948.026	651.75	33462	04/02/21
		810044 0321	Natural Gas - Maple St			

Vendor	Invoice Date	Invoice Description Invoice Number	Account	Amount Paid	Check Number	Check Date
07565	W B MASON CO INC	03/18/21 Office Supplies 218761517	210-45110.610 SUPPLIES	112.09	33465	04/02/21
23000	WHITCOMB	03/16/21 Stone 00713698	210-43120.610 Summer Const - Supplies	137.15	33467	04/02/21
19815	AMAZON CAPITAL SERVICES	03/28/21 RK FMS Supplies 1JTDP34P91FD	226-45120.610 SUPPLIES	79.84	33375	04/02/21
19815	AMAZON CAPITAL SERVICES	03/18/21 RK FMS Supplies 1LC9VDHT7GWN	226-45120.610 SUPPLIES	12.36	33375	04/02/21
19815	AMAZON CAPITAL SERVICES	03/17/21 RK FMS Supplies 1QQJV9DKYLMP	226-45120.610 SUPPLIES	160.58	33375	04/02/21
19815	AMAZON CAPITAL SERVICES	03/19/21 RK Vacation Camp Supplies 1RTCVLLJG9R3	226-45120.610 SUPPLIES	57.06	33375	04/02/21
19815	AMAZON CAPITAL SERVICES	03/27/21 RK EES Supplies 1W3G36XHWG3X	226-45120.610 SUPPLIES	38.85	33375	04/02/21
05020	ESSEX JCT VILLAGE OF	03/15/21 Gardens Water 202211621	226-45115.330 OTHER PROFESSIONAL SVCS	175.40	33401	04/02/21
25390	FIRST NATIONAL BANK OMAHA	03/18/21 EJRP CC March 4955 0321	226-45120.610 SUPPLIES	14.65	33404	04/02/21
25390	FIRST NATIONAL BANK OMAHA	03/18/21 EJRP CC March 4955 0321	226-45120.610 SUPPLIES	79.72	33404	04/02/21
25390	FIRST NATIONAL BANK OMAHA	03/18/21 EJRP CC March 4955 0321	226-45121.610 SUPPLIES	50.98	33404	04/02/21
25390	FIRST NATIONAL BANK OMAHA	03/18/21 EJRP CC March 4955 0321	226-45121.500 TRAINING, CONF, DUES	150.00	33404	04/02/21
25390	FIRST NATIONAL BANK OMAHA	03/18/21 EJRP CC March 4955 0321	226-45120.610 SUPPLIES	44.46	33404	04/02/21
25390	FIRST NATIONAL BANK OMAHA	03/18/21 EJRP CC March 4955 0321	226-45120.610 SUPPLIES	47.72	33404	04/02/21
24830	REINHART FOODSERVICE	03/25/21 RK Fleming Snack 454099	226-45120.610 SUPPLIES	149.32	33429	04/02/21
24830	REINHART FOODSERVICE	03/29/21 RK Westford Snack 455191	226-45120.610 SUPPLIES	44.70	33429	04/02/21
24830	REINHART FOODSERVICE	03/29/21 RK FMS Snack 455741	226-45120.610 SUPPLIES	125.23	33429	04/02/21
24830	REINHART FOODSERVICE	03/29/21 RK Westford Snack 455976	226-45120.610 SUPPLIES	50.05	33429	04/02/21
24830	REINHART FOODSERVICE	03/29/21 RK EES Snack 456020	226-45120.610 SUPPLIES	171.77	33429	04/02/21
36130	VERIZON WIRELESS	03/18/21 WIRELESS CELL SERVICE 9875782061	226-45121.610 SUPPLIES	48.61	33451	04/02/21
31370	VT TENT CO INC	03/24/21 Summer Day Camp Tents 849673	226-45122.330 OTHER PROFESSIONAL SVCS	8010.00	33464	04/02/21
25715	DONALD L. HAMLIN CONSULT	03/19/21 Crescent Connector 031921 12833	230-46801.008 CRESCENT CONNECTOR	3733.75	33396	04/02/21
36240	DUBOIS & KING INC	03/05/21 Crescent Connector 77	230-46801.008 CRESCENT CONNECTOR	11338.89	33397	04/02/21
31275	DON WESTON EXCAVATING INC	03/18/21 Park St Waterbreak servic 24	254-43200.430 WATER LINES MAINT-BREAKS	4552.50	33395	04/02/21
05020	ESSEX JCT VILLAGE OF	03/15/21 ST Water Sewer Invoices 1020 13121	254-43200.410 WATER AND SEWER CHARGE	38.13	33401	04/02/21



Vendor		Invoice Date	Invoice Description Invoice Number	Account	Amount Paid	Check Number	Check Date
43435	NORTRAX (PARTS)	03/18/21	backhoe parts	254-43200.570	200.85	33424	04/02/21
			2072836	MAINTENANCE OTHER			
43435	NORTRAX (PARTS)	03/30/21	credit return supplies on	254-43200.570	-67.01	33424	04/02/21
			2075240	MAINTENANCE OTHER			
37965	S D IRELAND CONCRETE	03/23/21	patch water break site on	254-43200.430	868.00	33432	04/02/21
			87840	WATER LINES MAINT-BREAKS			
36130	VERIZON WIRELESS	03/19/21	cell phone 03/20 to 04/19	254-43200.535	177.24	33452	04/02/21
			9875823551	TELEPHONE SERVICES			
29825	VT GAS SYSTEMS	03/22/21	2/17-3/18/21	254-43200.623	383.01	33460	04/02/21
			20901	HEATING/NATURAL GAS			
07465	BIBENS ACE HARDWARE INC	03/24/21	shop and door lock	255-43200.570	42.69	33379	04/02/21
			40835	MAINTENANCE OTHER			
04940	COMCAST	01/23/21	Jan Internet 1/30-2/28/21	255-43200.535	163.30	33391	04/02/21
			0316028 01/A	TELEPHONE SERVICES			
04940	COMCAST	03/23/21	Apr Internet 3/30-4/29/2	255-43200.535	163.30	33392	04/02/21
			0316028 0321	TELEPHONE SERVICES			
06870	ENDYNE INC	03/30/21	Effluent Metals	255-43200.577	105.00	33399	04/02/21
			365979	CONTRACT LABORATORY SERVI			
06870	ENDYNE INC	03/31/21	SHT NY Bi-Monthly	255-43200.577	316.00	33399	04/02/21
			366049	CONTRACT LABORATORY SERVI			
V9454	LENNY'S SHOE & APP	03/31/21	boots Jutras	255-43200.612	295.00	33417	04/02/21
			3345976	UNIFORMS,BOOTS,ETC			
42805	MARYLAND BIOCHEMICAL CO.I	02/05/21	West St Odor control w/Oz	255-43330.022	37516.72	33420	04/02/21
			2PP1020	Pump Station Odor Control			
34995	MCMaster CARR SUPPLY CO	03/22/21	cam lock fittings	255-43200.570	70.85	33421	04/02/21
			55268782	MAINTENANCE OTHER			
V2093	SLACK CHEMICAL COMPANY IN	03/24/21	3411 Gal Caustic 50%	255-43200.619	8278.76	33442	04/02/21
			417582	CHEMICALS			
V2124	STAPLES ADVANTAGE	12/05/20	Office supplies	255-43200.610	90.88	33445	04/02/21
			3463816144A	SUPPLIES			
V2159	SURPASS CHEMICAL CO INC	03/24/21	4742 Gal Sodium Hypochlor	255-43200.619	4376.87	33448	04/02/21
			355231	CHEMICALS			
36130	VERIZON WIRELESS	03/18/21	WIRELESS CELL SERVICE	255-43200.535	97.22	33451	04/02/21
			9875782061	TELEPHONE SERVICES			
36130	VERIZON WIRELESS	03/18/21	WIRELESS CELL SERVICE	255-43200.570	40.01	33451	04/02/21
			9875782061	MAINTENANCE OTHER			
29825	VT GAS SYSTEMS	03/22/21	2/17-3/18/21	255-43200.623	2113.75	33460	04/02/21
			20901	HEATING/NATURAL GAS			
V9454	LENNY'S SHOE & APP	03/27/21	uniform Bundy	256-43200.612	209.00	33417	04/02/21
			3345547	UNIFORMS,BOOTS,ETC			
29825	VT GAS SYSTEMS	03/22/21	2/17-3/18/21	256-43220.002	39.88	33460	04/02/21
			20901	WEST ST PS COSTS			
29825	VT GAS SYSTEMS	03/22/21	2/17-3/18/21	256-43220.001	39.11	33460	04/02/21
			20901	SUSIE WILSON PS COSTS			
29825	VT GAS SYSTEMS	03/22/21	2/17-3/18/21	256-43200.623	126.53	33460	04/02/21
			20901	HEATING/NATURAL GAS			

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Check Warrant Report # 17245 Current Prior Next FY Invoices For Fund (GENERAL FUND)

HPackard

For Check Acct 01 (GENERAL FUND) All check #s 04/02/21 To 04/02/21 & Fund 2

Vendor	Invoice	Invoice Description		Amount	Check	Check
	Date	Invoice Number	Account	Paid	Number	Date
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		Report Total		115672.39		
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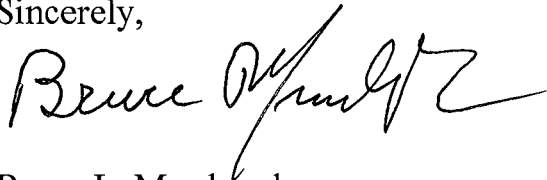
24March2021

Evan Teich  
Unified Manager  
81 Main Street  
Essex Junction, Vt 05452

Dear Evan:

This letter is to inform the Village Trustees I will be resigning my position on the Zoning Board of Adjustment as of 30April2021

Sincerely,

A handwritten signature in black ink, appearing to read "Bruce L. Murdough". The signature is fluid and cursive, with a large, stylized "B" and "M".

Bruce L. Murdough



# Memo

10a

## From the Town Manager's Office

To: Colchester Selectboard

From: Renae Marshall, Deputy Town Manager, Aaron Frank, Town Manager, Robert Vickery, Town Assessor and Julie Graeter, Town Clerk/Treasurer

Date: February 19, 2021

Re: Act 175 Vermont Education Property Tax Transition Study

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The Vermont Department of Taxes (the Department), in consultation with the Vermont League of Cities and Towns (VLCT) and the Vermont Municipal Clerks' and Treasurers' Association (VMCTA) has provided a report studying potential approaches to transitioning the responsibility for billing and collecting the statewide education property tax from municipalities to the Department. Initially the Town management was excited to learn that the State of Vermont might consider taking over all state education tax billing. This was based on our knowledge that the majority of Colchester taxpayers incorrectly believe that the taxes they pay to the town are levied by the town. But after reviewing the report, and the ideas submitted therein, we are no longer excited about the change and have the following concerns with the changes being considered:

- 1.) Complexity and Misunderstanding** – The town prioritizes good customer service to our residents and taxpayers. The idea of sending two separate bills to each taxpayer will result in confusion and frustration for our residents and town staff as it will have implications for escrow, billing cycles and software changes.
- 2.) Loss of Local Control** - Town staff will continue to address questions but will have no control over the administration of the billing. Among the changes being considered, is requiring a statewide billing cycle and standardizing the look and format of the bills. This will take time to administer and could result in each taxpayer receiving two bills until the issues are resolved across the state. Each municipality has voted on the number of billing cycles and due dates that best fit their municipal needs and values. Our tax cycles help the town and school district to respectively avoid and reduce the need for borrowing money for operating expenses, which also reduces operating costs. This local control would be eliminated with a statewide billing cycle. For example, if a statewide billing cycle is not enacted, then each Colchester property owner could potentially have 5-6 different property tax installments due per year.
- 3.) Homestead/Housesite (HH) Allocation** – The state currently pays each town a percentage of the Homestead and Non-Residential Grand List to administer the HH allocations. In Colchester, the FY2020 payment was \$69,190. If the state takes over the tax billing, it is assumed they would also take over the administration of the HH and this payment would go away. Staff currently spend approximately 10 hours/week administering the HH. These hours would decrease but not go away completely should the state take over the education property tax billing. The town would still be required to verify compliance and deal with questions from residents regarding how to file for HH which is roughly 50% of the time spent on administration of the HH.

**4.) Property Tax Appeal Process** – On rare occasions, the state has disagreed with a Board of Civil Authority (BCA) or Board of Listers' (BOL) findings in an appeal and have adjusted the Equalized Education Grand List (EEGL) to reflect the difference in value. This proposal would create two different assessments on two different tax bills. This could create two separate appeal processes. Disagreement in assessed value between the town and state has also happened in Grand List changes with partial reappraisals of a property class or neighborhood. If a disagreement in a partial reappraisal happens, it could affect hundreds of parcels. This happened in Colchester a couple of years ago when commercial apartments were reassessed. The state did not recognize the reappraisal in the EEGL and we appealed the EEGL to the state appeal board; we were successful and as a result, the EEGL was corrected.

Rather than transitioning the responsibility for billing and collecting the statewide education property tax from municipalities to the Department, town staff suggests making changes to the format of the property tax bill to better distinguish municipal services tax from the state homestead education tax that our residents and taxpayers pay.



Photo by Lee Krohn  
March 2021

## REGIONAL NOTES

March 2021

### Quick Links

[VT Dept. of Health Daily COVID-19 Updates »](#)

[Chittenden County Municipal Response to COVID-19 »](#)

[UVM Health Network COVID-19 FAQ »](#)

[Vermont League of Cities & Towns Resources »](#)

[CCRPC Website »](#)

[CCRPC Calendar »](#)

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[Of Note](#)

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[Economy](#)

[Energy & Natural Resources](#)

[Quality of Place](#)

[Emergency Management](#)

[Social Community](#)

### CCRPC Calendar of Events

**PLEASE NOTE:**  
**All meetings below will be held REMOTELY until further notice.**  
**Information about joining**

Good afternoon,

Happy spring! With the change in temperatures and the promise of widespread vaccine eligibility on the horizon, we are looking forward to the months ahead and hope you are staying safe and healthy.

We are pleased to announce the release of the **2020 ECOS Annual Report: The State of Chittenden County**. ECOS stands for Environment, Community, Opportunity, Sustainability. The ECOS Annual Report is an infographic that visually highlights some of the notable trends and issues in Chittenden County, and summarizes progress toward the goals set in our **ECOS Plan**, the combined Regional Plan, Metropolitan Transportation Plan and Comprehensive Economic Development Strategy for Chittenden County.

It will come as no surprise that this year's report looks different, as the data typically presented is over a year old and would tell a starkly different story than what is currently happening in our community due to the COVID-19 pandemic. 2020 has also spotlighted the systemic racism in our nation and our community. This year's ECOS Annual Report focuses on race, equity, and COVID-19 recovery and the ECOS leadership team's related efforts. View the Annual Report and accompanying online data Scorecard [here](#).

A few notable highlights from the 2020 ECOS Annual Report include:

- **Demographics** | 83% of the population growth in Chittenden County over the last 10 years has been Hispanic (of any race), Black or African American, and/or American Indian and Alaska Native. This equates to 5,901 of the 7,069 people from 2010-2019.
- **Annual Median Household Income** | Black and African American households earn less than half of White households.
- **COVID-19 Among BIPOC Vermonters** | In Chittenden County, BIPOC residents contracted COVID-19 at 2.7 times the rate of White residents.

Achieving a healthy, inclusive, and prosperous future for Chittenden County is the vision of our **ECOS Plan**. However, the ECOS partners know we cannot achieve that future without addressing the systemic racism in our community. While addressing inequity has been one of the eight key strategies in the ECOS Plan since 2013, it is clear that a healthy, inclusive and prosperous future is not in reach for all Chittenden County residents, and there is much work to be done. At CCRPC, we will be working with our

remotely is provided with every meeting agenda.

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## APRIL

4/6, 9:00am: CCRPC Transportation Advisory Committee Meeting

[CANCELED] 4/6, 11:00am: CCRPC Clean Water Advisory Committee Meeting

4/6, 12:15pm: CCRPC MS-4 Sub-Committee Meeting

4/7, 5:45pm: CCRPC Executive Committee Meeting

4/8, 7:00pm: Richmond Bridge Street Study Public Meeting

4/21, 6:00pm: CCRPC Board Meeting

[View full calendar »](#)



## CCRPC FY21 Annual Work Program

The CCRPC's Unified Planning Work Program (UPWP) is our annual work program that describes our activities and specifies the deliverables for the next year. The UPWP is the mechanism to implement the strategies for our region outlined in the **ECOS Plan** and helps municipalities implement their local plans.

[Learn More »](#)



## NEW: 2020 ECOS Annual Report Available

The 2020 Annual Report is the seventh edition. In addition to some of the data we report on annually,

member municipalities, partners, and state agencies to confront and address systemic racism.

To learn more about the ECOS Plan, visit <http://www.ecosproject.com> or contact [info@ccrpcvt.org](mailto:info@ccrpcvt.org).

Best regards,

Charlie Baker  
Executive Director, **CCRPC**

## Of Note

**CCRPC Summer Internship Opportunities - Applications Due: April 9**  
The CCRPC seeks to hire 3 interns for the summer months (June - August) of 2021. Applications are due April 9. [Learn More »](#)

**RFP Available: Social Change Marketing Campaign Services Re: Stormwater - Applications Due: April 9**

The CCRPC is soliciting responses from qualified Contractors and/or Organizations to aid in implementation of a social change marketing campaign known as Rethink Runoff. [Learn More »](#)

**RFQ Available: Civil Engineering Services for the Town of Westford - Applications Due: April 14**

The Town of Westford, and project partners (e.g. Vermont River Conservancy, Champlain Housing Trust, and Green Mountain Habitat for Humanity), will conduct site investigation, planning, and pre-development work on the property at 1705 VT Route 128 in Westford. [Learn More »](#)

**RFQ Available: Planning, Engineering, and Environmental Services - Applications Due: April 23**

The CCRPC is issuing a RFQ on behalf of the nineteen communities that comprise the CCRPC for Planning, Engineering and Environmental Services. [Learn More »](#)

**CCRPC FY22 Annual Work Program (UPWP) Development Underway**

The CCRPC is in the process of creating the FY2022 Unified Planning Work Program (UPWP), our **annual work program** that describes our activities and specifies the deliverables for the next year (July 1, 2021-June 30, 2022). [Learn More »](#)

**IRS and Vermont Extend April 15 Income Tax Deadline to May 17**

The deadline for Vermont personal income tax filings for tax year 2020 has been extended from April 15 to May 17 in alignment with the federal due date change announced by the IRS. This extension means taxpayers can file their 2020 Vermont personal income tax, and pay any tax owed, by May 17 without penalties and interest.

## Transportation

### Implementing ECOS Strategy 2

**Richmond Bridge Street Complete Streets Corridor Study Public Meeting: April 8**

The Town of Richmond, with assistance from CCRPC and consultant VHB, seeks to plan for walking and biking improvements to Bridge Street. Following our first public meeting in December, we compiled your thoughts for improving walking and biking on Bridge Street and came up with some draft concepts. We welcome you to join us at our next virtual public meeting at 7:00pm on April 8th via Zoom! [Learn More »](#)

**Survey: Swift and Spear Street Intersection Feasibility Study - Responses Due: April 8**

Over the next several months, the City of South Burlington, CCRPC, and their design consultants will be exploring options to improve walking, bicycling, and driving through the Swift Street / Spear Street intersection. The project team invites you to learn more about this project and provide input about your experiences at this intersection. Your input will be used to



this year's **ECOS Annual Report** includes indicators of disparities that have resulted from systemic racism in our nation and community, as well as indicators associated with the COVID-19 pandemic.

This intentional focus on race, equity, and the COVID-19 pandemic marks the commitment of the ECOS leadership team to address these challenges.

[Learn More »](#)



### United Way of Northwest Vermont COVID-19 COMMUNITY RESPONSE

United Way is dedicated to supporting our community members through the COVID-19 pandemic and the social and economic fallout that may result from it. To support all of our neighbors, United Way is working with its existing network of partnerships and the community at large to develop a **comprehensive list** of community-based services and volunteer opportunities updated on a daily basis.

[Learn More »](#)

### CCRPC Board of Directors FY21 Membership

Bolton: Sharon Murray

Buel's Gore: Garret Mott

Burlington: Andy Montroll

Charlotte: Jim Donovan

Colchester: Jacqueline  
Murphy

Essex: Jeff Carr

Essex Junction: Dan Kerin

Hinesburg: Michael  
Bissonette

Huntington: Barbara Elliott

create alternative design options and proposed improvements. We want to hear from you! [Learn More »](#)

### Survey: Winooski City Parking Management Plan

Do you live, work, or play in Winooski? Please help us better understand parking habits throughout the City by taking [this survey](#)! The survey will be active throughout the month of April pending response rates. Thank you!

### Chittenden County I-89 2050 Study Updates

The Chittenden County I-89 2050 Study is a collaborative effort of the Chittenden County Regional Planning Commission and the Vermont Agency of Transportation to develop a comprehensive investment program for the 37 mile I-89 corridor in Chittenden County, Vermont through 2050. Outreach efforts to share this study's findings at each phase of the project and solicit input from stakeholders to inform decision-making have been ongoing. Visit the project website for previous and upcoming public participation opportunities. [Learn More »](#)

### GMP Workplace Charging Program

The GMP Workplace Charging Program makes it easy for businesses, organizations, and municipalities to install EV chargers for public use with no upfront costs. The flat, monthly subscription charge starts at \$35 per month and covers the cost of the charger, installation, software and maintenance, and includes optional low-interest financing through the [Vermont Economic Development Authority \(VEDA\)](#). Have questions or want to set up a site visit to get rolling? Email the [GMP Business Innovation Team](#).

### Way to Go! School Challenge Gets Creative During COVID

The [Way to Go!](#) team, with support from CCRPC and VTrans, have adapted this award-winning program to be relevant for students statewide during the global pandemic. For example, student artists at Fletcher Elementary School, and at schools statewide, are creating their own unique face masks and supporting the environment at the same time. Read about their project [here](#).

### Exit 16 DDI Updated Project Schedule Available

VTrans has announced an updated schedule for the Exit 16 Diverging Diamond Interchange (DDI) project. The bid advertisement and the contract award are planned for Spring 2022. Once awarded, phase one of construction can be begin, which includes utility relocation, ledge removal, and the construction of a retaining wall and shared-use path. Phase two will begin in 2023 and includes construction of the new DDI. [Learn More »](#)

### More Transportation Projects & Updates

- Chittenden County [I-89 2050 Study](#) »
- Richmond Bridge Street Complete Streets [Corridor Study](#) »
- Swift and Spear Street Intersection [Feasibility Study](#) »
- North Winooski Avenue [Parking Management Plan](#) »
- [VT2A Connector Path - Beaudry Lane to VSECU](#) »
- Winooski Avenue [Corridor Study](#) »
- South Burlington VT116-Kimball-Tilley [Land Use & Transportation Plan](#) »
- Winooski East Allen Street [Scoping Study](#) »
- Colchester Ave Protected Bike Lanes and East Ave [Intersection Improvements](#) »
- [Bikeway Connectivity, Pedestrian Safety, and Stormwater Management in the Old North End](#) »
- Richmond Rd. / North Rd. / Texas Hill Rd. Intersection [Scoping Study](#) »
- [Advanced Traffic Monitoring System](#) »
- [Way to Go! to School](#) »
- [Municipal Road General Permit \(MRGP\) Technical Assistance](#) »

For a full list of transportation projects, visit the CCRPC Transportation Advisory Committee [website](#); a full project list is provided in every TAC agenda and is updated regularly. [View the latest TAC agenda](#) »



Jericho: Catherine McMains

Milton: Tony Micklus

Richmond: Bard Hill

Shelburne: John Zicconi

St. George: Jeff Pillsbury

So. Burlington: Chris Shaw

Underhill: Vacant

Westford: Allison Hope

Williston: Erik Wells

Winooski: Mike O'Brien  
(Chair)

FY21 Membership is  
effective July 1, 2020  
through June 30, 2021.

For more information  
about the CCRPC Board  
of Directors, [click here](#).

### CCRPC Staff

Charlie Baker, Executive  
Director

Dan Albrecht, Senior  
Planner

Pam Brangan, GIS, GIS  
Data & IT Manager

Jason Charest, PE, Senior  
Transportation Planning  
Engineer

Eleni Churchill,  
Transportation Program  
Manager

Forest Cohen, Senior  
Business Manager

Bryan Davis, AICP, Senior  
Transportation Planner

Marshall Distel,  
Transportation Planner

Chris Dubin, Senior  
Transportation Planner

Christine Forde, AICP,  
Senior Transportation  
Planner

Amy Irvin Witham, Business  
Office Manager

Regina Mahony, AICP,  
Planning Program Manager

Melanie Needle, Senior  
Planner

Taylor Newton, Senior  
Planner

Sai Sarepalli, PE, Senior  
Transportation Planning

## Economy

### Implementing ECOS Strategy 1

#### Vermont Arts Council Artist Development Grants - Applications Due: **May 10**

Artist Development Grants support artists at all stages of their careers. Grants can fund activities that enhance mastery of an artist's craft or skills; activities that increase the viability of an artist's business; or for teaching artists, developing the skills necessary to provide instruction in K-12 schools remotely during the COVID-19 crisis. [Learn More »](#)

#### From St. Johnsbury to Shelburne, Museums Prepare to Reopen - Carefully

All around Vermont, museums are envisioning a summer when they can cautiously emerge from various states of closure. Like restaurants and hotels, museum operations -- which rely on in-person engagement between visitors and exhibits -- have been sharply restricted during a year of pandemic. Now, as COVID-19 vaccines are distributed, and the state gradually loosens those restrictions, museum directors feel more optimistic than they have in months. [Learn More »](#)

## Energy & Natural Resources

### Implementing ECOS Strategies 3 & 4

#### Clean Water Lecture Series: **April 1**

Join David Sausville, Wildlife Biologist with the Vermont Fish and Wildlife Department (VFWD) to discuss a new wetland restoration program funded by the U.S. Environmental Protection Agency and Lake Champlain Basin Program. The goal of this program is to support wetland acquisition, conservation, and restoration projects. Wetlands improve water quality, provide wildlife habitat, and increase access to public recreation. David will also summarize the history of VFWD's stewardship to Wildlife Management Areas and future conservation projects. [Learn More »](#)

#### Webinar: Forest Sustainability from a Forester's Point of View: **April 1**

New Hampshire, Vermont, Maine and northern New York State are among the most heavily wooded regions of the U.S. How should these forests be treated? Join this talk about climate change, forestation and renewable heat using tree-based biomass. This webinar will provide insights based in science and experience. [Learn More »](#)

#### Earth Day: April 22

EarthDay.org's mission is to diversify, educate and activate the environmental movement worldwide. Growing out of the first Earth Day in 1970, it is the world's largest recruiter to the environmental movement, working with more than 75,000 partners in over 190 countries to drive positive action for our planet. [Learn More »](#)

#### Vermont Urban Community Forestry Program Public Places Awards

This awards program recognizes special public spaces, the corridors that connect them, or networks of public spaces which have been defined or enriched by planning or design, as well as regulations that promote positive public uses and benefits. Submission deadline: May 7, 2021. [Learn More »](#)

#### 'Ask an Arborist' May Webinar Series

VT Urban & Community Forest Program is celebrating trees throughout the month of May with an "Ask an Arborist" webinar series. Each Friday, we will have an ISA Certified Arborist host an informal conversation about all things trees -- from planting to pruning to planning! Each arborist will share about their work and answer any tree question you may have! [Learn More »](#)

## Quality of Place

### Implementing ECOS Strategy 2

#### 2021 AARP Community Challenge - Applications Due: **April 14**

AARP Vermont invites community organizations and local governments across the state to apply for the 2021 Community Challenge grant program, now through April 14. Grants fund quick-action projects that can range from several hundred dollars for small, short-term activities to several

**Engineer**

Emma Vaughn,  
Communications Manager

---

**Please Note: As of March 16, 2020, CCRPC employees are working remotely and the office is closed to visitors. Please call or email and we will respond as soon as possible. Thank you!**

For bios and contact information, [click here](#).

**Our Communities**

**Bolton »**  
**Buel's Gore »**  
**Burlington »**  
**Charlotte »**  
**Colchester »**  
**Essex »**  
**Essex Junction »**  
**Hinesburg »**  
**Huntington »**  
**Jericho »**  
**Milton »**  
**Richmond »**  
**Shelburne »**  
**South Burlington »**  
**Underhill »**  
**Westford »**  
**Williston »**  
**Winooski »**

thousand or tens of thousands for larger projects that address placemaking, transportation and mobility, housing, civic engagement, COVID-19 recovery, diversity and inclusion, and more. [Learn More »](#)

**Share Your Thoughts on the Future of Vermont**

The challenges facing Vermont call on us to unite to build a better future. The Vermont Council on Rural Development, a neutral facilitator of public process, is excited to share the first draft of The Vermont Proposition: An effort to set non-partisan priorities for statewide action. The Proposition draft, based on input from thousands of Vermonters, shares a set of ideas to drive common action and advance a successful future for our communities, environment and economy. Now, VCRD is looking to you to help strengthen the Proposition. What's missing? What could be improved? What do we need to do to be successful for the next generation? To learn more about the initiative, see the current draft, and share your thoughts, visit [futureofvermont.org](http://futureofvermont.org).

**New Exhibit Celebrates Winooski's Mill Heritage**

Visitors to the Heritage Winooski Mill Museum can now enjoy detailed drawings of a fictional mill town similar to Winooski. These drawings were created by Caldecott award-winning illustrator David Macaulay, whose original sketches are on display at the museum. [Learn More »](#)

**ACCD COVID-19 Recovery Resource Center**

To aid Vermonters as we all respond to and recover from the COVID-19 outbreak, ACCD has developed a Recovery Resource Center of available tools including financial assistance programs, unemployment information, and a series of Frequently Asked Questions to help businesses and individuals navigate the resources available in this time of need. [Learn More »](#)

**Emergency Management****Implementing ECOS Strategy 2****Local Emergency Management Plans Due May 1**

All municipal jurisdictions are expected to review and update their Local Emergency Management Plan (LEMP) annually and to formally readopt them between Town Meeting Day-on the first Tuesday in March-and May 1st. A current Local Emergency Management Plan is also required for municipalities to receive federal preparedness funds and increased state reimbursement through the Emergency Relief and Assistance Fund (ERAF). Please contact [Christine Forde](#) with any questions, or visit the [LEMP webpage](#).

**Vermont Alert**

VT-ALERT is the state system that notifies Vermonters of emergency situations, weather alerts, road information, and more. Register for a free account at [www.vtalert.gov](http://www.vtalert.gov).

**Social Community****Implementing ECOS Strategy 2****Starting April 1, All BIPOC Vermonters Are Eligible For Vaccines**

Because of the disproportionate impact of COVID-19 on Vermonters of color and disproportionately low rates of vaccine uptake, the Department of Health has partnered with organizations across the state to administer vaccination clinics specifically focused on these populations. Starting April 1, if you or anyone in your household identifies as Black, Indigenous, or a person of color (BIPOC), including anyone with Abenaki or other First Nations heritage, all household members who are 16 years or older can also sign up to get a vaccine. [Learn More »](#)

**New Video Podcast Focuses on the Economic Impact of COVID-19 on Women**

Based on median earnings for full-time, year-round workers, women are paid 82 cents for every dollar paid to men. Vermont Commission on Women presented the second in a series of (un)Equal Pay Day video podcast conversations, which was first broadcast on March 24th, the day into the

year women needed to work before their earnings caught up to those of men in 2020 due to the wage gap. [Learn More »](#)

**UVM Integrative Health to Host Integrative Pain Management Conference: May 7**

UVM Integrative Health, the College of Nursing and Health Sciences and UVM Medical Center are co-hosting a conference for the health care community aimed at helping providers understand non-pharmacologic approaches to pain management. [Learn More »](#)

**VSAC GEAR UP Sponsors New Podcast for Parents**

Vermont Student Assistance Corporation's GEAR UP program is sponsoring a new podcast series aimed at parents of teenagers and the tough challenges that face teens. [Learn More »](#)

If you have any questions, feedback, or suggested content for upcoming issues, please contact Emma Vaughn, Communications Manager: [evaughn@ccrpcvt.org](mailto:evaughn@ccrpcvt.org) or (802) 846-4490 x \*21.

**Chittenden County Regional Planning Commission**  
110 West Canal Street, Suite 202 | Winooski, VT 05404  
(802) 846-4490 | [connect@ccrpcvt.org](mailto:connect@ccrpcvt.org)  
[ccrpcvt.org](http://ccrpcvt.org) | [ecosproject.com](http://ecosproject.com)

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**From:** Linda Mahns <[lmahns@essexjunction.org](mailto:lmahns@essexjunction.org)>

**Sent:** Friday, March 26, 2021 4:59 PM

**To:** Micah Hagan, Elijah Massey, Eric Bowker, Annie Cooper, Seth Cronin, Ramón Matanzo

**Cc:** Evan Teich <[eteich@essex.org](mailto:eteich@essex.org)>; Gregory Duggan <[gduggan@ESSEX.ORG](mailto:gduggan@ESSEX.ORG)>; Marguerite Ladd <[mladd@ESSEX.ORG](mailto:mladd@ESSEX.ORG)>

**Subject:** Feedback from Jon Kaplan re: Bike Ped Grant

Hello!

I had a short Teams meeting today with Jon Kaplan from the state of VT asking to provide more detailed information on this grant application and why it was denied. These are the notes from that meeting:

- More detail was wanted from committee members on their end:
- More detail on answer #1 – want to know more about the why's of these locations and who all wants this to happen and why
- More details for location and include maps as well as details on traffic volumes, etc.
- More budget detail on what specifically the grant will be used for (ex: to purchase the equipment) and what parts will be taken by staff time, etc.
- Show that there is commitment to this as a plan by saying something like “\_\_\_\_\_ in the PW department is going to oversee this plan...” – basically to list out all parties involved on this end to ensure this grant money is used for what we say it will be used for

So, basically, more details were wanted. Overall, he said that this is likely something that the grant will award – they just needed more detail to show the importance, maps, plan, budget use, and overall commitment. 😊

The good news is that more funding is happening AND will be able to apply sometime in July. So we should be on the lookout for more information soon for another grant.

Thank you,

**Linda Mahns**

Administrative Assistant

Manager's Office

2 Lincoln Street

Essex Jct., VT 05452

phone: 802-857-5711

fax: 802-878-6946

web: [www.essex.org](http://www.essex.org)



**Jon Kaplan, P.E.**  
**Bicycle and Pedestrian Program Manager**  
**State of Vermont**  
**Municipal Assistance Bureau**  
Barre City Place, 219 North Main St.  
Barre, VT 05641  
**[www.vtrans.vermont.gov](http://www.vtrans.vermont.gov)**

[jon.kaplan@vermont.gov](mailto:jon.kaplan@vermont.gov)

*Agency of Transportation*

[phone] 802-498-4742  
[ttd] 800-253-0191

March 22, 2021

VIA EMAIL

Linda Mahns  
Village of Essex Jct.  
2 Lincoln Street  
Essex Junction, VT 05452

**RE: Essex Junction Crosswalk Beacons- Lincoln/Central, Main/Pleasant & Main/Church**

Linda Mahns:

Thank you for your recent application for funding to the 2021 VTrans Small-scale Bicycle & Pedestrian Program. Unfortunately, your project was not recommended for funding. This was a competitive round with twenty-five applications statewide totaling requests of \$750,000 in state funds. If you are interested in specific feedback about your application, please feel free to contact me.

Once again, thank you for your interest in this program and we encourage you to seek funding from the Bicycle & Pedestrian Program in future years. If you have any questions or would like to discuss your project in more detail feel free to call me at 802-498-4742 or email me at the address above.

Sincerely,

A handwritten signature in black ink, appearing to read "Jon Kaplan".

Jon Kaplan, P.E.  
Bicycle and Pedestrian Program Manager  
Local Projects Section, Municipal Assistance Bureau

cc: Chittenden Co. RPC  
Amy Bell, VTrans Policy and Planning Manager  
Project File

# Memorandum

TO: Evan Teich, Unified Manager and Greg Duggan, Deputy Town Manager

FROM: Annie Costandi, P.E., Stormwater Coordinator/Staff Engineer

Chelsea Mandigo, Stormwater Coordinator/Wastewater Operator

Dennis Lutz, P.E., Public Works Director

Jim Jutras, Water Quality Superintendent

DATE: March 12, 2021

SUBJECT: Information on Stormwater Phosphorus Control Plan Submittal to the State

The Village and Town are required by Section 8.2 of the State MS4 Stormwater Permit to submit a Phosphorus Control Plan (PCP) to the State detailing how the municipalities will reduce the amount of phosphorus entering Lake Champlain from municipally owned and operated impervious surfaces in accordance with the Lake Champlain Phosphorus Total Maximum Daily Load. The PCP is due to the State by April 1, 2021.

The Village secured a grant on behalf of both communities to develop a joint PCP and hired Stone Environmental as the primary consultant. A draft of the PCP was provided to the Town and Village on March 2, 2021 and after a thorough review, we determined that there is additional work that needs to be done in order to refine the list of projects, their prioritization, and associated implementation costs before bringing the plan to the Selectboard and Board of Trustees for their approval.

The plan is to move forward with submitting the draft PCP to the State on April 1st in order to stay in compliance with the stormwater permit. In the submittal, the State will be informed that the document is in draft form and will be refined over the next coming months. In that time, we will reinstitute and utilize the Joint Stormwater Coordinating Committee to assist in developing the prioritization and providing direction on the best way to meet the phosphorus reduction targets. Once a final PCP has been developed, a presentation will be given to both Boards for their consideration and approval which will then be submitted to the State.

Comments have been provided to Stone to incorporate into the PCP prior to the April 1st deadline. A copy of that draft PCP will be provided to you to keep you informed on the progress of the plan. We will provide an update when the final PCP is developed.



Community Development Department

2 Lincoln Street  
Essex Junction, VT 05452  
[www.essexjunction.org](http://www.essexjunction.org)

Office: (802) 878-6950  
Fax: (802) 878-6946

## **MEMORANDUM**

**TO:** Evan Teich, Unified Manager, Trustees  
**FROM:** Robin Pierce, Community Development Director  
**DATE:** April 13<sup>th</sup> 2021.  
**SUBJECT:** Crescent Connector Update

### **Issue**

The issue is whether the Trustees wish to be made aware of the fact that we received the final ROW Clear from VTrans.

### **Discussion**

The Village has worked tirelessly to acquire all the land and easements necessary to construct the Crescent Connector Road. Although we received ROW clear for Phase 1 (the rail work) we were unable to access the funding for that phase until we had secured all necessary land and easements to construct Phase 2, the road portion. Having secured the easements necessary to construct the road earlier this month on March 29<sup>th</sup> 2021 VTrans issued the ROW Clear for Phase 2. This means we have approval to construct Phase 1 and Phase 2 of the Crescent Connector Road. Please find attached the right-of-way certificate for Phase 2 of the Crescent Connector.

My understanding is that Phase 1 needs to be rebid and we hope this will be done expeditiously by NECR. If Phase 1 is completed this year, we can bid the road portion in the autumn for construction spring 2022 and have an opening late summer 2022. Mark your calendars!

### **Recommendation**

This is an informational, celebratory, Memo that underscored the benefits of persistently pursuing the dream of a more vibrant, verdant, pedestrian focused center that puts the Village back in Essex Junction, while showing others how to manage traffic efficiently without giving up your community center.



## RIGHT OF WAY CERTIFICATE

DATE: 03/29/2021

PROJECT: Essex Junction STP 5300(13)

PPMS #: 12d282

This is to certify that the right of way has been or will be acquired in accordance with Vermont State Statute, the Uniform Relocation Assistance Real Property Acquisition Policies Act of 1970 as amended and Title 23 of the Code of Federal Regulations, Part 635 (when applicable) and the status of the right of way is as follows:

- ☐ No acquisitions of land or rights was necessary since all construction will be within the existing controlled right of way. Use of non-controlled right of ways will be allowed through executed agreements or approved permits.
- ☒ Pursuant to 23 CFR 635.309(c)(1) and/or (2), all the acquisitions of land and rights have been completed including legal and physical possession and/or the right to occupy and to use all rights of way required for the proper execution of the project has been acquired.
- ☐ Pursuant to 23 CFR 635.309(c)(3), all the necessary right of way has not been acquired, however, the acquisitions are being progressed and all legal and physical possession will be completed prior to award of the construction contract.

Comments:

APPROVED: **Trey Polk**

Digitally signed by Trey Polk  
Date: 2021.03.29 13:18:12 -04'00'

Trey Polk, Right of Way Acquisitions and Utilities Manager

Distribution

Andrea Wright, Right of Way and Environmental Program Manager

Ande Deforge, Project Manager

Marvin D. Kingsbury, Programming Engineer, Planning

Craig Keller, Chief of Permits

Anthony Davis, Finance & Administration

Meredith Asselin, Finance & Administration

Patrick Kirby, FHWA

ROW Admin for OnBase



STATE OF VERMONT

# Agency of Transportation

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## VT ROUTE 15 - COLCHESTER-ESSEX

The Vermont Agency of Transportation in conjunction with Engineers Construction, Inc. (ECI) will begin the construction of a new on VT Route 15 between the intersections of Lime Kiln Road, Colchester and Susie Wilson Road, Essex.

This project includes a new 10' wide multi-use path, pedestrian signal upgrades, signage, pavement markings and other incidental highway related activities. The new path will run along the south side of VT Route 15 from Lime Kiln Road to Vermont Air National Guard Road, then cross VT Route 15 and continue along the north side of the road to Susie Wilson Road.



During construction, we anticipate minimal impact on the traveling public as the majority of the work will be off the roadway. Non-motorists, will follow a signed detour package. If any impact to the

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motorists occurs, it will be clearly signed and there will be flaggers and/or uniformed traffic officers. All construction will be during the daytime hours. The anticipated completion is September 2021.

On April 12, 2021 ECI will install construction signage and set up erosion control measures.

For questions/concerns regarding this project or to receive weekly project updates, you may email Stephanie Barrett, Public Information Consultant at [sbarrett@coibsinc.com](mailto:sbarrett@coibsinc.com) (<mailto:sbarrett@coibsinc.com>) or call 802-399-7847. Please reference VT Route 15.

## Construction Updates

Coming Soon

## Vermont Agency of Transportation

219 North Main Street  
Barre, VT 05641

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# Memorandum

**To:** Village Board of Trustees; Evan Teich, Unified Manager  
**From:** Linda Mahns, Administrative Assistant   
**Re:** Updated meeting schedule for 2021-2022  
**Date:** April 7, 2021

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## **Issue**

The memo is to give notification of the updated meeting schedule for 2021-2022.

## **Discussion**

Attached is the updated meeting schedule for the coming year for the Trustee's review and consideration. Meeting dates have been adjusted as necessary to accommodate holidays and regularly-scheduled joint board meetings have been removed.

## **Cost**



None.

## **Recommendation**

This is an informational memo. No recommendation necessary.

# MEETING SCHEDULES

04/09/2021

TOWN SELECTBOARD MEETINGS		VILLAGE TRUSTEES MEETINGS	
			
April 14, 2021—6:30 PM	VB Regular		
April 19, 2021—6:30 PM	SB Regular		
April 27, 2021—6:30 PM	VB Regular		
May 3, 2021—6:30 PM	SB Regular		
May 11, 2021—6:30 PM	VB Regular		
May 17, 2021 – 6:30 PM	SB Regular		
May 25, 2021 – 6:30 PM	VB Regular		
June 7, 2021 – 6:30 PM	SB Regular		
June 8, 2021 – 6:30 PM	VB Regular		
June 21, 2021 – 6:30 PM	SB Regular		
June 22, 2021 – 6:30 PM	VB Regular		
July 12, 2021 – 6:30 PM	SB Regular		
July 13, 2021 – 6:30 PM	VB Regular		
August 2, 2021—6:30 PM	SB Regular		
August 10, 2021—6:30 PM	VB Regular		
August 17, 2021—6:30 PM	SB Regular		
August 24, 2021—6:30 PM	VB Regular		
September 13, 2021—6:30 PM	SB Regular		
September 14, 2021—6:30 PM	VB Regular		
October 4, 2021—6:30 PM	SB Regular		
October 12, 2021—6:30 PM	VB Regular		
October 18, 2021—6:30 PM	SB Regular		
October 26, 2021—6:30 PM	VB Regular		
November 1, 2021—6:30 PM	SB Regular		
November 2, 2021 – 8:30 AM	VB All day budget workshop		
November 9, 2021 – 8:00 AM	SB All day budget workshop		
November 9, 2021—6:30 PM	VB Regular		
November 15, 2021—6:30 PM	SB Regular		

<b>November 23, 2021—6:30 PM</b>	VB Regular
<b>December 6, 2021—6:30 PM</b>	SB Regular
<b>December 14, 2021—6:30 PM</b>	VB Regular
<b>December 20, 2021—6:30 PM</b>	SB Regular
<b>December 21, 2021—6:30 PM</b>	VB Regular
<b>January 3, 2022—6:30 PM</b>	SB Regular
<b>January 11, 2022—6:30 PM</b>	VB Regular
<b>January 18, 2022—6:30 PM</b>	SB Regular
<b>January 25, 2022—6:30 PM</b>	VB Regular
<b>February 7, 2022—6:30 PM</b>	SB Regular
<b>February 8, 2022—6:30 PM</b>	VB Regular
<b>February 22, 2022—6:30 PM</b>	VB Regular
<b>February 23, 2022—6:30 PM</b>	SB Regular meeting
<b>February 28, 2022—6:30 PM</b>	SB Informational hearing
<b>March 1, 2022 – 7:00 PM</b>	SB Annual meeting
<b>March 7, 2022—6:30 PM</b>	SB Regular
<b>March 8, 2022—6:30 PM</b>	VB Regular
<b>March 21, 2022—6:30 PM</b>	SB Regular
<b>March 22, 2022—6:30 PM</b>	VB Regular
<b>April 4, 2022—6:30 PM</b>	SB Regular
<b>April 6, 2022 – 7:00 PM</b>	VB Informational hearing
<b>April 12, 2022—6:30 PM</b>	VB Regular