

Public Comment to Draft Pretreatment Discharge Permit

Permit 3-1406

Submitted by: Don't Undermine Memphremagog's Purity (DUMP, LLC)

Date: November 18, 2021

ANR.WSMDWastewater@vermont.gov

As essential a priority as effective treatment of landfill leachate is, in order to scrub it of its toxins and to eliminate the existential hazard to the environment and public health in Vermont and around the world, Vermont must not rush into developing this highly technical process headfirst, but in a measured and deliberate way.

While we understand that this public comment must be focused on the text of the draft permit itself, it is impossible to separate our comments from the closely related and equally important issues that have informed our work in DUMP since its inception. For this reason, we include this cover letter, in addition to our mark-up of the document **Draft Pretreatment Discharge Permit 3-1406**, which provides point-by-point response to the draft itself.

- **Responsibility and accountability** for leachate pretreatment, in fact solid waste in total, belongs to the State of Vermont alone. Thus far, we are not aware that any regulations or standards specific to this highly technical and brand-new field of leachate pretreatment for landfill contaminants have been drawn up according to State of Vermont administrative procedures. Without a regulatory framework how will accountability to the State of Vermont ANR and to the citizens of Vermont be assured?

We stress that treatment of landfill leachate to filter all the deadly toxins it contains, as necessary a goal as that is, is too important a function, affecting the health of environment and of the public, to be left to the private for-profit solid waste industry alone. Landfill leachate, containing toxic CECs, including “forever” PFAS chemicals as well as heavy metals and other harmful substances, is toxic nearly to the same degree as nuclear waste. Effective, evidence-based technology will be required to be utilized at any cost. The profit margins of big business cannot be put before the interests of public and environmental health.

Given the current language in this draft, one has to ask “Who is in charge here? The State ANR or the solid waste industry giant NEWSVT?” Where is the regulatory authority to govern every step of this leachate pretreatment pilot project?

In effect, Special Condition #5 of this Draft Permit allows for the privatization of environmental regulation, ceding the “police power” of the state for the protection of the public health, safety and welfare to a private corporation.

As written, the decision-making authority- for choosing the technology, the siting of the pilot project, oversight of day-to-day management and maintaining safety requirements and more- is in the hands of the landfill owner-operator, one with a history of environmental violations. With so much at stake, this permit needs to be rewritten to put the State regulatory agency, and the legislature, in charge of every aspect of solid waste management, especially including leachate pretreatment.

Furthermore, the attempt to roll two permits into one is highly questionable. The pilot leachate pretreatment project embedded in this draft permit is set in motion by Special Condition 5, which by its own terms requires the filing of an amendment application. Considering the time this process would take, the timeline set in Special Condition 5b (one year- from approving this draft permit,

choosing the technology, determining a site, and planning every step of operations and monitoring-to beginning construction of this facility) is either overly optimistic or suggests that many of these decisions have already been made in the absence of any pertinent regulations or performance standards.

Strict statutory and regulatory authority is required moving forward to meet the mission of the Vermont Agency of Natural Resources: to protect our natural resources on behalf of the environment and the people of Vermont for future generations.

Additionally, you will notice certain themes that are repeated throughout this response to the Draft Permit. These include:

For the Wastewater Treatment permit:

- Lack of any jurisdictional basis and authority, based upon Vermont enabling legislation giving the ANR authority to delegate permit responsibilities to a private entity (NEWSVT)
- Priority Pollutant List - limited number of PFAS compounds monitored. For other contaminants the permit is using a 40-year-old EPA list - many other toxic contaminants should be added. The permit does not require an adequate water quality monitoring process to assess the impact of PFAS on receiving waters and fish tissue; receiving waters are only being monitored for five PFAS. Total PFAS must be monitored as all PFAS compounds incur similar harm to environmental and public health.
- Language lacks specificity thus no accountability required; use of language throughout that is not definite i.e., "may" vs. "shall", "can" vs "will".
- If Montpelier restricts the leachate (storm events, other) where will the leachate go?
- What if the holding tanks are full? Important details are lacking about number of gallons of leachate from in-state and out- of -state landfills that may be pretreated, and what Plan B is in the event Montpelier WWTF is unable to handle the number of gallons permitted for discharge.
- Permittee has too much responsibility thus control over decision-making; objective, 3rd -party expert oversight is required.

Condition 5: Pilot Study for Leachate Treatment

- Lack of evidence of regulatory standards; lack of any jurisdictional basis and authority, based upon Vermont enabling legislation, giving the ANR authority to delegate permit responsibilities to a private entity (NEWSVT). The Draft Permit contains several improper "conditions subsequent"; Special Condition 5 is the clearest example of this and must not be included as written in the final permit, if a permit is to be issued.
- Permittee has been granted too much control over every phase of decision-making; objective 3rd - party expert oversight is lacking and must be required by the ANR throughout the process, from selecting technology; siting; setting parameters for oversight and monitoring; through to managing day to day operations, including handling residuals in the safest manner possible to ensure the safety of the environment and public.
- Priority Pollutant List – a limited number of PFAS compounds is required to be monitored out of the thousands of PFAS compounds and precursors. For other contaminants, the permit is using a 40-year-old EPA list; many other toxic contaminants should be added.
- Knowledge and understanding of the technology for treating leachate is evolving - Permittee is authorized to select a technology from a 2-year-old study, when the state of the technology has advanced to be more effective at filtering landfill leachate contaminants than the 2019 Brown and

Caldwell designs under consideration. ANR must require that effectiveness, not cost, guide decision-making.

- Language lacks specificity, thus no accountability is required; use of language throughout the Draft that is not definite, i.e., "may" vs. "shall", "can" vs "will" , leaves too much room for lax management and insufficient protection of natural resources and the public health.

This cover letter also addresses concerns that cannot be separated from the consequences of this permitting process, and that are foundational to our objection to the permit as written and to our insistence that the Draft Permit 3-1406 be denied and a new process begun, incorporating all the public comments received that echo similar concerns as DUMP expresses here in the cover letter, and in the mark-up of the Draft Permit that follows:

Foundational concerns:

Potential for Environmental Catastrophe: EPA regs today would not allow any landfill, much less the Coventry monolith, to be sited within feet of wetlands, yards of a river that flows into a lake less than a mile away. Adding a "pilot project" to treat toxic landfill leachate, which would import even more raw leachate to this site, including from out-of-state as is proposed in this Draft Permit, and then to discharge its effluent into the Memphremagog watershed, is asking for calamity, if it hasn't already occurred. The Brown Bullhead with cancer, found nowhere else in this state, are proven to be contaminated with toxic chemicals. Those chemicals are evidence of existing environmental chemical contamination in the lake. Don't add to the mix. No leachate pretreatment facility or disposal of toxic effluent should be allowed anywhere in the Memphremagog watershed, or in the Champlain watershed, both international lakes.

Moral Imperative: Lake Memphremagog serves as a drinking water reservoir for 175,000 Quebec neighbors. Our actions have consequences! The Clean Water Act, The Boundary Waters Treaty, International Law all forbid intentional pollution of another country's water supply. The Precautionary Principle must guide every step moving forward : "When an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause-and-effect relationships are not fully established scientifically".

Environmental Justice: This lake region has borne the burden of being the State's solid waste dump for decades. Enough is enough! As our environment suffers our public health and regional quality of life and economy do too. It is past time to find another site for the state's only landfill, nearer to the more populous area where most of this state's solid waste is generated. That is also where the "pilot project" should be sited, and near to where effluent from the leachate pretreatment facility should be disposed- ideally at a centrally located, hydro-geologically sound alternative site to be developed in a timely manner such that the Coventry landfill can be closed for good upon completion- out of the Lake Memphremagog watershed forever!

Economic impact and Political aspects of this permit: It is hard to separate the economic from the political when it comes to this permit and the health and well-being of our environment, our public health and our regional economic security.

Local NEK political and economic concerns center on the immediate impact that solid waste disposal, including leachate disposal and "pretreatment", have had on the region surrounding the Coventry landfill. Our regional economy is dependent on the health of the Lake Memphremagog watershed and suffers from the degradation the landfill has caused. Environmental contamination, evident in the Brown Bullhead with cancerous lesions not found anywhere else in Vermont, and only found in contaminated waters wherever these sick fish are identified, requires continued research to mitigate. Legacy as well as contemporary pollution point sources are implicated. No further contamination from any source, especially the landfill or

related activities, may be permitted. Residents of this affected region south and north of the border are fed up across all social and political lines.

Internal Vermont politics: the vested interest the State has in income from tipping fees per ton means there is no incentive to reduce the amount of solid waste, including leachate, coming in from out of state. The fact that those who produce the most solid waste in the state are allowed to influence the state officials to forego their intention to regionalize solid waste management must be addressed.

International politics of poisoning our northern neighbors' drinking supply threatens the local economy, which is dependent on Canadian trade and must not be undermined by these current concerns; consider the liability issue re: Vermont/ international waters. The Quebec government, on every level, demands that no leachate ever be treated or disposed of into the drinking water source of 175,000 Quebec citizens. If the shoe were on the other foot, we Vermonters would demand the same!

Our comments are offered in the spirit of concern and cooperation we trust they will be received. The work of DUMP has been to shine a light on a grave environmental concern which is many faceted. Raising public awareness and bringing the attention of the ANR and Vermont legislature to these concerns, in order to identify where corrections need to be made and in order to protect our region and its watershed, are our sole objective.

In conclusion, for the aforementioned reasons, DUMP urges the ANR/ Department of Environmental Conservation to deny the issuance of the draft permit to NEWSVT. It is our contention that the content of the landfill leachate must not be allowed to be discharged into any surface waters of the state of Vermont, especially not those of an international lake or its tributary, following the alleged pretreatment authorized in the permit and the treatment provided by the municipal WWTF. **However, should the Department decide to issue the permit and approve the renewal application concurrent with the amendment application limiting disposal of the leachate to only the Montpelier WWTF along with an increase in volume into that facility, then the Department must strike and remove Special Condition 5 from the final permit.**

There is an urgent need for the State to take and retain full responsibility for the Pretreatment of Landfill Leachate, and to pursue a pilot project that would effectively filter the hundreds of toxins threatening ground and surface waters of Vermont. This would require legislative and regulatory authority to first be established, then an effective plan be developed by the State with consultants that have experience and expertise in the field of leachate pretreatment technology that is capable of achieving the results in compliance with standards set forth by the State.

Further, the Vermont legislature, in partnership with the ANR, must establish statutory limits that prohibit import of toxic landfill leachate from any other state, or solid waste that does not meet acceptable standards for landfilling in any other state, as well as the state of Vermont, due to its level of toxicity and threat of environmental harm.

Thank you for your time and attention thus far and from now on. We stand ready to provide continued support towards our common goal of protecting all natural resources of Vermont- air, land and water, humans and wildlife- for our children and our children's children's children.

Respectfully submitted,

Don't Undermine Memphremagog's Purity, LLC

Public Comment to Draft Pretreatment Discharge Permit

Permit 3-1406

Submitted by: Don't Undermine Memphremagog's Purity (DUMP, LLC)

Note: For the purposes of this comment, we will be incorporating full text from the Draft Permit to assist in being as clear as possible as regards our **comments** re: the experimental pilot pretreatment, which requires a separate permit, not a renewal, since this is a brand new, never before Permitted project. Text highlighted in **yellow** is our effort to bring attention to the specific language of concern to which we are directing comment.

To begin, DUMP asserts that there is no evidence provided of jurisdictional basis, founded upon Vermont enabling legislation, giving the ANR authority to delegate permit responsibilities to a private entity (NEWSVT) or to grant this pretreatment discharge permit to NEWSVT for the responsibility of pretreatment discharge of landfill leachate to the WWTF of Montpelier or any other municipality. To do so is to delegate responsibility to protect the natural resources of Vermont, which belongs solely to Vermont Agency of Natural Resources and the Vermont legislature, to a private entity, in this case the Casella corporation.

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

Permit No.: **3-1406**
PIN: **WY06-0020**

Facility Name: **New England Waste Services, Inc.**

Facility Address:

**Coventry, VT Landfill
New England Waste Services
of Vermont (NEWSVT)
21 Landfill Lane
Coventry, VT 05825**

**Bethlehem, NH Landfill
North Country Environmental
Services (NCES)
581 Trudeau Road
Bethlehem, NH 03574**

**Central Vermont Landfill
(CV Landfill)
418 US Route 2
East Montpelier, VT 05651**

Facility Classification: **Not Applicable**

Permittee Name: **New England Waste Services, Inc.
220 Avenue B
Williston, Vermont 05495**

Expiration Date: **September 30, 2026**

DRAFT

**PRETREATMENT DISCHARGE PERMIT
SIGNIFICANT INDUSTRIAL USER**

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 New England Waste Services, Inc. (hereinafter referred to as the "Permittee") is authorized by the Secretary of Natural Resources (Secretary) to haul and discharge leachate from its facilities to the City of Montpelier Wastewater Treatment Facility (WWTF), located at 949 Dog River Road, Montpelier, VT 05602, in accordance with the terms and conditions of this permit.

(Upon approval) This permit shall become effective on

December 1, 2021. Peter Walke, Commissioner
Department of Environmental Conservation

By: _____ Date: _____

Amy Polaczyk, Wastewater Program Manager
Watershed Management Division

I. EFFLUENT LIMITATIONS AND SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. **Outfall S/N 001 – City of Montpelier WWTF:** During the term of this permit, the Permittee is authorized to haul and discharge solid waste landfill leachate from its NEWSVT, NCES, and CV landfills, through **outfall serial number S/N 001** to the City of Montpelier WWTF. Effluent characteristics shall not exceed the values listed below. Where Federal and Local regulations specify limits for the same pollutant, the more restrictive limit will apply.

EFFLUENT CHARACTERISTICS	EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
	Maximum Day	Monthly Average	Instantaneous Maximum	Measurement Frequency	Sample Type
Flow, gallons per day (GPD)	60,000	Monitor Only		Daily	Total Volume
Biochemical Oxygen Demand (BOD ₅), mg/L and lbs/day	1,200 lbs/day Monitor Only, mg/L	Monitor Only, mg/L & lbs/day		2x-Weekly	Grab
pH, Standard Units (SU)			5.0 to 9.5 SU	Daily	Grab

What will happen with the additional gallons per day from Central Vermont and Bethlehem, NH? Where will these gallons be sent for disposal? Given that Montpelier has exceeded g/p/d of 24,000 gallons regularly, will this be the expectation as well? The Data Fact Sheet itemizes how many gallons per day are generated at the Coventry – 60,000, anticipated to grow to 100,000 as expansion occurs. No g/p/d are documented for Central Vermont or Bethlehem facilities.

Note in Data Fact Sheet is that Bethlehem only sent leachate to Vermont 4-5 days in the last five years, but that is history and does not project leachate imported to Vermont in the coming years. The question of the permissibility of importing any number of gallons of leachate from out-of-state is one that bears close scrutiny as to its increased threat of harm to the Vermont environment and natural resources. Although solid waste and leachate are considered commodities protected under Congress' Interstate Commerce Law, Vermont Law S.20 places restrictions on the manufacture, sale, and distribution of PFAS containing products; therefore, the commerce of solid waste and leachate containing PFAS from out of state can be banned in Vermont.

- a. The Permittee shall discharge leachate into holding tanks or into the receiving stations at the WWTF, or in a manner specified by the Chief Operator of the receiving WWTF.
- b. The Permittee shall not discharge leachate into the Montpelier WWTF during storm events, snow melt, or when a storm event is imminent. The Permittee shall not discharge leachate to Montpelier WWTF on any day in which the

maximum rate of influent flow to the facility exceeds the facility's peak design flow of 12.0 MGD.

What is Plan B under any of these conditions? Where will the leachate go? The reader should be able to understand what the alternative is.

c. See the Monitoring Requirements specified in Condition I.A.2.

- 2. Effluent Monitoring Requirements:** The Permittee shall monitor and record the quality and quantity of landfill leachate from its NEWSVT (S/N 007), NCES (S/N 008), and CV (S/N 009) landfills in accordance with the following monitoring schedule:

Parameters included correlate with the Vermont Drinking Water Standards? Should be noted.

PARAMETER	MONITORING REQUIREMENTS		
	Measurement Frequency	Sample Type	Reporting Requirement
Flow, gallons per day (GPD) ¹	Daily	Total Volume	Monthly Average and Daily Max
Biochemical Oxygen Demand (BOD ₅), mg/L and lbs/day	2x-Weekly	Grab	Monthly Average and Daily Max
Chemical Oxygen Demand (COD), mg/L and lbs/day	Quarterly	Grab	Monthly Average and Daily Max
Total Suspended Solids (TSS), mg/L and lbs/day	Quarterly	Grab	Monthly Average and Daily Max
pH, Standard Units (SU)	Daily	Grab	Daily Min./Max
Total Aluminum, mg/L	Quarterly	Grab	Daily Max
Total Iron, mg/L	Quarterly	Grab	Daily Max
Total Molybdenum, mg/L	Quarterly	Grab	Daily Max
Total Chloride, mg/L	Quarterly	Grab	Daily Max
Total Phosphorus, mg/L and lbs/day	Quarterly	Grab	Daily Max
Total Nitrogen, mg/L and lbs/day ²	Quarterly	Calculated	Daily Max
Total Kjeldahl Nitrogen (TKN), mg/L	Quarterly	Grab	Daily Max
Nitrate/Nitrite Nitrogen (NO _x), mg/L	Quarterly	Grab	Daily Max
Per and poly-fluoroalkyl substances (PFAS), ng/L³			
Perfluorohexanesulfonic acid (PFHxS)	Monthly	Grab	Daily Max
Perfluoroheptanoic acid (PFHpA)	Monthly	Grab	Daily Max
Perfluorononanoic acid (PFNA)	Monthly	Grab	Daily Max
Perfluorooctanesulfonic acid (PFOS)	Monthly	Grab	Daily Max
Perfluorooctanoic acid (PFOA)	Monthly	Grab	Daily Max
40 Code of Federal Regulations (C.F.R.) Part 423, Appendix A, Priority Pollutants⁴			
Total Metals, mg/L ⁵	Quarterly	Grab	Daily Max

Volatile Organic Compounds (VOCs), mg/L ⁶	2x-Annually ⁸	Grab	Daily Max
Acid and Base/Neutral Extractable Compounds, mg/L ⁷	2x-Annually ⁸	Grab	Daily Max
Pesticides, mg/L	2x-Annually ⁸	Grab	Daily Max
Polychlorinated Bi-Phenyls (PCBs), mg/L	2x-Annually ⁸	Grab	Daily Max

Notes on Effluent Monitoring Requirements:

Sampling Location: *Samples collected in compliance with the monitoring requirements specified above shall be well mixed and representative of the leachate discharged to the WWTFs. NEWSVT samples shall be collected from the main loading pipe of the Leachate Loadout Station. NCES samples shall be collected from the main loading pipe of the Leachate Loadout Station. CV Landfill samples shall be collected from the main loading pipe of the leachate tanker.*

¹ Leachate collected from the landfills and hauled to the WWTFs shall be measured by weighing each outbound tanker truck and converting the weight to gallons. The Permittee shall report daily leachate flow in the following manner on Discharge Monitoring Report (DMR) form WR-43:

- Total Leachate Flow;
- Total NEWSVT Flow;
- Total NCES Flow; and
- Total CV Flow.

² Total Nitrogen shall be calculated as: $TN = TKN + NO_x$.

³ PFAS shall be analyzed utilizing E.P.A. modified Method 537 Version 1.1, incorporating isotope dilution, in accordance with Department of Defense (DoD) Quality Systems Manual (QSM) 5.2. The method shall meet a target minimum detection limit (MDL) for PFHxS, PFHpA, PFNA, PFOS, and PFOA of no greater than 2 ng/L. The Permittee shall utilize a Clean Water Act multilab validated method for PFAS, when a sufficiently sensitive test procedure (i.e., method) has been approved under 40 C.F.R. Part 136. The Permittee shall report the results of the PFHxS, PFHpA, PFNA, PFOS, PFOA, and the sum of the five PFAS on DMR form WR-43. The Permittee shall report results for the list of PFAS compounds specified in Attachment A, as an attachment to the DMR form WR-43.

⁴ See Attachment B for a list of 40 C.F.R. Part 423 Priority Pollutants. Priority Pollutant results shall be reported as an attachment to the Discharge Monitoring Report (DMR) form WR-43.

⁵ Total Metals shall include: Antimony, Arsenic, Beryllium, Cadmium, Copper, Chromium, Lead, Mercury, Nickel, Selenium, Silver, Thallium, and Zinc.

⁶ VOCs shall be analyzed in accordance with EPA Method 8260.

⁷ Acid and Base/Neutral Extractable Compounds shall be analyzed by EPA Method 8270.

⁸ Samples shall be collected once between January 1 and June 30 and once between July 1 and December 31. Sample results shall be reported as an attachment to the June and December DMR.

3. Special Conditions

- a. Each year the Permittee shall submit a copy of the calendar year's monitoring data specified in Condition I.A.2., I.A.4., and I.A.5. in a Microsoft Excel spreadsheet format with the December DMR submission.
- b. This permit constitutes authorization by the Agency to discharge leachate to the City of Montpelier WWTF specified in Conditions I.A.1. in accordance with the terms and conditions of this discharge permit. This permit does not constitute authorization by the City of Montpelier to discharge leachate to its WWTF. The WWTF has the right to restrict or limit the discharge of leachate to their WWTF.
What if Montpelier restricts or limits discharge of leachate into WWTF? What is Plan B? Where will the leachate be disposed of? This should be noted. The Permittee shall not discharge leachate to any State of Vermont WWTF not specified by this permit.
- c. If the City of Montpelier WWTF modifies any allocation granted to the Permittee, **or the Permittee receives approval to discharge leachate to a State of Vermont WWTF not specified by this permit**, the Permittee shall submit an application and other supporting information to the Secretary requesting an amendment of this permit to incorporate these modified limitations. Based on this application, **the Secretary may reopen this permit an establish a schedule to achieve compliance with any modified effluent limitations or other conditions necessary.**
Would it be permissible for the Secretary to allow Newport WWTF to approve and receive or discharge leachate even as it is not permissible at this date and time? It appears to be possible based on the language as written. The verb 'may' is open to interpretation and should be replaced with shall.
- d. The Permittee shall immediately notify the Chief Operator of the City of Montpelier WWTF of any discharge that is known or suspected to violate any of the discharge permit limitations specified in Condition I.A.1 above, in accordance with Condition II.A.2. of the permit.
- e. If the results of the Permittee's wastewater analysis indicate that a violation of this permit has occurred, the Permittee shall repeat the sampling and pollutant analysis and submit, in writing, the results of this second analysis within 30 days of becoming aware of the first violation.
The burden of proof here is on the Permittee's wastewater analysis- this seems inappropriate, to rely on the Permittee to report the violation and repeat sampling and pollutant analysis. The ANR should bear responsibility for this monitoring and corrective action. The independent, objective lab providing analysis should report to the ANR.
- f. There shall be no discharge of any waste to the WWTF which interferes with, passes through without treatment, is otherwise incompatible with the treatment facility, or would have substantial adverse impact on the treatment facility, collection system, sludge disposal, worker safety, or on water quality in the receiving water.

If the monitoring results indicate that this discharge may interfere with or is otherwise incompatible with the proper operation of a receiving WWTF or may pass through without treatment and cause a violation of Vermont Water Quality Standards in the receiving water, the Secretary may reopen this permit and modify effluent limitations, monitoring requirements, or other permit conditions as required. The Secretary may also require the cessation of this discharge until such a time as the discharge will not interfere with or cause an adverse effect on the wastewater treatment facility or receiving water.

The language “may” is inadequate to the serious potential for environmental pollution which would occur with “involuntary pass through without treatment”. The chemical contaminants and metals contained in leachate are known to be harmful to the environment and human health and to have an adverse impact on water quality. “Shall” would be the appropriate verb.

4. Per and Poly-Fluoroalkyl Substances:

a. Water Quality Monitoring: The Permittee shall conduct the following water quality monitoring to assess the impact of PFAS on receiving waters and fish tissue.

i. By six months from the effective date of the permit, the Permittee shall submit a study plan, outlining the locations of collection, sampling methodology, and analysis of the data, to the Secretary’s Wastewater Program and Monitoring, Assessment Program for approval before sampling begins. Water quality monitoring shall begin the month following the approval of the study plan.

What qualifications does the Permittee have to undertake the drafting of this study plan? The ANR must require a qualified scientist to set the parameters for collection, sampling, and analysis, including which analytes will be targeted.

ii. WWTF Monitoring: The following monitoring shall be conducted at WWTFs receiving leachate:

Only five of the literally thousands of PFAS chemicals, all with very similar chemical structures and potentially bio-accumulative negative health effects are being monitored here. It is negligent and myopic to limit PFAS monitoring to these five PFAS compounds, much less the myriad other toxic landfill leachate contaminants, including all legacy and CECs, whether in influent or effluent of receiving WWTF. (See Treatment of Contaminants of Emerging Concern in Landfill Leachate A report submitted pursuant to Act 21 of 2019) Table 1 P.8, Effluent Concentration: Total PFAS (ppt) which demonstrates that total PFAS in Newport WWTF effluent are roughly five times the total of five PFAS targeted in the Vermont drinking water standard. All PFAS compounds have in common the potential to pose grave risk to the environment and public health, as do all other toxic landfill contaminants.

Parameters	Frequency	Sample Location	Sample Type	WWTFs
Perfluorohexanesulfonic acid (PFHxS) Perfluoroheptanoic acid (PFHpA) Perfluorononanoic acid (PFNA), Perfluorooctanesulfonic acid (PFOS) Perfluorooctanoic acid (PFOA)	Quarterly	Influent, Effluent, Solids	Grab	City of Montpelier WWTF
<p>Notes:</p> <ol style="list-style-type: none"> 1. WWTF effluent monitoring shall occur when the WWTF is receiving leachate and shall coincide with instream monitoring specified in Condition I.A.4.a.iii. 2. WWTF samples shall be paired to account for detention time throughout the WWTF. 3. WWTF influent samples shall be collected at a point following the introduction of leachate, septage, and other hauled wastes, and prior to any sidestreams returned to the headworks from operations within the WWTF. WWTF effluent samples shall be collected at the point used for WWTF NPDES Permit compliance. Solids samples shall be collected in accordance with 40 C.F.R. Part 503.8 and at the point used for compliance with the WWTF's Vermont Sludge Management Plan. 4. Influent, effluent, and solids PFAS shall be analyzed utilizing E.P.A. modified Method 537 Version 1.1, incorporating isotope dilution, in accordance with Department of Defense (DoD) Quality Systems Manual (QSM) 5.2. The Permittee shall report the influent and effluent results of the PFHxS, PFHpA, PFNA, PFOS, and PFOA, in addition to the list of PFAS compounds specified in Attachment A, in nanograms per liter (ng/L). Solids PFAS shall be reported in nanograms per gram (ng/g). For influent and effluent testing, the method shall meet a target MDL for PFHxS, PFHpA, PFNA, PFOS, and PFOA of no greater than 2 ng/L. The Permittee shall utilize a Clean Water Act multilab validated method for PFAS, when a sufficiently sensitive test procedure (i.e., method) has been approved under 40 C.F.R. Part 136. 				

iii. Instream Monitoring: The following monitoring shall be conducted at receiving waters of WWTFs receiving leachate:

Parameters	Frequency	Season	Sample Location	Description
Perfluorohexanesulfonic acid (PFHxS) Perfluoroheptanoic acid (PFHpA) Perfluorononanoic acid (PFNA) Perfluorooctanesulfonic acid (PFOS) Perfluorooctanoic acid (PFOA)	3 samples per year	May, July, September	Winooski River Mile (RM) 54.7	Above Montpelier WWTF
			Winooski RM 54.3	Below Montpelier WWTF

Notes:

1. Samples shall not be collected during high flow events or following significant rain and/or storm events.
2. The Permittee shall report receiving water characteristics with each sample result, including streamflow conditions, temperature, dissolved oxygen, pH, conductivity, and turbidity. Streamflow shall be collected from the following United States Geological Survey (USGS) gauges: Winooski River: USGS 042860004.
3. Surface water PFAS shall be analyzed utilizing E.P.A. Method 537 Version 1.1. The Permittee shall report the results of the PFHxS, PFHpA, PFNA, PFOS, and PFOA, in addition to the list of PFAS compounds specified in Attachment A, in nanograms per liter (ng/L). The method shall meet a target MDL for PFHxS, PFHpA, PFNA, PFOS, and PFOA of no greater than 2 ng/L. The Permittee shall utilize a Clean Water Act multilab validated method for PFAS, when a sufficiently sensitive test procedure (i.e., method) has been approved under 40 C.F.R. Part 136.

iv. The results of water quality monitoring shall be submitted as an attachment to the month's DMR form WR-43.

b. Some PFAS, such as PFOS are known to accumulate in fish and are of concern because they are persistent, bioaccumulative and toxic.

Many other PFAS, as well as other landfill contaminants, are known to have the potential to bioaccumulate and be toxic. This should be noted.

Therefore, the Secretary reserves the right to reopen and amend this permit to include fish tissue monitoring if instream water quality monitoring indicates water column concentrations at levels that may contribute to the accumulation of PFAS in fish tissue such that it poses a potential risk to humans when consuming the fish.

This is the point in this draft where the Renewal Permit for Pretreatment Discharge morphs into the Experimental Pilot Project for Leachate Pretreatment. These permits must be separated and redrafted as two distinct Permits. You cannot 'Renew' a Permit for a brand-new pilot project.

Again, DUMP questions this lack of evidence of ANR's clear jurisdictional basis, founded upon Vermont enabling legislation, giving it authority to delegate permit responsibilities for filtration and clean-up of toxic contaminants, including the class of PFAS, in landfill leachate, to a private entity (NEWSVT) DUMP asserts that the ANR/DEC cannot make up for the insufficient jurisdictional basis by setting these Special Conditions for the experimental pilot project for leachate pretreatment..

Although we will comment throughout, the focus of our concern lies with Special Conditions 5. Of greatest concern is the lack of regulatory authority specific to 1) Leachate Pretreatment technology and 2) the series of steps, from beginning to end in the process of leachate pretreatment, which must be approved and monitored to ensure safety of the environment and public health.

DUMP objects to this entire section which surrenders the ANR's role and authority to a private entity. This is dangerous precedent, and we question its allowance without evidence of rules and standards, promulgated by Vermont ANR with specificity to leachate pretreatment technology. We strongly recommend denial of this permit application as written until such jurisdictional bases and State specified regulations and standards are established, rather than prematurely base the permit on "Conditions Subsequent"; leaving a condition up to the judgment of the private entity NEWSVT is a bad idea to say the least.

5. Leachate Treatment for Emerging Contaminants

The Permittee evaluated **The Permittee was required to evaluate...**two on-site and two off-site treatment and pretreatment technologies for the removal of PFAS at the NEWSVT landfill in Coventry, Vermont. The results of this evaluation are presented in a report entitled: "Conceptual Leachate Treatment Scoping Study for New England Wastewater Services of Vermont (NEWSVT) Landfill", dated October 11, 2019. The Permittee shall advance this work by conducting a pilot study of a leachate treatment or pretreatment technology to determine the design conditions of a system for full-scale implementation. The Secretary will use the results of the pilot study to establish a Technology Based Effluent Limit and/or treatment standard for PFAS in landfill leachate. The Secretary **may** (shall) establish effluent limitations and/or require treatment for other pollutants if the results of the pilot study and/or receiving WWTF monitoring indicate that this discharge may interfere with, or is otherwise incompatible with the proper operation of a receiving WWTF, or may pass through without treatment and cause a violation of Vermont Water Quality Standards in the receiving water.

Why is the Permittee limited to the Brown and Caldwell Scoping Study for "two on-site and two off-site pretreatment technologies for the removal of PFAS at the NEWSVT landfill in Coventry, Vermont"?(see P. 8 for further discussion) This is a loaded sentence!

First, it ignores the Civil and Environmental Consultants, (CEC, Ivan Cooper, Principal), evaluation contracted by ANR to evaluate the Brown and Caldwell Scoping Study. That evaluation, as clarified by Ivan Cooper of CEC, offered additional designs for leachate treatment, as well as comparative analysis of the effectiveness of each technology. Cooper's experience and expertise in solid waste/ leachate treatment technology appear to be inconsequential to the ANR in determining which technology will be most effective at removing PFAS and other landfill Special Conditions contaminants of legacy or emerging concern. One design recommended augmenting two pass throughs of RO filtration with a pre- electrocoagulation step and a post GAC filtration for most effective filtration. This was confirmed in

<https://anrweb.vt.gov/PubDocs/DEC/PFAS/General-info/Vermont-PFAS-Roadmap.pdf>

On page 9 it states:

"The Department required the NEWSVT landfill in Coventry to evaluate two onsite and two offsite leachate treatment options and submit a report to the Department detailing the findings of this evaluation. To evaluate the efficacy of that analysis, the Department hired Civil and Environmental Consultants to review the leachate treatment option study completed by NEWSVT. Their review concluded that the study was appropriate and well developed. They recommended that an additional technology (electrocoagulation-based system) be reviewed in future evaluations.

Further, in Treatment of Contaminants of Emerging Concern in Landfill Leachate A report submitted pursuant to Act 21 of 2019, Submitted by: Agency of Natural Resources, Department of Environmental Conservation February 5, 2020 https://legislature.vermont.gov/assets/Legislative-Reports/2020.02.04_Leg-Report-CECs-in-Landfill-Leachate.pdf. **The Conclusion provides all the cautions related to this nascent leachate pretreatment technology which must guide all planning now and in the future.**

“Conclusions

Both landfills and wastewater treatment facilities manage society’s discarded waste, all of which has the potential to contain PFAS and other CECs. *The removal of legacy CECs from the landfill leachate or treated wastewater effluent is complicated and evolving. Treatment to concentrate PFAS and limit the amount of these compounds discharged to the environment may be technically feasible, but typically results in a concentrated waste stream that requires further management. Assurance of the ultimate destruction or isolation of that concentrated waste stream remains unresolved. It is likely that the options and approaches to manage and treat landfill leachate and WWTF effluent will expand greatly in coming years as the science and our understanding continue to improve. Given the evolving nature of these issues, it will be essential to continually evaluate treatment options as well as identify and implement source control strategies that seek to reduce the use of PFAS in consumer products and industrial processes.*”

“Next Step:

• The Department will determine necessary actions for NEWSVT and all lined landfills in Vermont that produce leachate." Year: 2021 Prime Contact: Peter Walke”

But the draft permit certainly states that NEWSVT will determine the necessary actions....

(See 5a.)

Second, this language presupposes that the pilot project for pretreatment would be constructed on the Coventry landfill site, which is not ideal or recommended due to the geological vulnerability of the site in a wetlands area adjacent to the Black River and South Bay of Memphremagog, a site which would not be approved today under current EPA guidelines for landfill siting. Also, the language “The Secretary will use results of the pilot study to establish a Technology Based Effluent Limit and/or treatment standard for PFAS in landfill leachate” is questionable. Shouldn’t the TBEL be determined using objective standards? Where is the evidence that such standards exist or have been pursued? Also, the language regarding “The Secretary may establish effluent limitations...incompatible with the proper operation of a receiving WWTF...or may pass through...” The language should be mandatory “shall”. In addition, many contaminants may pass through if the technology is insufficient.

a. Leachate Treatment Pilot Study:

<https://anrweb.vt.gov/PubDocs/DEC/PFAS/General-info/Vermont-PFAS-Roadmap.pdf> , Page 9

“Next Step:

- **The Department will determine necessary actions for NEWSVT and all lined landfills in Vermont that produce leachate.”**

But the draft permit certainly states that NEWSVT will determine the necessary actions....

Leachate Treatment for Emerging Contaminants speaks of providing authority to NEWSVT to establish "design conditions of a system for full-scale implementation" . DUMP objects to this entire section giving away ANR's role and authority to a private entity for "Conditions Subsequent".

This is dangerous precedent and we question its allowance under law. Vermont ANR must first promulgate its own rules and standards, with specificity to site placement standards, technology efficacy, capacity, monitoring, and include performance standards for any "pilot project" to remove PFAS from landfill leachate, such as final disposition of filtration equipment/supplies and standards in absence of surface water standards for receiving leachate effluent outflow from the pilot. We strongly recommend denial and/or postponement of this permit application until such State specified rules, standards, and regulations are established, rather than prematurely base the permit on "Conditions Subsequent".

***By no later than four months (an exceedingly short turn-around time given the burden of environmental responsibility) following the effective date of this permit, the Permittee shall submit a Leachate Treatment Pilot Study Plan (Plan) to select and pilot leachate treatment or pretreatment technologies to remove PFAS (Why was this decision made, and by whom, to shift responsibility of this critical nature to the for-profit Permittee? This decision rightly should be in the purview of the ANR/Peter Walke exclusively to ensure the health and safety of the environment and the public.) and provide the concurrent removal of other pollutants pollutants (specify which ones- all current Priority Landfill Pollutants) from the NEWSVT, NCES, and CV leachate. Technologies shall be limited to those identified in or provide treatment equivalent to the technologies presented in the “Conceptual Leachate Treatment Scoping Study for New England Waste Services of Vermont (NEWSVT) Landfill”, dated October 11, 2019. Again, what happened to the CEC design that would improve the efficacy of the leachate filtration process? “To evaluate the efficacy of that analysis, the Department hired Civil and Environmental Consultants to review the leachate treatment option study completed by NEWSVT. Their review concluded that the study was appropriate and well developed. They recommended that an additional technology (electrocoagulation-based system) be reviewed in future evaluations. (from <https://anrweb.vt.gov/PubDocs/DEC/PFAS/General-info/Vermont-PFAS-Roadmap.pdf> P.9)**

Why has this option been taken off the table when it clearly was the preferred method by CEC, and of Peter Walke? Could it be that the expense was a factor in the Permittee’s decision-making? Did the Permittee have a hand in writing the draft Permit? Has

consideration been given to reviewing other options developed since the CEC evaluation, given this is a technology “in its infancy” according to many including Mr. Cooper? Where is the language that requires the most effective, not the most cost-effective technology be utilized?

The Plan shall be subject to review and approval by the Secretary.

The Plan shall:

- i. Identify the leachate treatment and/or pretreatment technology(s) selected for pilot testing;
 - ii. Include a discussion on why the specific technologies were selected, where they have been used in other leachate treatment applications and the performance of those applications; **Including data demonstrating efficacy based on evidence from real world application, including % of total current Landfill Priority Pollutants/ toxins removed, including PFAS;**
 - iii. Include plans, design criteria, and specifications of the selected pilot treatment and/or pretreatment technology(s) approved by a Professional Engineer; **Such a critical approval must be made by an informed, objective third party, having no previous contract with the Permittee. ANR must make this decision, perhaps to contract with an independent environmental engineer with experience in the field of leachate PFAS pretreatment;**
 - iv. Include a schedule for the planning, design, permitting, construction, and evaluation (piloting) of the selected leachate treatment and/or pretreatment technology(s); **“ to be developed and approved by the same independent, objective third party designated by the ANR. Responsibility must not be left to the corporate interest to decide.**
 - v. Identify the specific operational, performance, economic, water quality, residuals, and air quality parameters that will be analyzed throughout the pilot study. Describe the specific method of collection for all parameters. Include the sampling frequency throughout the anticipated range of loadings, hydraulic flow rates, chemical feed rates, and other operating conditions, including seasonal warm and cold weather conditions, and wet weather, dry weather, and peak operating conditions. **This is a crucial step for which the ANR must be responsible. The Permittee must not have a hand in determining parameters, methods of collection, sampling frequency, etc. as described. An experienced, objective, third party, highly-qualified lab, not previously contracted with the Permittee, must be identified by ANR to identify and oversee this sampling and analysis.**
 - vi. The Plan 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.* **(could these be specified?)**
- b. By no later than one year following the effective date of this permit, the Permittee shall have the leachate treatment and/or pretreatment technology(s) installed and begin the pilot study in accordance with the approved Plan. . What is the rush given the experimental nature of this technology? How is this even conceivable given the short turn-around time and all that must be**

accomplished and approved by ANR in this time? Has this process already begun, undertaken by the Permittee before the Draft has even been reviewed and commented on by the public and necessary revisions made in response to public comment?

c. Throughout the duration of the pilot study, the Permittee shall monitor and record the quality of influent, effluent, and solids from the Montpelier WWTF in accordance with the following monitoring schedule. The Permittee shall submit monitoring results in accordance with the schedule presented in Condition I.A.5.d. As stated above, the responsibility for monitoring and recording must belong to the ANR, approved and contracted to an experienced, objective, third party entity not previously contracted by the Permittee, and to whose monitoring stipulations approved by the ANR the Permittee must comply.

PARAMETER	MONITORING REQUIREMENTS ^{1, 2, 3}		
	Measurement Frequency	Sample Type	Sample Location
Per and poly-fluoroalkyl substances (PFAS), ng/L⁴			
Perfluorohexanesulfonic acid (PFHxS)	Quarterly	Grab	Influent, Effluent, Solids
Perfluoroheptanoic acid (PFHpA)	Quarterly	Grab	Influent, Effluent, Solids
Perfluorononanoic acid (PFNA)	Quarterly	Grab	Influent, Effluent, Solids
Perfluorooctanesulfonic acid (PFOS)	Quarterly	Grab	Influent, Effluent, Solids
Perfluorooctanoic acid (PFOA)	Quarterly	Grab	Influent, Effluent, Solids
40 C.F.R. Part 423, Appendix A, Priority Pollutants^{5, 6, 7}			
Total Metals	Quarterly	Composite	Influent, Effluent, Solids
Volatile Organic Compounds (VOCs), mg/L	2x-Annually – Influent, Effluent ⁹ 1x-Annually – Solids	Grab	Influent, Effluent, Solids
Acid and Base/Neutral Extractable Compounds, mg/L	2x-Annually – Influent, Effluent ⁹ 1x-Annually – Solids	Grab	Influent, Effluent, Solids
Pesticides, mg/L	2x-Annually – Influent, Effluent ⁹ 1x-Annually – Solids	Grab	Influent, Effluent, Solids
Polychlorinated Bi-Phenyls (PCBs), mg/L	2x-Annually – Influent, Effluent ⁹ 1x-Annually – Solids	Grab	Influent, Effluent, Solids
Whole Effluent Toxicity (WET) Testing⁸			
Acute NOEC Acute LC50 Chronic NOEC Chronic LC50	2x-Annually	Composite	Effluent

This draft permit contains a list of Priority Pollutants in Attachment B, identical to the EPA's list that was developed over 40 years ago. Many toxic contaminants have been discovered since then in addition to PFAS. In 2018, when PFAS were discovered in the drinking water wells in North Bennington, Vermont did not rely on the EPA's PFAS limit. Vermont created a state limit of PFAS in drinking water that was much stricter than that suggested by the EPA. This is a precedent they should use again.

In February of this year, a peer reviewed paper written by experts from the University of Missouri and the USDA forest service, prioritized landfill pollutants based on toxicity. In their conclusion, they produced a list of the 40 most toxic compounds found in landfill leachate based on a number of toxicity factors. 15 of the 40 compounds prioritized in this paper are not on the EPA's Priority Pollutant list. These compounds should be included in this draft permit.

In 2015, research from the US Geological Survey detailed that landfill leachate is host to numerous contaminants of emerging concern. Leachate samples were collected from 22 municipal solid waste landfills in 12 states, including Maine and Vermont. The leachate was analyzed for 190 chemicals of emerging concern, including pharmaceuticals. 101 of the 190 compounds were found in leachate. Many of these are not listed on the EPA's priority pollutant list, but should be included in this draft permit.

Who was responsible for determining which list of Priority Pollutants would be included for sampling and analysis? This should be determined by the objective, third party lab contracted by ANR, not the Permittee. These parameters must be as stringent as possible and maintained up to date with current parameters, which are transforming with the same frequency as the leachate pretreatment technologies they are meant to correlate with to ensure highest standards for efficacy in scrubbing landfill toxins from leachate.

Notes on Receiving WWTF Monitoring Requirements:

¹ WWTF samples shall be paired to account for detention time throughout the WWTF.

² WWTF influent samples shall be collected at a point following the introduction of leachate, septage, and other hauled wastes, and prior to any sidestreams returned to the headworks from operations within the WWTF. WWTF effluent samples shall be collected at the point used for WWTF NPDES Permit compliance. Solids samples shall be collected in accordance with 40 C.F.R. Part 503.8 and at the point used for compliance with the WWTF's Vermont Sludge Management Plan.

³ Influent, effluent, and solids samples shall be collected on days when leachate has been received by the WWTF.

⁴ Influent, effluent, and solids PFAS shall be analyzed utilizing E.P.A. modified Method 537 Version 1.1, incorporating isotope dilution, in accordance with Department of Defense (DoD) Quality Systems Manual (QSM) 5.2. The Permittee shall report the influent and effluent results of the PFHxS, PFHpA, PFNA, PFOS, and PFOA, in addition to the list of PFAS compounds specified in Attachment A, in nanograms per liter (ng/L). Solids PFAS shall be reported in nanograms per gram (ng/g). For influent and effluent testing, the method shall meet a target MDL for PFHxS, PFHpA, PFNA, PFOS, and PFOA of no greater than 2 ng/L. The Permittee shall utilize a Clean Water Act multilab validated method for PFAS, when a sufficiently sensitive test procedure (i.e., method) has been approved under 40

C.F.R. Part 136.

⁵ See Attachment B. for a list of 40 C.F.R. Part 423 Priority Pollutants.

⁶ Total Metals shall include: Antimony, Arsenic, Beryllium, Cadmium, Copper, Chromium, Iron, Lead, Mercury, Nickel, Selenium, Silver, Thallium, and Zinc.

⁷ Priority Pollutants shall be analyzed by a Clean Water Act method approved under 40 C.F.R. Part 136.

⁸ WET testing shall occur twice per year, once during the August through October (summer) season and once during the January through February (winter) season. Summer WET results shall be reported by December 31 of that year. Winter WET results shall be reported by June 30 of that year. WET shall coincide with Priority Pollutant monitoring. 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. Total Ammonia 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. 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). The Permittee may request the use of lab water for controls and dilution if: acquiring receiving water is hazardous due to weather or topography; previous WET tests have shown that receiving water has and poor performance in the lab controls or dilution; and/or requested by Permittee and approved by the Secretary.

⁹ Samples shall be collected once between January 1 and June 30 and once between July 1 and December 31.

d. Progress Reports:

Each calendar quarter the Permittee shall submit a progress report to the Secretary, outlining the work performed in accordance with the approved Plan specified in Condition I.A.5. **This section appears to be prepared by and for the applicant. Authority for reporting requirements should be reserved exclusively to the regulator, ANR, not the Permittee. Reports should include work performance measured against previously established ANR plans and objectives; plan compliance; tracking; results; penalties for non-compliance.**

Progress reports shall be submitted in accordance with the following schedule:

- i. Work performed during **calendar quarter one (January 1 – March 31)** shall be submitted by **April 15th of that calendar year;**
- ii. Work performed during **calendar quarter two (April 1 – June 30)** shall be submitted by **July 15th of that calendar year;**
- iii. Work performed during **calendar quarter three (July 1 – September 30)** shall be submitted by **October 15th of that calendar year;**
- iv. Work performed during **calendar quarter four (October 1 – December 31)** shall be submitted by **January 15th of the following calendar year.**

The progress reports shall include the following:

- i. A description of the work performed by the Permittee during the calendar quarter towards compliance with the Plan and schedule specified in Condition I.A.5.;
- ii. Results of Receiving WWTF monitoring specified in Condition I.A.5.c.;
- iii. An assessment of whether the Permittee is on schedule to comply with the approved Plan and schedule; and
- iv. If the Permittee is not on-track with the approved Plan and schedule, the steps the Permittee will take to comply with the approved Plan and schedule.

e. Final Report:

What EPA conditions and factors, or other considerations, motivate the hurried timeline when no pre-treatment requirements have been made by the State on the landfill owner-operator over its 25-year plus history? Short-cuts in time and expense can put in jeopardy the optimum selection of pilot project siting in the state, based upon the best geology, combined with the factor of proximity to population centers which generate the majority of the waste, producing such toxic leachate. It puts into jeopardy proper evaluation of currently emerging technologies to treat a wide range of contaminants present in landfill leachate, not just the large family of PFAS. We encourage transparency by ANR as to its timeline motivations: will it coincide with expiration of the extended moratorium of leachate treatment at the Newport WWTF? Please answer as to disposition of pre-treated landfill leachate effluent during the pilot project period and after 2026.

Any Final Report submitted by the Permittee should be under the review and approval of a certified Engineer selected by ANR. ANR should be in authority throughout, select an independent, third-party Engineer with experience in the technology of leachate pretreatment to filter CECs including PFAS, who like a clerk-of-the-works in any public works building project, is present full -time to oversee the building of the pilot project, and responsible for periodic and final reports, reportable to ANR. Credibility of the independence of ANR in its oversight responsibilities needs restoration. It begins by establishing assured third-party audits of permittee's operations and conformance to stated plan development, monitoring for compliance to schedule and performance standards outcomes, as established by ANR, not the Permittee.

By no later than three years following the effective date of this permit, the Permittee shall complete the pilot study and submit a Final Report approved by a Professional Engineer. What type of Engineer? Must specify “an engineer with experience in the field of leachate pretreatment technology. The same engineer contracted by ANR to provide objective, third party oversight in preceding steps in the process, who is experienced in leachate pretreatment technology and familiar with every step of the process up until this point.” The report must include the following:

- i. A general (?) summary of the project and a discussion of the effectiveness of the piloted technology(s) in removing PFAS and other conventional, nonconventional,

and toxic pollutants; **“A general summary...and discussion..” seems insufficient to determining the effectiveness of the pilot study. Data must be produced demonstrating effectiveness in removing all of the priority pollutants from the most up-to-date list and including all toxics identified in analysis of leachate from all landfill sources.”)**

- ii. A determination of the **achievable effluent quality** of the technology(s) **(according to the capacity of the chosen technology and parameters for updated Priority Pollutants? Will a comparison with other real-world applications of alternative leachate pretreatment technologies be required? How will we know if this is the most effective technology?)**
 - iii. A description of all sampling and testing performed. Present the complete set of all the influent, process control, effluent, operational, performance, economic, **residuals Say more!**, and **air quality Say more! Residuals- how they will be handled and disposed of safely, and air emissions, how they will be monitored and scrubbed for pollutants prior to release into the atmosphere- are an extremely important part of the planning and execution** data obtained. Include summaries and interpretations of the data, **including but not limited to percentage removal of water quality parameters of concern; Again, water quality parameters must be set by a qualified independent consultant, not the Permittee, and must include all Priority Pollutants from the most up-to-date list of CECs, including PFAS.**
 - iv. A description of any operational problems and treatment system limitations encountered during the pilot testing **(and how these will be addressed to achieve the maximum efficacy required by ANR);**
 - v. An assessment of the feasibility for full scale implementation and recommendations to achieve full scale implementation **(to achieve the maximum efficacy required by ANR);** and
 - vi. **Cost estimates for full scale implementation**, including capital costs and operation and maintenance costs. **(Again, where is the requirement to ensure the most effective, not the most cost-effective technology and monitoring system will be chosen?)**
- f. This permit may be reopened to adopt the approved Plan and associated implementation schedule, or to include a compliance schedule for the full-scale implementation of successful pilot treatment and/or pretreatment technologies. **(With the same requirements for review and comment by the public?)**

6. Prohibited Discharges

a. General Prohibitions

- i. The Permittee may not introduce **into a WWTF** any pollutants which cause pass through or interference. **How does this apply to the direct discharge into surface waters, perhaps including the Black River, as suggested in other documents received from ANR in FOIA request? The pass-through language applies to WWTFs.**

ii. Affirmative Defenses

1. The Permittee shall have an *affirmative defense* in any action brought against it alleging a violation of the general prohibitions established in paragraph (a)(i) of this section and the specific prohibitions in paragraphs (b)(iii), (b)(iv), (b)(v), (b)(vi), and (b)(vii) of this section where the Permittee can demonstrate that: **So many ways provided to avoid accountability by the Permittee. Please clarify- is this text provided by Permittee's or ANR's legal counsel? What language would best protect the interest of protecting Vermont's natural resources, environment and public health?**

- a. It **did not know or have reason to know that** its discharge, alone or in conjunction with a discharge or discharges from other sources, would cause pass through or interference; and **since when is ignorance a defense? and does this apply to discharge into a river? Why would the state provide an affirmative defense which would encourage polluters to "look the other way"?**

- b. (A) A local limit designed to prevent pass through and/or interference, as the case may be, was developed in accordance with 40 C.F.R. § 403.5(c) for each pollutant in the Permittee's discharge that caused pass through or interference, and the Permittee was in compliance with each such local limit directly prior to and during the pass through or interference; or
(B) If a local limit designed to prevent pass through and/or interference, as the case may be, had not been developed in accordance with 40 C.F.R. § 403.5(c) for the pollutant(s) that caused the pass through or interference, the Permittee's discharge directly prior to and during the pass through or interference did not change substantially in nature or constituents from the Permittee's prior discharge activity when the WWTF was regularly in compliance with the WWTF's NPDES permit requirements and, in the case of interference, applicable requirements for sewage sludge use or disposal. **This reads like a loophole designed to get around the requirement.**

b. Specific Prohibitions

In addition, the following pollutants shall not be introduced into a WWTF:

- i.** Pollutants which create a fire or explosion hazard in a WWTF, including, but not limited to waste streams with a closed cup flashpoint of less than 140 degrees Fahrenheit or 60 degrees Centigrade using the test method specified in 40 C.F.R. § 261.21.;
- ii.** Pollutants that will cause corrosive structural damage to the WWTF, but in no case discharges with pH lower than 5.0, unless the works is specifically designed to accommodate such discharges;
- iii.** Solid or viscous pollutants in amounts which will cause obstruction to the flow in the WWTF resulting in interference;
- iv.** Any pollutant, including oxygen demanding pollutants (BOD, etc.) released in a discharge at a flow rate and/or pollutant concentration which will cause interference with the WWTF;
- v.** Heat in amounts which will inhibit biological activity in the WWTF resulting in interference, but in no case heat in such quantities that the temperature at the WWTF treatment plant exceeds 40°C (104 °F) unless the Secretary, upon request of the WWTF, approves alternate temperature limits;
- vi.** Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through;
- vii.** Pollutants which result in the presence of toxic gases, vapors, or fumes within the WWTF in a quantity that may cause acute worker health and safety problems;
- viii.** Any trucked or hauled pollutants, except at discharge points designated by the WWTF.

B. REAPPLICATION

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

Reapply for a Discharge Permit by: **March 31, 2026**

C. OPERATING FEES

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

D. MONITORING AND REPORTING

1. Sampling and Analysis **This is all in the Permittees hands! Why is the Permittee , as opposed to an objective third-party, permitted to perform this sampling? Where is the regulatory authority required of the ANR to meet its mission statement to protect natural resources and the health and safety of the environment and the public? Where is the objective third-party oversight?**

The sampling, preservation, handling, and analytical methods used shall conform to the test procedures in 40 C.F.R. Part 136, **(again, the updated list of Priority Pollutants, and test procedures for same must be required by ANR)** except where other procedures are expressly referenced. **(Under what circumstance would other procedures be expressly referenced?)** Where other procedures are expressly referenced, the **Permittee (will cooperate with the objective third party entity contracted by ANR)** shall **follow (to ensure)** the sampling, preservation, handling, quality assurance, and quality controls associated with that procedure.

The Permittee (will cooperate with the objective third party entity contracted by ANR) shall use **(to ensure)** sufficiently sensitive test procedures (i.e., methods) approved under 40 C.F.R. Part 136 for the analysis of the pollutants or pollutant parameters specified in Condition I.A. above. Where 40 C.F.R. Part 136 **(the most comprehensive and up-to-date list of Priority Pollutants)** does not include sampling or analytical techniques for the pollutants in question, sampling and analyses shall be performed **(by the independent, objective, third-party entity contracted by ANR)** using validated analytical methods or other sampling and analytical procedures, approved by the Secretary.

Samples shall be representative of the volume and quality of effluent discharged over the sampling and reporting period. All samples are to be taken during normal operating hours. **The Permittee (will cooperate with the objective third party entity contracted by ANR) (who)** shall identify the effluent sampling location used for each discharge.

2. Reporting

The **Permittee (in cooperation with the objective third party entity contracted by ANR)** is required to submit monthly reports of monitoring results on DMR form WR-43. Reports are due on the 15th day of each month, beginning with the month following the issuance date of this permit. All laboratory analytics and a chain of custody for all sampling shall be submitted as an attachment to the monthly monitoring reports.

The Chief Operator of the receiving WWTF shall be copied on signed DMRs and all other reports required herein.

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

<https://anronline.vermont.gov/>

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

All reports shall be signed:

- a. In the case of corporations, by a principal executive officer of at least the level of vice president, or his/her duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge described in the report originates;
- b. In the case of a partnership, by a general partner;
- c. In the case of a sole proprietorship, by the proprietor; or
- d. In the case of a municipal, State, or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.

In addition to the monitoring and reporting requirements given above, daily monitoring of certain parameters for operational control shall be submitted to the Secretary on the DMR form WR-43. Operations reports shall be submitted monthly. **(Where is the language that would dictate who/how these reports will be monitored and inadequacies in reporting addressed?)**

3. Recording of Results Again, this is all in the Permittees hands! Why is the Permittee permitted to do all of this recording? Where is the regulatory authority required of the ANR? Where is the objective oversight?

(The independent, objective, third-party entity/lab contracted by ANR, and t)he Permittee shall maintain records of all information resulting from any monitoring activities required, including:

- a. The date, exact place, and time of sampling or measurement;
- b. The individual(s) who performed the sampling or measurements;
- c. The dates and times the analyses were performed;
- d. The individual(s) who performed the analyses;
- e. The analytical techniques and methods used, including sample collection handling and preservation techniques;
- f. The results of such analyses;
- g. The records of monitoring activities and results, including all instrumentation and calibration and maintenance records; and
- h. The original calculation and data bench sheets of the individual who performed analysis of the influent or effluent pursuant to requirements of this permit.
- i. For analyses performed by **(an objective, third-party with no previous ties to the Permittee) contract laboratories (contracted/ approved by ANR upon consulting with objective oversight):**
 - i. The detection level reported by the laboratory for each sample; and
 - ii. The laboratory analytical report including documentation of the QA/QC and analytical procedures.

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

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

4. Additional Monitoring

If the **Permittee** (replace with **“The independent, objective, third-party entity/lab contracted by ANR”**) 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.

II. GENERAL CONDITIONS

A. MANAGEMENT REQUIREMENTS

1. Facility Modification / Change in Discharge

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

2. Noncompliance Notification **The language re: non-compliance is entirely unacceptable here. How would ANR know of non-compliance if Permittee does not self-report? Strict on-site oversight by an objective third-party with expertise in this technology must be ensured.)**

- a. **The Permittee shall** give advance notice to the Secretary of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- b. **The Permittee shall** give advance notice to the Secretary of any changes at its facility affecting the potential for a slug discharge.
- c. **The Permittee shall** notify the Secretary and WWTF immediately of all discharges that could cause interference, upset, or damage at the WWTF, including slug loadings.
- d. **The Permittee shall promptly notify the Secretary and WWTF in advance of any substantial change in the volume or character of pollutants in its discharge.**
- e. **In the event the Permittee is unable to comply with any of the conditions of this permit due, among other reasons, to:**
 - i. **Breakdown** or maintenance of waste treatment equipment (biological and physicalchemical 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);
(This happened in Bethlehem, NH, Spring, 2021, 153,000-gallon leachate spill)

Accidents caused by human error or negligence; (This also happened in Bethlehem, NH, Spring, 2021)

- ii. Any unanticipated bypass or upset which exceeds any effluent limitation in the permit; **By what means will this be determined?**
- iii. Violation of an effluent limitation for any of the pollutants listed by the Secretary in this permit; or
- iv. Other causes such as acts of nature, **(In this age of climate change and extreme climate events, this requires the siting of the Leachate Pretreatment pilot project, as well as the full-scale implementation (since in all likelihood they will be one and the same) to be in a geographically sound place in accordance with current EPA regs for landfill siting, including nowhere near wetlands as is now the case in Coventry, VT.)**

The Permittee **(in cooperation with ANR approved qualified consultant designated to provide onsite oversight)** shall provide notice as specified in subdivision (e) of this subsection.

- f. The Permittee shall notify the Secretary and Chief Operator of [WWTF] **within 24 hours of becoming aware** of any permit noncompliance and shall provide the Secretary with the following information, in writing, within five days: **(It must be noted that in the Bethlehem, NH, 2021 leachate spill of 153,000 gallons, the spill went unnoticed for two days and subsequent response to the spill by NCES was deemed insufficient by New Hampshire State Environmental authorities. The language should read, “immediately upon becoming aware of any permit non-compliance”.)** <https://www.nhpr.org/nh-news/2021-07-22/nh-casella-landfill-bethlehem>
<http://indepthnh.org/2021/07/22/bethlehem-landfill-cited-for-operational-deficiencies/>
- i. Cause of non-compliance;
A description of the non-complying discharge, **including its impact upon the receiving water, if any; (It must not be left to the Permittee to determine the “impact upon the receiving water”, which should also read, “including ground water as well as surface water”. The Federal Government has pending lawsuits alleging that the NCES Bethlehem, NH site has polluted the nearby Ammonoosuc River. This is just one of many examples of environmental pollution related to NCES, etc./ Casella operations.**
<https://img1.wsimg.com/blobby/go/3a99e672-2796-498c-8250-9aae47365deb/downloads/Casella%20Fines-Violations%202021%20updated.pdf?ver=1626438029504>

- ii. A description of the non-complying discharge, including its impact upon the receiving water, if any;
Why would the Vermont ANR entrust the same corporation with this responsibility in this case, especially when the final, full-scale implementation of the pilot project will bring upwards of 100,000 gallons per day, (and more if import from Bethlehem NH NCES landfill is permitted) of leachate to the leachate pretreatment facility? The case becomes more clear that the State of Vermont must take full control and responsibility of every phase of the leachate pretreatment process- from choosing the technology to siting, and every subsequent step in the process. Vermont's Solid Waste, including Leachate Pretreatment technology and processing, must be managed as a public utility as vital to the daily lives of Vermonters as water and sewer, electricity or internet access.)
- iii. **Anticipated time the condition of non-compliance is expected to continue or, if such condition has been corrected, the duration of the period of non-compliance;**
- iv. **Steps taken by the Permittee to reduce and eliminate the non-complying discharge; and**
- v. **Steps to be taken by the Permittee to prevent recurrence of the condition of noncompliance. (These cannot be left to the Permittee to determine. Strict oversight by the ANR must be required to inform what steps will be taken, in the timeliest manner, and how to ensure there will be no recurrence of the condition of non-compliance.)**

3. Operation and Maintenance

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

- a. The Permittee shall, at all times, maintain in good working order and operate as efficiently as possible all treatment and control facilities and systems (and related appurtenances) installed or used by the Permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. **(Who is setting the standard for efficiency? The Permittee? Where is the regulatory oversight required of ANR? ANR must contract with an objective, experienced third-party entity to set, oversee and ensure compliance with Quality Assurance standards designed to address all of the above.)** This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by the Permittee only when the operation is necessary to achieve compliance with the conditions of this permit. **(This language is too loose given the serious environmental consequences**

of insufficient back-up or auxiliary facilities... should read “which are installed by the Permittee in compliance with conditions of this permit that align with performance standards and regulatory requirements determined by objective third-parties with experience in this technology.”)

- b. The Permittee shall provide an *adequate operating staff which is duly qualified* to carry out the operation, maintenance, and testing functions required to ensure compliance with the conditions of this permit. **(Who will determine what is “adequate” or who is “duly qualified” ? Only an objective third party with experience in leachate pretreatment technology, contracted by ANR, must make these determinations.)** Staff will be aware of the terms of this Permit which pertain to their duties and a copy of the Permit shall be available for their reference. **(And staff must be required to sign and date an individual copy to maintained on record as proof that they are aware of and understand their responsibilities to ensure compliance with the Permit.)**
- c. The operation and maintenance of this facility shall be performed only by qualified personnel **who are licensed as required** by Secretary and the Director of the Vermont Office of Professional Regulation. **(Where can the licensing standards be found? Do they exist? Shouldn't other regulations specific to qualifying personnel, promulgated as administrative procedures require and specific to leachate pretreatment technology, also be applied?)**

4. Quality Control (The ANR must take full responsibility here as well, by contracting with an objective, experienced, third-party to determine standards for calibration, maintenance procedures, periodicity, and must maintain records, and conduct laboratory proficiency test in cooperation with an independent third-party laboratory according to the most current list/ for Priority Pollutants.)

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

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

The Permittee shall conduct an annual laboratory proficiency test (via a qualified laboratory) for the analysis of all pollutant parameters performed within their facility laboratory and reported as required by this permit. Results shall be submitted to the Secretary by December 31, annually.

5. Bypass of WWTF

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

6. Duty to Mitigate

The Permittee shall take all reasonable steps **(according to whom? This is inadequate language considering the consequences to “the waters of the State, the environment, or human health resulting from non-compliance”)** 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. **(Who will make this determination as to “accelerated or additional monitoring as necessary? The Permittee? ANR must assume responsibility for this with consultation with expert and objective third-party.)**

7. Records Retention

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

8. Solids Management

Collected screenings, sludges, and other solids removed in the course of treatment and control of wastewaters shall be stored, treated, and disposed of in accordance with 10 V.S.A. Chapter 159 **(In all likelihood these screenings, sludges and solids will be so highly toxic that the 10 V.S.A Chapter 159 must be rewritten to forbid spreading on land as is currently allowed (this should have happened already! Further, the “screenings” as they relate to filters used to scrub leachate for toxins must be handled much like hazardous, even nuclear, waste, given the “forever” nature of many of these chemical and metal substances. Special handling and storage procedures for encapsulation and destruction of residuals must be developed by qualified and experienced leachate treatment engineers and compliance with these overseen exclusively by ANR in order to prevent release of toxic landfill chemicals into the environment once captured by this leachate pretreatment process.)** and with the terms and conditions of any certification, interim or final, transitional operation authorization, or

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

9. Emergency Pollution Permits

Maintenance activities, or emergencies resulting from equipment failure or malfunction, including power outages, which result in an effluent which exceeds the effluent limitations specified herein, shall be considered a violation of the conditions of this permit, unless the Permittee's discharge is covered under an emergency pollution permit under the provisions of 10 V.S.A. § 1268. **(What is this? Seems unlikely that this law is stringent enough to apply to Leachate Pretreatment given the highly toxic nature of landfill leachate.)** The Permittee shall notify the Secretary of the emergency situation by the next working day, unless notice is required sooner under Section II.A.2. **(This should read "immediately" not "by the next working day". These are highly toxic chemicals we are talking about here. Further, this underscores the necessity to ensure that the leachate pretreatment pilot project, much less the full-scale implementation of same, must not be sited anywhere near a drinking water source in order to ensure the health and safety of all those who drink from it. Accidents do happen- witness, for example, Bethlehem, NH landfill owned and operated by NCES, Casella.)**

10 V.S.A. § 1268 reads as follows:

When a discharge permit holder finds that pollution abatement facilities require repairs, replacement or other corrective action in order for them to continue to meet standards specified in the permit, he may apply in the manner specified by the secretary for an emergency pollution permit for a term sufficient to effect repairs, replacements or other corrective action. The permit may be issued without prior public notice if the nature of the emergency will not provide sufficient time to give notice; provided that the secretary shall give public notice *as soon as possible but in any event no later than five days after the effective date of the emergency pollution permit*. **(This language is entirely insufficient to the requirement that the public be informed immediately of any emergency related to such toxic threat to the environment and public health.)** No emergency pollution permit shall be issued unless the applicant certifies and the secretary finds that:

- (1) there is no present, reasonable alternative means of disposing of the waste other than by discharging it into the waters of the state **(How does this apply to international waters?)** during the limited period of time of the emergency;
- (2) the denial of an emergency pollution permit would work an extreme hardship upon the applicant; **(What would constitute an extreme hardship upon the applicant? Is the applicant the Permittee?)**
- (3) the granting of an emergency pollution permit will result in some public benefit; **(for example, warning about hazard to the public drinking water source?)**

(4) the discharge will **not be unreasonably harmful** to the quality of the receiving waters; **(There is no such thing as “not unreasonably harmful” when it comes to toxic landfill leachate.)**

(5) the cause or reason for the emergency is not due to willful or intended acts or omissions of the applicant. **And what if it is due to negligent or accidental acts of omission?**

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

10. Power Failure

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

- a. Provide an **(fail-safe)** alternative power source sufficient to operate the wastewater treatment and control facilities, or if such alternative power source is not in existence; **Is this what caused the May, 2021 Bethlehem, NH leachate disaster?)**
- b. Halt, reduce, or otherwise control production and all discharges upon the reduction, loss, or failure of the primary source of power to the wastewater treatment and control facilities. **(What is the Plan B to ensure this will happen in a timely manner?)**

11. Falsifying Information

Knowingly making any false statement or any report or other document required by this permit or knowingly rendering any monitoring device or method inaccurate, is a crime and may result in permit revocation and the imposition of criminal and civil penalties. (This assurance can only be possible by contracting with an objective, experienced, third-party to provide strict oversight as described in all previous comments.)

B. RESPONSIBILITIES

1. Right of Entry: **The Permittee shall allow the Secretary or authorized representative, upon the presentation of proper credentials: This is completely unacceptable. Who is in charge here? Should read “The Secretary or authorized representative shall have authority to do (a. to d.) at any time deemed necessary in order to ensure compliance with any and all regulations or Permit conditions in the interest of protecting the health and safety of the public and the environment.”**

- a. To enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- b. To have access to and copy, at **reasonable** times, any records required to be kept under the terms and conditions of this permit;
- c. To inspect, at **reasonable** times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- d. To sample or monitor, at **reasonable** times, for the purposes of ensuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

2. **Transfer of Ownership or Control (Point being this isn't about who the owner-operator is now, because it can change on a moment's notice in the future. That's why all this "Permittee" language has to be rewritten to place the regulatory authority in the hands of the State ANR.)**

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 at a minimum:

- a. The name and address of the present permittee, the name and address of the prospective permittee, and the applicable processing fee.
- b. **A written statement (this language should be more explicit)** 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; (How will this be verified? Signature required?)** 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. (How will this adequacy be verified and will closing costs, emergency funding, etc. be required to be adequate according to EPA projections, as is not currently the case for NEWSVT on the Coventry site.*

c. The proposed date of transfer.

The Secretary may require additional information (**for example?**) dependent upon the current status of the facility operation, maintenance, and permit compliance.

3. Confidentiality (This seems inappropriate considering the degree of risk to public and environmental health and safety which the ANR is liable and accountable for when it comes to managing highly toxic substances such as those contained in landfill leachate.)

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** (**“will be disclosed”- no NDAs here**) to authorized representatives of the State and the United States when relevant to any proceedings under this chapter.

Claims for confidentiality for the following information will be denied:

- a. The name and address of any permit applicant or Permittee.
- b. Permit applications, permits, and effluent data.
- c. Information required by application forms, including information submitted on the forms themselves and any attachments used to supply information required by the forms.

4. Permit Modification, Suspension, and Revocation

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

- a. Violation of any terms or conditions of this permit;
- b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts;
or

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

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

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

5. Toxic Effluent Standards

If a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under section 307(a) of the Clean Water Act **for a toxic pollutant which is present in the Permittee's discharge and such standard or prohibition is more stringent than any limitation upon such pollutant in this permit, (which is highly likely due to the fact that science and understanding of toxicity of known and emerging contaminants of concern is evolving literally moment to moment,)** then this permit shall be modified or revoked and reissued in accordance with the toxic effluent standard or prohibition and the Permittee so notified.

6. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of legal action or relieve the Permittee from any responsibilities, liabilities, or penalties to which the Permittee is or may be subject under **10 V.S.A. § 1281. (Again, a reminder that this legislation needs to be revisited and soon to ensure it is up-to-date with rapidly evolving toxins and standards.)**

7. Other Materials

Other materials ordinarily produced or used in the operation of this facility, which have been specifically identified in the application, (such as?) 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, **("now or in future iterations")** or

- ii. Known to be hazardous or toxic by the Permittee, **(is ignorance a defense here? Why would this provision be tied to the knowledge of the Permittee?)** except that such materials indicated in (i) and (ii) above may be discharged **in certain limited amounts** with the written approval of, and **under special conditions** established by, the Secretary or **his/her designated representative**, if the substances will not pose any **imminent** hazard to the public health or safety; **(according to whom/ what standards or regulations?)**
- b. The discharge of such materials will not violate the **(current or future)** 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 watercourse. **Why would this notice not occur?**

8. Enforcement

a. Penalties for Noncompliance

The Permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

Except as provided in “Bypass” (Condition II.A.5), and “Emergency Pollution Permits” (Condition II.A.9), nothing in this permit shall be construed to relieve the Permittee from civil or criminal penalties for noncompliance.

Pursuant to 40 C.F.R. § 403.8(f)(1)(vi)(A), the Secretary may seek injunctive relief for noncompliance with this permit and seek or assess civil or criminal penalties in at least the amount of \$1,000 a day for each violation.

Civil and criminal penalties for noncompliance are also provided for in 10 V.S.A. Chapters 47, 201, and 211. As of the effective date of this permit, those penalties, which are subject to statutory change, are as follows:

- i. Pursuant to 10 V.S.A. Chapter 47, a civil penalty not to exceed \$10,000.00 a day for each day of violation.
- ii. 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.
- iii. 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.

- iv. 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.
- v. 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.

b. Annual Publication Given that Casella has been in significant violation in other states in the past, how does this history apply here? So, Vermont can do business even when this or any industries have been out of compliance, or worse, in other states?

A list of all industrial users **which were in significant violation** of wastewater discharge requirements during the twelve (12) previous months may be annually published by the Secretary in a newspaper or newspapers in general circulation in Vermont. Accordingly, the permittee is apprised that noncompliance with this permit may lead to an enforcement action and may result in publication of its name in accordance with this section.

9. 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.

10. 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.

11. Other Information

If the Permittee becomes aware (and how might that be known?) 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. **Or else what?**

12. 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.

13. Authority

This permit is issued under authority of 10 V.S.A. §§ 1258, 1259, and 1263 of the Vermont Water Pollution Control Act, the Vermont Water Pollution Control Permit Regulation, and Section 402 of the Clean Water Act, as amended.

14. Appeal

Pursuant to 10 V.S.A. Chapter 220, an aggrieved person shall not appeal this permit unless the person submitted to the Secretary a written comment during the applicable public comment period or an oral comment at the public meeting conducted by the Secretary. Absent a determination to the contrary, an aggrieved person may only appeal issues related to the person's comments to the Secretary as prescribed by 10 V.S.A. § 8504(d)(2).

Renewable Energy Projects – Right to Appeal to Public Utility Commission. If this decision relates to a renewable energy plant for which a certificate of public good is required under 30 V.S.A. § 248, any appeal of this decision must be filed with the Public Utility Commission pursuant to 10 V.S.A. § 8506.

This section does not apply to a facility that is subject to 10 V.S.A. § 1004 (dams before the Federal Energy Regulatory Commission), 10 V.S.A. § 1006 (certification of hydroelectric projects) or 10 V.S.A. Chapter 43 (dams). Any appeal of this permit must be filed with the Clerk of the Public Utility Commission within 30 days of the date of this decision; the appellant must file with the Clerk an original and six copies of its appeal. The appellant shall provide notice of the filing of an appeal in accordance with 10 V.S.A. § 8504(c)(2) and the Rules and General Orders of the Public Utility Commission.

All Other Projects – Right to Appeal to Environmental Division. Any appeal of this permit must be filed with the clerk of the Environmental Division of the Superior Court within 30 days of the date of the decision. 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 Division; and must be signed by the appellant or the appellant's attorney. In addition, the appeal must give the address or location and 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. For further information, see the Vermont Rules for Environmental Court Proceedings.

Renewable Energy Projects – Right to Appeal to Public Utility Commission. If this decision relates to a renewable energy plant for which a certificate of public good is required under 30 V.S.A. § 248, any appeal of this decision must be filed with the Public Utility Commission pursuant to 10 V.S.A. § 8506.

This section does not apply to a facility that is subject to 10 V.S.A. § 1004 (dams before the Federal Energy Regulatory Commission), 10 V.S.A. § 1006 (certification of hydroelectric projects) or 10 V.S.A. Chapter 43 (dams). Any appeal of this permit must be filed with the Clerk of the Public Utility Commission within 30 days of the date of this decision; the appellant must file with the Clerk an original and six copies of its appeal. The appellant shall provide notice of the filing of an appeal in accordance with 10 V.S.A. § 8504(c)(2) and the Rules and General Orders of the Public Utility Commission.

All Other Projects – Right to Appeal to Environmental Division. Any appeal of this permit must be filed with the clerk of the Environmental Division of the Superior Court within 30 days of the date of the decision. 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 Division; and must be signed by the appellant or the appellant's attorney. In addition, the appeal must give the address or location and 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. For further information, see the Vermont Rules for Environmental Court Proceedings.

15. Definitions

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

Agency – means the Vermont Agency of Natural Resources.

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

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

Bypass – means the intentional diversion of waste streams from any portion of the industrial user's 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.

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

Interference – means a discharge which alone, or in conjunction with discharge or discharges from other sources, both: (1) inhibits or disrupts the WWTF, its treatment process or operations, or its sludge processes, use or disposal; and (2) therefore is the cause of violation of any requirement of the WWTF’s NPDES permit (including an increase in magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent state or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including Title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including state regulations contained in any state sludge management plan prepared pursuant to subtitle D of the SWDA), the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.

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

Mean - is the arithmetic mean.

Monthly Average (average monthly discharge limitation) – means the highest allowable average of daily discharges (mg/L, lbs, or gallons) over a calendar month, calculated as the

sum of all daily discharges (mg/L, lbs, or gallons) measured during a calendar month divided by the number of daily discharges measured during that month.

NPDES – means the National Pollutant Discharge Elimination System.

Pass Through – means a discharge which exits the WWTF into waters of the State in quantities or concentrations which, alone or in conjunction with a discharge from other sources, is a cause of a violation of any requirement of the WWTF's NPDES permit (including an increase in the magnitude or duration of a violation).

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

Slug Loading – any discharge of nonroutine, episodic nature, including an accidental spill or a noncustomary batch discharge that has a reasonable potential to cause interference or pass through, or in any other way violate the WWTF's regulations, local limits, or permit conditions.

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.

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

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

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

The list below represents only a fraction of the PFAS compounds that are known to be harmful to the environment and public health. A more comprehensive list is required.

Attachment A.

Per and Poly-Fluoroalkyl Substances

Compound Name	Compound Acronym
1. Perfluorobutanoic acid	PFBA
2. Perfluoropentanoic acid	PFPeA
3. Perfluorohexanoic acid	PFHxA
4. Perfluoroheptanoic acid	PFHpA
5. Perfluorooctanoic acid	PFOA
6. Perfluorononanoic acid	PFNA
7. Perfluorodecanoic acid	PFDA
8. Perfluoroundecanoic acid	PFUnA
9. Perfluorododecanoic acid	PFDoA
10. Perfluorotridecanoic acid	PFTTrDA
11. Perfluorotetradecanoic acid	PFTA
12. Perfluorohexadecanoic acid	PFHXDA
13. Perfluorooctadecanoic acid	PFODA
14. Perfluorobutanesulfonic acid	PFBS
15. Perfluoropentanesulfonic acid	PFPeS
16. Perfluorohexanesulfonic acid	PFHxS
17. Perfluoroheptanesulfonic acid	PFHpS
18. Perfluorooctanesulfonic acid	PFOS
19. Perfluorononanesulfonic acid	PFNS
20. Perfluorodecanesulfonic acid	PFDS
21. Perfluorooctanesulfonamide	FOSA
22. 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	4:2FTS
23. 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	6:2FTS
24. 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	8:2FTS
25. N-methyl perfluorooctane- sulfonamidoacetic acid	NMeFOSAA
26. N-ethyl perfluorooctane- sulfonamidoacetic acid	NEtFOSAA

See comments 5, c. Parameters that are specific to the requirement that an up-to-date list of Priority Pollutants include all toxics specified in the Univ. of Missouri and USDA forest service peer-reviewed paper.

Attachment B.

Priority Pollutants

1. Acenaphthene
2. Acrolein
3. Acrylonitrile
4. Benzene
5. Benzidine
6. Carbon tetrachloride
7. Chlorobenzene
8. 1,2,4-trichlorobenzene
9. Hexachlorobenzene
10. 1,2-dichloroethane
11. 1,1,1-trichloroethane
12. Hexachloroethane
13. 1,1-dichloroethane
14. 1,1,2-trichloroethane
15. 1,1,2,2-tetrachloroethane
16. Chloroethane
17. (Removed)
18. Bis(2-chloroethyl) ether
19. 2-chloroethyl vinyl ethers
20. 2-chloronaphthalene
21. 2,4,6-trichlorophenol
22. Parachlorometa cresol
23. Chloroform
24. 2-chlorophenol
25. 1,2-dichlorobenzene
26. 1,3-dichlorobenzene
27. 1,4-dichlorobenzene
28. 3,3-dichlorobenzidine
29. 1,1-dichloroethylene
30. 1,2-trans-dichloroethylene
31. 2,4-dichlorophenol
32. 1,2-dichloropropane
33. 1,3-dichloropropylene
34. 2,4-dimethylphenol
35. 2,4-dinitrotoluene
36. 2,6-dinitrotoluene
37. 1,2-diphenylhydrazine
38. Ethylbenzene
39. Fluoranthene
40. 4-chlorophenyl phenyl ether
41. 4-bromophenyl phenyl ether
42. Bis(2-chloroisopropyl) ether
43. Bis(2-chloroethoxy) methane
44. Methylene chloride
45. Methyl chloride
46. Methyl bromide
47. Bromoform
48. Dichlorobromomethane
49. (Removed)
50. (Removed)
51. Chlorodibromomethane
52. Hexachlorobutadiene
53. Hexachlorocyclopentadiene
54. Isophorone
55. Naphthalene
56. Nitrobenzene
57. 2-nitrophenol
58. 4-nitrophenol
59. 2,4-dinitrophenol
60. 4,6-dinitro-o-cresol
61. N-nitrosodimethylamine
62. N-nitrosodiphenylamine
63. N-nitrosodi-n-propylamine
64. Pentachlorophenol
65. Phenol
66. Bis(2-ethylhexyl) phthalate
67. Butyl benzyl phthalate
68. Di-N-Butyl Phthalate
69. Di-n-octyl phthalate
70. Diethyl Phthalate
71. Dimethyl phthalate
72. Benzo(a) anthracene
73. Benzo(a) pyrene
74. Benzo(b) fluoranthene
75. Benzo(k) fluoranthene
76. Chrysene
77. Acenaphthylene
78. Anthracene

79. Benzo(ghi) perylene
80. Fluorene
81. Phenanthrene
82. Dibenzo(a?,h) anthracene
83. Indeno (1,2,3-cd) pyrene
84. Pyrene
85. Tetrachloroethylene
86. Toluene
87. Trichloroethylene
88. Vinyl chloride
89. Aldrin
90. Dieldrin
91. Chlordane
92. 4,4-DDT
93. 4,4-DDE
94. 4,4-DDD
95. Alpha-endosulfan
96. Beta-endosulfan
97. Endosulfan sulfate
98. Endrin
99. Endrin aldehyde
100. Heptachlor
101. Heptachlor epoxide
102. Alpha-BHC
103. Beta-BHC
104. Gamma-BHC
105. Delta-BHC
106. PCB-1242 (Arochlor 1242)
107. PCB-1254 (Arochlor 1254)
108. PCB-1221 (Arochlor 1221)
109. PCB-1232 (Arochlor 1232)
110. PCB-1248 (Arochlor 1248)
111. PCB-1260 (Arochlor 1260)
112. PCB-1016 (Arochlor 1016)
113. Toxaphene
114. Antimony
115. Arsenic
116. Asbestos
117. Beryllium
118. Cadmium
119. Chromium
120. Copper
121. Cyanide, Total
122. Lead
123. Mercury
124. Nickel
125. Selenium
126. Silver
127. Thallium
128. Zinc
129. 2,3,7,8-TCDD