

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.: 3-1525
PIN: EJ08-0309
NPDES No.: VT0001333

DISCHARGE PERMIT

In compliance with the provisions of the Vermont Water Pollution Control Act as amended (10 V.S.A. chapter 47), the Vermont Water Pollution Control Permit Regulations as amended (Environmental Protection Rules, Chapter 13), the federal Clean Water Act as amended (33 U.S.C. §1251 *et seq.*), and implementing federal regulations,

J. Hutchins Inc.
88 Rogers Lane
Richmond, VT 05477

(hereinafter referred to as the "Permittee") is authorized by the Secretary of the Agency of Natural Resources (hereinafter referred to as the "Secretary") to discharge from a facility located at:

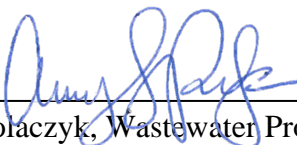
Western Lime Kiln Quarry
Lime Kiln Road
Colchester, VT 05439

to the Winooski River in accordance with the following conditions.

This permit shall become effective on November 1, 2021

This permit and the authorization to discharge shall expire on September 30, 2026

Peter Walke, Commissioner
Department of Environmental Conservation

By:  _____ Date: 10/18/2021
Amy Polaczyk, Wastewater Program Manager
Watershed Management Division

I. SPECIAL CONDITIONS

A. EFFLUENT LIMITS

- 1. Discharge Point S/N 001 Lat. 44.48946, Long. -73.16386:** During the **initial dewatering phase**, the Permittee is authorized to discharge quarry dewatering water consisting of surface water runoff from outfall S/N 001 to the Winooski River, an effluent for which the characteristics shall not exceed the values listed below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS	
	Monthly Average	Maximum Day	Measurement Frequency	Sample Type

Flow		4.0 MGD	Daily	Daily Total, Max.
Turbidity ^{1,2}	10 NTU		Daily	Grab
Hardness ³		Monitor Only	Monthly	Grab
Total Phosphorus	0.8 mg/L		Monthly	Composite
Total Kjeldahl Nitrogen		Monitor Only	Monthly	Composite
Nitrite + Nitrate (NOx)		Monitor Only	Monthly	Composite
Total Nitrogen		Monitor Only	Monthly	Calculated
Priority Pollutant Metals ³		Monitor Only	Monthly	Composite
pH ²		6.5 to 8.5 S.U.	Daily	Grab

The Permittee shall collect samples at a representative location prior to discharge to the Winooski River.

- (1) The turbidity limit is 10 NTU annual average under dry weather flow conditions.
- (2) The discharge shall meet effluent limits prior to discharge to the Winooski River. If a pH and turbidity sample exceeds their limit, the Permittee shall immediately discontinue discharge until pH and turbidity samples meet the permit limits.
- (3) Priority Pollutant Metals are antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thallium, and zinc. Effluent Hardness shall be measured concurrently with Priority Pollutant Metals.

2. **During the reclamation phase**, the Permittee is authorized to discharge quarry dewatering water consisting of surface water runoff from outfall S/N 001 to the Winooski River, an effluent for which the characteristics shall not exceed the values listed below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS	
	Monthly Average	Maximum Day	Measurement Frequency	Sample Type
Flow		0.5 MGD	Each Discharge	Daily Total, Max.
Turbidity ^{1,2}	10 NTU		Each Discharge	Grab
Hardness ³		Monitor Only	Annually	Composite
Total Phosphorus	0.8 mg/L		Monthly	Composite
Total Kjeldahl Nitrogen		Monitor Only	Quarterly	Composite
Nitrite + Nitrate (NOx)		Monitor Only	Quarterly	Composite
Total Nitrogen		Monitor Only	Quarterly	Calculated
Priority Pollutants ³		Monitor Only	Annually	Composite
pH ²		6.5 to 8.5 S.U.	Each Discharge	Grab

The Permittee shall collect samples at a representative location prior to discharge to the Winooski River.

- (1) The turbidity limit is 10 NTU annual average under dry weather flow conditions.
- (2) The discharge shall meet effluent limits prior to discharge to the Winooski River. If a pH or turbidity sample exceeds their limit, the Permittee shall immediately discontinue discharge until pH and turbidity samples meet the permit limits.
- (3) Priority pollutant constituents are listed in 40 CFR Part 122.21 Appendix J – Table 2 (ATTACHMENT B to this permit). This test shall be conducted annually and results submitted by December 31 each year. Effluent hardness shall be measured concurrently with Priority Pollutants.

B. SPECIAL CONDITIONS

1. The Permittee shall notify the Secretary in writing 2 weeks prior to the planned commencement of dewatering.
2. The Permittee shall provide a report to the Secretary within 1 month of conclusion of the dewatering that includes the following:
 - (1) the dates the dewatering commenced and concluded. If the initial dewatering occurs over two or more periods of discharge, the dates for each discharge shall be included. The initial dewatering period will be considered complete based on the dates within this notification.
 - (2) flow monitoring data and laboratory reports for the analyses conducted as required in Table I.A.1.
3. During the reclamation phase the Permittee shall note the approximate amount of street sweepings and bituminous concrete disposed of monthly on the WR-43.
4. The Permittee must use a test method for Copper with a detection limit of 10 µg/L-Cu or lower.
5. Down-gradient areas shall be inspected regularly (at least quarterly) for erosion and note the observations of form WR-43. The Permittee shall take immediate action to correct any erosion resulting from this discharge.
6. The Permittee shall implement a spill prevention and control plan to prevent any fuels or chemicals from entering the pit lake. The Permittee shall immediately implement all reasonable steps to prevent any equipment spills or leaks from entering the pit lake. The discharge of any fuels, chemicals, or other pollutants not specifically authorized by this permit is prohibited.
7. The dates and descriptions of inspections and maintenance activities shall be reported in the appropriate Discharge Monitoring Report (DMR).
8. The discharge shall be free from substances in kind or quantity that settle to form harmful benthic deposits; float as foam, debris, scum, or other visible substances; produce odor, color, taste, or turbidity that is not naturally occurring and would render the surface water unsuitable for its designated uses; result in the dominance of nuisance species; or interfere with recreational activities; or which would cause a violation of the Vermont Water Quality Standards.
9. The effluent shall not cause visible discoloration of the receiving waters.
10. Any action on the part of the Secretary in reviewing, commenting upon or approving plans and specifications for the construction of WWTFs shall not relieve the Permittee from the responsibility to achieve effluent limitations set forth in this permit and shall not constitute a waiver of, or act of estoppel against any remedy available to the Secretary, the State of Vermont, or the federal government for failure to meet any requirement set forth in this permit or imposed by state or federal law.

C. 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**

D. OPERATING FEES

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

E. MONITORING AND REPORTING

1. Sampling and Analysis

The sampling, preservation, handling, and analytical methods used shall conform to the test procedures published in Title 40 of the Code of Federal Regulations (C.F.R.) Part 136. The Permittee shall use sufficiently sensitive test procedures (i.e., methods) approved under 40 C.F.R. Part 136 for the analysis of the pollutants or pollutant parameters required under this Section.

Samples shall be representative of the volume and quality of effluent discharged over the sampling and reporting period. All samples are to be taken during normal operating hours. The Permittee shall identify the effluent sampling location used for each discharge. A description of the effluent sample location is included in Condition I.A.1.

2. Reporting

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

Unless waived by the Secretary, the Permittee shall electronically submit its DMRs via Vermont's online electronic reporting system. The Permittee shall electronically submit additional compliance monitoring data and reports specified by the Secretary. When the Permittee submits DMRs using an electronic system designated by the Secretary, which requires attachment of scanned DMRs in PDF format, it is not required to submit hard copies of DMRs. The link below shall be used for electronic submittals:

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

If, in any reporting period there has been no discharge, the Permittee must submit that information by the report due date. All reports shall be signed:

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

3. Recording of Results

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

- a. The exact place, date, and time of sampling or measurements;
- b. The individual(s) who performed the sampling or measurements;
- c. The dates and times the analyses were performed;
- d. The individual(s) who performed the analyses;
- e. The analytical techniques and methods used, including sample collection handling and preservation techniques;
- f. The results of such analyses;
- g. The records of monitoring activities and results, including all instrumentation and calibration and maintenance records;
- h. The original calculation and data bench sheets of the operator who performed analysis of the influent or effluent pursuant to requirements of this permit; and
- i. For analyses performed by contract laboratories:
 - a. The detection level reported by the laboratory for each sample; and
 - b. The laboratory analytical report including documentation of the QA/QC and analytical procedures.

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 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, by notice to the Secretary of such changes. Following such notice, the permit may be modified, pursuant to Condition II.B.4. of this permit, to specify and limit any pollutants not previously limited.

2. Noncompliance Notification

- a. The Permittee shall give advance notice to the Secretary of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- b. In the event the Permittee is unable to comply with any of the conditions of this permit due, among other reasons, to:
 - i. Breakdown or maintenance of waste treatment equipment (biological and physical-chemical systems including all pipes, transfer pumps, compressors, collection ponds or tanks for the segregation of treated or untreated wastes, ion exchange columns, or carbon absorption units);
 - ii. Accidents caused by human error or negligence;
 - iii. Any unanticipated bypass or upset which exceeds any effluent limitation in the permit;
 - iv. Violation of a maximum day discharge limitation for any of the pollutants listed by the Secretary in this permit; or
 - v. Other causes such as acts of nature, the Permittee shall provide notice as specified in subdivision (c) of this subsection.
- c. For any noncompliance not covered under Condition II.A.2.b. of this permit, an operator of a WWTF or the operator's delegate shall notify the Secretary within 24 hours of becoming aware of such condition and shall provide the Secretary with the following information, in writing, within five days:

- i. Cause of noncompliance;
- ii. A description of the non-complying discharge including its impact upon the receiving water;
- iii. Anticipated time the condition of noncompliance is expected to continue or, if such condition has been corrected, the duration of the period of noncompliance;
- 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.

3. Operation and Maintenance

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

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

4. Quality Control

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

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

For purposes of demonstrating compliance with the requirements of Condition II.A.3.a) of this permit regarding adequate laboratory controls and appropriate quality assurance procedures, the Permittee shall conduct and pass an annual laboratory proficiency test, via an accredited laboratory, for the analysis of all pollutant parameters performed within their facility laboratory and reported as required by this permit. This can be carried out as part of an EPA DMR-QA study. Results shall be submitted to the Secretary by **December 31, annually**. The first proficiency test results are due by **December 31, 2022**.

5. Bypass

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

6. Duty to Mitigate

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

7. Records Retention

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

8. Solids Management

Collected screenings, sludges, and other solids removed in the course of treatment and control of wastewaters shall be stored, treated and disposed of in accordance with 10 V.S.A. chapter 159 and with the terms and conditions of any certification, interim or final, transitional operation authorization, or order issued pursuant to 10 V.S.A. chapter 159 that is in effect on the effective date of this permit or is issued during the term of this permit.

9. Emergency Pollution Permits

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

10 V.S.A. § 1268 reads as follows:

When a discharge permit holder finds that pollution abatement facilities require repairs, replacement, or other corrective action in order for them to continue to meet standards specified in the permit, the holder may apply in the manner specified by the Secretary

for an emergency pollution permit for a term sufficient to effect repairs, replacements, or other corrective action. The Secretary shall proceed in accordance with chapter 170 of this title. No emergency pollution permit shall be issued unless the applicant certifies and the Secretary finds that:

- (1) there is no present, reasonable alternative means of disposing of the waste other than by discharging it into the waters of the State during the limited period of time of the emergency;
- (2) the denial of an emergency pollution permit would work an extreme hardship upon the applicant;
- (3) the granting of an emergency pollution permit will result in some public benefit;
- (4) the discharge will not be unreasonably harmful to the quality of the receiving waters; and
- (5) the cause or reason for the emergency is not due to willful or intended acts or omissions of the applicant.

Application shall be made to the Secretary at the following address: Agency of Natural Resources, Department of Environmental Conservation, One National Life Drive, Davis Building, 3rd 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 alternative power source sufficient to operate the wastewater control facilities, or if such alternative power source is not in existence,
- b. Halt, reduce or otherwise control production and/or all discharges upon the reduction, loss, or failure of the primary source of power to the wastewater control facilities.

B. RESPONSIBILITIES

1. Right of Entry

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

- a. To enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- b. To have access to and copy, at reasonable times, any records required to be kept under the terms and conditions of this permit;

- c. To inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- d. To sample or monitor, at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

2. Transfer of Ownership or Control

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

This request for transfer application must include as a minimum:

- a. A properly completed application form provided by the Secretary and the applicable processing fee.
- b. A written statement from the prospective owner or operator certifying:
 - i. The conditions of the operation that contribute to, or affect, the discharge will not be materially different under the new ownership;
 - ii. The prospective owner or operator has read and is familiar with the terms of the permit and agrees to comply with all terms and conditions of the permit; and
 - iii. The prospective owner or operator has adequate funding to operate and maintain the treatment system and remain in compliance with the terms and conditions of the permit.
- c. The date of the sale or transfer.

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

3. Confidentiality

Pursuant to 10 V.S.A. § 1259(b):

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

Claims for confidentiality for the following information will be denied:

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

4. Permit Modification and Revocation

Pursuant to 40 C.F.R. § 124.5, the Secretary may modify, revoke and reissue, or terminate for cause, in whole or in part, the authorization to discharge under this permit. These actions may be taken for the reasons specified in 40 C.F.R. § 122.62 (modification or revocation and reissuance) and § 122.64 (termination), including:

- a. There are material and substantial alterations or additions to the permitted facility or activity;
- b. New information is received that was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and would have justified the application of different permit conditions at the time of issuance;
- c. To correct technical mistakes, such as errors in calculation, or mistaken interpretations of law made in determining permit conditions;
- d. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts;
- e. Reallocation of WLA under the LC TMDL;
- f. Development of an integrated WWTF and stormwater runoff NPDES permit; or
- g. 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.

5. Toxic Effluent Standards

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

6. Oil and Hazardous Substance Liability

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

7. Civil and Criminal Liability

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

8. 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.

9. 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.

10. Other Information

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

11. 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.

12. Appeals

Renewable Energy Plants or Telecommunications Facility – 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 or a telecommunications facility for which the applicant has applied or has served notice under 30 V.S.A. § 248a(e) that it will apply for approval under 30 V.S.A. § 248a, 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. For further information, see the Rules and General Orders of the Public Utility Commission available at puc.vermont.gov. The address for the Public Utility Commission is: 112 State Street, Montpelier, VT 05620-2701 Telephone #: 802-828-2358.

All Other Facilities or 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 available at www.vermontjudiciary.org. The address for the Environmental Division is: 32 Cherry Street; 2nd Floor, Suite 303; Burlington, VT 05401 Telephone #: 802-951-1740.

13. Authority

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

III.

A. OTHER REQUIREMENTS

This permit shall be modified, suspended, or revoked to comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a)(2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:

1. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit, or
2. Controls any pollutant not limited in the permit.

The permit as modified under this paragraph shall also contain any other requirements of the Vermont Water Pollution Control Act then applicable.

B. DEFINITIONS

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

Agency – means the Vermont Agency of Natural Resources.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Mean – means the arithmetic mean.

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

NPDES – means the National Pollutant Discharge Elimination System.

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

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

Untreated Discharge – means (1) combined sewer overflows from a WWTF; (2) overflows from sanitary sewers and combined sewer systems that are part of a WWTF during dry weather flows, which result in a discharge to waters of the State; (3) upsets or bypasses around or within a WWTF during dry or wet weather conditions that are due to factors unrelated to a wet weather storm event and that result in a discharge of sewage that has not been fully treated to waters of the State; and (4) discharges from a WWTF to separate storm sewer systems.

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

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

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

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

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

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

Attachment A.

Discharge ID	Discharge Activity	Discharge Status	Receiving Water	Latitude	Longitude
001	Quarry dewatering	A	Winooski River	44.48946	-73.16386

ATTACHMENT B.

Hardness of receiving water, upstream of outfall
 pH of receiving water, upstream of outfall
 Total Aluminum, effluent
 Dissolved Organic Carbon, upstream of outfall

Metals (total recoverable), cyanide and total phenols:

Antimony
 Arsenic
 Beryllium
 Cadmium
 Chromium
 Copper
 Lead
 Mercury
 Nickel
 Selenium
 Silver
 Thallium
 Zinc
 Cyanide
 Total phenolic compounds

Volatile organic compounds:

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

Acid-extractable compounds:

p-chloro-m-cresol
 2-chlorophenol
 2,4-dichlorophenol
 2,4-dimethylphenol

4,6-dinitro-o-cresol
 2,4-dinitrophenol
 2-nitrophenol
 4-nitrophenol
 pentachlorophenol
 phenol
 2,4,6-trichlorophenol

Base-neutral compounds:

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

PERMITTEE: _____

PERMIT No.: _____

Address: _____

S/N: _____

MONTH: _____ YEAR: _____

Page _____ of _____

Phone: _____

PERMIT MONITORING INFORMATION

DATE	EFFLUENT																		SIZE AND TYPE OF PRIMARY FLOW DEVICE:				
																			FLOW CHECKS: Influent <input type="checkbox"/> Effluent <input type="checkbox"/>				
																			Date	Head in Inches	Actual Flow in MGD	Chart Flow in MGD	(Actual-Chart) Actual X 100 = % ERROR
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1																							
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31																							
TOTAL																							
Average																							
Max																							
Min																							

Factory Calibration Date: _____ Calibrated By: _____

COMMENTS AND EXPLANATIONS OF ANY VIOLATIONS:
(Reference all attachments here)

I certify under penalty of law that I have personally examined, and am familiar with the information submitted herein. Based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

PREPARED BY: _____

APPROVED BY: _____
Authorized Agent for the Permittee

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

FACT SHEET FOR DRAFT PERMIT
October 2021

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

PERMIT NO: 3-1525
PIN: EJ08-0309
NPDES NO: VT0001333

NAME AND ADDRESS OF APPLICANT:

J. Hutchins Inc.
88 Rogers Lane
Richmond, VT 05477

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

Western Lime Kiln Quarry
Lime Kiln Road
Colchester, VT 05439

FACILITY COORDINATES: Lat: 44.49131 Long: -73.16241

FACILITY CLASSIFICATION: *Non-Major, Not classified*

RECEIVING WATER: Winooski River

CLASSIFICATION: All uses Class B(2). Class B waters are suitable for swimming and other primary contact recreation; irrigation and agricultural uses; aquatic biota and aquatic habitat; good aesthetic value; boating, fishing, and other recreational uses; and suitable for public water source with filtration and disinfection or other required treatment.

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

The Secretary of the Vermont Agency of Natural Resources (hereinafter referred to as “the Secretary”) received a renewal application for the permit to discharge into the designated receiving water from Saint Michael’s College on December 17, 2012, followed by an amendment to the application from J. Hutchins, Inc on February 24, 2021, which was complete on September

9, 2021, to reflect a request for transfer of ownership. The facility's previous permit was issued on September 17, 2008. The 2008 discharge permit was not used as quarry activities and dewatering did not occur during the permit term. The previous permit (hereinafter referred to as the "current permit") has been administratively continued, pursuant to 3 V.S.A. § 814, as the applicant filed a complete application for permit reissuance within the prescribed time period per the Vermont Water Pollution Control Permit Regulations Section 13.5(b). At this time, the Secretary has made a tentative decision to reissue the discharge permit.

A Reasonable Potential Determination Waiver Memo for the facility is provided in Attachment A.

II. Description of Discharge

The discharge consists of surface water that has accumulated in the west quarry. Water levels will be maintained at low level while the quarry is being filled with earthen and construction debris. Water collected in the quarry is pumped through an aboveground pipe that discharges directly to the Winooski River via a stable open rock face.

III. Limitations and Conditions

The draft permit contains effluent limitations for pH, turbidity, Total Phosphorus (TP), and effluent flow. It also contains monitoring requirements for Hardness, Total Nitrogen (TN), Priority Pollutant Metals (during dewatering) and Priority Pollutants (during reclamation). The effluent limitations of the draft permit and the monitoring requirements may be found on the following pages of the draft permit:

Effluent Limitations:	Pages 2-3 of 20
Monitoring Requirements:	Pages 2-5 of 20

IV. Statutory and Regulatory Authority

A. Clean Water Act and NPDES Background

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

Section 301 of the CWA provides for two types of effluent limitations to be included in NPDES permits: "technology-based" limitations and "water quality-based" limitations. CWA §§ 301, 303, 304(b); 40 C.F.R. Parts 122, 125, 131. Technology-based limitations, generally developed on an industry-by-industry basis, reflect a specified level of pollutant-reducing technology available and

economically achievable for the type of facility being permitted. CWA § 301(b). As a class, WWTFs must meet performance-based requirements based on available wastewater treatment technology. CWA § 301(b)(1)(B). The performance level for WWTFs is referred to as “secondary treatment.” Secondary treatment is comprised of technology-based requirements expressed in terms of BOD₅, TSS, and pH; 40 C.F.R. Part 133.

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

A permit must include limits for any pollutant or pollutant parameter (conventional, non-conventional, toxic, and whole effluent toxicity) that is or may be discharged at a level that causes or has "reasonable potential" to cause or contribute to an excursion above any water quality standard, including narrative water quality criteria. See 40 C.F.R. § 122.44(d)(1). An excursion occurs if the projected or actual in-stream concentration exceeds the applicable criterion. A NPDES permit must contain effluent limitations and conditions in order to ensure that the discharge does not cause or contribute to water quality standard violations.

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

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

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

1. Reasonable Potential Determination

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

- 1) Existing controls on point and non-point sources of pollution as evidenced by the Vermont surface water assessment database;
- 2) Pollutant concentration and variability in the effluent as determined from the permit application materials, monthly discharge monitoring reports (DMRs), or other facility reports;
- 3) Receiving water quality based on targeted water quality and biological assessments of receiving waters, as applicable, or other State or Federal water quality reports;
- 4) Toxicity testing results based on the Vermont Toxic Discharge Control Strategy, and compelled as a condition of prior permits;
- 5) Available dilution of the effluent in the receiving water, expressed as the instream waste concentration. In accordance with the applicable Vermont Water Quality Standards, available dilution for rivers and streams is based on a known or estimated value of the lowest average flow which occurs for seven (7) consecutive days with a recurrence interval of once in ten (10) years (7Q10) for aquatic life and human health criteria for non-carcinogens, or at all flows for human health (carcinogens only) in the receiving water. For nutrients, available dilution for stream and river discharges is assessed using the low median monthly flow computed as the median flow of the month containing the lowest annual flow. Available dilution for lakes is based on mixing zones of no more than 200 feet in diameter, in any direction, from the effluent discharge point, including as applicable the length of a diffuser apparatus; and
- 6) All effluent limitations, monitoring requirements, and other conditions of the draft permit.

Based on the nature of the discharge, a Reasonable Potential Determination Waiver for the facility is provided in Attachment A.

B. Anti-Backsliding

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

V. Description of Receiving Water

The receiving water for this discharge is the Winooski River. The Winooski River downstream of the discharge point is a Class B (2) water and is designated as a seasonal Warm (June 1 - September 30) and Cold (October 1 – May 31) Water Fish Habitat. The 7Q10 flow of the river is estimated to be 146 cubic feet per second (CFS). The instream waste concentration at the 7Q10 flow for the initial dewatering phase is 0.04 (4%) and the instream waste concentration at the 7Q10 flow for the reclamation phase is 0.005 (0.5%).

VI. Mixing Zones

Mixing Zone. A Mixing Zone is a length or area within Class B waters required for the dispersion and dilution of waste discharges adequately treated to meet federal and state treatment requirements and within which it is recognized that specific water uses or water quality criteria associated with the assigned classification for such waters may not be realized. A mixing zone shall not extend more than 200 feet from the point of discharge and must meet the terms of 10 V.S.A. § 29A-204. For a mixing zone to be applicable to a discharge it must be authorized within the discharge permit. There is no mixing zone authorized in this permit.

VII. Facility History and Background

St. Michael's College currently owns the abandoned lime quarry located on Lime Kiln Road in Colchester, Vermont. The quarry is divided into two sections (east and west) which were connected via a tunnel under Lime Kiln Road. Limestone was mined and processed from the early 1800's until the quarry and the industrial kiln used to produce quicklime through the calcination of limestone was shut down in 1971. In the early 1990s, the industrial lime kiln was demolished. In 2001, the east quarry and the tunnel connecting both quarries were filled with construction associated debris and a solar array was installed on top of the east quarry.

The west quarry is in the process of being purchased by J. Hutchins, Inc. The size of this quarry is approximately 3 acres with a depth of 150 feet. There is no hydrologic connection to surrounding surface waters and there is an unknown amount of groundwater recharge to the pit. In 2001, approximately 50 feet of water was drained from the quarry. The quarry has refilled with surface water and is proposed to be drained to facilitate the reclamation phase. The Draft Categorical Disposal Facility Certification issued by the VT DEC Solid Waste Management Program (Identification number CH070) authorizes the following fill materials:

- Stumps, brush, and untreated wood (20,000 tons/yr.)
- Bituminous concrete (5,000 tons/yr.)
- Concrete, masonry, mortar, porcelain, pottery tile, and clay pipe (30,000 tons/yr.)
- Street Sweepings (10,000 tons/year)

Construction activities will take place either within the quarry or adjacent to the rim of the quarry. All runoff associated with construction activities will drain into the quarry.

VIII. Permit Basis and Explanation of Effluent Limitation Derivation (S/N 001)

Due to the nature of the operation, the draft permit contains two tables to differentiate between the flows authorized and monitoring frequencies required in the initial dewatering phase and the reclamation phase.

A. Flow – The draft permit contains separate limitations for the two phases of the project.

The initial dewatering phase discharge limit is 4.0 MGD, maximum day. Monitoring is required daily.

The reclamation phase discharge limit is 0.5 MGD, maximum day. Monitoring is required for every discharge into the Winooski River.

B. Conventional Pollutants

- 1. pH** – The pH limitation remains at 6.5 - 8.5 Standard Units as specified in Section 29A-303(6) in the Vermont Water Quality Standards. Monitoring is required daily during the dewatering phase and for every discharge into the Winooski River during the reclamation phase. The permit requires the discharge to meet pH and turbidity limits prior to release to the Winooski River. If sampling indicates these parameters exceed their limits, the discharge must be discontinued until pH and turbidity samples meet the permit limits
- 2. Priority Pollutant Metals & Hardness** - Due to the lack of monitoring data for metals, it was not possible to assess reasonable potential for Metals (Al, Sb, As, Be, Cd, Cr, Cu, Pb, Hg, Ni, Se, Ag, Tl, and Zn). In addition, collection of metals data is included because this section of the Lower Winooski River is approaching the available assimilative capacity for copper. Hardness is included as the water quality standards for these metals are hardness-dependent, with ‘soft’ waters, such as the lower Winooski, having lower VWQS. Monitoring is required monthly during the dewatering phase. During the reclamation phase, Priority Pollutant Metals & Hardness are required annually as part of the Priority Pollutant Scan (see C.2. below).

C. Non-Conventional and Toxics

- 1. Turbidity** – The turbidity limitation remains at 10 NTU, maximum day. Monitoring is required daily during the dewatering phase and for every discharge into the Winooski River during the reclamation phase. The permit requires the discharge to meet pH and turbidity limits prior to release to the Winooski River. If sampling indicates these parameters exceed their limits, the discharge must be discontinued until pH and turbidity samples meet the permit limits
- 2. Priority Pollutant Scan** – Due to the acceptance of street sweepings and bituminous concrete, the discharge during the reclamation phase shall be monitored annually for the priority pollutants listed at 40 CFR Part 122.21 Appendix J – Table 2. These results shall be submitted to the Secretary annually by December 31. The results of this test may serve to comply with the Priority Pollutant Metals monitoring requirement provided results for Al, Sb, As, Be, Cd, Cr, Cu, Pb, Hg, Ni, Se, Ag, Tl, and Zn are included.

D. Nutrients Monitoring

- 1. Total Phosphorus** - The concentration effluent limitation is based on the requirements of 10 V.S.A. § 1266a requiring that, “No person directly discharging into the drainage basins of Lake Champlain or Lake Memphremagog shall discharge any waste that contains a phosphorus concentration in excess of 0.80 milligrams per liter on a monthly average basis.” The receiving water for this discharge is a tributary of Lake Champlain, therefore the proposed permit includes an effluent TP concentration limit of 0.8 mg/L, monthly average. Monitoring is required monthly during both the dewatering phase and the reclamation phase.
- 2. Nitrogen, Total** - TN is the sum of nitrate, nitrite, ammonia, soluble organic nitrogen, and particulate organic nitrogen. To gather data on the amount of Total Nitrogen (TN) in this discharge and its potential impact on the receiving water, a “monitor only” requirement for TN has been included in this permit.

TN is a calculated value based on the sum of NO_x and TKN, and, shall be reported as pounds, calculated as:

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

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

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

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

Monitoring is required monthly during the dewatering phase and quarterly during the reclamation phase.

E. Special Conditions

1. Condition I.B.5. requires the area downgradient of discharge point S/N 001 to be inspected at a frequency of at least quarterly for signs of erosion.
2. Condition I.B.7. requires a description of all inspections and maintenance activities to be reported in the appropriate Discharge Monitoring Report (DMR).
3. Footnotes to both effluent limit tables include conditions that require the effluent to meet effluent limits prior to discharge to the Winooski River. If a turbidity or pH sample exceeds their limit, the Permittee shall immediately discontinue discharge until turbidity and pH samples meet the permit limits.
4. **Electronic Reporting** - The EPA recently promulgated a final rule to modernize the Clean Water Act reporting for municipalities, industries, and other facilities by converting to an electronic data reporting system. The final rule requires the inclusion of electronic reporting requirements in NPDES permits that become effective after December 21, 2015. The rule requires that NPDES regulated entities that are required to submit discharge monitoring reports (DMRs), including majors and non-majors, individually permitted or covered by a general permit, must do so electronically after December 2016. The Secretary has created an electronic reporting system for DMRs and has recently trained facilities in its use. As of December 2020, these NPDES facilities will also be expected to submit additional information electronically as specified in Appendix A in 40 C.F.R. part 127.

Reporting Guidance: The permit contains two different discharge phases: dewatering and reclamation. To facilitate electronic reporting, the different phases will be represented in the online reporting system by different monitoring location descriptions. The initial dewatering phase will be represented by the “After Other Trmt” monitoring location, while the reclamation phase represented by the “Effluent Gross Value” location. During the dewatering phase, data should be entered under the “After Other Trmt” location and a “No Data Indicator” (NODI) of 9 – conditional monitoring data under the “Effluent Gross Value” location. Conversely, during the reclamation phase the Permittee should enter data under the “Effluent Gross Value” location and the NODI code of 9 for the “After Other Trmt” monitoring location.

5. **Noncompliance Notification** - Condition II.A.2. has been included in the draft permit. The Permittee shall notify the Secretary within 24 hours of becoming aware of noncompliance and shall provide the following to the Secretary within 5 days: the cause of noncompliance, a description of the non-complying discharge including its impact upon the receiving water, anticipated time the condition of noncompliance is expected to continue or the total duration of noncompliance, steps taken to reduce and eliminate the non-complying discharge, and steps taken to prevent recurrence of the condition of noncompliance.
6. **Reopener** - This draft permit includes a reopener whereby the Secretary reserves the right to reopen and amend the permit to implement an integrated plan to address multiple Clean Water Act obligations.

E. Reasonable Potential Analysis

The Agency has waived a reasonable potential analysis for the facility. The decision to waive the determination was based on the effluent discharge from the quarry and the size of the receiving water (Winooski River). The decision is attached to this Fact Sheet as Attachment A.


IX. Procedures for Formulation of Final Decision

*The public comment period for the draft permit was from **September 10, 2021, to October 11, 2021**, during which time no comments were received.*

ATTACHMENT A

**Agency of Natural Resources
Department of Environmental Conservation
Watershed Management Division
1 National Life Drive Davis 3
Montpelier, VT 05620-3522
802-828-1115**

MEMORANDUM

From: Amy Polaczyk, Wastewater Management Program 

Cc: Pete LaFlamme, Director, Watershed Management Division
Bethany Sargent, Monitoring and Assessment Program
Rick Levy, Monitoring and Assessment Program

Date: August 17, 2021

Subject: J. Hutchins Inc.-Lime Kiln Quarry West Reasonable Potential Determination

Facility:

J. Hutchins Inc.-Lime Kiln Quarry West
Permit No. 3-1525
NPDES No. VT0001333

Hydrology for J. Hutchins Inc.-Lime Kiln Quarry West used in this evaluation:

Design Flow: 4 MGD = 6.2 CFS
Permitted Flow: 0.5 MGD = 0.78 CFS
7Q10 = 146 CFS
IWC-7Q10 (design)= 0.04 (<10%)
IWC-7Q10 (permitted)= 0.005 (<1%)

Receiving Water:

Winooski River

The Wastewater Management Program (WWP) has evaluated the available data for the J. Hutchins Inc.-Lime Kiln Quarry West. Due to the small size of the J. Hutchins Inc.-Lime Kiln Quarry West-Fill Site discharge compared to the large size of the receiving water, the WWP has determined it is appropriate to waive a full Reasonable Potential Determination for the facility.

J. Hutchins Inc.-Lime Kiln Quarry West-Fill Site is proposed to be permitted to discharge in two phases: 4 MGD (6.2 CFS) during initial dewatering and 0.5 MGD (0.78 CFS) during the reclamation phase. At the point of discharge, the Winooski River has a 7Q10 flow of 146 CFS. This results in an Instream Waste Concentrations of 0.04 and 0.005, respectively. Considering this amount of dilution, the WWP has determined this WWTF as proposed to be operated and permitted, does not have the reasonable potential to exceed Vermont Water Quality Standards. However, due to the concerns regarding copper and zinc loading into this reach of the Lower Winooski River and lack of data on the proposed discharge, it is advised the permit should contain monitoring for priority pollutant metals. The solid waste certification permits the following fill during the reclamation phase:

- Stumps, brush, and untreated wood (approximately 20,000 tons/yr.)
- Bituminous concrete (approximately 5,000 tons/yr.)
- Concrete, masonry, mortar, porcelain, pottery tile, and clay pipe (approximately 30,000 tons/yr.)

- Street Sweepings (approximately 10,000 tons/year)

The pollutants of concern with these fill materials are metals, Polyaromatic Hydrocarbons (PAHs), and Volatile Organic Compounds (VOCs). The permit should require a priority pollutant scan.

To assure the statutory Total Phosphorus (TP) requirement of 10 V.S.A. 1266(a) is met, the permit must contain a monthly average limit of 0.8 mg/L.