Water Quality Certification #2016-003
Under 33 U.S.C. § 1341
For Martin's Foods of South Burlington, Inc.
Hinesburg Hannaford's Supermarket & Pharmacy

VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION
WATERSHED MANAGEMENT DIVISION

I. INTRODUCTION

Section 401 of the federal Clean Water Act requires that any applicant for a federal license or permit to conduct any activity which may result in any discharge into navigable waters shall provide the licensing or permitting agency a certification from the state in which the discharge originates, certifying that the discharge will comply with all applicable provisions of the Clean Water Act. 33 U.S.C. § 1341(a)(1). This includes applicants for 404/Section 10 Permits from the Army Corps of Engineers (ACoE) to discharge dredged or fill material into waters of the United States. The certifying state may set forth effluent limitations and other limitations, and monitoring requirements necessary to assure that the applicant for the federal permit will comply with the Clean Water Act and any other appropriate requirement of state law. 33 U.S.C. § 1341(d). In Vermont, the Agency of Natural Resources (Agency) is the certifying agency of the state for purposes of Section 401 of the Clean Water Act. 10 V.S.A. § 1004.

Pursuant to Section 401 of the Clean Water Act, Section 13.11 of the Vermont Water Pollution Control Permit Regulations (February 26, 1974) (VWPCPR) and the Vermont Agency of Natural Resources' Section 401 Water Quality Certification Practice (October 22, 2014), the Secretary of the Vermont Agency of Natural Resources (Secretary) has reviewed a Water Quality Certification (WQC) application dated May 17, 2013 and revised April 8, 2014 filed by Vanasse Hangen Brustlin (VHB) on behalf of Martin's Foods of South Burlington, Inc. (Applicant) for the Hinesburg Hannaford Supermarket & Pharmacy (the Project). The WQC application was submitted in conjunction with an application for a federal 404/Section 10 permit to place fill material in a wetland on the Project site. An Individual 404/Section 10 permit has been issued by the ACoE for this project (Permit # NAE-2010-0717). The WQC application itself was supplemented with a copy of the federal Clean Water Act Section 404 Request for Permit Authorization filed with the ACoE on May 24, 2013 (File #NAE-2010-00717) (last revised on October 8, 2013; supplemental information provided on November 12, 2013 and December 9, 2013). Collectively, these materials are referred to as the "Application." The Application is subject to review under the Vermont Water Quality Standards (WQS) promulgated by the Agency and effective December 30, 2011.[1]

[1] The application for a WQC for the Project was submitted by the Applicant on May 17, 2013, revised on April 8, 2014, and a WQC was issued on July 18, 2014. The WQC for the Project was appealed to the Environmental Division of the Vermont Superior Court. The Environmental Division remanded the WQC to the Agency on November 30, 2015 for review in conjunction with the Agency's consideration of a revised stormwater permit application for the Project. The Vermont Water Quality Standards have been amended since the Application for a WQC was submitted in 2013 (amended WQS effective October 30, 2014 and December 15, 2016). Notwithstanding, the Application is subject to review under the 2011 WQS because the Agency will review the Application subject to the regulations in effect when the Application was filed, and reference to the amended stormwater permit does not constitute a substantial revision that would result in the loss of a vested right to have the Application reviewed subject to the regulations in place when the Application was filed. *In re Jolley Associates*, 181 Vt. 190, 195-197 (2006). For the purposes of the Agency's substantive review, the management objectives and water quality criteria associated with Class B waters did not change between 2011 and 2014.

II. FINDINGS

A. Project Summary and Resource Description

1. Project Summary

The Project consists of a 36,000-square foot supermarket and pharmacy, with parking, utilities, and a stormwater treatment system. It is located in the Town of Hinesburg on the remaining undeveloped lot in a commercial park (Lot 15 in Commerce Park), directly east of Route 116 and south of Patrick Brook and Commerce Street. Patrick Brook, a perennial stream, flows east to west along the northern boundary of Commerce Park. Patrick Brook has been partially diverted upstream from Commerce Park and the Project site to form a canal (the Canal) that runs along the southern border of the parcel. The Canal will not receive drainage from the Project.

The Project is located on a 5.4-acre parcel. 1.63 acres of the Project parcel is considered Class III wetland. With land elevations ranging from 336 to 348 feet above mean sea level, the site is essentially flat, with slopes of 0 to 3 percent, except for 6 percent slopes near a paved, public recreational pathway that runs parallel to the Canal. The Canal runs for 600 linear feet along the southeast boundary of the parcel. The Canal is channelized to its confluence with the La Platte River. The main stem of the Patrick Brook meanders to the north of Commerce Park and flows west to its confluence with the LaPlatte River. The Patrick Brook watershed is 4,715 acres. The Project is in the Patrick Brook and LaPlatte River watersheds, within the Lake Champlain lowlands biophysical region. The Project does not propose construction within the Patrick Brook or the Patrick Brook Canal. Patrick Brook is the receiving water for all stormwater discharges from the Project. None of the affected waters and wetlands are designated as Outstanding Resource Waters pursuant to Section 1-03(D) of the Water Quality Standards and 10 V.S.A. § 1424a.

2. Wetland Resources

A wetland covers 1.63 acres (71,000 sq.ft) of the Project site (a small area of wetland extends off site). The wetland is a wet meadow partially drained by ditches in the northeastern portion of Lot 15. The area of the wetland is flat and contains poorly drained soils with a restrictive layer of clay ten to fifteen inches from the soil surface. It has been historically disturbed from mowing, filling, and trenching for utilities, and is dominated by an invasive species called reed canary grass (*Phalaris arundinacea*). It has a minimal amount of surface water inputs. The wetland hydrology is created by precipitation and groundwater seepage. It drains to the north through man-made ditches, culverts, and swales; all part of the existing stormwater management system for Commerce Park.

Following review under 10 V.S.A. §§ 914 and 905b(18)(A) and the Vermont Wetland Rules, the Agency determined that the wetland on site is a Class III wetland in a determination dated April 2, 2014. Pursuant to 10 V.S.A. § 914 and the Vermont Wetland Rules, Class III wetlands are those wetlands that do not provide significant functions or values at a level that warrants protection under the Vermont Wetland Rules (2010). As such, activities in Class III wetlands do not require a state Wetland Permit.

The Class III determination found that the only functions present in the wetland are water storage, and surface and groundwater protection, and both functions are present at insignificant levels. The wetland does not significantly contribute to water storage for flood water and storm runoff because the wetland is

not contiguous with a stream or watercourse and has a very small watershed. The wetland does not significantly contribute to surface and ground water protection because of the presence of ditches draining the wetland, a lack of watercourse connection, and a restricted groundwater conveyance due to dense clay soils (April 2, 2014 Wetland Determination, Findings ¶ 10).

3. Stream Resources

The Project is in the Patrick Brook watershed, within the larger LaPlatte River watershed. The Project does not propose any construction within Patrick Brook. Patrick Brook is the immediate receiving water for all stormwater discharges from the Project site.

A downstream reach of the LaPlatte River, and tributary Mud Hollow Brook, are impaired due to bacteria, specifically Escherichia coli (*E. coli*) attributed to agriculture.[2] The impaired reach of the LaPlatte River begins at its confluence with Lake Champlain, continuing 10.5 miles upstream to Levensworth Road in Hinesburg approximately a mile upstream from the border with Charlotte and a few miles downstream from the Project. Per the U.S. Environmental Protection Agency (EPA)-approved Total Maximum Daily Load (TMDL) developed for the LaPlatte River and Mud Hollow Brook, agricultural runoff is likely the greatest source of bacterial contamination in the LaPlatte River and Mud Hollow Brook. Patrick Brook is not included in the impaired reach.

The TMDL identifies several other potential sources of bacteria within the watershed, including: failing or malfunctioning onsite septic disposal systems, leaking sanitary sewer pipes, and stormwater runoff from existing developed areas. The impairment specifically lists contact recreation (i.e. swimming) as the use impairment, focusing on animal waste, but including pet-related animal waste, as a source of the contaminant. The TMDL identifies a best management practice approach to reduce the impact of stormwater runoff on the bacteriological impairment, specifically referencing infiltration as the most effective practice.

4. Lake Resources

The site ultimately drains into Lake Champlain, which is impaired for phosphorus. The EPA has approved a phosphorus TMDL for Lake Champlain, effective as of June 17, 2016. Lake Champlain is also impaired for mercury, and EPA approved a regional mercury TMDL for the Lake on December 20, 2007. The lower reaches of Lake Champlain's larger tributaries are also listed as impaired on of the State 303(d) list of impaired waters - Part A for fish consumption due to high levels of PCBs.

5. Physical, Chemical, and Biological Water Conditions

The Vermont Water Quality Standards (Standards) were adopted pursuant to 10 V.S.A. chapter 47, Water Pollution Control. Section 1252 of Title 10 of the Vermont statutes provides for the classification of state waters as either Class A or Class B, and waters are managed by the Agency to obtain and

[2] See 2016 Vermont List of Priority Surface Waters, Part D. Impaired Surface Waters with Completed and Approved TMDLs, Page 9, available at http://dec.vermont.gov/sites/dec/files/documents/WSMD_mapp_Part_D_2016_final_complete.pdf.

maintain these classifications. The VWQS apply to all "waters of the United States" as defined in 40 C.F.R. §122.2. Patrick Brook and the LaPlatte River are Class B waters, which receive water from the unnamed wetland and the Project area through a series of ditches, culverts, and swales (VWQS, Section 4-05). Patrick Brook and the LaPlatte River are designated as cold water fish habitat for the protection and management of fisheries between June 1 and September 30, and warm water for the remainder of the year (VWQS, Section 3-05). The Project receiving waters are Patrick Brook, the LaPlatte River, and Lake Champlain, all Class B waters (VWQS § 4).

The Agency collected chemical data from Patrick Brook at the Mechanicsville Road culvert approximately 0.6 miles upstream from the Project area annually from 2004 to 2008. Under the WQS, concentration of *Escherichia coli* (E. Coli) shall not exceed 77 organisms/100ml. E. Coli values from 2004 exceeded Vermont WQS for Class B waters on three of six occasions during 2004 with no exceedances being recorded in 2005 out of seven samples. The EPA-approved Vermont's Statewide Bacteria TMDL, which included the LaPlatte River (*see* Appendix 9) for the *E. Coli* impaired reach, on September 30, 2011. A copy of the approved TMDL and related documents is available on the Agency's (Watershed Management Division's) webpage at: http://dec.vermont.gov/watershed/map/tmdl.

The LaPlatte River from Lake Chaplain upstream to Hinesburg is listed on the 2016 Vermont Stressed Waters list as stressed for aesthetics, aquatic habitat, and secondary contact recreation as a result of turbidity, sedimentation, and temperature change resulting from land development, agricultural and urban runoff, loss of riparian vegetation, channelization, and streambank erosion.[3] Patrick Brook from the LaPlatte River up to Lower Pond is listed as stressed for aquatic habitat and aesthetics resulting from sedimentation and habitat alterations from land development, channelization, and streambank erosion. Id. Waters listed as "stressed" are those waters that have been disturbed to some degree and may require further assessment, but still support the uses for their designated classification.[4] Water quality in Patrick Brook and the reaches of the LaPlatte River into which Patrick Brook discharges otherwise meets or exceeds state standards for Class B waters.

6. Fish, Aquatic Biota, and Wildlife

There are no reported rare, threatened, or endangered (RTE) species within the Project boundaries.

The Agency collected biological data on Patrick Brook approximately 200 meters upstream from the Project location in 2004. The fish community is typical of cool to warm water stream assemblages of similar size and elevation in the Champlain Valley. Class B WQS criteria were met for the fish community (good) but not for the macroinvertebrate assessment which scored fair to poor. Patrick Brook is not currently impaired for aquatic biota or for any other use.

The endangered fish species Stonecat (*Noturus flavus*) is present in the LaPlatte River from Shelburne Falls upstream to the Dorset Street Bridge, approximately 4 ½ river miles downstream from the confluence with Patrick Brook. Mussels were recently documented in the lower reaches of the LaPlatte

[3] See the State of Vermont 2016 Stressed Waters List, available at http://dec.vermont.gov/sites/dec/files/documents/wsmd_mp_stressed_waters_list_2016.pdf

[4] See the Vermont Surface Water Assessment and Listing Methodology, available at http://dec.vermont.gov/sites/dec/files/wsm/mapp/docs/WSMD_assessmethod_2016.pdf.

River. Both Patrick Brook and the LaPlatte from Lake Champlain to Lower Pond are listed as stressed for aquatic habitat.[5]

Significant wetland-dependent wildlife habitat was not identified by the Applicant or the Agency at the Project site. Significant wetland-dependent habitat is determined by considering the extent to which the wetland exhibits characteristics identified in the Vermont Wetland Rules Sections 5.4.

7. Recreational and Land Uses

Recreational uses of Lake Champlain and the LaPlatte River downstream of the Project include swimming, boating, and fishing (i.e. canoeing, kayaking, motor boating). Recreational uses of Patrick Brook and the Patrick Brook Canal and other nearby tributaries of the LaPlatte River may include fishing. Land uses within the watershed generally include agriculture, silviculture, development, commerce, transportation, tourism, natural areas, and wetlands.

B. PROPOSED IMPACTS TO WATER RESOURCES

The Project will create 2.69 acres of new impervious surface. The Agency issued to the Applicant an authorization to discharge stormwater from impervious surfaces under Stormwater General Permit (GP) 3-9015 (NOI #3034-9015) on April 10, 2014. The Applicant submitted an amended permit application for coverage under GP 3-9015 (NOI #3034-9015.A) on August 19, 2015, to reflect modifications made by the Applicant to the Project. The Agency issued an authorization on June 1, 2017.

The Project will create 4.73 acres of regulated earth disturbance from construction activity. The Agency issued the Applicant an authorization to discharge under Construction General Permit (CGP) 3-9020 (NOI #3034-9020) on April 21, 2014. The CGP authorization covers stormwater discharges from construction activities that result in a total land disturbance equal to or greater than one acre. The application included an Erosion Prevention and Sediment Control (EPSC) plan that was designed in conformance with The Vermont Standards and Specifications for Erosion Prevention and Sediment Control. The Applicant submitted an amended permit application for coverage under CGP 3-9020 (NOI #3034-9020.A) on August 19, 2015, to reflect modifications made by the Applicant to the Project. The Agency issuance an amended authorization on October 24, 2016.

1. Impacts to Wetland Resources

The wetland on the Project site will be permanently and temporarily impacted by the Project. The Project will fill 63,530 square feet of wetland. Only small isolated fragments will remain. The wetland has been classified as a Class III wetland; therefore no Vermont Wetland Permit is required for the Project. Significant wetland dependent wildlife habitat was not identified by the Applicant or the Agency on the Project site, and the wetland was determined to have no other significant functions or values. Downstream aquatic and wetland habitat that supports wetland dependent wildlife and aquatic biota will not be affected by the Project. Compensatory mitigation has been arranged for the loss of the wetland on the site through the Army Corps of Engineers in-lieu Fee Program.

[5] See the State of Vermont 2016 Stressed Waters List, available at http://dec.vermont.gov/sites/dec/files/documents/wsmd_mp_stressed_waters_list_2016.pdf

2. Impacts to Stream Resources

There are no direct construction impacts to Patrick Brook, the Patrick Brook Canal, or the LaPlatte River from the Project because no change, alteration, or modification of any watercourse is proposed by this Project. As a result, no Vermont Stream Alteration Permit is required.

The Project was designed to meet the applicable stormwater permit application requirements set forth in Chapter 18: Stormwater Management Rule for Non-Stormwater Impaired Waters (Chapter 18) and the Vermont Stormwater Management Manual – Volume I: Stormwater Treatment Standards (VSMM). Because the Project site is not conducive to infiltration stormwater treatment practices (STPs), the Project was designed with other acceptable STPs established in the VSMM. The Project was designed with a grass channel, an acceptable STP under the VSMM for meeting the applicable Water Quality Treatment Standard and the applicable Groundwater Recharge Treatment Standard. The goal of the Water Quality Treatment Standard is to capture 90 percent of the annual storm events and to remove 80 percent of the average annual post-development total suspended solids (TSS) load and 40 percent of the total phosphorus (TP) load. The goal of the Groundwater Recharge Treatment Standard is to maintain the average annual recharge rate for the prevailing hydrologic soil groups.

The grass channel STP will provide water quality treatment and groundwater recharge by conveying of stormwater runoff equivalent to the required water quality volume and groundwater recharge volume through a vegetated channel, 8-feet wide and 210-feet long, for filtration and settling of stormwater runoff pollutants, including total suspended solids (TSS) and total phosphorus (TP). The Project also includes an underground stormwater detention system that will detain runoff from larger storm events, including the 1-year, 24-hour storm event, in order to meet the Channel Protection Treatment Standard, which aims to protect stream channels from degradation. The stormwater runoff volume from the 1-year, 24-hour storm event will be released over a period of 12-hours through a controlled outlet structure. The detention system was also designed to control peak flows from the 10-year, 24-hour storm event at pre-development discharge rates in order to meet the Overbank Flood Protection Treatment Standard. The system was designed to accommodate additional storage so as not to exacerbate known drainage issues offsite within Commerce Park, and to ensure the receiving waters have adequate capacity to convey expected stormwater runoff volumes. Lastly, the underground stormwater detention system was designed with water quality pre-treatment units, intended to trap floatables and other debris, including sediment, that washes into the system using baffles and settling chambers, which will also provide a location for maintenance, and ensure system longevity. The stormwater treatment practices required pursuant to the VSMM will ensure that the project continues to meet the requirements of the water quality standards. WQS Section 2-03(B).

3. Impacts to Lake Resources

There are no direct construction impacts from the Project on Lake Champlain, or any other lake or Pond. Permitted stormwater discharges from the project will reach Lake Champlain by way of Patrick Brook and the LaPlatte River.

The Project was designed to meet the applicable stormwater permit application requirements, as required by Chapter 18 and the VSMM, including the Water Quality Treatment Standard, the goal of which is to capture 90 percent of the annual storm events and to remove 80 percent of the average annual post-development total suspended solids (TSS) load and 40 percent of the total phosphorus (TP) load. The grass channel STP will provide water quality treatment by conveying stormwater runoff equivalent to the required water quality volume through a vegetated channel, designed to filter and settle stormwater runoff pollutants, including total suspended solids (TSS) and total phosphorus (TP). As

described above, the Project also includes an underground stormwater detention system that will detain runoff from larger storm events, including the 1-year, 24-hour storm event, in order to meet the Channel Protection Treatment Standard, which aims to protect stream channels that contribute to Lake Champlain, from degradation. The stormwater runoff volume from the 1-year, 24-hour storm event will be released over a period of 12-hours through a controlled outlet structure.

4. Impacts to Physical, Chemical, and Biological Water Conditions

Stormwater discharges from project-related construction activities have the potential to transport stormwater-related pollutants, such as sediment and nutrients, to receiving waters. Construction related stormwater discharges are known to contain increased levels of pollutants including sediment and nutrients. The best management practices (BMPs) required by the construction general permit (CGP) authorization and approved EPSC plan are designed to prevent or minimize the discharge of these pollutants to receiving waters. These BMPs include: perimeter control practices such as silt fence and diversion swales; stabilized construction entrance to minimize vehicle tracking from the construction site; stabilization of disturbed soils with grass seed, mulch, and erosion control blankets; stone check dams in conveyance channels; and behavioral BMPs that include construction phasing, construction site oversight and inspection, BMP maintenance, recordkeeping, and reporting requirements.

In addition, post-construction stormwater discharges from impervious surfaces may contain pollutants including sediment, nutrients, metals, and toxics. The post-construction stormwater management plan is designed to meet the Water Quality Treatment Standard to minimize the discharge of these pollutants to receiving waters using a grass channel stormwater treatment practice to filter and settle pollutants in the stormwater.

Post-construction stormwater discharges are also known to increase the total runoff volume associated with any rain event resulting in an increase in the frequency of runoff and higher flows. These changes can result in stream channel degradation or adjustment. Peak stormwater runoff flow rates and velocities are known to increase as a result of increased area of impervious surfaces in a watershed. The resulting changes in volume, peak flow rates, and velocities over pre-development conditions may increase the potential for flooding downstream from the discharge, especially during large and relatively infrequent storm events. The approved post-construction stormwater management plan includes BMPs that meet the "Channel Protection Treatment Standard" and the "Overbank Flood Protection Treatment Standard" criterion as defined in the VSMM (VSMM Sections 1.1.2 and1.1.4). These BMPs include an underground detention system with pre-treatment units. These BMPs are designed to mitigate and control the volume, peak flow rates, and velocities from the stormwater discharge from the proposed impervious surfaces to prevent channel degradation and overbank and/or flooding conditions down drainage resulting from the 1-year 24-hour storm event and 10-year 24-hour storm event, respectively. In addition, the Applicant has completed a downstream analysis up through the 100-year 24-hour storm event to assess existing conditions and proposed conditions that demonstrates that the Project will not exacerbate known flooding conditions down drainage of the Project, including within Commerce Park.

The use of the listed construction and post-construction BMPs provides the Agency with reasonable assurance that the Vermont Water Quality Standards will not be violated.

5. Impacts to Fish, Aquatic Biota, and Wildlife

The Project will not result in impacts to fish, aquatic biota, or wetland-dependent wildlife because significant aquatic and wetland-dependent habitat is not present at the Project site. Downstream fish,

aquatic biota, and wildlife will not be affected by the Project because the STPs implemented on the Project site are designed to prevent any water quality impacts both at the Project site and downstream.

6. Impacts to Recreational and Land Uses

There are no water-dependent recreational uses impacted by the Project. There are no water or wetland-specific recreational uses associated with the wetland on the Project site, or Patrick Brook. Recreational uses of Lake Champlain and the LaPlatte River downstream of the Project include fishing and boating (e.g. canoeing, kayaking). Recreational uses of the smaller tributaries downstream of the Project, including Patrick Brook, may include fishing. This Project will not affect these recreational uses because the stormwater treatment practices implemented on the Project site are designed to prevent water quality impacts downstream.

III. ANALYSIS

A. Regulatory Standard

Before a Water Quality Certification can be issued, the Agency must find that there is "reasonable assurance" that the proposed activity will be conducted in a manner that will not violate applicable Water Quality Standards (VWPRCP Rule 13.11(g)(3)). Compliance with the Vermont Water Quality Standards requires that Class B waters be managed to achieve and maintain a level of quality that fully supports certain uses as listed in Section 3-04 of the Vermont WQS, and that meets established water quality criteria.

1. Designated Uses and Water Quality Criteria

As described in Section II(A)(5), the Project's immediate receiving waters are Patrick Brook, which flows into the LaPlatte River, which eventually drains into Lake Champlain. All receiving waters are classified as Class B waters (VWQS Section 4-05). Class B waters are managed to achieve and maintain a high level of quality that fully supports a range of designated uses including aquatic biota, wildlife, and aquatic habitat, good aesthetic value, public water supply with filtration and disinfection, irrigation and other agricultural uses, swimming, boating, and recreation (VWQS, Section 3-04(A)). Class B waters must also be managed to achieve and maintain the Class B water quality criteria set forth in Section 3-04(B) of the VWQS, including the quantitative criteria for turbidity, dissolved oxygen, Escherichia coli, aquatic biota, wildlife and aquatic habitat, and nutrients. The LaPlatte River and Patrick Brook are designated as cold water fish habitat for the protection and management of fisheries between June 1 and September 30 and warm water for the remainder of the year (VWQS, Section 3-05).

2. Anti-degradation Policy

The Water Quality Standards also require that all waters must be managed in compliance with Vermont's Anti-degradation Policy, which requires that existing uses of waters and the level of water quality necessary to protect those existing uses shall be maintained and protected regardless of the water's classification. In addition, the Anti-degradation Policy requires that high quality waters be managed to maintain and protect the higher water quality and minimize risk to existing and designated uses, and Outstanding Water Resources be protected and maintained. WQS § 1-03.

The Vermont Anti-degradation Policy is implemented per the Agency's 2010 Interim Anti-degradation Implementation Procedure (Procedure). In conducting the review as to whether the proposed activities

are consistent with the Policy, the Secretary is required to use all credible and relevant information and the best professional judgment of Agency staff. (Procedure III(D)). Section X of the Procedure governs the Agency's review of Section 401 Water Quality Certification applications for activities in wetlands and requires the Secretary to conduct Tier I, Tier 2, and Tier 3 reviews of a proposed discharge to ensure that the discharge will comply with the Policy.

B. Project Proposal

The proposed Project involves the construction of a 36,000-square foot supermarket and pharmacy, with parking, utilities, and a stormwater treatment system. The Project is located in the Town of Hinesburg on the remaining undeveloped lot in Commerce Park, directly east of Route 116 and south of Patrick Brook and Commerce Street. Construction related stormwater discharges associated with the Project have the potential to contain increased levels of pollutants. The BMPs required by the construction general permit (CGP) authorization #3034-9020.A and approved EPSC plan are designed to prevent or minimize the discharge of these pollutants to receiving waters, and thus prevent any impact to the physical and chemical water quality of receiving waters. Specifically, the BMPs include sediment and perimeter control practices such as silt fence and diversion swales, stabilized construction entrance to minimize vehicle tracking from the construction site, stabilization of disturbed soils with grass seed, mulch, and erosion control blankets, and stone check dams in conveyance channels. The BMPs also include behavioral BMPs, including construction phasing, construction site oversight and inspection, BMP maintenance, recordkeeping, and reporting requirements, all of which are intended to prevent and minimize the discharge of sediment to Patrick Brook through erosion prevention and sediment control.

Additionally, the BMPs and approved post-construction stormwater management plan required by State Stormwater Discharge Permit authorization #3034-9015.A are designed to prevent or minimize the discharge of pollutants in post-construction stormwater discharges to receiving waters. The post-construction BMPs, which include a grass channel, will provide filtration and settling of stormwater runoff to prevent and minimize the discharge of stormwater pollutants in post-construction stormwater discharges to Patrick Brook, including the discharge of total suspended solids (TSS) and total phosphorus (TP) as required by the Water Quality Treatment Standard. The post-construction stormwater management plan approved in Permit authorization #3034-9015.A also meets the Channel Protection Treatment Standard and the Overbank Flood Protection Treatment Standard. These standards are designed to ensure mitigation and control the volume, peak flow rates, and velocities from the proposed stormwater discharge from proposed impervious surfaces, to prevent channel degradation and overbank or flooding conditions down drainage as a result of the 1-year 24-hour storm event and the 10-year 24-hour storm event, respectively. The design ensures that the stormwater runoff volume from Project impervious surfaces will be managed through extended detention and controlled release of stormwater runoff over 12-hours for the 1-year storm, and below pre-development peak rates for the 10-year storm. In addition, the Applicant has completed a downstream analysis up through the 100-year 24-hour storm event to assess existing conditions and proposed conditions with extended detention, which demonstrates that the Project will not exacerbate known flooding conditions down drainage of the Project, including within Commerce Park.

Furthermore, the project will not contribute to the *E. coli* impairment in the LaPlatte River. Developed land uses and resulting runoff are not a direct source of bacterial contamination because the use and management of animal waste is not an integral part of the management and operation of those lands.

The Project proposal includes construction BMPs and post-construction treatment and control practices that provide the Agency with assurance that the Class B designated uses will be supported and maintained, and the requirements of the Vermont Water Quality Standards will be met.

C. Anti-Degradation

The Anti-degradation Procedure requires that the Agency evaluate 401 applications by conducting a Tier 3 analysis when the project affects Outstanding Resource Waters, a Tier 2 analysis when the project affects high quality waters, and a Tier 1 analysis to determine whether the existing uses of waters, and the level of water quality necessary to protect those existing uses, shall be maintained and protected. Since the Project does not affect any waters designated as Outstanding Resource Waters, a Tier 3 review is not applicable. (Procedure § X(E)). Under the Procedure, "[w]aters whose existing ambient water quality exceeds (i.e. is better than) the applicable minimum water quality criteria and indices for the class to which the waterbody is assigned shall be considered high quality water" (Procedure § X(F)(1)(a)). All waters are presumed to be high quality for at least one parameter for some portion of the year (Procedure § X(F)(1)(c)), and therefore the Agency evaluated the Project application by conducting a Tier 2 analysis. Additionally, the Agency evaluated the 401 application under a Tier 1 analysis to ensure that existing uses will be protected.

1. Tier 2 Analysis – Protection of High Quality Waters

A Tier 2 evaluation requires that the Agency manage high quality waters "to maintain and protect the higher water quality and minimize risk to existing and designated uses," and that "[i]n all cases, the level of water quality necessary to maintain and protect all existing uses as well as applicable water quality criteria shall be maintained" (VWQS § 1-03(C)(1)). Under Tier 2 a limited reduction in the existing higher quality of high quality waters is only allowed if the Project satisfies the socio-economic justification test (VWQS § 1-03(C)(2); Procedure § X(F)(4)).

The Procedure's Tier 2 analysis is automatically satisfied if the Project's permitted discharges and activities meet the qualifications listed under Section X(D) of the Procedure, including:

a. "Discharges that meet the requirements of a BMP or treatment and control manual that takes into consideration anti-degradation requirements during its adoption."
b. "A discharge that is seeking authorization to operate under a general permit when the Tier 2 analysis is performed at the time of the development of the general permit."
c. "Discharges that result in no measurable reduction in the physical, chemical or biological quality of a surface water."
d. "Stream alteration activities resulting in channel geometry and fluvial processes where bed and bank erosion are neither increased nor transferred to other stream locations, and where floodplain function is maintained or restored over time."
e. Activities covered by the Army Corps of Engineers wetlands general permit with < 3,000 square feet of disturbance to Class III wetlands.

The stormwater discharges proposed by the Project are covered under CGP (NOI #3034-9020.A) and GP 3-9015 (NOI #3034-9015.A). General Permits 3-9020 and 3-9015 are in compliance with The Vermont Standards and Specifications for Erosion Prevention and Sediment Control and the Vermont Stormwater Management Manual Volume I, respectively, which considered all applicable anti-degradation requirements during its adoption and therefore, satisfy the presumption in Section

X(D)(1)(a) of the Procedure. As a result, the Agency has determined that the Project will not result in the lowering of water quality of any high quality water.

2. Tier 1 Analysis – Protection of Existing Uses

Under Tier 1, the Secretary must determine that the Project will protect and maintain existing uses. In conducting a Tier 1 analysis, the Secretary must first identify the existing uses and then evaluate the Project proposal to ensure that these existing uses will be protected and maintained. Procedure § X(G). If the Secretary identifies an existing use "that requires more stringent water quality conditions than those set forth in the classification of the receiving water, any permit issued by the Secretary must ensure the maintenance of water quality necessary to protect that existing use." Procedure § X(G)(4).

In making a determination of existing uses to be protected and maintained, the Secretary shall consider at least the following factors: (a) aquatic biota and wildlife that utilize or are present in the waters; (b) habitat that supports existing aquatic biota, wildlife, or plant life; (c) the use of the waters for recreational fishing; (d) the use of the waters for water supply, or commercial activity that depends directly on the preservation of an existing high level of water quality, and (e) with regard to the factors considered under paragraphs (a) and (b), evidence of the uses' ecological significance in the functioning of the ecosystem or evidence of the uses' rarity. Procedure § X(G)(2).

In identifying the existing uses, the Secretary will consider the following for contact and non-contact recreation, fishing and public surface water supplies: the information that the applicant submitted; the information gathered in accordance with the DEC 2008 Basin Planning Procedure for Determination of Existing Uses during the development of basin plans; any relevant information from an applicable basin plan; and any other relevant information regarding use of the receiving waters for contact and non-contact recreation, fishing and public surface waters supplies. Procedure § X(G)(3)(a).

For all other existing uses, the Secretary will presume that if the designated uses of the receiving waters are currently being achieved and will continue to be achieved after evaluation of the proposed activity, then any identified existing uses will also be maintained and protected. Procedure § X(G)(3)(b).

The Project receiving waters include Lake Champlain, the LaPlatte River, and Patrick Brook. The Secretary considered the factors listed above, and based on information supplied by the Applicant and the Agency in the Northern Lake Champlain Tactical Basin Plan, identified the following existing uses in Patrick Brook and the LaPlatte River: aquatic biota, and aquatic and wildlife habitat.

The aquatic habitat in Patrick Brook has been previously impacted by sedimentation and physical alterations, and there are no additional physical impacts to Patrick Brook or the LaPlatte River proposed as part of the Project. Furthermore, the stormwater treatment practices required pursuant to the CGP and GP 3-9015 will prevent and minimize pollutants from entering the water.

Fishing and boating have been identified as existing uses in Lake Champlain and the lower reaches of the LaPlatte, and swimming is an identified existing use in Lake Champlain, but not in those areas impacted by the Project. The waters in the Project area are not used as a public drinking water supply. See Northern Lake Champlain Direct Drainages Tactical Basin Plan, August 2015, Tables 9-10. Additionally, contact recreational uses downstream from the Project site have been impaired as a result of *E.coli* contamination from existing land uses, and a TMDL has been established to address the *E.coli* impairment.

The Secretary finds that the construction and operation of the Project as conditioned by the CGP and General Permit 3-9015, as well as this Certification, will allow the existing uses of the waters, including aquatic biota, wildlife, and aquatic habitat, to be protected and maintained. the Secretary finds that the Project as permitted satisfies the requirements of the Anti-Degradation Procedure for protecting and maintaining high quality waters.

IV. CERTIFICATION AND CONDITIONS

The Secretary has reviewed the application, and this decision is based upon an evaluation of the information contained within the application and other pertinent information that is relevant to the Agency's responsibilities under Section 401 of the federal Clean Water Act. The Agency certifies that there is a reasonable assurance that construction and operation of the Project in accordance with the following conditions will not cause a violation of the VWQS, and will be compliant with sections 301, 302, 303, 306, and 307 of the federal Clean Water Act, 33 U.S.C. § 1341, as amended, and other appropriate requirements of state law. This Certification is granted pursuant to the following conditions:

A. The Applicant shall comply with all terms and conditions of this Certification.

B. The reasonable assurances provided by this Certification are contingent upon compliance with the Construction General Permit 3-9020, authorization NOI #3034-9020.A and Stormwater Discharge General Permit 3-9015, authorization NOI #3034-9015.A, and all amendments and renewals thereto.

C. The conditions of the following permits and stipulations are incorporated by reference as conditions of this Certification: NOI #3034-9020.A, NOI #3034-9015.A, and all amendments and renewals thereto.

D. The Applicant shall give the Agency, including the Director of the Watershed Management Division, notice of the date on which construction of the Project will commence, and the date operation of the Project will commence.

E. The Applicant shall provide written notice to the Agency, and specifically to the Director of the Watershed Management Division, of any proposed change to the Project that would have a significant or material effect on the findings, conclusions, or conditions of this Certification, including any changes to the construction, operation of the Project. The Applicant shall not make any such change without approval from the Agency.

F. The Applicant shall ensure that every reasonable precaution is taken during construction to prevent the discharge of petrochemicals, wet concrete, and debris into state waters.

G. The Applicant shall allow authorized Agency representatives, at reasonable times and upon presentation of credentials, to enter upon the Project site for purposes of inspecting the Project and determining compliance with this Certification.

H. The Agency may reopen and alter or amend the conditions of this Certification over the life of the Project when such action is necessary to assure compliance with the VWQS and to respond to any changes in the classification or management objectives for the affected waters. Any amendment that results in a change of conditions for the Project shall be subject to VWPCPR § 13.11(c) (Public Notice) and VWPCRP §§ 13.11(d), (e), and (f) (Public Hearing).

I. This Certification does not relieve the Applicant of the responsibility to comply with all other applicable federal, state, and local laws, regulations, and permits.

V. ENFORCEMENT

A. Upon receipt of information that water quality standards are being violated because of the Project's construction or operation or that one or more certification conditions has not been complied with, the Secretary, after consultation with the Applicant and notification of the appropriate federal permitting agency, may, after notice and opportunity for a public hearing, modify this Certification and provide a copy of such modification to the Applicant and the federal permitting agency.

B. Certification conditions are subject to enforcement mechanisms available to the federal agency issuing the permit and to the State of Vermont. Other mechanisms under Vermont state law may also be used to correct or prevent adverse water quality impacts from construction or operation of activities for which certification has been issued.

VI. APPEALS

Pursuant to 10 V.S.A. Chapter 220, any appeal of this decision 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 on line atwww.vermontjudiciary.org. The address for the Environmental Division is: 32 Cherry St.; 2nd Floor, Suite 303; Burlington, VT 05401 (Tel. # 802-951-1740).

VII. EFFECTIVE DATE & EXPIRATION

By delegation from the Secretary to Vermont Department of Environmental Conservation, this certification shall become effective on the date of signing, and the conditions of this Certification shall become conditions of the federal permit (33 U.S.C. § 1341(d)). This Certification shall remain in effect for the term of the federal license or permit.

Dated this 7th day of June 2018

Emily Boedecker, Commissioner
Department of Environmental Conservation

By 
Digitally signed by Peter LaFlamme
DN: cn=Peter LaFlamme, o=VTDEC, ou=Watershed Management Division, email=pete.laflamme@vermont.gov, c=US
Date: 2018.06.07 13:01:09 -04'00'

Peter LaFlamme, Director
Watershed Management Division