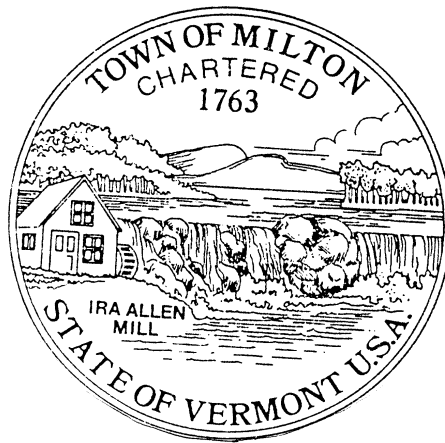


Milton, Vermont

Stormwater

Management Plan



Milton Department of Public Works

January 23, 2019

(Rev. 1, May 14, 2019)

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Attachment No. 1 – Town of Milton Map

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Attachment No. 3 – Illicit Discharge and Stormwater Connection Ordinance

Attachment No. 4 – Milton DPW Specifications, Section 600, Erosion Control Specifications

Attachment No. 5 – Milton DPW Specifications, Section 1400, Storm Drainage

INTRODUCTION

This Stormwater Management Plan (SWMP) documents the Town of Milton's strategy to address and reduce impacts to stormwater runoff within the Town. The State of Vermont, Agency of Natural Resources (ANR), Department of Environmental Conservation (DEC), Stormwater Section, requires the preparation of this plan under Vermont Municipal Separate Storm Sewer System (MS4) Permit No. 3-9014, issued by DEC on July 27, 2018. This plan includes the required elements described in the MS4 Permit, with the purpose of minimizing adverse effects of unmanaged stormwater runoff on water quality.

IMPACTS OF STORMWATER RUNOFF

Impervious surfaces, such as buildings and parking lots, created by land development causes rainwater and snowmelt to flow quickly over the landscape, instead of percolating naturally into the ground. Stormwater can increase flow velocities in local streams, resulting in the potential for flooding, erosion of stream banks, destruction of aquatic habitat, and damage to public and private property. Additionally, as stormwater flows off impermeable surfaces, it picks up pollutants from automobiles, lawn fertilizers, bacteria from pet waste, etc. These pollutants can flow directly into local streams and lakes, and have a negative impact on water quality. Such is the case with phosphorous and other contaminants flowing into Lake Champlain.

TOWN OF MILTON, VERMONT

The Town of Milton (Attachment 1) is located in Chittenden County, and is in the northwest corner of Vermont. Milton has an area of approximately 61 square miles and a population of approximately 10,400 (based on the 2010 Census). Additionally, Milton has over 100 miles of roads to maintain, and municipal water and wastewater systems. Milton is bounded by Westford, Georgia and Colchester, and has a westward facing shoreline of Lake Champlain. The Lamoille River runs through Milton, along with numerous tributaries.

STORMWATER MANAGEMENT PROGRAM

This section of the SWMP addresses the six Minimum Control Measures (MCMs) an MS4 owner must comply with as part of the National Pollutant Discharge Elimination System (NPDES) General Permit 3-9014 for Stormwater Discharges from Small MS4s. Additionally, this section will discuss Best Management Practices (BMPs), Measurable Goals, and the Rationale for each BMP. The six MCMs are:

1. Public Education and Outreach.
2. Public Participation/Involvement.
3. Illicit Discharge Detection and Elimination.
4. Construction Site Runoff Control.
5. Post-Construction Runoff Control.
6. Pollution Prevention/Good Housekeeping for Municipal Operations.

Minimum Control Measure No. 1 - Public Education and Outreach

In order to comply with MCM No. 1, Public Education and Outreach, the Town must implement a public education program to distribute educational material to the community. A copy of the MOU between the CCRPC and Chittenden County Towns is attached (Attachment 2). The Town will implement the following BMPs:

BMP No. 1: Website maintained with locally relevant stormwater information

- Measurable Goal: The Town will maintain basic information about stormwater on a dedicated page within its website. The information will describe Milton's stormwater related programming and include links for visitors to learn more. Milton will track the annual number of visits to this page.
- Rationale: Permittee websites are often the place where residents first go to obtain information on stormwater issues. Provision of basic information on such websites will help form a strong initial form of engagement to site visitors.

BMP No. 2: Maintain a program to identify opportunities and provide technical assistance on low impact BMPs

- Measurable Goal: The Town will provide links on a dedicated stormwater page within its website with links to relevant non-profits and government resource sites which can provide technical assistance.
- Rationale: There are several organizations and agencies operating in the Chittenden County MS4 region. By providing such links, the visitor can figure out which entity is best suited to provide technical assistance for their specific needs.

BMP No. 3: Participate in a regional stormwater education strategy or develop an MS4 specific program

- Measurable Goal: The Town will participate in and provide financial support for operation of the regional Rethink Runoff campaign. This effort generally consists of periodic advertising throughout each year, and supplemented by a survey of residents every five years to track reported behavior concerning residential stormwater BMPs. Via an annual report provided by the Chittenden County Regional Planning Commission's (CCRPC) subcontractor, the Town will document the annual number of site visits to www.rethinkrunoff.org as well as provide other metrics.
- Rationale: Support of the campaign will educate the general public in the MS4 area about key stormwater quality issues by using TV, radio, online media placements/advertising to drive viewers to the www.rethinkrunoff.org website.

Minimum Control Measure No. 2 - Public Participation/Involvement

In order to comply with MCM No. 2, Public Participation/Involvement, the Town must implement a public participation/involvement program designed to engage the public in stormwater issues. The Town will implement the following BMPs:

BMP No. 1: Participate in a regional stormwater public involvement and participation strategy or develop an MS4 specific program.

- Measurable Goal: The Town will participate in and provide financial support for operation of the Rethink Runoff Stream Team. This effort generally consists of both outreach and hands-on participation events in various MS4 towns on a rotating annual basis. Via an annual report provided by the CCRPC's subcontractor, the Town will document on an annual basis the number of participants and/or persons contacted by outreach events and hands-on activities through the Rethink Runoff Stream Team.
- Rationale: Through support of the Stream Team, the regional campaign's "action arm", the Town will support the engagement of local residents in the MS4 area via outreach events and via hands-on participation events.

Minimum Control Measure No. 3 - Illicit Discharge Detection and Elimination

In order to comply with MCM No. 3, Illicit Discharge Detection and Elimination (IDDE), the Town must develop, implement and enforce a program to detect and eliminate illicit discharges into the MS4. The Town will continue to coordinate efforts with VTrans through the U.S. Route 7 corridor, and consider the most current State Illicit Discharge and Elimination Manual in future activities. The Town will implement the following BMPs:

BMP No. 1: Prepare and update a geographic information system (GIS) database of stormwater infrastructure within the Town.

- **Measurable Goal:** The Town has prepared a GIS base map of stormwater infrastructure. This base map contains information from the State's stormwater permits, the Town's culvert inventory, ortho-imagery, and ground-truthing by Town staff, the CCRPC, and hired consultants. This base map provides a way to organize operation and maintenance activities of stormwater infrastructure throughout the Town. Our goal is to inspect approximately 33% of the infrastructure each year, and to develop a priority list of catch basins, culverts and outfalls to repair. The Town will continue to work with the CCRPC and their interns in inventorying and updating infrastructure repair activities.
- **Rationale:** This activity is the foundation of stormwater infrastructure operation and maintenance. The Town will continue to work with the CCRPC, consultants, and utilize Town staff to complete inspections, and keep the GIS base map current.

BMP No. 2: Town ordinance to prohibit non-stormwater discharges.

- **Measurable Goal:** The Town of Milton has enacted an Illicit Discharge and Stormwater Connection Ordinance (Attachment 3). This ordinance prohibits non-stormwater discharges into the storm system, to the extent permitted by law. The Town's existing wastewater ordinance prohibits illicit connection from sanitary sewers to the storm drainage system; provides authority to inspect properties for illicit discharges, and establishes penalties and enforcement options. Enforcement is the responsibility of the Town Health Officer. The Town currently has an ordinance requiring the cleanup of dog excrement from public land the right-of-way (ROW). This ordinance will be reviewed and updated, if necessary, within the next three years.
- **Rationale:** Having legal backing of permitted and non-permitted discharges is a key element to enforcing illicit discharges to a storm drainage system.

BMP No. 3: Town Employee Training.

- **Measurable Goal:** Educational outreach associated with the prevention and elimination of illicit discharges will start with Town maintenance employees. Employees will be made aware of the importance of recognizing and mitigating illicit discharges as part of their daily

maintenance routines. DPW employees will attend annual municipal employee stormwater training.

- Rationale: Recognizing illicit discharges will start with Town employees. If staff can recognize illicit activities in the field, they can bring it to the attention of the DPW Director or Town Manager, who can start mitigation activities.

BMP No. 4: Working with Chittenden County Solid Waste District.

- Measurable Goal: The Town will work with the Chittenden County Solid Waste District to make sure hazardous waste drop-offs are adequately advertised when they visit the Milton Transfer Station. The Town will contact CSWD at least twice a year to see when the drop off days are scheduled.
- Rationale: Having a hazardous waste drop-off activity assists residents in disposing of unwanted hazardous chemicals, and not dumping them into the sewer or storm drains.

Minimum Control Measure No. 4: Construction Site Runoff Control

The Vermont Department of Environmental Conservation regulates construction site runoff for disturbances greater than one acre. The Town of Milton has an established program to reduce pollutants in stormwater runoff caused by construction activities. The program is part of the DPW Specifications adopted by ordinance on September 12, 2002, and updated in 2010. The Town's program will assist the Agency's regulation for disturbance greater than or equal to one acre.

The Public Works Specification Section 600 Erosion Control Specifications (Attachment 4) require all work for site disturbances equal to or greater than one acre shall comply with the latest edition of the State of Vermont Environmental Protection Rules and Erosion and Sediment Control Regulations and the latest Town of Milton ordinances and specifications. All work for site disturbances of less than one acre should comply with the Town of Milton Public Works Specification-Best Management Practices for Erosion and Sediment Control as described below. The Town Engineer and Planning & Zoning Office review these requirements as part of the site plan and subdivision permits process. The Town Engineer actively enforces these requirements for both Town and developer projects.

In addition to the Erosion Control Specifications, the Town has developed a manual of Best Management Practices for Erosion and Sediment Control and a Manual of Best Management Practices for Stormwater Control and Watercourse Buffers. The objective of these manuals is to provide guidance to town public works personnel, developers, contractors and homeowners for incorporating Best Management Practices in design, construction, and maintenance activities. The manuals were developed after careful review of existing State of Vermont Erosion and Sedimentation Control Manual and manuals from other agencies. These manuals are not a specification, but instead serve as guidance for those construction practices that disturb less than one acre, and will be included on the new Town website.

BMP No. 1: Updating DPW Specifications.

- Measurable Goal: The latest update to the DPW specifications was in December 2010. The DPW is currently in the process of revising the DPW Specifications, and plan to complete this process in calendar year 2019.
- Rationale: Updating the DPW Specifications will ensure current stormwater regulations are being met.

BMP No. 2: Plan Review for Town and Private Development Projects

- Measurable Goal: The Town Engineer and Planning & Zoning office will continue to review and evaluate Town and private development projects for compliance with stormwater regulations. The Town will track and report the number of reviews completed on an annual basis, and include the numbers in the MS4 Annual Report.

- Rationale: The Town needs to track the number of project reviews for compliance with the MS permit.

BMP No. 3: Compliance with Stormwater Regulations

- Measurable Goal: If the Town of Milton becomes aware of a violation of the Town of Milton Public Works Specifications and/or a State of Vermont stormwater permit, the violator will be verbally notified of the necessary corrective action. If the action is not taken, a written notification will be sent via certified mail. If the violation continues, the State of Vermont will be notified. The Town of Milton erosion control specifications establish fines for non-compliance, which can be assessed equal to 50% of any fine assessed and collected by the State of Vermont. The Town will track the number of non-compliance violations and report them as part of the MS4 Annual Report.
- Rationale: The Town will track the number of violations in order to report them in the MS4 Annual Report.

BMP No. 4: New infrastructure inspection, site plan and subdivision review.

- Measurable Goal: The Town will track the number of site plan and subdivision reviews undertaken each year (which can be variable). As part of Town reviews, State stormwater permits and record drawings are requested in order to keep our base GIS mapping up to date. The Town Engineer and Zoning Administrator inspect new infrastructure to ensure compliance with permit conditions and accepted plans.
- Rationale: New infrastructure constructed by developers needs inspected. Milton's Planning and Zoning office, as well as the DPW, will continue to monitor new construction within the Town to ensure all local, state and federal stormwater requirements are being met.

Minimum Control Measure No. 5 - Post-Construction Management for New Development and Redevelopment

The Vermont Department of Environmental Conservation is required to regulate post-construction stormwater runoff from activities resulting in impervious surface greater than one acre. To qualify for coverage under the MS4 General Permit No. 3-9014, the Town must develop, implement, and enforce a program to reduce pollutants in post-construction stormwater runoff from activities resulting in a land disturbance of greater than or equal to one acre and are not subject to the Agency's regulation (one acre impervious). The Town of Milton has an established program to address post-construction stormwater runoff from new development and redevelopment projects disturbing greater than or equal to one acre. DPW Specification 1400, Storm Drainage (Attachment 5), describes the program, which was last updated in December 2010.

DPW Specification 1400 requires all work for site disturbances equal to or greater than one acre shall comply with the latest edition of the State of Vermont Environmental Protection Rules and Stormwater Regulations and the latest Town of Milton ordinances and specifications. All work for site disturbances of less than one acre should comply with the Town of Milton Public Works Specifications. The requirements of these specifications are included in the Town's site plan and subdivision permits process. The Town Engineer and Planning & Zoning Department actively enforce these requirements for both Town and private development projects.

BMP No. 1: Updating DPW Specifications. (Same as in MCM No. 4)

- Measurable Goal: The latest update to the DPW specifications was in December 2010. The DPW is currently in the process of revising the DPW Specifications, and plan to complete this process in calendar year 2019.
- Rationale: Updating the DPW Specifications will ensure stormwater regulations are current.

BMP No. 2: Maintenance of Stormwater Systems outside of the ROW

- Measurable Goal: Operation & Maintenance Plans for stormwater systems will be required on construction plans for Town and private development projects. Maintenance of stormwater systems outside the public ROW will be required in Homeowner Association Covenants. These covenants are reviewed as part of the subdivision plan review process by the Planning & Zoning Department. The Town will track the number of covenants for HOAs reviewed and submit an update in the annual report.
- Rationale: Reviewing HOA covenants for stormwater maintenance for projects outside the Town ROW is necessary, since the Town is not responsible for maintaining stormwater systems outside the ROW.

BMP No. 3: Stormwater system monitoring and inspection.

- **Measurable Goal:** The Town will develop a program for stormwater system monitoring based on the structures identified on the GIS base map updated and maintained in MCM No. 3. This program will include the visual inspection and recording of catch basin conditions, which currently occurs on an annual basis as part of the Town's catch basin maintenance program. It also includes prioritization of system outfalls based on land use susceptibility to illicit discharge (density of onsite disposal systems, industrial activity, etc.). Catch basin maintenance is prioritized based on the percent of sediment buildup in the sump. Catch basins are cleaned when 50% or more of the sump is filled. The Town will inspect at least 33% of its catch basins and outfalls each year, and repair and/or replace them as deemed necessary.

The Town will use a variety of techniques to trace the origin of illicit discharges. Specific techniques may vary depending on circumstances such as the type of contaminant, the location of the discharge, amount of flow, etc. The Town may use techniques such as dye tracing and video inspection to trace discharges.

The Highway Division maintains all roadside ditches, catch basins, culverts, etc. The length of ditching, number of catch basins cleaned and/or replaced, and number of culverts cleaned and/or replaced will be documented and included in the Town's annual report.

- **Rationale:** Inspection of stormwater infrastructure, prioritization of infrastructure maintenance, and infrastructure repairs is a key component of any stormwater program, and the Town is responsible for maintaining the stormwater system within the ROW.

Minimum Control Measure No. 6 - Pollution Prevention/Good Housekeeping for Municipal Operations

The Town of Milton has several operation and maintenance programs for preventing or reducing pollutant runoff. These programs and procedures are described below. The Town has two facilities subject to the Agency's General Permit 3-9003 Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity, the Town of Milton Highway Garage, and Town of Milton Wastewater Treatment Facility (WWTF). The WWTF was reconstructed in 2006, and the Highway Garage is currently being evaluated for relocation (this will be a \$3.5M+ project, and is taking time to plan). The WWTF is a sequential batch reactor facility with ultraviolet light disinfection. The Town of Milton will participate in the Agency's Municipal Compliance Assistance Program. Training for Town staff is identified in MCM No. 3, BMP No. 3.

BMP No. 1: Winter Highway Maintenance

The Town's snow removal procedures are designed to minimize the sand and salt that may ultimately enter receiving waters. Milton does not have a "bare roads" policy. The application of salt is adjusted for specific weather conditions and specific locations in Town. Salt is typically only applied to the town core area and major intersections. The amount of salt used during a storm is adjusted based on weather conditions and suitability for naturally melting snow and ice. The use of sand is limited to rural roads in the community. Sand application is typically limited to critical areas such as steep grades, sharp corners, and roadway intersections. The Town does not operate snow storage areas. Salt is stored in an enclosed facility and sand is stored in an open pile behind the highway maintenance facility.

- **Measurable Goal:** The Town will review its Winter Operations Guidelines annually. The Guideline will be updated based on past experience and training with salt, gravel, and magnesium chloride application. The last update of the Guideline was in the fall 2018. Additionally, Town highway crew will attend training each year to keep up-to-date on the latest in road treatment technologies and salt, gravel, and chemical applications.
- **Rationale:** It is important to have trained employees during the winter months doing the snow plowing, including the application of salt, sand, and other chemicals for keeping the traveled roads safe during the winter months.

BMP No. 2: Summer Highway Maintenance

The Town either contracts out or partners with neighboring communities to complete street sweeping every spring. Sweeping occurs on streets within the town core and major intersections. Town Highway Division staff are responsible for maintaining stormwater systems constructed within the public right-of-way, including roadside ditches, catch basins, storm sewers, town owned culverts, etc. The Town owns a vacuum-truck for cleaning catch basins, culverts and stormwater ponds (where and if practical). The Town mows and grades drainage ditches in the

ROW, and grades gravel roads on an as needed basis. Chloride is used for dust control on gravel roads on an as needed basis, and solid waste is removed from the public right-of-way annually as part of Green-Up Day.

- **Measurable Goal:** A program for stormwater system monitoring based on structures identified on the stormwater system map is ongoing. This program includes visual inspection and recording of conditions of catch basins, culverts, and ditch conditions. The Town will report the number of catch basins, culverts and ditches cleaned and/or repaired on an annual basis. Additionally, the Town will work with ANR staff and complete an MCAP inspection before the end of the five-year permit cycle.
- **Rationale:** Inspecting, cleaning and repairing stormwater system infrastructure is the foundation of a successful stormwater program.

BMP No. 3: Vehicle Maintenance

The Town of Milton performs a majority of its fleet maintenance including routine washing, and fueling, but does contract out work on an as needed basis. Highway trucks are typically stored in an enclosed facility. Other highway maintenance equipment is typically stored outside. The storage facility has floor drains and a wash bay connected to an oil/water separator. The fueling facility consists of one above ground storage tank, with berms around the perimeter.

- **Measurable Goal:** The Town will inspect the oil/water separator annually. The Town will complete annual inspections of the truck fueling station, and visually inspect it daily during truck fill-ups. Inspection reports and cleaning/repair activities will be included in the Town's annual report.
- **Rationale:** It is important to capture any oil and grease leaving the highway maintenance garage, and to keep the oil/water separator clean and operating correctly. Additionally, it is important to maintain a functioning truck filling station, so as not to have any product releases.

BMP No. 4: Buildings and Grounds Maintenance

All fertilizers and pesticides applied to Town owned grounds are in compliance with state and federal guidelines regulating the use of such chemicals. The majority of the Town facilities are located on relatively flat ground and runoff is typically infiltrated into predominantly sandy-soils. Once plants and vegetation are established, additional fertilization is not typically needed. The Town will work to keep any fertilization efforts to a minimum, and only where new vegetation is being established.

- **Measurable Goal:** The Town will reduce or eliminate the use of phosphorous containing fertilizer, use only when necessary, and where establishing new vegetation.

- Rationale: The use of phosphorous containing fertilizers is one of the many problems contributing to Lake Champlain's water quality issues. The Town will report any use of fertilizer in its annual report, and include the location, quantity, and type of fertilizer used.

BMP No. 5: Water and Wastewater System Maintenance

The Town of Milton operates a Wastewater Treatment Facility (WWTF) and collection system and a water distribution system. These facilities undergo inspection by the Watershed Management Division, and the Drinking Water & Groundwater Protection Division of the DEC every three to five years. The WWTF is permitted for discharge under NPDES Permit No. VT0100684. The Town does not have formalized rules for handling hazardous waste; however, all chemical MSDS sheets are kept current and onsite. All Town owned wastewater-pumping stations are equipped with alarms and auxiliary power or adequate storage to prevent overflow conditions. The Town does not have any combined sewer overflows (CSOs).

The Town is responsible for flushing hydrants and blow offs to prevent the accumulation of silt and tuberculation in the water mains. BMPs used include hydrant diffusers and dechlorinators when applicable, and positioning diffusers to prevent erosion when flushing hydrants.

- Measurable Goal: The Town will operate its WWTF and Water System according to their ANR Permits. Water Operators will meet annually to discuss the use of the BMPs during flushing activities, and improvements made if needed.
- Rationale: It is important to keep all water system operators apprised of BMPs for flushing hydrants, including the use of dechlorinators and hydrant diffusers.

BMP No. 6: Solid Waste Management, and Household Hazardous Waste

The Town owns a compliant, closed landfill, with a Landfill Closure Extension Order (LCEO) dated December 30, 1992, from the DEC, Waste Management Division. The Chittenden Solid Waste District (CSWD) operates a transfer station here including recycling and a hazardous waste drop-off (CWSD Rover).

- Measurable Goal: The Town will continue to work with CSWD to ensure Milton residents are notified of hazardous waste collection days. Additionally, the Town will continue to perform landfill compliance monitoring as required by the LCEO. The Town's annual report will include information regarding the CSWD hazardous waste drop-off days, and the biannual landfill reports required by the LCEO.
- Rationale: Residents need to get proper notification of hazardous waste collection days in order to be able to dispose of household hazardous waste. Continued monitoring of the closed landfill is required by ANR.

IMPAIRED WATERS AND TMDL REQUIREMENTS

Discharges to Impaired Waters with a TMDL

- **Lamoille River, Mouth to Clarks Falls Dam**

Pollutant: Mercury

Status: EPA Approved Regional Mercury TMDL on December 20, 2007

The TMDL does not specify a WLA (Waste Load Allocation) or other requirement for the Milton MS4 system.

- **Arrowhead Mountain Lake**

Pollutant: Mercury

Status: EPA Approved Regional Mercury TMDL on December 20, 2007

The TMDL does not specify a WLA or other requirement for the Milton MS4 system.

- **Lake Champlain**

Pollutant: Phosphorus

Status: EPA Approved Lake Champlain Phosphorus TMDL in June 2016

Phosphorus Control Plan: The Town is in the process of developing a Phosphorus Control Plan in accordance with permit requirements outlined in Section 8.2 of the MS4 Permit. The Town is prepared to follow the prescribed timeline for PCP implementation also outlined in the permit, including the first annual PCP report due on April 1, 2019. A brief description of the work to be completed is below:

- Review of PCP requirements and phosphorus reduction targets for Milton,
- Classification of the sources of phosphorus loading in our community using TMDL guidance,
- Identification of projects that have the potential to result in reductions in phosphorus loading,
- Evaluation of which projects will result in significant reductions in phosphorus loading,
- Consideration of improvements that strike the appropriate balance between cost and efficiency,
- Selection of projects most suited to Milton,
- Estimation of the cost of full compliance with permit requirements based on selected projects,
- Development of an implementation plan in accordance with permit requirements,
- Preparation of a Road Stormwater Implementation Table in accordance with MRGP requirements,
- Preparation of the final report and executive summary for public consumption.

Discharges to Impaired Waters where no TMDL is necessary

- **Lower Lamoille River from Clarks Falls Dam to Route 2 Bridge**

Pollutant: Low D.O.

Surface Water Quality Problem: 3 Dams (Clarks, Milton, Peterson) create D.O. problems downstream

No TMDL is necessary for this impaired segment as DEC has the authority and legal means available to address the dissolved oxygen (D.O.) problem found below the Clarks Falls hydroelectric facility. The authority and legal means that are available to DEC are sufficient to attain Water Quality Standards in the near future.

A new federal license for the Lamoille River Hydroelectric Project was issued in June 2005. Articles 407 and 408 address post-licensing water quality monitoring and D.O. enhancement, respectively. The new license provides for conservation flows that may improve the D.O. regime sufficiently to obviate the need for specific mechanical enhancements, such as turbine aspiration. FERC approved the licensee's water quality monitoring and dissolved oxygen enhancement plan on December 5, 2006, although the licensee elected to initiate sampling in Summer 2006. Because of higher than normal flows in 2006, sampling continued in 2007. Conditions were again somewhat atypical in 2007 because the Milton Station was off line, resulting in highly reoxygenated flows entering Peterson impoundment. Consequently, the Department has asked CVPS to continue sampling in summer 2008 before it determines whether there is sufficient data to conclude that the post-licensing operational changes have achieved compliance with the Water Quality Standards. If the data indicates that standards are not being met, the licensee must propose and implement enhancement measures.

Currently, sufficient data has not been collected to make a final WQS determination; however, the operational changes have occurred to address the potential low dissolved oxygen condition.

REVIEW AND UPDATES TO THE STORMWATER MANAGEMENT PLAN

In order for this SWMP to remain current and effective, it must be reviewed and updated on a regular basis.

Annual Reporting

The Town is required to submit an annual report to the Stormwater Section of the Vermont Agency of Natural Resources, Department of Environmental Conservation on or before April 1 of each year. The report will detail the efforts the Town has made in the prior calendar year. The annual report will include the following information:

1. The status of the Town's compliance efforts under the MS4 General Permit.
2. An evaluation/assessment of the BMPs listed in this SWMP.
3. A progress report on the implementation of the BMPs in this SWMP.
4. Any proposed changes or additions to the BMPs in the SWMP.
5. A description of stormwater related activities the Town intends to work on during the next reporting period.

Amendments to the SWMP

Any proposed amendments to the Town's SWMP will be discussed with the Stormwater Section prior to making any formal changes or adjustments to the Town's stormwater mitigation activities.

Individual(s) Responsible for SWMP Implementation

The Milton Town Manager is ultimately responsible for the implementation of the Town's SWMP. The Highway and Water/Wastewater Divisions of the Department of Public Works, Planning & Zoning Department, and Town Manager's Office will implement various components of this SWMP. The Director of Public Works/Town Engineer will provide overall guidance in completing the activities and requirements in the SWMP and the MS4 program in general, with support from the Director of Planning & Zoning, Highway Superintendent, and Water/Wastewater Superintendent and their associated staff.

SIGNATURES

All Notices of Intent, SWMP's, reports, certifications, or required information submitted to the Agency, or that this permit requires to be maintained shall be signed by a principle executive officer, ranking elected official or other duly authorized employee consistent with 40 CFR § 122.22(b) and certifies as follows:

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



Don Turner, Jr.

Town Manager



Date



David K. Allerton, P.E.

Director of Public Works/Town Engineer



Date

Attachment No. 1 – Town of Milton Map



LEGEND

Roads

- Interstate
- Principal Arterial
- Minor Arterial
- Major Collector
- Minor Collector
- Local
- Not part of function Classification S

- Town Boundary

1: 208,087

January 16, 2019



NOTES

10,571.0 0 5,286.00 10,571.0 Meters

WGS_1984_Web_Mercator_Auxiliary_Sphere

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1" = 17341 Ft.

1cm = 2081 Meters

THIS MAP IS NOT TO BE USED FOR NAVIGATION

DISCLAIMER: This map is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. ANR and the State of Vermont make no representations of any kind, including but not limited to, the warranties of merchantability, or fitness for a particular use, nor are any such warranties to be implied with respect to the data on this map.

Attachment No. 2 – Chittenden County MS4 Stormwater Program Agreement

**CHITTENDEN COUNTY MS4
STORMWATER PROGRAM AGREEMENT
EFFECTIVE July 1, 2017
Amended effective July 1, 2018**

Preamble

This Stormwater Program Agreement ("Agreement") is entered into by and between a group of Municipal Separate Storm Sewer System ("MS4") permittees ("MS4 Permittees") and the Chittenden County Regional Planning Commission ("CCRPC") to operate an MS4 Stormwater Program ("Program") that conforms with and satisfies the relevant requirements of both Minimum Control Measure One (Public Outreach and Education) and Minimum Control Measure Two (Public Involvement and Participation) of the Phase II NPDES Permit issued by the Vermont Department of Environmental Conservation ("DEC") on December 2012 through General Permit 3-9014 ("MS4 Permit"), as these requirements may be continued, renewed, amended, or otherwise modified during the term of this Agreement.

1. **Prior Agreements** – Effective July 1, 2017, this Agreement
 - a. supersedes an MOU signed by the CCRPC and twelve MS4 permittees, effective March 10, 2013 through March 9, 2018, governing the operation of a Regional Stormwater Education Program to satisfy the relevant requirements of Minimum Control Measure One (Public Outreach and Education), and
 - b. supersedes an MOU signed by the CCRPC and eleven MS4 permittees, effective July 1, 2011 through June 30, 2016, and an amendment to this MOU extending its effective date through June 30, 2017, governing the operation of a Regional Stormwater Public Involvement and Participation Program to satisfy the relevant requirements of Minimum Control Measure Two (Public Involvement and Participation).
2. **Service Agreement** – This Agreement constitutes a service agreement pursuant to 24 V.S.A. § 4345b (Intermunicipal Service Agreements).
3. **Definitions**—For purposes of this Agreement, the term "MS4 Permittees" includes the Vermont Agency of Transportation, which on December 28, 2016 became eligible for coverage under General Permit 3-9007 for Stormwater Discharges from the State Transportation Separate Storm Sewer System (TS4).
4. **Parties** – The following are the parties to this Agreement:
 - a. **MS4 Permittees** – the undersigned MS4 Permittees, and
 - b. **CCRPC** – the undersigned regional planning commission.
5. **MS4 Steering Committee**
 - a. **Composition** – The Members of the Steering Committee shall consist of one representative from each of the signatory MS4 Permittees to this Agreement. Another MS4 permittee may request

to join this Agreement if approved by a two-thirds vote of the Members. The Members shall be appointed either by the governing bodies of their municipalities at publicly warned meetings or, if a Member representing an MS4 Permittee is non-municipal agency, via a process consistent with that agency's policies. At its first meeting, the Steering Committee shall elect a Chair by a majority vote. The Chair shall serve until such time as the Chair resigns or the Steering Committee elects a new Chair.

- b. **Duties** – The Steering Committee shall direct the CCRPC on the development and performance of Program Services in particular and on all other matters bearing on the administration of this Agreement. All actions of the Steering Committee shall be by majority vote unless otherwise specified in this Agreement.
- c. **Organization of Meetings** – The Steering Committee shall meet on a quarterly basis at a minimum. The CCRPC shall provide Steering Committee Members with reasonable notice of meetings. Notice shall include a meeting agenda and draft meeting minutes. In addition, the CCRPC shall post notice of Steering Committee meetings on its website and on the Program website.

6. **CCRPC**

- a. **Duties** – The CCRPC shall:
 - 1) Administer this Agreement and agreements with contractors (including executing contracts approved by the Steering Committee, receiving and disbursing funds, and monitoring the provision of services) for the benefit of the MS4 Permittees.
 - 2) Provide other services contributing to the operation of the Program (including, but not limited to, social media management, public relations, grant writing, creating and managing a Program website, organizing meetings as set forth in Section 4.c, above, etc.) as directed by the Steering Committee; and at a level consistent with each year's Program Budget as described in Section 8.b, below.
 - 3) Provide a quarterly budget report to the Steering Committee detailing expenses the CCRPC incurred and the payments it has received.
 - 4) Pay contractors and vendors for charges consistent with the relevant contract, using funds from the Program Budget, as defined in Section 8, below.
 - 5) Upon approval of the Steering Committee or its designee, reimburse itself for personnel and other expenses for charges consistent with its duties, using funds from the Program Budget.
 - 6) Consult with the Steering Committee prior to authorizing any contractor activities or charges outside the scope of work of a contract.
 - 7) Notify the Steering Committee when 75% of the annual budget (as defined in Section 8, below) for an individual category of expenses (e.g., contractors, CCRPC fees, advertising, etc.) is reached. When these levels are reached, subsequent expenditures by the CCRPC in that category shall be reviewed and approved by the Steering Committee Chair in advance.

- 8) At the request of the Steering Committee, assign any or all contracts that the CCRPC has entered into pursuant to this Agreement to the MS4 Permittees who are signatories to this Agreement at the time or to another contractor of the Steering Committee's choosing.
- 9) Comply with all applicable federal, state, and local laws, including Burlington's Livable Wage Ordinance as applicable.
- b. **Compensation** – Through the Program Budget, the MS4 Permittees shall compensate the CCRPC for the actual costs of performing its duties defined in Section 5.a, above; provided, however, that the CCRPC shall not be entitled to compensation that would exceed ten percent (10%) of the Program Budget as specified in Section 8.b, below, without the prior approval of a majority of the Steering Committee.
- c. **Invoices** – The CCRPC shall invoice the Program to cover personnel charges, mileage reimbursement, and other direct expenses necessary to perform its duties. Personnel charges for CCRPC staff shall be calculated at a rate of salary plus fringe plus CCRPC's applicable indirect rate as required by 24 V.S.A. § 4345b. As set forth in Section 5.b, above, upon approval of the Steering Committee or its designee, the CCRPC may reimburse itself for charges consistent with its duties, using funds from the Program Budget.

7. Selection of Contractors

- a. The CCRPC, in consultation with the Steering Committee, shall competitively bid for contract(s) for Program services that collectively satisfy the requirements for Minimum Control Measure One (Public Outreach and Education) and Minimum Control Measure Two (Public Involvement and Participation) of the Phase II NPDES Permit then in effect. The parties to the contracts shall be the contractors and the CCRPC. All contracts shall require the contractor to indemnify and hold harmless the MS4 Permittees from any claims related to the contract and to procure and maintain liability insurance for all services performed under the contract.
- b. All contracts shall be awarded based on qualifications, price, and the ability of the entity to provide services that meet the relevant MS4 Permit requirements. The selection of contractors shall comply with the procurement policy of the CCRPC and with applicable state and federal procurement laws and procedures.
- c. Contracts shall generally be 1 to 5 years in length and shall include, but not be limited to, a Maximum Limiting Amount and the right of the CCRPC to 1) cancel a contract if services are not being adequately provided, 2) specify that payments to contractors shall be made only for services rendered, 3) specify the annual scope of work and budget as approved by the Steering Committee, 4) allow a contract extension if desired, and 5) assign the contract to the MS4 Permittees that are signatories to this Agreement at the time of the assignment or to a contractor of the Steering Committee's choosing.
- d. Contracting for services under this Agreement shall comply with the Fair Employment Act and Americans with Disabilities Act: the CCRPC shall comply with the requirement of Title 21 V.S.A Chapter 5, Subchapter 6, relating to fair employment practices, to the full extent applicable. The CCRPC shall also ensure, to the full extent required by the Americans with Disabilities Act of

1990, that qualified individuals with disabilities receive equitable access to the services, programs, and activities provided by the Steering Committee under this Agreement. This provision shall also be included in all contracts and subcontracts executed under this Agreement.

- e. The CCRPC and the Steering Committee recognize the important contribution and vital impact which small businesses have on the State's economy. In this regard, the CCRPC shall ensure a free and open bidding process that affords all businesses equal access and opportunity to compete, except under circumstances where competitive bidding may not be practicable and is not required by applicable procurement policies. The CCRPC and the Steering Committee also recognize the existence of businesses owned by minorities and women, and the CCRPC shall make a good faith effort to encourage these firms to compete for contracts involving state or federal funds and comply with applicable law relating to civil rights and disadvantaged business enterprises.
8. **Program Services** – The Steering Committee, assisted by the CCRPC and its contractors, shall implement a unified Program that satisfies the relevant requirements of Minimum Control Measure One (Public Education and Outreach) and Minimum Control Measure Two (Public Involvement and Participation) of the MS4 Permit.

The Program Content for each Program Year shall be as defined in writing by a majority of the Steering Committee. The Program Year shall be the State of Vermont's fiscal year. The Program Content shall implement the following deliverables:

- a. **Public Education and Outreach** – Elements shall include, at a minimum:
 - 1) operating the Program's website, www.smartwaterways.org, or its equivalent; and
 - 2) advertising in various media.
 - b. **Public Involvement and Participation** – Elements shall include, at a minimum:
 - 1) operating the Program's website, www.ccstreamteam.org, or its equivalent;
 - 2) hosting and/or organizing workshops, projects, and other events to engage the public; and
 - 3) recruiting volunteers to support projects, promote events, and/or engage the public.
 - c. **End of MS4 permit year annual reporting** – Elements shall include preparation of a narrative report 25 business days prior to the MS4 Permittees' reporting deadline to DEC.
9. **Program Dues, Budget, Costs, and Payments**
- a. **Dues**
 - 1) For State Fiscal Year, FY18, July 2017-June 2018, the annual dues for each of the undersigned MS4 Permittees shall be \$5,500.

- 2) For the following fiscal years, the annual dues shall be set by a two-thirds majority by October 15th of the preceding calendar year. In the absence of agreement, the dues shall remain at \$5,500.
- 3) The CCRPC shall invoice each MS4 Permittee on or about July 1st of each year with payment to the CCRPC due 30 days later.
- 4) All Members shall pay equal dues.

b. Program Budget

- 1) The annual Program Budget shall consist of the sum of the annual payments for each Program Year made by MS4 Permittees, plus any funds from other sources made available to the Program by majority vote of the Steering Committee.
- 2) Prior to the start of each Program Year, the Steering Committee shall adopt a Program Budget governing expenditures for the subsequent Program Year. Budget categories shall include, but not be limited to: CCRPC Duties, Contractual Services, and Expenses.
- 3) Once the Program Year starts, a majority of the Steering Committee may amend the Program Budget as needed, for example to reflect any surplus or deficits from the prior Program Year, receipt of new sources of funds, or a desired change in the Program Budget, subject to Section 8.a, above.
- 4) In the event that costs are less than anticipated or that grants or other funding sources become available, a majority of the voting Members of the Steering Committee may decide to reduce each Member's payment by an equal amount or to credit all or part of the following Program Year assessment to each MS4 Permittee.

- c. **Maximum Annual Costs and Payments** – Except as otherwise provided by this section, each MS4 Permittee shall within 30 days of receipt of an invoice make a single annual dues payment, as provided by Section 8.a, above.
- d. **Other Funds** – Any funds made available to the Program shall be dedicated to reducing the annual costs of each MS4 Permittee participating in the Program, except as a majority of the voting Members of the Steering Committee may decide.
- e. **Excess Funds** – Any funds remaining at the end of a Program Year shall be carried over to the next Program Year, unless a majority of the voting Members of the Steering Committee decides otherwise.
- f. **Non-appropriation** – The obligations of each MS4 Permittee to make payments under this Agreement shall constitute a current expense of the MS4 Permittee and shall not in any way be construed to be a debt of the MS4 Permittee in contravention of any applicable constitutional or statutory limitation or requirement, or the MS4 Permittee's charter or articles of incorporation; nor shall anything contained in this Agreement constitute a pledge of the credit or tax revenues, funds, or monies of the MS4 Permittee. The decision whether or not to budget and appropriate funds during each fiscal year of the MS4 Permittee is within the discretion of the governing body

of the MS4 Permittee. The obligations of a MS4 Permittee under the Agreement are subject to annual appropriations by the governing body of the MS4 Permittee, except as provided by Section 12 of this Agreement. An MS4 Permittee cannot choose to not appropriate funds and then withdraw in a manner that shifts prior contractual obligations on to the others. Non-appropriation will be considered withdrawal and must be prospective in fairness to all signatories as per Section 13.

10. **Contract Approval** – All CCRPC contracts shall be conditioned upon approval by a majority of the voting Members of the Steering Committee and shall be consistent with Section 6, above.
11. **Termination of CCRPC** – The CCRPC on its own or the Steering Committee by a majority vote of its full Membership may elect to terminate the CCRPC's future participation in this Agreement by providing 90 days' written notice to the other. In the event of termination under this section, the CCRPC shall continue to administer and comply with each existing contract, and the MS4 Permittees shall continue to reimburse the CCRPC from the Program Budget for the actual costs of administering and complying with each contract, as provided by this Agreement, unless and until the CCRPC assigns the contract pursuant to Sections 5.a.8 and 6.c of this Agreement.
12. **Termination of Agreement**
 - a. This Agreement shall become null and void with no further obligation of the parties if:
 - 1) Two-thirds of the Members of the Steering Committee vote to end participation, or
 - 2) DEC determines that the Program outlined in this Agreement does not meet the relevant requirements for Minimum Control Measure One (Public Education and Outreach) or Minimum Control Measure Two (Public Involvement and Participation), and the parties to this Agreement are unable to craft a Program to satisfy DEC.
 - b. In the event of termination, any funds remaining in the Program Budget (after payment of obligations to vendors or to satisfy debts) shall be reimbursed to the MS4 Permittees with each MS4 Permittee receiving a share proportional to the number of MS4 Permittees at the time of termination. For example, if there are twelve MS4 Permittees at the time of termination, each MS4 Permittee shall receive a 1/12th share.
13. **Withdrawal of Member** – An MS4 Permittee may withdrawal from participation in this Agreement only at the end of a state fiscal year. If an MS4 Permittee wishes to withdrawal from participation, it shall provide at least 90 days' notice to the other MS4 Permittees and the CCRPC. After withdrawal, a MS4 Permittee shall remain responsible for its share of the costs of contracts that the Steering Committee approved prior to the effective date of the withdrawal.

14. **Effective Date and Duration of Agreement** – The effective date of this Agreement shall be July 1, 2017, and this Agreement shall terminate June 30, 2022.
15. **Amendment** – This Agreement may be amended only upon unanimous action of all the Members.
16. **Counterparts** – This Agreement may be executed in multiple counterparts, each of which is deemed an original and all of which constitute one and the same document. Each such counterpart may be a facsimile or PDF copy, and such facsimile or PDF copy shall be deemed an original.
17. **Public Records** – Any and all records submitted to the CCRPC or MS4 Permittees - including Bids, Proposals, Qualifications, Contracts, etc.-- whether electronic, paper, or otherwise recorded, are subject to the Vermont Public Records Act.

Signature of CCRPC

 5/24/18
 Christopher D. Roy, Board Chair, Chittenden County Regional Planning Commission Date

Signatures of Members

_____ Name	_____ Title	The Burlington International Airport	_____ Date
_____ Name	_____ Title	The City of Burlington	_____ Date
_____ Name	_____ Title	The Town of Colchester	_____ Date
_____ Name	_____ Title	The Town of Essex	_____ Date
_____ Name	_____ Title	The Village of Essex Junction	_____ Date
_____ Name	_____ Title	The Town of Milton	_____ Date

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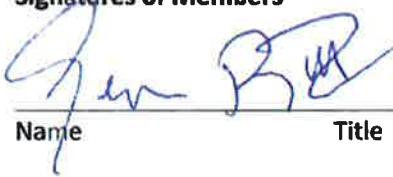
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Signature of CCRPC

Christopher D. Roy, Board Chair, Chittenden County Regional Planning Commission Date

Signatures of Members

 Director of Aviation 3-28-18

Name Title The Burlington International Airport Date

Name Title The City of Burlington Date

Name Title The Town of Colchester Date

Name Title The Town of Essex Date

Name Title The Village of Essex Junction Date

Name Title The Town of Milton Date

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Signature of CCRPC

Christopher D. Roy, Board Chair, Chittenden County Regional Planning Commission Date

Signatures of Members

Name Title The Burlington International Airport Date

S. Chapin Spencer - Director 4/9/18
Name Title The City of Burlington Date

Name Title The Town of Colchester Date

Name Title The Town of Essex Date

Name Title The Village of Essex Junction Date

Name Title The Town of Milton Date

- Signature of CCRPC**

Signatures of Members

Name	Title	The Town of Milton	Date
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Signature of CCRPC

Christopher D. Roy, Board Chair, Chittenden County Regional Planning Commission Date _____

Signatures of Members

Name Title The Burlington International Airport Date _____

Name Title The City of Burlington Date _____

Name Title The Town of Colchester Date _____

 *Public Works Director*
Name Title The Town of Essex Date 4-11-18

Name Title The Village of Essex Junction Date _____

Name Title The Town of Milton Date _____

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Signature of CCRPC

Christopher D. Roy, Board Chair, Chittenden County Regional Planning Commission Date _____

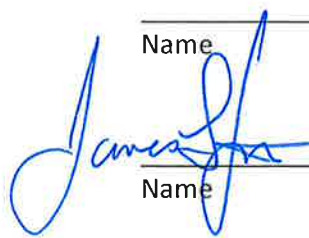
Signatures of Members

Name Title The Burlington International Airport Date _____

Name Title The City of Burlington Date _____

Name Title The Town of Colchester Date _____

Name Title The Town of Essex Date _____

 _____
Name Title The Village of Essex Junction Date 4/13/2018

Name Title The Town of Milton Date _____

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Signature of CCRPC

Christopher D. Roy, Board Chair, Chittenden County Regional Planning Commission Date _____

Signatures of Members

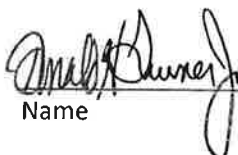
Name Title The Burlington International Airport Date _____

Name Title The City of Burlington Date _____

Name Title The Town of Colchester Date _____

Name Title The Town of Essex Date _____

Name Title The Village of Essex Junction Date _____

 Town Manager
Name Title The Town of Milton Date 5/8/18

Joe Colangelo Town Manager The Town of Shelburne

6-March-2018

Date

Name Title The City of South Burlington _____
Date

Name Title Vermont Agency of Transportation _____
Date

Name Title The University of Vermont _____
Date

Name Title The Town of Williston _____
Date

Name Title The City of Winooski _____
Date

Name Title The Town of Shelburne

Date

Helen Rieker Chair

Name Title The City of South Burlington

4/2/18
Date

Name Title Vermont Agency of Transportation

Date

Name Title The University of Vermont

Date

Name Title The Town of Williston

Date

Name Title The City of Winooski

Date

Name	Title	The Town of Shelburne	Date
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Name	Title	The City of South Burlington	Date
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Joe Flynn	e-Signed by Joe Flynn on 2018-04-02 12:47:56 GMT	April 02, 2018
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Name	Title	Vermont Agency of Transportation	Date
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Name	Title	The University of Vermont	Date
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Name	Title	The Town of Williston	Date
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Name	Title	The City of Winooski	Date
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Name	Title	The Town of Shelburne	Date
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Name	Title	The City of South Burlington	Date
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Name	Title	Vermont Agency of Transportation	Date
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Linda Seavey
Linda Seavey, Director, Campus Planning Services

The University of Vermont

3/28/2018
Date

Name	Title	The Town of Williston	Date
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Name	Title	The City of Winooski	Date
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Name	Title	The Town of Shelburne	Date
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Name	Title	The City of South Burlington	Date
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Name	Title	Vermont Agency of Transportation	Date
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Name	Title	The University of Vermont	Date
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Richard McGuire	Town Manager	The Town of Williston	3/21/18
Name	Title	The Town of Williston	Date

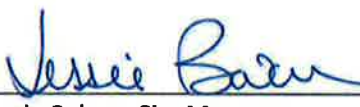
Name	Title	The City of Winooski	Date
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Name	Title	The Town of Shelburne	Date
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Name	Title	The City of South Burlington	Date
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Name	Title	Vermont Agency of Transportation	Date
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Name	Title	The University of Vermont	Date
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Name	Title	The Town of Williston	Date
 Jessie Baker - City Manager	City Manager The City of Winooski		3/23/18 Date

Attachment No. 3 – Illicit Discharge and Stormwater Connection Ordinance

Illicit Discharge and Stormwater Connection Ordinance

Pursuant to Section 104 of the Town of Milton Charter, the Selectboard of the Town of Milton hereby adopts the following Ordinance:

Section 1 Purpose	Page 1
Section 2 Definitions	Page 1
Section 3 General	Page 3
Section 4 Illicit Discharge and Stormwater Connection	Page 4
Section 5 Enforcement	Page 8
Section 6 Separability	Page 9

Section 1 Purpose

These Stormwater Regulations define what constitutes a public nuisance relating to Stormwater and Non-Stormwater Discharges to the Municipal Separate Storm Sewer System (MS4), and/or surface or ground water, and provide procedures for the abatement or removal of such public nuisance as the public health, safety, or welfare may require. This Ordinance also establishes methods for controlling the discharge of Stormwater and Non-Stormwater Discharges into the MS4 in order to comply with the requirements of the National Pollutant Discharge Elimination System (NPDES) permit process.

Section 2 Definitions

Unless the context specifically indicates otherwise, the meanings of terms used in this Ordinance shall be as follows, listed alphabetically:

Best Management Practices or BMPs shall mean a schedule of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce water pollution.

Construction Activity shall mean activities subject to NPDES Construction Permits. Such activities include but are not limited to clearing and grubbing, grading, excavating, and demolition.

Designated Enforcement Officer shall mean either the Town of Milton's Health Officer, Deputy Health Officer or other Town Officers as may be designated by the Milton Selectboard.

Hazardous Materials shall mean any material, including any substance, waste, or combination thereof, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause, or significantly contribute to, a substantial present or potential hazard to human health, safety, property, or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

Illegal Connection shall mean any drain or conveyance, whether on the surface or subsurface, that allows an illicit discharge to enter the MS4, including, but not limited

Illicit Discharge and Stormwater Connection Ordinance

to, any conveyance that allows any non-stormwater discharge including sewage, process wastewater, and wash water to enter the MS4, and any connections to the MS4 from indoor drains and sinks, regardless of whether said drain or connection had been previously allowed, permitted, or approved by the Officer.

Illicit Discharge shall mean any direct or indirect non-stormwater discharge to the MS4, except as exempted in Section 4 of this Ordinance.

Industrial Activity shall mean activities subject to NPDES Industrial Permits as defined in 40 CFR, Section 122.26 (b) (14).

Municipal Authority shall mean the Milton Selectboard.

Municipal Separate Storm Sewer System or MS4 shall mean a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains) that is: (i) owned or operated by the Town of Milton and discharges to surface waters or groundwater.; (ii) designed or used for collecting or conveying stormwater; (iii) not a combined sewer; and (iv) not part of a Publicly Owned Treatment Works (POTW) as defined in 40 CFR, Section 122.2

National Pollutant Discharge Elimination System (NPDES) Stormwater Discharge Permit shall mean a permit issued by EPA (or by the State of Vermont under authority delegated pursuant to 33 USC § 1342(b)) that authorizes the discharge of pollutants to waters of the United States, whether the permit is applicable on an individual, group, or general area-wide basis.

Non-Stormwater Discharge shall mean any discharge to the MS4 that is not composed entirely of stormwater.

Officer shall mean the Health Officer, Deputy Health Officer or other Town Officials as may be designated by the Milton Town Manager.

Person shall mean any individual, association, organization, partnership, firm, corporation or other entity recognized by law and acting as the owner, the owner's agent, or the operator of premises.

Pollutant shall mean anything which causes or contributes to pollution. Pollutants may include, but are not limited to: paints, varnishes, and solvents; oil and other automotive fluids; non-hazardous liquid and solid wastes and yard wastes; refuse, rubbish, garbage, litter, or other discarded or abandoned objects, and accumulations, so that same may cause or contribute to pollution; floatables; pesticides, herbicides, and fertilizers; hazardous substances and wastes; sewage, fecal coliform, and pathogens; dissolved and particulate metals; animal wastes; wastes and residues that result from constructing a building or structure; and noxious or offensive matter of any kind.

Illicit Discharge and Stormwater Connection Ordinance

Premises shall mean any building, lot, parcel of land, or portion of land, whether improved or unimproved, including adjacent sidewalks and parking strips.

Stormwater shall mean precipitation and snowmelt that does not infiltrate into the soil, including material dissolved or suspended in it, but does not include discharges from undisturbed natural terrain.

Surface Waters shall mean any receiving waters existing on the surface of the ground, including but not limited to: brooks, streams, rivers, wetlands, ponds, or lakes.

Wastewater shall mean any water or other liquid, other than uncontaminated stormwater, discharged from premises.

Section 3 General**A. Applicability**

This Ordinance shall apply to all water entering the MS4 and/or surface waters or groundwater, generated from, or on, any Premises unless explicitly exempted by the Officer or this Ordinance.

B. Responsibility for Administration

The Officer shall administer, implement, and enforce the provisions of this Ordinance. Any powers granted to or duties imposed upon the Officer may be delegated by the Officer to persons or entities acting in the beneficial interest of or in the employ of the Town of Milton.

C. Relation to Other Ordinances of the Town of Milton

If the provisions of this Ordinance conflicts with the provisions of any other valid and enforceable Ordinance(s) of the Town of Milton, the stricter shall prevail.

D. Ultimate Responsibility

The standards set forth herein and promulgated pursuant to this Ordinance are minimum standards; therefore this Ordinance does not intend nor imply that compliance by any Person will ensure that there will be no contamination, pollution, nor unauthorized discharge or discharge of pollutants.

Illicit Discharge and Stormwater Connection Ordinance

Section 4 **Illicit Discharge and Stormwater Connection****A. Purpose/Intent**

1. Under the authority set forth in 24 V.S.A § 2291, specifically subsection (14), and to provide for the public health, safety, welfare and convenience, it is hereby declared that it shall be a public nuisance for anyone to contribute pollutants, illegally connect, or illegally discharge into the Municipal Separate Storm Sewer System, (MS4), or to otherwise discharge non-stormwater in violation of the requirements of this Ordinance. It is the purpose of this Ordinance to provide procedures for the regulation of Non-Stormwater Discharges to the MS4, and where required by public health, safety, or welfare, to provide for the abatement or removal of any public nuisance related thereto. This Ordinance establishes methods for controlling the introduction of pollutants into the MS4 in order to comply with requirements of the National Pollutant Discharge Elimination System (NPDES) permit process. The objectives of this Ordinance are:

- a. To regulate the introduction of pollutants to the MS4 from Non-Stormwater Discharges by any user;
- b. To prohibit Illegal Connections and Illicit Discharges to the MS4;
- c. To establish legal authority to carry out all inspection, monitoring, and enforcement procedures necessary to ensure compliance with this Ordinance.

B. Prohibitions**1. Solid Waste Disposal**

a. No person shall throw, deposit, leave, maintain, keep, or permit to be thrown, deposited, left, or maintained, in or upon any Premise, public or private property, driveway, parking area, street, alley, sidewalk, component of the MS4, or any Surface Water of Milton, any object or material, including but not limited to refuse, rubbish, garbage, animal waste, litter, yard waste, or other discarded or abandoned objects, articles, and accumulations, so that the same may cause or contribute to pollution, or interfere with the operation, maintenance and access to the MS4. Wastes deposited in streets in proper waste receptacles for the purposes of collection are exempted from this prohibition.

2. Illegal Connections

a. The construction, use, maintenance or continued existence of Illegal Connections to the MS4 is prohibited.

Illicit Discharge and Stormwater Connection Ordinance

b. This prohibition expressly includes, without limitation, Illegal Connections made in the past, regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection.

3. Illicit Discharges

a. No person shall discharge or cause to be discharged into the MS4, any materials, including but not limited to pollutants or waters containing any pollutants, other than Stormwater, or any materials that may impede the natural flow of Stormwater or the functionality of the MS4.

C. Exemptions

The commencement or continuance of any illicit discharge to the MS4 is prohibited except as described as follows:

1. The following discharges are exempt from discharge prohibitions established by this Ordinance: fire fighting activities, water line flushing, landscape irrigation, diverted stream flows, rising groundwater, uncontaminated groundwater infiltration, uncontaminated pumped groundwater, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering, individual residential car washing, flows from riparian habitats and wetlands, dechlorinated swimming pool discharges, street and bridge wash water, and any other water source not containing Pollutants.

2. Discharges specified in writing by the Officer as being necessary to protect public health and safety.

3. Dye testing is an allowable discharge, but requires a written notification to the Officer prior to the time of the test.

4. The prohibition shall not apply to any Non-Stormwater Discharge permitted under a NPDES permit, waiver, or waste discharge order issued to the discharger and administered under the authority of the United States Environmental Protection Agency or the Vermont Agency of Natural Resources, provided that the discharger is in full compliance with all requirements of the permit, waiver, or order and other applicable laws and regulations, and provided that written approval has been granted for any discharge to the MS4 by the Officer.

D. Industrial or Construction Activity Discharges

1. Any person subject to an Industrial or Construction Activity NPDES Stormwater discharge regulation and/or permit shall comply with all provisions of such regulation and/or permit. Proof of compliance with said regulation

Illicit Discharge and Stormwater Connection Ordinance

and/or permit may be required in a form acceptable to the Officer prior to the allowing of discharges to the MS4.

E. Monitoring of Discharges**1. Applicability**

This section applies to all Premises that have stormwater discharges associated with Industrial Activity, including Construction Activity.

2. Access to Premises

a. The Officer shall be permitted to enter and inspect any Premise subject to regulation under this Ordinance as often as may be necessary to determine compliance with this Ordinance. If a Person has security measures in force which require proper identification and clearance before entry into its Premise, the Person shall make the necessary arrangements to allow access to representatives of the Town.

b. A Person shall allow the Officer ready access to all parts of the Premises for the purposes of inspection, sampling, and examination and copying of records that must be kept under the conditions of an NPDES permit to discharge Stormwater, and the performance of any additional duties as defined by state and federal law.

c. The Officer shall have the right to set up on any permitted Premises such devices as are necessary in the opinion of the Officer to conduct monitoring and/or sampling of the Premises Stormwater discharge.

d. The Officer has the right to require a Person to install monitoring equipment as necessary. The sampling and monitoring equipment shall be maintained at all times in a safe and proper operating condition by the owner or operator of the Premise at their own expense. All devices used to measure Stormwater flow and quality shall be calibrated to ensure their accuracy. The owner or operator of the premise shall demonstrate calibration techniques and satisfactory operation of the devices to the Officer upon request.

e. Any temporary or permanent obstruction to safe and easy access to the Premises to be inspected and/or sampled shall be promptly removed by the owner or operator of the Premise at the written or oral request of the Officer and shall not be replaced. The costs of clearing such access shall be borne by the owner or operator of the Premise.

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f. Unreasonable delays in allowing the Town Health Office access to permitted premises are a violation of this Ordinance. A person who is the operator of a Premise with a NPDES permit to discharge Stormwater associated with Industrial Activity commits an offense if the Person denies the Officer reasonable access to the permitted Premises for the purpose of conducting any activity authorized or required by this Ordinance.

g. If the Officer has been refused access to any part of the Premises from which Stormwater is discharged, and he/she is able to demonstrate probable cause to believe that there may be a violation of this Ordinance, or that there is a need to inspect and/or sample as part of a routine inspection and sampling program designed to verify compliance with this Ordinance or any order issued hereunder, or to protect the overall public health, safety, and welfare of the community, then the Officer may seek issuance of a search warrant from any court of competent jurisdiction.

F. Requirement to Prevent, Control, and Reduce Stormwater Pollutants by the Use of Best Management Practices

1. The owner or operator of a commercial or industrial establishment shall provide, at their own expense, reasonable protection from accidental discharge of prohibited materials or other wastes into the MS4 through the use of structural and non-structural BMPs.
2. Further, any Person responsible for a property or Premise, which is, or which may be, the source of an Illicit Discharge, may be required to implement, at said Person's expense, additional structural and non-structural BMPs to prevent the further discharge of pollutants to the MS4. Compliance with all terms and conditions of a valid NPDES permit authorizing the discharge of Stormwater associated with Industrial Activity, to the extent practicable, shall be deemed compliance with the provisions of this section.

G. Notification of Spills

1. Notwithstanding other requirements of law, as soon as any Person responsible for a Premises or operation, or responsible for emergency response for a Premises or operation, has information of any known or suspected release of materials which are resulting or may result in Illicit Discharges or pollutants discharging into the MS4, said Person shall take all necessary steps to ensure the discovery, containment, and cleanup of such release. In the event of such a release of Hazardous Materials said Person shall immediately notify emergency response agencies of the occurrence via emergency dispatch services. In the event of a release of non-hazardous materials, said Person shall notify the Officer either in person, by phone, or facsimile no later than the next business day. Notifications in person or by phone shall be confirmed by written notice addressed and mailed to the Officer within three business days of the phone notice. If the discharge of prohibited materials emanates from a commercial or

Illicit Discharge and Stormwater Connection Ordinance

industrial establishment, the owner or operator of such establishment shall also retain an on-site written record of the discharge, steps taken to remediate said Illicit Discharge, and the actions taken to prevent its recurrence. Such records shall be retained on-site by the owner or operator for at least three years from the date of each occurrence.

Section 5 Enforcement**A. Enforcement Remedies**

The Town, by and through its authorized agents, shall have the authority to enforce the provisions of this Ordinance, and any orders, violation notices, or enforcement orders issued hereunder, and may pursue all civil and criminal remedies in connection with any violation hereunder; as provided herein.

B. Remedies not Exclusive

The remedies set forth herein are not exclusive of any other remedies available, including criminal prosecution, under any applicable federal, state or local law. Election of one remedy shall not preclude pursuing other remedies and nothing herein shall prohibit the Town from seeking multiple remedies.

C. Judicial Bureau Municipal Civil Complaint Ticket

Pursuant to 24 V.S.A., Chapters 59 and 61 and 4 V.S.A., Chapter 29, a Designated Enforcement Officer may commence prosecution in the Judicial Bureau for any violation of this Ordinance by serving two copies of a municipal civil complaint ticket either in person or by first class mail on the alleged offender, and thereafter promptly filing the original with the Judicial Bureau. The issuing officer shall follow the procedure set forth by the Judicial Bureau for municipal complaint tickets. The first offense ticketed for a violation shall be punishable by a fine of one hundred dollars (\$100.00), the waiver fee shall be fifty dollars (\$50.00); a second offense ticketed for the same violation shall be punishable by a fine of two hundred dollars (\$200.00), the waiver fee shall be one hundred dollars (\$100.00); a third offense ticketed for the same violation shall be punishable by a fine of five hundred dollars (\$500.00), the waiver fee shall be two hundred and fifty dollars (\$250.00). Upon the fourth offense, the Town may request that the case be transferred to the Superior Court or any other court of competent jurisdiction.

D. Other Enforcement Remedies Generally; Fines, Injunctive Relief

1. Pursuant to the authority granted under 24 V.S.A. Section 2291, the Town may commence an enforcement action for abatement and removal of a violation and/or for fines in connection with any violation of this Ordinance. Said enforcement action shall be commenced in the Superior Court or any other court of competent jurisdiction.

Illicit Discharge and Stormwater Connection Ordinance

a. Fines. If the Town elects to seek fines under this Subsection, any Person who violates any provision of this Ordinance, or any notice or order issued hereunder, shall be fined not more than one hundred dollars (\$100.00) for each offense. No action may be brought under this subsection unless the alleged offender has had at least seven (7) days warning notice by certified mail. An action may be brought without the seven (7) day notice and opportunity to cure if the alleged offender repeats the violation of the by-law or Ordinance after the seven (7) day notice period and within the next succeeding twelve (12) months. The seven (7) day warning notice shall state that a violation exists; that the alleged offender has an opportunity to cure the violations within seven (7) days; and that the alleged offender will not be entitled to an additional warning notice for a violation occurring after the seven (7) days. In default of payment of the fine, such Person shall pay double the amount of such fine. Each day that a violation is continued shall constitute a separate offense. All fines collected for the violation of these regulations shall be paid over to the Town.

b. Injunctive Relief. An action, injunction, or other enforcement proceeding may be instituted by the Town to prevent, restrain, correct, or abate any violation or activity causing a violation. The relief sought may include the right to enter onto private property to abate or correct the violation, to restrain any activity that would create further violations, or to compel a Person or Persons to perform abatement or remediation of the violation; and to seek damages for all costs, including reasonable attorney's fees, incurred by the Town in pursuing and obtaining such relief. In addition to any other remedies authorized in law or equity, the Town may seek an order specifically requiring:

- i. The elimination of Illegal Connections and/or Non-Stormwater Discharges to the MS4;
- ii. The discontinuance of practices, activities, or operations that lead to violations of this Ordinance;
- iii. The abatement or remediation of Stormwater pollution or contamination hazards and the restoration of any affected property;
- iv. The implementation of source control or treatment through the use of Best Management Practices;
- v. The performance of monitoring, analysis, and reporting.

Section 6 Separability

This Ordinance has been adopted pursuant to Section 104 of the Town of Milton Charter.

The validity of any section, clause, sentence, or provision of this Ordinance shall not affect the validity of any other part of this Ordinance which can be given effect without such invalid part or parts.

Illicit Discharge and Stormwater Connection Ordinance

All prior Ordinances, parts of Ordinances, or policies governing the subject matter covered by this Ordinance are hereby repealed. Existing rules and regulations are also hereby repealed, to the extent they conflict with the provisions of this Ordinance.

This Ordinance shall take effect forty (40) days from date of adoption, unless a petition is properly filed in accordance with Section 104 of the Town of Milton Charter.

Public Hearing held: **February 5, 2007**

This Ordinance was adopted: **February 5, 2007**

Effective Date: **March 17, 2007**

This Ordinance shall be posted in four (4) public places not later than (fourteen (14) days from adoption).

Date: 2-5-07

Town of Milton Selectboard

(signed, as on file in the Town Clerk's Office)

Kenneth Nolan, Chairperson

Daniel FitzGerald, Vice Chairperson

George Caban, Clerk

Randall Barrows

Filed with the Town Clerk: February 6, 2007

**Attachment No. 4 – Milton DPW
Specifications, Section 600, Erosion Control
Specifications**

PART II TECHNICAL SPECIFICATIONS

SECTION 600 EROSION CONTROL SPECIFICATIONS

SECTION 610 GENERAL PROVISIONS

1. Any construction activity that disturbs one (1) or more acres of land, or is part of a larger development plan that will disturb one (1) or more acres, requires coverage under State of Vermont General Permit 3-9020 for Stormwater Runoff from Construction Sites.. Disturbances less than one acre shall comply with the latest Town of Milton ordinances and specifications related to erosion and sediment control and the State of Vermont "Low Risk Site Handbook for Erosion Prevention and Sediment Control".
2. The Developer will submit to the Town Engineer an Erosion and Sediment Control Plan that shall at minimum contain:
 - Name of on-site person responsible for implementation of the plan.
 - Emergency storm response procedures and inspections. The definition of a storm event shall be one inch of precipitation in a twenty-four (24) hour period.
 - Proposed locations for use of silt fence and alternative erosion control devices.
 - Silt fence and silt curtain inspection frequency (minimum weekly) for removal of collected sediment, including how sediment will be removed and where it will be disposed of and stabilized.
 - Temporary mulching procedures for disturbed soils areas.
 - Temporary sediment control at the inlet and outlet of existing and proposed catch basins, and culverts.
 - Dust control procedures for staging areas, stockpile areas, and on haul roads.
 - Stormwater runoff diversions, where needed, and their outlet locations
 - Inspection and maintenance schedules for all soil erosion and water pollution control measures. Inspection and maintenance records to be maintained on site for inspection by Town Engineer or designed representative.
 - The location of all sediment basins used for de-watering any site cofferdams.
2. All areas must have temporary or permanent stabilization within 14 days of initial disturbance.
3. No work shall be performed until all sedimentation and erosion control measures are in place.
4. The discharge of sediment-laden water from the project site is prohibited. The

Town of Milton Public Works Specifications

Town of Milton, upon investigation of a sediment release, will inform the proper permitting authorities. The Town of Milton may assess an unpermitted discharge fine equal to fifty percent (50%) of any fine assessed and collected by the State of Vermont.

5. The Contractor shall install all erosion control measures as depicted on plans and attached details or as recommended by the Town Engineer, Vermont Agency of Natural Resources, the Soil Conservation Service, or the U. S. Army Corps of Engineers, prior to any construction. The Contractor shall also be responsible for inspecting and maintaining all erosion control measures until the Town of Milton accepts the project.
6. The Contractor shall delineate the construction limits to prevent machinery and debris from entering buffer strips and to limit the disturbance of soil and vegetation to an absolute minimum.
7. The Contractor shall limit soil disturbance and seeding application to between May 1st and October 15th. If soil disturbance occurs later than October 15th and prior to May 1st, winter erosion control measures will be necessary. The Contractor shall consult with the Town Engineer for additional site-specific winter erosion control measures.
8. All stockpiled material (topsoil, borrow, etc.) shall have a hay bale dike or silt fence constructed around the perimeter. Stockpiled material shall be seeded and mulched as soon as possible to prevent soil erosion and sedimentation off site. Stockpiles shall be located on the uphill side of disturbed areas, if possible. During windy conditions, stockpiled material shall be covered or watered appropriately to prevent wind erosion. Stockpiles left to winter over shall be seeded and mulched before October 1st to become grass covered.
9. The Town of Milton has adopted an Erosion and Sediment Control Best Management Practices manual to help the Developer and Contractor develop an Erosion and Sediment Plan and protect the environment from any construction disturbance.
10. Slopes greater than 3:1 shall have erosion control netting installed to stabilize the slope and reduce erosion potential. Prepare soil surface, fertilize, lime, seed and mulch slopes as described in the following sections. Install netting over mulched slopes so that all parts are in contact with the soil and mulch.
11. Seed and mulch ditches and slopes with grades less than 2%. Place biodegradable matting and seed on ditches and slopes with grades between 2%

and 5%. Stone line all ditches with grades greater than 5%. Stone for lining shall be a minimum of Type I stone.

SECTION 620 TEMPORARY EROSION CONTROL

1. The Contractor shall install snow fence, silt fence, apply vegetative soil stabilization practices, spread protective layers of straw or hay mulch, terrace or scarify slopes, provide gravel inlet filters for storm drains and ditches, and employ other means, as directed by the Town of Milton or as recommended by the Soil Conservation Service or the Vermont Agency of Natural Resources to prevent erosion and to prevent highly turbid water from being discharged to streams and lakes. These preventive measures may involve construction of stream bypasses, sediment basins, cofferdams and other means.
2. Sites requiring de-watering during any period of construction shall provide sediment traps to ensure that the discharge water will not carry sediment off site.
3. A stabilized road entrance, for the purpose of preventing the tracking of sediment onto public rights-of-way, shall be located at all points where traffic will be accessing a construction site from a public right-of-way or street.
4. Stabilized road entrances shall consist of an eight (8) inch layer of 1 ½" to 4" stone. The stone pad shall extend the full width of the entrance and shall have a minimum length of fifty (50') feet. The stabilized road entrance shall be top dressed with additional stone if the existing stone becomes clogged with sediment.
5. Any disturbed site or stockpile, which remains or is to remain unworked for more than one month shall be seeded with an annual rye and mulched.
6. All erosion control measures shall be inspected weekly and repaired and replaced as needed. A record of inspections and maintenance including date and time of inspection, who conducted the inspection and any action taken will be maintained by the Contractor on site.
7. All erosion control measures shall be inspected after any storm event that produces one inch of precipitation in a twenty-four (24) hour period.
8. Straw mulch is subject to wind action. Mulch may require anchoring as weather conditions warrant. See Erosion and Sediment Control Best Management Practices Manual.
9. It shall be the responsibility of the Developer/Contractor, at his/her expense, to ensure that no dust is created as a result of any work associated with the

construction which would constitute a nuisance or safety hazard. The Developer shall wet sections of the construction area with water or apply calcium chloride or sweep the roadway with a wetted power broom as needed or when deemed necessary by the Town Engineer or designated representative. See Erosion and Sediment Control Best Management Practices Manual.

SECTION 630 MATERIALS

1. Grassed materials shall consist of fresh, clean, new crop seed complying with tolerance for purity and germination established by the Official Seed Analysts of North America. Seed mixture composed of grass species, in proportions and minimum percentages of purity and germination, shall be provided as specified. Seed that has become wet, moldy or otherwise damaged will not be acceptable. The grass seed requirements shall be provided as specified on the approved plans or by a professional landscape architect.
2. Lime shall consist of natural dolomitic limestone containing not less than eighty-five percent (85%) total carbonates with a minimum of thirty percent (30%) magnesium carbonates, ground so that not less than ninety percent (90%) passes a 10 mesh sieve and not less than fifty percent (50%) passes a 100 mesh sieve.
3. Provide fertilizer as recommended by soil test. Phosphorus free or phosphorus reduced fertilizers are encouraged.
4. Anti-erosion mulch for grassed areas shall be clean, mildew free straw, free from seed or other deleterious material. No hay is allowed. Erosion control netting shall be biodegradable non-welded matting with biodegradable staples. The use of commercial tactifiers, hydro mulch, or paper mulch shall to be applied at a rate of 29 Kg/ 1000 m², (64lb./1200 yd²).
5. When silt fence is required the geotextile shall meet Vermont Standard Specification 720.04A for silt fence.

SECTION 640 INSTALLATION

Seeding

1. Loosen subgrade to a minimum depth of four (4) inches. Remove stones over one and one half inch (1½") in any dimension and sticks, roots, rubbish, construction debris, and other extraneous matter. Limit preparation to areas, which will be seeded promptly after preparation.
2. Spread top soil (if applicable) to a minimum depth of six (6) inches (unless otherwise specified), and as required to meet lines, grades and elevations shown on the approved plans, after light rolling and natural settlement.
3. Add fertilizer as recommended by soil tests otherwise at a rate of ten (10) pounds per thousand (1,000) square feet and mix thoroughly into upper four inch (4") of topsoil and soil. Apply ground stone lime, unless otherwise specified, at a rate of fifty (50) pounds per one thousand (1,000) square feet.
4. Fine grade grass areas to smooth, even surface with loose uniformly fine texture. Roll, rake and drag lawn areas, remove ridges and fill depressions, as required to set finish grades. Limit fine grading to areas which can be planted immediately after grading.
5. Moisten prepared lawn areas before seeding if soil is dry. Water thoroughly and allow surface moisture to dry before seeding lawns. Do not create a muddy soil condition.
6. Restore lawn areas to specified condition if eroded or otherwise disturbed after fine grading and prior to seeding.
7. Sow seed using a mechanical spreader. Do not seed when wind velocity consistently exceeds five (5) miles per hour. Distribute seed evenly over the entire area by sowing equal quantity in two (2) directions at right angles to each other. Rake seed lightly into top one eighth inch (1/8") of topsoil, roll lightly and water with a fine spray.
8. Protect seeded areas against erosion by spreading mulch after completion of seeding operations. Spread uniformly to form a continuous blanket not less than one inch (1") and not more than three inch (3") loose measurement over seeded areas.
9. For hydroseeding a grass area, mix specified seed, fertilize and pulverized mulch

Town of Milton Public Works Specifications

in water, using equipment specifically designed for hydroseed application. Continue mixing until uniformly blended into homogenous slurry suitable for hydraulic application. Apply slurry uniformly to all areas to be seeded. Use a rate of application required to obtain specified seed sowing rate.

10. Seed mixtures shall be used that meet the required need of the material being seeded.

**Attachment No. 5 – Milton DPW
Specifications, Section 1400, Storm Drainage**

SECTION 1400 STORM DRAINAGE

SECTION 1410 GENERAL PROVISIONS

All work resulting in impervious surfaces of equal to or greater than one (1) acre shall comply with the latest edition of the State of Vermont Environmental Protection Rules and Stormwater Regulations and the latest Town of Milton ordinances and specifications.

Stormwater design for all development no matter the amount of impervious acreage developed shall be in compliance with the current edition of the Vermont Stormwater Management Manual including the requirement that the post-development peak discharge shall not exceed the pre-development peak discharge for the 10-year 24 hour storm event. A stormwater narrative with appropriate calculations to determine compliance shall be submitted to the Town Engineer for all development.

A professional engineer, registered in the State of Vermont, shall design all storm drainage systems in accordance with these Public Works Specifications. The Developer shall provide an engineer registered in the State of Vermont to oversee construction and to certify in writing to the Town that all construction was performed in compliance with these Public Works Specifications.

Storm drainage design drawings shall include plans and profiles indicating pipe sizes, slopes and inverts as well as catch basin sizes and invert elevations. All storm drainage systems shall be installed at the locations shown on the approved design drawings in accordance with the typical details.

Storm drainage system installation includes clearing and grubbing, excavation, installation, backfilling, compaction, restoration and soil erosion control.

Storage of pipe and materials shall be in accordance with the manufacturer's recommendations.

Utility or service lines encountered during construction shall be maintained at all times. Sewer, water and utility supply lines shall not be interrupted for any residence, business or other establishment, whether within or outside the construction limits.

All catch basin inlets within the Municipal Separate Storm Sewer System (MS4) boundary shall be marked by the Town: DUMP NO WASTE, DRAINS IN TO SURFACE WATER.

No work will be permitted within the Town right-of-way or on infrastructure to be dedicated to the Town after November 15 or before April 1. However, the Town reserves the right to restrict work before November 15 and after April 1 during adverse weather conditions.

SECTION 1420 DESIGN SPECIFICATIONS

Site designs shall minimize stormwater runoff and utilize pervious areas for stormwater treatment. The use of Buffers between development sites and any watercourse is required. Developments should try to maintain as natural flow off site as possible. (See Stormwater BMPs for watersheds with a high probable impact from changes in stormwater flows.)

Stormwater management shall generally be provided through a combination of structural and non-structural practices. Where practical and feasible, non-structural practices shall be incorporated into a site's design to reduce the reliance on structural practices.

The use of Low Impact Development techniques such as stormwater treatment islands in parking lots and rain gardens should be considered.

The design of all infiltration swales and basins shall include cold climate considerations such as overflows, design for infiltration beneath the frost layer, or storage of the entire 10 year design storm.

SECTION 1420 GEOMETRIC STANDARDS

All storm sewers shall have a minimum diameter of twelve (12") inches and roadway culverts shall have a minimum diameter of eighteen (18") inches.

Driveway aprons shall have HDPE or reinforced concrete culverts with a minimum diameter of eighteen (18") inches and a minimum length of 20 feet maximum 40 feet or as may otherwise be required by the highway access permit.

The minimum grade for swales and drainage ditches shall be 0.02 feet per linear foot. The minimum slope for storm drainage pipes and culverts shall be 0.5%.

Catch basin and drywell sumps shall be at least eighteen (18") inches.

Design standards for bridge and culvert structures shall be designed to meet a 25year storm event or Q-25 Standard.

Catch basins and grates shall not be placed in front of sidewalk ramps.

Roadside ditches and drainage swales shall be treated to minimize erosion and sediment damage. See Town of Milton Erosion and Sediment Control Best Management Practices. An erosion and sediment control plan is required under these Public Works Specifications.

Any culvert greater than or equal to thirty-six (36) inches in diameter will be designed according to the latest VTrans Hydraulics Manual. End Treatments (inlet and outlet) will also be evaluated in accordance with this manual.

All bridges (structures with spans greater than six (6') feet) will have waterway openings designed in accordance with the latest VTrans Hydraulics Manual.

SECTION 1430 MATERIALS

1. Pipe for Culverts

All culverts located within or used to convey stormwater within the Town of Milton shall be Corrugated Aluminum Alloy Pipe meeting VTrans Standard Specification for Construction 711.02 or Corrugated Polyethylene pipe meeting VTrans Standard Specification for Construction 710.03. Reinforced Concrete pipe meeting VTrans Standard Specification for Construction 710.01 and reinforced concrete pipe end sections 710.02. Loading for bridges and box culverts shall be H-25.

Stormwater culverts will require inlet and outlet protection. See Town of Milton Best Management Practices for Erosion and Sediment for greater detail.

2. Storm Drainage Pipe

Polyvinyl Chloride (PVC) pipe shall conform to Vermont Standard Specifications for Construction 710.06 and AASHTO-M278 for 4" to 15", ASTM F679 for 18" to 27". Polyethylene shall conform to Vermont Standard Specifications for Construction 710.03. Push-on elastic gaskets shall be used.

3. Manholes

Manholes and junction boxes for storm drainage systems shall be the same as those described in the Sanitary Sewer Specifications of these Public Works Specifications.

4. Catch Basins and Drywells

Catch basins shall be constructed of precast reinforced concrete and shall be able to withstand an H-20 loading.

Catch basins shall be sufficiently large to accept the required pipes with sufficient

Town of Milton Public Works Specifications

concrete between pipes and above and below each pipe to provide the required structural strength. Refer to Figures 18 through 20 of the standard details. Catch basins shall have a minimum 18" sump. The manufacturer's certification on the fabrication of the structures shall be provided prior to installation.

Pipe inlet and outlets for all structures shall be pre-cast with manufacturer installed rubber boots. If installing pipe in an existing catch basin the basin shall be cored and rubber boot installed.

Drywells for pipe up to eighteen (18") inches in diameter may be S. T. Griswold #530, or approved equal. For larger diameter pipe, four (4') foot manholes shall be required as described in the Sanitary Sewer Specifications of these Public Works Specifications.

5. Frames and Grates

Frames and grates shall be as generally described for manhole frames and covers as described in the Sanitary Sewer Specifications of these Public Works Specifications. However, storm manhole covers shall have the word "STORM" cast into the top surface in three inch letters.

Catch basin grates shall be cast iron of the size and type as shown on the Typical Details.

Roadway frames and grates shall be Neenah or Lebaron type approved by Town Engineer or designated representative.

Swale/ditch frames and covers shall be Neenah or Lebaron type "beehive" grates approved by Town Engineer or designated representative.

6. Pipe Bedding

Pipe bedding shall be as described in the Sanitary Sewer Specifications of these Public Works Specifications.

7. Stone for Ditches

Stone for drainage ditches shall be Type I stone fill. High velocity outflows will require Type II stone fill as required by the Town Engineer or designated representative. Check dams will be required to control water velocity.

SECTION 1440 INSTALLATION

Installation of underground storm drainage systems shall be the same as described in the Sanitary Sewer Specifications of these Public Works Specifications and conforming to VTrans Standard Specifications for Construction, latest edition.

In order to control erosion, headwalls, wingwalls, end sections, splash pads and plunge pools may be required at locations as required by the Town Engineer or designated representative.

In order to ensure proper drainage, driveway culverts within a development shall be installed only after ditches and swales have been constructed to the proper slope.

Seed and mulch ditches with grades less than 2%. Use biodegradable, non-welded matting and seed on ditches with grades between 2% and 5%. Stone line all ditches with grades greater than 5%; alternatively, install stone check dams. Dams should be comprised of a well graded stone matrix 2 to 9 inches in size. Dams should not exceed 2 feet in height and check dam crest should be at least 6" below the top of the ditch. Create parabolic (wide "U" shaped) ditches when constructing new or substantially reconstructing ditches, rather than narrow "V" shaped ditches. Ditches with gradual side slopes (maximum 2H: 1V ratio) and a wide bottom (at least 2 feet) are preferred. Use biodegradable, non-welded matting to stabilize side-slopes where slopes are greater than 1:1; apply seed and mulch to any raw or exposed side-slope if slopes are less than or equal to 1:1. Ditches should be turned out to avoid direct outlet into surface waters. There must be adequate outlet protection at the end of the turnout, either a structural (rock) or vegetative filtering area.

Trenches shall be as described in the Sanitary Sewer Section of these Public Works Specifications.

SECTION 1450 TESTING

Storm drainage systems shall be visually inspected after the system has been cleaned and flushed. Catch basins shall be cleaned at the end of the warranty period.