



CITY OF ST. ALBANS
MS4 PHASE II
STORM WATER MANAGEMENT PROGRAM
GENERAL PERMIT 3-9014 (2012)

Amended: September 29, 2016

Table of Contents

1. Permit Reference and SWMP Certification	2
2. Permit Requirements.....	2
3. Minimum Control Measures	7
MCM 1. Public Education and Outreach on Storm Water Impacts	8
MCM 2. Public Involvement/Participation	14
MCM 3. Illicit Discharge Detection and Elimination	18
MCM 4. Construction Site Storm Water Runoff Control	24
MCM 5. Post-Construction Storm Water Management in New Development and Redevelopment	27
MCM 5A. Managed Stormwater Treatment Facilities.....	31
MCM 6. Pollution Prevention/Good Housekeeping for Municipal Operations	31
4. Monitoring, Record Keeping and Reporting	37
5. List of Amendments.....	38
Appendix A. Rugg Brook Flow Restoration Plan	39
Appendix B. Stevens Brook Flow Restoration Plan.....	40

1. Permit Reference and SWMP Certification

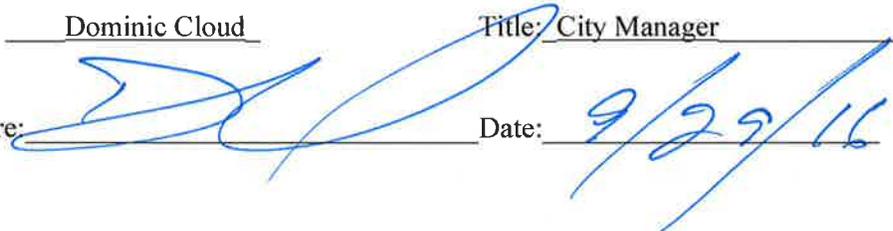
Permit Section III. STORMWATER MANAGEMENT PROGRAM

The City of St. Albans (permittee) must develop a written stormwater management program (SWMP) and the SWMP must be signed in accordance with Section VI.H. of this Permit. The SWMP shall provide measureable goals for the development and implementation of the six minimum control measures described in Subparts IV.F and G and additional measures necessary to protect water quality described in Part IV. The permittee's approved Flow Restoration Plan developed in accordance with Subpart IV.C.1 shall be considered a part of the permittee's SWMP.

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly 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 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."

Name: Dominic Cloud

Title: City Manager

Signature: 

Date: 9/29/16

2. Permit Requirements

Permit Section IV. DISCHARGE REQUIREMENTS

Permit Section C. Discharges to Impaired Waters

Impaired waters are those waters that the Secretary has identified pursuant to Section 303(d) of the Clean Water Act as not meeting the Vermont Water Quality Standards. Impaired waters encompass both those with approved Total Maximum Daily Loads (TMDLs), and those for which TMDL development has been identified as necessary, but for which a TMDL has not yet been approved by the Secretary or EPA.

Stormwater impaired waters include those waters that the Secretary has listed as impaired primarily due to stormwater runoff on the EPA-approved State of Vermont 303(d) List of Waters.

1. *Discharges to Impaired Waters with an Approved TMDL*

- a) *For any discharge from the small MS4 to impaired waters with an approved TMDL, the permittee shall comply with Subpart IV.C. of this permit. For the purposes of this permit, an “approved TMDL” is a TMDL that has been approved by EPA as of the effective date of this permit. The permittee shall control discharges consistent with the assumptions and requirements of any wasteload allocation (WLA) applicable to the permittee in the TMDL. The permittee shall describe in the SWMP all measures that are being used to address this requirement.*

Stevens Brook (VT05-07) is listed as impaired in the Town and City of St. Albans, and has an EPA approved TMDL dated October 2008 to Address Biological Impairment. The stormwater impaired portion of the stream extends from river mile 6.8, at Pearl Street in St. Albans up to river mile 9.3. The designated impairment is due to non-support of aquatic designated uses. Since all tributaries and the upstream main stem drain to the impaired lower portion of the stream, the entire Stevens Brook watershed upstream from river mile 5.8 is considered to contribute to the impairment. The source of the impairment is multiple impacts associated with excess stormwater runoff.

Rugg Brook (VT05-07) is listed as impaired with the majority of the impaired portion located in the Town of St. Albans with extent portions located in the City of St. Albans and Towns of Fairfield and Georgia. Rugg Brook has an EPA approved TMDL dated October 2008 to Address Biological Impairment. The stormwater impaired reach extends from river mile 3.1 and extends upriver 1.6 miles. The designated impairment is due to non-support of aquatic life designated uses. Since all tributaries and the upstream main stem drain to the impaired lower portion of the stream, the entire Rugg Brook watershed upstream from river mile 3.1 is considered to contribute to the impairment. The source of the impairment is multiple impacts associated with excess stormwater runoff.

- e) *For those small MS4s that discharge to stormwater-impaired waters with EPA-approved TMDLs the permittee shall comply with the following requirements:*

- (1) *The permittee shall develop and submit a comprehensive Flow Restoration Plan (FRP) for the portion of each stormwater-impaired watershed within the permittee’s boundaries. Permittees that discharge into the same stormwater-impaired watershed may elect to cooperate to develop a single FRP for the watershed. The FRP shall be submitted to the Secretary no later than three years after the date of issuance of an authorization to discharge to the permittee under this general permit.*

Through an Ecosystem Restoration grant, the City started the Stevens Brook Flow Restoration planning in November 2012 to develop a draft flow restoration plan

based on the targets included in the EPA approved TMDL plan. This project is a joint collaboration between all of the impervious area owners in the watershed; the City of St. Albans, Town of St. Albans and Vermont Agency of Transportation. The project outcome will be a draft restoration flow plan which will include an inventory and assessment of existing BMPs in the watershed, and optimized solution for proposed BMPs to meet the flow restoration targets in the Stevens Brook TMDL. This planning is underway and will comply with the FRP Schedule of Compliance outlined on Page 3.

On behalf of the Town and City of St. Albans, the Northwest Regional Planning Commission (NRPC) submitted a request in August 2013 to the Vermont Agency of Transportation for partial funding for the Rugg Brook Flow Restoration Plan (FRP). Once the funding request is approved, the timeline will be finalized and comply with the FRP Schedule of Compliance on Page 3 below.

***Stevens Brook and Rugg Brook
FRP Schedule of Compliance***

Month 3	Submit to the Secretary for approval a plan for meeting the requirements of IV.C.1(e)(7) (flow monitoring plan).
Month 6	Submit to the Secretary for approval a plan for addressing expired state stormwater permits discharging to the permittee's MS4 system. This plan may include a request to the Secretary to exercise its Residual Designation Authority (RDA) pursuant to Clean Water Act §§402(p)(2)(E) and (6) and 40 C.F.R. § 122.26 (a)(9)(i)(C) and (D) to require NPDES permits for stormwater systems with expired state stormwater permits. The permittee's plan for addressing the expired permits shall insure that all permitted facilities demonstrate compliance with the existing expired permit, at a minimum, and insure that these facilities are incorporated into the FRP.
Month 12	Submit semi-annual report*
Month 18	Submit semi-annual report*
Month 24	Submit a report verifying that all existing stormwater systems with expired permits are now in compliance with the existing expired permit or subject to a NPDES RDA permit, including verification that all required maintenance has been performed.
Month 30	Submit semi-annual report*
Year 3	Submit a complete FRP to the Secretary for approval.
Month 43 and every 6 months thereafter	Submit semi-annual report*
Date specified in FRP approval (not to exceed 20 years)	Complete implementation of the approved FRP

*The permittee shall submit a report on a semi-annual basis on the permittee's development and implementation of the FRP. The report shall address actions taken to implement all FRP components, including the extent of BMP implementation, an estimate of the extent of completion for remaining items, and an assessment of the ability to meet outstanding schedule items. The FRP report shall include a written statement signed by a designer that any BMP built or implemented within the preceding 6 month period was constructed in compliance with the approved plans. The permittee shall include in each FRP report an estimate of any associated reductions in phosphorus loading that occur as a result of implementation measures undertaken by the permittee to meet the flow reduction targets.

(4) Commencing two years after the issuance of an authorization or designation as a regulated small MS4, the permittee shall develop a program to identify opportunities for and provide technical assistance to landowners in the implementation by landowners of low impact BMPs such as maximizing disconnection, maximizing infiltration of stormwater runoff, preventing and eliminating soil erosion, and preventing and eliminating the delivery of pollutants to stormwater conveyances.

Over the past few years, the City has implemented several LID projects with porous asphalt sidewalks, cisterns, and rain gardens. The City plans to use the credit from these constructed projects in the Flow Restoration planning for Stevens Brook. The City began the process of assessing the Land Development Regulations in the context of Low Impact Development prior to the MS4 Phase II permit. The Northwest Regional Planning Commission (NRPC) completed an assessment of the LID best management practices in July 2012, and their effort included the following:

1. Assess the City's Land Development Regulations, looking at barriers to and opportunities for incorporating LID;
2. Review how LID best management practices (BMPs) are undertaken in similar municipalities, and
3. Make recommendations about how LID best management practices could be incorporated into the City's Development Regulations to meet the goals of improving stormwater management and infiltration, and ultimately, water quality.

Recommendations from this LID assessment are:

- The City should consider incentives for LID as part of the policy development process related to stormwater management. Some examples of credits for consideration are; model LID bylaws, environmentally sensitive development, disconnection of rooftop runoff, disconnection of non-rooftop runoff, stream buffers, and grass channels.

Next steps for the LID assessment are:

- These recommendations should be evaluated and implemented through the MS4 permitting process after planning staff has reviewed the recommendations with the planning commission, prioritized the items to address, and determined how they will be funded.

(5) Commencing two years after the issuance of an authorization or designation as a regulated small MS4, the permittee shall prepare and submit to the Agency a report on the legal authorities or strategies that the permittee has adopted to protect and regulate development in the stream corridors of stormwater impaired waters.

Two years after the issuance of an authorization as a regulated small MS4, the City will submit to the Agency a report on the legal authorities or strategies that the City has adopted for enhanced protection and regulation of development in the Stevens Brook stream corridors.

- (6) *Commencing two years after the issuance of an authorization or designation as a regulated small MS4, the permittee shall prepare and submit a plan for outlining options for enhanced protection of stream corridors of stormwater impaired waters. The plan should include a map of stream corridors depicting areas that have been converted to impervious surface. In preparing this plan, the permittee should review riparian buffer and stream fluvial geomorphological information provided to the permittee by the Agency as a result of the Agency's preparation of stormwater TMDLs.*

Based on the riparian buffer and geomorphological information that will be developed for the Stevens Brook stream corridor, the City will evaluate the establishment of minimum widths of stream channel buffers and setback requirements to enhance protection of the stream corridor.

For those areas where the stream corridor has been developed with impervious surfaces, options for corridor restoration will be considered.

- (7a) *The permittee shall implement, or otherwise fund, a flow and precipitation monitoring program, subject to approval by the Secretary, in its respective stormwater impaired watersheds.*

The City of St. Albans will collaborate with the Town of St. Albans to implement the flow and precipitation monitoring program of the Stevens Brook and Rugg watershed in proportion with the area of impaired watershed within the City boundary. The SWMP will be amended to include this information once the State has determined how the monitoring program will be managed and implemented.

2. *Discharges to Impaired Waters without an Approved TMDL*

If a small MS4 discharges to an impaired water that is without an approved TMDL, the permittee shall comply with Part IV of this permit and address in its SMWP and annual reports how any discharges that have the potential to cause or contribute to the impairment will be controlled so that they do not cause or contribute to the impairment. A small MS4 may achieve an increased level of control through additional BMPs or enhancement of existing BMPs. This plan shall be designed as an iterative process. The content of the response plan should reflect the magnitude and complexity of the impairment and the permittee's potential to contribute to the impairment. This 60 day period does not constitute a grace period for purposes of enforcement of water Quality Standards or this permit.

Both of the impaired watersheds in the City of St. Albans have approved TMDL's so this requirement doesn't currently apply. However, with the EPA disapproval of the Vermont portion of the Lake Champlain Phosphorus TMDL in 2011, a new TMDL is being developed and changes could impact the EPA approved Stevens Brook and Rugg Brook TMDL's. This requirement will be addressed at a later date if changes in the plan are required.

3. Minimum Control Measures

Permit Section G. Requirements to Reduce Pollutants to the Maximum Extent Practicable – “The Six Minimum Measures”

1. *The City will develop, implement, and enforce a Storm Water Management Program (SWMP) designed to reduce the discharge of pollutants from the small MS4 to the maximum extent practicable (MEP), to protect water quality, and to satisfy the appropriate water quality requirements of the Clean Water Act. For purposes of this permit, narrative effluent limitations requiring implementation of best management practices (BMPs) are the most appropriate form of effluent limitations when designed to satisfy technology requirements (including reductions of pollutants to the maximum extent practicable) and to protect water quality. Implementation of best management practices for the purposes of the six minimum measures consistent with the provisions of the SWMP constitutes compliance with the standard of reducing pollutants “maximum extent practicable”.*
2. *The City will develop and fully implement its SWMP for the six minimum measures in accordance with this permit by the expiration date of this permit. Nothing in this schedule is intended to relieve the permittees previously authorized under the MS4 General Permit from continuing to implement the six minimum measures as previously authorized. The SWMP must include the following information for each of the six minimum control measures described in Subpart IV.G. of this permit:*
 - a. *The person or persons responsible for implementing or coordinating the BMP's for the SWMP.*
 - b. *The best management practices (BMP's) that the permittee or another entity will implement for each of the stormwater six minimum measures.*
 - c. *The measurable goals for each of the BMP's including, as appropriate, the months and years in which the required actions will be undertaken, including interim milestones and the frequency of the action.*
3. *In addition to the requirements listed above, the City has provided a rationale for how and why it selected each of the BMP's and measurable goals for the SWMP.*

Permit Section H. Minimum Control Measures

The six (6) minimum control measures included in the City of St. Albans SWMP are:

1. Public Education and Outreach on Storm Water Impacts
2. Public Involvement/Participation
3. Illicit Discharge Detection and Elimination
4. Construction Site Storm Water Runoff Control
5. Post-Construction Storm Water Management in New Development and Redevelopment
6. Pollution Prevention/Good Housekeeping for Municipal Operations

MCM 1. Public Education and Outreach on Storm Water Impacts

The permittee will develop a public education program that aims to increase awareness of the direct links between land activities, rainfall-runoff, storm drains, and their local water resources. This program shall give the public clear guidance on steps and specific actions that they can take to reduce pollutants in their stormwater and explain solutions for reducing the amount of runoff reaching state waterways.

The multifaceted campaign will include both paid and unpaid media, with an overall goal of increasing awareness and understanding of stormwater runoff pollution, prevention methods, and the connection between stormwater runoff and water quality.

Permit Requirement: The permittee must:

a) A permittee must implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of stormwater discharges on water bodies. The program shall include the steps that the public can take to reduce pollutants in stormwater runoff including an explanation of the problem of stormwater volume and solutions for reducing the amount of runoff volume reaching waters of the state. At a minimum, the permittee must:

- (1) Maintain on its own or in cooperation with other small MS4s a web site with locally relevant stormwater management information and promote its existence, and:*
- (2) Participate in a regional stormwater education and outreach strategy described in the March 10, 2008 memorandum of agreement between the designated MS4's, the Chittenden County Regional Planning Commission and the Vermont Agency of Natural Resources, or subsequent amendment approved by the Secretary, or*
- (3) In another regional stormwater education strategy if approved by the Agency, or*
- (4) Submit a plan based on the EPA guidance documents*
- (5) Undertake the following activities:*
 - (a) Develop or acquire informational brochures relevant to local stormwater concerns.*
 - (b) Distribute stormwater related brochures at least twice in the first year and once in subsequent years. Distribution must be town-wide for municipalities.*

- (c) *Seek the cooperation of the local news media to run two or more stormwater-related news or feature stories per year.*
- (d) *For municipalities: develop elementary, middle school or high school education materials or curricula regarding local stormwater concerns based on new or existing material; conduct teacher training in at least 4 schools and in each subsequent year maintain program information and hold at least one refresher teacher training course*

Rationale. The best management practices listed in Table 1.1 are required for this minimum control measure to comply with the permit requirements. The City plans to participate in a Regional Stormwater Education Plan with individual BMP’s, measurable goals, and responsible party for the program. The rationale is described in the following narratives.

Table 1.1 Public Education and Outreach on Storm Water Impacts Selected Best Management Practices

BMP ID #	Best Management Practice (BMP)
1-1	Maintain stormwater website.
1-2,3,4	Participate in RSEP
1-5a	Develop or acquire informational brochures
1-5b	Distribute stormwater brochures 2 times in first year and 1 time in subsequent years
1-5c	Seek local news media to run at least 2 news or feature stories per year
1-5d	Develop school materials and teacher trainings

The City will develop and maintain a website, in cooperation between the Town of St. Albans and the City of St. Albans as designated small MS4s, with locally relevant stormwater management information and promote its existence and use.

The City will execute an MOU between the Town of St. Albans and City of St. Albans as designated small MS4s and the Northwest Regional Planning Commission that outlines the regional stormwater education and outreach strategy (RSEP) to be approved by the Agency of Natural Resources. This regional stormwater education and outreach strategy will follow the guidance provided in the following EPA identified documents:

- Fact Sheet 2.3, Stormwater Phase II Final Rule, Public Education and Outreach Minimum Control Measure (January, 2000), <http://www.epa.gov/npdes/pubs/fact2-3.pdf>;

- National Menu of Best Management Practices for NPDES Stormwater Phase II, <http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm>;
- Measurable Goals Guidance for Phase II Small MS4s, <http://cfpub.epa.gov/npdes/stormwater/measurablegoals/index.cfm>, and

Through the RSEP, the City will undertake the following activities:

- a. Develop or acquire informational brochures relevant to local stormwater concerns;
- b. Distribute stormwater related brochures in both municipalities. They will be distributed at a minimum twice in the first year and once in subsequent years.
- c. Coordinate with the St. Albans Messenger and other local news media to run two or more stormwater-related news, advertisements, or feature stories per year. The media outreach will aim for spring and fall timelines and will include information on key messages on stormwater runoff and stormwater systems, tips on prevention methods related to soil and lawn care (fertilizer/chemicals) and home construction erosion or debris and auto care.
- d. Develop or acquire education materials or curricula regarding local stormwater concerns based on new or existing material; conduct meeting(s) with teachers in area schools annually.

The City will also conduct the following supplemental activities:

- a. Inventory existing stream signs at various locations through the municipality where the stream is visible from the development. The purpose of these signs is to make the public aware of its “watershed address” and foster a better understanding of the streams located in municipality(s).

Implementation Plan. The implementation schedule for each BMP is provided in Table 1.2, and includes the designation of the responsible party.

Measurable Goals. The measurable goals for each BMP were selected to evaluate the success of this minimum control measure and are described in Table 1.2.

Table 1.2 Public Education and Outreach on Storm Water Impacts Implementation Schedule and Measurable Goals

Schedule	BMP ID #	Best Management Practice	Responsible Party	Measurable Goals
Year 1	1-1	Maintain stormwater website	Planning Director/Northwest Regional Planning Commission (NRPC)/RSEP	Develop website and content.
	1-2,3,4	Participate in RSEP	Planning Director	Establish Franklin County Stormwater Education Program (FC RSEP)
	1-5a	Develop or acquire information brochures	RSEP	Develop brochures.
	1-5b	Distribute stormwater brochures	RSEP	Number of brochures distributed
	1-5c	Seek local news media to run new or feature stories	RSEP	Number of media buys and/or stories run.
	1-5d	Develop school materials and teacher meetings	RSEP	Initial contacts with teachers and school districts.
Year 2	1-1	Maintain stormwater website	Planning Director/ RSEP	Perform annual updates and document number of contacts and feedback to website
	1-2,3,4	Participate in RSEP	Planning Director	Maintain RSEP membership and activities.
	1-5a	Develop or acquire information brochures	RSEP	Update brochures as necessary
	1-5b	Distribute stormwater brochures	RSEP	Number of brochures distributed
	1-5c	Seek local news media to run new or feature stories	RSEP	Number of media buys and/or stories run.
	1-5d	Develop school materials and teacher meetings	RSEP	Development of materials and first meetings with teachers.

Table 1.2 Continued
Public Education and Outreach on Storm Water Impacts
Implementation Schedule and Measurable Goals

Schedule	BMP ID #	Best Management Practice	Responsible Party	Measurable Goals
Year 3	1-1	Maintain stormwater website	Planning Director/ RSEP	Perform annual updates and document number of contacts and feedback to website
	1-2,3,4	Participate in RSEP	Planning Director	Maintain RSEP membership and activities.
	1-5a	Develop or acquire information brochures	RSEP	Update brochures as necessary
	1-5b	Distribute stormwater brochures	RSEP	Number of brochures distributed
	1-5c	Seek local news media to run new or feature stories	RSEP	Number of media buys and/or stories run.
	1-5d	Develop school materials and teacher meetings	RSEP	Update of materials as necessary. Teacher meetings and attendance. Teacher input on use in classroom.
Year 4	1-1	Maintain stormwater website	Planning Director/ RSEP	Perform annual updates and document number of contacts and feedback to website
	1-2,3,4	Participate in RSEP	Planning Director	Maintain RSEP membership and activities.
	1-5a	Develop or acquire information brochures	RSEP	Update brochures as necessary
	1-5b	Distribute stormwater brochures	RSEP	Number of brochures distributed
	1-5c	Seek local news media to run new or feature stories	RSEP	Number of media buys
	1-5d	Develop school materials and teacher meetings	RSEP	Update of materials as necessary. Teacher meetings and attendance. Teacher input on use in classroom.

Table 1.2 Continued
Public Education and Outreach on Storm Water Impacts
Implementation Schedule and Measurable Goals

dule	BMP ID #	Best Management Practice	Responsible Party	Measurable Goals
5	1-1	Maintain stormwater website	Planning Director/ RSEP	Perform annual updates and document number of contacts and feedback to website
	1-2,3,4	Participate in RSEP	Planning Director	Maintain RSEP membership and activities.
	1-5a	Develop or acquire information brochures	RSEP	Update brochures as necessary
	1-5b	Distribute stormwater brochures	RSEP	Number of brochures distributed
	1-5c	Seek local news media to run new or feature stories	RSEP	Number of media buys and/or stories run.
	1-5d	Develop school materials and teacher meetings	RSEP	Update of materials as necessary. Teacher meetings and attendance. Teacher input on use in classroom.

MCM 2. Public Involvement/Participation

Permit Requirement: The permittee must;

- a) *Implement a public involvement/participation program, which at a minimum, complies with State and local public notice requirements, and includes at least three of the following:*
- (1) Form a citizen advisory panel.*
 - (2) Establish or support a water quality monitoring program involving citizen volunteers.*
 - (3) Institute an on-going public workshop series on stormwater awareness.*
 - (4) Institute a continuing storm drain stenciling project.*
 - (5) Sponsor periodic community stream corridor clean-up days.*
 - (6) Establish and support a citizen “stormwater watch” group.*
 - (7) Create or support an “adopt-a-stream” program.*
 - (8) Undertake a program similar in content and scope to the above with the permission of the Secretary.*

Rationale. The best management practices listed in Table 2.1 are required for this minimum control measure to comply with the permit requirements. The City plans to conduct the public involvement/participation by participating in a Regional Stormwater Education Plan with individual BMP’s, measurable goals, and responsible party for the program. The rationale is described in the following narratives.

Table 2.1 Public Involvement/Participation Selected Best Management Practices

BMP ID #	Best Management Practice (BMP)
2-9	Participate in regional stormwater participation program
2-3	Institute in on-going public workshop series on stormwater awareness
2-4	Institute a continuing storm drain stenciling project
2-5	Sponsor periodic community stream corridor clean-up days

The following three BMPs were selected by the City:

1. *Institute an On-going Public Workshop Series on Stormwater Awareness.* The City will work with existing local/regional organizations to conduct workshops that cover topics on targeted stormwater messages mentioned above as well as an understanding of the connection with impervious area and water quality.
2. *Institute a Storm Drain Stenciling Project.* The City will undertake an effort to inventory storm drains and upon completion will start a storm drain stenciling or marker project. This effort will work with local/regional organizations and/or schools to assist with the application of the stenciling in the community.

3. *Sponsor Periodic Community Stream Corridor Clean-up Day(s).* At minimum an annual community clean-up event will be coordinated; this event may coincide with the annual Green-Up Day in May. This event would target different stream reaches every year.

Implementation Plan. The implementation schedule for each BMP is provided in Table 2.2, and includes the designation of the responsible party.

Measurable Goals. The measurable goals of each BMP were selected to evaluate the success of this minimum control measure and are described in Table 2.2.

Table 2.2 Public Involvement/Participation Implementation Schedule and Measurable Goals

Schedule	BMP ID #	Best Management Practice	Responsible Party	Measurable Goal
Year 1	2-9	Participate in regional stormwater participation program	Planning Director/ NRPC	Establish Franklin County Stormwater Education Program (FC RSEP)
	2-3	Institute an on-going public workshop series on stormwater awareness	Planning Director/ NRPC	Develop workshop series.
	2-4	Institute a continuing storm drain stenciling project	Planning Director/ NRPC	Inventory storm drains to be stenciled/marked.
	2-5	Sponsor periodic community stream corridor “clean-up” days	Planning Director/ NRPC	Develop network for volunteer efforts.
Year 2	2-9	Participate in regional stormwater participation program	Planning Director/ NRPC	Maintain RSEP membership and activities.
	2-3	Institute an on-going public workshop series on stormwater awareness	Planning Director/ NRPC	Number of programs offered and participants at workshops
	2-4	Institute a continuing storm drain stenciling project	Planning Director/ NRPC	Procure stencils/markers.
	2-5	Sponsor periodic community stream corridor “clean-up” days	Planning Director/ NRPC	Number of participants and nature of material removed
Year 3	2-9	Participate in regional stormwater participation program	Planning Director/ NRPC	Maintain RSEP membership and activities.
	2-3	Institute an on-going public workshop series on stormwater awareness	Planning Director/ NRPC	Number of programs offered and participants at workshops
	2-4	Institute a continuing storm drain stenciling project	Planning Director/ NRPC	Number of storm drains stenciled or markers in place
	2-5	Sponsor periodic community stream corridor “clean-up” days	Planning Director/ NRPC	Number of participants and nature of material removed

Table 2.2 Continued
Public Involvement/Participation
Implementation Schedule and Measurable Goals

Schedule	BMP ID #	Best Management Practice	Responsible Party	Measurable Goal
Year 4	2-9	Participate in regional stormwater participation program	Planning Director/ NRPC	Maintain RSEP membership and activities.
	2-3	Institute an on-going public workshop series on stormwater awareness	Planning Director/ NRPC	Number of programs offered and participants at workshops
	2-4	Institute a continuing storm drain stenciling project	Planning Director/ NRPC	Number of storm drains stenciled or markers in place
	2-5	Sponsor periodic community stream corridor “clean-up” days	Planning Director/ NRPC	Number of participants and nature of material removed
Year 5	2-9	Participate in regional stormwater participation program	Planning Director/ NRPC	Maintain RSEP membership and activities.
	2-3	Institute an on-going public workshop series on stormwater awareness	Planning Director/ NRPC	Number of programs offered and participants at workshops
	2-4	Institute a continuing storm drain stenciling project	Planning Director/ NRPC	Number of storm drains stenciled or markers in place
	2-5	Sponsor periodic community stream corridor “clean-up” days	Planning Director/ NRPC	Number of participants and nature of material removed

MCM 3. Illicit Discharge Detection and Elimination

Permit Requirement: The permittee must:

- (1) Develop, implement and enforce a program to detect and eliminate illicit discharges into its small MS4;*
- (2) Develop and maintain a storm sewer geographic (GIS) or AutoCAD map of the small MS4, showing the location of all outfalls and the names and location of all waters of the State and waters of the United States that receive discharges from these outfalls;*
- (3) To the extent allowable under State or local law, effectively prohibit, through ordinance, or other regulatory mechanism, non-stormwater discharges into the permittee's storm sewer system and implement appropriate enforcement procedures and actions;*
- (4) Develop and implement a plan to detect and address non-stormwater discharges, with emphasis on outfalls in the stormwater impaired watershed(s) and random illegal dumping to the system;*
- (5) Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste;*
- (6) Address the following categories of non-stormwater discharges or flows (i.e., illicit discharges) only if the permittee identifies them as significant contributors of pollutants to the small MS4: waterline flushing, landscape irrigation, diverted stream flows, rising groundwaters, 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, flows from riparian habitats and wetlands, and discharges from fire-fighting activities.*
- (7) Provide the Secretary with an annual status report of monitoring activities conducted and corrective actions taken.*

Rationale. The best management practices listed in Table 3.1 are required for this minimum control measure to comply with the permit requirements. The City plans to continue an overall illicit discharge detection and elimination program with individual BMPs, measurable goals, and responsible party for the program. The rationale is described in the following narratives.

Table 3.1 Illicit Discharge Detection and Elimination Selected Best Management Practices

BMP ID #	Best Management Practice (BMP)
3-1	Develop and enforce a program to detect and eliminate illicit discharges
3-2	Update the stormwater system mapping
3-3	Develop and enforce illicit discharge ordinance
3-4	Enforce the ordinance to address illicit discharge connections
3-5	Inform public of illicit discharge and disposal hazards
3-6	Address specific categories of illicit discharges, if necessary
3-7	Prepare annual report of monitoring and corrective actions taken

In 2008, the City began an update of the stormwater and combined sewer system mapping to document existing infrastructure. This inventory included the physical location of each drainage manhole and catch basin using mobile global positioning (GPS) unit with sub-meter accuracy. Each catch basin was then inspected from ground surface to observe the condition, verify pipe sizes, materials and direction of flow. A total 1,045 drainage manholes and catch basins were located.

Once the inventory was done, storm sewer maps were prepared with GIS layers that show drainage manholes, catch basins, outfalls, and pipelines on the maps. An overall base map was prepared and divided into 12 smaller subareas for ease of use. These maps were provided in ArcGIS format to the City and Northwest Regional Planning Commission (NRPC) for use in ongoing management and prioritization of maintenance and repairs.

Follow-up work included continued dye and smoke testing at eight locations to verify the points of discharge, and in the summer 2009, delineation of the drainage subareas to exclude the non-separated areas was performed with the assistance of the NRPC.

In 2012, an Illicit Discharge Detection and Elimination Study was performed for the City of St. Albans funded by the State Ecosystem Restoration Program. At least 12 confirmed or suspected illicit discharges were identified and flagged for elimination. An additional 9 outfalls were classified as a potential concern and were recommended for further investigation.

As a continuation of the 2012 work an advanced Illicit Discharge Detection and Elimination Study is ongoing of approximately sixteen (16) locations in the City. This additional work is funded through the State Ecosystem Restoration Program and is scheduled to be completed in February 2014.

The City currently uses the existing Sewer Use and Allocation Ordinance for enforcement to prohibit illicit discharges. Development of a program and ordinance to eliminate illicit discharges will be evaluated.

The existing plan for identification of illicit discharges is to notify the owner of the violation, provide a timeframe for correction, and follow-up to ensure corrective actions were taken. This program approach will be modified with the development and adoption of an ordinance.

The City will inform the public employees, businesses, and general public of the Ordinance and provide updates on the City website. Training of employees is described under minimum control measure 6.

The management and implementation of the program is the responsibility of the Public Works Director and Superintendent. An annual status report of the IDDE monitoring activities conducted and corrective actions will be submitted to the Agency as part of the MS4 annual report. This report will be organized to address specific categories of illicit discharges.

Implementation Plan. The implementation schedule for each BMP is provided in Table 3.2, and includes the designation of the responsible party.

Measurable Goals. The measurable goals for each BMP were selected to evaluate the success of this minimum control measure and are described in Table 3.2.

Table 3.2 Illicit Discharge Detection and Elimination Implementation Schedule and Measurable Goals

Schedule	BMP ID #	Best Management Practice	Responsible Party	Measurable Goal
Year 1	3-1	Continue monitoring program to detect illicit discharges	PW Director	Develop plan for discharge detection, inventory and result tracking.
	3-2	Update the stormwater system mapping	Planning Director/ NRPC	Inventory map materials and develop update methodology.
	3-4	Develop an illicit discharge detection plan	PW Director	Development of an illicit discharge detection plan.
	3-5	Inform public of illicit discharge and disposal hazards	PW Director	Develop public education materials and methods.
	3-6	Address specific categories of illicit discharges, if necessary	Planning Director/ PW Director	Document illicit discharges and categorize types to determine trends
	3-7	Prepare annual report of monitoring and corrective actions taken	Planning Director/ PW Director	Submit IDDE information with annual MS4 report
	Year 2	3-1	Continue monitoring program to detect illicit discharges	PW Director
3-2		Update the stormwater system mapping	Planning Director/ NRPC	Complete annual update of mapping
3-3		Review existing ordinances for illicit discharge ordinance	Planning Director/ PW Director	Complete review of existing ordinances
3-4		Develop an illicit discharge detection plan	PW Director	Continue IDDE program and document illicit discharges in Stevens and Rugg Brooks
3-5		Inform public of illicit discharge and disposal hazards	PW Director	Continue general public education efforts regarding IDDE
3-6		Address specific categories of illicit discharges, if necessary	Planning Director/ PW Director	Document illicit discharges and categorize types to determine trends
3-7		Prepare annual report of monitoring and corrective actions taken	Planning Director/ PW Director	Submit IDDE information with annual MS4 report

Table 3.2 Continued
Illicit Discharge Detection and Elimination
Implementation Schedule and Measurable Goals

Schedule	BMP ID #	Best Management Practice	Responsible Party	Measurable Goal
Year 3	3-1	Continue monitoring program to detect illicit discharges	PW Director	Number of illicit discharges detected and corrective actions to be taken
	3-2	Update the stormwater system mapping	Planning Director/ NRPC	Complete annual update of mapping
	3-3	Draft an illicit discharge ordinance	Planning Director/ PW Director	Complete draft of ordinance
	3-4	Develop an illicit discharge detection plan	PW Director	Continue IDDE program and document illicit discharges in Stevens and Rugg Brooks
	3-5	Inform public of illicit discharge and disposal hazards	PW Director	Continue general public education efforts regarding IDDE
	3-6	Address specific categories of illicit discharges, if necessary	Planning Director/ PW Director	Document illicit discharges and categorize types to determine trends
	3-7	Prepare annual report of monitoring and corrective actions taken	Planning Director/ PW Director	Submit IDDE information with annual MS4 report
Year 4	3-1	Continue monitoring program to detect illicit discharges	PW Director	Number of illicit discharges detected and corrective actions to be taken
	3-2	Update the stormwater system mapping	Planning Director/ NRPC	Complete annual update of mapping
	3-3	Adopt an illicit discharge ordinance	Planning Director/ PW Director	Adopt ordinance
	3-4	Develop an illicit discharge detection plan	PW Director	Continue IDDE program and document illicit discharges in Stevens and Rugg Brooks
	3-5	Inform public of illicit discharge and disposal hazards	PW Director	Continue general public education efforts regarding IDDE
	3-6	Address specific categories of illicit discharges, if necessary	Planning Director/ PW Director	Document illicit discharges and categorize types to determine trends
	3-7	Prepare annual report of monitoring and corrective actions taken	Planning Director/ PW Director	Submit IDDE information with annual MS4 report

Table 3.2 Continued
Illicit Discharge Detection and Elimination
Implementation Schedule and Measurable Goals

Schedule	BMP ID #	Best Management Practice	Responsible Party	Measurable Goal
Year 5	3-1	Continue monitoring program to detect illicit discharges	PW Director	Number of illicit discharges detected and corrective actions to be taken
	3-2	Update the stormwater system mapping	Planning Director/ NRPC	Complete annual update of mapping
	3-3	Enforce illicit discharge ordinance	Planning Director/ PW Director	Implement ordinance
	3-4	Develop an illicit discharge detection plan	PW Director	Continue IDDE program and document illicit discharges in Stevens and Rugg Brooks
	3-5	Inform public of illicit discharge and disposal hazards	PW Director	Continue general public education efforts regarding IDDE
	3-6	Address specific categories of illicit discharges, if necessary	Planning Director/ PW Director	Document illicit discharges and categorize types to determine trends
	3-7	Prepare annual report of monitoring and corrective actions taken	Planning Director/ PW Director	Submit IDDE information with annual MS4 report

MCM 4. Construction Site Storm Water Runoff Control

Permit Requirement: The permittee must:

- a) *Pursuant to federal regulations 40 C.F.R. 122.34(b)(4), the permittee must to the extent allowable under State or local law develop, and enforce a program to reduce pollutants in any stormwater runoff to the small MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Reduction of stormwater discharges from construction activity disturbing less than one acre must be included in the program if that construction activity is part of a larger plan of development or sale that would disturb one acre or more.*

The Secretary is also required to regulate stormwater activities that result in a land disturbance of greater than or equal to one acre. The Secretary issued General Permit 3-9020 (2008) for stormwater runoff from construction activities which result in a land disturbance equal to or greater than one acre. If a construction project with a potential to discharge stormwater, which results in a land disturbance of equal to or greater than one acre does not qualify for coverage under one of these general permits then an individual NPDES permit from the Secretary is required. The requirements of the Agency's construction stormwater program are at least as stringent as the requirements of 40 C.F.R. 122.34(b)(4). Consequently a permittee is not required to develop a separate program. However, a permittee shall:

- (1) Develop and implement procedures to assure that construction activities undertaken by the permittee are properly permitted and implemented in accordance with the terms of the construction permit.*
 - (2) The permittee shall review existing policies; planning, zoning and subdivision regulations; and ordinances to determine their effectiveness in managing construction-related erosion and sediment and controlling waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at construction sites that may cause adverse impacts to water quality. The policies, regulations, and ordinances must also be reviewed for their consistency with the requirements of the Secretary's general permits for stormwater runoff from large and small construction sites and construction erosion guidelines for low impact development. The permittee may adopt requirements that complement or are more stringent than the requirements of the Secretary.*
 - (3) Develop and implement an erosion control ordinance, or zoning and subdivision regulation, or other regulatory mechanism which, at a minimum, regulates development activities not subject to state or federal erosion control requirements.*
-
- b) *If the Secretary ceases to implement the Agency's stormwater construction permit program, this permit shall be reopened and modified to include a requirement that the permittee implement all components of this minimum measure.*

Rationale. The best management practices in Table 4.1 are selected for this minimum control measure to comply with the permit requirements. The City plans to qualify for regulation of stormwater runoff from construction activities under the State general permit for disturbance greater than or equal to one acre. An overall construction site storm water control program with individual BMP's, measurable goals, and responsible party will be developed to assist the State with the regulation of such discharges.

The City will review, develop, and implement procedures to ensure that City MS4 construction activities are properly permitted.

The City will review existing policies and develop an ordinance to address erosion and sediment controls at construction sites to comply with the requirements of this minimum control measure.

The City will develop procedures for site inspection and enforcement of control measures, and assist the State in identifying project subject to the general permits.

Table 4.1 Construction Site Storm Water Runoff Control Selected Best Management Practices

ID #	Best Management Practice (BMP)
4-1	Develop and implement procedures to ensure MS4 construction activities are properly permitted
4-2	Review existing MS4 regulations for effectiveness in managing construction related E&S and consistency with state construction permit
4-3	Develop and implement an erosion control ordinance that regulates development not subject to State permitting

Implementation Plan. The implementation schedule for each BMP is provided in Table 4.2, and includes the designation of the responsible party.

Measurable Goals. The measurable goals for each BMP were selected to evaluate the success of this minimum control measure and are described in Table 4.2.

Table 4.2 Construction Site Storm Water Runoff Control Implementation Schedule and Measurable Goals

Schedule	BMP ID #	Best Management Practice	Responsible Party	Measurable Goal
Year 1	4-1	Review procedures to ensure City related MS4 construction activities are properly permitted.	Planning Director/ PW Director	Complete review of procedures
Year 2	4-1	Develop procedures to ensure City related MS4 construction activities are properly permitted.	Planning Director/ PW Director	Document compliance with State permit requirements
	4-2	Review existing MS4 regulations for effectiveness in managing construction related E&S and consistency with state construction permit.	Planning Director	Complete review of existing regulations
Year 3	4-1	Develop procedures to ensure MS4 construction activities are properly permitted.	Planning Director/ PW Director	Document compliance with State permit requirements
	4-3	Draft an erosion control ordinance that regulates development not subject to State permitting	Planning Director	Complete draft of ordinance
Year 4	4-1	Implement procedures to ensure City related construction activities are properly permitted	Planning Director/ PW Director	Document compliance with State permit requirements
	4-2a	Adopt E&S requirements that are at least as stringent as State requirements	Planning Director	Adopt E&S requirements
	4-3	Adopt an erosion control ordinance that regulates development not subject to State permitting	Planning Director	Adopt ordinance
Year 5	4-1	Implement procedures to ensure MS4 construction activities are properly permitted	Planning Director/ PW Director	Document compliance with State permit requirements
	4-2a	Enforce E&S requirements that are at least as stringent as State requirements	Planning Director	Implement E&S requirements
	4-3	Enforce an erosion control ordinance that regulates development not subject to State permitting	Planning Director	Implement ordinance

MCM 5. Post-Construction Storm Water Management in New Development and Redevelopment

Permit Requirement:

- a) *Pursuant to 40 C.F.R. 122.34(b)(5), the permittee must develop, implement, and to the extent allowable under State and local law, enforce a program to address post-construction stormwater run-off from new development and redevelopment projects that disturb great than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, that discharge into the small MS4. The program must ensure that controls are in place that would prevent or minimize water quality impacts.*

Pursuant to 10 V.S.A. 1263, 1264 and Agency rules and procedures adopted there under, the Secretary is required to regulate post-construction stormwater runoff from activities that result in the creation of new or expansion of existing impervious surface of greater than one acre. The requirements of the Agency's post construction stormwater program are at least as stringent as the requirements of 40 C.F.R. 122.34(b)(5) for state-regulated projects. Consequently, the permittee does not need to develop a separate post-construction permit program for projects regulated by the Agency. However, there is a gap between what the Agency's post-construction stormwater management permit program that regulates and the land disturbances equal to one or more acre of land that small MS4s must regulate.

There is a regulatory gap consisting of activities that disturb greater than one acre of earth but that do not result in creation of new or expansion of existing impervious surface of greater than one acre. Consequently, a permittee must develop, implement, and enforce a program to reduce pollutants in any post-construction stormwater runoff to the small MS4 from activities that result in a land disturbance of greater than or equal to one acre and that are not subject to regulation under the Agency's post-construction stormwater management permit program.

Traditional small MS4's are encouraged to cooperate when stormwater runoff moves across MS4 jurisdictional boundaries.

- b) *If the Secretary ceases to implement the Agency's post-construction stormwater permit program, this permit shall be reopened and modified to include a requirement that a permittee implement all components of this minimum measure.*
- c) *The permittee must review existing policies, planning, zoning and subdivision regulations, and ordinances to:*
- (1) *Determine their effectiveness in managing stormwater runoff that discharges into the small MS4 from new development and redevelopment projects to prevent adverse impacts to water quality;*

- (2) *Determine their consistency with the requirements of the Secretary's rules and general permits regulating post-construction stormwater runoff;*
 - (3) *Assess whether changes can be made to such policies, regulations and ordinances to support low impact design options; and*
 - (4) *Assess whether changes can be made to current street design and parking lot guidelines and other local requirements that affect the creation of impervious surfaces to support low impact design options.*
- d) *The permittee must develop and implement procedures to identify new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale.*
 - e) *For stormwater runoff that discharges into the small MS4 from new development and redevelopment projects that disturb greater than or equal to one acre and that are not subject to regulation under the Agency's post-construction stormwater management program, the permittee must adopt, an ordinance, planning, zoning and subdivision regulation or other regulatory mechanism that:*
 - (1) *Prevents or minimizes water quality impacts from post-construction stormwater runoff from such developments; and*
 - (2) *Utilizes a combination of structural, non-structural and low impact best management practices (BMPs) which are appropriate for the community, and meet, at a minimum, requirements in the 202 Vermont State Stormwater Management Manual; and*
 - (3) *Ensures adequate long-term operation and maintenance of BMPs.*
 - f) *For stormwater runoff that discharges into the small MS4 from new development and redevelopment projects that disturb greater than or equal to one acre and that are not subject to regulation under the Agency's post-construction stormwater management permit program the permittee must:*
 - (1) *Develop and implement procedures for inspecting development and redevelopment projects for compliance with the conditions of the permittee's regulations.*
 - (2) *Develop and implement procedures to assure that development and redevelopment activities undertaken by the permittee, including road projects, are properly permitted and maintained.*

Rationale. The best management practices in Table 5.1 are selected for this minimum control measure to comply with the General Permit requirements. The City will develop a post construction storm water management program with individual BMPs, measurable goals, and responsible party.

Table 5.1 Post-Construction Storm Water Management in New Development and Redevelopment Selected Best Management Practices

BMP ID#	Best Management Practice (BMP)
5-1	Review existing MS4 regulations for effectiveness in managing stormwater runoff and consistency with State operational permit
5-1a	Assess changes to regulations to support LID
5-1b	Assess changes to regulations to minimize impervious surface through street and parking lot design
5-1c	Adopt requirements that are at least as stringent as state requirements.
For development and redevelopment that disturbs ≥ 1 acre but is not subject to State permitting.	
5-2	Develop and implement procedures to identify the development
5-3	Develop and implement an ordinance that regulates the development.
5-4	Develop and implement inspection procedures for development
5-5	Develop and implement procedures to ensure MS4 development activities are properly permitted

The City will review existing policies, develop, and implement an ordinance to address post-construction runoff from new developments and redevelopments that result in a land disturbance of greater than or equal to one acre and that have less than one acre of impervious surface and are not subject to the State’s post construction stormwater program.

In developing and implementing the ordinance, the City will develop requirements to ensure the long-term operation and maintenance of the BMPs to comply with the requirements of this minimum control measure.

The City will develop procedures for site inspection and enforcement to address post-construction runoff from new developments and redevelopments that result in land disturbance of greater than or equal to one acre and that are not subject so the State’s post-construction stormwater permit program.

The City will assess whether additional policies and regulation are necessary in order to support low impact (LID) design, including limiting impervious surfaces in street and parking lot design.

Implementation Plan. The implementation schedule for each BMP is provided in Table 5.2, and includes the designation of the responsible party.

Measurable Goals. The measurable goals for each BMP were selected to evaluate the success of this minimum control measure and are described in Table 5.2.

Table 5.2 Post-Construction Storm Water Management in New Development and Redevelopment Implementation Schedule and Measurable Goals

Schedule	BMP ID #	Best Management Practice	Responsible Party	Measurable Goals
Year 1	5-1	Review existing regulations for effectiveness in managing stormwater runoff and consistency with state operational permit	Planning Director	Complete review of existing regulations
Year 2	5-1a	Assess changes to regulations to support LID	Planning Director	Complete review of changes to regulations
	5-1b	Assess changes to regulations to minimize impervious surface through street and parking lot design	Planning Director	Complete review of changes to regulations
	5-2	Develop procedures to identify development	Planning Director	Complete development of procedures
	5-4	Develop inspection procedures for the development	Planning Director	Complete development of inspection procedures
	5-5	Develop procedures to ensure MS4 development activities are properly permitted	Planning Director	Complete development of procedures
Year 3	5-3	Draft an ordinance that regulates development	Planning Director	Complete draft of ordinance
Year 4	5-3	Adopt an ordinance that regulates development	Planning Director	Adopt ordinance
	5-4	Implement inspection procedures for the development	Planning Director	Implement inspection procedures
	5-5	Implement procedures to ensure MS4 development activities are properly permitted	Planning Director	Implement procedures
Year 5	5-3	Enforce an ordinance that regulates development	Planning Director	Implement ordinance

MCM 5A. Managed Stormwater Treatment Facilities

The City has incorporated three stormwater treatment facilities (STFs) with expired state permits. There are listed in Table 5.3 below. This list will be updated as the City assumes responsibility for more STFs. City will report on an annual basis all new STFs for which it has assumed responsibility.

Table 5.3 Stormwater Treatment Facilities

Facility Name	Location	State Permit #	Year City Began Maintenance
Murray Drive Swales (formerly “Lake Street Subdivision”)	Murray Dr.	1-0477	2016
Guyette Circle / Bowles Lane Swales (formerly “Edward Street Subdivision”)	Guyette Cir. and Bowles Ln.	1-0691	2016
Lemnah Drive 1 (formerly “St. Albans Industrial Park”)	Lemnah Dr.	2-0147	2016

Measurable Goal: The City will ensure proper maintenance of all STFs included in Table 5.3. These STFs will be inspected at least once a year. The City will report the number of inspections conducted on an annual basis. The results of these inspections will be made available upon request.

Measurable Goal: The City will track the number of new STFs constructed by the City and the existing STFs that were transferred to the City and report this information annually.

MCM 6. Pollution Prevention/Good Housekeeping for Municipal Operations

Permit Requirements: The permittee shall:

- a) *The permittee shall describe its municipal operation and maintenance program for preventing or reducing pollutant runoff from small MS4 operations, including, at a minimum: new construction and land disturbance, maintenance of fleet and buildings, all municipal garages, parks, open space, construction and maintenance practices for gravel backroads, snow disposal, and stormwater systems. The program must include a training component, maintenance schedules, and inspection procedures for long-term structural controls. For all facilities under municipal control including public parks and recreational fields where lawn or garden fertilizers are used in the facility operation the permittee must prohibit the use of any phosphorus containing fertilizer unless warranted by a current soil test.*
 - 1) *The permittee can comply with this measure for municipal garages by participation in the Agency’s Municipal Compliance Assistance Program provided that any deficiencies identified must be corrected and documented within 90 days.*

- 2) *The permittee must provide a list of industrial facilities that it owns or operates that discharge to its small MS4 and are subject to an individual NPDES permit or the Agency's General Permit 3-9003, Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (2011), including facilities covered by a "no exposure certification".*

Rationale. The best management practices in Table 6.1 are selected for this minimum control measure to comply with the permit requirements. The City will develop a pollution prevention/good housekeeping program for municipal operations with individual BMPs, measurable goals, and responsible party.

Street sweeping of all City-owned streets, using the City's street sweeper, begins in the spring, typically in mid-April. Approximately 100 hours is spent on this initial cleaning of 24 miles of roadway. Sweeping in the downtown business district continues on Mondays and Fridays through October for about two hours per day. The accumulated material is transported back to the DPW site for screening. Paper and other debris are removed by screening and the remaining material is reused for other purposes.

Catch basin cleaning is performed for most structures each year using the City-owned vector truck. The cleaning takes about 6 weeks, at 40 hours per week. Records on cleaning activities will be maintained.

The City staff will discontinue the use of fertilizers containing phosphorus for all municipal parks facilities where fertilizers are applied unless use of a phosphorus containing fertilizer is warranted by a soil test.

The Highway Department and Wastewater Treatment Facility (WWTF) will request an updated survey of facilities from the Municipal Compliance Assistance Program (MCAP) and will continue to stay involved in this program. There are emergency spill kits located at each facility. All chemicals and fuels are stored inside and in contained areas to minimize spills.

The Wastewater Treatment Facility (WWTF) is subject to the Multi-Sector General Permit (MSGP) and the City submitted a Notice of Intent (NOI) based on a Certificate of No Exposure. The permit is #4947-9003 and was last renewed on December 29, 2011.

Table 6.1 Pollution Prevention/Good Housekeeping for Municipal Operations Selected Best Management Practices

BMP ID #	Best Management Practice (BMP)
6-1a	Properly permit new City construction and land disturbance projects.
6-1b	Inspect and clean catch basins
	Sweep City streets
6-1c	Train City public works staff on maintenance schedules, and inspection procedures for long-term structural controls
6-1d	For municipal parks and facilities where fertilizers are applied, the use of fertilizers containing phosphorus will be prohibited
6-2	Participate in the ANR's Municipal Compliance Assistance Program
6-3	Provide a list of all industrial facilities that the MS4 owns or operates that are subject to the MSGP

Implementation Plan. The implementation schedule for each BMP is provided in Table 6.2, and includes the designation of the responsible party.

Measurable Goals. The measurable goals for each BMP were selected to evaluate the success of this minimum control measure and are described in Table 6.2.

Table 6.2 Pollution Prevention/Good Housekeeping for Municipal Operations Implementation Schedule and Measurable Goals

Schedule	BMP ID #	Best Management Practice	Responsible Party	Measurable Goals
Year 1	6-1a	Properly permit City new construction and land disturbance projects	PW Director/ Planning Director	Document permits and approvals obtained for City projects
	6-1b	Inspect and clean catch basins	PW Director	Number of catch basins cleaned and volume of material removed.
		Sweep City streets	PW Director	Document street sweeping schedules and estimate volumes of material removed.
	6-1c	Train City public works staff on maintenance schedules, and inspection procedures for long-term structural controls	PW Director	Document topics and number of employees participating in training
	6-1d	For municipal parks and facilities where fertilizers are applied, the use of fertilizers containing phosphorus will be prohibited	PW Director	Use phosphorus free fertilizer
	6-3	Provide a list of all industrial facilities that the MS4 owns or operates that are subject to the MSGP	PW Director	Update list of facilities
Year 2	6-1a	Properly permit City new construction and land disturbance projects	PW Director/ Planning Director	Document permits and approvals obtained for City projects
	6-1b	Inspect and clean catch basins	PW Director	Number of catch basins cleaned and volume of material removed.
		Sweep City streets	PW Director	Document street sweeping schedules and estimate volumes of material removed.
	6-1c	Train City public works staff on maintenance schedules, and inspection procedures for long-term structural controls	PW Director	Document topics and number of employees participating in training
	6-1d	For municipal parks and facilities where fertilizers are applied, the use of fertilizers containing phosphorus will be prohibited	PW Director	Use phosphorus free fertilizer
	6-2	Participate in the ANR's Municipal Compliance Assistance Program	PW Director	Schedule MCAP inspection

Table 6.2 Continued
Pollution Prevention/Good Housekeeping for Municipal Operations
Implementation Schedule and Measurable Goals

Schedule	BMP ID #	Best Management Practice	Responsible Party	Measurable Goals
Year 3	6-1a	Properly permit City new construction and land disturbance projects	PW Director/ Planning Director	Document permits and approvals obtained for City projects
	6-1b	Inspect and clean catch basins	PW Director	Number of catch basins cleaned and volume of material removed.
		Sweep City streets	PW Director	Document street sweeping schedules and estimate volumes of material removed.
	6-1c	Train City public works staff on maintenance schedules, and inspection procedures for long-term structural controls	PW Director	Document topics and number of employees participating in training
	6-1d	For municipal parks and facilities where fertilizers are applied, the use of fertilizers containing phosphorus will be prohibited	PW Director	Use phosphorus free fertilizer
	6-3	Provide a list of all industrial facilities that the MS4 owns or operates that are subject to the MSGP	PW Director	Update list of facilities
Year 4	6-1a	Properly permit new construction and land disturbance	PW Director	Use of stormwater BMPs and LID for City projects
	6-1b	Inspect and clean catch basins	PW Director	Number of catch basins cleaned and volume of material removed.
		Sweep City streets	PW Director	Document street sweeping schedules and estimate volumes of material removed.
	6-1c	Train City public works staff on maintenance schedules, and inspection procedures for long-term structural controls	PW Director	Document topics and number of employees participating in training
	6-1d	For municipal parks and facilities where fertilizers are applied, the use of fertilizers containing phosphorus will be prohibited	PW Director	Use phosphorus free fertilizer
	6-2	Participate in the ANR's Municipal Compliance Assistance Program	PW Director	Schedule MCAP inspection

Table 6.2 Continued
Pollution Prevention/Good Housekeeping for Municipal Operations
Implementation Schedule and Measurable Goals

Schedule	BMP ID #	Best Management Practice	Responsible Party	Measurable Goals
Year 5	6-1a	Properly permit new construction and land disturbance	PW Director	Use of stormwater BMPs and LID for City projects
	6-1b	Inspect and clean catch basins	PW Director	Number of catch basins cleaned and volume of material removed.
		Sweep City streets	PW Director	Document street sweeping schedules and estimate volumes of material removed.
	6-1c	Train City public works staff on maintenance schedules, and inspection procedures for long-term structural controls	PW Director	Document topics and number of employees participating in training
	6-1d	For municipal parks and facilities where fertilizers are applied, the use of fertilizers containing phosphorus will be prohibited	PW Director	Use phosphorus free fertilizer
	6-3	Provide a list of all industrial facilities that the MS4 owns or operates that are subject to the MSGP	PW Director	Update list of facilities

4. Monitoring, Record Keeping and Reporting

A. Monitoring

1. The City will evaluate program compliance, the appropriateness of identified best management practices, and progress toward achieving identified measurable goals.
2. When the City conducts monitoring of illicit discharges pursuant to Subpart IV.H.3.a.4. all samples and measurements taken shall be representative of the monitored activity.
3. Records of monitoring information shall include:
 - a) The date, exact place, and time of sampling or measurement;
 - b) The name(s) of the individual(s) who performed the sampling or measurements;
 - c) The date(s) analyses were performed;
 - d) The names of the individuals who performed the analyses;
 - e) The analytical techniques or methods used; and
 - f) The results of such analyses.
4. Discharge Monitoring Report. Monitoring results will be reported on a Discharge Monitoring Report (DMR).
5. The Agency may require a permittee on a case-by-case basis to undertake water quality monitoring at an individual stormwater discharge point if there is evidence of an unusual discharge or if it is necessary to verify the effectiveness of BMP's and other control measures in the permittee's SWMP.

B. Record Keeping

1. The City will retain records of all monitoring information, copies of all reports required by this permit, copies of Discharge Monitoring Reports (DMRs), a copy of the NPDES permit, and records of all data used to complete the application (NOI) for this permit, for a period of at least three years from the date of the sample, measurement, report or application, or for the term of permit, whichever is longer.
2. The City will submit records to the Secretary only when specifically asked to do so. It must retain a copy of the SWMP required by the permit at a location accessible to the Secretary. A permittee must make its records, including the notice of intent (NOI) and the copy of the SWMP, available to the public if requested to do so in writing.

C. Reporting

The City shall submit its annual reports (based on a calendar year from January 1 to December 31) to the VTDEC Watershed Management Division, Stormwater Management program by April 1 of each year. FRP reports may be included with the annual report when reporting deadlines coincide. In addition to any FRP reporting requirements, the report must include:

1. The status of the City's compliance with permit conditions, an assessment of the appropriateness of the identified best management practices, progress towards achieving implementation of BMPs necessary to meet TMDL requirements and progress towards achieving the statutory goal for the six minimum measures of reducing the discharge of pollutants to the MEP, and the measurable goals for each of the minimum control measures and TMDL implementation measures;
2. Results of information collected and analyzed, if any, during the reporting period, including monitoring data used to assess the success of the program at meeting TMDL requirements and the success of the six minimum measures.
3. A summary of the stormwater activities the City plans to undertake during the next reporting cycle (including an implementation schedule);
4. Proposed changes to the City's SWMP, including changes to any BMP's or any identified measurable goals that apply to the program elements; and
5. Notice that the City is relying on another government entity to satisfy some of its permit obligations (if applicable).

5. List of Amendments

The City of St. Albans SWMP was first submitted on September 3, 2013.

September 29, 2016:

1. SWMP was reformatted with a table of contents
2. Incorporation of expired permits 1-0477.XXXX, 1-0691.XXXX, and 2-0147.YYYY was added to MCM 5.
3. Stevens and Rugg Brook Flow Restoration Plans were added as Appendices A and B.

Appendix A. Rugg Brook Flow Restoration Plan

Available separately. For more information, contact the City of St. Albans at info@stalbansvt.com or 802-524-1500.

Appendix B. Stevens Brook Flow Restoration Plan

Available separately. For more information, contact the City of St. Albans at info@stalbansvt.com or 802-524-1500.