

**SUPPLEMENT TO
REGIONAL BASWG MS4
STORMWATER MANAGEMENT PLAN**

FOR

**TOWN OF HAMPDEN
HAMPDEN, MAINE**

**October 2008
JN: 4989.08**

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LIST OF REFERENCES

APPENDICES

- A. Notice of Intent
- B. General Permit for Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems

SECTION 1 INTRODUCTION

Section 1.1 Overview of Regulatory Program

The General Permit for Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems (included as Appendix B) was issued by the Maine Department of Environmental Protection (DEP) on July 1, 2008. This general permit authorizes the direct discharge of stormwater from or associated with a regulated small municipal separate storm sewer system (“MS4”) to a MS4 or waters of the State other than groundwater. Discharges must meet the requirements of this general permit and applicable provisions of Maine's waste discharge and water classification statutes and rules. Compliance with this general permit authorizes a person to discharge stormwater, pursuant to 38 M.R.S.A. § 413. This general permit authorizes direct discharges in those parts of Maine for which the Department has received delegated authority under the Federal NPDES program. Several key requirements of the general permit are described below.

1.1.1 Stormwater Program Management Plan

The general permit requires that the permittee shall develop, implement, and enforce a Stormwater Program Management Plan (the “Plan”) applying six minimum control measures (MCMs) within the urbanized area of the regulated small MS4. Orono is part of the Bangor Area Stormwater Group and as such follows the same Stormwater Management plan as the rest of the group.

Section 1.2 Basis of Plan Development

This Stormwater Program Management Plan was developed in accordance with the requirements of the General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems, which was issued by the Maine Department of Environmental Protection (DEP) on July 1, 2008. The General Permit requires the implementation of the six (MCMs) only within the urbanized area (as defined by the U.S. Bureau of Census) of the regulated small MS4. The regulated MS4 municipality or joint municipalities will consider the application of the Plan to the entire municipal area, not just the urbanized area.

SECTION 2 MUNICIPALITY INFORMATION

Section 2.1 Municipality Background

The Town of Hampden, Maine is located along the Penobscot River. The Town has a total area and urbanized area of approximately 24,380 acres and 2,030 acres respectively. The current population of Hampden is approximately 6,757.

Section 2.2 Location Map

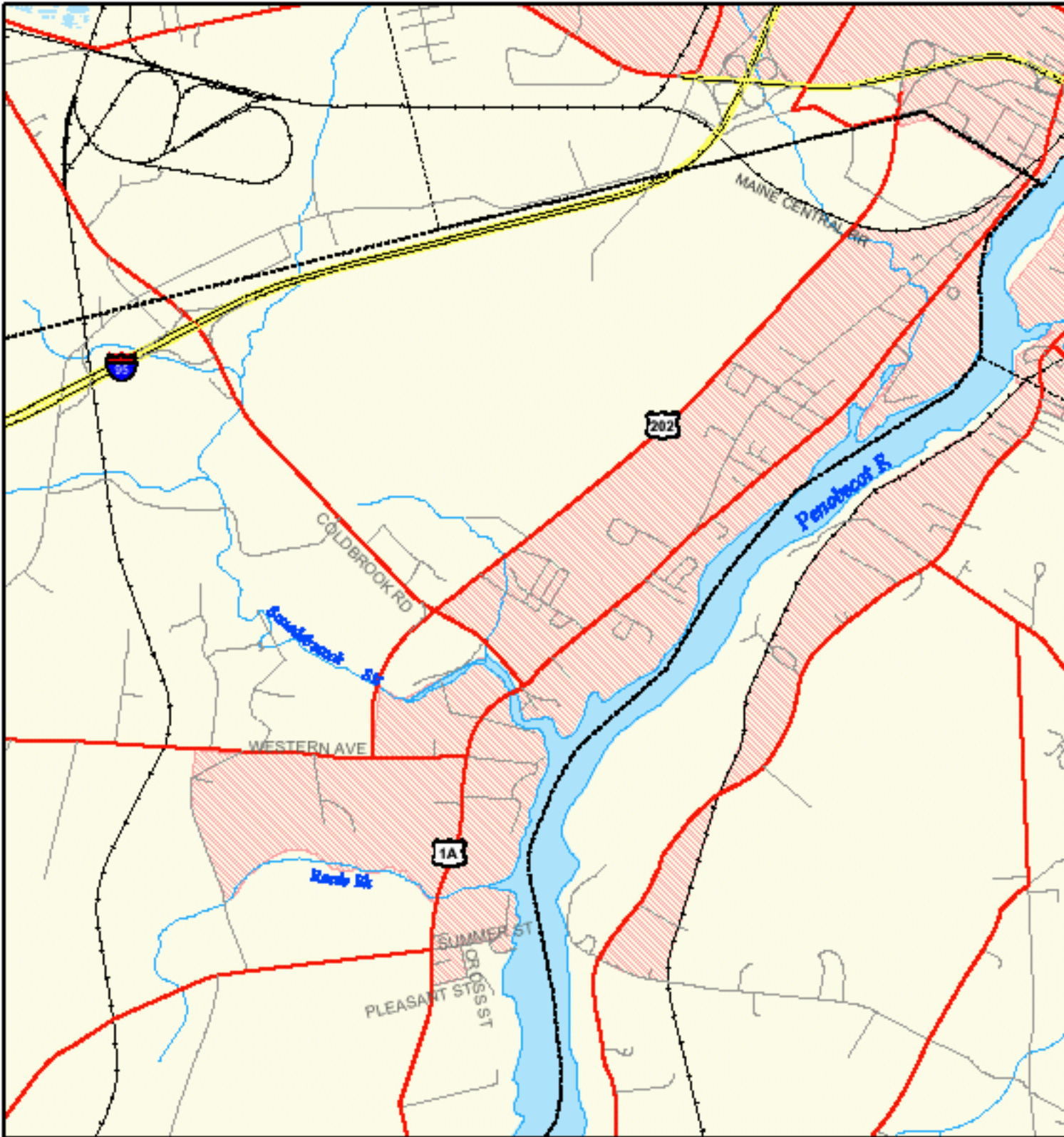
The location map for the municipality is included as Figure 2.2.

Section 2.3 Urbanized Area Map

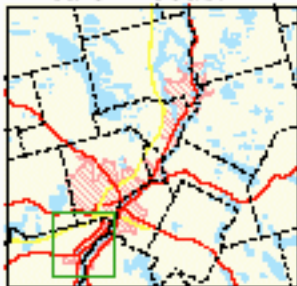
The urbanized area map was developed from the U.S. Census Bureau Census 2000 Urbanized Area and Urban Cluster Data, and is included as Figure 2.3.

Section 2.4 Priority Watershed



The Town has selected Sucker Brook Watershed as the priority watershed for purposes of the general permit requirements. This watershed was selected because Sucker Brook has been identified by the State as an urban impaired stream and is on the State's TMDL priority list slated for 2012. Priority sub-watersheds for Sucker Brook will be selected by the Town during permit year 1.



Area of Focus:



**NPDES Phase II Stormwater Program
Automatically Designated MS4 Areas**
Hampden, Maine

-  Regulated Area (2000 Urbanized Area)
-  Hampden Town Boundary

Town Population: 6,327
Regulated Population: 2,868



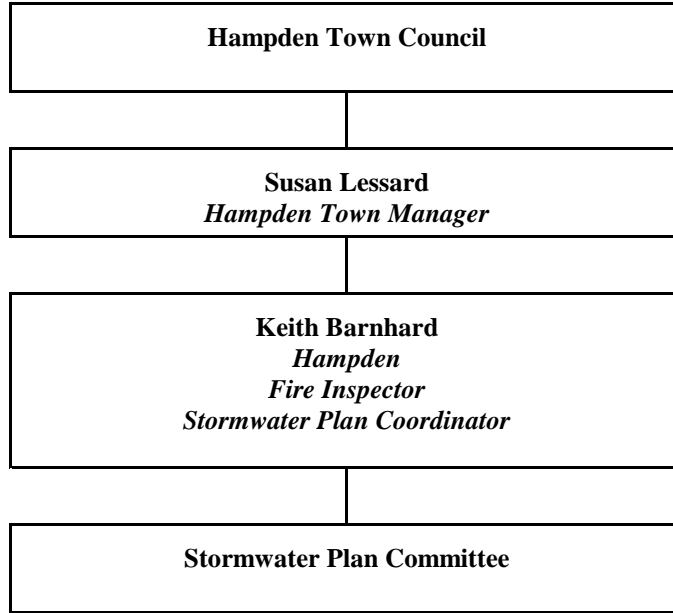
EPA
New England

0 0.3 0.6 0.9 Miles

Data Sources: Urbanized Areas from US Census Bureau (2000). Political boundaries from ME Office of GIS. Hydrography from NHD. Transportation data from GDT at 1:24,000. Map Created: 12/18/02; US EPA - New England GIS Center. L:\proj\cta\stormwater\phase2\map\maine\hamp2

**SECTION 3
PLANNING AND ORGANIZATION**

Section 3.1 Plan Management and Responsibilities



Stormwater Plan Committee Members:

- Robert Osborne, Town Planner
- Benjamin Johnson, Code Enforcement Officer
- Chip Swan, Publics Works Director
- Gretchen Heldmann, GIS/IT
- Philip Ruck, P.E., CES, Inc.

Section 3.2 Existing Environmental Plans

The Town has the following existing environmental plans:

- ◆ Operation Manual for Solid Waste Facility and Transfer Station

SECTION 4 MINIMUM CONTROL MEASURES

Section 4.1 Public Education and Outreach

4.1.1 Selected BMP's for Public Education and Outreach

The selected Best Management Practices (BMP's) for the Public Education and Outreach Minimum Control Measures (MCM's) are to be implemented in addition to those outlined in the Bangor Area Storm Water Group's Stormwater Management Plan.

BMP 1A TRASH MANAGEMENT

Description:

Trash and floating debris in waterways have become significant pollutants, especially in areas where a large volume of trash is generated in a concentrated area. Trash in water bodies contributes to visual pollution and detracts from the aesthetic qualities of the landscape. It also poses a threat to wildlife and human health (e.g., choking hazards to wildlife and bacteria to humans).

Implementation:

Citizen awareness is key to a successful trash management program. Citizens should be informed about the environmental consequences of littering. There are two main methods of trash control: source control and structural control. There are four main techniques for source control:

- Community education,
- Improved infrastructure,
- Waste reduction, and
- Cleanup campaigns.

The second method of trash control, structural control, includes physical filtering structures and centrifugal separation. Physical filtering structures, such as trash racks, mesh nets, bar screens, and trash booms, concentrate diffuse, floating debris and trash and prevent it from traveling downstream.

Measurable Goals:

During each permit year the Town will continue its existing trash management program. The Town accepts household trash, recyclables, CDD waste and universal waste from Hampden Residents at the town Transfer Station beside the Public Works Facility. The Town will annually evaluate the program based on data generated from the solid waste resource recovery report submitted to the State Planning Office.

Responsible Party:

Chip Swan – Public Works Director

BMP 1B USING THE MEDIA

Description:

The media can be strong allies to a storm water pollution prevention campaign in educating the public about storm water issues. Through the media, a program can educate targeted or mass audiences about problems and solutions, build support for remediation and retrofit projects, or generate awareness and interest in storm water management. Best of all, packaging a storm water message as a news story is virtually free! Surveys repeatedly show high interest among the public in environmental issues, and water quality--particularly as it relates to drinking water and recreation--rates very high. Reporters are always looking for informative articles, features, or columns to fill their pages or broadcasts. As with many public education activities, it is important to do some preliminary work to refine your message and target your audience to ensure that you deliver the most effective message.

Implementation:

The following are some of the ways stormwater news and educational materials can be communicated.

Media resources in the Town:

- Local Cable Access
- Town Website
- Quarterly Newsletter

Measurable Goals:

During each permit year the Town will continue to use available municipal media resources to inform the public about stormwater related issues.

Responsible Party:

Keith Barnhard – Stormwater Plan Coordinator

Section 4.2 Public Involvement and Participation

4.2.1 Selected BMP's for Public Involvement and Participation

The selected Best Management Practices (BMP's) for the Public Involvement and Participation Minimum Control Measures (MCM's) are to be implemented in addition to those outlined in the Bangor Area Storm Water Group's Stormwater Management Plan.

BMP 2A ATTITUDE SURVEYS

Description:

Surveys of how the public perceives storm water management can foster better planning and management programs. The results of these attitude surveys can enlighten both storm water managers and the public on what the sources of pollution are, the effects of storm water on the environment, and options for control. Public attitude surveys can bring to light what is important to the stakeholders. Program planners can use this information to determine how best to incorporate the public's needs and desires into the overall goals of any storm water management program.

Implementation:

The first step of an attitude survey is to determine who should be surveyed and how. People who could be surveyed include the residents of particular communities, local business owners and operators, schoolchildren, and other groups.

Once the groups to survey and the best method to survey them have been determined, it should be decided what questions to ask. A municipality can determine what information it needs to know by addressing the following questions:

Have citizens complained about new restrictions caused by the storm water program?

Do people even know what storm water means?

Is the municipality about to raise sewer rates (as a result of the storm water regulations)?

Measurable Goals:

During each permit year the Town will use an attitude survey developed during the previous permit cycle to collect data on stormwater awareness in Hampden. The survey responses will be collected and reviewed annually to evaluate how the Town stormwater program can be improved

Responsible Party:

Keith Barnhard – Stormwater Plan Coordinator

BMP 2B PROPER DISPOSAL OF HOUSEHOLD HAZARDOUS WASTE

Description:

Many products found in homes contain chemical ingredients that are potentially harmful to people and to the environment. Chemicals such as oven cleaners, paint removers, bug killers, solvents, and drain cleaners are just a few common hazardous products in the home.

Hazardous products include the following:

Cleaning products: oven cleaner, floor wax, furniture polish, drain cleaner, and spot remover.

Car care and maintenance: motor oil, battery acid, gasoline, car wax, engine cleaner, antifreeze, degreaser, radiator flush, and rust preventative

Home improvement products: paints, preservatives, strippers, brush cleaners, and solvents.

Other products labeled toxic, flammable, or corrosive, or containing lye, phenols, petroleum distillates, or trichlorobenzene

Implementation:

First and foremost, communities should make their residents aware of the potential impacts of hazardous household materials on water quality and inform residents of ways to properly store, handle, and dispose of the chemicals. Municipalities can also inform residents about less-toxic alternatives to household hazardous wastes. The use of alternative products can be promoted through pamphlets, inserts in utility bills, or workshops. Elements of a good community household hazardous waste collection program include providing the public with information on how to dispose of hazardous items in their household, the hours and location of collection facilities, and items that are acceptable or unacceptable at the collection facility. This information can be provided through pamphlets, handbooks, posters, magnets, workshops, or other means.

Measurable Goals:

During each permit year Hampden will continue to collect wastes such as batteries, monitors and florescent bulbs from residents. These items are collected at a universal waste drop off at the Public works facility in Town. The Town will also continue to participate in the regional Household Hazardous Waste program held each October in Bangor.

Responsible Party:

Chip Swan – Public Works Director

BMP 2C WATERSHED ORGANIZATION

Description:

A watershed organization incorporates the ideas and resources of many different groups into a single organization. The groups can consist of local governments, citizens, nonprofit environmental groups, and local universities, among others. The purpose of a watershed organization is to restore, protect, and promote the natural resources of the watershed. To

accomplish this, a watershed organization might set goals for and subsequently implement public education and storm water management programs, stream clean-up events, or restoration activities.

Implementation:

The creation of a watershed organization results from the cooperation and sharing of ideas of several stakeholder groups, including the municipality. However, a watershed organization must have an organized structure. A constitution and bylaws should be developed, membership and representation defined, and goals and objectives stated.

Measurable Goals:

During each permit year Hampden will continue to participate in the Lower Penobscot River Watershed Coalition (LPRWC). The group meets regularly to discuss issues affecting the lower Penobscot River watershed.

Responsible Party:

Gretchen Heldmann – GIS/IT

Section 4.3 Illicit Discharge Detection and Elimination

4.3.1 Selected BMP's for Illicit Discharge Detection and Elimination

The selected Best Management Practices (BMP's) for the Illicit Discharge Detection and Elimination Minimum Control Measures (MCM's) are to be implemented in addition to those outlined in the Bangor Area Storm Water Group's Stormwater Management Plan.

BMP 3A IDENTIFYING ILLICIT CONNECTIONS

Description:

Illicit connections are defined as "illegal and/or improper connections to storm drainage systems and receiving waters" (CWP, 1998). A discharge of industrial wastewater to a storm sewer is "illicit" because it would ordinarily require a permit under the Clean Water Act. Many building owners or operators are not aware that improper connections exist in their facilities. Identifying and removing illicit connections is a measure for reducing storm water pollution. In extreme cases of illicit dumping, legal action is necessary.

Implementation:

Some practices used to discover and prevent illicit connections are:

Instituting building and plumbing codes to prevent connections of potentially hazardous pollutants to storm drains.

Organizing structures to be inspected by building age, with older buildings identified as priorities. Buildings whose processes have the potential to affect water quality also should be given priority.

Mapping each area to be surveyed and indicating the route of the sewer system and the locations of storm drains on the map. This enables planners to estimate the likely locations of illicit connections. A Geographic Information System (GIS) is an appropriate tool for identifying illicit discharges.

Survey individual buildings to discover where connections to storm drains exist.

Inspect sewer lines with television equipment to visually identify all physical connections.

Compare the results of the field tests and the video inspection with the known connections on the map. Suspicious areas should be further investigated.

Institute mandatory inspections for new developments or remodeling to identify illicit connections to the storm sewer system.

Remove and test sediment from the catch basins or equivalent structures.

Inspect connections in question to determine whether they should be connected to the storm drain system or to the sanitary sewer.

Measurable Goals:

During each permit year the Town will perform all necessary inspections to detect and eliminate illicit discharges to comply with the general permit.

Responsible Party:

Chip Swan – Public Works Director

BMP 3B SEWER SYSTEM MAP

Description:

The storm sewer system map is meant to demonstrate a basic awareness of the intake and discharge areas of the system. It is needed to help determine the extent of discharged dry weather flows, the possible sources of the dry weather flows, and the particular waterbodies these flows may be affecting. An existing map, such as a topographical map, on which the location of major pipes and outfalls can be clearly presented demonstrates such awareness.

Implementation:

EPA recommends collecting all existing information on outfall locations (e.g., review city records, drainage maps, storm drain maps), and then conducting field surveys to verify locations. It probably will be necessary to walk (i.e., wade through small receiving waters or use a boat for larger waters) the streambanks and shorelines for visual observation. More than one trip may be needed to locate all outfalls.

Measurable Goals:

During each permit year Hampden will revise the storm sewer system maps as necessary. The Storm Sewer maps were developed as a part of the previous permit cycle. The Town will also develop a map of the open ditch system in the Town's highest priority watershed by the end of permit year 2.

Responsible Party:

Chip Swan – Public Works Director

BMP 3C FAILING SEPTIC SYSTEMS**Description:**

Septic systems provide a means of treating household waste in those areas that do not have access to public sewers or where sewerage is not feasible. Currently, it is estimated that 25 percent of the population of the United States rely on onsite wastewater systems to treat and dispose of their household waste. Of that number, about 95 percent of the disposal systems are septic tank systems. The goal of this BMP is to prevent new septic systems from failing and to detect and correct existing systems that have been failing.

Failure of on-site disposal systems can be due to a number of causes, including unsuitable soil conditions, improper design and installation, or inadequate maintenance practices.

Implementation:

The best way to prevent septic system failure is to ensure that a new system is sited and sized properly and to employ appropriate treatment technology. Septic systems should be located to ensure a horizontal distance from surface waters and vertical separation from ground water. Setback requirements are determined by each state or region regarding the vertical and horizontal distances that soil absorption fields must be located from building foundations, property boundaries, water supply wells, and other surface waters. The distances between septic system components and man-made and natural water supplies will vary according to local site factors, such as soil percolation rate, grain size, and depth to water table. The most effective siting distances for efficient on-site wastewater disposal are determined by doing individual site assessments prior to installation.

Measurable Goals:

By the end of permit year 2: Hampden will develop a list of septic systems.

By the end of permit year 3: Hampden will provide information about proper septic system maintenance to those with septic systems.

By the end of permit year 5: Hampden will follow up with septic system owners To determine the effectiveness of the material provided

Responsible Party:

Ben Johnson – Code Enforcement Officer

BMP 3D STORMWATER ORDINANCE

Description:

A stormwater ordinance provides a legal authority to enforce the Town’s Illicit Discharge Detection and Elimination Plan, as part of the Stormwater Management Program.

Implementation:

Develop an ordinance or other regulatory mechanism that will prohibit (to the extent allowable under State, Tribal, or local law) all non-storm water discharges into the MS4. This ordinance will include appropriate enforcement procedures and actions such as:

- 1. Fines
- 2. Civil penalties

Measurable Goals:

During each permit year Hampden will continue to enforce their existing illicit discharge ordinance, that was adopted during a previous permit cycle.

Responsible Party:

Ben Johnson – Code Enforcement Officer

Section 4.4 Construction Site Stormwater Runoff Control

4.4.1 Selected BMP’s for Construction Site Stormwater Runoff Control

The selected Best Management Practices (BMP’s) for Construction Site Stormwater Runoff Control Minimum Control Measures (MCM’s) are to be implemented in addition to those outlined in the Bangor Area Storm Water Group’s Stormwater Management Plan.

BMP 4A NOTIFICATION

Description:

Notify construction site developers and operators of the requirements for registration under the Maine Construction General Permit.

Implementation:

Construction site developers and operators will be made aware of this requirement through a notice on the building permit application or an addendum to the building permit application, such as a DEP fact sheet describing the requirement. Building permit applicants will be required to indicate on the building permit application whether they will be performing construction activities that will result in a land disturbance of greater than or equal to one acre.

Measurable Goals:

During each permit year the Town will rely on the building permit application form that includes notification of requirement for registration under the MCGP or chapter 500 requirements.

Responsible Party:

Ben Johnston – Code Enforcement Officer

BMP 4B BMP INSPECTION AND MAINTENANCE

Description:

To maintain the effectiveness of construction site storm water control best management practices (BMPs), regular inspection of control measures is essential. Ensure that construction projects are in full compliance with the Maine Construction General Permit or Chapter 500 requirements.

Implementation:

A program will be developed for Code Enforcement Officers, Building Officials, contracted parties, or others to perform inspections on a frequency sufficient to determine whether sites are in compliance with the MCGP. For sites that are not in compliance, the inspector(s) will provide site operators with guidance on how to come into compliance. Sites that are not brought into compliance with the MCGP within a reasonable period after receiving guidance from the inspector(s) or after other measures taken by the MS4 will be reported to the DEP.

Measurable Goals:

During each permit year the Town will inspect applicable construction sites for compliance with the MCGP or Chapter 500 requirements as required by the General Permit.

Responsible Party:

Ben Johnson – Code Enforcement Officer

BMP 4C ORDINANCE/REGULATORY MECHANISM**Description:**

Develop, implement, and enforce a program, or modify an existing program, to reduce pollutants in any stormwater runoff to the MS4 from construction activities that result in a land disturbance of greater than or equal to one acre.

Implementation:

The MS4 operator will rely on the Maine DEP's administration and enforcement of the Maine Construction General Permit (MCGP).

Measurable Goals:

During each permit year Hampden will rely on existing ordinances addressing construction. Ordinances include provisions for erosion and sedimentation control and stormwater management.

Responsible Party:

Robert Osborne - Town Planner

Section 4.5 Post-Construction Stormwater Management in New Development and Redevelopment**4.5.1 Selected BMP's for Post-Construction Stormwater Management in New Development and Redevelopment**

The selected Best Management Practices (BMP's) for Post-Construction Stormwater Management in New Development and Redevelopment Minimum Control Measures (MCM's) are to be implemented in addition to those outlined in the Bangor Area Storm Water Group's Stormwater Management Plan

BMP 5A ORDINANCES FOR POST-CONSTRUCTION RUNOFF**Description:**

The management of storm water runoff from sites after the construction phase is vital to controlling the impacts of development on urban water quality. The increase in impervious surfaces such as rooftops, roads, parking lots, and sidewalks due to land development can have a detrimental effect on aquatic systems. Heightened levels of impervious cover have been associated with stream warming and loss of aquatic biodiversity in urban areas. Runoff from impervious areas can also contain a variety of pollutants that are detrimental to water

quality, including sediment, nutrients, road salts, heavy metals, pathogenic bacteria, and petroleum hydrocarbons.

An ordinance promotes the public welfare by guiding, regulating, and controlling the design, construction, use, and maintenance of any development or other activity that disturbs or breaks the topsoil or results in the movement of earth on land. The goal of a storm water management ordinance for post-construction runoff is to limit surface runoff volumes and reduce water runoff pollutant loadings.

Implementation:

The purpose of the post-construction ordinance is to establish storm water management requirements and controls to protect and safeguard the general health, safety, and welfare of the public residing in watersheds within a jurisdiction. The municipality will develop or revise, implement, and enforce an ordinance or other regulatory mechanism to address post-construction runoff from new development or redevelopment projects that disturb greater than or equal to one acre. This includes projects that are less than one acre that are part of a larger plan of development or sale, that discharge into the MS4.

The following list of items is to be considered for the ordinance:

- General Provisions
- Definitions
- Permit Procedures and Requirements
- Waivers to Storm Water Management Requirements
- General Performance Criteria for Storm Water Management
- Basic Storm Water Management Design Criteria
- Requirements for Storm Water Management Plan Approval
- Construction Inspection
- Maintenance and Repair of Storm Water Facilities
- Enforcement and Penalties

Measurable Goals:

By the end of Permit year 1 the Town will adapt a post construction ordinance approved by the MDEP and implement the ordinance for the remainder of the permit term. The town will inspect post-construction BMP's as necessary to meet the conditions of the permit.

Responsible Party:

Robert Osborne - Town Planner

BMP 5B BMP INSPECTION AND MAINTENANCE

Description:

To maintain the effectiveness of post-construction storm water control best management practices (BMPs), regular inspection of control measures is essential. Generally, inspection and maintenance of BMPs can be categorized into two groups—expected routine maintenance and nonroutine (repair) maintenance. Routine maintenance refers to checks performed on a regular basis to keep the BMP in good working order and aesthetically pleasing. In addition, routine inspection and maintenance is an efficient way to prevent potential nuisance situations (odors, mosquitoes, weeds, etc.), reduce the need for repair maintenance, and reduce the chance of polluting storm water runoff by finding and correcting problems before the next rain.

Implementation:

In the case of vegetative or other infiltration BMPs, inspection of storm water management practices following a storm event should occur after the expected drawdown period for a given BMP. This allows the inspector to see whether detention and infiltration devices are draining correctly.

Inspection checklists should be developed for use by BMP inspectors. Checklists might include each BMP's minimum performance expectations, design criteria, structural specifications, date of implementation, and expected life span. In addition, the maintenance requirements for each BMP should be listed on the inspection checklist. This will aid the inspector in determining whether a BMP's maintenance schedule is adequate or needs revision. Also, a checklist will help the inspector determine renovation or repair needs.

Measurable Goals:

During each permit year the Town will continue to implement an inspection program for post construction BMPs and document activities on an inspection report form. The Town will utilize a database system for tracking and managing post-construction inspection information.

Responsible Party:

Ben Johnson – Code Enforcement Officer

Section 4.6 Pollution Prevention/Good Housekeeping for Municipal Operations

4.6.1 Selected BMP's for Pollution Prevention/Good Housekeeping for Municipal Operations

The selected Best Management Practices (BMP's) for Pollution Prevention/Good Housekeeping for Municipal Operations Minimum Control Measures (MCM's) are to be implemented in addition to those outlined in the Bangor Area Storm Water Group's Stormwater Management Plan.

BMP 6A ALTERNATIVE DISCHARGE OPTIONS FOR CHLORINATED WATER

Description:

Chlorinated water discharged to surface waters has an adverse impact on local water quality. Swimming pools are a major source of chlorinated water discharged into sanitary and storm sewer systems. An average swimming pool holds 19,000 gallons of chlorinated water. Pools have high concentrations of chlorine, which is toxic to wildlife and fish.

Implementation:

Chlorinated water discharge options for municipal and residential swimming pools include:

Pool owners obtain permission from local sanitary sewer operators or municipal treatment plant operators and discharge to the sanitary sewer system.

Discharge the chlorinated water to land, where it will not drain to local surface waters.

Dechlorinate the water before draining the pool.

Measurable Goals:

During each permit year the Town will continue to discharge to the sanitary sewer. The public pools are emptied occasionally for maintenance as necessary.

Responsible Party:

Chip Swan – Public Works Director

BMP 6B ALTERNATIVE PRODUCTS

Description:

Using alternatives to toxic substances drastically reduces their presence in storm water and receiving waters. The most common toxic substances found in the home are cleaners, automotive products, and pesticides. Fertilizers, paints, and fuels are among other common hazardous substances frequently found in ground water because of improper disposal.

Implementation:

The promotion of safer alternative products should be coupled with other programs designed to reduce the presence of hazardous or toxic materials in homes and storm water runoff. Examples of such programs are hazardous materials collection, good housekeeping or material management practices, oil and automotive waste recycling, and spill response and prevention.

One of the best ways to encourage homeowners to switch to alternatives to potentially harmful products is to educate them (see Proper Disposal of Household Hazardous Wastes fact sheet). Municipalities can compile a list of alternative products and post it on their web site, publish it in a newsletter, include it as an insert in a utility bill, or produce magnets or

other household products with a select list of nonhazardous alternatives. Municipalities might choose to include commercially available products that have been shown to be "green" alternatives to harsh chemicals.

Measurable Goals:

During each permit year the Town will evaluate current practices, policies and products used at Town facilities to determine where they can become more efficient, and use greener technologies and products. Where feasible, the Town will utilize alternative products, including cleansers, that may minimize impacts to stormwater runoff.

Responsible Party:

Keith Barnhard – Stormwater Plan Coordinator

BMP 6C ROAD SALT APPLICATION AND STORAGE

Description:

The application and storage of deicing materials, most commonly salts such as sodium chloride, can lead to water quality problems for surrounding areas. Salts, gravel, sand, and other materials are applied to highways and roads to reduce the amount of ice during winter storm events. Salts lower the melting point of ice, allowing roadways to stay free of ice buildup during cold winters. Sand and gravel increase traction on the road, making travel safer.

Implementation:

Many of the problems associated with contamination of local waterways stem from the improper storage of deicing materials. Salts are very soluble when they come into contact with storm water. They can migrate into ground water used for public water supplies and also contaminate surface waters.

Measurable Goals:

During each permit year the town will implement existing salt/sand application and covered policies and procedures in the municipality. The town will also evaluate methods to minimize salt/sand application on Town roads using a data management system. The town can track the volume of salt/sand applied by each truck and also by are to determine an efficient method of application that can minimize impacts to stormwater runoff.

Responsible Party:

Chip Swan – Public Works Director

BMP 6D STORM DRAIN SYSTEM CLEANING

Description:

Storm drain systems need to be cleaned regularly. Routine cleaning reduces the amount of pollutants, trash, and debris both in the storm drain system and in receiving waters. Clogged drains, catch basins, and storm drain inlets can cause the drains to overflow, leading to increased erosion. Benefits of cleaning include increased dissolved oxygen, reduced levels of bacteria, and support of instream habitat. Areas with relatively flat grades or low flows should be given special attention because they rarely achieve high enough flows to flush themselves.

Implementation:

Review existing storm drain system cleaning policies and procedures. Develop and implement a program to evaluate and, if necessary, clean catch basins and other stormwater structures that accumulate sediment at least once a year and dispose of the removed sediment in accordance with current state law.

Measurable Goals:

During each permit year the Town will continue to inspect and clean as necessary storm drains in the storm sewer system. The Town will perform opportunistic inspections of the basins during the cleaning process to detect potential illicit discharges.

Responsible Party:

Chip Swan – Public Works Director

USED OIL RECYCLING

Description:

Used motor oil is a hazardous waste because it contains heavy metals picked up from the engine during use. Fortunately, it is recyclable because it becomes dirty from use, rather than actually wearing out. However, as motor oil is toxic to humans, wildlife, and plants, it should be disposed of at a local recycling or disposal facility. Before disposal, used motor oil should be stored in a plastic or metal container with a secure lid, rather than dumped in a landfill or down the drain. Containers that previously stored household chemicals, such as bleach, gasoline, paint, or solvents should not be used. Used motor oil should also never be mixed with other substances such as antifreeze, pesticides, or paint stripper.

Implementation:

Oil recycling programs can be implemented easily throughout the country. Two types of programs currently in use are drop-off locations and curbside collection. Drop-off locations include service stations, recycling centers, auto parts retail stores, quick lubes, and landfills. These locations are effective because they are familiar, convenient, permanent, and well located. Additionally, sites that are permanent allow for effective publicity for recycling

programs. Curbside collection programs allow consumers to put their oil out on the curb for collection, as they already do with their other recycling and trash. While this program is more convenient for the user, it requires a hauler to come and collect the oil. Oil recycling programs that use drop-off locations for collection are implemented by local governments, state governments, service stations, quick lubes, auto parts retailers, oil processors, or any combination of the above. Curbside collection programs are implemented by municipal or private waste haulers, municipal or private recycling haulers, or a combination of any of the above.

Measurable Goals:

During each permit year the Town will continue to collect waste oil from municipal operations. The waste oil is collected by a local facility with a licensed waste oil burner.

Responsible Party:

Chip Swan – Public Works Director

**SECTION 5
GENERAL REQUIREMENTS**

Section 5.1 Management Approval

The Town of Hampden is committed to reduce the discharge of pollutants from its regulated small MS4 to the maximum extent practicable, and maintains the highest standards for stormwater management through regular review, updating, and implementation of this Stormwater Management Plan.

David L. Leonard
Signature - Town of Hampden

10-27-08
Date

Town Mgr.
Title

Section 5.2 Plan Location and Public Access

The Stormwater Management Plan and documents will be kept on file at the Hampden Municipal Office, with a backup copy located at CES, Inc. in Brewer, Maine. Copies and review of documents will be made available when requested by appropriate government agencies and public safety groups.

LIST OF REFERENCES

US Environmental Protection Agency. Updated August, 2002. *Measurable Goals Guidance for Phase II Small MS4's*. US EPA Office of Water.

<http://cfpub.epa.gov/npdes/stormwater/measurablegoals/index.cfm>

US Environmental Protection Agency. Updated August, 2002. *National Menu of Best Management Practices for NPDES Storm Water Phase II*. US EPA Office of Wastewater Management. <http://cfpub.epa.gov/npdes/stormwater/menuofbmps/menu.cfm>

US Environmental Protection Agency. March, 2000. *Storm Water Phase II Compliance Assistance Guide*. US EPA Office of Water. <http://www.epa.gov/npdes/pubs/comguide.pdf>

US Environmental Protection Agency. January, 2000. *Stormwater Phase II Final Rule Fact Sheet Series, EPA 833-F-00*. US EPA Office of Water.

<http://cfpub1.epa.gov/npdes/stormwater/swfinal.cfm>

APPENDIX A
NOTICE OF INTENT

APPENDIX B

**GENERAL PERMIT FOR DISCHARGE OF STORMWATER FROM
SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS**