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TOWN OF PLAINVILLE

STORMWATER MANAGEMENT PLAN

March 2017



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Introduction

(Revised March 2017-JRB)

The objective of the Town of Plainville's Stormwater Management Plan is to establish, implement and enforce policies and practices which reduce the volume of runoff and discharge of contaminants into the Town's receiving water bodies consistent with the goals and objectives of the U.S. Environmental Protection Agency's, (EPA), National Pollutant Discharge Elimination System, (NPDES), Stormwater Phase II Rule. These efforts are intended to protect water quality and reduce the discharge of pollutants to the maximum extent practical. Effectively controlling stormwater runoff provides benefits to the community. These benefits include protection of water resources, improved water quality, protection of public health and flood control. These policies and practices will include public education, community involvement, inspection and enforcement, testing and pollution prevention.

The benefits of the stormwater plan may include decreases in flood occurrences and intensity, improved surface and ground water quality, and improved wildlife habitats avoidance of impaired waters and land preservation. Practices concerning the proper use, storage and disposal of chemicals, keeping precipitation away from pollutant sources, preserving pervious areas, promoting less intensified development practices and equalizing post construction and preconstruction runoff are goals of the plan. The plan will be only successful if it is implemented in such a manner that broad public support is garnered.

The Plan will also coordinate with the Connecticut Department of Transportation's Stormwater Plan for the various DOT facilities located in the Town of Plainville. The plan will incorporate a regional or watershed approach looking beyond the municipal boundaries.

Human activities have a profound influence on the quality of Plainville's waters. These influences include impacting the hydrologic cycle and water quality. Human development alters the hydrologic cycle. Changes in hydrologic characteristic modify peak flow, frequency and duration, bank flow and reduce base flow conditions. Clearing and grading of areas and other building activities modify the interception and absorption of precipitation, consequently, converting it into more runoff. As the intensity of human activities increase so does the risk of erosion, flooding and pollution.

Surface and ground water quality is affected when runoff carries the byproducts of human activities, sediment and other pollutants, into streams, wetlands, lakes, marine waters and ground water. Scientific evidence has documented pollution

urban runoff as a significant contamination source. Common pollutants include pesticides, nutrients, vehicle fluids, deicing chemicals, litter, pet waste, debris and sediment. These pollutants impair the waterways, thus, discouraging recreational use, contaminating drinking water supplies and interfering with the habitat of fish, other aquatic organisms and wildlife.

Another common source of pollutants are illicit discharges which introduce contaminants to the environment. In many instance illicit discharges should be treated prior to discharge into the environment. Eliminating these discharge is a priority in the Stormwater Management Plan.

Precipitation falling on developed areas including residential, industrial and urban areas along with construction sites can be contaminated with sediment, suspended solids, nutrients, metals, pesticides, organic materials and trash such as paper wrappers, cigarette butts and plastic bottles. Unlike sanitary effluent and industrial discharges, storm water is not generally treated before flowing into the surface waters. This type of pollution is considered nonpoint sources. The Stormwater Management plan is intended to minimize the contact of storm runoff with the byproducts of human activities. Implementing practices that reduce the volume of stormwater and minimizing the amount human byproducts in the environment will improve the overall quality of the Town's surface and ground water.

Federal and State regulators require all areas determined to be an urbanized area, as indicated by the 2010 census to develop a Stormwater Management Plan as dictated by Section 402(p) of the Clean Water Act commonly referred to as the National Pollution Elimination System Phase II program. The Connecticut Department of Environmental Protection acting as the agent of the United States Environmental Protection Agency has implemented a General Permit for the Discharge of Stormwater from Small Municipal Storm Sewer Systems. The entire area of Plainville has been identified as an urbanized area, thus, the policies and practices of this plan will be applicable to the entire Town.

The general permit requires each urbanized area to develop and execute a Stormwater Plan outlining a program for best management practices (BMPs) and measurable goals for six minimum control measures. These six minimum control measures are: Public education and outreach, Public involvement and participation, illicit discharge detection and elimination, Construction site stormwater runoff control, Post-construction stormwater management and Pollution prevention/good housekeeping. In some cases, the completed practices and policies may be included in more than one of the six minimum control measures. In addition, the plan will be evaluated on a yearly basis to determine whether the BMPs are reducing the discharge of pollutants to the

of improvements are warranted, applicable
incorporated.

The plan will be evaluated on a yearly basis to determine whether the BMPs are reducing the discharge of pollutants to the %maximum extent practicable+.

The policies and practice set forth in this document are intended to raise Plainville's awareness of how human activity impacts the environment, implement practices which minimize these effects and fulfill the minimum requirements of the Clean Water Act.

An involved community is crucial to the development of a successful plan. Community groups including Town Boards and Commissions will be needed to assist the Town's staff in implementing the plan. The Boards and Commissions under the guidance of their staff liaison will need to promote practices under their jurisdiction that are consistent with the Stormwater Plan. Additionally interested groups and individuals will be encouraged to join with others to become a better steward of Plainville's water resources.

The Departments of Technical Services, Operational Services, Planning and Economic Development and Water Pollution Control are the primary agencies responsible for administering the requirements of the adopted Stormwater Plan. Each Director will be responsible for the oversight of specific germane tasks.

The Connecticut Department of Transportation, (CDOT), operates an MS4 program on State Highways in Plainville including Routes 72, 84, 10, 177, 372 and various 500 designated roadway segments. The implementation of the Town of Plainville's MS4 program and identified BMPs will be coordinated with the Connecticut Department of Transportation where applicable.

Minimum Control Measure Public Education and Outreach

(Revised March 2017 . JRB)

Introduction

The objective of this section of the Stormwater Plan is to develop and fulfill the required educational and outreach components of the program. Educational and outreach initiatives provide a greater understanding of the importance of the project's goals. Many people are unaware that their actions are polluting the environment and with reasonable modifications the adverse impacts to the environment can be avoided.

Informed and knowledgeable citizens will have a greater understanding and appreciation of the reasons why the volume of stormwater needs to be controlled and how quality of storm runoff is impacted by human activities. This understanding and acceptance is essential to gain the public's confidence and support. Greater compliance is a byproduct of awareness of the importance of individual actions.

The Town of Plainville's educational and outreach program will consist of three primary tasks: developing and distributing educational materials town wide, meeting with and organizing groups with common environmental interests, and reaching out to specific audiences. These tasks are intended to inform individuals, households and businesses of how their actions impact the environment.

The public education and outreach is likely to emphasize specific contaminants which have been identified as substances which have classified the receiving waters as impaired. Of particular emphasis will be bacteria. The Connecticut Department of Energy and Environmental Protection have identified the Pequabuck and Quinnipiac Rivers as impaired. The impairment has been identified as *Escherichia coli*. A total maximum daily load has been established for both water bodies. Educational materials will emphasize the sources of this impairment and methods to avoid introducing it into the environment.

Many of the educational and outreach initiatives will be completed in conjunction with the objectives of the public involvement and participation component of the Stormwater Plan.

Developing and Distributing Educational Materials

- “ Compile prepared brochures and fact sheets that provide relevant information pertaining to stormwater management,
- “ Create checklist fact sheets for specific targeted groups, (i.e. homeowners, builder/developers, auto garages/dealers, restaurant owners, etc.),
- “ Compile and distribute a listing of web sites pertaining to Stormwater Management,
- “ Stencil stormwater facilities and install tributary signage,
- “ Compile and distribute materials explaining what a water impairment is, identify the impairment(s) present in the receiving waters and provide methods to avoid contributing to the impairment.

Means of Distributing Educational Materials

- Distribution of universal brochures and fact sheets in the tax/sewer bills and post such brochures, post references on the Stormwater Web Page and display fact sheets on Community Bulletin Board at the Municipal Center,
- Distribution of targeted brochures and fact sheets as handouts with appropriate permits and licenses, (i.e. Building Permits, Restaurant Licenses and Renewals, Planning and Zoning, Zoning Board of Appeals and Inland Wetland Applications and etc.),

Meeting and Coordinate Groups with Common Environmental Interests

- Meet with existing Town Boards and Commissions to encourage them to review their regulations and bylaws to determine whether they are consistent with the Stormwater Plan. Resolve any inconsistencies. These Commissions and Boards would be:

Commission, Economic Development Agency, Inland Water Resources Commission, Advisory Recreation and Park Board, Recycling and Solid Waste Committee, Water Advisory Committee, Zoning Board of Appeals and Planning and Zoning Commission,

- ❑ Meet with organized interested environmental groups outside town government, (i.e. Pequabuck and Quinnipiac Rivers Associations),
- ❑ Meet and Coordinate the Town of Plainville's Stormwater Plan with the Connecticut Department of Transportation's Plan,
- ❑ Coordinate and publicize pertinent activities of other groups,
- ❑ Conduct public informational meetings as warranted for interested individuals. Direct interested individuals to the appropriate volunteer groups.

Outreach to Specific Target Groups

- Identify and prioritize target groups, (i.e. builder/developers, garage/auto dealers, restaurant owners, retail owners, industrial owners),
- Prepare and distribute brochures and or fact sheets to target groups,
- Conduct public informational meetings specifically for targeted groups,
- Reconcile/Revise Town ordinances and or regulations that are inconsistent with the Stormwater Management Plan,
- Enforce the appropriate ordinances and regulations ensuring compliance with the Stormwater Management Plan.

Measurable Goals and Implementation Dates

Target Year	Activity	Responsible Department
December 2017 Yearly Review	Update Prepared Brochures and Fact Sheets . Tailored to targeted Pollutants of Concern (BMP ID # 1-1A)	Technical Services

	Plans and Fact Sheets	Technical Services
Yearly Review	Update to Planville if necessary (BMP ID # 1-1B)	
Ongoing Yearly Review	Stormwater Facilities and Install Tributary Signage (BMP ID #1-1C)	Technical Services
Ongoing Yearly Review	Compile and Distribute listing of Web Sites (BMP ID #1-1D)	Technical Services
Ongoing Yearly Review	Coordinate and Publicizing pertinent activities (BMP ID # 1-1E)	Technical Services
Ongoing Yearly Review	Prepare and distribute brochures and or fact sheets for target groups (BMP ID #1-1F)	Technical Services
Ongoing Yearly Review	Prepare and distribute brochures and or fact sheets for target groups (BMP ID #1-1F)	Technical Services
December 2017	Reconcile/Revise Town Ordinances and or regulation to be consistent with stormwater plan (BMP ID #1-1G)	Technical Services
Ongoing Yearly Review	Enforce the appropriate ordinances and regulations ensuring compliance with the Stormwater Plan (BMP ID #1-1H)	Technical Services Various Enforcement Agents
Ongoing Yearly Review	Distribute of Educational Materials (BMP ID #1-2A)	Technical Services
December 2019	Address educational outreach for pollutants of concern (BMP ID #1-2B)	Technical Services

Minimum Control Measure Public Involvement and Participation

(Revised March 2017 - JRB)

Introduction

Public involvement and participation is an important element of the stormwater program. The objective of this section is to ensure the community actively participates in the development and implementation of the Plan. This public involvement and participation allow residents to have a voice with regard to the development and management of the Stormwater Management Plan.

The Plan shall comply with all applicable State and local public notice and Freedom of Information requirements. Public notice will be published to inform the public of the Stormwater Plan and Annual Reports.

This section outlines a program of involving those entities with a direct and indirect interest in stormwater management. Special attention will be given to include organizations and individuals with the authority, ability and desire to contribute to the development and implementation of the program. Every effort will be made to reach out and include the expertise to as many special interest groups as practical. Organizations and citizens who participate will have the opportunity to shape the program. The public will be able to participate in the review modification and implementation of the Stormwater Management Plan. Fewer objections are expected if a broader segment of the community is actively included in the formulation of the plan.

Plan Objectives

Identify Stakeholders – Internal Audiences and External Audiences

Internal Audiences

- “ Organizations and agencies having authority over the following activities: Operation and maintenance of infrastructure, enforcement of land use regulations, enforcement of soil erosion control, operation of parks and recreation activities, institution operators, etc.

□

- “ Local Boards, Commissions and Employees

Internal Audiences

Department Heads

Town Manager

Town Engineer

Director of Planning and Economic Development

Enforcement Officer

Roadway Superintendent

Building and Grounds Superintendent

Water Pollution Control Superintendent

Economic development agencies

Plainville Southington Health District

Inspectors, operators and maintenance personnel
Public information staff

External Audiences

- “ State Agencies and other bordering communities
- “ Environmental Groups
- “ Trade Organization: Chamber of Commerce, Major land owners and developers, Major employers, Trade groups
- “ General Public
 - Builder/developers
 - Private facility owners
 - Environmental activists
 - Educators
 - Neighborhood leaders

Conduct Public Meetings and Public Notice Actions

- ❖ Public meeting shall adhere to a State and Local public notice and Freedom of Information requirements
- ❖ Publish public notices as required for the Stormwater Management Plan and Annual Reports
- ❖ Documents, meeting minutes and other official actions of governing bodies will be available for public inspection and comments
- ❖ Provide opportunity for public comment written or oral at each public meeting

Volunteer Activities

- Support the Conservation Commission's effort to perform yearly community clean-ups, (i.e. supply dumpsters, publicize events, provide miscellaneous supplies, etc.)
- Encourage citizens to aid in the identification of polluters
- Support existing Boards and Commissions by referring interested individuals to the appropriate responsible individual

Measurable Goals and Implementation Dates

Target Year	Activity	Responsible Department
Ongoing April 2017	Comply with State and Local Public Notice and Freedom of Information Requirements (BMP ID #2-1A)	Town Clerk Technical Services
Ongoing	Identify Stakeholders (BMP ID #2-2A)	Technical Services
Ongoing	Contact stakeholder groups (BMP ID #2-2B)	Technical Services
Ongoing	Conduct informational meeting with various stakeholder groups (BMP ID #2-2C)	Technical Services
Ongoing	Support Community Clean-ups (BMP ID #2-3A)	Technical Services Physical Services Conservation Commission
Ongoing	Support existing Boards and Commissions referring interested individuals to the appropriate group (BMP ID #2-4A)	Technical Services Various Commissions/Boards Town Manager Town Council
Ongoing	Support existing Boards and Commissions referring interested individuals to the appropriate group (BMP ID #2-4B)	Technical Services Various Commissions/Boards Town Manager Town Council
Ongoing	Encourage citizens to aid in the identification of polluters (BMP ID #2-4C)	Technical Services Town Manager Town Council

Minimum Control Measure **Illicit Discharge Detection and Elimination**

(Revised March 2017 . JRB)

Introduction

The objective of this section of the Stormwater Management Plan is to implement a program that recognizes the adverse effects illicit discharges have on receiving waters. Some individuals unknowingly have illegal connections to the storm drainage system.

This section will address the following activities: identify all outfall stormwater discharge locations, prohibit the discharge of non-stormwater into the storm sewer system, educate the community of the impacts of illicit discharges, and develop and implement a plan to detect and eliminate illicit discharges.

Illicit discharges are defined as non-stormwater flows from water line flushing, landscape irrigation, diverted stream flows, uncontaminated ground water infiltration, uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water sump pumps, footing drains, lawn watering, individual residential car washing, dechlorinated swimming pool discharges and firefighting activities.

The IDDE program requires mapping. This mapping will provide a comprehensive depiction of key infrastructure and factors influencing the drainage system's operation and potential for illicit discharges. The mapping will be to the appropriate scale and detail to enable rapid understanding of the drainage system and identify the following elements: key storm sewer infrastructure, flow directions, pipe sizes, watershed boundaries, invert elevations, outfall locations, and areas served by subsurface disposal.

Plan Objectives

- “ Revise the Master Drainage maps and inspect drainage outlets
- “ Review existing regulations and ordinances to determine whether they are consistent with the requirements of the Stormwater Management Plan
- “ Draft for the Town Council's consideration and approval a regulation or ordinance which prohibits to the extent allowable under the law

- “ Regularly implement measures preventing the discharge of non-stormwater into the Town’s drainage system
- “ Educate Town staff, business owners and the general community of the potential hazards associated with illegal discharges and improper disposal of waste
- “ Identify and prioritize the categories of non-stormwater discharges and flows
- “ Develop a plan to systematically eliminate the most significant illicit discharges. This plan shall include the following procedures: Identify locations of priority discharges, tracing the source, removing the source and program evaluation and assessment
- “ Develop a record keeping system to document IDDE activities
- “ Develop a program for Citizens to report what is believed to be an illicit discharge

Measurable Goals and Implementation Dates

Target Year	Activity	Responsible Department
June 2018	Develop a Written IDDE Program (BMP ID #3-1A)	Technical Services
Ongoing	Revise Master Drainage Maps (BMP ID #3-2A)	Technical Services
Ongoing	Inspect Drainage Outlets (BMP ID #3-2B)	Technical Services
Ongoing	Develop Citizen Reporting Program (BMP ID #3-3A)	Technical Services
Ongoing	Review Existing Ordinance and Regulations (BMP ID #3.4A)	Technical Services
June 2020	Begin to systematically eliminate illicit discharges (BMP ID #3-6B)	Technical Services Physical Services
January 2020	Draft Ordinance to Establish legal authority to prohibit illicit discharges (BMP ID #3.4B)	Technical Services Town Attorney Town Manager Town Council
June 2018	Develop record keeping system for IDDE tracking (BMP ID 3.5A)	Technical Services
June 2019	Identify and prioritize categories of non-stormwater discharge (BMP ID #3-6A)	Technical Services Physical Services

Minimum Control Measure Construction Site Runoff Control

(Revised March 2017 . JRB)

Introduction

Development sites have the potential to erode substantial amounts of sediment into storm runoff during construction. Runoff also can come in contact with other construction related substances such as fertilizers, pesticides, petroleum products, concrete truck washout, construction chemicals and construction debris that have the potential to cause substantial contamination.

Sediment loads from development sites are ordinarily many times greater than those with established vegetation. Construction related erosion from one storm event can deposit more sediment into streams, water bodies and other wetland areas than what would be naturally placed in many years. Excessive sediment deposits quickly fill streams, water bodies and other wetland areas destroying aquatic habitats, causing flooding and may require costly dredging to reestablish the natural functions of the receiving waters.

Additionally construction runoff can come in contact with improperly stored or disposed construction materials and chemicals. Pollutants from these materials and chemicals cause physical, chemical, and biological harm to the receiving waters. The proper storage and disposal of construction materials and chemicals is important because they will contribute to degrading of the area's water quality.

Virtually every construction activity has the potential to affect water quality, however proper erosion and sediment control can minimize the impacts. Proper planning is an important component of erosion and sediment control. Fine sediments are very difficult to control, thus avoiding erosion by preserving vegetation should be the first option. Staging construction activities, thereby restricting the amount of disturbed areas is an important factor in controlling the amount of erosion.

Plan Objectives Regulatory Mechanism Requiring Erosion and Sediment Control

- “ Review and Reconcile existing Town Ordinance entitled %An Ordinance

Examining the Town of Danville Soil Erosion And Sediment Control Regulations+with the requirements of the Stormwater Management Plan

- “ Review and Reconcile existing Planning and Zoning Regulations to be consistent with the requirements of the Stormwater Management Plan
- “ Review and Reconcile existing Inland Wetland Regulations to be consistent with the requirements of the Stormwater Management Plan

Site Plan Review

- Examine and refine procedures for the review of private site developments by Town Staff and appropriate Boards and Commissions to be consistent with applicable regulations and ordinances including Connecticut Erosion and Sediment Guidelines
- Examine and refine procedures for the review of public site developments by Town Staff to be consistent with applicable regulations and ordinances including Connecticut Erosion and Sediment Guidelines

Inspections and Enforcement of Ordinances and Regulations

- Review existing procedures for site inspections and enforcement and refine procedures deemed inconsistent with the Stormwater Management Plan
- Identify priority criteria for site inspections and enforcement, (i.e. types of construction activities, topographic characteristics, soil conditions, environmental sensitivity, seasonal variations)
- Develop at formal inspection schedule (i.e. mandatory inspections, spot inspections, complaint procedures and follow-up inspections) and enforcement criteria (i.e. verbal warnings, written warning, cease and desist orders, compliance time limits)
-

- Develop a formal system of permitting public comments and inquiries regarding the Erosion and Sediment Control Plan of all applications presented to the Planning and Zoning Commission and the Inland Wetland Commission for consideration
- Develop a procedure for the tracking of public comments, inquiries, complaints, associated actions and follow-up regarding the Erosion and Sediment Control Plan

Construction Stormwater Permit

- Implement procedures to notify developers concerning their responsibility to apply for and secure a DEEP Construction Stormwater Permit

Measurable Goals and Implementation Dates

Target Year	Activity	Responsible Department
Ongoing Yearly Review	Review and Reconcile existing Town Ordinance with an Ordinance Establishing The Plainville Soil Erosion and Sediment Control Regulations (BMP ID #4-1A)	Technical Services Town Attorney Town Manager Town Council
Ongoing Yearly Review	Review and Reconcile Planning and Zoning Regulations with Stormwater Plan (BMP ID #4-1B)	Technical Services Town Planner Planning and Zoning Commission
Ongoing Yearly Review	Review and Reconcile Inland Wetland Regulations with Stormwater Plan (BMP ID #4-1C)	Technical Services Town Planner Inland Wetland Commission
Ongoing Yearly Review	Examine and refine review procedures Private development (BMP ID #4-2A)	Technical Services Town Planner
Ongoing Yearly Review	Examine and refine review procedures public construction (BMP ID #4-2B)	Technical Services Town Planner

Ongoing Yearly Review	Develop a plan and procedures for interdepartmental review coordination (BMP ID #4-2C)	Technical Services Town Planner
Ongoing Yearly Review	Review and refine inspection and enforcement procedures (BMP ID #4-3A)	Technical Services Town Planner
Ongoing Yearly Review	Identify priority criteria for site inspection and enforcement (BMP ID #4-3B)	Technical Services Town Planner
Ongoing Yearly Review	Develop formal inspection schedule (BMP ID #4-3C)	Technical Services Town Planner
Ongoing	Conduct Site Inspections (BMP ID #4-4)	Technical Services Town Planner
Ongoing Yearly Review	Develop procedure for Public Comments for construction activities (BMP ID #4-5A)	Technical Services Town Planner
Ongoing	Develop procedure for tracking	Technical Services
Yearly Review	public comments inquires and associated actions (BMP ID #4-5B)	Town Planner
July 2017	Implement procedure to notify Developers about DEEP Construction Stormwater Permit	Technical Services Town Planner

Storm Control Measure

Post Construction Storm Water Management in New Development and Redevelopment

(Revised March 2017 . JRB)

Introduction

The objective of this section is to outline a program consisting of a series of policies and practices, which effectively manage the volume and quality of storm water generated as the result of human activity. These policies and practices will include implementation of structural and non-structural controls, regulatory control mechanisms and policies on long-term maintenance requirements. Studies have demonstrated that preventing or reducing pollutants at the source is easier and more cost effective than controlling or treating pollutants after they enter the stormwater drainage system. The design of new and redevelopment projects will be required to incorporate practices that are sensitive to reducing or eliminating pollutants as practically possible.

Post-construction runoff has two substantial forms of impacts. The first impact is caused by an increase in the type and quantity of pollutants in the runoff. As runoff flows across man-made surfaces it picks up harmful sediments and chemicals. These harmful substances include grease, pesticides, heavy metals and nutrients. The pollutants may dissolve or become suspended in the runoff and are discharged into a receiving water body entering the food chain through aquatic life eventually entering the tissues of any organism consuming them include humans.

Post-construction runoff impacts also increase the volume of water entering the receiving water body during the storm event. The increase of impervious surfaces interrupts the gradual percolation of water through vegetation and soil. The impacts of increased volumes are flooding and erosion, which often leads to a loss of aquatic life.

The primary goals are as follows:

- Reduce the potential for discharge of pollutants into urban runoff from new development and re-development areas,

- Manage site runoff volumes and flow rates such that they are similar to preconstruction levels, and

- Treat runoff as required.

Plan Objectives

- “ Review/revise the land use regulations to ensure compliance the MS4 permit and Erosion and Sediment Control Guidelines
- “ Consider requiring an environmental inventory of each proposed development activity
- “ Consider placing greater controls on specific land uses
- “ Establish and/or update legal authority and guidelines regarding Low Impact Development and runoff reduction in site development planning
- “ Develop and implement guidelines that incorporate procedures and policies that require developments to have comprehensive stormwater management plans. The Stormwater Management Plans shall address the following topics:
 - Protect Water Quality
 - Maintain Pre-development Hydrology
 - Prevent/reduce flood damage
 - Consider downstream impacts
- “ Identify stormwater management techniques that are applicable to conditions within Plainville and incorporate them into the applicable regulations or ordinances. Such techniques shall consider the following items:
 - Maintain existing Terrain
 - Minimize impervious surfaces
 - Restrict development of sensitive areas
 - Provide open space and parks where appropriate
 - Preserve streams and floodplain buffers
 - Direct runoff over vegetated areas
 - Structural Best Management Practices
- “ Obtain training for staff in the identification of non-compliance with the general stormwater management efforts.
- “ Expand inspection activities to include effective stormwater system inspection capabilities and investigate methods in which those activities can best be provided.
 - Establish frequency schedule for inspections
 - Establish Notice of Violation procedure and enforcement procedure
- “ Develop and Implement long-term maintenance plan for stormwater facilities

- “ Develop Directly Connected Impervious Area mapping
- “ Identify/address areas of post-construction pollutant concerns

Measurable Goals and Implementation Dates

Target Year	Activity	Responsible Department
Ongoing Yearly Review	Review of Land Use Regulation Revise as warranted to comply with MS4 Permit (BMP ID #51A) Planning Zoning Regulations	Technical Services Town Planner
Ongoing Yearly Review	Review of Land Use Regulations Revise as Warranted to Comply with MS4 Permit (BMP ID #5-1B) Wetland Regulations	Technical Services Town Attorney Town Planner
Ongoing Yearly Review	Review of Land Use Regulations Revise as warranted to comply with MS4 Permit (BMP ID #51C Town Ordinances	Technical Services Town Attorney Town Planner
Ongoing Yearly Review	Enforce LID/runoff reduction requirements for development and redevelopment projects (BMP ID #5-2A	Technical Services Town Planner
June 2018	Implement BMP Strategy Consistent with adopted regulations including long-term maintenance plan for stormwater facilities . (BMP ID #5-3)	Technical Services
June 2020	Develop DCIA Mapping (BMP ID #5-4)	Technical Services Town Planner



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management in
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June 2020	Address postconstruction issues in areas with pollutants of concern (BMP ID #5-5)	Technical Services
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Housekeeping

1 CONTROL MEASURES 1 PREVENTION/GOOD HOUSEKEEPING

(Revised March 2017 - JRB)

INTRODUCTION

It is the objective of this section of the plan is to implement procedures and policies that prevent and or minimize pollutants from coming into contact with storm runoff from municipally controlled or operated facilities. Municipal activities can affect stormwater quality. Policies and practices need to be integrated into operational functions to reduce and or eliminate water pollution. The components of this section are intended to instituted best management practices (BMPs) which include employee training, inspection procedures, maintenance schedules, and operational functions which emphasis the importance of eliminating or reducing the discharge of various pollutant from municipal facilities such as roadways, parking areas, maintenance and storage complexes and waste handling locations.

Plan Objectives

The topics to be addressed by this section are the following:

□ Maintenance Activities

Fleet Maintenance

Inspections for fluid leaks

All maintenance activities to be complete inside

Recycle vehicle fluids where practical

Building Maintenance

Regularly maintain control devices grease traps . oil/water separators, etc.

Eliminate/reduce non-stormwater discharge to drainage system . irrigation water, condensation water, etc.

Storm Drainage Maintenance . Catch Basin Cleaning

Regularly inspect and clean storm drains

Prioritize inspection and cleaning of Catch Basin that discharge to impaired waters

Clean Catch Basins timely ensuring no sump is filled above

50%

Identify Catch Basins that need priority clean due to the



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Recordkeeping

g fill above 50% Regularly
d clean outfalls

Track the amount of debris collected from street and catch
basin cleaning

Parks and Open Space Maintenance

Implement monitoring and record keeping procedures for
pesticides and herbicides applications
Develop pesticide and herbicide programs for each
individual facility rather than a general plan
Evaluate and implement safe alternatives

Snow Management Practices

Proper application of deicing/anti-icing chemicals
Proper Storage of deicing/anti-icing materials . Secondary
containment where appropriate
Proper location of snow dump locations
Proper maintenance/calibration of equipment
Training of employees/contractors
Establish recordkeeping procedures documenting snow
management operations

□ Reduction or Elimination of Pollutants in Discharge

Structural Devices

Use secondary containment measure where practice
Store materials in proper containers
Cover bulk items with tarps when practical
Obtain spill response kits and use when required
Use drip pan even inside

Non-structural Controls Clean

spills immediately
Provide safe separation distances for incomparable
materials
Store materials away from high traffic areas
Perform all chemical transfers, mixing and use in one area
where practical
Inspect storage containers on a routine basis Replace
defective containers accordingly
Post areas where vehicle cleaning and
maintenance should occur Label all containers



- Use non-toxic substitutes when possible
- Use water based cleaning systems where practical
- Steam clean or pressure wash when practical
- Use oil separators before discharging water
- Connect to the sanitary sewer where possible

Proper Vehicle and Equipment Fueling, Washing, and Cleaning

- Fueling shall be completed in designated areas if possible under cover
- Absorbent material shall be used rather than hosing spills
- Discourage topping off fuel tanks
- Transport fuel products in designated containers
- Clean vehicles in designated areas specifically discharging to the sanitary sewer
- Use biodegradable phosphate . free detergent
- Use dry methods of cleaning where practical

Spills and Leaks

- Inventory and track facilities at risk for spills
- Compile a list of a chemicals present at each site and obtain MSDS for each one
- Track all spills and document clean-up procedures
- Develop and implement a spill response plan for each facility
- Develop a written program for loading, unloading and transferring operations
- Designate a responsible person for the management of hazardous materials

Building Maintenance

- Position downspouts to direct water away from loading and storage areas
- Protect stored materials and equipment from coming in contact with the weather if practical
- Sweep grounds of litter and debris on a regular basis
- Properly apply or use chemicals and materials in accordance with the manufacturer's instructions



keeping

ties

an audit of landscaping practices and revise

methods accordingly to minimize the discharge of
contaminates

Utilize the principals of the Connecticut Erosion and
Sediment Control Guidelines

Encourage the use of native plants and adaptive
vegetation in the Town's landscaped areas

Encourage plantings that reduce the need for water,
fertilizer and pesticides

Avoid over watering to prevent excess runoff . install rain
sensors where practice

Utilize integrated pest management practices

Store fertilizers, pesticides and herbicides indoors

Pet Waste management

Adopt/revise and enforce ordinance prohibiting
the deposition of pet waste on public grounds

Post signage stating the pet waste prohibition

Waterfowl Management

Identify locations where waterfowl congregate and feeding
may occur

Raise awareness regarding water quality impacts

Install signage to discourage feeding of waterfowl

Implement practices to discourage congregation of
waterfowl

Street and Parking Area Cleaning

Sweep street and parking areas on a regular basis

Evaluate sweeping program . sweeping areas at least
once a year more time if required

Procure the proper equipment or rent equipment on a
timely basis to remove debris before it contaminates
stormwater

Apply deicing materials properly as recommended by the
product's manufacturer or supplier

□ Proper Waste Disposal

General Practices

Contract with a solvent waste disposal firm

Store wastes under a cover where practical

Store rags and absorbent materials properly

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dispose of street sweepings and catch debris
a pet waste program

Recycling Program

- Participate in a regional hazardous waste collection program
- Participate in a State Mandated recycling program
- Prohibit the discharge of wash water into the storm drainage system
- Prohibit the discharge of chlorinated water to the storm drainage system
- Install oil/water separators and connect to the sanitary sewer system in accordance with other regulations
- Hazardous Waste Disposal
- Store all hazardous materials inside
- Contract a licensed contractor for proper disposal

□ Municipal Employee Training and Awareness

General Training and Awareness

- Orient elected officials and staff of the importance of the pollution control plan
- Require certification of staff when applicable
- Develop a training matrix

Landscape/Parks

- Educate staff of the importance of erosion control devices and their proper use
- Train staff in the principals of integrated pest management
- Train staff on proper pool maintenance
- Train staff on proper cleaning techniques
- Train employees on the proper use of pesticides, herbicides, fertilizer and cleaning products
- Train employees on the importance to follow the manufacturer recommended methods for the use of all chemicals, building, and construction products

Spill Prevention and Handling

- Provide training to employees on spill prevention, containment and clean-up
- Emphasis the importance of employees to look out for leaks and spills and report them immediately
- Train employees on the proper handling, use, storage and disposal of hazardous materials.

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employees to recognize and understand why certain discharges are prohibited

Fleet Maintenance

- Train employees on proper fueling, maintenance and clean-up procedures
- Educate employees on proper vehicle washing methods to prevent pollution

Roadway Maintenance

- Educate employees that proper street maintenance is a priority
- Emphasis the importance to report improper discharges when discovered

□ Directly Connected Impervious Areas

Identification of Directly Connected Impervious Areas

- Educate employees to recognize Directly Connected Areas
- Map the limits of Directly Connected Impervious Areas

Prioritize Directly Connected Impervious Areas

- Establish criteria to determine
- Develop Prior projects that disconnect Directly Connected Impervious Areas

Implement Projects to disconnect Directly Connected Impervious Areas . Goal 2% per year

Measurable Goals and Implemental Dates

Target Year	Activity	Responsible Department
Ongoing Yearly Review	Municipal Employee Training and Awareness (BMP ID #6-1)	Public Works . Roadway, Building and Grounds Water Pollution Control



Street Sweeping

	Implement BMPs for maintenance and practices (BMP ID #6-2)	Public Works . Roadway, Building and Grounds Water Pollution Control
January 2020	Implement coordination with other interconnect MS4s (BMP ID #6-3)	Technical Services
Ongoing Yearly Review	Develop/implement program to control other sources of pollutants to MS4s (BMP ID #6.4A)	Technical Services Public Works
Ongoing Yearly Review	Review of Practices, Methods, and Materials (BMP ID #6-4B)	Technical Services Public Works
January 2019	Evaluate additional measures for discharges to impaired waters (BMP ID #6.5)	Technical Services
January 2020	Track projects that disconnect DCIA (BMP ID #6.6)	Technical Services
Ongoing Yearly Review	Develop program to evaluate and prioritize system for upgrade and or repair (BMP ID #6-7)	Technical Services Public Works
January 2020	Develop/implement plan to identify/prioritize retrofit projects to disconnect DCIA . Goal 2% per year (BMP ID #6-8)	Technical Services
Ongoing Yearly Function	Develop/implement street sweeping program (BMP ID #6-9)	Public Works . Roadways

The objective of this component of the Stormwater Plan is to fulfill the required Monitoring and Reporting requirement of the Plan.

Monitoring is a tool to be used in analyzing the effectiveness of the Stormwater Plan. Positive results will confirm the operational elements of the plan are effectively addressing the elimination or avoidance of pollutant(s) coming in contact with runoff. Negative result will identify the need to further investigate the cause(s) of the pollutant(s) and the effectiveness of the means employed to eliminate or limit the pollutant loads.

The General Permit has two provisions for water quality sampling and monitoring. The first type of sampling and monitoring is related to the discharge of runoff from all outfalls into receiving bodies. Prior to wet weather monitoring screening for nitrogen, phosphorus, bacteria and other pollutants of concern need to be completed for any receiving waters determined to be impaired by the Connecticut Department of Energy and Environmental Protection.

Bacteria has been identified as a pollutant of concern for the Quinnipiac and Pequabuck Rivers. Outlets to these receiving waters will be inventoried inspected and screened for the nitrogen, phosphorus and bacteria. The outfall into these receiving waters will be sampled and analyzed for the following:

Nitrogen;

Phosphorus;

E. coli and Total Coliform (col/100ml) (for discharges to Class AA, A and B surface waters); and

Fecal coliform and Enterococci (col/100ml) (for discharges to Class SA and SB surface waters).

If nitrogen, phosphorus or bacteria levels exceed the following limits follow-up investigation is required:

Nitrogen > 2.5 mg/l; or

Phosphorus > .3mg/l; or

E. coli > 235 col/100ml for swimming areas and >410 col/100ml for all other areas; or

Total Coliform > 500 col/100ml; or

Fecal Coliform > 31 col/100ml for Class SA and > 260 col/100ml for Class SB; or

Enterococci > 104 col/100ml for swimming areas and > 500 col/ml for all other areas.

- olve the following activities:
- Investigation- determination of the limits of the drainage area, investigate the activities in the drainage area, determine the likely sources contributing the pollutant, identify the probable source, recommend potential remedy to eliminate or reduce the pollutant;
 - “ Implement a control measure to address the pollutant; and
 - “ Prioritized Outfall Monitoring.

The inventory and mapping of discharges to impaired waters shall be completed within the first two years of the effective date of the General Permit. Outfall screening shall begin within one year of the effective date of the General Permit. No less than fifty percent of the outfalls shall be screened no later than the end of the third year. All such outfalls shall be screened by the end of the term of the general permit.

Follow-up investigations shall be initiated no later than two years following the effective date of the General Permit. Prior outfall monitoring shall commence at six outfalls identified no later than the beginning of the fourth year.

The Annual Report shall note the progress of the impaired water investigation beginning in the second year of the General Permit. The report shall include a listing of the outfalls screened during the previous year, the number of outfalls identified for follow-up investigations, the progress of the drainage area investigations, a description of the control measure implementation for the different impairments, identification of six outfalls to be monitored, and the results of the prioritized outfall monitoring.

Wet weather Outfall monitoring shall be collected from identified discharges resulting from any rain storm that produces a discharge that occurs 48 hours after any previous rain event. Runoff events resulting from snow or ice melt alone cannot be used, however monitoring may be conducted during a storm event that may include insignificant amounts of snow or ice melt. The monitoring shall consist of a single grab sample taken within the first six hours of discharge from the outfall.

The second type of sampling shall be related to IDDE and human activity. Sampling shall be used to set priorities. All illicit discharges are to be eliminated. The practices and methods associated IDDE sampling shall be consistent with appropriate protocols necessary to determine whether an illicit discharge contains substances of concerns. Where flows is observed not to have obvious visual, discoloration, foaming, soap suds, slimes, presence of sanitary floatables or solids, sheen or odor, a sample shall be collected and analyzed using a field kit. The parameters to be investigated shall include: Conductivity, Turbidity,

Measurable Goals and Implementation Dates

Target Year	Activity	Responsible Department
December 2018	Outfall Screening (BMP ID #S-1)	Technical Services
January 2019	Inventory and Mapping of Discharges to Impaired Waters (BMP ID #S-2)	Technical Services
September 2019	Follow-up Investigations of Drainage Areas	Technical Services
January 2019	Annual Monitoring of Priority Outfalls	Technical Services



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